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EXECUTIVE SUMMARY

The CAWG 5 Water Temperature Study Plan (SCE 2001) was implemented to evaluate the effect of Project operations on water temperatures in the study area. Southern California Edison (SCE) collected stream temperature data throughout the study streams during 2000 and 2001 (SCE 2004). The data indicated that in a number of reaches criteria set by the CAWG were exceeded, i.e., temperature increases between bypass reaches and upstream reaches that exceeded 5°F or mean daily temperatures that exceeded 19°C. According to the CAWG 5 Study Plans, stream temperature modeling was to be used to answer the following questions:

- Does observed warming in study streams result in temperatures that may adversely affect aquatic life?
- Can changes in flow releases or inflow temperatures be used to alter water temperatures in a stream reach?

This report does not attempt to determine whether changes in Project operations are practical or necessary. It is limited to determining whether changes in flow releases in the selected study reaches would be able to reliably bring bypass reach stream temperatures into the range of preliminary temperature criteria values selected by the CAWG. Therefore, this report on the second phase of the water temperature analysis describes the implementation of stream temperature simulation modeling of those bypass reaches selected by the CAWG for further study. These reaches include those where observed reach temperatures are above the preliminary temperature criteria for target species and lifestages or have shown substantial warming. To carry out this analysis, calibrated and validated stream temperature models were used for the bypass reaches to be studied.

The study reaches include the South Fork San Joaquin River (SFSJR) (downstream of Florence Lake Dam to the confluence with the San Joaquin River), San Joaquin River (SJR) Mammoth Reach, Rock Creek from the diversion to its confluence with the SJR, SJR Stevenson Reach, Stevenson Creek (downstream of Shaver Lake Dam to the confluence with the SJR), Big Creek from Dam 4 to Powerhouse 2, and Big Creek from Dam 5 to Powerhouse 8.

The U.S. Fish and Wildlife Instream Temperature Model (SNTEMP) (Theurer et al. 1983) was selected by the CAWG to represent the study streams, after carefully considering a number of available stream temperature models, and their strengths and weaknesses for this application. The SNTEMP models of the study reaches were calibrated with observed temperatures (collected during Study Element 3). The SNTEMP models were used to predict mean daily and maximum daily temperatures for each of the study reaches for time periods where downstream water temperatures were known. These predicted values were compared to observed downstream temperatures. Various model parameters were tested for association with the prediction errors to

locate any systematic bias in the water temperature simulations. These parameters were adjusted to improve the quality of fit between the predicted and observed stream temperatures.

The average difference between the predicted and observed stream temperatures (average bias) and the standard deviation of this statistic were computed for each reach to indicate goodness-of-fit. These validation statistics gave the precision and accuracy of fit for each reach. The validation statistics for these study reaches indicated that daily mean and daily maximum temperatures predicted by the SNTMP modeling were reasonably accurate.

Once calibrated and validated, the stream temperature models were used to simulate conditions not represented by observed (downstream temperature) data under alternative flow and meteorology scenarios. A series of simulations were performed over a range of theoretical flows released to the modeled bypass reaches.

As part of the evaluation of potential means of providing cooler water temperatures, the study plan states that the volumes of water at various temperatures available in reservoirs will be determined. This would permit an evaluation of whether alternative release flows at cooler temperatures can be sustained for a sufficient period of time to provide target temperatures in bypass reaches. In most cases, that will depend on the volume and availability for release of cool reservoir water. This report presents an evaluation of the volume of available cool water for the large Project reservoirs. In the case of the ability of the Project reservoirs to release cool water, it was found that current releases are made from deep in the reservoirs. Therefore, when reservoirs are stratified, the coolest water from the hypolimnion (the cold bottom layer) of the lake is released to the bypass reaches downstream.

A sensitivity analysis was carried out to assess the potential of releasing flows from Mono or Bear Creeks to provide additional flow and potential cooling to the SFSJR. For each creek, the 20, 50, and 80 percent exceedance unimpaired flows were modeled to determine the temperature effect on the SFSJR during the summer months for average and extreme (hot and drier than normal) conditions. The analysis examined the effect of releasing flows at the water temperatures available at the upstream diversion. This would provide the most optimistic estimate of possible cooling. If this appeared to provide sufficient cooling to bring the SFSJR below the preliminary temperature criteria, a second set of simulations were carried out. The second set would use the actual water temperatures measured upstream of the confluence of the creeks with the SFSJR. The results would indicate whether the preliminary temperature criteria would be met along the length of the SFSJR for these simulation conditions. Results of these simulations indicated that while releases from either location could provide substantial cooling at very high flows, releases from a single location could not reduce daily mean temperatures below 19°C over the entire reach under extreme conditions. Releases from Bear Creek could not reduce daily mean temperatures below 19°C to the bottom of the SFSJR. Under extreme conditions, mean daily water temperatures upstream of Mono Creek did not exceed 19°C at any of these simulated Bear Creek release flows. However, not even simulated, unimpaired, 20 percent exceedance flows reduced

temperatures at the lower portion of the SFSJR to below 19°C. Daily maximum water temperatures were predicted to not exceed the 24°C temperature criterion for any of the scenarios. SCE conducted an additional analysis to evaluate the effect of flow releases from Portal Forebay through Camp 61 Creek to reduce water temperatures in the SFSJR. These have been included in the report as well. Under extreme conditions, simulated releases of 70 and 50 cfs from Camp 61 Creek were needed to reduce the daily mean temperature below 19°C to the bottom of the SFSJR, in July and August, respectively.

A heat balance analysis was conducted to evaluate the water temperatures of inflows to Redinger Lake at a range of flow releases from Dam 6 and Big Creek Powerhouse 3. The analysis showed that the amount of flow released from Dam 6 would not substantially affect the fully-mixed inflow water temperature to Redinger Lake, if discharge from Powerhouse 3 was within the range of 20 to 80 percent of that recorded during the 1983-2002 period of record.

The CAWG 5 Water Temperature Study Plan (SCE 2001) was implemented to determine project-related sources and magnitudes of impacts to water temperatures in the study area. The general objectives identified in the CAWG 5 Water Temperature Study Plan include:

1. Evaluate water temperature during the warmer months.
2. Characterize water temperatures along bypass reaches for aquatic organisms.
3. Characterize the ability of the Project to affect water temperatures in bypass reaches and reaches downstream of Project reservoirs.
4. Characterize water temperatures in Project reservoirs.
5. Characterize reservoir thermal structure spring through fall.
6. Characterize reservoir volumes of cold and warm water.
7. Characterize and describe the location(s) of water temperature transition zones within project affected stream reaches.

SCE collected stream temperature data throughout the study streams during 2000 and 2001 (SCE 2004). The data indicate that in a number of reaches criteria set by the CAWG were exceeded, i.e., top-to-bottom warming exceeded 5°F and/or mean daily temperatures exceeded 19°C. Stream temperature modeling will be used to answer the following questions:

- Does observed warming in study streams of more than 5°F result from natural warming or Project effects, and do temperatures warm up sufficiently to adversely affect aquatic life?
- Can changes in flow releases or inflow temperatures be used to alter water temperatures in a stream reach?

This phase of the water temperature analysis implements stream temperature simulation modeling of those bypass reaches selected by the CAWG. These include reaches where observed heating is potentially out of compliance with the temperature objectives of the Basin Plan and observed reach temperatures are above appropriate temperature tolerance criteria for target species and lifestages. To carry out this analysis, calibrated and validated stream temperature models were used for the bypass reaches to be studied. This report provides basic information on the configuration of the model used, its calibration, and its validation.

2.0

STUDY IMPLEMENTATION

2.1 STUDY ELEMENT STATUS

Study elements and their status are identified below.

Study Element	Status	Outstanding Study Elements
<p>1. Evaluate existing data to determine areas where water temperatures appear to exceed those needed to protect the beneficial uses designated in the Central Valley RWQCB Basin Plan. Consider water year type and meteorological conditions.</p>	<p>CAWG 5 Temperature Monitoring Report.</p>	<p>Completed.</p>
<p>2. Record water temperature upstream, within, and downstream of Project-related structures that could adversely impact temperature (see Project Nexus), including bypassed reaches. Augment these data with meteorologic measurements, hydrologic data, stream topography and geometry, and vegetative shading.</p>	<p>CAWG 5 Temperature Monitoring Report.</p>	<p>Completed.</p>

Study Element	Status	Outstanding Study Elements
3. Determine thermal structure of reservoirs, and factors that affect the thermal structure during May through October.	CAWG 5 Temperature Monitoring Report.	Completed.
4. Review scientific literature to determine the suitability of water temperatures for target biological resources.	CAWG 5 Temperature Monitoring Report.	Completed, but criteria to be finalized by CAWG.
5. Determine the temperature suitability of Project bypass reaches for appropriate target biological resources.	CAWG 5 Temperature Monitoring Report.	A finalized determination of the temperature suitability of Project bypass reaches for appropriate target biological resources based on the criteria identified in Element 4 will be prepared for the study streams identified in consultation with the CAWG as part of the impact and PM&E analyses.
6. Collect sufficient data to evaluate the potential for using stored water in reservoirs to modify water temperatures downstream in various water year types.	Data reported in CAWG 5 Temperature Monitoring 2002 Report. Availability of cool water volume has been calculated and presented in this report.	Completed.
7. Collect sufficient data to evaluate the effect of alternative flow releases and reservoir release temperatures to modify water temperatures in bypass reaches.	Data included in CAWG 5 Temperature Monitoring 2002 Report.	Modeling calibration/validation results are presented in this report. Completed.

Study Element	Status	Outstanding Study Elements
<p>8. Identify areas of non-compliance with Central Valley RWQCB Basin Plan objectives, as stated, and determine if the impact is Project-related. Conduct a reasonably controllable factor assessment. If the impact is Project related (project nexus exists), conduct additional study and analysis to determine timing and magnitude of non-compliance, as well as potential mitigation measures.</p>	<p>CAWG 5 Temperature Monitoring 2002 Report.</p>	<p>Modeling of reaches selected and approved by the CAWG is reported in this report. Information is provided to assist the reader in evaluating compliance with the Basin Plan. Modeling results also provide information needed to evaluate potential PM&E measures.</p>
<p>9. Review existing stream temperature model applications prepared for use in the Big Creek system for applicability and potential use. Determine accuracy and range of conditions represented.</p>	<p>This was reported to the CAWG.</p>	<p>Completed.</p>

Study Element	Status	Outstanding Study Elements
<p>10. Review stream and reservoir temperature models for analysis of factors affecting water temperatures, the effects of different water year types, and different meteorological conditions than observed, as well as evaluation of potential PM&E measures.</p>	<p><i>CAWG 5 Review of Stream Temperature Models for Application at Big Creek</i> presented in Appendix C.</p>	<p>Completed.</p>
<p>11. The results of water temperature monitoring will be reported to the CAWG along with the identification of reaches and/or reservoirs that are candidates for modeling. Recommendations for the use of stream and reservoir temperature models will be made. Alternative models will be identified. The capabilities, appropriateness, prior applications, and other relevant information regarding alternative models will be presented to the CAWG. This will include recommendations regarding the water</p>	<p>The results of water temperature monitoring were reported to the CAWG along with the identification of reaches and/or reservoirs that were candidates for modeling. Candidate reaches and models to be used were approved by the CAWG. The results of modeling of these reaches are included in this report.</p>	<p>Completed.</p>

Study Element	Status	Outstanding Study Elements
<p>year and meteorological year conditions to be modeled.</p>		
<p>12. Modeling of appropriate reaches and reservoirs will take place with the concurrence of the CAWG for agreed upon conditions.</p>	<p>The results are complete and included in this report.</p>	<p>Completed.</p>

3.0 METHODS

3.1 INTRODUCTION

Work for this portion of the CAWG 5 study consists of two principal tasks. The first is an evaluation of the availability of cool water from Project reservoirs available for release to downstream reaches. The second is the calibration and simulation of Project reach water temperatures to identify the effects of a range of flow releases for normal (above normal water year hydrology and normal air temperature) conditions and extreme (dry water year hydrology and hot air temperature) conditions. This section of the report describes the methods used for both tasks.

3.2 COLD WATER AVAILABILITY CALCULATIONS

For those reaches for which Project water temperature concerns are identified, modeling was used to evaluate the effect of flow releases on bypass reach temperatures. The first question to be addressed by simulation modeling is: "Can flow releases above current values be combined with existing release temperatures to alter bypass reach water temperatures to attain suitable water temperatures for the target species and lifestages?" To address this question, we will identify whether the volume of water within the correct temperature range is available in the upstream reservoir. In most cases, we are concerned with the availability of cool reservoir water that would be necessary to be released to reduce bypass reach temperatures.

The volumes of water at various temperatures available in reservoirs determines whether alternative release flows can be sustained for a sufficient period of time to provide cool water in bypass reaches. In most cases, this would depend on the availability, as well as the volume of cool reservoir water that could be released to reduce bypass reach temperatures. In the formulation of the CAWG 5 study plan, there was a concern with the availability (accessibility) of cold water at the existing dam flow release structures. In the case of the large impoundments, it was determined that all of the instream flow release structures withdrew water from deep in the reservoir and generally provided the coolest water available. Therefore, access to cool water was not a significant issue for this part of the study.

A simple analytical approach to evaluating the volume of available cool water in the reservoir was used to determine the amount of cool water available. This consisted of a screening-level heat and mass budget analysis of the reservoirs based on information collected on reservoir thermal structure and storage elevation relationships (CAWG 1 and CAWG 5 reports; SCE 2003, 2004). Cool water is only available in stratified reservoirs or those receiving powerhouse outflows from stratified reservoirs. For each reservoir, temperature profile data collected during 2000 and 2001 were used to calculate the average temperature of the epilimnion (warm upper lake water layer) and hypolimnion (cool deep water layer) of a stratified lake. These are presented with the

volume of each layer. In addition, the volume of water present at temperatures of 0°C to 24°C, in 2°C intervals was calculated based on profiles and elevation-volume curves (CAWG 1 Technical Study Report, SCE 2003). Additional information on Methods is presented in Appendix A of this report.

3.3 WATER TEMPERATURE MODELING

3.3.1 GENERAL APPROACH

Water temperature simulation modeling is used to characterize the ability of the Project to affect water temperatures in the bypass reaches. In the first phases of the CAWG 5 study, stream and reservoir temperatures were monitored to define a water temperature baseline and to identify reaches to be studied further. The data also provided the information necessary for potential stream temperature modeling. These recorded temperatures, in addition to the concurrent meteorological and flow data collected, were used to calibrate and validate an appropriate stream temperature model to represent stream temperatures under a variety of conditions and for predicting Project effects. Sufficient information was obtained for the model to be used to represent various different water year and meteorological year types and combinations.

Basic information on the configuration of the models, their calibration, and validation are provided in this report. The information provided about model performance includes validation statistics, predictions from model simulations, and measures of statistical uncertainty associated with those predictions. The basic output of the temperature models included predicted water temperatures at regular intervals along the bypass reaches for specific periods, meteorology, and flow conditions. These simulation results are presented in the appendices to this report.

3.3.2 DETAILED METHODS

3.3.2.1 Introduction

The study area is comprised of the Big Creek ALP Project area. The upper-most drainage is the South Fork San Joaquin River (SFSJR) and its tributaries. Downstream, the SFSJR joins the next drainage, the San Joaquin River (SJR) and its tributaries. The Big Creek drainage and the Stevenson Creek drainage also are included in the SJR watershed.

The U.S. Fish and Wildlife Instream Temperature Model (SNTEMP) (Theurer et al. 1983) was selected to represent the study streams and approved for this use by the CAWG. A report was prepared and presented to the CAWG comparing available temperature models for possible application (provided in Appendix C). Based on that report and discussion with the CAWG, SNTEMP was selected for use.

The SNTEMP model can account for inflows, shading, and different meteorological and hydrological conditions. The application of this model for this report included the use of models previously calibrated for reaches of Big Creek, San Joaquin River Mammoth

Pool Reach, and the San Joaquin River Stevenson Reach. New models also were calibrated for additional reaches.

The SNTEMP models of the study reaches were calibrated using the following methods. The SNTEMP models were used to predict mean daily and maximum daily temperatures for each of the study reaches for time periods when downstream water temperatures were known (collected during Study Element 3). These predicted values were compared to observed downstream temperatures. Various model parameters were tested for association with the prediction errors to locate any systematic bias in the water temperature simulations. These parameters were adjusted to improve the quality of fit between the predicted and observed stream temperatures.

These SNTEMP models were then validated by comparing predicted temperatures to additional observed downstream temperatures. The validation utilized time periods (when downstream temperatures were observed) that were alternate and separate from those used in calibration. Statistics were calculated to present the degree of fit of the modeled to the observed temperatures. These were summarized in a table for each study reach model. Predicted and observed temperatures also were plotted at individual validation locations within a reach over the period of time modeled.

3.3.2.2 SNTEMP Model Description

The SNTEMP model (Theurer, Voos, and Miller, 1984) was developed in the early 1980's and has been used on scores of stream systems throughout the US (citations for this model are available on the SNTEMP support web site: http://www.fort.usgs.gov/products/Publications/SNTEMP_refs.asp). This model was originally verified in a peer-reviewed journal on the Colorado River (Theurer and Voos 1982).

SNTEMP is a 1-D (one-dimensional) network model that can be applied to networks of any size, order, and complexity. It is a steady-state model for predicting mean daily stream temperatures throughout the defined network. SNTEMP uses a simplified algorithm to simulate maximum (and minimum) daily temperatures as a function of maximum daytime air temperature.

SNTEMP accounts for vegetative and topographical stream shading. SNTEMP also accounts for elevation change and how it affects air temperature, humidity, and air pressure. SNTEMP can work in a batch mode to analyze many forecast scenarios at a single time.

SNTEMP has some features that make it a very useful model: it is simple to use, it does not require voluminous data (works on daily values rather than requiring hourly input), and it is accurate and reliable. The maximum temperature algorithm is not as robust as the one used for the daily means. Consequently, maximum daily temperature predictions can be less accurate than the mean daily temperatures. ENTRIX, Inc. has modified its version of the maximum temperature algorithm to provide predictions that are more accurate. For example, the current version accounts for temperature

variations from tributaries and reservoirs. This modification has been a great improvement over the original version and has been verified in many applications. The performance of the original modification was published with respect to its application to the Pit River (Pacific Gas and Electric Company 1985, ASCE 1985).

Another useful feature of SNTMP is automatic calculation of simulation bias and standard error (50 percent confidence). Based on our experience in using a properly calibrated SNTMP model, simulated mean daily temperatures generally can be expected to be within $\pm 0.5^{\circ}\text{C}$ of actual values (50 percent confidence). Maximum daily temperatures can be expected to be within one to 1.5°C of actual values (50 percent confidence).

In previous studies, SNTMP has been successfully applied to several reaches in Big Creek including the Mammoth Pool Reach, Stevenson Reach, Big Creek, and the Horseshoe Bend Reach of the SJR (BioSystems 1987a,b,c). These models were used with the concurrence of the CAWG.

3.3.2.3 Methods

Data sufficient and representative for accurately representing the stream/reach were collected to accurately represent the stream/reaches (i.e., able to calibrate and validate the model with reasonable statistics). Data collected in 2000 through 2002 as part of the CAWG 5 Study Plan included recorded water temperatures, concurrent meteorological data, and flow data (SCE 2003a). Locations of temperature monitoring sites are presented in Maps CAWG 5-1 through 5-9. Data from 2001 primarily were used to calibrate and verify the water temperature model.

Three sets of data were input to the model, 1) meteorologic, 2) hydrologic, and 3) stream geometry.

3.3.2.3.1 Data Collection

Meteorological Monitoring

Meteorological data were collected concurrently with stream temperature data at eleven locations within the Big Creek area. Meteorological stations were established at five principal locations to measure air temperature, relative humidity, wind speed, wind direction, and solar radiation. Air temperature and relative humidity stations were operated at additional locations to represent local conditions and to assist with calibration of water temperature models. Meteorological data were collected from locations at or near bodies of water within the Project area from the late spring through fall of 2000 and 2001. All meteorological data were recorded hourly at each station.

Hydrologic Data

Hydrologic data consist of discharge data throughout the study area, temperatures of the mainstem and study tributaries, and estimates of distributed inflows (groundwater or surface water). Flow data and reservoir elevations were collected from numerous

locations throughout the Project Area by SCE. Summaries of much of these data are included in the CAWG 6 Hydrology Study.

The California Department of Water Resources (DWR) classifies water years (October 1 to September 30) into five classes: wet, above normal, below normal, dry, and critical. During the years in which monitoring took place, DWR (2002) classified the water supply for 2000 as above normal, and 2001 and 2002 as dry.

Stream and Reservoir Temperature Monitoring

Water temperature recorders were deployed in stream reaches, major inflow points to Project reservoirs and near Project intakes within reservoirs. The collection methods and results of the temperature monitoring program are presented in the CAWG 5 Temperature Monitoring Technical Study Report (SCE 2004).

Water temperature (as well as dissolved oxygen, and specific conductance) profiles were measured at three or more pre-selected sites in each large reservoir or lake in the Project area. These were used to characterize thermal structure and for later use with elevation capacity curves to assess volumes of stored water and their temperatures. Reservoirs were monitored to characterize the effects of different water year-types and heating conditions. Profiles were measured monthly from late spring through fall near the dam, near mid-reservoir, and at the upstream end. Water temperatures at major inflows and outflows (intakes) at reservoirs and lakes were recorded hourly with electronic water temperature loggers. This information also is reported in the CAWG 5 Temperature Monitoring Technical Study Report (SCE 2004).

Stream Geometry

Stream geometry is defined by stream latitudes, elevations and distances, azimuths, stream widths, stream shading, and hydraulic retardance. Information on stream geometry was taken from GIS analysis, aerial photography, data collected during the CAWG 1 Study (SCE 2003a) and riparian surveys conducted in 2003.

Stream points and topographic elevations were determined by processing GIS data through the TTools program (Kasper and Boyd 2003) and ArcView (ESRI 2001). This program employs the information from a stream shapefile and a DEM (digital elevation model) shape file for the watershed to generate points at fixed intervals along the stream and associated data. The topographic angle values generated by TTools are for east, west, and south of each point. TTools also generates latitude, longitude, elevation, and aspect values for each point. For this study, the distance between TTools points was set at 50 meters. As part of this work, the centerlines of the stream reaches were digitized at a greater level of detail than used to create the general use river mile maps. The more detailed versions were used to set distances for structuring the SNTMP models, resulting in some small differences from the older maps.

The points generated for study reaches were reviewed in conjunction with the DEM, aerial photography, and Rosgen classification breaks for the stream in order to select subreaches for structuring the SNTMP model. TTools points that represented

locations of substantial changes in stream angle or topography were used to define the upstream end of each SNTMP subreach. Data associated with these TTools points were then used to generate the input required for shade factor calculations (ENTRIX uses an in-house developed procedure for this, Batchshade).

The Batchshade procedure requires two topographical angle values, one on each side of the stream, measured at right angles to the stream bearing. The topographic angles generated by TTools for each point were weighted and combined, as appropriate, for the bearing of each subreach, in order to generate the values required to run Batchshade.

Vegetation values for Batchshade include vegetation height, density, offset values, and crown diameters for the right and left banks of the stream. Vegetation offset was determined by measuring aerial images for the reaches. Vegetation type was derived from riparian studies conducted in the autumn of 2001 and further review of aerial images. Crown diameters were derived from field measurements where available or measured on the aerial images. Height values were derived from tree height and canopy information measured at representative locations in the field. Density was derived by multiplying representative densiometer values by the percent canopy cover along the subreach. To the extent possible, these tree data were derived from sampling for the riparian surveys conducted in 2003. For some tree types, measurements were made in the field in 2003, specifically for the stream shade study.

3.3.3 APPROACH TO ANALYSIS

Model calibration and validation was performed in selected reaches. Once calibrated and validated, the stream temperature model was then available to simulate conditions in stream reaches selected by the CAWG under alternative flow and meteorological conditions.

3.3.3.1 Reach Selection

The results of water temperature monitoring were reported to the CAWG (SCE 2004). Reaches that were potential candidates for modeling were discussed with the CAWG. The CAWG agreed that the following reaches should be modeled:

- South Fork San Joaquin River
- San Joaquin River Mammoth Reach
- Rock Creek
- San Joaquin River Stevenson Reach
- Big Creek Dam 4 to Powerhouse 2/2A
- Big Creek Dam 5 to Powerhouse 8
- Stevenson Creek

Existing models were available for the Mammoth Reach and Stevenson Reach of the SJR, and Big Creek Dam 5 to Powerhouse 8 (BioSystems 1985, 1987a,b,c). Only portions of the model information for Big Creek Dam 4 to Powerhouse 2/2A were available. In order to check the validation of these models and to run them with the current data sets, calibration and, if necessary structure definition adjustments were made to run simulations for the current study.

The temperature monitoring locations used for model calibration and validation are listed in Table CAWG 5-11.

3.3.3.2 Calibration and Validation

The SNTEMP model is generally calibrated to improve its ability to simulate downstream temperatures. Calibration involves adjusting model coefficients and parameters in such a way as to increase the accuracy and precision of downstream temperature predictions.

The stream temperature models were calibrated to observed temperature data that were collected during 2001. These data included stream temperatures, flow, and certain meteorological variables. Data collected during 2000 were not used for calibration/validation due to many missing values and some differences in the availability of stations. The 2001 data set was broken into two subsets of alternate days, one of which was used for model calibration and the other for model validation. Model validation provides an estimate of how well the model can simulate downstream conditions based on information not used during calibration.

SNTEMP requires that conditions such as flows and meteorology be approximately constant for the period being analyzed. Constant conditions are simulated by assuming average conditions for the period of time it would take the stream to flow from the top to bottom of the reach of interest. Averaging periods used in this report were reach specific. However, a one-day averaging period was generally used in temperature simulations to account for this water travel time. For example, the SFSJR was evaluated in four, single-day reaches.

The SNTEMP model predicts longitudinal, cross-section averaged, daily mean, and maximum temperatures for each study stream reach. Daily mean and daily maximum stream temperatures were predicted and compared to observed downstream temperatures.

The model validation results are presented using several measures of fit that have been incorporated into the results of the SNTEMP model by the Instream Flow Group (Theurer, Voos, and Miller 1984).

The first of these measures of fit is bias of the results. Bias represents the average difference between the predicted and observed temperature values.

The second measure is the standard difference of the estimate. This is used as described by Theurer et al. (1984) and is described as analogous to the standard

deviation. It is a measure of the dispersion of the differences between the observed temperatures and the predicted. The standard differences calculated by this model are modified by the number of degrees of freedom used.

The third measure used is the probable difference and is described by Theurer et al. as follows:

Probable Difference

The probable difference is used to determine how well the various models are performing. It sets the 50 percent confidence limits; *i.e.*, 50 percent of the actual water temperatures fall within $\Delta \pm \delta$ of the model predictions. For the regression model Δ always equals zero. Generally, Δ does not equal zero for the heat transport model. Without calibration, the formula is:

$$\delta = 0.6745 S_{T,X} \quad \text{II(200)}$$

where $\delta \equiv$ probable difference (C)

$S_{T,X} \equiv$ modified standard difference of estimate (C)

Maximum over prediction and under prediction also are reported for each model validation. These numbers represent the largest over and under predictions of any predicted temperature for the entire validation simulation represented by the number of days and locations included in the validation. For example, in the South Fork San Joaquin River, the upstream reach modeled was represented by 200 predicted values included in the validation.

A time series of observed and predicted water temperatures is presented at individual monitoring stations. In these plots, the solid lines represent the simulated mean and maximum temperatures and the points represent observed mean (circle) and maximum (triangle) temperatures.

Draft results were presented to the CAWG in July of 2004. At the request of the CAWG, the model was recalibrated for the SFSJR Reach 1, SFSJR Reach 2, and SJR Mammoth Reach to improve the temperature model's fit. The model was then validated again for these same reaches:

- SFSJR Reach 1 (Florence Lake to Bear Creek)
- SFSJR Reach 2 (Bear Creek to Mono Creek)
- SJR Mammoth Reach

Data that violated one or more of the assumptions of the model were discarded from the calibration and validation data sets used for these reaches. These assumptions include 1) rainfall is not simulated, and 2) flows are relatively steady throughout the day. The rationale for this effort, as well as results, were presented to the CAWG and are

documented in memoranda previously provided to the CAWG and contained in Appendix H of this report. When the revised data set was used, the calibration of the model was improved; a more representative model was produced. Upon validation, the statistics generally improved for these reaches.

The Mammoth Pool model was recalibrated after removing those days with high flow variability and rainfall. After removing these days, we were better able to see relationships between the bias and environmental conditions, especially solar radiation. We were able to improve the fit of the model by recalibrating using other model parameters.

Similarly, the SFSJR Reach 1 and Reach 2 models were recalibrated after removing days with rainfall and high flow variability. Relationships between model bias and environmental conditions were then more apparent. For the SFSJR Reach 1 model, relationships were observed between the bias and humidity and sunshine. The Reach 1 model was improved by adjusting humidity lapse rates (the change in humidity with elevation) and widths and shading. The Reach 2 model was improved by reviewing revised flow information and incorporating indicated flow adjustments. Widths were also adjusted to reduce an observed relationship between bias and solar radiation.

Upon CAWG review of the memoranda documenting the recalibration, revised simulations for the SFSJR and SJR Mammoth Reach were generated. For maximum daily temperatures, recalibration of the SFSJR Reach 2 model resulted in a near-zero bias at the sites upstream of Camp 61 and Mono Creek and a positive bias (over-prediction) at other sites in this reach. Therefore, simulated maximum daily temperatures are conservative, i.e. they are predicted to be warmer than what would be expected to occur under the conditions simulated, and under-predictions of daily maximum temperatures are generally avoided. For the South Fork San Joaquin River, maximum temperatures are overestimated by 0.4°C on average.

In addition to the revised simulations for the SFSJR, the sensitivity analyses for the effects of Mono and Bear Creek releases on the SFSJR also were updated. Since these simulations evaluate the effect of additional flows releases on the SFSJR the recalibrated SFSJR models were used to revise these results.

3.3.3.3 Simulation Conditions

Once calibrated and validated, the stream temperature models can be used to simulate conditions not represented by observed (downstream temperature) data. These simulations, also called synthetic simulations to differentiate from calibration and validation simulations, include alternate flow simulations. The stream temperature models are able to simulate alternative Project operations that can be represented by flows released from existing structures in the temperature models.

A series of simulations were performed over a range of potential flows released to bypass reaches. These predict the effects of releases from dams on downstream temperatures. The simulations are based on releases from current release structures

deep in the Project reservoirs. These releases represent the coldest water available. Simulations were performed for normal and extreme meteorology. Individual release flows corresponding to the range of those used for PHABSIM models were simulated for each reach.

Two sets of meteorology and hydrology conditions were selected to be applied to each reach simulated for each month of simulation. Median air temperatures representing normal meteorological conditions were combined with near median hydrology (above normal water year) for one set of conditions. More extreme conditions were represented by the combination of 20 percent exceedance air temperatures (hot) and dry (water year type) hydrology.

The individual months simulated for each reach are those that were approved by the CAWG and are identified in the discussions of the reaches in Section 5.

Exceedance tables were developed that provide the percentage distance of the modeled stream exceeding each of a range of temperatures by flow release. These tables were developed for daily mean and daily maximum temperatures. The results are presented in Appendix E.

3.3.4 SENSITIVITY ANALYSIS OF MONO, BEAR, AND CAMP 61 CREEK RELEASES

During the October 8, 2003 CAWG meeting, a stakeholder requested that SCE model temperatures in Mono and Bear Creeks to evaluate the effect of flows from those creeks on the SFSJR. The stakeholder was requesting that the effect of additional flow releases from these creeks instead of from Florence Lake Dam be analyzed for the potential effect on SFSJR water temperatures. It was suggested that modeling of the creeks may not be needed to address that question. Instead, it was suggested that the question could be addressed through a phased approach utilizing a sensitivity analysis. Effects of a range of a range of flows released from Camp 61 to the SFSJR were evaluated as well.

In this case, the sensitivity analysis would involve looking at the effect on the SFSJR of several levels of flow discharged from the three creeks to the SFSJR. One set of flow sensitivity evaluations was conducted for Camp 61 Creek. In Bear and Mono Creeks, the flows would be evaluated at the most favorable release water temperature observed, and subsequently at a more realistic release water temperature from the confluence of the creek with the SFSJR, if necessary. While this would involve simulations of the SFSJR, it would not be necessary to model the creeks, in addition. Evaluation of the results of that analysis would indicate whether the releases could have a significant beneficial effect on SFSJR temperatures. It would also indicate whether modeling of those creeks is really needed to answer the stakeholder's question. This approach was recommended to avoid unnecessary cost and efforts associated with the preparation and calibration of additional temperature models. The phased approach was to consist of two phases.

The first phase (Phase 1) was used to determine if these creeks needed to be modeled at all. Rather than building new models immediately, the first phase was a test to determine how sensitive SFSJR water temperatures are to the influences of Mono Creek and Bear Creek inflows. The second phase, if needed, was the building and using of simulation models of one or both creeks. Phase 1 would determine if either creek can significantly cool the SFSJR under “ideal” conditions. Ideal conditions would consist of the coolest water temperatures that could be released to the SFSJR from the stream, which are the temperatures present at the upstream diversion. These would be cooler than those that would occur after water flows down the tributary and warms, as happens prior to reaching the confluence with the SFSJR. Water would be added to the SFSJR model from the tributary at this temperature for July and August, the two warmest months, when temperatures in the lower SFSJR exceed 19°C (preliminary daily mean temperature criteria for cold water fish such as trout).

SFSJR water temperatures were initially simulated for a range of flows requested by the CAWG. These flows were based on those modeled for fish habitat using PHABSIM. These flows were determined as follows:

For Bear Creek, flows would be added at the following levels:

- the highest flow to be simulated for PHABSIM for the months modeled,
- the current minimum instream flow, and
- the midpoint between the current minimum instream flow and the highest PHABSIM flow to be simulated.

For Mono Creek, flows added to the SFSJR would include:

- the highest flow to be simulated for PHABSIM for months modeled,
- the current minimum instream flow, and
- the midpoint between the current minimum instream flow and the highest PHABSIM flow to be simulated.

Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal water year) and 2001 (Dry water year). These were used as comparisons for other flows simulated.

Based on discussion with the CAWG, it was determined that the range of simulations far exceeded the flows that might actually be available from these creeks during the summer months. Based on this, a revised set of SFSJR temperature simulations was performed using inflows based on unimpaired levels from the tributaries. These are described below.

Flows would be added to the SFSJR at the following levels:

- Bear Creek – 80, 50, and 20 percent of unimpaired exceedance flows
- Mono Creek – 80, 50, and 20 percent of unimpaired exceedance flows

The simulations based on these flows replaced the original simulations in this report. The results of the original simulations were placed in Appendix I of this report for reference.

One additional sensitivity analysis was conducted by SCE for evaluating the effect of tributary flows on SFSJR temperatures. This analysis focussed on flows released from Camp 61 Creek. In this analysis, flows derived from Portal Forebay (and therefore from Ward Tunnel) would be released to cool the SFSJR. The following flows were simulated:

- Camp 61 Creek - flows from 10 to 100 cfs, in 10 cfs increments.

Bear and Mono creeks had temperatures recorded during 2000 and 2001 (upstream of the diversions and downstream near the confluence with SFSJR). Our initial tests (Test 1 of Phase 1) used the recorded (monthly average) upstream temperatures as a conservative estimate of the creek's thermal influence on the SFSJR. Camp 61 Creek, Ward Tunnel Outlet and Portal Forebay had temperatures recorded during 2000 and 2001 as part of the Portal Hydroelectric Power Project (FERC Project No. 2174) and the CAWG 5 Temperature Monitoring Study. A single flow sensitivity analysis was performed for Camp 61 Creek utilizing Ward Tunnel outlet temperatures.

The results were analyzed in terms of the total length of the SFSJR below the preliminary evaluation criteria of 19°C for mean daily temperatures and 24°C for daily maximum temperatures. If any length above both of these temperatures is not predicted to be eliminated at the highest flow tested, then SCE cannot bring the entire receiving reach into compliance with the Basin Plan by this means. If significant cooling is not observed in the SFSJR, Phase 1 would end at this point since this test represents the best potential for cooling effects to the SFSJR. With no significant cooling predicted, it would not be necessary to model Mono Creek and Bear Creek as part of the SFSJR simulations.

If significant cooling was observed from Phase 1, Test 1, we would then perform Phase 1, Test 2 to determine the SFSJR temperature model's sensitivity using the temperatures observed in the creeks immediately upstream of the confluence with the SFSJR during 2000 and 2001. Test 2 would otherwise be similar to Test 1. Test 2 represents conditions similar to how these creeks would be included in a model of SFSJR temperatures.

There were two potential outcomes to this test. The first potential outcome was that significant cooling in the SFSJR was observed in Test 2, and was similar to the results in Test 1. Given this outcome, additional modeling would not be needed. This outcome would indicate that these creeks did not warm enough (in 2000 and 2001) to have an

important effect on the outcome. In other words, the predicted SFSJR cooling from the inflows from these creeks would be obtained, whether the creeks were explicitly modeled or not.

The second potential outcome was that significant cooling was not obtained in the SFSJR with additional flows from Test 2 for either stream. This outcome would indicate that explicit modeling of these creeks might be necessary, since warming within the creek affects whether the desired water temperature enhancement to the SFSJR occurs. We would need an explicit estimate of warming (modeling of the creeks) within these creeks to provide reasonable estimates of this warming for conditions potentially dissimilar to those observed in 2000 and 2001.

If explicit models of either one of the creeks were needed to evaluate warming, as described above, this would constitute Phase 2 of the evaluation. In that case, the creek(s) to be modeled would be modeled for July and August for the same meteorological and hydrological conditions, as used for the SFSJR. In each case, a total of five flows would be modeled for the creek(s) in Phase 2 and the effect of each of those flows would be analyzed on the SFSJR, downstream. The analysis would provide the following outputs:

- Longitudinal temperature profiles for the creek(s) for each month and conditions showing one line per flow,
- A table of creek lengths exceeding temperatures of 15 to 20°C daily mean temperatures by month and conditions,
- A table of creek lengths exceeding temperatures of 21 to 26°C daily maximum temperatures by month and conditions,
- Longitudinal temperature profiles for the SFSJR for each month and conditions showing one line per flow,
- A table of SFSJR lengths exceeding temperatures of 15 to 20°C daily mean temperatures by month and conditions, and
- A table of SFSJR lengths exceeding temperatures of 21 to 26°C daily maximum temperatures by month and conditions.

The Phase 1 results are reported in this report (Appendix F and Appendix I for the original flow set). The need for further analysis will be discussed with the CAWG prior to proceeding to an additional phase.

3.3.5 TEMPERATURE OF INFLOWS TO REDINGER LAKE

At the request of the CAWG, estimates of the effect of alternative flow releases at Dam 6 and from Big Creek Powerhouse 3 (Powerhouse 3) on inflow temperatures to Redinger Lake were performed. A heat balance analysis was conducted to estimate water temperature of inflow to Redinger Lake from the Project and San Joaquin River

upstream. Redinger inflow temperatures were estimated by calculating a heat balance of the two inflow sources, Powerhouse 3 and the Stevenson Reach of the San Joaquin River. Observed temperatures at the intake to Powerhouse 3 behind Dam 6 in 2000 (above normal water year) and 2001 (dry water year) were used to represent water temperatures of Powerhouse 3 releases. Temperatures were simulated at the downstream end of the Stevenson Reach for above normal hydrological conditions (with median monthly air temperatures) and dry hydrological conditions (with 20 percent exceedance air temperatures). The range of flow releases simulated for the Stevenson Reach as part of this work was used for that inflow. Powerhouse 3 flows were the 20, 50, and 80 percent exceedance flows based on the 20-year (1983-2002) period of record for Big Creek Powerhouse No 3 (USGS gage 11241800). For each month and water year type, estimated temperatures of inflows to Redinger Lake are presented by simulated flow from Dam 6 to the Stevenson Reach of the San Joaquin River and Powerhouse 3 exceedance flows (median, 20 percent exceedance and 80 percent exceedance).

4.0**COLDWATER AVAILABILITY**

4.1 INTRODUCTION

The volume and temperature of water available for release from Project reservoirs are presented for reservoirs with sufficient storage (large impoundments). The results of the analysis of volume by temperature are presented by each reservoir addressed for the study.

4.2 RESERVOIRS ADDRESSED

The reservoirs addressed for this study are the large reservoirs within the Project area. These reservoirs are Florence Lake, Lake Edison, Mammoth Pool, Huntington Lake, and Shaver Lake. Lake Edison is part of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086). Lake Edison is included in this report because it is a source of cold water for Mono Creek between Vermilion Valley Dam and Mono Diversion, and potentially a source of cold water for Mono Creek downstream of Mono Diversion, a tributary of the SFSJR.

4.2.1 FLORENCE LAKE**4.2.1.1 General Description**

Florence Lake Reservoir (Map CAWG 5-2), with a drainage area of 171 square miles, was created by the construction of the Florence Lake Dam across the South Fork of the SJR. The dam impounded a reach of the SFSJR and inundated a smaller alpine lake that predated the dam. Inflow to the lake is obtained from natural flows into the SFSJR upstream, Boulder Creek above the lake, Crater Creek, Tombstone Creek (not in current operation), North Slide Creek (not in current operation), South Slide Creek (not in current operation), and Hooper Creek diversions. Project releases from the reservoir are normally controlled to divert water to Huntington Lake via Ward Tunnel and provide instream flows to SFSJR. An eight-inch diameter cast iron pipe, for minimum water release, passes through the base of Arch 53 at elevation 7,200 feet above MSL, which is near the bottom of the lake.

4.2.1.2 Volume and Area

Over a 21 year period (1980-2001), using data available from USGS, the average maximum yearly storage volume in Florence Lake was 60,096 acre-feet (af). For the same period, the average minimum yearly storage volume was 1,008 af. These correspond to reservoir surface elevations of approximately 7,323.0 ft and 7,230.8 ft above MSL, respectively. Temperature stratification occurred in the summer months, then surface waters began to cool in September, and thermal layers in the lake began to mix. Seasonal water temperature trends were similar between the shallow *Inflow End* and the deeper location near Florence Lake Dam (SCE 2003a).

Water temperatures in the bottom layers (hypolimnion) of the reservoir were generally much cooler than mean water temperatures of the inflow from the upper SFSJR during the summer, since they represent water stored during runoff that was insulated from warming by the epilimnion (SCE 2003a). (The epilimnion is the upper layer of a stratified lake that is usually warmer and consequently less dense so that it floats over denser, cooler water beneath). Therefore, releases below the dam would be cool, when the lake is stratified, since the release water is drawn from the hypolimnion of the lake. In the fall, stratification breaks down and the water begins to mix. Diversions to Ward Tunnel occur at a higher elevation (at 7,220 feet above mean sea level, which is 20 feet higher than the release pipe to the SFSJR), tend to divert warmer waters nearer to the surface and are less likely to deplete stored cool, hypolimnetic (pertaining to the deeper, usually colder layer of a stratified lake) water.

Table CAWG 5-1 presents the temperature characteristics of the stratified layers of Florence Lake in 2000 and 2001. The lake was stratified in July and August of 2000, and May through September of 2001. During 2001, by September, the lake was drawn down, the water column began to mix, and water temperatures were relatively similar between the inflow from the upper river and near the bottom at the dam.

Table CAWG 5-2 presents the available water by temperature in Florence Lake in 2000 and 2001. In July 2000, there were 58,730 af of water with a temperature of 18°C or less, and 29,699 af of water with a temperature of 16°C or less. In August 2000, the reservoir was drawn down and there were 38,781 af of water with a temperature of 16°C or less. In September 2000, the weather (and reservoir waters) began to cool, the reservoir continued to be drawn down and was no longer stratified. There were 23,127 af of water present at a temperature of 16°C or less. The reservoir continued to cool, and in October, there were 23,113 af of water at a temperature of 12°C or less.

In May of 2001, there were 42,579 af of water with a temperature of 16°C or less, with much of the volume considerably cooler (Table CAWG 5-2). The volume of water at 16°C or less declined in June, July, August, and September of 2001 as the surface of the reservoir warmed in the summer months and cooler waters were withdrawn. With cooling conditions in the fall, the volume of cool water began to increase. In September 2001 when there was a decrease in the volume of warm water over 18°C and an increase in water volume by 12,115 af at 18°C or less compared to August 2001. The decrease in reservoir temperatures continued in October 2001, when there was a total volume of 4,805 af of water at 14°C or less.

4.2.2 LAKE EDISON

4.2.2.1 General Description

Lake Edison Reservoir (Map CAWG 5-3) was created from impounding the run-off of the Mono Creek watershed by the Vermilion Valley Dam. The Mono Creek watershed above the Vermilion Valley Dam is approximately 92.5 square miles in area. Inflow to the lake is obtained year-round from natural flows in Mono Creek, Boggy Meadow Creek and Cold Creek above the lake, and from seasonally diverted flows from Warm

Creek through lower Boggy Meadow Creek. The Warm Creek Diversion channel is a small man-made channel approximately 12 feet wide and 400 feet long into Boggy Meadow Creek, a tributary of Lake Edison. Water is released at the Vermilion Valley Dam to a rock lined, man-made outlet channel extending 1,300 feet to Mono Creek. The water then flows down Mono Creek for approximately 1.3 miles to the Mono Creek Diversion Forebay. The outlet structure within the Vermilion Valley Dam is located at the toe of the dam, at the end of a shallow approach channel. The centerline of the outlet is located at an approximate elevation of 7,508.9 ft near the lake bottom (SCE 2001b).

4.2.2.2 Volume and Area

Based on historical averages, SCE stores an annual average of 76,900 af in Lake Edison between minimum and maximum lake levels. The total amount stored varies from year-to-year based on wet and dry year cycles. Based on the period of record, the average maximum yearly storage volume in Lake Edison was 104,400 af and the average minimum yearly storage volume was 27,500 af. These correspond to water surface elevations of approximately 7,631 ft and 7,579 ft above MSL, respectively. Temperature stratification occurred in the summer and fall months. By November, the lake was mixed. Seasonal water temperature trends were similar between the shallow *Inflow End* and the deeper location near Vermilion Valley Dam (SCE 2001b).

Water temperatures in the bottom layers (hypolimnion) of the reservoir were generally slightly cooler than mean water temperatures of the inflow from upper Mono Creek during the summer. The hypolimnion represented water stored during runoff that was insulated from warming by the epilimnion (SCE 2001b). Therefore, releases below the dam would be cool when the lake is stratified, since the release water is drawn from the hypolimnion of the lake. In the fall, stratification breaks down and the water begins to mix. Diversions to Mono Creek occur at a low elevation, which would tend to divert colder waters at the bottom of the reservoir and are likely to deplete stored cool, hypolimnetic (pertaining to the deeper, usually colder layer of a stratified lake) water.

The seasonal warming of the lake began with the measurement of the first temperature profile at the dam end of the reservoir in late July 2000 (Table CAWG 5-3). By the time of the September 2000 water temperature profile measurement, a thermocline had developed. It is likely that thermal stratification began during late July or early August and persisted into the fall of 2000. By November, 2000, the lake was again fully mixed.

Temperature profiles for 2001 clearly showed surface warming beginning in May with an initial thermocline present at depths of six to eight meters and a fully developed thermocline in June (SCE 2001b). Warming of lake waters continued during July 2001.

Table CAWG 5-4 presents the amount of water storage availability by temperature in Lake Edison in 2000 and 2001. In July 2000, there were 115,506 af of water with a temperature of 18°C or less, and 75,172 af of water with a temperature of 16°C or less. In September 2000, the reservoir had cooled, and there were 80,193 af of water with a temperature of 18°C or less, and 64,162 af of water with a temperature of 16°C or less.

The reservoir continued to cool, and in November, there were 78,730 af of water at a temperature of 10°C or less.

In May of 2001, there was 65,371 af of water with a temperature of 14°C or less (Table CAWG 5-4). The reservoir warmed in June 2001, and continued to warm in July and August. In June 2001, there was 83,112 af of water with a temperature of 18°C or less. The volume of water at 18°C or less declined in July and August of 2001 as the reservoir temperature warmed in the summer months. The amount of cold water began to increase in September 2001 when there was an increase in water volume by 30,881 af at 18°C or less compared to August 2001. The decrease in reservoir storage temperatures continued in October 2001, when there was 46,965 af of water that was 16°C or less.

4.2.3 MAMMOTH POOL RESERVOIR

4.2.3.1 General Description

Mammoth Pool Reservoir is formed by an earth-fill dam built across the SJR about eight miles upstream from its junction with Big Creek, at 3,030 ft above MSL elevation (Map CAWG 5-5). The reservoir, with a length of over eight miles when filled to the spillway crest, covers 1,290 acres of land. It impounds the waters of the San Joaquin River, and intercepts flow from tributaries including Jackass Creek, Mill Creek, Kaiser Creek, Chiquito Creek, and Daulton Creek.

The Mammoth Pool Power Tunnel and a penstock connect Mammoth Pool Reservoir to Mammoth Pool Powerhouse. Intake to the tunnel is controlled by a fixed-wheel gate powered by an electrically operated hoist. There is a fishwater generator, which is powered by minimum instream flow releases. It is located in a diversion tunnel, which was used in dam construction. The fish water release has its intake at 2,991 ft elevation.

4.2.3.2 Volume and Area

The reservoir volumes and surface areas corresponding to water surface elevations in Mammoth Pool Reservoir are shown in Table CAWG 1-277. Over the past 21 years (1980-2001), the average maximum yearly storage volume in Mammoth Pool Reservoir was 114,922 af (CAWG 1 Technical Study Report, SCE 2003a). For the same period, the average minimum yearly storage volume was 12,764 af. These correspond to approximately 3,325.3 ft and 3,175.7 ft above MSL, respectively.

As stated in the CAWG 5 Temperature Report (SCE 2004a), Mammoth Pool Reservoir stratifies annually during the summer months and mixes in the fall. In 2000, a thermocline was present between seven to eight meters in July at the inflow profile location, but minimal to no thermal stratification was present during the other months. In 2001, a thermocline was present between four to seven meters in June, and seven to eight meters in July at the dam profile location. Seasonal water temperature trends were similar between the *Inflow End*, the *Middle* station, and the deeper location near

the dam (SCE 2003a). Temperature stratification occurred during the summer months in both 2000 and 2001. However, the lake began to mix in August and was well mixed by October.

During 2001, water temperatures warmed from June to August, cooled in September, then warmed again, as depth decreased and the reservoir mixed (SCE 2003a).

Table CAWG 5-5 presents the temperature characteristics of the stratified layers of Mammoth Pool in 2000 and 2001. The lake was not stratified in September and October of 2000, although it was stratified in late June and July of 2001.

Table CAWG 5-6 presents the amount of water storage available by temperature in Mammoth Pool reservoir in 2000. During July 2000, based on the inflow end profile, there were 80,697 af of water present at temperatures of 18°C or less. In September 2000, there were 44,988 af of water with a temperature of 20°C or less, and 34,415 af of water with a temperature of 18°C or less. By late October 2000, the reservoir had cooled, and there were 19,302 af of water with a temperature of 16°C or less, and 9,855 af of water with a temperature of 14°C or less.

In early June 2001, there were 115,082 af of water with a temperature of 20°C or less, and 106,267 af of water with a temperature of 18°C or less (Table CAWG 5-6). At that time there were 90,713 af at 16°C or less and 68,800 at less than 14°C. The volume of water at 18°C or less declined in late June, July, August, and September of 2001 as water was withdrawn from the reservoir and reservoir temperatures warmed. By late June, there were 34,415 af at 14°C or less and by July, little to no water was left at that temperature. By mid-August, there were only 10,895 af of water at 18°C or less. By September almost all of the water in the reservoir had reached 20°C or more. In October 2001, reservoir had cooled to 20°C or less.

4.2.4 HUNTINGTON LAKE

4.2.4.1 General Description

Huntington Lake Reservoir, with a drainage area of 81 square miles, was the first reservoir built as part of the "Initial Development" at Big Creek in 1911-13 (Map CAWG 5-7). Originally created by the construction of three dams, Dam Nos. 1, 2, and 3, Huntington Lake was enlarged in 1917-18 by the raising of those dams, and by the construction of an additional dam, No. 3A. The spillway of the lake is at 6,950 feet above MSL. Flow releases are made from a valve with an inlet at 6842.3 ft elevation.

4.2.4.2 Volume and Area

The volume and surface area corresponding to water surface elevations in Huntington Lake are shown in Table CAWG 1-284 (CAWG 1 Technical Study Report, SCE 2003a). Over the past 21 years (1980-2001), the average maximum yearly storage volume in Huntington Lake was 88,619 af, with a corresponding water surface elevation of 6,949.6 ft above msl, and a surface area of 1,425 acres. As the lake draws down to 6,940,

6,930, 6,920, and 6,910 feet above MSL the corresponding reservoir volumes drop to 75,344, 62,555, and 50,812, and 40,216 af, respectively, and the corresponding surface areas drop from 1,325, 1,223, 1,112, and 994 acres, respectively. When the lake reaches the average minimum yearly storage volume (winter conditions) of 32,404 af, the water surface elevation has dropped to approximately 6,901.8 ft above msl, and the reservoir surface area is approximately 886 acres.

As stated in the CAWG 5 report (SCE 2004), the reservoir stratifies annually during the summer months and mixes in the fall. Water temperatures were generally similar between the three monitoring locations throughout the summer within each year, although water temperatures were sometimes warmer in the shallow *Inflow End* (SCE 2003a). Thermal stratification of the lake occurred in the summer months. A thermocline or temperature discontinuity between the epilimnion and hypolimnion occurred in the summer months, but in September and October the lake mixed. Mixing occurred when water temperatures cooled so that density differences between the epilimnion and hypolimnion were insufficient to maintain stratification.

In 2001, for which there is a more complete thermal record, water temperatures warmed substantially between May and September but began to cool in October (SCE 2003a). By September, the lake began to mix, but bottom water temperatures did not cool as quickly as surface waters.

Table CAWG 5-7 presents the temperature characteristics of the stratified layers of Huntington Lake in 2000 and 2001. The lake was stratified in August of 2000, and May through August of 2001.

Table CAWG 5-8 presents the amount of water storage availability by temperature in Huntington Lake in 2000. In August 2000, there were 82,124 af of water with a temperature of 18°C or less, and 78,025 af of water with a temperature of 16°C or less. There was 20,098 af of water at 12°C or less, as well. By October 2000, the reservoir was no longer stratified and 63,442 af of water was at a temperature of 14°C or less.

In May of 2001, there was 86,105 af of water with a temperature of 12°C or less (Table CAWG 5-8). The warming of the reservoir began in June and continued through August. In June 2001, there was 87,878 af of water with a temperature of 18°C or less and 53,072 af of 14°C or less. In July and August 2001, there were 56,546 af of water and 51,936 af of water at 18°C or less and 42,240 af and 29,153 af at 14°C or less, respectively. The surface of the lake began to cool in September 2001, and of the remaining volume, there was an increase of 33,157 af at 18°C or less compared to August 2001. However, the volume of water at 14°C or less was 10,857 af. The reservoir continued to cool in October 2001, when the remaining 79,804 af were at temperatures 16°C or less.

4.2.5 SHAVER LAKE

4.2.5.1 General Description

Shaver Lake Reservoir is the largest on the Big Creek system (Map CAWG 5-8). Shaver Lake was created in 1927 by the construction of the Shaver Lake Dam across Stevenson Creek, a tributary of the San Joaquin River. It replaced a millpond that was there previously. The drainage area into Shaver Lake is only 29 square miles, so the majority of the water impounded in the reservoir is diverted through the Huntington-Pitman-Shaver Conduit from Huntington Lake through Balsam Forebay and the Eastwood Powerhouse. Swanson Meadow Creek, Stevenson Creek, Azalea Creek, North Fork Stevenson Creek, as well as a number of unnamed ephemeral creeks flow into Shaver Lake. Stevenson Creek and North Fork Stevenson Creek contribute the majority of the stream flow input to the reservoir. Flows are released to lower Stevenson Creek at the base of Shaver Dam. The elevation of the release water intake is 5,212 ft above msl elevation.

4.2.5.2 Volume and Area

The reservoir volumes and surface areas corresponding to water surface elevations in Shaver Lake are shown in Table CAWG 1-296 (SCE 2004). Over the past 21 years (1980-2001), the average maximum yearly storage volume in Shaver Lake has been 113,884 acre-feet, with a corresponding water surface elevation 5,359.8 ft above msl and a surface area of about 2,030 acres. As the lake draws down to 5,350 feet above MSL, the corresponding reservoir volume drops to 94,568 af, and the corresponding surface area drops to 1,888 acre. For the 1980-2001 period, the average minimum yearly storage volume was 48,875 af, with a corresponding water surface elevation of about 5,321.5 feet.

As stated in the CAWG 5 Temperature Monitoring Report (SCE 2004), the reservoir stratifies annually during the summer months and mixes in the fall. A thermal gradient was present from the surface to about 25m of depth in August 2000 with a mass of cooler water below. In 2001, at the dam site, a thermocline was present between one and four meters in May, between four and six meters in June, between six and seven meters in July, and the site was mixed by August. At the east end profile site, in 2001, a thermocline was present between three and nine meters in May, between three and four meters in June, between four and 11 meters in July, and between four and five meters in August. At the deepest region of the lake (dam site), the epilimnion ranged in thickness from one to six meters, and the hypolimnion ranged in thickness from 33 to 38 meters (SCE 2003a). Water temperatures were generally similar between the two monitoring locations throughout the summer, but water temperatures were warmer in 2001 than in 2002 (SCE 2003a). Water temperatures were coolest in May and warmed over the summer months in both surface and bottom layers through August. Temperature gradients occurred in May through August, but in September and October thermal stratification decreased. At that time, water temperatures cooled at the surface and mixing was evident.

Water temperatures released to Stevenson Creek were cold initially, but increased between May and September, reflecting the thermal structure of the lake.

Table CAWG 5-9 presents the temperature characteristics of the stratified layers of Shaver Lake in 2000 and 2001. A large thermal gradient was present in August above a mass of cold water, but the lake was generally mixed during September and October of 2000, although it was stratified in May through July of 2001.

Table CAWG 5-10 presents the amount of water storage availability by temperature in Shaver Lake in 2000. In August 2000, there were 83,601 af of water with a temperature of 18°C or less, and 60,942 af of water with a temperature of 16°C or less. In September 2000, the reservoir had mixed, and there were 115,119 af of water with a temperature of 18°C or less. By October 2000, the reservoir continued to be drawn down and had cooled. There were then 89,420 af of water at a temperature of 16°C or less.

In May of 2001, there was 118,655 af of water with a temperature of 18°C or less, and 112,190 af of water with a temperature of 16°C or less (Table CAWG 5-10). The volume of water at 18°C or less and 16°C or less declined in June, July, August, and September of 2001 as the reservoir temperature warmed in the summer months. By September, there were only 3,480 af of water at less than 18°C, 44,187 af of water at less than 20°C and 107,418 af of less than 22°C temperature. In October 2001, cooling had increased the water volume at 18°C or less by 27,632 af compared to September.

5.0**TEMPERATURE MODELING**

5.1 INTRODUCTION

The results of model calibration and validation are discussed for study streams in major sub-basins or “drainages” within the basin. This discussion is followed by the results of simulations of additional flows for “average” and “extreme” meteorological and hydrologic conditions (described in Section 3.3.3.3 and Appendix B) for the same study streams. These results are followed by a discussion of the sensitivity analysis of the results of potential temperature releases from Bear and Mono Creeks (Section 5.9).

The upstream segment is the SFSJR. Downstream, the SFSJR joins the next segment, the SJR. The SFSJR was evaluated from Florence Lake Dam to its confluence with the SJR and, separately, the SJR downstream to the headwaters of Mammoth Pool Reservoir. The SJR below Mammoth Pool Dam was evaluated in two reaches. The first of the SJR reaches was the Mammoth Reach, which includes the reach between Mammoth Pool Dam and upstream of Mammoth Pool Powerhouse. The second SJR reach was the Stevenson Reach, which includes the reach between Dam 6 and upstream of Big Creek Powerhouse 3. Rock Creek is a tributary to the Mammoth Reach of the SJR and was modeled, as well. Big Creek and Stevenson Creek basin are also tributaries to the SJR and are evaluated individually. Big Creek was evaluated in two reaches. The upper reach ranged from Dam 4 to upstream of Big Creek Powerhouses 2/2A (and Dam 5), the lower reach ranged from Dam 5 to upstream of Big Creek Powerhouse 8 (and Dam 6). Stevenson Creek was evaluated from the release point at Shaver Lake Dam to the confluence with the SJR, downstream of Dam 6.

5.2 SOUTH FORK SAN JOAQUIN RIVER TO THE HEADWATERS OF MAMMOTH POOL RESERVOIR.

The study reach of the SFSJR extends from Florence Lake Dam (SFSJR River Mile [RM] 27.87¹) to its confluence with the SJR (SFSJR RM 0.0) and the SJR from there to the headwaters of Mammoth Pool Reservoir (Maps CAWG 5-2 through CAWG 5-5). Florence Lake captures the inflow of the upstream reaches of the SFSJR and tributaries. Diversions from Crater, Tombstone, North Slide, South Slide, and Hooper Creeks also flow to Florence Lake. Discharge from the Florence Lake is normally controlled to supply diverted water via Ward Tunnel to Huntington Lake and instream water to the SFSJR.

¹ River mile designations for this report differ slightly from those presented in the CAWG 5 Monitoring Report due to a greater degree of detail in the digitization of stream reaches to derive data for use in the stream temperature model. In the case of the temperature recorder at the outlet of Florence Lake Dam the difference was +0.02 RM.

Releases from Florence Lake Dam to the SFSJR are made from an outlet located deep within Florence Lake, which means the coolest water is released when the lake is thermally stratified during the summer months.

Four reaches representing the mainstem of the SFSJR and SJR from the SFSJR confluence to the headwaters of Mammoth Pool Reservoir were modeled:

- SFSJR 1 – SFSJR from Florence Lake to upstream of Bear Creek,
- SFSJR 2 – SFSJR upstream of Bear Creek to upstream of Mono Creek,
- SFSJR 3 – SFSJR upstream of Mono Creek to upstream of Hoffman Creek, and
- SFSJR 4 – SFSJR upstream of Hoffman Creek to the SJR upstream of Mammoth Pool.

In the discussions below, the calibration and validation of each reach is discussed. These discussions are followed by a description of the simulations for the entire mainstem SFSJR.

5.2.1 SFSJR 1 – SFSJR FROM FLORENCE LAKE TO UPSTREAM OF BEAR CREEK

The SFSJR 1 reach extends from downstream of Florence Lake to upstream of the confluence of Bear Creek. Data used for this reach were derived from temperature monitoring stations located near the base of Florence Lake Dam, upstream of Jackass Meadow, upstream of Hooper Creek, upstream of Crater Creek and upstream of Bear Creek.

5.2.1.1 Calibration and Validation

The model was calibrated and verified on data not used in the calibration. The results of the verification are represented by the validation statistics. The validation statistics for this reach of the SFSJR indicate that predicted daily mean and daily maximum temperatures were accurate (bias of 0.05°C and -0.06°C, respectively) (Table CAWG 5-12). The probable differences for mean and maximum daily temperatures were $\pm 0.34^\circ\text{C}$ and $\pm 0.44^\circ\text{C}$, respectively. These values represent the 50 percent confidence interval of the predictions (see Methods). For the validation data set of 200 observations, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.48°C and 1.87°C, respectively, or under-predict observed temperatures by more than 1.94°C and 1.30°C, respectively. The simulated temperatures provided a reasonably good representation of the observed conditions in this reach.

For the validation simulations, predicted temperatures were plotted with observed data over time for each temperature recorder location in this reach (Figure CAWG 5-1). A comparison of predicted daily mean and maximum temperatures to observed values in the site located in the SFSJR downstream of Jackass Meadow (SFSJR RM 26.1) shows that predicted temperatures followed observed temperature trends (Figure CAWG 5-1).

The model was a good fit for mean daily temperatures and daily maximum temperatures. At the site upstream of Hooper Creek, predicted temperatures followed observed temperature trends (Figure CAWG 5-1). Simulated daily maximum temperatures slightly under-predicted observed temperatures in late July through early September. At the sites upstream of Crater and Bear Creeks, predicted temperatures also followed observed temperature trends and generally were a close fit to observed temperatures (Table CAWG 5-11).

5.2.2 SFSJR 2 – SFSJR UPSTREAM OF BEAR CREEK TO UPSTREAM OF MONO CREEK

The SFSJR 2 reach extends from upstream of the confluence of Bear Creek to upstream of the confluence of Mono Creek. It includes the SFSJR reach and data derived from temperature monitoring stations located upstream of Bear Creek, upstream of Mono Hot Springs, upstream of Camp 62 Creek, upstream of Bolsillo Creek, upstream of Camp 61 Creek and upstream of Mono Creek. The aforementioned temperature recorders supplied the observed information for calibration and validation.

5.2.2.1 Calibration and Validation

The validation statistics for this reach of the SFSJR indicate that predicted daily mean and maximum temperatures were accurate (bias of 0.02°C and 0.40°C, respectively) (Table CAWG 5-12). The probable differences for mean and maximum daily temperatures were $\pm 0.24^\circ\text{C}$ and $\pm 0.48^\circ\text{C}$, respectively. For the validation data set of 282 observations, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.02°C and 2.22°C, respectively, or under-predict observed temperatures by more than 0.89°C and 1.58°C, respectively. The simulated temperatures provided a good representation of the observed conditions.

For the validation simulations, predicted temperatures were plotted with observed data over time for each temperature recorder location in this reach (Figure CAWG 5-2). A comparison of predicted daily mean and maximum temperatures to observed values in the SFSJR upstream of Mono Hot Springs (SFSJR RM 20.9) shows that predicted temperatures followed observed temperature trends (Figure CAWG 5-2). The model was a good fit for mean daily temperatures, and over-predicted daily maximum temperatures (mean bias of 0.62°C). Upstream of Camp 62 Creek, predicted temperatures generally followed observed temperature trends (Figure CAWG 5-2). Simulated daily maximum temperatures tended to slightly over-predict (mean bias of 0.63°C) observed temperatures, particularly in early August. Upstream of Bolsillo, Camp 61 (Figure CAWG 5-2), and Mono Creeks (Figure CAWG 5-3), predicted temperatures also followed observed temperature trends and generally were a close fit to observed temperatures. Simulated daily maximum temperatures were close to observed temperatures at sites upstream of Camp 61 and Mono Creeks. The site upstream of Camp 61 was the only site where simulated daily maximum temperatures had a mean negative (under-prediction) bias (-0.28°C). Predicted maximum daily temperatures for this reach on average are overestimated by 0.4°C.

5.2.3 SFSJR 3 – SFSJR UPSTREAM OF MONO CREEK TO UPSTREAM OF HOFFMAN CREEK

The SFSJR 3 reach extends from upstream of Mono Creek to upstream of Hoffman Creek. It includes the SFSJR reach and data derived from temperature monitoring stations located upstream of Mono Creek, upstream of Warm Creek, upstream of Rattlesnake Creek and upstream of Hoffman Creek.

5.2.3.1 Calibration and Validation

The validation statistics for this bypass reach of the SFSJR indicate that predicted daily mean and maximum temperatures were accurate (bias of -0.018°C and -0.383°C , respectively) (Table CAWG 5-12). The probable differences for mean and maximum daily temperatures were $\pm 0.36^{\circ}\text{C}$ and $\pm 0.58^{\circ}\text{C}$, respectively. For the validation set of 147 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.85°C and 2.57°C , respectively, or under-predict observed temperatures by more than 1.42°C and 2.47°C , respectively. The simulated temperatures provided a good representation of the observed conditions.

For the validation simulations, predicted temperatures were plotted with observed data over time for each temperature recorder location in this reach (Figure CAWG 5-3). A comparison of predicted daily mean and maximum temperatures to observed values in the SFSJR upstream of Mono Creek shows that predicted temperatures followed observed temperature trends and were close to observed temperatures. A similar comparison in the SFSJR upstream of Warm Creek shows that predicted temperatures generally followed observed temperature trends and were close to observed temperatures (Figure CAWG 5-3). Upstream of Rattlesnake Creek, predicted temperatures generally followed observed temperature trends (Figure CAWG 5-3). Modeled maximum temperatures tended to slightly under-predict observed temperatures in September. Upstream of Hoffman Creek, predicted temperatures followed observed temperature trends (Figure CAWG 5-3). Modeled mean temperatures tended to slightly over-predict observed temperatures in July and early August, and modeled maximum temperatures tended to under-predict observed temperatures in August and September.

5.2.4 SFSJR 4 - SFSJR UPSTREAM OF HOFFMAN CREEK TO SAN JOAQUIN RIVER MAMMOTH POOL

The SFSJR 4 reach extends from the SFSJR upstream of Hoffman Creek to the SJR upstream of Mammoth Pool Reservoir (SJR RM 34.53²). The SFSJR flows to the SJR at SJR RM 38.41 (SFSJR RM 0.0). This study reach includes the bypass reach and data derived from temperature monitoring stations located in the SFSJR upstream of Hoffman Creek and upstream of the confluence with the SJR (SFSJR RM 0.1). It also includes the SJR between temperature monitoring stations upstream of the confluence with the SFSJR and upstream of Mammoth Pool Reservoir.

² River mile designations for this report differ slightly from those presented in the CAWG 5 Monitoring Report due to a greater degree of detail in the digitization of stream reaches.

5.2.4.1 Calibration and Validation

The validation statistics for this reach indicate that predicted daily mean and maximum temperatures were accurate (bias of 0.024°C and 0.057°C, respectively) (Table CAWG 5-12). The probable differences for mean and maximum daily temperatures were $\pm 0.30^\circ\text{C}$ and $\pm 0.25^\circ\text{C}$, respectively. For the entire validation set of 98 points for this reach, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.35°C and 1.02°C, respectively, or under-predict observed temperatures by more than 1.51°C and 1.14°C, respectively. The simulated temperatures provided a good representation of the observed conditions.

A time-series plot compares simulated, mean and maximum, daily mid-month temperatures to observed values in the SJR upstream of the San Joaquin confluence (SJR RM 38.41) (Figure CAWG 5-4). The predicted temperatures generally followed observed temperature trends and were close to observed temperatures. Predicted daily mean and maximum temperatures in the SJR upstream of Mammoth Pool (SJR RM 34.53) also followed observed temperature trends and were close to observed temperatures (Figure CAWG 5-4).

5.2.5 SIMULATION

Water temperatures in the SFSJR and the SJR upstream of Mammoth Pool Reservoir (upstream to the confluence of the SFSJR) were simulated for flows of 10 to 250 cfs released from Florence Lake. These were simulated for the months of June through August. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures (median daily air temperature for each month) with average (above normal water year) hydrology and warmer than normal (20 percent exceedance daily air temperature for each month) air temperatures with dry (dry water year) hydrology. Simulation results for the SFSJR from Florence Lake to the confluence are presented by month and condition in Tables CAWG 5 Appendix D-1 through 6 for daily mean temperatures and Tables CAWG 5 Appendix D-7 through 12 for daily maximum temperatures. Each table presents the simulated water temperatures by flow for each distance downstream from the Florence Lake release point to the upstream of Mammoth Pool Reservoir for the daily mean or daily maximum temperature. Temperature exceedance tables providing the percentage distance of the modeled stream exceeding each of a range of temperatures by flow release are presented in Appendix E. Tables CAWG 5 Appendix E-1 through 6 provide daily mean temperatures and Tables CAWG 5 Appendix E-7 through 12 provide daily maximum temperatures. Plots of daily mean temperatures with distance downstream for a range of release flows by month for average and dry and warmer than average conditions are presented in Figures CAWG 5 Appendix D-1 through 6. Daily maximum temperatures are presented similarly in Figures CAWG 5 Appendix D-7 through 12.

The results for the reach of the SJR from the confluence of the SFSJR to upstream of Mammoth Pool Reservoir are reported in separate tables for each month for each set of simulation conditions for daily mean and daily maximum temperatures. Tables CAWG 5 Appendix D-13 through 24 report the results for simulations of daily mean and maximum

temperatures. Temperature exceedance tables for the simulation results for this reach are presented in Tables CAWG 5 Appendix E-13 through 24. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-13 through 24 for results for daily mean and maximum temperatures.

5.3 SAN JOAQUIN RIVER MAMMOTH REACH

Mammoth Pool Dam impounds water in Mammoth Pool Reservoir on the San Joaquin River. The Mammoth Reach of the SJR includes the project bypass reach between the Mammoth Pool Dam (SJR RM 26.2) and upstream of the Mammoth Pool Powerhouse (SJR RM 18.2) (Maps CAWG 5-5 and 5-6). Shakeflat Creek is an undiverted tributary of the San Joaquin River. Tributaries to the Mammoth Reach that are diverted by SCE include Rock and Ross creeks.

Releases from the Mammoth Pool Dam to the SJR are made from deep in the reservoir, which means the coolest water available is released when thermal stratification is present during the summer months. The temperature monitoring station downstream of Mammoth Pool Dam represents release water temperatures. Temperature monitoring stations also were located upstream of Shakeflat Creek, upstream of Rock Creek, upstream of Ross Creek, and upstream of the Mammoth Pool Powerhouse.

Water is diverted from Mammoth Pool through Mammoth Pool Power Tunnel to the Mammoth Pool Powerhouse. The base of the Mammoth Pool Power Tunnel at the intake is at the bottom of the reservoir, which draws water from the hypolimnion, when the reservoir is stratified.

5.3.1 CALIBRATION AND VALIDATION

The Mammoth Reach of the SJR was originally modeled using SNTMP in 1984 (BioSystems 1985). That model had a bias of 0.32°C and a probable difference of $\pm 0.29^\circ\text{C}$ for daily mean temperatures. This model was used for the present study with adjustments made for the location of data collected for this study, as compared with those collected for the earlier study. For the current study, we obtained validation statistics that indicate that predicted daily mean and maximum temperatures were accurate (bias of -0.02°C and 0.00°C , respectively) (Table CAWG 5-13). The probable differences for mean and maximum daily temperatures were $\pm 0.34^\circ\text{C}$ and $\pm 0.47^\circ\text{C}$, respectively. For the entire validation set of 120 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.34°C and 1.92°C , respectively, or under-predict observed temperatures by more than 1.85°C and 1.66°C , respectively. The simulated temperatures were a good representation of the observed conditions.

A time-series plot compares simulated daily temperatures to observed values in the SJR upstream of Shakeflat Creek (SJR RM 25.5) (Figure CAWG 5-5). The simulated temperatures followed observed temperature trends. The model tended to slightly under-predict temperatures for a short period in late June and early July, but the fit was generally good for the remainder of the time. Simulated temperature trends also

followed observed temperature trends in the SJR upstream of Rock Creek (Figure CAWG 5-5) and upstream of Mammoth Pool Powerhouse (Figure CAWG 5-5). The model tended to slightly over-predict maximum temperatures in the SJR upstream of Rock Creek. Upstream of Mammoth Pool Powerhouse, the model tended to under-predict mean and maximum temperatures in late June and early July, but slightly over-predicted temperatures in September.

5.3.2 SIMULATION

Water temperatures in the Mammoth Reach of SJR were simulated for flows of 12.5 to 500 cfs released from Mammoth Pool Reservoir. These were simulated for the months of May through September. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures with average (above normal water year) hydrology and warmer than normal (20 percent exceedance) air temperatures with dry (dry water year) hydrology. Simulations are presented by month and condition in Tables CAWG 5 Appendix D-25 through 34 for daily mean temperatures and Tables CAWG 5 Appendix D-35 through 44 for daily maximum temperatures. Each table presents the simulated water temperature by flow for each distance downstream from the Mammoth Pool Reservoir release point to the SJR for the daily mean or daily maximum temperature. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-25 through 44 for results for daily mean and maximum temperatures. Temperature exceedance tables providing the percentage distance of the modeled stream exceeding each of a range of temperatures by flow release are presented in Tables CAWG 5 Appendix E-25 through 34 for daily mean temperatures and Tables CAWG 5 Appendix E-35 through 44 for daily maximum temperatures. Separate tables are provided for each month for each set of simulation conditions for daily mean and daily maximum temperatures.

5.4 ROCK CREEK

Rock Creek is one of two diverted tributaries to the Mammoth Reach of the SJR. The diversion is located approximately 0.4 miles upstream of the confluence with the river (Map CAWG 5-6). Diverted water is conveyed into Mammoth Pool Power Tunnel. Rock Creek Diversion is designed to operate passively. At very low flows, it does not divert water. It was operational throughout the monitoring period.

Water temperature monitoring stations were located in Rock Creek above the diversion and near the confluence with the SJR.

5.4.1 CALIBRATION AND VALIDATION

The validation statistics for the bypass reach of Rock Creek indicate that predicted daily mean and maximum temperatures were accurate (bias of -0.062°C and -0.025°C , respectively) (Table CAWG 5-13). The probable differences for mean and maximum daily temperatures were $\pm 0.70^{\circ}\text{C}$ and $\pm 0.65^{\circ}\text{C}$, respectively. For the validation set of 38 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 2.22°C and 1.86°C , respectively, or under-predict observed

temperatures by more than 2.01°C and 3.00°C, respectively. The simulated temperatures were a good representation of the observed conditions.

A time-series plot compares simulated daily temperatures to observed values in Rock Creek upstream of the confluence with the SJR (Figure CAWG 5-6). At the diversion, observed temperatures were unavailable between June 30 and July 24, 2001. The simulated temperatures generally followed observed temperature trends. The model tended to slightly over-predict temperatures in late June. The fit was generally close until late August, when the model again slightly over-predicted temperatures, then slightly under-predicted temperatures in late September.

5.4.2 SIMULATION

Water temperatures in Rock Creek were simulated for flows of one to 20 cfs released from Rock Creek Diversion. These were simulated for the months of June through August. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures with average (above normal water year) hydrology and warmer than normal (20 percent exceedance) air temperatures with dry (dry water year) hydrology. Simulations are presented by month and condition in Tables CAWG 5 Appendix D-45 through 50 for daily mean temperatures and Tables CAWG 5 Appendix D-51 through 56 for daily maximum temperatures. Each table presents the simulated water temperature by flow for each distance downstream from the Rock Creek Diversion to the confluence with the SJR for the daily mean and daily maximum temperatures, respectively. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-45 through 56 for results for daily mean and maximum temperatures. Temperature exceedance tables providing the percentage distance of the modeled stream exceeding each of a range of temperatures by flow release are presented in Tables CAWG 5 Appendix E-45 through 50 for daily mean temperatures and Tables CAWG 5 Appendix E-51 through 56 for daily maximum temperatures.

5.5 SAN JOAQUIN RIVER STEVENSON REACH

The Stevenson Reach of the SJR includes the reach between Dam 6 (SJR RM 17.0) and upstream of Big Creek Powerhouse 3³ (SJR RM 11.48), which discharges to Redinger Lake (Maps CAWG 5-6 and 5-8). Dam 6 impounds the Big Creek Powerhouse 3 Forebay. Inflow to the forebay includes flows from the SJR and Big Creek. Most of the inflow is from the Mammoth Pool Powerhouse and Big Creek Powerhouse 8.

Releases from Dam 6 to the SJR contribute the majority of the flow in the SJR between Dam 6 and upstream of Stevenson Creek. Releases are made from the cooler bottom waters of the forebay when the impoundment is thermally stratified during the summer months. The temperature monitoring station downstream of Dam 6 represents release

³ The reach modeled ended at the upstream end of the area that is backwatered by Redinger Lake and the PH 3 tailrace.

water temperature as it first enters the river. A temperature monitoring station also was located upstream of Stevenson Creek.

Stevenson Creek and releases from Dam 6 contribute flow to the SJR upstream of Powerhouse 3. Water from the Powerhouse 3 Forebay (Dam 6) is diverted through Tunnel 3 to Big Creek Powerhouse 3. The tunnel has an invert at the bottom of the impoundment. Flows released at Dam 6 are drawn from deep within the impoundment and therefore provide cool water habitat in the upper portion of this reach in the summer months, when cool water is available from the upstream reservoirs.

5.5.1 CALIBRATION AND VALIDATION

The Stevenson Reach of the SJR was originally modeled as part of the BiCEP study in 1985 (BioSystems 1987a,b,c). In that study, the model resulted in a bias of 0.14°C and a probable error of 0.43°C for daily mean temperatures. This model was adapted for use in the current study, sources and locations of data used were adjusted for the current study, and minor changes were made to account more accurately for structure. The validation statistics for the current study indicate that predicted daily mean and maximum temperatures were accurate (bias of -0.049°C and -0.062°C, respectively) (Table CAWG 5-13). The probable differences for mean and maximum daily temperatures were $\pm 0.42^\circ\text{C}$ and $\pm 0.50^\circ\text{C}$, respectively. For the validation set of 49 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.25°C and 1.90°C, respectively, or under-predict observed temperatures by more than 1.41°C and 1.68°C, respectively. The simulated temperatures were a good representation of the observed conditions.

Simulated temperatures followed observed temperature trends over time upstream of Stevenson Creek (Figure CAWG 5-7). Predicted temperatures generally followed observed temperatures, but the model tended to slightly under-predict temperatures in early July.

5.5.2 SIMULATION

Water temperatures in the Stevenson Reach of SJR were simulated for flows of 2.5 to 400 cfs released from Dam 6. These were simulated for the months of May through September. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures with average (above normal water year) hydrology and warmer than normal (20 percent exceedance) air temperatures with dry (dry water year) hydrology. Simulations are presented by month and condition in Tables CAWG 5 Appendix D-57 through 66 for daily mean temperatures and Tables CAWG 5 Appendix D-67 through 76 for daily maximum temperatures. Tables present the simulated water temperature by flow for each distance downstream from the Dam 6 release point to the Stevenson Reach of the SJR for the daily mean or daily maximum temperatures, respectively. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-57 through 76 for results for daily mean and maximum temperatures. Temperature exceedance tables providing the percentage distance of the modeled stream exceeding

each of a range of temperatures by flow release are presented in Tables CAWG 5 Appendix E-57 through 66 for daily mean temperatures and Tables CAWG 5 Appendix E-67 through 76 for daily maximum temperatures.

5.6 STEVENSON CREEK

Shaver Lake Dam impounds Shaver Lake on Stevenson Creek. Stream inflow to Shaver Lake derives flows primarily from Stevenson and North Fork Stevenson creeks upstream of the lake. The flow in North Fork Stevenson Creek is natural flow augmented by Project releases. Shaver Lake receives most of its volume of water through Eastwood Power Station. Water from Shaver Lake that is not released to Stevenson Creek is diverted through Tunnel 5 to Big Creek Powerhouse 2A.

The bypass reach of Stevenson Creek extends from Shaver Lake Dam (Stevenson Creek RM 4.32⁴) to the confluence with the Stevenson Reach of the San Joaquin River (Stevenson Creek RM 0.0, Map CAWG 5-8). Releases from the dam to Stevenson Creek are made from an outlet located deep within Shaver Lake, which means the coolest water is released when the lake is thermally stratified.

The temperature monitoring station directly downstream of Shaver Lake Dam represents release water temperature as it first enters the stream. Temperature monitoring stations also were located at the Railroad Grade and upstream of the confluence with the SJR⁵.

5.6.1 CALIBRATION AND VALIDATION

The validation statistics for the bypass reach of Stevenson Creek indicate that predicted daily mean and maximum temperatures were accurate (bias of 0.088°C and 0.024°C, respectively) (Table CAWG 5-14). The probable differences for mean and maximum daily temperatures were $\pm 0.40^\circ\text{C}$ and $\pm 0.32^\circ\text{C}$, respectively. For the validation set of 96 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.13°C and 1.51°C, respectively, or under-predict observed temperatures by more than 2.02°C and 1.29°C, respectively. The simulated temperatures were a good representation of the observed conditions.

Simulated temperatures generally followed observed temperature trends over time upstream of the Railroad Grade (Figure CAWG 5-8). Predicted temperatures closely followed observed temperatures. In Stevenson Creek upstream of the SJR confluence, simulated temperatures also closely followed observed temperature trends (Figure CAWG 5-8). The model tended to slightly under-predict mean temperatures in late July and early August.

⁴ River mile designations for this report differ slightly from those presented in the CAWG 5 Monitoring Report due to a greater degree of detail in the digitization of stream reaches

⁵ This location was immediately downstream of a large waterfall, which influenced stream temperatures.

5.6.2 SIMULATION

Water temperatures in Stevenson Creek were simulated for flows of two to 125 cfs released from Shaver Lake. These were simulated for the months of June through August. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures with average (above normal water year) hydrology and warmer than normal (20 percent exceedance) air temperatures with dry (dry water year) hydrology. Simulations are presented by month and condition in Tables CAWG 5 Appendix D-77 through 82 for daily mean temperatures and Tables CAWG 5 Appendix D-83 through 88 for daily maximum temperatures. Each table presents the simulated water temperature by flow for each distance downstream from the Shaver Lake release point to the confluence with the Stevenson Reach of the SJR for the daily mean or daily maximum temperatures, respectively. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-77 through 88 for results for daily mean and maximum temperatures. Temperature exceedance tables providing the percentage distance of the modeled stream exceeding each of a range of temperatures by flow release are presented in Tables CAWG 5 Appendix E-77 through 82 for daily mean temperatures and Tables CAWG 5 Appendix E-83 through 88 for daily maximum temperatures.

5.7 BIG CREEK DAM 4 TO POWERHOUSE 2/2A

This reach of Big Creek (Upper Reach) extends from Dam 4 (Big Creek RM 6.2) to upstream of Big Creek Powerhouse 2/2A located upstream of Dam 5 (Big Creek RM 1.9, Map CAWG 5-7). Diverted tributaries to this bypass reach include Balsam and Ely Creeks. Adit No. 8 Creek is not currently in operation.

Dam 4 creates a medium-size pool (60 af) in Big Creek. It forms the Big Creek Powerhouse 2 Forebay. Inflow to the forebay comes from the Big Creek Powerhouse 1 tailrace, Big Creek upstream of Big Creek Powerhouse 1, and Pitman Creek. The temperature monitoring station downstream of Dam 4 represents water temperatures at the upstream end of the bypass reach. A temperature monitoring station also was located upstream of Balsam Creek, as well as upstream of Powerhouse 2/2A.

Water entering the forebay is diverted through Tunnel 2 to Big Creek Powerhouse 2 located upstream of Dam 5. Flow entering Big Creek below Dam 4 primarily consists of seepage and spills. There is no minimum instream flow release requirement to this reach in the current license.

5.7.1 CALIBRATION AND VALIDATION

A temperature model of the Upper Reach of Big Creek was initially constructed as part of the BiCEP study in 1985 (BioSystems 1987a,b,c). However, information on this model was incomplete and the model had to be restructured for use in this study. No validation statistics were available for the original model. The validation statistics for the current model indicate that predicted daily mean and maximum temperatures were accurate (bias of 0.078°C and -0.022°C, respectively) (Table CAWG 5-14). The

probable differences for mean and maximum daily temperatures were $\pm 0.62^{\circ}\text{C}$ and $\pm 0.73^{\circ}\text{C}$, respectively. For the validation set of 126 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 2.96°C and 2.66°C , respectively, or under-predict observed temperatures by more than 2.23°C and 2.94°C , respectively. The simulated temperatures were a good representation of the observed conditions.

A time-series plot compares simulated daily temperatures to observed values in Big Creek downstream of Dam 4 (Figure CAWG 5-9). The simulated temperatures followed observed temperature trends. The model tended to under-predict temperatures in October. Predicted temperatures followed observed temperature trends in Big Creek upstream of Powerhouse 2/2A (Figure CAWG 5-9). The fit was generally close until September and October, when the model slightly under-predicted temperatures, particularly for daily maximums.

5.7.2 SIMULATION

Water temperatures in the Dam 4 to Powerhouse 2/2A (Upper) Big Creek reach were simulated for flows of one to 100 cfs released from Dam 4. These were simulated for the months of May through August. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures with average (above normal water year) hydrology and warmer than normal (20 percent exceedance) air temperatures with dry (dry water year) hydrology. Simulations are presented by month and condition in Tables CAWG 5 Appendix D-89 through 96 for daily mean temperatures and Tables CAWG 5 Appendix D-97 through 104 for daily maximum temperatures. Each table presents the simulated water temperature by flow for each distance downstream from the Dam 4 release point to upstream of Powerhouse 2/2A for daily mean or daily maximum temperatures, respectively. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-89 through 104 for results for daily mean and maximum temperatures. Temperature exceedance tables providing the percentage distance of the Upper Big Creek reach exceeding each of a range of temperatures by flow release are presented in Tables CAWG 5 Appendix E-97 through 96 for daily mean temperatures and Tables CAWG 5 Appendix E-97 through 104 for daily maximum temperatures.

5.8 BIG CREEK DAM 5 TO POWERHOUSE 8

This reach of Big Creek extends from Dam 5 (Big Creek RM 1.65) to Big Creek Powerhouse 8 (Big Creek RM 0.0) (Lower Reach) (Map CAWG 5-6 and 5-7). Dam 5 creates a medium-size pool (49 af) in Big Creek. It forms the Big Creek Powerhouse 8 Forebay. Most of the inflow to the forebay comes from Huntington Lake via Big Creek Powerhouse 2 (derived from the tailrace at Powerhouse 1 at Dam 4) and Shaver Lake via Big Creek Powerhouse 2A.

Water impounded behind Dam 5 is diverted through Tunnel 8 to Big Creek Powerhouse 8 near the confluence with the San Joaquin River, but some of the water is released into Big Creek downstream of Dam 5. Flows are released from deep within the forebay.

The temperature monitoring station downstream of Dam 5 represents water temperatures at the upstream end of the bypass reach. A temperature monitoring station was also located in Big Creek upstream of Powerhouse 8 (Big Creek RM 0.1).

5.8.1 CALIBRATION AND VALIDATION

The Lower Reach of Big Creek was originally modeled as part of the BiCEP study in 1985 (BioSystems 1987a,b,c). In that study, the model resulted in a bias of -0.21°C and a probable error of 0.41°C for daily mean temperatures. This model was adapted for use in the current study; sources and locations of data used were adjusted for the current study. The validation statistics for this reach of Big Creek indicate that predicted daily mean and maximum temperatures were accurate (bias of 0.005°C and -0.049°C , respectively) (Table CAWG 5-14). The probable differences for mean and maximum daily temperatures were $\pm 0.43^{\circ}\text{C}$ and $\pm 0.64^{\circ}\text{C}$, respectively. For the validation set of 49 points, simulated mean and maximum water temperatures did not over-predict observed temperatures by more than 1.19°C and 1.49°C , respectively, or under-predict observed temperatures by more than 1.58°C and 3.16°C , respectively. The simulated temperatures were a good representation of the observed conditions.

A time-series plot compares simulated daily temperatures to observed values in Big Creek upstream of Powerhouse 8 (Figure CAWG 5-10). The simulated temperatures followed observed temperature trends and the fit was generally close.

5.8.2 SIMULATION

Water temperatures in the Dam 5 to Powerhouse 8 (Lower) Big Creek reach were simulated for flows of one to 125 cfs released from Dam 5. These were simulated for the months of May through August. Two combinations of meteorology and hydrology conditions also were simulated. These represent long-term average air temperatures with average (above normal water year) hydrology and warmer than normal (20 percent exceedance) air temperatures with dry (dry water year) hydrology. Simulations are presented by month and condition in Tables CAWG 5 Appendix D-105 through 112 for daily mean temperatures and Tables CAWG 5 Appendix D-113 through 120 for daily maximum temperatures. Each table presents the simulated water temperature by flow for each distance downstream from the Dam 5 release point to upstream of Powerhouse 8 for daily mean or daily maximum temperatures, respectively. Plots of temperature simulations with distance downstream are presented in Figures CAWG 5 Appendix D-105 through 120 for results for daily mean and maximum temperatures. Temperature exceedance tables providing the percentage distance of the Lower Reach of Big Creek exceeding each of a range of temperatures by flow release are presented in Tables CAWG 5 Appendix E-105 through 112 for daily mean temperatures and Tables CAWG 5 Appendix E-113 through 120 for daily maximum temperatures.

5.9 SENSITIVITY ANALYSIS OF BEAR, MONO, AND CAMP 61 CREEKS

As discussed in Section 3.3.4, a sensitivity analysis was conducted to determine the potential effect of flow releases from Mono and Bear Creeks on the water temperatures

in the SFSJR (Map CAWG 5-3). The purpose of the analysis is to determine whether flows released from these creeks, rather than Florence Lake, can more efficiently cool the SFSJR. This would be the case if their releases could bring temperatures to below the preliminary evaluation criteria of 19°C daily mean temperature and 24°C daily maximum temperature over the entire length of the SFSJR downstream of the stream confluences.

A subsequent analysis evaluating the effects of flow releases from Camp 61 Creek on SFSJR water temperatures was conducted by SCE. That analysis also is reported here.

5.9.1 BEAR AND MONO CREEKS

An initial sensitivity analysis of flow releases was conducted for Bear and Mono Creeks using a range of flows that exceeded unimpaired flows for summer months. That analysis is reported in Appendix I, but was superseded by the analysis presented below.

Test 1 of this phase of the current analysis included simulations of flows representing the 80, 50 and 20 percent exceedance values of unimpaired Bear Creek flows for the appropriate water year types simulated; and separate simulations of Mono Creek for flows of 80, 50, and 20 percent exceedance values. Flows represented by these exceedance values by stream, month, and water year type (above normal and dry) are presented in Table CAWG 5-15. Simulations were made for the months of July and August for average and extreme conditions, similar to those used for simulations of the SFSJR discussed above. These simulations were based on the coolest available water (at the diversion) being released at the confluence with the SFSJR. This is a “best case” cooling assumption, since it ignores potential warming that occurs between the diversion and the confluence with the SFSJR. It represents the theoretical coolest water that could be available at the confluence with the SFSJR. Simulation results are presented in Appendix F of this report.

Temperature simulation outputs for average conditions for mean and maximum temperatures are provided in Tables CAWG 5 Appendix F-1 through 4. Those tables indicate that during “average” conditions for July, water temperatures in the SFSJR are generally less than the preliminary temperature criteria, with the exception of the bottom 2.7 miles of the reach at the base line flow and the bottom 0.03 mile of the reach at the simulated 80 percent exceedance Bear Creek release flows for the daily mean temperature criterion of 19°C. For August, temperatures at all simulated flows were less than the preliminary criteria. For extreme conditions (Tables CAWG 5 Appendix F-5 through 8), simulated water temperatures in July exceeded the daily mean temperature criterion of 19°C at all simulated release flows. Simulated water temperatures in the lower portion of the reach in August exceeded the daily mean temperature criterion of 19°C at all simulated Bear Creek flows, but not the simulated Mono Creek flows. In both months, the location of the portion of the reach that exceeded 19°C differed, depending upon the release point and the flow. Maximum daily water temperatures did not reach 24°C for any of the simulations. Temperature

exceedance tables providing the percentage length of the SFSJR exceeding each a range of temperatures are provided in Tables CAWG 5 Appendix F-9 through 16.

These results suggest that during the warmest periods, even the largest of the flows analyzed from a single release point, at the coldest release water temperature, would not reduce daily mean water temperatures throughout the reach to below the 19°C criteria. This is due to insufficient flow available from Bear Creek under these conditions and the occurrence of temperatures over 19°C upstream of Mono Creek. However, large flow releases from more than one source could result in attaining no reach length exceeding 19°C.

Since 50 and 20 percent exceedance flows released from Mono Creek resulted in daily mean temperatures in the SFSJR downstream of Mono Creek of less than 19°C, Test 2 was carried out for these two flows. Test 2 of Phase 1 consisted of simulation of the effect of these release flows using water temperatures actually observed in Mono Creek immediately upstream of the confluence with the SFSJR. These are the warmest release temperatures that could be reasonably expected at this location for the simulation conditions. The results of these simulations for daily mean and maximum temperatures in the SFSJR are reported in Tables CAWG 5 Appendix F-17 through 24.

For average conditions, the results of Test 2 indicate that daily mean water temperatures downstream of the release point were less than 19°C for both flows (Tables CAWG 5 Appendix F-17 and 18). For extreme conditions in July, water temperatures in the downstream portion of the reach exceeded 19°C for 50 percent exceedance Mono Creek flows, but not for 20 percent exceedance flows (Tables CAWG 5 Appendix F-21 through 24 for daily mean and maximum temperatures). However, the percentage of the reach exceeding 19°C was substantially reduced from the baseline case. For extreme conditions in August, water temperatures downstream of Mono Creek exceeded 19°C at the 50 and 20 percent exceedance release flows. Additionally, for extreme conditions (dry water year and hot air temperatures) in July, water temperatures upstream of Mono Creek included lengths that exceeded 19°C. Maximum daily water temperatures did not exceed 24°C for any of these simulations. Temperature exceedance tables providing the percentage length of the SFSJR exceeding each a range of temperatures for Test 2 are provided in Tables CAWG 5 Appendix F-25 through 32.

5.9.2 CAMP 61 CREEK

Phase 1 of the analysis included simulations of Camp 61 Creek for flows of 10 through 100 cfs. Simulations were made for the months of July and August for average and extreme conditions.

Temperature simulation outputs for average conditions for mean and maximum temperatures are provided in Tables CAWG 5 Appendix F-33 through 36. Those tables indicate that during “average” conditions for July, water temperatures in the SFSJR are generally less than the preliminary temperature criteria, with the exception of the bottom 1.7 mile of the reach at the 10 cfs Camp 61 Creek release flow and the bottom 0.2 mile

for the 20 cfs release flow for the daily mean temperature criterion of 19°C. For August, temperatures at all simulated flows were less than the preliminary criteria. For extreme conditions (Tables CAWG 5 Appendix F-37 through 40), simulated water temperatures in July reached or exceeded the daily mean temperature criterion of 19°C at simulated Camp 61 Creek release flows of 10 to 60 cfs in the bottom 7.3 to 0.2 miles, respectively, of the reach. Simulated water temperatures in August reached or exceeded the daily mean temperature criterion of 19°C at simulated flows of 10 to 50 cfs in the lower 4.6 to 0.2 mile portion of the reach. Maximum daily water temperatures did not reach 24°C for any of the simulations. Temperature exceedance tables providing the percentage length of the SFSJR exceeding each a range of temperatures are provided in Tables CAWG 5 Appendix F-41 through 48.

5.10 INFLOWS TO REDINGER LAKE

A heat balance analysis was conducted to estimate water temperature of inflow to Redinger Lake at a range of flow releases from Dam 6 and Powerhouse 3. Simulations were made by month and simulation condition (water year type and air temperature). Estimated temperatures of inflows to Redinger Lake are presented by flow releases from Dam 6 (2.5 to 400 cfs) and flows from Powerhouse 3 (median, 20 percent exceedance and 80 percent exceedance) (Tables CAWG 5 Appendix G-1 and G-2). The analysis shows that the volume of flow released from Dam 6 does not substantially affect estimated water temperature of fully mixed inflows to Redinger Lake within the range of the flows released from Powerhouse 3.

6.0**REFERENCES CITED**

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TABLES

Table CAWG 5-1. Temperature Characteristics of Stratified Layers - Florence Lake, 2000-2001¹.

2000	Epilimnion²				Hypolimnion³			
Month	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)
July	16.3	10	28,280	48	11.4	8	23,176	39
Aug	15.9	16	34,115	88	14.0	16	3,621	9
Sept ⁵	15.7 ⁶	-----	23,127 ⁶	100 ⁶	15.7 ⁶	-----		
Oct ⁵	11.3 ⁶	-----	23,113 ⁶	100 ⁶	11.3 ⁶	-----		

2001	Epilimnion²				Hypolimnion³			
Month	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)
May	10.7	5	13,625	32	6.6	21	26748	63
June	17.3	7	19,783	37	9.8	16	23,879	44
July	17.8	8	22,104	44	13.7	14	26,023	52
Aug	19.4	13	31,509	72	15.2	7	10,508	24
Sept	17.2	16	24,865	98	12.3	2	0	0
Oct ⁵	13.3 ⁶	-----	4,085 ⁶	100 ⁶	13.3 ⁶	-----		

¹ - Data presented is from the deepest profile site (dam end).
² - Epilimnion is the warm upper layer above the thermocline.
³ - Hypolimnion is the cool lower layer below the thermocline, volume includes dead storage.
⁴ - Average water temperature within layer (not including the thermocline).
⁵ - Average temperature at profile site - Reservoir not stratified.
⁶ - Reservoir was not stratified. Value represents mixed temperature of the entire reservoir.

Table CAWG 5-2. Temperature Characteristics of Stratified Layers - Florence Lake, 2000-2001.

Temperature (°C)	7/12/2000 ¹		8/22/2000 ¹		9/22/2000 ¹		10/25/2000 ¹	
	Elevation (ft) ²	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
20								
18	7321 ²	58730						
16	7287	29699	7298 ²	38781	7277 ²	23127		
14	7282	26023	7242	3621				
12	7273	19743					7277 ²	23113
10	7252	7528						
8								
6								
4								
2								

¹ Date sampled.

² Upper most elevation for each date is the water surface elevation of the lake.

Table CAWG 5-2. Temperature Characteristics of Stratified Layers - Florence Lake, 2000-2001 (continued).

Temperature (°C)	5/19/2001		6/20/2001		7/16/2001		8/13/2001		9/16/2001		10/13/2001	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
20			7316	54062			7304	43692				
18			7312	49160	7312	50317	7264	13368	7281	25483		
16	7303	42579	7292	33503	7281	24588	7255	8462	7227	495		
14	7302	41492	7289	30450	7264	13970	7236	1987			7243	4085
12	7301	39851	7280	24588	7242	3292						
10	7293	34279	7255	8950								
8	7284	26748	7235	1578								
6												
4												
2												

Table CAWG 5-3. Temperature Characteristics of Stratified Layers - Lake Edison, 2000-2001.

2000	Epilimnion²				Hypolimnion³			
Month	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)
July	16.9	7	40,334	35	10.8	5	59,708	52
Sept ⁵	13.2 ⁶	-----	80,193 ⁶	100 ⁶	13.2 ⁶	-----		
Nov ⁵	8.8 ⁶	-----	78,730 ⁶	100 ⁶	8.8 ⁶	-----		

2001	Epilimnion²				Hypolimnion³			
Month	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)
May	12.6	6	28,499	44	8.7	12	33,291	51
June	16.0	10	48,627	59	9.8	12	29,709	36
July	17.6	9	44,609	54	10.4	11	23,326	28
Aug	18.8	13	54,011	78	12.0	5	12,967	19
Sept ⁵	16.8 ⁶	-----	48,156 ⁶	100 ⁶	16.8 ⁶	-----		
Oct ⁵	14.3 ⁶	-----	46,965 ⁶	100 ⁶	14.3 ⁶	-----		

- ¹ - Data presented is from the deepest profile site (dam end).
- ² - Epilimnion is the warm upper layer above the thermocline.
- ³ - Hypolimnion is the cool lower layer below the thermocline, volume includes dead storage.
- ⁴ - Average water temperature within layer (not including the thermocline).
- ⁵ - Average temperature at profile site - Reservoir not stratified.
- ⁶ - Reservoir was not stratified. Value represents mixed temperature of the entire reservoir.

Table CAWG 5-4. Temperature Characteristics of Stratified Layers - Lake Edison, 2000-2001.

Temperature (°C)	7/12/2000		9/20/2000		11/9/2000	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
24						
22						
20						
18	7637	115506	7617	80193		
16	7615	75172	7607	64162		
14	7611	70255	7558	8171		
12	7605	61193	7551	4599		
10	7588	38066			7616	78730
8						
6						
4						
2						

Table CAWG 5-4. Temperature Characteristics of Stratified Layers - Lake Edison, 2000-2001 (continued).

Temperature (°C)	5/19/2001		6/19/2001		7/16/2001		8/13/2001		9/17/2001		10/12/2001	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
24												
22												
20					7618	82675	7610	69563				
18			7618	83112	7611	68616	7570	17275	7595	48156		
16			7595	47112	7585	33291	7566	14691			7594	46965
14	7607	65371	7587	35678	7580	28515	7565	12967				
12	7592	41786	7583	32097	7577	25402	7555	5631				
10	7584	32097	7574	22288								
8												
6												
4												
2												

Table CAWG 5-5. Temperature Characteristics of Stratified Layers - Mammoth Pool Reservoir, 2000-2001.

2000	Epilimnion ²				Hypolimnion ³				
	Month	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)
	Sept ⁵	18.1 ⁶	-----	44,988 ⁶	100 ⁶	18.1 ⁶	-----		
	Oct ⁵	13.3 ⁶	-----	19,302 ⁶	100 ⁶	13.3 ⁶	-----		

2001	Epilimnion ²				Hypolimnion ³				
	Month	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)
	early June ⁵	14.4 ⁶	-----	115,082 ⁶	100 ⁶	14.4 ⁶	-----		
	June	21.7	4	14,285	13	15.0	43	83,382	79
	July	22.6	7	21,614	22	17.4	36	69,620	72
	Aug ⁵	21.1 ⁶	-----	71,667 ⁶	100 ⁶	21.1 ⁶	-----		
	Sept ⁵	20.2 ⁶	-----	33,389 ⁶	100 ⁶	20.2 ⁶	-----		
	Oct ⁵	18.0 ⁶	-----	17,580 ⁶	100 ⁶	18.0 ⁶	-----		

- ¹ - Data presented is from the deepest profile site (dam end).
- ² - Epilimnion is the warm upper layer above the thermocline.
- ³ - Hypolimnion is the cool lower layer below the thermocline, volume includes dead storage.
- ⁴ - Average water temperature within layer (not including the thermocline).
- ⁵ - Average temperature at profile site - Reservoir not stratified.
- ⁶ - Reservoir was not stratified. Value represents mixed temperature of the entire reservoir.

Table CAWG 5-6. Temperature Characteristics of Stratified Layers - Mammoth Pool Reservoir, 2000-2001.

Temperature (°C)	7/13/2000*		9/11/2000		10/30/2000	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
26						
24						
22	3314	103771				
20	3291	80697	3243	44988		
18	3288	78941	3227	34415		
16	3267	60872			3194	19302
14					3165	9855
12						
10						
8						
6						
4						
2						

* Reservoir profile on July 13, 2000 was taken near the inflow end of the lake at a depth of 32 meters.

Table CAWG 5-6. Temperature Characteristics of Stratified Layers - Mammoth Pool Reservoir, 2000-2001 (continued).

Temperature (°C)	6/5/2001		6/22/2001		7/17/2001		8/14/2001		9/19/2001		10/17/2001	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
26												
24					3307	97111	3279	71667				
22			3316	105934	3283	74644	3232	37885	33389	33389		
20	3325	115082	3298	87014	3274	66362	3213	27450			17580	17580
18	3318	106267	3288	78941	3245	45350	3170	10895				
16	3301	90713	3269	63178	3220	31109						
14	3276	68800	3226	34415								
12	3205	23160										
10												
8												
6												
4												
2												

Table CAWG 5-7. Temperature Characteristics of Stratified Layers - Huntington Lake, 2000-2001.

2000	Epilimnion²				Hypolimnion³			
Month	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)
Aug	15.4	16	60,423	69	10.7	29	16,370	19
Oct ⁵	12.5 ⁶	-----	63,442 ⁶	100 ⁶	12.5 ⁶	-----		

2001	Epilimnion²				Hypolimnion³			
Month	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C)⁴	Thickness (m)	Volume (af)	Volume (%)
May	11.3	4	19,821	23	6.5	35	62,555	73
June	16.2	7	30,152	34	10.5	10	49,700	57
July	18.1	8	35,308	40	11.5	30	46,432	53
Aug	19.2	8	35,021	40	13.1	26	46,432	53
Sept ⁵	15.1 ⁶	-----	85,093 ⁶	100 ⁶	15.1 ⁶	-----		
Oct ⁵	14.6 ⁶	-----	79,804 ⁶	100 ⁶	14.6 ⁶	-----		

¹ - Data presented is from the deepest profile site (dam end).

² - Epilimnion is the warm upper layer above the thermocline.

³ - Hypolimnion is the cool lower layer below the thermocline, volume includes dead storage.

⁴ - Average water temperature within layer (not including the thermocline).

⁵ - Average temperature at profile site - Reservoir not stratified.

⁶ - Reservoir was not stratified. Value represents mixed temperature of the entire reservoir.

Table CAWG 5-8. Temperature Characteristics of Stratified Layers - Huntington Lake, 2000-2001.

Temperature (°C)	8/9/2000		10/26/2000	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
22				
20	6949	87922		
18	6946	82124		
16	6942	78025		
14	6893	25126	6930	63442
12	6887	20098		
10	6821	73		
8				
6				
4				
2				

Table CAWG 5-8. Temperature Characteristics of Stratified Layers - Huntington Lake, 2000-2001 (continued).

Temperature (°C)	5/15/2001		6/21/2001		7/18/2001		8/11/2001		9/15/2001		10/15/2001	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
22												
20					6949	88380	6949	88093				
18			6949	87878	6926	56546	6922	51936	6947	85093		
16			6939	74019	6920	49700	6918	47510	6886	20098	6943	79804
14			6923	53072	6912	42240	6899	29153	6869	10857	6835	1410
12	6947	86105	6915	45366	6897	28319	6880	16370	6823	142	6822	142
10	6932	63788	6901	30861	6849	3994						
8	6920	50812										
6	6886	19440										
4												
2												

Table CAWG 5-9. Temperature Characteristics of Stratified Layers - Shaver Lake, 2000-2001.

2000	Epilimnion ²				Hypolimnion ³			
Month	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)
Aug ⁵	14.9 ⁶	-----	129,519 ⁶	100 ⁶	14.9 ⁶	-----		
Sept ⁵	17.2 ⁶	-----	115,119 ⁶	100 ⁶	17.2 ⁶	-----	31,112 ⁷	
Oct ⁵	15.0 ⁶	-----	89,420 ⁶	100 ⁶	15.0 ⁶	-----		

2001	Epilimnion ²				Hypolimnion ³			
Month	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)	Water Temp (°C) ⁴	Thickness (m)	Volume (af)	Volume (%)
May	16.1	1	8,482	7	7.6	36	90,817	77
June	19.7	4	28,992	22	11.4	38	83,601	65
July	21.1	6	25,279	20	13.6	33	80,131	64
Aug ⁵	16.8 ⁶	-----	116,900 ⁶	100 ⁶	16.8 ⁶	-----	14,158 ⁸	
Sept ⁵	18.0 ⁶	-----	107,418 ⁶	100 ⁶	18.0 ⁶	-----		
Oct ⁵	17.9 ⁶	-----	102,115 ⁶	100 ⁶	17.9 ⁶	-----		

¹ - Data presented is from the deepest profile site (dam end).

² - Epilimnion is the warm upper layer above the thermocline.

³ - Hypolimnion is the cool lower layer below the thermocline, volume includes dead storage.

⁴ - Average water temperature within layer (not including the thermocline).

⁵ - Average temperature at profile site - Reservoir not stratified.

⁶ - Reservoir was not stratified. Value represents mixed temperature of the entire reservoir.

⁷ - There was 31,112 af of cold water (≤14.0°C) at the bottom of the reservoir; 24,957 af was ≤13.0°C, and 9,737 af was ≤12.0°C.

⁸ - Volume of a mass of cold water (≤14.2°C) at the bottom of the reservoir.

Table CAWG 5-10. Temperature Characteristics of Stratified Layers - Shaver Lake, 2000-2001.

Temperature (°C)	8/8/2000		9/25/2000		10/27/2000	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
24						
22						
20	5367	129519				
18	5344	83601	5360	115119		
16	5331	60942			5347	89420
14	5308	31112				
12	5282	9737				
10						
8						
6						
4						
2						

Table CAWG 5-10. Temperature Characteristics of Stratified Layers - Shaver Lake, 2000-2001 (continued).

Temperature (°C)	5/18/2001		6/21/2001		7/15/2001		8/11/2001		9/15/2001		10/15/2001	
	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)	Elevation (ft)	Volume (af)
24							5361	116900				
22			5367	129304	5365	125591	5344	83601	5356	107418		
20			5365	122477	5344	83601	5330	60942	5318	44187	5353	102115
18	5362	118655	5350	94568	5335	68594	5312	36778	5267	3480	5307	31112
16	5360	112190	5345	85370	5321	46797	5300	23072	5238	146		
14	5354	102251	5329	59452	5308	31112	5289	14158				
12	5350	92680	5310	34455	5290	14870	5252	788				
10	5337	71793	14158	14158	5236	97						
8	5316	41645										
6												
4												
2												

Table CAWG 5-11. SNTMP Model Nodes by Reach Used for Temperature Model Calibration and Validation.

Study Reach	SNTMP Node Type ¹	Model Temperature Node Location
SFSJR1 ² (Florence Lake to Bear Creek)	P	Bear Creek Upstream of SFSJR
	P	Crater Creek Upstream of SFSJR
	P	Hooper Creek Upstream of SFSJR
	P	North Slide Creek
	H	SFSJR Downstream of Florence Dam
	V	SFSJR Downstream of Jackass Meadow
	V	SFSJR Upstream of Bear Creek
	V	SFSJR Upstream of Crater Creek
	V	SFSJR Upstream of Hooper Creek
	V	SFSJR Upstream of Mono Hot Spring
	P	South Slide Creek
	P	Tombstone Creek
SFSJR2 (Bear Creek to Mono Creek)	P	Bear Creek Upstream of SFSJR
	P	Bolsillo Creek Upstream of SFSJR
	P	Camp 61 Creek Upstream of SFSJR
	P	Camp 62 Creek Upstream of SFSJR
	P	Mono Creek Upstream of SFSJR
	H	SFSJR Upstream of Bear Creek
	V	SFSJR Upstream of Bolsillo Creek
	V	SFSJR Upstream of Camp 61 Creek
	V	SFSJR Upstream of Camp 62 Creek
	V	SFSJR Upstream of Mono Hot Spring
	V	SFSJR Upstream of Mono Creek
	V	SFSJR Upstream of Warm Creek
SFSJR3 (Mono Creek to Hoffman Creek)	P	Four Forks Creek
	P	Mono Creek Upstream of SFSJR
	P	Rattlesnake Creek
	V	SFSJR Upstream of Hoffman Creek
	H	SFSJR Upstream of Mono Creek
	V	SFSJR Upstream of Rattlesnake Creek
	V	SFSJR Upstream of Warm Creek
	P	Warm Creek Upstream of South Fork
SFSJR4 (Hoffman Creek to SJR Mammoth Pool)	P	Reconnaissance Creek
	P	Hoffman Creek
	P	Rube Creek
	H	SFSJR Upstream of Hoffman Creek

Table CAWG 5-11. SNTMP Model Nodes by Reach Used for Temperature Model Calibration and Validation (continued).

	V	SFSJR Upstream of SJR Confluence	
	P	SJR Upstream of Confluence	
	V	SJR Upstream of Mammoth Pool	
SJR Mammoth Reach	P	Fish Creek Upstream of SJR	
	P	Horsethief Creek Upstream of SJR	
	H	Mammoth Pool Dam Release	
	P	Douglas Creek	
	P	Slot Creek	
	P	Rock Creek Upstream of SJR	
	P	Ross Creek Upstream of SJR	
	P	Shakeflat Creek Upstream SJR	
	V	SJR Downstream of Mammoth Pool	
	V	SJR Upstream of Mammoth Pool Powerhouse	
	V	SJR Upstream of Rock Creek	
	Rock Creek	H	Rock Creek Diversion
		V	Rock Creek Upstream of SJR
SJR Stevenson Reach	P	Hooker Creek	
	H	SJR Downstream of Dam 6	
	V	SJR Upstream of Stevenson Creek	
	P	Stevenson Creek Upstream of SJR	
Stevenson Creek	P	Shaver Lake Dam Release	
	H	Stevenson Creek Downstream of Shaver Dam	
	V	Stevenson Creek Railroad Grade	
	V	Stevenson Creek Upstream of SJR	
Big Creek Dam 4 to PH 2	P	Balsam Creek Upstream of Big Creek	
	H	Big Creek Downstream of Dam 4	
	V	Big Creek Upstream of Balsam Creek	
	V	Big Creek Upstream of PH 2	
	P	Ely Creek Upstream of Big Creek	
	P	Sheep Thief Creek	
Big Creek Dam 5 to PH 8	H	Big Creek Downstream of Dam 5	
	V	Big Creek Upstream of PH 8	

¹ H is a node at the start of a study reach. P is a node that represents tributary inflow. V is a downstream temperature validation node.

² SFSJR = South Fork San Joaquin River.

Table CAWG 5-12. South Fork San Joaquin River to Mammoth Pool Daily Mean and Daily Maximum Validation Statistics by Reach.

Reach	Temperature Predicted (Mean or Maximum)	n ¹	Bias (°C)	Standard Difference	Probable Difference	Maximum Under (°C)	Maximum Over (°C)
SFSJR1 (Florence Lake to Bear Creek)	Mean	200	0.05	0.50	0.34	-1.94	1.48
	Maximum	200	-0.06	0.65	0.44	-1.30	1.87
SFSJR2 (Bear Creek to Mono Creek)	Mean	282	0.02	0.35	0.24	-0.89	1.02
	Maximum	282	0.40	.071	0.48	-1.58	2.22
SFSJR3 (Mono Creek to Hoffman Creek)	Mean	147	-0.018	0.54	0.36	-1.42	1.85
	Maximum	147	-0.383	0.86	0.58	-2.47	2.57
SFSJR4 (Hoffman Creek to SJR Mammoth Pool)	Mean	98	0.024	0.44	0.30	-1.51	1.35
	Maximum	98	0.057	0.37	0.25	-1.14	1.02

¹ Number values in validation set (locations x days).

Table CAWG 5-13. Mammoth and Stevenson Reaches of the San Joaquin River including Rock Creek Daily Mean and Daily Maximum Validation Statistics by Reach.

Reach	Temperature Predicted (Mean or Maximum)	n ¹	Bias (°C)	Standard Difference	Probable Difference	Maximum Under (°C)	Maximum Over (°C)
SJR Mammoth Reach	Mean	120	-0.02	0.51	0.34	-1.85	1.34
	Maximum	120	0.00	0.69	0.47	-1.66	1.92
Rock Creek	Mean	38	-0.062	1.03	0.70	-2.01	2.22
	Maximum	38	-0.025	0.97	0.65	-3.00	1.86
SJR Stevenson Reach	Mean	49	-0.049	0.62	0.42	-1.41	1.25
	Maximum	49	-0.062	0.74	0.50	-1.68	1.90

¹ Number values in validation set (locations x days).

Table CAWG 5-14. Big Creek and Stevenson Creek Daily Mean and Daily Maximum Validation Statistics by Reach.

Reach	Temperature Predicted (Mean or Maximum)	n ¹	Bias (°C)	Standard Difference	Probable Difference	Maximum Under (°C)	Maximum Over (°C)
Stevenson Creek	Mean	96	0.088	0.59	0.40	-2.02	1.13
	Maximum	96	0.024	0.47	0.32	-1.29	1.51
Big Creek Dam 4 to PH 2	Mean	126	0.078	0.92	0.62	-2.23	2.96
	Maximum	126	-0.022	1.08	0.73	-2.94	2.66
Big Creek Dam 5 to PH 8	Mean	49	0.005	0.64	0.43	-1.58	1.19
	Maximum	49	-0.049	0.94	0.64	-3.16	1.49

¹ Number values in validation set (locations x days).

Table CAWG 5-15. Unimpaired Exceedance Flows Used for Bear and Mono Creeks Sensitivity Analysis.

Stream		Bear Creek ¹		Mono Creek ²	
Month		July	August	July	August
WY Type	Percent Exceedance				
Above Normal	80	66.00	27.00	117.00	47.90
Above Normal	50	133.00	42.00	235.90	74.50
Above Normal	20	215.00	75.00	381.30	133.00
Dry	80	32.00	10.00	56.70	17.70
Dry	50	61.00	16.00	108.20	28.40
Dry	20	84.00	25.00	149.00	44.30

¹ Flows based on USGS Gage upstream of Bear Diversion

² Flows based on unimpaired Mono Creek Flows at Mono Diversion

FIGURES

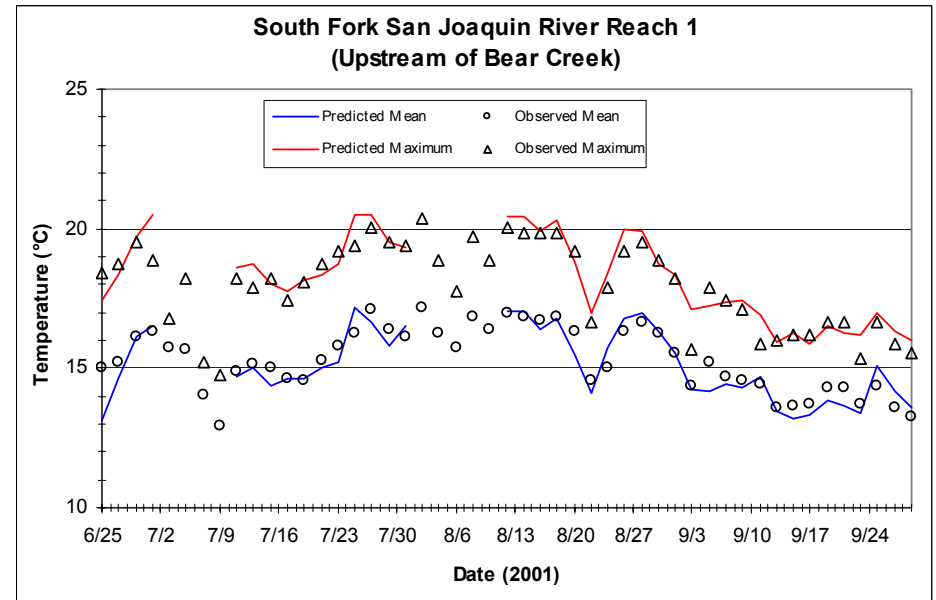
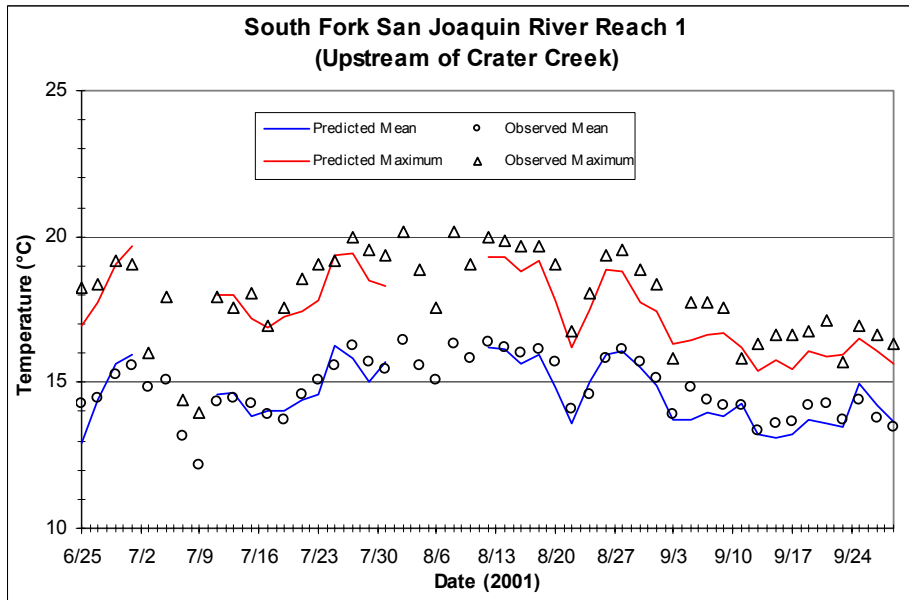
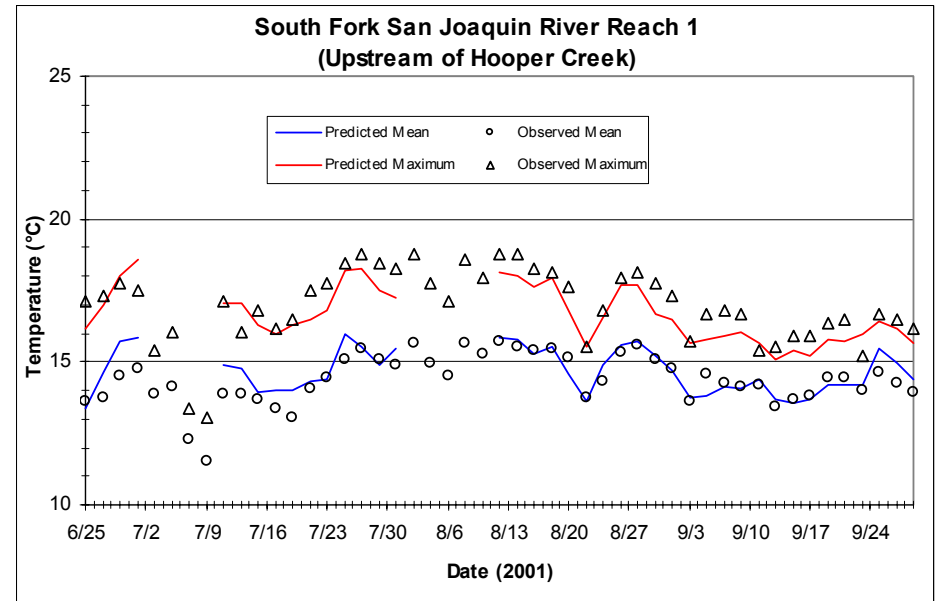
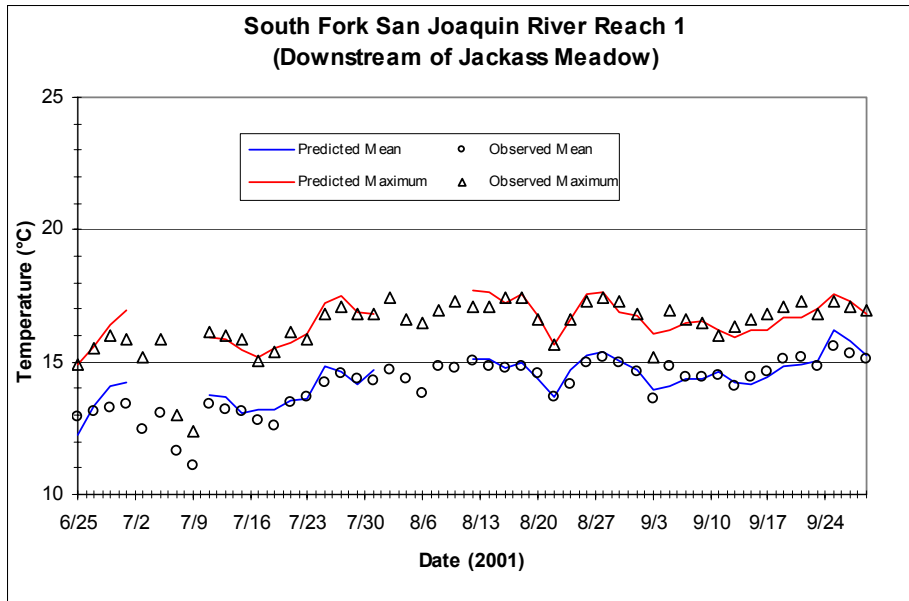


Figure CAWG 5-1. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for South Fork San Joaquin River Reach 1.

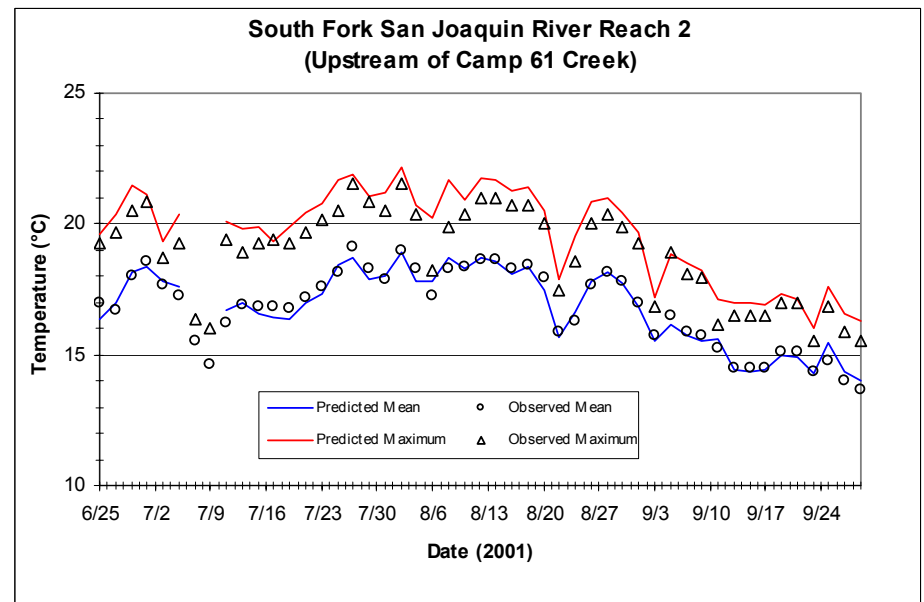
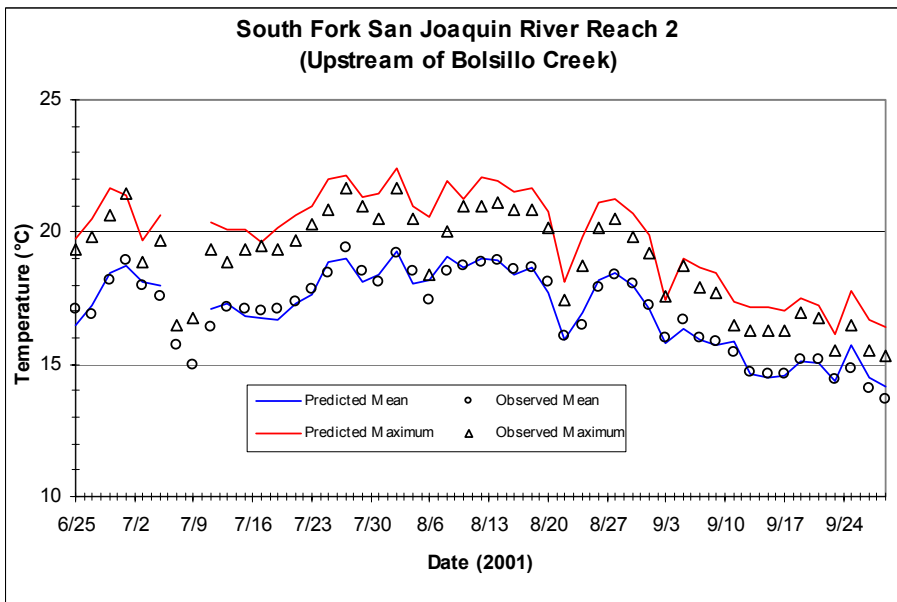
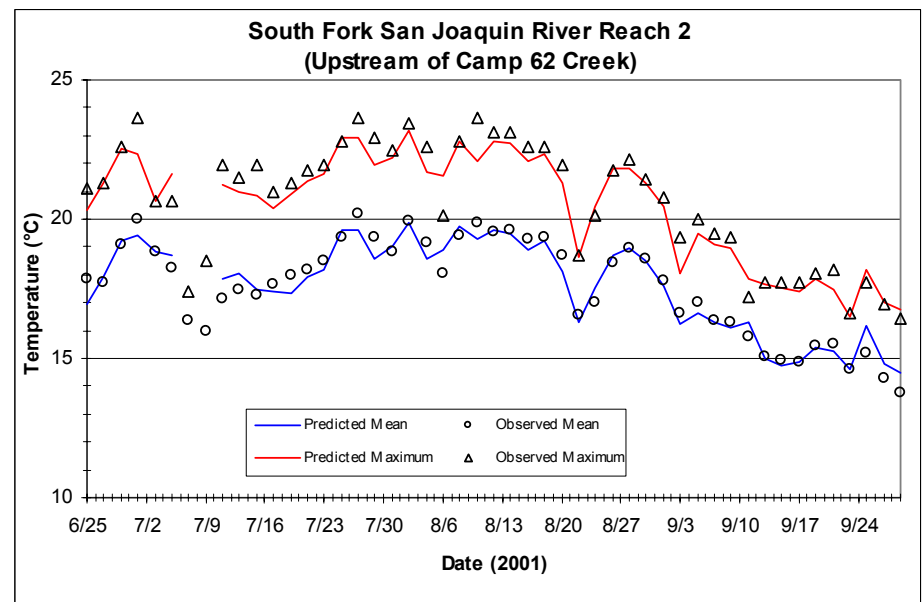
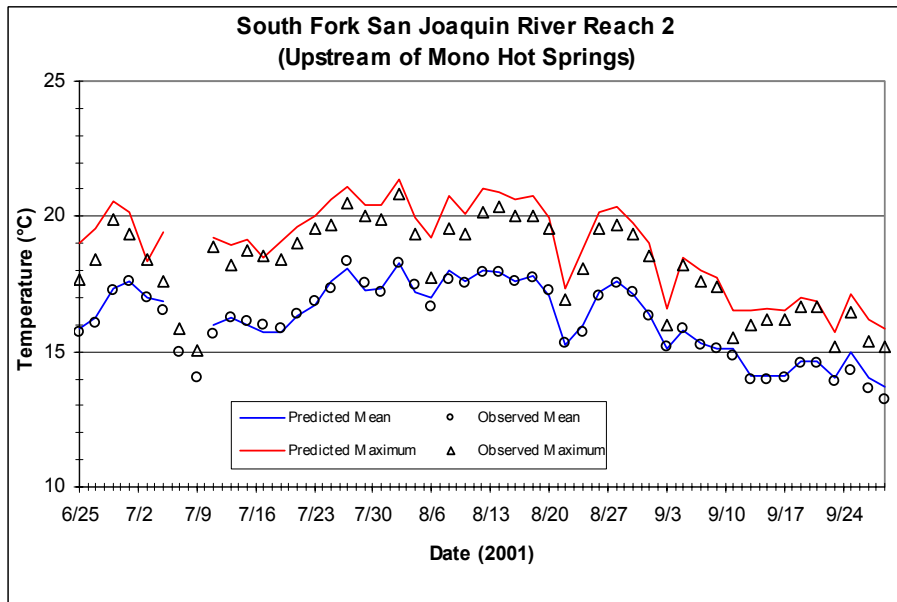


Figure CAWG 5-2. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for South Fork San Joaquin River Reach 2.

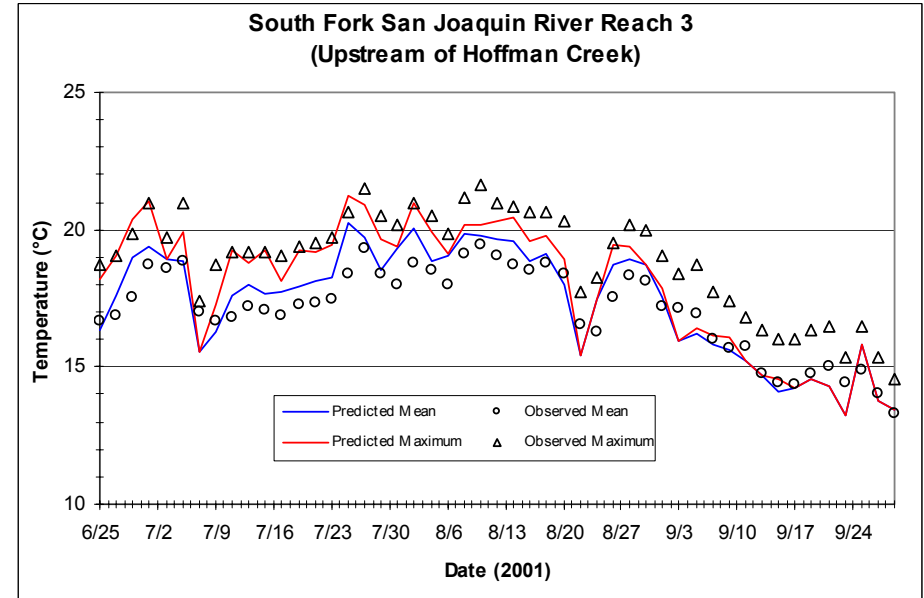
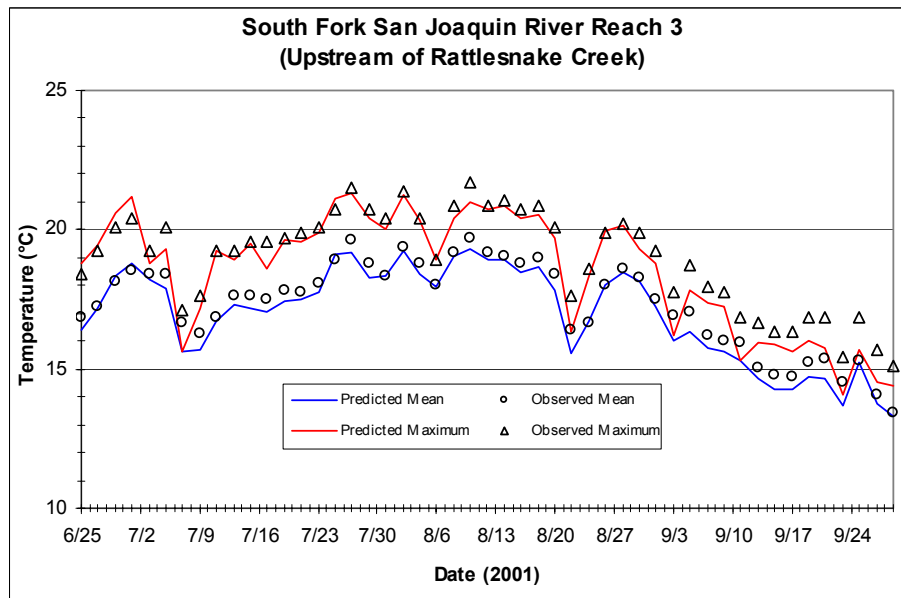
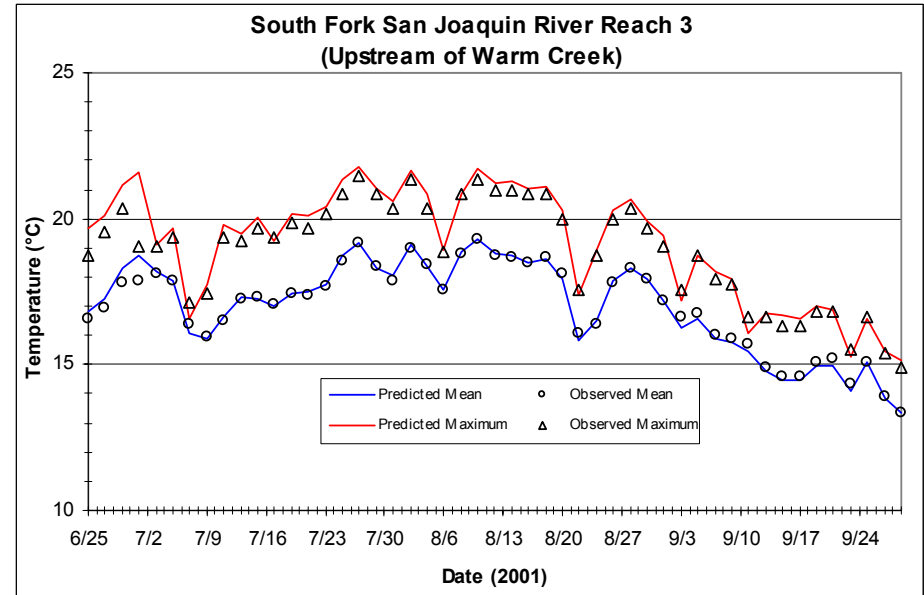
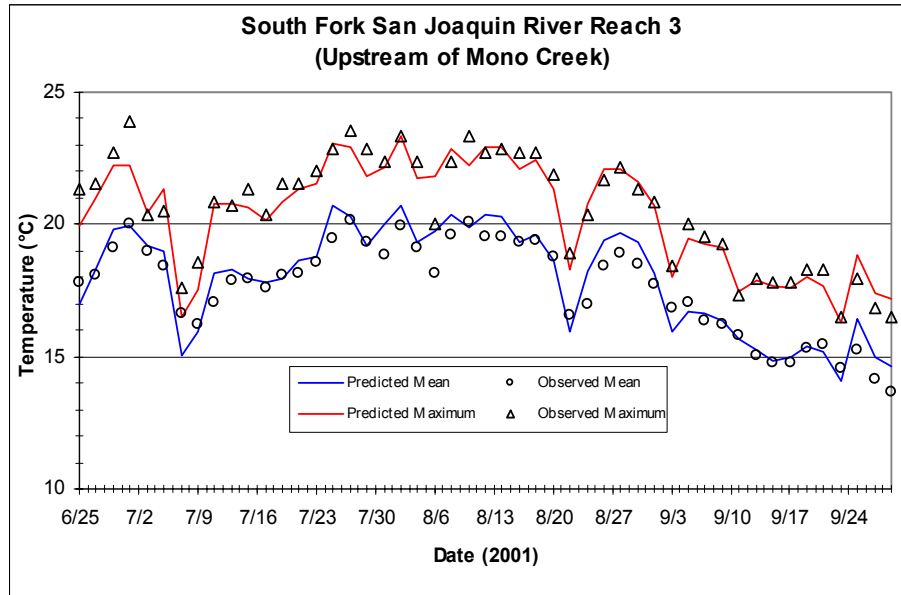


Figure CAWG 5-3. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for South Fork San Joaquin River Reach 3.

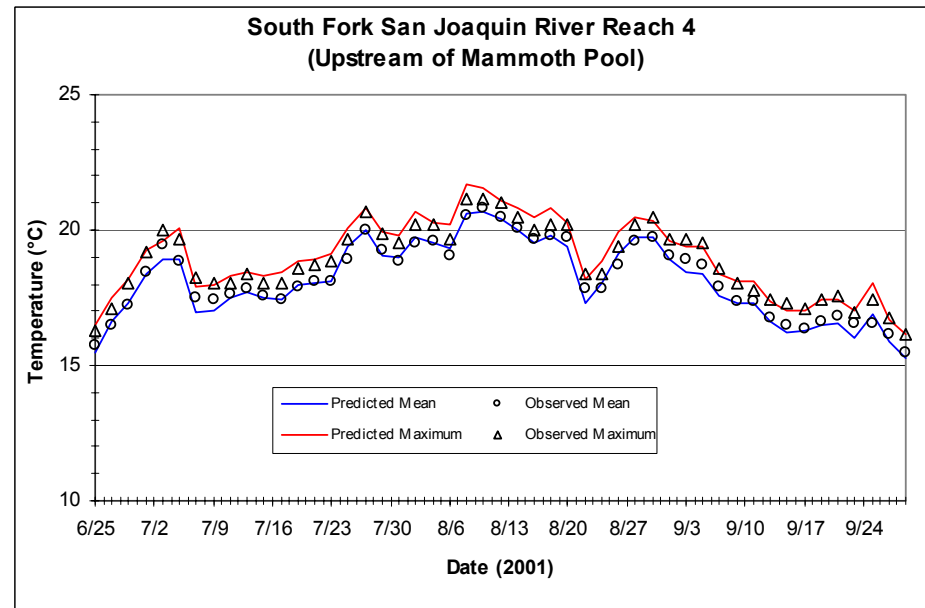
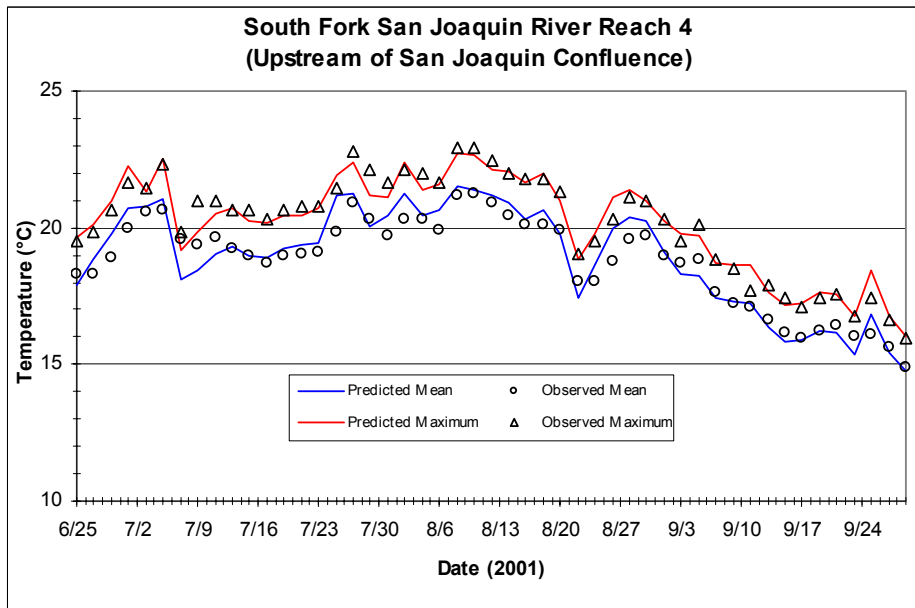


Figure CAWG 5-4. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for South Fork San Joaquin River Reach 4.

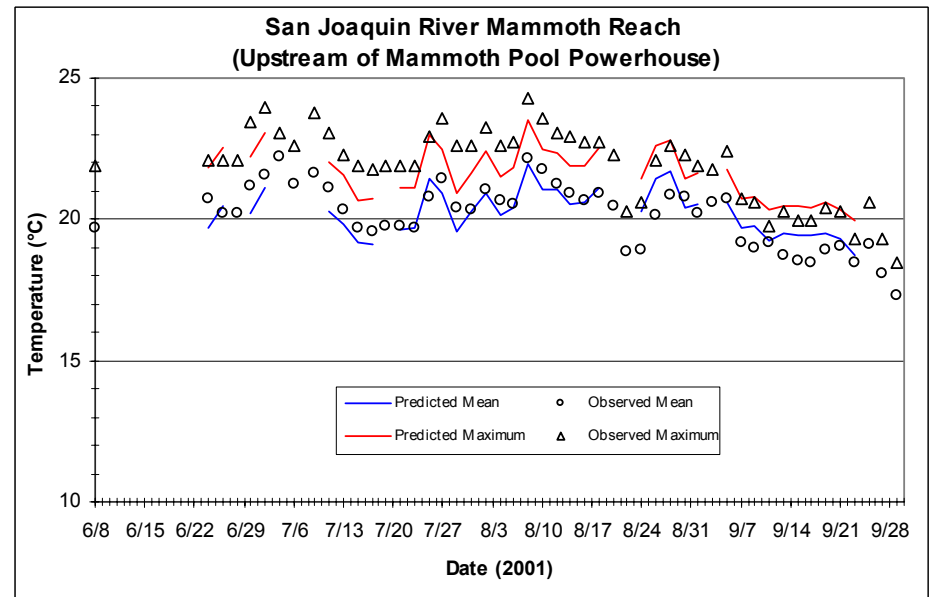
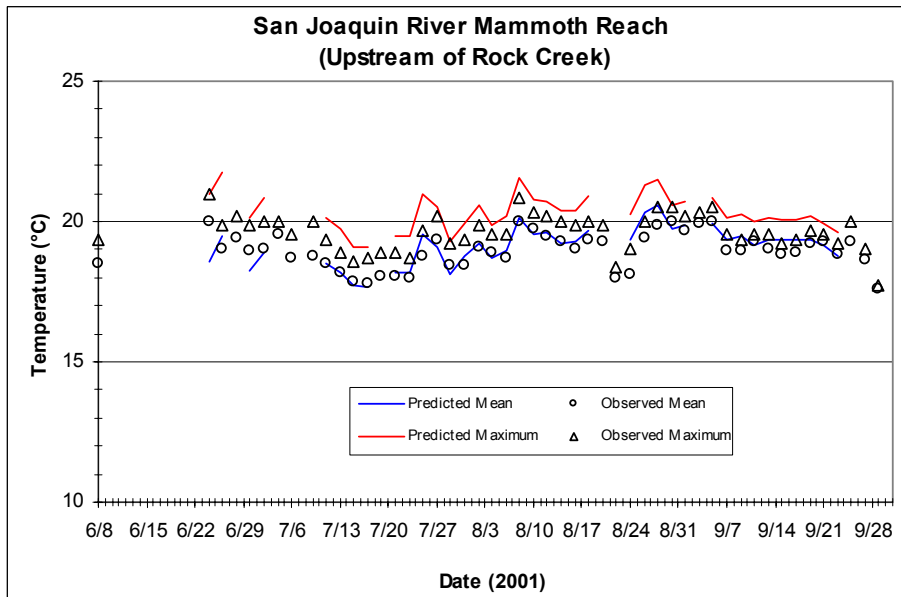
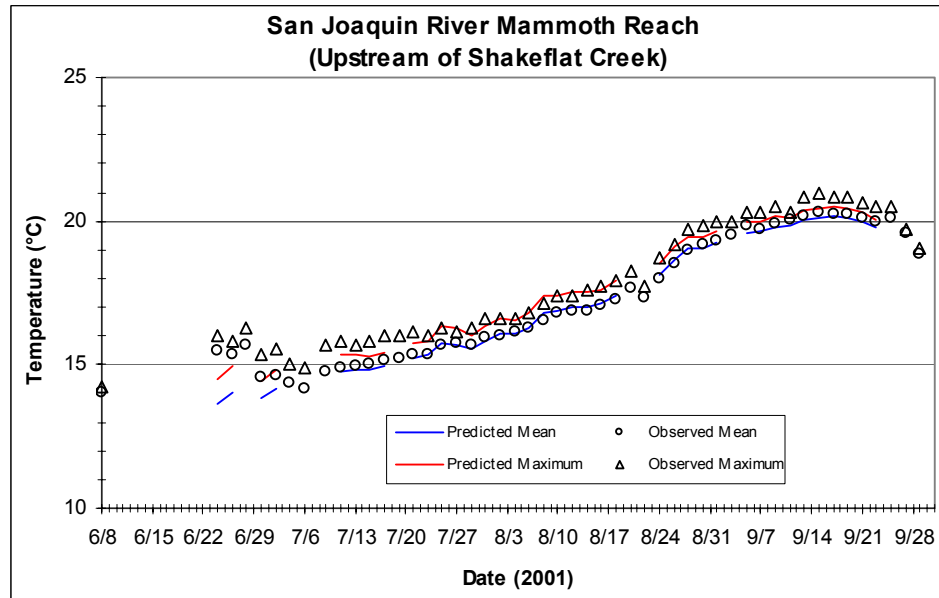


Figure CAWG 5-5. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for San Joaquin River Mammoth Reach.

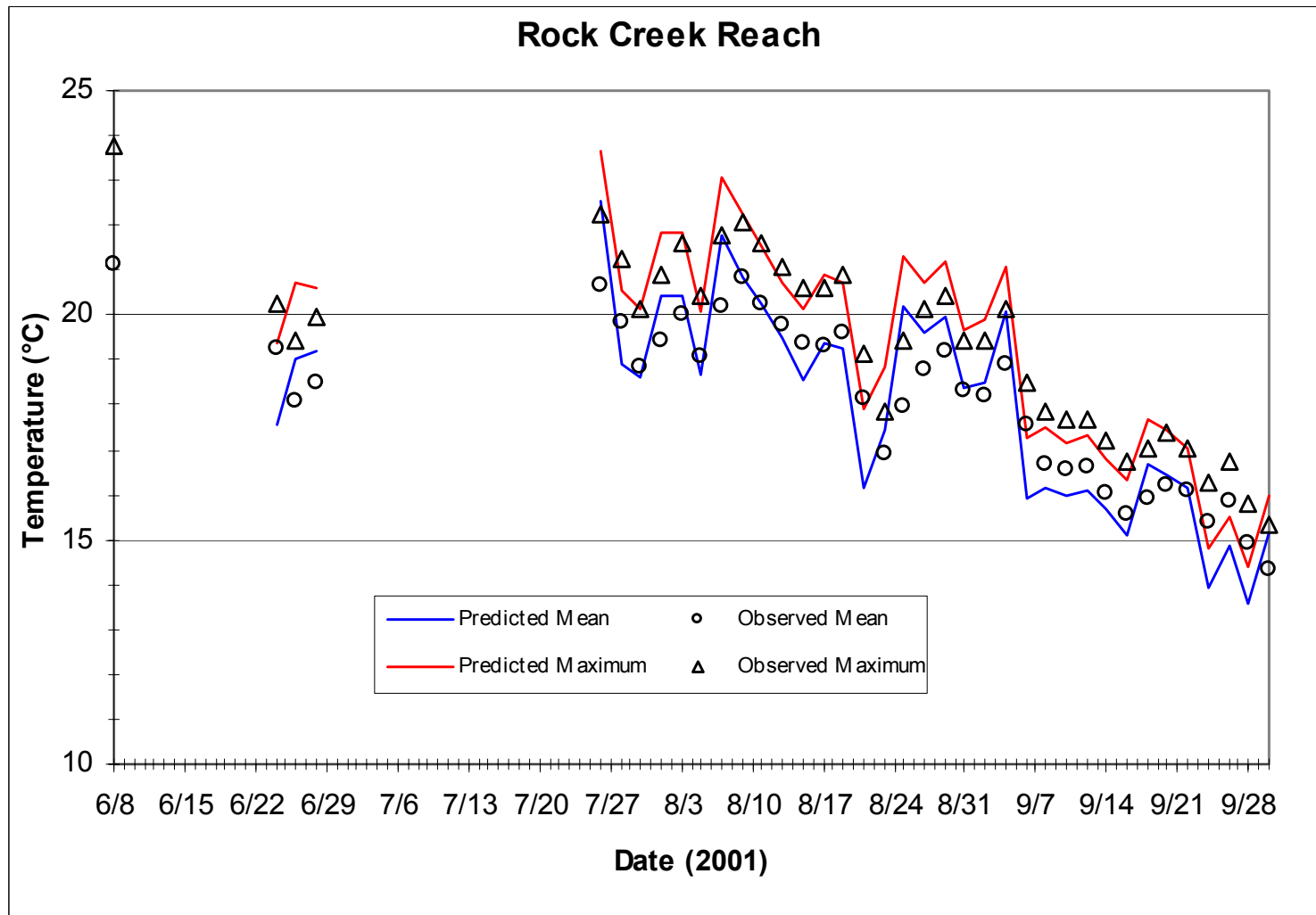


Figure CAWG 5-6. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for Rock Creek Reach.

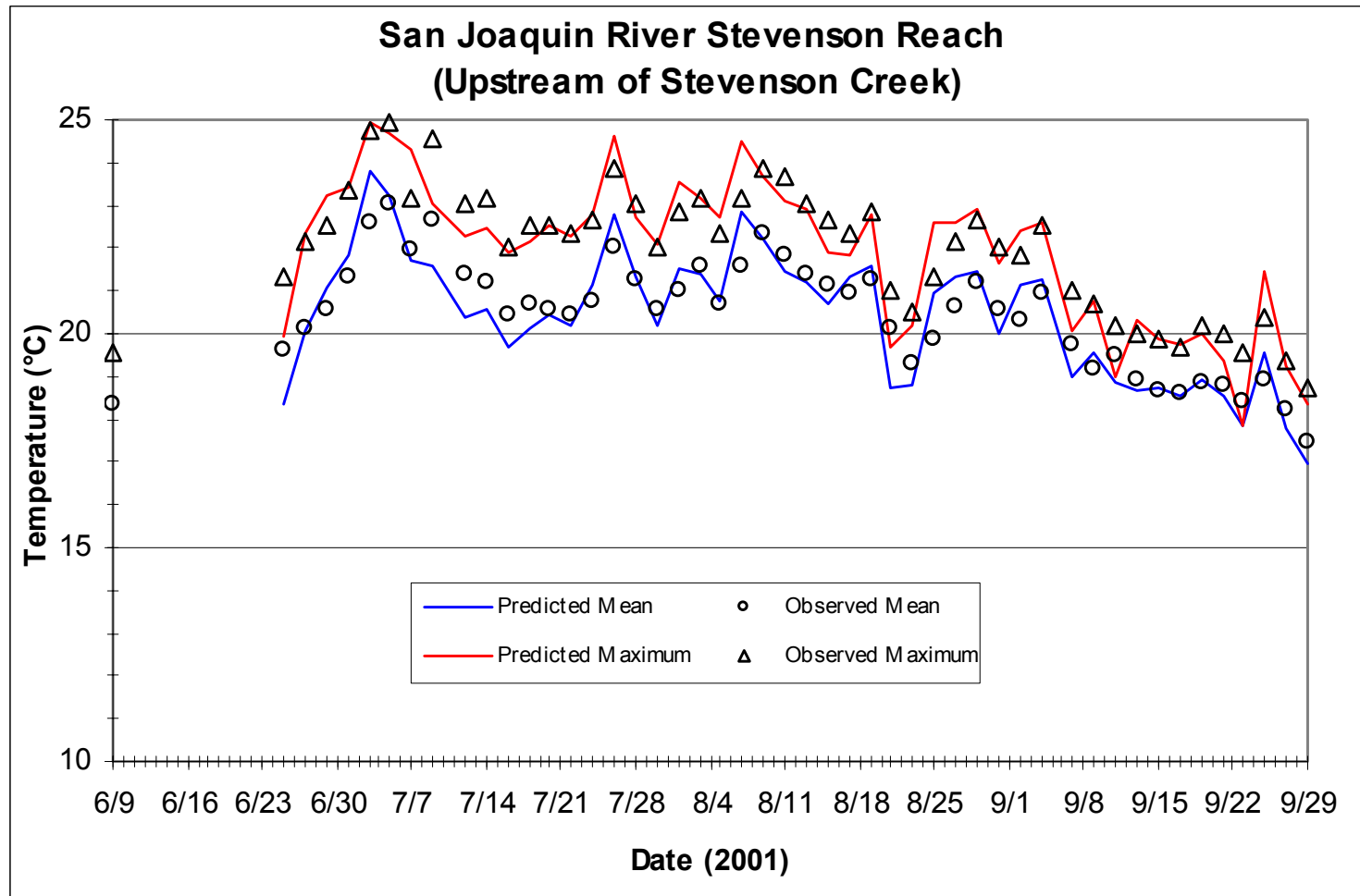
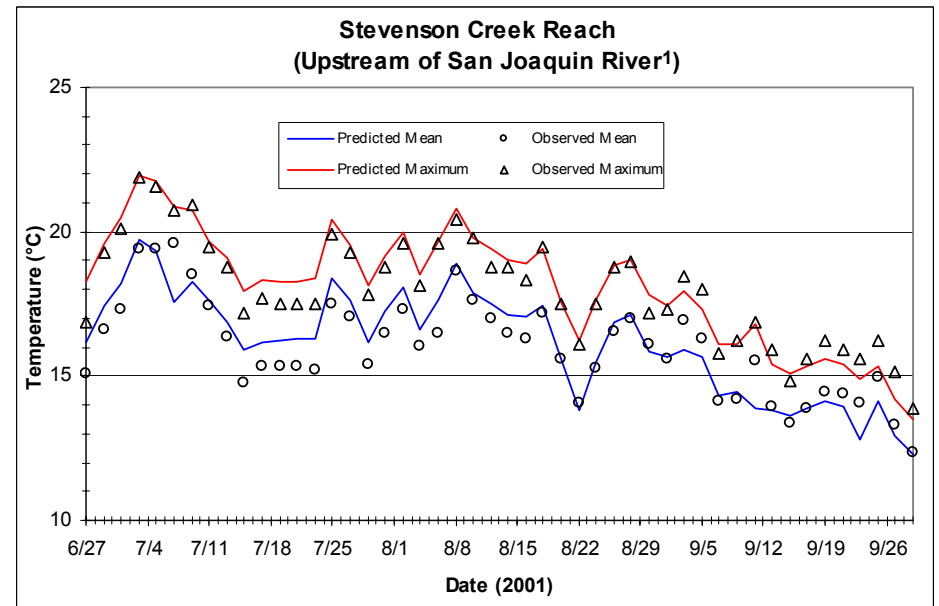
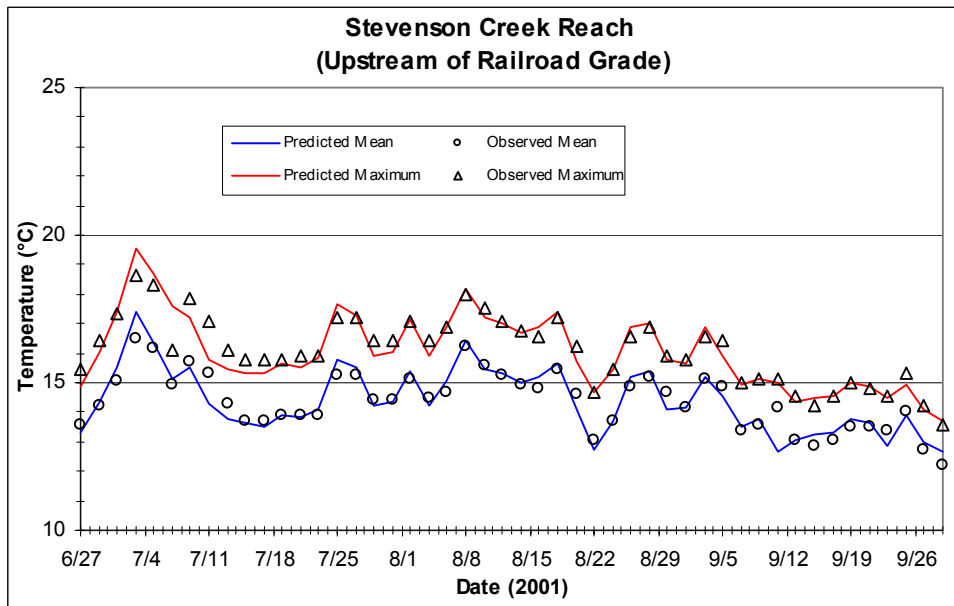


Figure CAWG 5-7. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for San Joaquin River Stevenson Reach.



¹ Located downstream of large waterfall.

Figure CAWG 5-8. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for Stevenson Creek Reach.

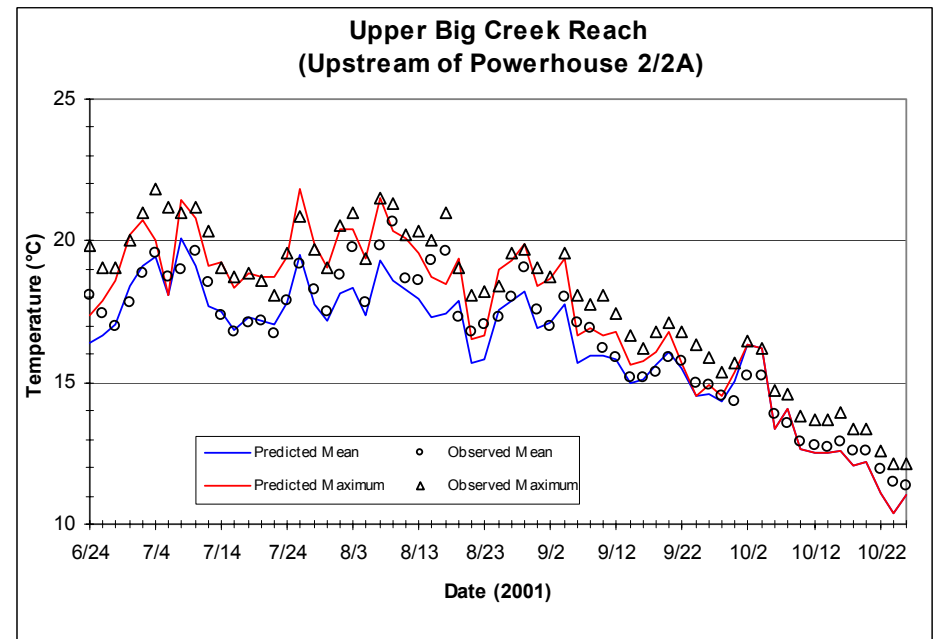
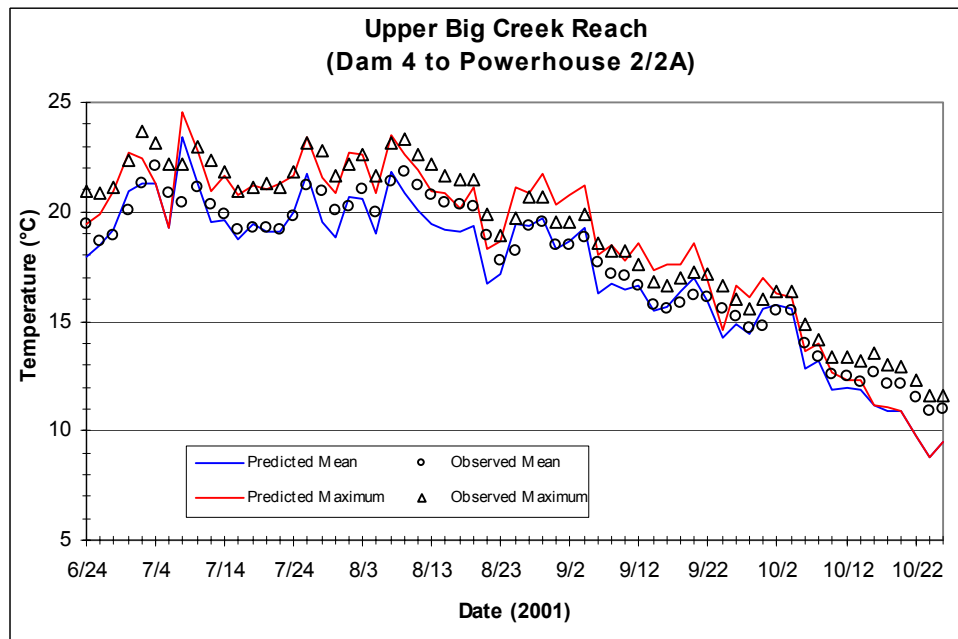


Figure CAWG 5-9. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for Upper Big Creek Reach.

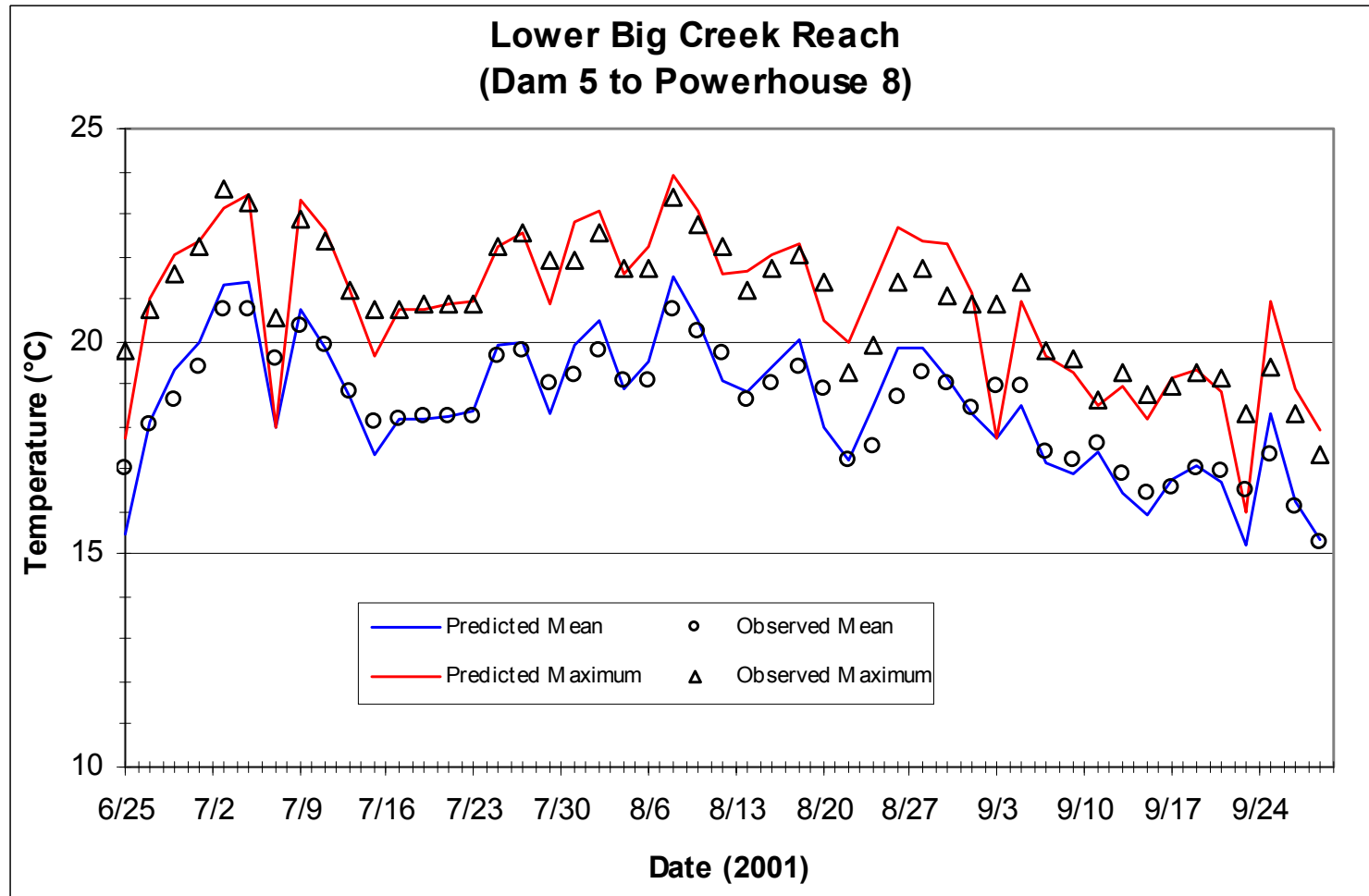


Figure CAWG 5-10. Temperature Model Validation Time Series Comparison Between Observed and Simulated Temperatures for Lower Big Creek Reach.

MAPS

Placeholder for Maps

Non-Internet Public Information

These Maps have been removed in accordance with the Commission regulations at 18 CFR Section 388.112.

These Maps are considered Non-Internet Public information and should not be posted on the Internet. This information is provided in Volume 4 of the Application for New License and is identified as “Non-Internet Public” information. This information may be accessed from the FERC’s Public Reference Room, but is not expected to be posted on the Commission’s electronic library, except as an indexed item.

APPENDIX A
COLD WATER AVAILABILITY METHODS

APPENDIX A

COLD WATER AVAILABILITY METHODS

1.0 APPROACH

Study Objective 6 states: Collect sufficient data to evaluate the potential for using stored water in reservoirs to modify water temperatures downstream in various water year types. This appendix presents the methods used in carrying out this objective.

1.1 STUDY METHODOLOGY

A complete methodology for the collection of data for this report is presented in the methodology used for the CAWG 5 Report Section 3.3.2 (SCE 2003b) and the CAWG 1 Report Section 2.2.4 (SCE 2003a). A brief summary of the reservoir data collection methodology utilized for this report follows.

1.1.1 RESERVOIR DATA COLLECTION METHODS

Water temperature profiles with depth were measured on a monthly basis within each of the larger reservoirs. These data were collected from May to October, depending upon access and ice cover. Since the purpose of this data collection was to characterize thermal stratification and warming in the Project reservoirs, data collection potentially was continued into November at lower elevation reservoirs. Profiles were not collected after October, if the lower elevation reservoirs were mixed. These profiles were used to estimate the amount of cold water that may be available for release as a potential mitigation measure to modify downstream fisheries habitat.

These profiles were necessary, if we are to simulate reservoir temperatures. Reservoir temperature profiles are necessary to calibrate reservoir temperature models. All of the larger reservoirs had more than one profile measurement location. Large, geometrically complex reservoirs may have complex stratification patterns. Temperature may vary both with the longitude of the reservoir, as well as depth. Multiple temperature profile locations are, therefore, necessary to accurately evaluate how thermal conditions vary along the reservoir and with depth. Evaluation of this information was needed to accurately estimate the amount of cooler water available for potential release.

Reservoir profile data was collected monthly throughout the warmer months; values for water temperature, specific conductance, and dissolved oxygen were collected concurrently. During the first field trip the reservoir was sounded to identify the deepest location. All profile locations were identified/located with GPS coordinates so that it was possible to take additional profiles at the same locations during subsequent surveys. Measurements were made just under the surface and at one meter intervals until reaching the bottom of the thermocline or to a depth of 10 meters, if no thermocline is in evidence. After reaching this point in the depth profile, readings were taken every three meters to the bottom. All results were written in a waterproof field book and later

transferred to a computer data file. The profiling probe was calibrated before and after each use. The cable was marked at one and five meter intervals to enhance data reproducibility.

1.1.2 RESERVOIRS ADDRESSED

The reservoirs addressed for this study are the large reservoirs of the Project area. These reservoirs are Florence Lake, Lake Edison, Mammoth Pool, Huntington Lake, and Shaver Lake. Lake Edison is part of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086). Lake Edison is included in this report because it is a source of cold water for Mono Creek between Vermilion Valley Dam and Mono Diversion, and potentially a source of cold water for Mono Creek downstream of Mono Diversion, a tributary of the SFSJR.

1.1.2.1 Florence Lake

Water temperature profiles were taken monthly in two locations identified as the *Inflow End* and *Dam* locations during the summer and early fall of 2000 and 2001 (SCE 2003b). Releases from Florence Lake to the South Fork San Joaquin River are made from the deeper, cooler layers of Florence Lake near the upstream end of the dam.

1.1.2.2 Lake Edison

Water temperature profiles were taken monthly in two locations identified as the *Inflow End* and *Dam* locations during the summer and early fall of 2000 and 2001 (SCE 2001). Releases from Lake Edison to Mono Creek are made from the deeper, cooler layers of Lake Edison near the dam.

1.1.2.3 Mammoth Pool

Water temperature profiles were taken monthly in three locations identified as the *Inflow End*, *Middle*, and *Dam* locations during July, September, and October of 2000, and from June through October of 2001. Releases from the Mammoth Pool Dam to the San Joaquin River are made from deep in the reservoir. Diversions to the Mammoth Pool Powerhouse also are made from the deep layers of the lake, which tend to deplete the cold hypolimnion waters, when the lake is stratified.

1.1.2.4 Huntington Lake

Water temperature profiles were taken monthly in three locations identified as the *Inflow End*, *Middle*, and *Dam* locations during August and October of 2000, and May through October of 2001. Releases from Huntington Lake to Big Creek are made from the cool deeper layers of Huntington Lake. Diversions to Big Creek Powerhouse 1 also were made from near the bottom of the dam.

1.1.2.5 Shaver Lake

Water temperature profiles were taken monthly in two locations identified as the *Inflow End* and *Dam* locations. Releases from Shaver Lake to Stevenson Creek are made from the deeper, cooler waters of Shaver Lake.

1.1.3 RESERVOIR DATA ANALYSIS

Larger Project reservoirs include Florence Lake, Lake Edison, Mammoth Pool Reservoir, Huntington Lake, and Shaver Lake. Elevation and storage data for these reservoirs were obtained from USGS (2001, 2002) and CDEC (2001).

The elevation and storage data when combined with the reservoir temperature profile data yields information on reservoir volume by temperature. The reservoir profile depths can be converted into reservoir elevations, and the volume (storage data) at each elevation was supplied by USGS and CDEC. Therefore, for each reservoir elevation, there is a corresponding volume with a known temperature. This analysis is made with the assumption that the temperature at depth is a constant throughout the reservoir at the time of sampling.

2.0 LITERATURE CITED

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APPENDIX B
TEMPERATURE MODEL METHOD DETAILS

APPENDIX B

TEMPERATURE MODEL METHOD DETAILS

1.0 INTRODUCTION

This appendix provides additional details of methods used in the application of SNTMP to provide simulations of flows and alternative meteorological and hydrologic conditions.

2.0 SIMULATION CONDITIONS

2.1 METEOROLOGY

For all reaches except the South Fork San Joaquin River (SFSJR), selection of synthetic meteorological conditions was based on daily averages and daily maximum values. For the SFSJR, the analysis was based on four day moving daily averages and daily maximums. This was due to the length of the SFSJR and the time it takes water to travel through this stream.

Normal condition air temperatures were determined using the following approach:

1. The 50 percent exceedance air temperature was calculated at the North Fork meteorological station (long term station reporting to the National Weather Service). These were calculated for each month.
2. Air temperature regression formulas (air temperatures at local sites, reported in CAWG 5 Temperature Monitoring Report, were regressed to the North Fork site values on a daily basis using common data periods) were developed for each local site used in the model calibration/validation. R^2 values for these regressions are shown in Table CAWG 5 Appendix B-1.
3. Local air temperatures were calculated (using the above regression formula) for the 50 percent exceedance value determined in step 1. These calculated values represented the air temperatures to be used in the synthetic, normal simulations.

Given the 50 percent exceedance air temperature determined above, the other meteorological variables necessary for modeling (humidity, wind speed, and sunshine) were determined using the following approach. For each month, the observed 2000 and 2001 local air temperatures were compared to the regressed 50 percent exceedance value (from step 3, above) on a daily basis. Those days where the local air temperatures were approximately equal to (generally within +/- 0.2 °C) the synthetic normal air temperature were noted and the average of the other meteorological variables were for these days were calculated. Generally, these were averages of two to four days for each month. These average values then represented the synthetic, normal, monthly humidity, wind speed, and sunshine.

The extreme, synthetic conditions were developed in the same manner as the normal conditions except that (in step 1, above) the 20 percent exceedance air temperature was calculated at North Fork.

2.2 WATER TEMPERATURES

Tributary temperatures (P nodes) were estimated using a regression on the air temperatures at North Fork, the day of the year, and the year type (2000 was approximately normal and 2001 was dry and hot).

Reach starting temperatures (H nodes) were estimated using several alternate methods. The starting temperatures of the successive downstream reaches of the South Fork model were calculated using the results of the immediate upstream South Fork model (See Section 3 Methods). The temperatures from Florence reservoir were determined by calculating the monthly average daily means and monthly average daily maximum temperatures for 2000 (for the normal air temperature and above normal water year simulations) and 2001 (for the hot and dry water year simulations). Similar monthly averaging was used to determine the release temperatures from most reservoirs.

Starting temperatures from those reservoirs having a short retention time resulting from large pass-through flows from power generation (e.g., Dams 4, 5, and 6) were determined differently. Dam 4 was observed to have some leakage during 2000 and 2001. Temperatures associated with this leakage were recorded during 2000 and 2001; these temperatures were different from temperatures recorded within the Dam 4 impoundment. Monthly average daily mean and daily maximum leakage temperatures were calculated from these recordings for 2000 (representing an above average water year) and 2001 (representing a dry year). Similarly, monthly average daily mean and daily maximum temperatures were calculated from temperatures recorded within the Big Creek Powerhouse 1 tailrace; these temperatures represented a good approximation of forebay temperatures for high flow-through conditions. We calculated normal, synthetic release temperatures as the flow weighted average between the heat released (via the synthetic, alternate flow releases) and the heat associated with leakage.

Dam 5 starting temperatures were calculated as monthly average daily mean and daily maximum values of recorded Tunnel 8 intake temperatures (2000 represented the normal and 2001 the extreme conditions).

Dam 6 starting temperatures were calculated as monthly average daily mean and daily maximum values of recorded Powerhouse 3 intake temperatures (2000 represented the normal and 2001 the extreme conditions).

3.0 SENSITIVITY ANALYSIS

The sensitivity analysis for evaluating the effect of flow releases from Bear or Mono Creeks on the SFSJR is described as follows:

Phase 1 will determine if either creek can significantly cool the SFSJR under “ideal” conditions. Ideal conditions would consist of the coolest water temperatures that could be released to the SFSJR from the stream, which are the temperatures present at the upstream diversion. These temperatures would be cooler than those that would occur after water flows down the tributary and warms, as happens prior to reaching the confluence with the SFSJR. Water would be added to the SFSJR model from the tributary at this temperature for July and August, the two warmest months, when temperatures in the lower SFSJR exceed 19°C.

For Bear Creek, flows would be added at the following levels:

- the highest flow to be simulated for PHABSIM for the months modeled,
- the current minimum instream flow, and
- the midpoint between the current minimum instream flow and the highest PHABSIM flow to be simulated

For Mono Creek, flows added to the SFSJR would include:

- the highest flow to be simulated for PHABSIM for months modeled,
- the current minimum instream flow, and
- the midpoint between the current minimum instream flow and the highest PHABSIM flow to be simulated.

If significant cooling is observed from Phase 1, test 1, we will then perform Phase 1, test 2 to determine the SFSJR temperature model’s sensitivity using the temperatures observed in the creeks immediately upstream of the confluence with the SFSJR during 2000 and 2001. Test 2 will be otherwise similar to test 1. Test 2 represents conditions similar to how these creeks would be included in a model of SFSJR temperatures.

The specific water temperatures and flows used in these simulations are presented in Table CAWG 5 Appendix B-2.

APPENDIX C
TEMPERATURE MODEL EVALUATION REPORT

CAWG 5 REVIEW OF STREAM TEMPERATURE MODELS FOR APPLICATION AT BIG CREEK

Prepared for:

SOUTHERN CALIFORNIA EDISON
Big Creek, CA

Prepared by:

ENTRIX, INC.
Walnut Creek, CA

Project No. 3006668

September 5, 2003

CAWG 5 REVIEW OF STREAM TEMPERATURE MODELS FOR APPLICATION AT BIG CREEK

Prepared for:

SOUTHERN CALIFORNIA EDISON
54205 Mountain Poplar
Big Creek, California 93605

Prepared by:

ENTRIX, INC.
590 Ygnacio Valley Road, Suite 200
Walnut Creek, California 94596

Project No. 3006668

September 5, 2003

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1.1 OBJECTIVES

The CAWG 5 Water Temperature Study Plan (SCE 2001) identifies one of the elements of the study plan as:

10. Review stream and reservoir temperature analytical models for assessing in the analysis of factors affecting water temperatures, the effects of different water year types, and different meteorological conditions than observed, as well as evaluation of potential PM&E measures.

The study plan also states:

If CAWG determines that new model applications are required, we will review appropriate stream temperature models and evaluate their applicability to the conditions and areas to be simulated. We will summarize our analysis of these models so that CAWG may make an informed decision of which model (or models) to use. For example, we will include the USGS stream temperature model, SNTMP, (Theurer, Voos, and Miller 1984); the Oregon Department of Environmental Quality model, Heat Source (Oregon DEQ 2000); and the US Army Corps of Engineers models, CE-QUAL-W2 (Cole and Buchak 1995) and CE-QUAL-RIV1 (U.S. Army Engineer Waterways Experiment Station, 1995), in our summary. Our summary will be limited to physical process models (rather than regression, black-box models) and will consider the processes simulated, scale of simulation (i.e., reach or stream network), data requirements, and other factors that will indicate a model's applicability to this current study.

If a need for reservoir modeling is identified, reservoir models that fit the specific need of the evaluation will be identified at a later date and presented to the CAWG.

The specific objectives of this model review are to:

- Identify the potential stream temperature modeling needs for the bypass and augmented stream reaches included in the Big Creek ALP.
- Identify available and documented stream temperature models that simulate stream temperatures and that are applicable to Big Creek stream temperature issues identified in the CAWG 5 Water Temperature Study Plan.

- Compare those models with the specific modeling needs for evaluating water temperatures and PM&Es in the Big Creek system.
- Identify those models that could potentially be beneficially applied to the Big Creek system and those that can not.
- Contrast those stream temperature models that may meet modeling needs for level of effort and efficacy in application.

2.1 APPROACH

- The first task will be to identify potential stream modeling needs. This will involve identifying the stream temperature concerns of the Big Creek study streams and also identifying features of the study streams that may require the application of a stream temperature model that has certain features (e.g., the ability to simulate riparian shaded streams).
- The second task will be to identify candidate stream temperature models that appear to have the features necessary to address the modeling needs for the study streams identified above.
- The third task will be to identify and review information that will provide a basis for evaluation of the candidate stream temperature models with the modeling needs for the study streams. Two types of literature will be sought out: 1) existing reviews and comparisons of candidate stream temperature models, and 2) documentation of the capabilities of candidate stream temperature models. The emphasis will be on temperature model reviews in the literature. These can provide much of the information needed and may identify information related to application and level of effort not typically identified in many other forms of documentation.
- The fourth task involves categorizing candidate models into several broad classes so that the model features can be compared to needs for modeling study streams. The individual models will be discussed and their various features will be summarized as a table. The "broad classes" will include (but not necessarily be limited to) 1) model scale, 2) daily temperature fluctuation simulation abilities, 3) model support, 4) model documentation, 5) processes simulated, and 6) relative effort needed for application.

2.2 GENERAL BIG CREEK MODELING NEEDS

A major stakeholder concern of the CAWG 5 studies is to maintain adequate water temperatures for important aquatic species. This generally involves the modeling of daily water temperatures along study streams, or groups of connected streams, for a range of time over the warmer months. This could include a variety of meteorological conditions, alternative flows, and alternative release temperatures from reservoir outlets or other release points. In addition, differentiating whether the warming of the study streams is related to Project effects or natural warming may also be of importance. All (physical process) stream temperature models require data input representing the physical

characteristics of the stream system being simulated. Several features of the Big Creek system require special attention in order to develop an accurate model. The following sections introduce several of these attributes of the Big Creek system and also present what stream temperature simulations would be necessary.

2.2.1 FOCUS OF MODELING EFFORTS

There are two questions for which stream temperature modeling may be applied to Big Creek Project streams. First, does observed warming in study streams of more than 5°F result from natural warming or Project effects; and do temperatures warm up sufficiently to adversely affect aquatic life? Second, can changes in flow releases or inflow temperatures be used to alter water temperatures in a stream reach? The use of models to answer the second question would also need to include the ability to assess the effect of different release flows and inflow temperatures for alternative meteorological conditions.

SCE has collected stream temperatures throughout the Project Area during 2000 and 2001. The data collected for study streams have been reduced and analyzed to provide screening level answers to the above questions (CAWG 5 Table ES-1). Table CAWG 5 ES-1 indicates that a number of reaches did have top-to-bottom warming that exceeded 5°F.

Table CAWG 5 ES-1 also indicates that within some reaches, daily mean temperatures did exceed the 19°C evaluation criteria for trout, especially in 2001 (a relatively warm year). However, very few reaches were observed to have maximum daily temperatures that exceeded the maximum daily criteria (24°C) for trout and those generally occurred rarely. These maximum daily criteria exceedances were infrequent and only occurred when the daily mean exceeded 19°C. These results suggest that mean daily temperatures are more likely to exceed temperature evaluation criteria than are maximum daily temperatures. It should follow, therefore, that the simulation of daily mean temperatures are most important for analyzing effects on fish and evaluation of PM&Es.

This preliminary analysis of Big Creek observed temperatures indicates that reach warming and mean daily temperatures appear to be of concern for some of the Project reaches for some months. Any stream temperature model that we propose should have the adequate capability for modeling warming along the stream and daily temperatures under a range of flows, inflowing water temperatures, and meteorological conditions.

2.2.2 BIG CREEK SYSTEM SCALE CONSIDERATIONS

The Big Creek System spans a large area and includes an interrelated system of reservoirs, diversions, tunnels, powerhouses, and other project features. Any selected stream temperature model(s) may need to accurately represent some

portion of system features and to account for how the system is operated for streams of interest.

There are a large number of bypass reaches included in the Project Area. Some of these reaches are tributaries to other bypass reaches and some bypass reaches have undiverted tributaries that would potentially have to be simulated. When one tributary enters another, it is generally more efficient and accurate to simulate the two tributaries at the same time using a network-scale model (discussed below).

2.2.3 STREAM ENVIRONMENTAL CONDITIONS REPRESENTATION

To provide accurate results, a simulation model needs to adequately represent the physical processes and features of the stream system being modeled. Many features of the stream system need to be accounted for in developing an accurate model. Those features can be classed as either stream structure features (e.g. Stream slope, width, topography), hydrology (flows and water temperatures), or meteorology (air temperature, sunshine, wind speed, humidity). The following discussion presents some of those physical attributes of the stream system that are necessary to define in detail to produce an accurate stream temperature model. The ability to represent important features affecting heat exchange and temperature is a necessary requirement for selection of a stream temperature model.

2.2.3.1 STREAM STRUCTURE

This section presents some of the physical features specific to Big Creek. These features will require special attention in selecting a stream temperature model (and later, defining the system to be simulated).

Elevation and Slope

The upper-most stream segment, in terms of location and elevation, in the Project Area is the South Fork San Joaquin River (SFSJR) and its tributaries. Downstream, the SFSJR joins the next segment, the San Joaquin River (SJR) and its tributaries. Two major drainages, the Big Creek drainage and the Stevenson Creek drainage are tributaries to the SJR. The reaches under consideration for modeling range in length from approximately 29 miles (47 km) for the SFSJR to approximately 0.3 miles (0.47 km) for South Slide Creek from the diversion structure (currently out of operation) to the confluence with the SFSJR.

Many study streams are situated in fairly steep channels in rugged terrain, although some streams contain lower gradient, meadow-type stream reaches. Elevations for Project streams vary from 8,930 feet above Mean Sea Level (MSL) at Crater Creek to 1,432 feet above MSL for the SJR at Powerhouse 3. The ability to address elevation and slope changes is therefore important.

Stream Width (flow variable) and Streambed

The amount of heat exchanged into (or out of) a stream reach is highly influenced by the width of the stream. A wide stream has more surface area to receive heat from solar radiation (insolation) and other sources. Project bypass reaches include small, narrow creeks and large, wider streams. Typically, the width of each reach will increase with increasing flow depending upon channel incision. Any simulation of Project reaches will need to be able to account for the stream width and allow for width to vary with flow.

Many streams in the Project Area flow over large bedrock outcrops or through large boulder and rocky substrate. From our experience, these types of streambeds can produce significant heating of stream temperatures in reaches that are relatively unshaded. Models should have the ability to account for such heat transfer.

Stream Shading (topographic and vegetative)

Many of the streams to be simulated have significant shading from solar radiation resulting from them being in steep canyons (which have various or changing directional orientations) and/or having significant riparian vegetative cover. The amount of shading varies over the year as a result of change in the sun's relative location and changes in amount or type of vegetative growth, as in periods when deciduous trees shed their leaves. The amount of shade can vary throughout the day and be a significant influence on the daily variation in stream temperature. Models need to have the capability to account for both topographic and vegetation shading. In addition, models need to be able to account for shading changes that are a result of both seasonal change in the angle of the sun to the stream and change in leaf cover.

2.2.3.2 HYDROLOGY

There are flow and temperature conditions within the study streams that must be accurately represented by the chosen model in order to produce reliable stream temperature simulations. Some of these conditions are presented in the following sections.

Ability to Simulate with Minimal Flow Data Availability and Resolution

An important consideration in analyzing the stream temperatures of the Big Creek area, is the limited availability of stream flow data especially for undiverted streams tributary to bypass reaches. The amount of flow within a stream is an important influence on the resultant stream temperatures. These two facts imply the need for a simulation model that is able to cope with missing and/or less accurate flow information. Models depending upon some types of algorithms may be unstable due to hydrology data of insufficient resolution. These are frequently models that require continuous flow data in short time steps. Models that may be sensitive to “coarseness” of hydrology data need to be identified.

The flows within the project can, at times, be rapidly varying, but this happens primarily on a seasonal basis. Generally, the flows are relatively steady during each day and from day to day. For temperature analysis purposes, to determine effects on fisheries habitat, we can consider the flows to be essentially steady. A stream temperature model applied to Big Creek would not, therefore, have to be able to simulate rapidly varying flows.

Reservoir, Canal, and Tunnel Inflows

Most reaches of temperature concern in this system, the bypass reaches, are downstream of reservoirs or small diversion dams. There are about 30 reaches that could potentially be candidates for temperature modeling. Some bypass reaches flow into other bypass reaches, as in the Big Creek chain. There are also a number of undiverted tributaries that flow into bypass reaches, as in the South Fork of the San Joaquin River. Water also flows into some bypass reaches from Project features such as impoundments and tunnels, as in Stevenson Creek. Models must have the capability of representing water temperatures originating from Project structures, as well as from natural streams.

Initial Starting Temperatures from Reservoirs and Tributaries

Temperatures in bypass reaches vary with flow and meteorological conditions and are very much dependant on the initial conditions at the top of the reach. In many cases, the upstream end of these bypass reaches is at a reservoir or other impoundment. Most Project reservoirs stratify during the warmer part of the year and releases are made from deep within the lakes. This results in relatively consistent release of cold water from these reservoirs during the warmest portions of the year, when stream temperatures are of most concern. In many of the medium-sized impoundments in the lower elevation portion of the system, such as those within the Big Creek "chain," water temperatures are dominated by water discharged by powerhouses. The water discharged by powerhouses originates from large reservoirs with intakes deep within the lakes. This results in the release of cold water from the outlets of these mid-sized reservoirs. Smaller impoundments, associated with small diverted streams generally have little detention of flow. Therefore, there is little temperature change in flow passing through them.

Similarly, inflow from tributaries can significantly influence the bypass reach temperatures. Both the amount of inflow and the inflow temperatures from these tributaries influence the bypass reach temperatures and need to be accounted for.

This indicates the stream temperature model should be capable of addressing a range of release temperatures and flows, and provide the capability for mixing of water from varying sources, but that the capability to model multidimensional aspects of streams and impoundments is not necessary (see below).

2.2.3.3 METEOROLOGY

Air Temperature (changes with elevation)

Elevations in the area range from over 8,000 ft to approximately 1100 ft msl. Recorded air temperatures (ENTRIX, Inc., 2002) indicate that there is significant change in air temperatures with changing elevation and local conditions. Since air temperature has a large influence on stream temperatures, it is necessary that the model be able to use (recorded or estimated) air temperatures throughout the Project Area for calibration; rather than just a single air temperature value to represent the entire area. In addition, the stream temperature model needs to be able to adequately reflect elevational temperature differences and other relationships between measurement locations.

Solar Radiation, Cloud Cover

The amount of solar radiation varies within the Project Area, both seasonally and spatially. Since solar radiation is an important factor in determining stream temperatures, it will be essential that the model have the capability to use measurements of solar radiation/cloud cover collected within the Project Area in its calibration.

Humidity

There also are spatial differences in humidity within the Project Area. Data available for modeling include numerous stations located within the Project area. A stream temperature model should be able to make use of relative humidity measurements in multiple locations for model calibration and simulation.

Wind Speed

There are spatial differences in the wind in the Project Area. Fortunately, stream temperatures are not that sensitive to wind speed values. The model should be able to make use of wind speed data from more than one location for calibration. However, this parameter is not as important as others identified, above.

Allow for Alternate Conditions

Irrespective of which stream temperature model is chosen, we will need to forecast (simulate) stream temperatures subject to meteorological and flow conditions that may not have been measured. This is necessary to be able to arrive at stream temperatures that represent either normal condition (hydrology and meteorology) stream temperatures or hot and dry (for example) stream conditions. The ability to simulate alternate inflow temperatures, inflows, and meteorology is critical to assessing impacts and developing PM&Es.

2.2.4 PROCESSES SIMULATED

All models to be considered for evaluation must be based on simulation of physical processes. Representation of the following processes are considered necessary for use of a model.

2.2.4.1 HEAT FLUX

Most stream temperature models consider the following sources of heat transferred to (or from) a stream:

- Longwave radiation (heat transferred to the stream from the atmosphere, topography, and vegetation),
- Shortwave radiation (heat from sunshine),
- Back-radiation emitted by the water,
- Evaporation and conduction between air and water, and
- Heat conducted between water and ground.

Most physical process simulation models (both steady-state and dynamic) are similar in the way they calculate these sources of heat. Calculations are based on the time of year, the latitude of the simulated area, the time of day, the amount of cloud cover, humidity, and wind speed. When simulating large stream systems, some models do not consider the local variability (e.g., the change in air temperature with elevation) in these meteorological variables. These local differences can be important influences on stream temperatures.

Shade

A major process that is not always accounted for in some stream temperature models is stream shading. Stream shading, either by topography (e.g. canyon walls) or vegetation, is important in explaining temperature variations in study streams. Accounting for stream shade can involve measurements of topographic and vegetative height; distance of topography and vegetation from stream; vegetation diameter, density and type; stream widths; compass direction of stream travel, etc. Some shade models also account for the change in vegetation density due to growth and seasonal changes. Other models may account for shade in a more approximate manner.

Friction

Stream temperatures can increase in the downstream direction as a result of frictional heating of the water resulting from travel over the streambed. The amount of heating from stream friction is generally insignificant although it can be

important in reducing the amount of ice formation in the winter. For our purposes, we probably will not need to consider frictional heating.

2.2.4.2 FLOW

The amount of water in the stream is very important in determining how resistant the temperature is to change. Lower flows typically result in warmer summer temperatures for several reasons:

- There is less mass of water to resist change in temperature, and
- Lower flows move slower resulting in the water being exposed to warming summer conditions longer.

Tributary inflows and groundwater inflows or other distributed inflows can have an important influence on stream temperatures. Cool water inflows from springs, tributaries, or groundwater often ameliorate the warming effect of low stream flows.

Changes of stream width with flow also need to be accounted for.

2.3 DEFINE MODEL CHARACTERISTICS TO BE USED IN EVALUATIONS

2.3.1 MODEL DIMENSIONALITY

Stream temperature models can be one, two, or three dimensional models (1-D, 2-D, and 3-D, respectively). A 1-D model simulates temperatures longitudinally (i.e., from upstream to downstream) and assumes that the water is well mixed laterally (in its depth and from bank to bank). A 1-D model would not be necessarily appropriate for simulating stratified impoundments in a stream. A major benefit of a 1-D model is its simplicity in setup and the least data requirements of the three.

2-D models simulate temperatures both longitudinally and either vertically (by depth) or laterally (from bank to bank). A 2-D model that simulates vertical temperatures should be able to better (than 1-D model) estimate temperatures within stratified impoundments or large stratified pools. A 2-D model will, in general, require much more data to operate and would be more difficult to set up and calibrate than a 1-D model. Based on experience with stream temperature modeling and analysis of data collected under the CAWG 5 Water Temperature Monitoring Report (SCE 2003), vertical and lateral temperature differences are generally not very important in the study streams. The level of effort and data requirements to use 2-D models are much greater than for 1-D models. The use of 2-D models is not considered necessary for modeling of study streams.

3-D models consider temperatures in all three dimensions at once: longitudinal, vertical, and lateral. A 3-D model will generally require much more data to operate and be more difficult to setup and calibrate than a 2-D model. A 3-D model requires considerably more effort to apply than a 2-D model. Other than to model temperature distributions in three dimensions within reservoirs and lakes, a 3-D model would probably be unnecessary and impractical. The use of a 3-D model should not be necessary for modeling streams in the Big Creek system.

2.3.2 SCALE

Model scale (reach or network) determines if the model simulates only a single reach at a time or the entire stream network (one or more streams including any tributaries). Reach scale (single reach at a time) and network scale (entire stream network at a time) will be the only scales considered since these would be sufficient to represent Project features and study streams.

Either a reach or network model would be useful for application to Big Creek. A network model would be preferable. This is because for some bypass reaches with larger tributaries, a network scale model would be useful and perhaps essential to account for the effect of those tributary flows and temperatures on the bypass reach temperatures in one simulation. A network scale model would also provide a significant time and labor savings (resulting from built-in "data management" capabilities) when simulating multiple bypass reaches where one or more bypass reach is the tributary to another bypass reach.

2.3.3 MODEL TYPE

A model can be a "steady-state" model or a "dynamic" model (or possibly a hybrid). A steady-state model assumes that conditions such as flow, solar radiation, and air temperature do not change throughout the simulation period (often a single day). Therefore, a steady-state model would not be able to specifically simulate how the stream temperatures change throughout the day (generally stream temperatures reach a maximum temperature in the afternoon and reach a minimum at night/early morning).

A dynamic model, on the other hand, is capable of simulating stream temperature fluctuations about the daily mean since a dynamic model accounts for daily variation in meteorology and stream flow. For example, a dynamic model considers that there is no sunshine at night; accounts for how solar radiation intensity peaks in the afternoon; and can account for how cloud cover, air temperature, and wind change throughout the day. A dynamic model also accounts for variations in flow throughout the day.

To account for these daily changes, dynamic models require more data to operate. Rather than supplying a single daily average wind speed value (for example), several wind speed values have to be supplied for each day. Typical

dynamic models require input for every 15 minutes, for each hour, or every three hours (for some models this "simulation time period" is set by the model user). The time step may affect the stability of some models. Data gaps or limited data also can affect simulation success or accuracy.

For analysis of Big Creek bypass reaches, a steady-state model would be preferred for its simplicity. Generally, stream temperature changes resulting from rapidly varying flows (and other daily variability) are not important in analyzing Big Creek bypass reaches. In other words, a model would not have to be dynamic to account for the effect of Big Creek flows on stream temperatures because flow fluctuations of the type accounted for by this type of model are uncommon, when water temperature is of concern.

On the other hand, a dynamic model is useful to simulate the daily variation in stream temperatures (e.g., on an hourly basis) resulting from daily variation of meteorology. A pure steady-state temperature model can only simulate a single daily mean temperature. Some steady-state models, however, have built-in methods to simulate daily maximum stream temperatures in addition to daily mean temperatures. Generally, these "daily maximum/steady-state" models simulate daily maximum temperatures by allowing the meteorology to vary during the day but not the flow. Examples of "daily maximum/steady-state" models are QUAL-2e and SNTMP (see sections below).

Simulated daily maximum stream temperatures would indicate the level of short-term (one to two hours) temperature exposure in a bypass reach. Single daily maximum (and minimum) stream temperatures are the direct result of the application of a "daily maximum/steady-state" model. Obviously, daily maximum stream temperatures can also be calculated from the output of a dynamic model (calculate the maximum of the 15-min, hourly, etc. stream temperatures). Dynamic models are, however, much more data intensive, produce more output than is necessary for evaluating flow release effects, are subject to instability (producing erroneous results), and are much more difficult to apply than a "daily maximum/steady-state" model.

2.3.4 MODEL AVAILABILITY AND ACCEPTABILITY

2.3.4.1 PUBLIC DOMAIN, SHAREWARE, OR PROPRIETARY

Stream temperature models are available at three different levels.

Public domain models are those that have been developed at the public's expense and can be used free of charge. Public domain models are not always supported or updated by the developing agency, nor are they necessarily available through that agency. The public domain models that we have considered are available (generally online) and do have some level of ongoing support. These models often do not have a user-friendly interface. The source

code for this type of model is generally available so that the model could be modified to account for an application-specific situation.

Shareware models are free of charge but the author retains copyright and may request a fee if the model is used in a for-profit application. The source code for this type of model is generally not available, and therefore modification of these models would be problematic.

Proprietary models are those that have been developed at considerable expense to the program sponsors and designers and are used by others through buying the model outright or leasing the model on an application-by-application basis. Part of the fee for the use of the model is generally to provide support in setting up the model.

2.3.4.2 DOCUMENTATION AND SUPPORT

At a minimum, model documentation generally consists of a user's manual supplied with the model. Sometimes example model configurations are also supplied that help guide the user in setting up their own specific project files. In at least one case (SNTEMP) there is an Internet-based, downloadable correspondence course on how to work with the model. Each model has its own specific features and design that the new user has to come to grips with. Of course, some models have better (more logical and tractable) implementations than others. In any case, each model has its own learning curve with the more complex models (higher dimension models, for example) having a steeper learning curve.

When things don't go right, or the new user is just unfamiliar with a model's implementation, it may be necessary to get support on using the model. Some public domain models have no support at all beyond the documentation provided with the model. We will not be considering unsupported models.

Most models have some level of support, generally a phone number to call or an email address of someone to contact (almost all models have some kind of Internet presence defining this support). Our experience with EPA or USGS (public domain) models is that this support is often very useful but is not always available in a timely manner.

There is often a "Frequently Asked Questions" (FAQ) list on the model's Internet site; these are usually very helpful for the new user.

At least one public domain model (CE-QUAL-W2) has an Internet forum set up for users questions and answers (answers generally provided by other users familiar with the model). Again, answers are not guaranteed to be provided in a timely manner (or at all).

The major benefit of using a proprietary model should be the level of support. Without reviewing each proprietary model in detail, we will work with the assumption that proprietary models are fully supported.

Support for shareware/freeware models is an unknown. The shareware/freeware concept has been around for scores of years. Shareware/freeware simulation models, however, are a fairly new phenomenon. The level of support for shareware/freeware models is currently an unknown.

2.3.4.3 TRACK RECORD AND PEER-REVIEWED USE

Generally, when a stream temperature model is first developed, it is sent out to be reviewed to help ensure that it is mathematically complete and representative. We would question a model's applicability if this step were skipped.

Once a model has been reviewed, published, and made available to the public, it can be applied by those potentially not involved in the original development. It is an indication of the model's applicability, usefulness, and usability to have various model applications appear in peer-reviewed journals and symposia proceedings. Successful application over time and in a variety of streams and rivers provides a track record of the model's ability and potential limitations. Models that have no peer review verification or publication in peer-reviewed forums, few applications under differing conditions, and without a track record of successful application are not considered adequate for Big Creek application.

2.3.5 ADDITIONAL CONSIDERATIONS CONCERNING MODEL STABILITY AND EASE OF USE

We list here some additional considerations in model selection. The first consideration addresses issues related to the model complexity. The more complex models (those that are dynamic and/or multidimensional) can use numerical methods (used to program a computer to do higher-order mathematics) that are unstable. This instability could result in the model crashing or, worse, giving erroneous results. The more complex the model is, the more care is required to set up the implementation for a specific project. A poorly designed implementation could result in instability.

Four additional considerations are listed that pertain to the model's ease of use; these relate directly to the cost of model implementation and execution and can reduce errors in setting up and applying the model:

- Calibration methods. Does the model have some form of automatic calibration and/or are simulated values compared to observed values in a way that facilitates the calibration of the implemented model? What is the nature of the required calibration data set?

- Batch mode. Some models can only simulate a single time step (e.g., a single day) at a time. While this is not a fatal flaw, being able to simulate many time periods in a single run (we refer to this as "batch mode") can be a major labor-saving feature.
- Statistical reporting. Several models provide an estimate of how accurate the forecasted stream temperatures could be. These statistics provide an estimate of how confident we should be in the predicted temperatures.
- User Interface. Several models provide a user interface that helps guide the user in entering data, this can greatly reduce misplacing data values (data transcription errors). Some of these user interfaces can also check the scale of the data entered to help reduce typographical errors.

2.3.6 REASONS FOR REJECTING A MODEL (REQUIREMENTS NOT MET)

The following list represents "fatal flaws" (with respect to the Big Creek application), that will result in the model being rejected:

- Application issues (inadequate documentation, overly complex, cannot simulate stream network, costly to apply);
- Cannot account for stream shading; and
- Cannot represent maximum temperatures;

2.3.7 SUMMARY OF DESIRED FEATURES

- Network scale
- Stable model
- Accounts for seasonal stream shading
- Dynamic model or otherwise capable of accurately representing maximum temperatures
- Reasonable level of effort
- Low complexity and easy to use

2.4 IDENTIFY CANDIDATE STREAM TEMPERATURE MODELS

The CAWG 5 Water Temperature Study Plan (SCE 2001) identified the following candidate stream temperature models:

- The USGS stream temperature model, SNTMP (Theurer, Voos, and Miller 1984);
- The Oregon Department of Environmental Quality model, Heat Source (Oregon DEQ 2000);
- The US Army Corps of Engineers model, CE-QUAL-W2 (Cole and Buchak 1995); and
- The US Army Corps of Engineers model, CE-QUAL-RIV1 (U.S. Army Engineer Waterways Experiment Station, 1995)

This list of models was used as a starting point for the selection of a stream temperature model to meet Big Creek needs. The following sections present a short literature review that was used to supplement this list and to provide details of these and other candidate models.

2.5 IDENTIFY AND REVIEW INFORMATION FOR EVALUATION OF CANDIDATE STREAM TEMPERATURE MODELS

In this section, we present stream temperature model comparisons and reviews obtained from the literature. These reviews provided useful summaries of available stream temperature models. We used these summaries to both expand the list of candidate stream temperature models and then limit the models that we would later discuss in more detail.

2.5.1 REVIEW OF LITERATURE (EXISTING TEMPERATURE MODEL REVIEWS)

We reviewed the literature for existing stream temperature or surface water quality model evaluations. We limited our review to process models; we did not consider regression (empirical) models. Regression models are typically developed for a single stream system or geographic region. Typically, regression models are developed from the statistical correlation observed between the stream temperatures and the meteorology and flow (a simple example would be the prediction of mean daily temperatures based on the day-of-the-year and the observed air temperature). Regression models should not be applied to conditions vastly different from those observed during the model's development. Regression models are unable to accurately predict temperatures for physical changes to the stream system (e.g., the installation of a new diversion) or for major changes in the way the system is operated.

The reviews that we considered are listed below along with a list of the (physical process) surface water quality models reviewed, cataloged, and/or evaluated.

The list of models reviewed (or cataloged) for the Great Lakes Commission (Limno-Tech, Inc. 2002) is too long to list here and is therefore included as Appendix A.

The following models were reviewed for the Idaho Department of Environmental Quality (HDR Engineering, Inc. 2002) and the reviews were used to select a stream temperature model for subsequent analysis of the Lochsa River, Idaho:

- SNTEMP
- Heat Source: Oregon Department of Environmental Quality finite difference stream temperature model
- BasinTemp: network scale mechanistic temperature model developed by Stillwater Sciences
- CE-QUAL-W2
- CE-QUAL-RIV1
- RMA-11: Resource Management Associates finite difference water quality model
- MIKE11-WQ

The following models were discussed relative to a Maryland stream temperature application downstream of a rapidly varying reservoir release (Schreiner and Birky, 1997):

- SNTEMP
- QUAL-2e
- CE-QUAL-RIV1

2.5.2 SELECT MODELS TO BE REVIEWED

We selected several models for further review including those identified in the CAWG 5 Water Temperature Study Plan (SCE 2001). This selection was based on the above reviews and on our experience with simulations modeling. The models that we selected for further review include:

- SNTEMP, USGS stream temperature model
- Heat Source, Oregon Department of Environmental Quality model

- CE-QUAL-W2 , US Army Corps of Engineers model
- CE-QUAL-RIV1, U.S. Army Engineer Waterways Experiment Station model
- QUAL-2e, U.S.E.P.A. water quality model
- RMA-11, Resource Management Associates model

3.1 REVIEW OF LITERATURE (EXISTING TEMPERATURE MODEL REVIEWS)

The models catalogued and reviewed for the Great Lakes Commission (Limno-Tech, Inc. 2002) were incorporated into an inventory of models with relevance to ecological impacts of water withdrawals. The models were not evaluated with the intent of selecting an appropriate model for a specific application.

The model reviews for the Idaho Department of Environmental Quality (HDR Engineering, Inc. 2002) were used to select a stream temperature model for subsequent analysis of the Lochsa River, Idaho. The selection criteria were similar to those of interest to Big Creek. These criteria included:

- 1) the ability to predict mean and maximum water temperatures,
- 2) the model must have river network capability,
- 3) the model must have reasonable input data requirements (feasibly obtainable data),
- 4) the model must be easy to use, and
- 5) the model must have been peer reviewed and utilized within the scientific community.

SNTEMP was selected for the subsequent Lochsa River Modeling work. The following was the rationale for selecting SNTEMP: "SNTEMP was selected based on several characteristics, including its technical capabilities, applicability to the project, the stream network component of the program, existing support network, and availability as a public domain program" (HDR Engineering, Inc. 2002). Their main criticism was: "SNTEMP's main shortcoming is its use of an algorithm to determine maximum water temperatures instead of calculating them directly" (HDR Engineering, Inc. 2002).

Stream temperature models were compared prior to application to the Youghioheny River, Maryland (Schreiner and Birky 1997). The models discussed included SNTEMP, QUAL-2e, and CE-QUAL-RIV1. CE-QUAL-RIV1 was chosen for this application due to its ability to simulate stream temperatures downstream of a rapidly varying reservoir release. Unlike the Youghioheny River, Maryland, we do not anticipate the need to represent rapidly varying flows as an important feature in representing stream temperatures.

Several models that appeared in the reviews above were specifically rejected for application to Big Creek study streams. Many were rejected primarily because they are not well known (lack of track record) or have not been used in applications similar to Big Creek. These models are listed in Appendix B.

3.2 MODEL EVALUATIONS

3.2.1 MODEL FEATURES SUMMARY

Table 3.2-1 Presents a summary of necessary model features for each reviewed model.

3.2.2 COMPARISON TO BIG CREEK NEEDS

The SNTMP model (Theurer, Voos, and Miller, 1984) was developed in the early 1980's and has been used on scores of stream systems throughout the US (citations for this model are available on the SNTMP support web site: http://www/fort.usgs.gov/products/Publications/SNTMP_refs.asp). This model was originally validated in a peer-reviewed journal on the Colorado River (Theurer and Voos 1982).

SNTMP is a 1-D network model that can be applied to networks of any size, order, and complexity. It is a steady-state model for predicting mean daily stream temperatures throughout the defined network. SNTMP uses a simplified algorithm to simulate maximum (and minimum) daily temperatures as a function of maximum daytime air temperature.

SNTMP accounts for vegetative and topographical stream shading. SNTMP also accounts for elevation change and how it affects air temperature, humidity, and air pressure.

SNTMP can work in a batch mode to analyze many forecast scenarios at a single time.

SNTMP has some features that make it a very useful model: it is simple to use, it does not require much data (works on daily values rather than requiring hourly input), and it is accurate and reliable. Its main weakness is its maximum temperature algorithm. Maximum daily temperature predictions can be less accurate than the mean daily temperatures. ENTRIX, Inc. has modified its version of the maximum temperature algorithm to account for temperature variations from tributaries and reservoirs (for example). This modification has been a great improvement on the original version and has been verified on many applications. The performance of the original modification was published with respect to its application to the Pit River (Pacific Gas and Electric Company 1985).

Table 3.2-1. Summary of Important Features by Model.

Model	Dimensions	Scale	Maximum Temperatures	Shade	Documentation / Support	Peer-Reviewed Use	Data Requirements / Setup Effort	Calibration Effort / Tools	Applied to Big Creek System
SNTEMP	1-D	Network	Yes ¹	Yes	Good / Very Good (online course available)	Extensive	Moderate / Moderate	Moderate / (statistics, batch mode, calibration methods)	Big Creek, Stevenson Reach, Mammoth Pool reach, Horseshoe Bend
Heat Source	1-D	Network	Yes	Yes	Good / Little track record (relatively new model)	Adequate (relatively new model)	Extensive / High	Moderate / (User interface, statistics)	No
CE-QUAL-W2 ⁴	2-D	Network	Yes	Yes	Good / Good (Internet forum available)	Extensive	Extensive / High	High / Model Preprocessor	No
CE-QUAL-RIV1	1-D	Network	Yes	No	Good / Good	Extensive	Extensive / High	High	No
RMA-11 ⁴	1-, 2-, 3-D	Network	Yes	No	Good / Very Good	Extensive	Extensive / High	High / Additional software available for model components	No
QUAL-2e	1-D	Network	Yes ²	No ³	Good / Good	Extensive	Moderate / Moderate	Moderate / (User interface)	No

Notes:

1. SNTEMP is a steady-state model that calculates maximum temperatures from calculated mean daily temperatures and internally estimated maximum daily air temperature (and other factors).
2. QUAL-2e is not a dynamic model and calculates daily water temperature fluctuations based on fluctuations in meteorological conditions and does not account for time variation in the initial (starting) water temperatures.
3. QUAL-2e has no supplied direct way to account for shade but each stream reach's solar radiation value can be adjusted by a solar radiation adjustment factor and an external shade model is used to calculate these adjustments.
4. Model has the capability to model stratified conditions (2-D or 3-D).

Another useful feature of SNTMP is automatic calculation of simulation bias and standard error (50 percent confidence). Based on our experience in using a properly calibrated SNTMP model, simulated mean daily temperatures can be expected to be within +/- 0.5°C of actual values (50 percent confidence). Maximum daily temperatures can be expected to be within 1 to 1.5°C of actual values (50 percent confidence).

SNTMP has been successfully applied to several reaches in Big Creek including the Mammoth Pool Reach, Stevenson Reach, Big Creek, and the Horseshoe Bend Reach of the SJR. These models are available for use. Since one or more of these reaches may need to be modeled, selection of a model that has already been calibrated and applied makes sense for those reaches, at a minimum, as identified in the CAWG 5 study plan.

Based on all factors considered, we would expect that SNTMP would serve well.

The Heat Source model was developed as a Master's thesis in 1996 (Boyd and Kasper 2003b). The Heat Source model has been applied to several Oregon streams; several model applications have been recently (2002/2003) published in peer reviewed symposia proceedings (Boyd and Kasper, 2003b).

Heat Source is a dynamic, 1-D network model. This model was originally designed to simulate daily varying stream temperatures for smaller stream systems with variable vegetative canopy. It allows for unsteady and varied flows using a relatively stable simulation technique.

This model is unique in that it calculates streambed heating and streambed heat exchange with the stream. Heat Source also, uniquely, calculates hyporheic (intergravel) flow and heat exchange.

Heat Source code is shareware/freeware and available for modification. It is written in Visual Basic with Excel input. The Heat Source model requires using the TTools program that provides an interface to ArcView. Geographic data (digitized stream, digitized banks, vegetation grid, and elevation grids), in ArcView format, are required to run the model. These digitized data are used to calculate topographic and vegetative shading, stream length, channel width, etc. (Boyd and Kasper 2003). Manual entry of stream length, width, etc. does appear to be possible, but extremely laborious. Data entry has to go through a user interface, an input file cannot be written efficiently.

Since many model parameters are linked to GIS representation, there is limited capability for other calibration without redefining the physical system. Similar to SNTMP, Heat Source provides goodness-of-fit statistics.

The Heat Source model (Boyd and Kasper, 2003) appears to have many features that would be useful to Big Creek study stream application. One concern that we have with the current implementation of this model is that it

appears that information on the stream structure is designed to be supplied through the ArcView GIS application (“Spatial data sets require digitizing and remotely sensing”, Boyd and Kasper, 2003b). Thus, stream width and other stream structure data, and stream shade data that were collected from the field, would have to be adapted to and digitized in GIS or hand-entered after information is imported from GIS. Additional work is required to implement this model because the raw data necessary to calculate these stream structure and shade values must be digitized from aerial surveys and maps. It appears to be possible to enter these values outside of GIS, using the supplied user-interface, but it would be laborious to hand enter all of the values required by the model. Heat Source hydrology data needs may be affected by the “coarseness” of flow information available for some tributaries.

The CE-QUAL-W2 model (Cole and Buchak 1995) was derived from a reservoir model first developed in 1975 (Edinger and Buchak 1975). A support web site (<http://www.ce.pdx.edu/w2/w2app.htm>) lists sixteen applications throughout the world where CE-QUAL-W2 was used to simulate stream temperatures. The same site lists over one hundred applications to reservoir temperature simulation.

CE-QUAL-W2 is a 2-D model that considers temperature differences in the longitudinal and vertical dimensions. It is a dynamic model and simulates temperature as well as up to 19 other water quality parameters. The current version is 3.1.

The model requires much care in setting up the grid representing the stream (the stream has to be simulated as a grid of cells of equal length and depth). If the grid is too coarse, numerical instability and numerical errors will result, producing erroneous output. If the grid is too fine, system memory requirements will be exceeded or execution times would be prohibitively long.

The simulation output of CE-QUAL-W2 is in a spreadsheet friendly format.

CE-QUAL-W2 has some potential for application to Big Creek streams. This 2-D model would be too complex and data intensive for general application. CE-QUAL-W2 may also be useful, if simulation of stratified reservoirs is needed in conjunction with a bypass reach. CE-QUAL-W2 is the only public domain model reviewed that accounts for stratification. Data needs for CE-QUAL-W2 are extensive and its stability may be sensitive to the “coarseness” of hydrology available for some tributaries.

The CE-QUAL-RIV1 model (U.S. Army Engineer Waterways Experiment Station 1995) was originally developed by Ohio State University for the U.S. Environmental protection Agency (EPA) to simulate water quality in storm water runoff. Ohio State then modified the model for the U.S. Army Engineer Waterways Experiment Station. After thorough testing and modification, the resultant model was released as CE-QUAL-RIV1 Version 1.0 in 1991. Version

2.0 (the current version) was released in 1995 (U.S. Army Engineer Waterways Experiment Station 1999).

CE-QUAL-RIV1 is a 1-D model originally developed to deal with "highly unsteady flows".

CE-QUAL-RIV1 is a dynamic network model. The water temperature sub-model is based on the QUAL-2e model (described below); as with QUAL-2e, CE-QUAL-RIV1 appears to have no method to account for stream shade. It is a dynamic model and capable of simulating maximum daily temperatures. Temperature is one of 12 water quality components that can be simulated.

CE-QUAL-RIV1 is not recommended for Big Creek simulations. In general, "highly unsteady flows" are not an overly important consideration in Big Creek study streams. The model would be overly complex to configure and would require much more data than other models and would provide little or no benefit in the more normal flow conditions that we would be considering. This model is also not able to account for stream shade or impoundment stratification.

The QUAL-2e model (Brown and Barnwell 1987) is a steady-state 1-D model. QUAL-2e can be operated in "quasi-dynamic" mode (Brown and Barnwell, 1987) to simulate maximum temperatures. In this mode, daily variation of stream temperatures is estimated by varying meteorological values during the day but assuming that flow stays constant. From recent experience, we have discovered that the simulated maximum daily temperatures can be unrealistic. This is because QUAL-2e does not consider what the value of the maximum temperature is upstream of the current location. Downstream of reservoirs and tributary inflows, maximum stream temperatures are almost always overestimated by this limited algorithm.

QUAL-2e also does not explicitly account for stream shade. For these reasons, we do not recommend applying QUAL-2e to Big Creek study streams.

We also do not recommend the use of RMA-11 for Big Creek. RMA-11 was originally developed for the U.S. Army Corps of Engineers and an earlier version of the model RMA-4 is still being used as part of the Corp's modeling system (Resource Management Associates 2003). This model has been applied to several streams and reservoirs in the Central Valley Project (Deas and Downey 2000).

The RMA-11 model is a proprietary model applicable to rivers, estuaries, and groundwater environments. Temperature is one of 14 water quality components that can be simulated. The RMA-11 model can simulate in 1-D, 2-D, or 3-D modes. It is a dynamic model so it can simulate maximum daily temperatures.

Velocities and depths may be user supplied or generated by the separate 2-D hydrodynamic model (RMA-2) or 3-D stratified flow model (RMA-10).

RMA-11 uses pre-processor graphic modules to help user set up input files. In general, use of RMA-11 can be labor intensive.

RMA-11 model does not explicitly account for topographic or vegetative shade. Some university workers, however, have written additional computational routines to account for shade. Additionally, RMA-11 has extensive data requirements depending on whether a 2D or 3D model is necessary.

3.2.3 ADDITIONAL USEFUL FEATURES IN SELECTED MODELS

ENTRIX, Inc. has previously developed an interface to SNTMP for managing model calibration. This interface greatly enhances the ability to accurately and methodically calibrate the stream temperature model to the entire network at once. ENTRIX, Inc. has also previously modified the maximum temperature algorithm of the SNTMP model to improve simulations downstream of reservoirs and tributary inflows.

Portland State University, Civil and Environmental Engineering Department maintains a user's forum and FAQ for CE-QUAL-W2 (<http://dneiper.ce.pdx.edu/w2/index.php>).

Heat Source provides a menu driven system for the model and its components. This includes the TTools ArcView extension, as well as the main model. It operates under Microsoft Windows utilizing Excel 2000 or XP, rather than as a stand alone program.

4.1 RANKING COMPARISON OF MODEL(S) FOR APPLICATION

Based on our reviews of the selected models, we rank the models in order from most applicable to not recommended:

- 1) SNTEMP (easy to apply, already applied to reaches that are likely candidates for simulation, might not be the best choice for locations where maximum daily temperatures are the most critical issue – based on preliminary analysis of observed data, however, maximum temperatures do not appear to be the most critical issue);
- 2) Heat Source (applicable, appears to be straight-forward to apply although some model parameters must be derived from GIS coverages which significantly increases model setup effort. May be sensitive to “coarseness” of hydrology data. Multispectral or infrared orthorectified digital imaging is recommended (Boyd, 2003) to improve longitudinal temperature accuracy, the use of which might impose significant delays on implementation);
- 3) CE-QUAL-W2 (applicable, not as easy to apply, able to simulate stratified impoundments and reservoirs, may be useful in the future, but no specific need for these features has been identified at this time);
- 4) RMA-11 (not recommended due to proprietary nature, expense of application, lack of critical capabilities and utilities);
- 5) QUAL-2e (not recommended);
- 6) CE-QUAL-RIV1 (not recommended).

4.2 RECOMMENDED MODELS

Our first choice of stream temperature models to apply to Big Creek is the SNTEMP model. We recommend this model because it is easy to use, yet accurate. It has been applied to many and diverse stream systems. Also, it has been successfully applied to several Big Creek reaches, including those under current consideration. Its main weakness (in being applied to Big Creek reaches) is the potential for decreased accuracy in simulating maximum temperatures under some conditions. This limitation will be less of an issue because:

- 1) ENTRIX, Inc. would use a modified version of SNTEMP that uses an improved maximum temperature algorithm; and

- 2) Maximum temperatures do not appear to be a critical issue in Big Creek reaches since these only appear to occur when daily mean temperature exceeds 19°C.

Based on reviews, documentation, and discussion with its author, we can recommend the Heat Source model. This model is relatively new and has not been as well-supported as might be desirable. It has also not been as widely applied as models such as CE-QUAL-W2 and SNTMP. The primary issue that we have with applying Heat Source to Big Creek is that it is necessary to go through the labor-intensive process of digitizing and/ or manually inputting stream structure and related data. The resultant digitized data may not provide estimates of some structural features of the same quality as are available from other, non-digitized, field-truthed data sources. The use of orthorectified TIR imaging of model reaches is desirable for application of this model, which may affect schedule.

Another model to have all of the features that apply to Big Creek is CE-QUAL-W2. We reservedly recommend that this model be considered (for potential application to specific reaches) because it should be able to accurately simulate what is required for Big Creek and because it is a well-utilized model that has been applied to many stream systems, lakes and reservoirs. A USGS web site (http://smig.usgs.gov/SMIC/model_pages/cequalw2.html) presents six application abstracts and over 20 references.

Since CE-QUAL-W2 is a 2-D dynamic model, however, extensive data input would be required. Assembling all the necessary data in the required formats would be no small task.

In addition to extensive data requirements, CE-QUAL-W2 can have numerical stability problems in execution. This model must be carefully configured to avoid system crashes or erroneous results. "Coarseness" of hydrology data can contribute to this problem.

We recommend that the SNTMP model be applied to the simulation of mean daily and maximum daily stream temperatures of Big Creek reaches. This model is recommended for its ease of use and accuracy and because it has already been applied to several of the Big Creek reaches that are likely to be modeled. It is recommended that existing SNTMP models be used to the extent feasible.

We also recommend that Heat Source or CE-QUAL-W2 should be considered for any reach where an adequate SNTMP calibration cannot be obtained. These models should potentially be considered for such a reach, if there is some feature of the stream reach that results in a need for a dynamic model to adequately represent it.

Because of data requirements, additional labor, and potential stability issues, we recommend that such application be considered only where sufficient data are available and there is a demonstrated need to supplement SNTMP.

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APPENDIX A

MODELS REVIEWED (OR CATALOGED) FOR THE GREAT LAKES
COMMISSION

The models reviewed (or cataloged) for the Great Lakes Commission (Limno-Tech, Inc. 2002) are listed below:

- AQUATOX
- CE-QUAL-ICM: A Three Dimensional Time-variable Integrated-Compartment Eutrophication Model;
- CE-QUAL-RIV1: Hydrodynamic and Water Quality Model for Streams;
- CE-QUAL-W2: A Two-Dimensional, Laterally Averaged, Hydrodynamic and Water Quality Model;
- ECOFATE;
- EUTROMOD: Watershed and Lake Modeling Procedure;
- GBTOX (Green Bay Toxics Model);
- HUDTOX
- HSPF (Hydrological Simulation Program FORTRAN)
- MIKE11-WQ: Generalized Modeling Package-1-D-Water Quality
- MIKE21-WQ: Generalized Modeling Package-2-D-Water Quality
- MIKE3WQ: Generalized Modeling Package-3-D-Water Quality
- QUAL2E: The Enhanced Stream Water Quality Model
- QWASI (Quantitative Water Air Sediment Interaction Model)
- RATECON (Rate Constant Model for Chemical Dynamics)
- SAGEM (Saginaw Bay Ecosystem Model)
- SMPTOX4 (Simplified Method Program – Variable-Complexity Stream Toxics Model)
- SNTMP/SSTEMP: Stream Network/Stream Segment Temperature Models
- WAQ-DELFTS3D: 3-D time variable water quality model
- WARMF (Watershed Analysis Risk Management Framework)
- WASP5 (Water Quality Analysis Simulation Program)
- WASTOX (Water Quality Analysis Simulation of TOXics)

APPENDIX B
REJECTED MODELS

The following models identified in reviews were rejected for further review:

- BasinTemp. This is a proprietary model that requires GIS data and uses linear relationships to estimate daily maximum stream temperatures from the prediction of daily means. Because of its proprietary nature, lack of any advantage over previously identified models with a history of application, and because “all input data must be sent to Stillwater Sciences for model operation” (HDR Engineering, Inc. 2002), this model was rejected for further consideration.
- CE-QUAL-ICM. This is a 3-D model that would be unnecessarily complex for Big Creek application.
- ECOFATE. This is a surface water chemical fate and transport model that does not have stream temperature simulation as the main focus .
- EFDC. This is a 3-D model that would be unnecessarily complex for Big Creek application.
- EUTROMOD. This is a regression-based watershed scale model that is not process-based and would not likely provide the detail required for Big Creek.
- GBTOX. “This evaluates the chemical transport in surface waters in a temporal and spatial resolution by coupling several models including eutrophication, contaminant fate and transport, and food web models” (Limno-Tech, Inc. 2002). The main focus of this model is not temperature and it is too regionally-specific.
- HSPF. This is a watershed scale model that wasn’t further considered due to identified difficulties in using the model.
- MIKE11-WQ. This is a proprietary, 1-D watershed scale model of sediment/water quality transport. This model was not considered further because it is proprietary and expensive to lease.
- MIKE21-WQ. This is a proprietary, 2-D watershed scale model of sediment/water quality transport. This model was not considered further because it is proprietary and expensive to lease.
- MIKE3WQ. This is a proprietary, 3-D watershed scale model of sediment/water quality transport. This model was not considered further because it is proprietary and expensive to lease.
- QWASI. This is a sediment interaction model that was cataloged but not reviewed (Limno-Tech, Inc. 2002).

- RATECON. This is a dynamic, 1-D lake model of chemical dynamics. The main focus of this model is not temperature; it is not clear if the model simulates temperature.
- SAGEM. SAGEM "...simulate(s) time-varying concentrations of water quality constituents by coupling eutrophication, contaminant fate and transport, benthic, zebra mussel bioenergetics, and bioaccumulation models" (Limno-Tech, Inc. 2002). The main focus of this model is not temperature and it is too regionally-specific.
- SMPTOX4. "SMPTOX4 is a steady-state, one-dimensional analytical model for predicting suspended solids, and dissolved and particulate toxicant concentrations in the water column and streambed resulting from point source discharges into streams and rivers" (Limno-Tech, Inc. 2002). This model does not appear to simulate stream temperatures.
- SSTEMP. The SSTEMP model is a single-segment, single time period version of SNTMP. SSTEMP is not considered further since it simulates a single reach (segment) at a time.
- WAQ-DELFTS3D. This is a 3-D, time variable water quality model that would be unnecessarily complex for Big Creek application.
- WARMF. This is a watershed-scale model that would not likely provide the detail required for Big Creek.
- WASP5. This is a dynamic, 1-D, 2-D, or 3-D fate and transport model of conventional and toxic pollutants in surface waters (rivers, lakes, and estuaries). This model could have potential for application to Big Creek but is not considered further.
- WASTOX. This is a dynamic, 1-D, 2-D, or 3-D water quality model of toxic chemicals. This model was cataloged but not reviewed (Limno-Tech, Inc. 2002). This model could have potential for application, but appears to provide no additional features of importance water temperature in study streams, beyond models being considered. It is not considered further.

APPENDIX D
TEMPERATURE MODEL SIMULATION TABLES

APPENDIX D

BIG CREEK

CAWG 5 WATER TEMPERATURE MODELING

TEMPERATURE MODEL SIMULATION TABLES

List of locations in order of appearance:

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San Joaquin River Reach (Upstream of Mammoth Pool).....	D-49
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Stevenson Reach.....	D-93
Stevenson Creek.....	D-113
Upper Big Creek.....	D-125
Lower Big Creek.....	D-141

TEMPERATURE MODEL SIMULATION FIGURES

South Fork San Joaquin River Reach	D-157
San Joaquin River Reach (Upstream of Mammoth Pool).....	D-169
Mammoth Reach	D-181
Rock Creek	D-201
Stevenson Reach.....	D-213
Stevenson Creek.....	D-233
Upper Big Creek.....	D-245
Lower Big Creek.....	D-261

TEMPERATURE MODEL SIMULATION TABLES

Table CAWG 5 Appendix D-1. South Fork San Joaquin River Simulated Daily Mean Temperatures (°C); Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	15.0	15.1	15.1	15.1	15.1	15.1	15.0	15.0	15.0	15.0	14.9	14.9	14.9	14.8	14.5
40.70	2.58	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.0	15.0	15.0	14.9	14.9	14.5
40.74	2.55	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.0	15.0	15.0	14.9	14.9	14.6
41.15	2.30	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.0	15.0	15.0	14.9	14.6
41.24	2.24	15.1	15.1	15.1	15.2	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.0	15.0	14.9	14.6
41.74	1.93	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.1	15.1	15.1	15.1	15.0	15.0	15.0	14.6
42.10	1.71	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.1	15.1	15.1	15.1	15.0	15.0	14.6
42.24	1.62	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.1	15.1	15.1	15.0	15.0	14.6
42.25	1.61	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.1	15.1	15.1	15.0	15.0	14.6
42.74	1.31	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.2	15.2	15.2	15.1	15.1	14.7
42.75	1.30	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.2	15.2	15.2	15.1	15.1	14.7
43.24	1.00	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.2	15.2	14.9
43.35	0.93	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.3	15.2	14.9
43.65	0.74	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.3	15.2	14.9
43.74	0.69	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.3	15.2	14.9
43.90	0.59	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.3	15.2	14.9
44.24	0.38	15.4	15.4	15.4	15.5	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.2	14.9
44.45	0.25	15.4	15.4	15.4	15.5	15.5	15.4	15.4	15.4	15.4	15.4	15.4	15.3	15.3	15.2	14.9
44.74	0.07	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.4	15.4	15.4	15.3	15.3	14.9
44.80	0.03	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.4	15.4	15.4	15.3	15.3	14.9
44.85	0.00	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.4	15.4	15.4	15.3	15.3	15.0
44.98	-0.09	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.4	15.4	15.4	15.3	15.0
44.99	-0.09	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-2. South Fork San Joaquin River Simulated Daily Mean Temperatures (°C); Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	19.0	19.0	19.0	18.9	18.9	18.8	18.7	18.6	18.5	18.3	18.2	18.0	17.8	17.7	16.6
40.70	2.58	19.1	19.1	19.0	19.0	18.9	18.8	18.7	18.6	18.6	18.4	18.2	18.0	17.9	17.7	16.6
40.74	2.55	19.1	19.1	19.0	19.0	18.9	18.8	18.8	18.7	18.6	18.4	18.2	18.0	17.9	17.7	16.6
41.15	2.30	19.2	19.1	19.1	19.0	19.0	18.9	18.8	18.7	18.6	18.4	18.3	18.1	17.9	17.8	16.7
41.24	2.24	19.2	19.1	19.1	19.0	19.0	18.9	18.8	18.7	18.6	18.5	18.3	18.1	17.9	17.8	16.7
41.74	1.93	19.2	19.2	19.1	19.1	19.0	18.9	18.9	18.8	18.7	18.5	18.3	18.1	18.0	17.8	16.7
42.10	1.71	19.3	19.2	19.2	19.1	19.0	19.0	18.9	18.8	18.7	18.5	18.4	18.2	18.0	17.9	16.8
42.24	1.62	19.3	19.3	19.2	19.1	19.1	19.0	18.9	18.8	18.7	18.5	18.4	18.2	18.0	17.9	16.8
42.25	1.61	19.3	19.3	19.2	19.1	19.1	19.0	18.9	18.8	18.7	18.5	18.4	18.2	18.0	17.9	16.8
42.74	1.31	19.4	19.4	19.3	19.2	19.2	19.1	19.0	18.9	18.8	18.6	18.5	18.3	18.1	18.0	16.9
42.75	1.30	19.4	19.4	19.3	19.2	19.2	19.1	19.0	18.9	18.8	18.6	18.5	18.3	18.1	18.0	16.9
43.24	1.00	19.5	19.5	19.4	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.6	18.4	18.2	18.1	17.0
43.35	0.93	19.5	19.5	19.5	19.4	19.3	19.2	19.1	19.1	19.0	18.8	18.6	18.4	18.3	18.1	17.0
43.65	0.74	19.6	19.5	19.5	19.4	19.3	19.3	19.2	19.1	19.0	18.8	18.6	18.5	18.3	18.1	17.0
43.74	0.69	19.6	19.5	19.5	19.4	19.3	19.3	19.2	19.1	19.0	18.8	18.6	18.5	18.3	18.1	17.0
43.90	0.59	19.6	19.5	19.5	19.4	19.3	19.3	19.2	19.1	19.0	18.8	18.6	18.5	18.3	18.1	17.0
44.24	0.38	19.6	19.6	19.5	19.5	19.4	19.3	19.2	19.1	19.0	18.8	18.6	18.5	18.3	18.2	17.0
44.45	0.25	19.6	19.6	19.5	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.7	18.5	18.3	18.2	17.0
44.74	0.07	19.7	19.7	19.6	19.5	19.4	19.4	19.3	19.2	19.1	18.9	18.7	18.5	18.4	18.2	17.1
44.80	0.03	19.7	19.7	19.6	19.5	19.5	19.4	19.3	19.2	19.1	18.9	18.7	18.6	18.4	18.2	17.1
44.85	0.00	19.7	19.7	19.6	19.5	19.5	19.4	19.3	19.2	19.1	18.9	18.7	18.6	18.4	18.2	17.1
44.98	-0.09	19.8	19.7	19.6	19.6	19.5	19.4	19.3	19.2	19.1	18.9	18.8	18.6	18.4	18.3	17.1
44.99	-0.09	16.5	16.5	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.4

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-3. South Fork San Joaquin River Simulated Daily Mean Temperatures (°C); Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	18.3	18.2	18.2	18.1	18.1	18.0	18.0	17.9	17.8	17.7	17.6	17.5	17.4	17.3	16.7
40.70	2.58	18.3	18.3	18.2	18.2	18.1	18.1	18.0	17.9	17.9	17.8	17.6	17.5	17.4	17.4	16.7
40.74	2.55	18.3	18.3	18.2	18.2	18.1	18.1	18.0	17.9	17.9	17.8	17.7	17.5	17.4	17.4	16.7
41.15	2.30	18.4	18.3	18.3	18.2	18.2	18.1	18.0	18.0	17.9	17.8	17.7	17.6	17.5	17.4	16.8
41.24	2.24	18.4	18.3	18.3	18.2	18.2	18.1	18.1	18.0	17.9	17.8	17.7	17.6	17.5	17.4	16.8
41.74	1.93	18.4	18.4	18.3	18.3	18.2	18.1	18.1	18.0	18.0	17.9	17.7	17.6	17.5	17.4	16.8
42.10	1.71	18.5	18.4	18.4	18.3	18.2	18.2	18.1	18.1	18.0	17.9	17.8	17.6	17.5	17.5	16.8
42.24	1.62	18.5	18.4	18.4	18.3	18.3	18.2	18.1	18.1	18.0	17.9	17.8	17.7	17.6	17.5	16.8
42.25	1.61	18.5	18.4	18.4	18.3	18.3	18.2	18.1	18.1	18.0	17.9	17.8	17.7	17.6	17.5	16.8
42.74	1.31	18.6	18.5	18.5	18.4	18.4	18.3	18.2	18.2	18.1	18.0	17.9	17.8	17.6	17.6	16.9
42.75	1.30	18.6	18.5	18.5	18.4	18.4	18.3	18.2	18.2	18.1	18.0	17.9	17.8	17.6	17.6	16.9
43.24	1.00	18.7	18.6	18.6	18.5	18.5	18.4	18.3	18.3	18.2	18.1	18.0	17.9	17.8	17.7	17.0
43.35	0.93	18.7	18.7	18.6	18.6	18.5	18.4	18.4	18.3	18.2	18.1	18.0	17.9	17.8	17.7	17.0
43.65	0.74	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.3	18.3	18.1	18.0	17.9	17.8	17.7	17.0
43.74	0.69	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.3	18.3	18.1	18.0	17.9	17.8	17.7	17.0
43.90	0.59	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.3	18.3	18.1	18.0	17.9	17.8	17.7	17.0
44.24	0.38	18.8	18.7	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.1	18.0	17.9	17.8	17.7	17.0
44.45	0.25	18.8	18.8	18.7	18.6	18.6	18.5	18.4	18.4	18.3	18.2	18.0	17.9	17.8	17.7	17.1
44.74	0.07	18.9	18.8	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.2	18.1	18.0	17.9	17.8	17.1
44.80	0.03	18.9	18.8	18.8	18.7	18.6	18.6	18.5	18.4	18.4	18.2	18.1	18.0	17.9	17.8	17.1
44.85	0.00	18.9	18.8	18.8	18.7	18.6	18.6	18.5	18.4	18.4	18.2	18.1	18.0	17.9	17.8	17.1
44.98	-0.09	18.9	18.9	18.8	18.7	18.6	18.6	18.5	18.4	18.4	18.3	18.1	18.0	17.9	17.8	17.1
44.99	-0.09	17.3	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.1

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-4. South Fork San Joaquin River Simulated Daily Mean Temperatures (°C); Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	16.9	17.0	17.0	17.0	17.0	17.0	17.0	16.9	16.9	16.8	16.7	16.6	16.6	16.5	15.7
40.70	2.58	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	16.9	16.9	16.8	16.7	16.6	16.5	15.8
40.74	2.55	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	16.9	16.8	16.7	16.6	16.5	15.8
41.15	2.30	17.0	17.0	17.1	17.1	17.1	17.1	17.0	17.0	17.0	16.9	16.8	16.8	16.7	16.6	15.8
41.24	2.24	17.0	17.1	17.1	17.1	17.1	17.1	17.1	17.0	17.0	16.9	16.8	16.8	16.7	16.6	15.8
41.74	1.93	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.0	17.0	16.9	16.8	16.7	16.6	15.8
42.10	1.71	17.1	17.1	17.2	17.2	17.2	17.1	17.1	17.1	17.1	17.0	16.9	16.8	16.7	16.6	15.9
42.24	1.62	17.1	17.2	17.2	17.2	17.2	17.2	17.1	17.1	17.1	17.0	16.9	16.8	16.8	16.6	15.9
42.25	1.61	17.1	17.2	17.2	17.2	17.2	17.2	17.1	17.1	17.1	17.0	16.9	16.8	16.8	16.7	15.9
42.74	1.31	17.2	17.3	17.3	17.3	17.3	17.3	17.2	17.2	17.2	17.1	17.0	16.9	16.8	16.7	16.0
42.75	1.30	17.2	17.3	17.3	17.3	17.3	17.3	17.2	17.2	17.2	17.1	17.0	16.9	16.8	16.8	16.0
43.24	1.00	17.3	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.2	17.1	17.0	17.0	16.9	16.1
43.35	0.93	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.2	17.1	17.1	17.0	16.9	16.1
43.65	0.74	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.2	17.1	17.0	16.9	16.1
43.74	0.69	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.2	17.1	17.0	16.9	16.1
43.90	0.59	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.2	17.1	17.0	16.9	16.1
44.24	0.38	17.4	17.4	17.5	17.5	17.5	17.4	17.4	17.4	17.4	17.3	17.2	17.1	17.0	16.9	16.1
44.45	0.25	17.4	17.5	17.5	17.5	17.5	17.4	17.4	17.4	17.4	17.3	17.2	17.1	17.0	16.9	16.1
44.74	0.07	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.3	17.2	17.2	17.1	17.0	16.2
44.80	0.03	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.3	17.2	17.1	17.0	16.2
44.85	0.00	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.3	17.2	17.1	17.0	16.2
44.98	-0.09	17.5	17.5	17.6	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.3	17.2	17.1	17.0	16.2
44.99	-0.09	14.6	14.6	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-5. South Fork San Joaquin River Simulated Daily Mean Temperatures (°C); Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	20.6	20.6	20.5	20.4	20.4	20.3	20.1	20.0	19.9	19.7	19.5	19.3	19.1	18.9	17.6
40.70	2.58	20.7	20.6	20.6	20.5	20.4	20.3	20.2	20.1	20.0	19.8	19.5	19.3	19.1	18.9	17.6
40.74	2.55	20.7	20.6	20.6	20.5	20.4	20.3	20.2	20.1	20.0	19.8	19.5	19.3	19.1	18.9	17.6
41.15	2.30	20.7	20.7	20.6	20.5	20.5	20.4	20.3	20.1	20.0	19.8	19.6	19.4	19.2	19.0	17.7
41.24	2.24	20.7	20.7	20.6	20.5	20.5	20.4	20.3	20.1	20.0	19.8	19.6	19.4	19.2	19.0	17.7
41.74	1.93	20.8	20.8	20.7	20.6	20.5	20.4	20.3	20.2	20.1	19.9	19.6	19.4	19.2	19.0	17.7
42.10	1.71	20.8	20.8	20.7	20.6	20.6	20.5	20.4	20.2	20.1	19.9	19.7	19.5	19.3	19.1	17.8
42.24	1.62	20.9	20.8	20.8	20.7	20.6	20.5	20.4	20.3	20.1	19.9	19.7	19.5	19.3	19.1	17.8
42.25	1.61	20.9	20.8	20.8	20.7	20.6	20.5	20.4	20.3	20.1	19.9	19.7	19.5	19.3	19.1	17.8
42.74	1.31	21.0	20.9	20.9	20.8	20.7	20.6	20.5	20.4	20.2	20.0	19.8	19.6	19.4	19.2	17.9
42.75	1.30	21.0	20.9	20.9	20.8	20.7	20.6	20.5	20.4	20.3	20.0	19.8	19.6	19.4	19.2	17.9
43.24	1.00	21.1	21.0	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.1	19.9	19.7	19.5	19.3	18.0
43.35	0.93	21.1	21.1	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.2	19.9	19.7	19.5	19.3	18.0
43.65	0.74	21.2	21.1	21.0	21.0	20.9	20.8	20.6	20.5	20.4	20.2	20.0	19.7	19.5	19.4	18.0
43.74	0.69	21.2	21.1	21.0	21.0	20.9	20.8	20.6	20.5	20.4	20.2	20.0	19.8	19.5	19.4	18.0
43.90	0.59	21.2	21.1	21.1	21.0	20.9	20.8	20.7	20.5	20.4	20.2	20.0	19.8	19.6	19.4	18.0
44.24	0.38	21.2	21.2	21.1	21.0	20.9	20.8	20.7	20.6	20.5	20.2	20.0	19.8	19.6	19.4	18.0
44.45	0.25	21.3	21.2	21.1	21.0	20.9	20.8	20.7	20.6	20.5	20.2	20.0	19.8	19.6	19.4	18.0
44.74	0.07	21.3	21.3	21.2	21.1	21.0	20.9	20.8	20.6	20.5	20.3	20.1	19.9	19.6	19.5	18.1
44.80	0.03	21.3	21.3	21.2	21.1	21.0	20.9	20.8	20.7	20.5	20.3	20.1	19.9	19.7	19.5	18.1
44.85	0.00	21.3	21.3	21.2	21.1	21.0	20.9	20.8	20.7	20.5	20.3	20.1	19.9	19.7	19.5	18.1
44.98	-0.09	21.4	21.3	21.2	21.1	21.0	20.9	20.8	20.7	20.6	20.3	20.1	19.9	19.7	19.5	18.1
44.99	-0.09	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	17.9

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-6. South Fork San Joaquin River Simulated Daily Mean Temperatures (°C); Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release

Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	19.8	19.8	19.7	19.6	19.6	19.5	19.4	19.3	19.2	19.1	18.9	18.8	18.6	18.5	17.6
40.70	2.58	19.9	19.8	19.8	19.7	19.6	19.5	19.5	19.4	19.3	19.1	19.0	18.8	18.6	18.5	17.6
40.74	2.55	19.9	19.8	19.8	19.7	19.6	19.5	19.5	19.4	19.3	19.1	19.0	18.8	18.7	18.5	17.6
41.15	2.30	19.9	19.9	19.8	19.7	19.7	19.6	19.5	19.4	19.3	19.2	19.0	18.8	18.7	18.6	17.7
41.24	2.24	19.9	19.9	19.8	19.8	19.7	19.6	19.5	19.4	19.3	19.2	19.0	18.9	18.7	18.6	17.7
41.74	1.93	20.0	19.9	19.9	19.8	19.7	19.6	19.6	19.5	19.4	19.2	19.0	18.9	18.7	18.6	17.7
42.10	1.71	20.0	20.0	19.9	19.8	19.8	19.7	19.6	19.5	19.4	19.2	19.1	18.9	18.8	18.6	17.8
42.24	1.62	20.1	20.0	19.9	19.9	19.8	19.7	19.6	19.5	19.4	19.3	19.1	18.9	18.8	18.7	17.8
42.25	1.61	20.1	20.0	19.9	19.9	19.8	19.7	19.6	19.5	19.4	19.3	19.1	18.9	18.8	18.7	17.8
42.74	1.31	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.6	19.5	19.4	19.2	19.0	18.9	18.7	17.9
42.75	1.30	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.6	19.5	19.4	19.2	19.0	18.9	18.8	17.9
43.24	1.00	20.3	20.2	20.2	20.1	20.0	19.9	19.8	19.7	19.6	19.5	19.3	19.1	19.0	18.9	18.0
43.35	0.93	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.8	19.7	19.5	19.3	19.2	19.0	18.9	18.0
43.65	0.74	20.4	20.3	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.5	19.3	19.2	19.0	18.9	18.0
43.74	0.69	20.4	20.3	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.5	19.3	19.2	19.0	18.9	18.0
43.90	0.59	20.4	20.3	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.5	19.4	19.2	19.0	18.9	18.0
44.24	0.38	20.4	20.3	20.3	20.2	20.1	20.0	19.9	19.8	19.7	19.5	19.4	19.2	19.0	18.9	18.0
44.45	0.25	20.5	20.4	20.3	20.2	20.1	20.0	19.9	19.8	19.7	19.5	19.4	19.2	19.1	18.9	18.0
44.74	0.07	20.5	20.4	20.3	20.2	20.1	20.1	20.0	19.9	19.8	19.6	19.4	19.3	19.1	19.0	18.0
44.80	0.03	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	19.8	19.6	19.4	19.3	19.1	19.0	18.1
44.85	0.00	20.5	20.5	20.4	20.3	20.2	20.1	20.0	19.9	19.8	19.6	19.5	19.3	19.1	19.0	18.1
44.98	-0.09	20.6	20.5	20.4	20.3	20.2	20.1	20.0	19.9	19.8	19.6	19.5	19.3	19.1	19.0	18.1
44.99	-0.09	18.9	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.8	18.8	18.3

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-7. South Fork San Joaquin River Simulated Daily Maximum Temperatures (°C); Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.7	17.7	17.7	17.6	17.4
40.70	2.58	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.8	17.8	17.8	17.8	17.7	17.5
40.74	2.55	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.8	17.8	17.8	17.8	17.7	17.5
41.15	2.30	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.8	17.8	17.8	17.8	17.5
41.24	2.24	17.9	17.9	18.0	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.8	17.8	17.8	17.5
41.74	1.93	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.9	17.9	17.9	17.8	17.8	17.8	17.5
42.10	1.71	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.9	17.9	17.9	17.8	17.8	17.6
42.24	1.62	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.9	17.9	17.9	17.8	17.6
42.25	1.61	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.9	17.9	17.9	17.8	17.6
42.74	1.31	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.0	18.0	18.0	18.0	17.7
42.75	1.30	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.0	18.0	18.0	18.0	17.7
43.24	1.00	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.2	18.1	18.1	17.9
43.35	0.93	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.0
43.65	0.74	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.0
43.74	0.69	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.0
43.90	0.59	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.0
44.24	0.38	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.0
44.45	0.25	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.0
44.74	0.07	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	18.3	18.3	18.3	18.3	18.2	18.0
44.80	0.03	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	18.3	18.3	18.3	18.2	18.0
44.85	0.00	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	18.3	18.3	18.3	18.2	18.0
44.98	-0.09	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	18.3	18.3	18.3	18.1
44.99	-0.09	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.7	15.7	15.7

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-8. South Fork San Joaquin River Simulated Daily Maximum Temperatures (°C); Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	19.9	19.9	20.0	20.0	20.0	20.0	20.0	20.0	19.9	19.8	19.8	19.7	19.6	19.5	18.9
40.70	2.58	19.9	20.0	20.0	20.0	20.1	20.1	20.0	20.0	20.0	19.9	19.8	19.7	19.6	19.5	18.9
40.74	2.55	19.9	20.0	20.0	20.1	20.1	20.1	20.0	20.0	20.0	19.9	19.8	19.7	19.6	19.6	18.9
41.15	2.30	20.0	20.0	20.1	20.1	20.1	20.1	20.1	20.0	20.0	19.9	19.9	19.8	19.7	19.6	19.0
41.24	2.24	20.0	20.0	20.1	20.1	20.1	20.1	20.1	20.0	20.0	19.9	19.9	19.8	19.7	19.6	19.0
41.74	1.93	20.0	20.0	20.1	20.1	20.1	20.1	20.1	20.1	20.0	20.0	19.9	19.8	19.7	19.6	19.0
42.10	1.71	20.0	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.0	20.0	19.9	19.8	19.7	19.6	19.0
42.24	1.62	20.0	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.0	19.9	19.8	19.7	19.6	19.0
42.25	1.61	20.0	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.0	19.9	19.8	19.7	19.6	19.0
42.74	1.31	20.1	20.2	20.2	20.2	20.3	20.2	20.2	20.2	20.2	20.1	20.0	19.9	19.8	19.8	19.2
42.75	1.30	20.1	20.2	20.2	20.2	20.3	20.3	20.2	20.2	20.2	20.1	20.0	19.9	19.9	19.8	19.2
43.24	1.00	20.2	20.3	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	20.0	19.9	19.3
43.35	0.93	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	19.9	19.3
43.65	0.74	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	19.9	19.3
43.74	0.69	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	19.9	19.3
43.90	0.59	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	19.9	19.3
44.24	0.38	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	19.9	19.3
44.45	0.25	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.2	20.1	20.0	19.9	19.3
44.74	0.07	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.3	20.2	20.1	20.0	20.0	19.4
44.80	0.03	20.3	20.4	20.4	20.5	20.5	20.5	20.4	20.4	20.4	20.3	20.2	20.1	20.1	20.0	19.4
44.85	0.00	20.4	20.4	20.5	20.5	20.5	20.5	20.4	20.4	20.4	20.3	20.2	20.1	20.1	20.0	19.4
44.98	-0.09	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.4	20.4	20.3	20.3	20.2	20.1	20.0	19.4
44.99	-0.09	17.8	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.1

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-9. South Fork San Joaquin River Simulated Daily Maximum Temperatures (°C); Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	18.3	18.2	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.2
40.70	2.58	18.3	18.3	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.3
40.74	2.55	18.3	18.3	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.3
41.15	2.30	18.4	18.3	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.3
41.24	2.24	18.4	18.3	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.3
41.74	1.93	18.4	18.4	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.3
42.10	1.71	18.5	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.3
42.24	1.62	18.5	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.3
42.25	1.61	18.5	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.3
42.74	1.31	18.6	18.5	18.5	18.5	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.4
42.75	1.30	18.6	18.5	18.5	18.5	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.4
43.24	1.00	18.7	18.6	18.6	18.6	18.6	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.6
43.35	0.93	18.7	18.7	18.6	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.6
43.65	0.74	18.7	18.7	18.6	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.6
43.74	0.69	18.7	18.7	18.6	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.6
43.90	0.59	18.7	18.7	18.6	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.6
44.24	0.38	18.7	18.7	18.6	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.6
44.45	0.25	18.7	18.7	18.6	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.6
44.74	0.07	18.9	18.8	18.8	18.7	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.6
44.80	0.03	18.9	18.8	18.8	18.7	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.6
44.85	0.00	18.9	18.8	18.8	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7
44.98	-0.09	18.9	18.9	18.8	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7
44.99	-0.09	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-10. South Fork San Joaquin River Simulated Daily Maximum Temperatures (°C); Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	18.2	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	18.3	18.2	18.1	17.7
40.70	2.58	18.2	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	18.3	18.2	17.8
40.74	2.55	18.2	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	18.3	18.2	17.8
41.15	2.30	18.3	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	18.3	17.8
41.24	2.24	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	18.3	17.8
41.74	1.93	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	18.3	17.8
42.10	1.71	18.3	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.3	17.9
42.24	1.62	18.3	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	17.9
42.25	1.61	18.3	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.3	17.9
42.74	1.31	18.4	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.5	18.5	18.4	18.0
42.75	1.30	18.4	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.5	18.5	18.4	18.0
43.24	1.00	18.5	18.6	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.5	18.1
43.35	0.93	18.6	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.2
43.65	0.74	18.6	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.2
43.74	0.69	18.6	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.2
43.90	0.59	18.6	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.2
44.24	0.38	18.6	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.2
44.45	0.25	18.6	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.6	18.6	18.2
44.74	0.07	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.9	18.8	18.8	18.8	18.7	18.7	18.6	18.2
44.80	0.03	18.6	18.7	18.8	18.8	18.8	18.9	18.9	18.9	18.9	18.8	18.8	18.7	18.7	18.6	18.2
44.85	0.00	18.6	18.7	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.7	18.6	18.3
44.98	-0.09	18.7	18.7	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.7	18.7	18.3
44.99	-0.09	15.7	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.2

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-11. South Fork San Joaquin River Simulated Daily Maximum Temperatures (°C); Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	21.3	21.3	21.4	21.4	21.4	21.4	21.4	21.4	21.3	21.2	21.1	21.0	20.9	20.8	20.0
40.70	2.58	21.3	21.4	21.5	21.5	21.5	21.5	21.5	21.4	21.4	21.3	21.2	21.1	21.0	20.9	20.1
40.74	2.55	21.3	21.4	21.5	21.5	21.5	21.5	21.5	21.4	21.4	21.3	21.2	21.1	21.0	20.9	20.1
41.15	2.30	21.3	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.4	21.3	21.2	21.1	21.0	20.9	20.1
41.24	2.24	21.4	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.4	21.3	21.2	21.1	21.0	20.9	20.1
41.74	1.93	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.4	21.3	21.1	21.0	20.9	20.1
42.10	1.71	21.4	21.5	21.5	21.6	21.6	21.6	21.5	21.5	21.5	21.4	21.3	21.1	21.0	20.9	20.2
42.24	1.62	21.4	21.5	21.6	21.6	21.6	21.6	21.6	21.5	21.5	21.4	21.3	21.2	21.1	21.0	20.2
42.25	1.61	21.4	21.5	21.6	21.6	21.6	21.6	21.6	21.5	21.5	21.4	21.3	21.2	21.1	21.0	20.2
42.74	1.31	21.5	21.6	21.7	21.7	21.7	21.7	21.6	21.6	21.6	21.5	21.4	21.3	21.2	21.1	20.3
42.75	1.30	21.5	21.6	21.7	21.7	21.7	21.7	21.7	21.6	21.6	21.5	21.4	21.3	21.2	21.1	20.3
43.24	1.00	21.6	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
43.35	0.93	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
43.65	0.74	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
43.74	0.69	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
43.90	0.59	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
44.24	0.38	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
44.45	0.25	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.6	21.5	21.4	21.3	21.2	20.5
44.74	0.07	21.7	21.8	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.7	21.6	21.5	21.4	21.3	20.5
44.80	0.03	21.8	21.8	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.7	21.6	21.5	21.4	21.3	20.6
44.85	0.00	21.8	21.8	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.7	21.6	21.5	21.4	21.3	20.6
44.98	-0.09	21.8	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.7	21.6	21.5	21.4	21.3	20.6
44.99	-0.09	19.1	19.1	19.2	19.2	19.3	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-12. South Fork San Joaquin River Simulated Daily Maximum Temperatures (°C); Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release

Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
40.55	2.67	19.8	19.8	19.7	19.6	19.6	19.5	19.5	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.2
40.70	2.58	19.9	19.8	19.8	19.7	19.6	19.5	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.3
40.74	2.55	19.9	19.8	19.8	19.7	19.6	19.5	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.3
41.15	2.30	19.9	19.9	19.8	19.7	19.7	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.3
41.24	2.24	19.9	19.9	19.8	19.8	19.7	19.6	19.6	19.6	19.6	19.7	19.6	19.6	19.6	19.5	19.3
41.74	1.93	20.0	19.9	19.9	19.8	19.7	19.6	19.6	19.6	19.6	19.7	19.6	19.6	19.6	19.6	19.3
42.10	1.71	20.0	20.0	19.9	19.8	19.8	19.7	19.6	19.6	19.6	19.7	19.6	19.6	19.6	19.6	19.3
42.24	1.62	20.1	20.0	19.9	19.9	19.8	19.7	19.6	19.6	19.7	19.7	19.7	19.6	19.6	19.6	19.3
42.25	1.61	20.1	20.0	19.9	19.9	19.8	19.7	19.6	19.6	19.7	19.7	19.7	19.6	19.6	19.6	19.3
42.74	1.31	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.7	19.8	19.8	19.8	19.7	19.7	19.7	19.4
42.75	1.30	20.2	20.1	20.0	20.0	19.9	19.8	19.7	19.7	19.8	19.8	19.8	19.7	19.7	19.7	19.4
43.24	1.00	20.3	20.2	20.2	20.1	20.0	19.9	19.8	19.8	19.9	19.9	19.9	19.8	19.8	19.8	19.5
43.35	0.93	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.6
43.65	0.74	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.6
43.74	0.69	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.6
43.90	0.59	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.6
44.24	0.38	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.6
44.45	0.25	20.3	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.8	19.8	19.6
44.74	0.07	20.5	20.4	20.3	20.2	20.1	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.6
44.80	0.03	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.6
44.85	0.00	20.5	20.5	20.4	20.3	20.2	20.1	20.0	19.9	19.9	20.0	19.9	19.9	19.9	19.9	19.6
44.98	-0.09	20.6	20.5	20.4	20.3	20.2	20.1	20.0	19.9	20.0	20.0	20.0	19.9	19.9	19.9	19.7
44.99	-0.09	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.5

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-13. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Mean Temperatures (°C); Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0
0.24	38.26	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0
0.45	38.13	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0
0.60	38.04	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0
0.74	37.95	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.00	37.79	12.9	12.9	12.9	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.24	37.64	12.9	12.9	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.74	37.33	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.1
1.80	37.29	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.1
1.81	37.29	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.85	37.26	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.24	37.02	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.1	13.1	13.1	13.1
2.74	36.71	13.0	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.80	36.67	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.24	36.40	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.74	36.09	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.2
4.24	35.78	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2
4.30	35.74	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2
4.65	35.52	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3
4.74	35.47	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3
5.24	35.16	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3
5.55	34.96	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3
5.74	34.85	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3
5.85	34.78	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3	13.3
6.00	34.69	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.3	13.3	13.3	13.3	13.3
6.24	34.54	13.2	13.2	13.2	13.2	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
6.25	34.53	13.2	13.2	13.2	13.2	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-14. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Mean Temperatures (°C); Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	16.5	16.5	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.4
0.24	38.26	16.5	16.5	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.4
0.45	38.13	16.5	16.5	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.4
0.60	38.04	16.5	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.4
0.74	37.95	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.5
1.00	37.79	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.5
1.24	37.64	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.5
1.74	37.33	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.7	16.7	16.7	16.7	16.7	16.7	16.6	16.5
1.80	37.29	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.7	16.7	16.7	16.7	16.7	16.7	16.6	16.5
1.81	37.29	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.7	16.7	16.7	16.7	16.7	16.6	16.6	16.5
1.85	37.26	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.7	16.7	16.7	16.7	16.7	16.7	16.6	16.5
2.24	37.02	16.6	16.6	16.6	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.5
2.74	36.71	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.8	16.8	16.8	16.8	16.7	16.7	16.6
2.80	36.67	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.8	16.8	16.8	16.8	16.8	16.8	16.7	16.6
3.24	36.40	16.7	16.7	16.7	16.7	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.6
3.74	36.09	16.7	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.6
4.24	35.78	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.7
4.30	35.74	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.9	16.8	16.8	16.8	16.8	16.7
4.65	35.52	16.8	16.8	16.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.7
4.74	35.47	16.8	16.8	16.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.7
5.24	35.16	16.8	16.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.7
5.55	34.96	16.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.7
5.74	34.85	16.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.8
5.85	34.78	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.8
6.00	34.69	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.0	17.0	16.9	16.9	16.9	16.8
6.24	34.54	16.9	16.9	16.9	16.9	16.9	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	16.8
6.25	34.53	16.9	16.9	16.9	16.9	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	16.8

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-15. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Mean Temperatures (°C); Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	17.3	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.1
0.24	38.26	17.3	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.1
0.45	38.13	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.1
0.60	38.04	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.1
0.74	37.95	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.1
1.00	37.79	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.1
1.24	37.64	17.4	17.4	17.4	17.4	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.4	17.4	17.4	17.1
1.74	37.33	17.4	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.4	17.1
1.80	37.29	17.4	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.4	17.1
1.81	37.29	17.4	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.4	17.1
1.85	37.26	17.4	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.4	17.4	17.1
2.24	37.02	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.4	17.2
2.74	36.71	17.5	17.5	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.5	17.5	17.5	17.5	17.5	17.2
2.80	36.67	17.5	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.5	17.5	17.5	17.5	17.2
3.24	36.40	17.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.5	17.5	17.5	17.3
3.74	36.09	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.5	17.3
4.24	35.78	17.6	17.6	17.6	17.6	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.6	17.6	17.6	17.3
4.30	35.74	17.6	17.6	17.6	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.6	17.6	17.6	17.3
4.65	35.52	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.4
4.74	35.47	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.4
5.24	35.16	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.4
5.55	34.96	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.4
5.74	34.85	17.7	17.7	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.7	17.7	17.7	17.7	17.6	17.4
5.85	34.78	17.7	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.7	17.7	17.7	17.7	17.4
6.00	34.69	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.7	17.7	17.7	17.4
6.24	34.54	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.7	17.7	17.4
6.25	34.53	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.7	17.7	17.4

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-16. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Mean Temperatures (°C); Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	14.6	14.6	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8
0.24	38.26	14.6	14.6	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8
0.45	38.13	14.6	14.6	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8
0.60	38.04	14.6	14.6	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8
0.74	37.95	14.6	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8
1.00	37.79	14.6	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
1.24	37.64	14.6	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
1.74	37.33	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.9	14.9	14.8
1.80	37.29	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.9	14.9	14.8
1.81	37.29	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
1.85	37.26	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
2.24	37.02	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.9	14.9	14.9	14.9	14.9
2.74	36.71	14.8	14.8	14.8	14.8	14.8	14.8	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
2.80	36.67	14.8	14.8	14.8	14.8	14.8	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
3.24	36.40	14.8	14.8	14.8	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	15.0	15.0	14.9
3.74	36.09	14.8	14.8	14.9	14.9	14.9	14.9	14.9	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0
4.24	35.78	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.30	35.74	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.65	35.52	14.9	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1
4.74	35.47	14.9	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1
5.24	35.16	14.9	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1
5.55	34.96	14.9	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1
5.74	34.85	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.1
5.85	34.78	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.00	34.69	15.0	15.0	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.24	34.54	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.25	34.53	15.0	15.0	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-17. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Mean Temperatures (°C); Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.3	17.9
0.24	38.26	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.4	18.4	18.4	18.4	18.3	17.9
0.45	38.13	18.3	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.4	17.9
0.60	38.04	18.3	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.4	18.0
0.74	37.95	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.0
1.00	37.79	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.0
1.24	37.64	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.4	18.0
1.74	37.33	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.0
1.80	37.29	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.0
1.81	37.29	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.0
1.85	37.26	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.4	18.0
2.24	37.02	18.5	18.5	18.5	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.5	18.5	18.5	18.1
2.74	36.71	18.5	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.5	18.1
2.80	36.67	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.5	18.1
3.24	36.40	18.6	18.6	18.6	18.6	18.7	18.7	18.7	18.7	18.7	18.7	18.6	18.6	18.6	18.6	18.1
3.74	36.09	18.6	18.6	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.6	18.6	18.2
4.24	35.78	18.6	18.7	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.6	18.2
4.30	35.74	18.6	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7	18.6	18.2
4.65	35.52	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.3
4.74	35.47	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.3
5.24	35.16	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.3
5.55	34.96	18.7	18.8	18.8	18.8	18.8	18.8	18.9	18.9	18.9	18.8	18.8	18.8	18.8	18.7	18.3
5.74	34.85	18.8	18.8	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.7	18.3
5.85	34.78	18.8	18.8	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.8	18.3
6.00	34.69	18.8	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.3
6.24	34.54	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.4
6.25	34.53	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.4

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-18. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Mean Temperatures (°C); Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	18.9	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.8	18.8	18.3
0.24	38.26	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.8	18.8	18.3
0.45	38.13	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.8	18.3
0.60	38.04	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.8	18.3
0.74	37.95	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.8	18.3
1.00	37.79	19.0	19.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	18.9	18.8	18.3
1.24	37.64	19.0	19.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	18.9	18.9	18.4
1.74	37.33	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	18.9	18.9	18.4
1.80	37.29	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	18.9	18.9	18.4
1.81	37.29	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	18.9	18.9	18.4
1.85	37.26	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	18.9	18.9	18.4
2.24	37.02	19.1	19.1	19.1	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.1	19.0	19.0	18.9	18.4
2.74	36.71	19.1	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.0	19.0	18.5
2.80	36.67	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.0	19.0	18.5
3.24	36.40	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.2	19.2	19.2	19.2	19.1	19.0	19.0	18.5
3.74	36.09	19.2	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.2	19.2	19.1	19.1	19.0	18.5
4.24	35.78	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.2	19.2	19.1	19.1	18.5
4.30	35.74	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.2	19.2	19.1	19.1	18.5
4.65	35.52	19.3	19.3	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.3	19.2	19.2	19.1	18.6
4.74	35.47	19.3	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.3	19.2	19.2	19.1	18.6
5.24	35.16	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.3	19.3	19.2	19.1	18.6
5.55	34.96	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.3	19.2	19.1	18.6
5.74	34.85	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.3	19.2	19.2	18.6
5.85	34.78	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.4	19.4	19.4	19.3	19.3	19.2	19.2	18.6
6.00	34.69	19.4	19.4	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.4	19.3	19.3	19.2	18.7
6.24	34.54	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.3	19.3	19.2	18.7
6.25	34.53	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.3	19.3	19.2	18.7

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-19. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Maximum Temperatures (°C); Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release															
Dist (km)*	Dist (RM)**	Flow (cfs)															
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	
0.00	38.41	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.7	15.7	15.7	15.7
0.24	38.26	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.7	15.7	15.7	15.7
0.45	38.13	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.7	15.7	15.7	15.7
0.60	38.04	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.7	15.7	15.7	15.7
0.74	37.95	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.7	15.7	15.7	15.7	15.7	15.7	15.7
1.00	37.79	15.6	15.6	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.8
1.24	37.64	15.6	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.8
1.74	37.33	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.8	15.8	15.8
1.80	37.29	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.8	15.8	15.8
1.81	37.29	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.8
1.85	37.26	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.8	15.8
2.24	37.02	15.7	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.9
2.74	36.71	15.8	15.8	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.0
2.80	36.67	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.0
3.24	36.40	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.0	16.0
3.74	36.09	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.0	16.0	16.1
4.24	35.78	15.9	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.1
4.30	35.74	15.9	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.1
4.65	35.52	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2
4.74	35.47	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2
5.24	35.16	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2
5.55	34.96	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2
5.74	34.85	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2
5.85	34.78	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2
6.00	34.69	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3
6.24	34.54	16.1	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.3
6.25	34.53	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.3

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-20. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Maximum Temperatures (°C); Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.1
0.24	38.26	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.1
0.45	38.13	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.1
0.60	38.04	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.1
0.74	37.95	17.8	17.8	17.8	17.9	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.1
1.00	37.79	17.8	17.8	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1
1.24	37.64	17.8	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1
1.74	37.33	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1
1.80	37.29	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1
1.81	37.29	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1
1.85	37.26	17.9	17.9	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1
2.24	37.02	17.9	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1	18.1	18.1	18.2
2.74	36.71	17.9	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.2
2.80	36.67	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.2
3.24	36.40	18.0	18.0	18.0	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.3
3.74	36.09	18.0	18.0	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3
4.24	35.78	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3
4.30	35.74	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3
4.65	35.52	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
4.74	35.47	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
5.24	35.16	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
5.55	34.96	18.1	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
5.74	34.85	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4
5.85	34.78	18.1	18.1	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4
6.00	34.69	18.1	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4
6.24	34.54	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.5
6.25	34.53	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.5

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-21. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Maximum Temperatures (°C); Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
0.24	38.26	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
0.45	38.13	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
0.60	38.04	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4
0.74	37.95	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4
1.00	37.79	18.2	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4
1.24	37.64	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4
1.74	37.33	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4
1.80	37.29	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4
1.81	37.29	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4
1.85	37.26	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4
2.24	37.02	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4
2.74	36.71	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.5
2.80	36.67	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.5
3.24	36.40	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5
3.74	36.09	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5
4.24	35.78	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5
4.30	35.74	18.3	18.3	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5
4.65	35.52	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.6
4.74	35.47	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.6
5.24	35.16	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.6
5.55	34.96	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.6
5.74	34.85	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.6
5.85	34.78	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.6
6.00	34.69	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.6
6.24	34.54	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.6
6.25	34.53	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.6	18.6

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-22. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Maximum Temperatures (°C); Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	15.7	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.2
0.24	38.26	15.7	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.2
0.45	38.13	15.7	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.2
0.60	38.04	15.7	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.2
0.74	37.95	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.2
1.00	37.79	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.1	16.2
1.24	37.64	15.8	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.1	16.1	16.2
1.74	37.33	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.2
1.80	37.29	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.3
1.81	37.29	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.0	16.1	16.1	16.2
1.85	37.26	15.8	15.8	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.2
2.24	37.02	15.9	15.9	15.9	15.9	15.9	16.0	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.3
2.74	36.71	15.9	15.9	16.0	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.3
2.80	36.67	15.9	15.9	16.0	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.4
3.24	36.40	15.9	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.4
3.74	36.09	16.0	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.3	16.4
4.24	35.78	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.3	16.3	16.4
4.30	35.74	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.3	16.3	16.3	16.4
4.65	35.52	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.5
4.74	35.47	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.5
5.24	35.16	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.5
5.55	34.96	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.5
5.74	34.85	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.4	16.5
5.85	34.78	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.4	16.5
6.00	34.69	16.1	16.1	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.3	16.4	16.4	16.4	16.5
6.24	34.54	16.1	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.3	16.4	16.4	16.4	16.4	16.6
6.25	34.53	16.1	16.2	16.2	16.2	16.2	16.3	16.3	16.3	16.3	16.3	16.4	16.4	16.4	16.4	16.6

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-23. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Maximum Temperatures (°C); Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release														
Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	19.1	19.1	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.4	19.5	19.5	19.5	19.5
0.24	38.26	19.1	19.1	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.4	19.5	19.5	19.5	19.5
0.45	38.13	19.1	19.1	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.4	19.5	19.5	19.5	19.5
0.60	38.04	19.1	19.1	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.4	19.5	19.5	19.5	19.5
0.74	37.95	19.1	19.1	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.5
1.00	37.79	19.1	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.5	19.5
1.24	37.64	19.1	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.5	19.6
1.74	37.33	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6
1.80	37.29	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6
1.81	37.29	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6
1.85	37.26	19.2	19.2	19.3	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6
2.24	37.02	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6	19.6
2.74	36.71	19.2	19.3	19.3	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.7
2.80	36.67	19.2	19.3	19.3	19.4	19.4	19.5	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.7
3.24	36.40	19.3	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.7	19.7	19.7
3.74	36.09	19.3	19.3	19.4	19.4	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7
4.24	35.78	19.3	19.4	19.4	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.7
4.30	35.74	19.3	19.4	19.4	19.5	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.7	19.8
4.65	35.52	19.4	19.4	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
4.74	35.47	19.4	19.4	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
5.24	35.16	19.4	19.4	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
5.55	34.96	19.4	19.4	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
5.74	34.85	19.4	19.5	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
5.85	34.78	19.4	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8	19.8
6.00	34.69	19.4	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8	19.9
6.24	34.54	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.9	19.9	19.9
6.25	34.53	19.5	19.5	19.6	19.6	19.6	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.9	19.9	19.9

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-24. San Joaquin River Reach (Upstream of Mammoth Pool) Simulated Daily Maximum Temperatures (°C); Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release

Dist (km)*	Dist (RM)**	Flow (cfs)														
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
0.00	38.41	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.5
0.24	38.26	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.5
0.45	38.13	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.5
0.60	38.04	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.5
0.74	37.95	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.6	19.6	19.6	19.6	19.6	19.5
1.00	37.79	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
1.24	37.64	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
1.74	37.33	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
1.80	37.29	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
1.81	37.29	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
1.85	37.26	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
2.24	37.02	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.7	19.6
2.74	36.71	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.6
2.80	36.67	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.6
3.24	36.40	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.6
3.74	36.09	19.6	19.6	19.6	19.7	19.6	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.7	19.7
4.24	35.78	19.6	19.6	19.7	19.7	19.7	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.7	19.7
4.30	35.74	19.6	19.7	19.7	19.7	19.7	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.7	19.7	19.7
4.65	35.52	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.7
4.74	35.47	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.7
5.24	35.16	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.7
5.55	34.96	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.7
5.74	34.85	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.7
5.85	34.78	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
6.00	34.69	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8	19.8
6.24	34.54	19.7	19.7	19.8	19.8	19.8	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8	19.8
6.25	34.53	19.7	19.7	19.8	19.8	19.8	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8	19.8

* Downstream distances relative to SFSJR confluence

** San Joaquin Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-33. Mammoth Reach Simulated Daily Mean Temperatures (°C); Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Table with columns for Dist (km)*, Dist (RM)**, and Flow (cfs) ranging from 12.5 to 500.0. Rows represent simulated daily mean temperatures at various distances and flow rates.

* Downstream distances relative to Mammoth Pool

** Mammoth Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-45. Rock Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	14.4	14.4	14.4	14.4		14.4		14.4	14.4	14.4
0.04	0.45	14.8	14.7	14.6	14.5		14.5		14.5	14.5	14.5
0.09	0.42	15.3	14.9	14.8	14.6		14.6		14.5	14.5	14.5
0.19	0.35	16.0	15.3	15.2	14.9		14.7		14.6	14.6	14.6
0.29	0.29	16.8	15.8	15.6	15.1		14.9		14.8	14.8	14.7
0.34	0.26	17.1	16.1	15.8	15.3		15.0		14.9	14.9	14.8
0.44	0.20	17.6	16.5	16.2	15.5		15.1		15.0	15.0	14.9
0.50	0.16	17.9	16.7	16.4	15.7		15.3		15.1	15.1	15.0
0.54	0.14	18.1	16.9	16.6	15.8		15.4		15.2	15.2	15.1
0.64	0.07	18.6	17.4	17.0	16.1		15.6		15.4	15.4	15.3
0.68	0.05	18.8	17.5	17.1	16.2		15.6		15.5	15.4	15.3
0.74	0.01	19.0	17.7	17.3	16.3		15.7		15.5	15.4	15.3
0.76	0.00	19.0	17.7	17.3	16.3		15.7		15.5	15.5	15.4

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-46. Rock Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	16.9	16.9	16.9	16.9		16.9		16.9	16.9	16.9
0.04	0.45	17.4	17.2	17.1	17.0		17.0		17.0	17.0	17.0
0.09	0.42	17.8	17.4	17.3	17.1		17.1		17.0	17.0	17.0
0.19	0.35	18.6	17.9	17.7	17.4		17.2		17.1	17.1	17.1
0.29	0.29	19.4	18.4	18.2	17.7		17.4		17.3	17.3	17.2
0.34	0.26	19.8	18.7	18.4	17.8		17.5		17.4	17.4	17.3
0.44	0.20	20.3	19.1	18.8	18.0		17.6		17.5	17.5	17.4
0.50	0.16	20.6	19.4	19.0	18.2		17.8		17.7	17.6	17.5
0.54	0.14	20.9	19.6	19.2	18.4		17.9		17.8	17.7	17.6
0.64	0.07	21.4	20.0	19.6	18.7		18.1		17.9	17.9	17.8
0.68	0.05	21.5	20.2	19.8	18.8		18.1		18.0	17.9	17.8
0.74	0.01	21.8	20.4	19.9	18.9		18.2		18.1	18.0	17.9
0.76	0.00	21.8	20.4	20.0	18.9		18.2		18.1	18.0	17.9

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-47. Rock Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	16.7	16.7	16.7	16.7		16.7		16.7	16.7	16.7
0.04	0.45	16.8	16.8	16.8	16.8		16.7		16.7	16.7	16.7
0.09	0.42	17.0	16.9	16.8	16.8		16.8		16.8	16.8	16.8
0.19	0.35	17.2	17.0	16.9	16.9		16.8		16.8	16.8	16.8
0.29	0.29	17.5	17.2	17.1	17.0		16.9		16.9	16.9	16.9
0.34	0.26	17.6	17.3	17.2	17.1		17.0		17.0	17.0	17.0
0.44	0.20	17.8	17.5	17.4	17.2		17.1		17.0	17.0	17.0
0.50	0.16	17.9	17.6	17.5	17.3		17.2		17.1	17.1	17.1
0.54	0.14	18.0	17.7	17.6	17.4		17.2		17.2	17.2	17.2
0.64	0.07	18.3	17.9	17.8	17.5		17.4		17.3	17.3	17.3
0.68	0.05	18.4	18.0	17.8	17.6		17.4		17.4	17.3	17.3
0.74	0.01	18.5	18.0	17.9	17.6		17.4		17.4	17.4	17.3
0.76	0.00	18.5	18.0	17.9	17.6		17.4		17.4	17.4	17.3

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-48. Rock Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	16.4	16.4	16.4	16.4	16.4	16.4	16.4		16.4	16.4
0.04	0.45	16.8	16.6	16.6	16.5	16.5	16.4	16.4		16.4	16.4
0.09	0.42	17.3	16.9	16.8	16.6	16.5	16.5	16.5		16.5	16.5
0.19	0.35	18.1	17.4	17.2	16.8	16.7	16.6	16.6		16.6	16.5
0.29	0.29	19.0	17.9	17.7	17.1	16.9	16.9	16.8		16.8	16.7
0.34	0.26	19.3	18.2	17.9	17.3	17.0	17.0	16.9		16.8	16.8
0.44	0.20	19.9	18.6	18.3	17.5	17.1	17.1	17.0		17.0	16.9
0.50	0.16	20.2	18.9	18.5	17.7	17.3	17.2	17.1		17.1	17.0
0.54	0.14	20.5	19.1	18.7	17.9	17.4	17.4	17.2		17.2	17.1
0.64	0.07	21.0	19.6	19.1	18.1	17.6	17.5	17.4		17.3	17.2
0.68	0.05	21.2	19.7	19.3	18.2	17.7	17.6	17.5		17.4	17.3
0.74	0.01	21.4	19.9	19.5	18.4	17.8	17.7	17.5		17.4	17.3
0.76	0.00	21.4	20.0	19.5	18.4	17.8	17.7	17.6		17.5	17.3

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-49. Rock Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	18.3	18.3	18.3	18.3	18.3	18.3	18.3		18.3	18.3
0.04	0.45	18.5	18.4	18.4	18.3	18.3	18.3	18.3		18.3	18.3
0.09	0.42	18.8	18.6	18.5	18.4	18.4	18.4	18.4		18.4	18.3
0.19	0.35	19.3	18.9	18.8	18.6	18.5	18.5	18.4		18.4	18.4
0.29	0.29	19.8	19.2	19.1	18.8	18.6	18.6	18.6		18.5	18.5
0.34	0.26	20.0	19.4	19.3	18.9	18.7	18.7	18.7		18.6	18.6
0.44	0.20	20.4	19.7	19.5	19.1	18.8	18.8	18.8		18.7	18.7
0.50	0.16	20.6	19.9	19.7	19.2	19.0	18.9	18.9		18.8	18.8
0.54	0.14	20.8	20.0	19.8	19.3	19.0	19.0	19.0		18.9	18.9
0.64	0.07	21.1	20.4	20.1	19.5	19.2	19.2	19.1		19.0	19.0
0.68	0.05	21.2	20.4	20.2	19.6	19.3	19.2	19.1		19.1	19.0
0.74	0.01	21.3	20.6	20.3	19.7	19.3	19.3	19.2		19.1	19.0
0.76	0.00	21.4	20.6	20.4	19.7	19.4	19.3	19.2		19.1	19.1

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-50. Rock Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	18.2	18.2	18.2	18.2	18.2	18.2	18.2		18.2	18.2
0.04	0.45	18.3	18.2	18.2	18.2	18.2	18.2	18.2		18.2	18.2
0.09	0.42	18.4	18.3	18.3	18.3	18.2	18.2	18.2		18.2	18.2
0.19	0.35	18.6	18.4	18.4	18.3	18.3	18.3	18.3		18.3	18.3
0.29	0.29	18.8	18.6	18.6	18.5	18.4	18.4	18.4		18.4	18.4
0.34	0.26	18.9	18.7	18.7	18.5	18.5	18.5	18.5		18.4	18.4
0.44	0.20	19.1	18.8	18.8	18.6	18.5	18.5	18.5		18.5	18.5
0.50	0.16	19.2	19.0	18.9	18.7	18.6	18.6	18.6		18.6	18.6
0.54	0.14	19.3	19.1	19.0	18.8	18.7	18.7	18.7		18.6	18.6
0.64	0.07	19.6	19.3	19.2	19.0	18.8	18.8	18.8		18.8	18.7
0.68	0.05	19.6	19.3	19.2	19.0	18.9	18.8	18.8		18.8	18.8
0.74	0.01	19.7	19.4	19.3	19.0	18.9	18.9	18.9		18.8	18.8
0.76	0.00	19.7	19.4	19.3	19.0	18.9	18.9	18.9		18.8	18.8

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-51. Rock Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	17.2	17.2	17.2	17.2		17.2		17.2	17.2	17.2
0.04	0.45	17.5	17.3	17.3	17.3		17.2		17.2	17.2	17.2
0.09	0.42	17.9	17.5	17.5	17.4		17.3		17.3	17.3	17.2
0.19	0.35	18.5	17.9	17.8	17.5		17.4		17.3	17.3	17.3
0.29	0.29	19.1	18.4	18.2	17.8		17.6		17.5	17.5	17.5
0.34	0.26	19.4	18.6	18.4	17.9		17.7		17.6	17.6	17.6
0.44	0.20	19.7	18.9	18.6	18.1		17.8		17.7	17.7	17.7
0.50	0.16	20.0	19.1	18.9	18.3		18.0		17.9	17.9	17.8
0.54	0.14	20.1	19.3	19.0	18.4		18.1		18.0	18.0	17.9
0.64	0.07	20.5	19.6	19.4	18.7		18.3		18.2	18.1	18.1
0.68	0.05	20.6	19.7	19.4	18.7		18.3		18.2	18.2	18.1
0.74	0.01	20.7	19.9	19.6	18.8		18.4		18.3	18.2	18.1
0.76	0.00	20.7	19.9	19.6	18.8		18.4		18.3	18.2	18.1

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-52. Rock Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	19.5	19.5	19.5	19.5		19.5		19.5	19.5	19.5
0.04	0.45	19.9	19.7	19.7	19.6		19.5		19.5	19.5	19.5
0.09	0.42	20.3	19.9	19.9	19.7		19.6		19.6	19.6	19.6
0.19	0.35	21.0	20.4	20.2	19.9		19.7		19.7	19.7	19.6
0.29	0.29	21.7	20.9	20.7	20.2		20.0		19.9	19.9	19.8
0.34	0.26	22.0	21.1	20.9	20.4		20.1		20.0	20.0	19.9
0.44	0.20	22.5	21.5	21.2	20.6		20.2		20.1	20.1	20.0
0.50	0.16	22.8	21.8	21.5	20.8		20.4		20.3	20.2	20.2
0.54	0.14	23.0	21.9	21.6	20.9		20.5		20.4	20.3	20.3
0.64	0.07	23.4	22.3	22.0	21.2		20.7		20.6	20.5	20.5
0.68	0.05	23.5	22.5	22.1	21.3		20.8		20.6	20.6	20.5
0.74	0.01	23.7	22.6	22.3	21.4		20.8		20.7	20.6	20.5
0.76	0.00	23.7	22.6	22.3	21.4		20.8		20.7	20.6	20.5

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-53. Rock Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	19.0	19.0	19.0	19.0		19.0		19.0	19.0	19.0
0.04	0.45	19.1	19.0	19.0	19.0		19.0		19.0	19.0	19.0
0.09	0.42	19.2	19.1	19.1	19.0		19.0		19.0	19.0	19.0
0.19	0.35	19.4	19.2	19.2	19.1		19.0		19.0	19.0	19.0
0.29	0.29	19.7	19.5	19.4	19.3		19.2		19.2	19.2	19.2
0.34	0.26	19.8	19.6	19.5	19.4		19.3		19.3	19.3	19.3
0.44	0.20	20.0	19.7	19.6	19.4		19.4		19.3	19.3	19.3
0.50	0.16	20.1	19.8	19.8	19.6		19.5		19.4	19.4	19.4
0.54	0.14	20.3	19.9	19.9	19.6		19.5		19.5	19.5	19.5
0.64	0.07	20.5	20.1	20.0	19.8		19.7		19.6	19.6	19.6
0.68	0.05	20.5	20.2	20.1	19.8		19.7		19.7	19.7	19.6
0.74	0.01	20.6	20.3	20.1	19.9		19.7		19.7	19.7	19.7
0.76	0.00	20.6	20.3	20.1	19.9		19.7		19.7	19.7	19.7

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-54. Rock Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	19.1	19.1	19.1	19.1	19.1	19.1	19.1		19.1	19.1
0.04	0.45	19.5	19.3	19.3	19.2	19.2	19.2	19.1		19.1	19.1
0.09	0.42	20.0	19.6	19.5	19.3	19.2	19.2	19.2		19.2	19.2
0.19	0.35	20.7	20.0	19.9	19.5	19.4	19.4	19.3		19.3	19.3
0.29	0.29	21.5	20.6	20.3	19.9	19.6	19.6	19.5		19.5	19.5
0.34	0.26	21.8	20.8	20.6	20.0	19.8	19.7	19.6		19.6	19.6
0.44	0.20	22.2	21.2	20.9	20.2	19.9	19.9	19.8		19.7	19.7
0.50	0.16	22.5	21.5	21.1	20.4	20.1	20.0	19.9		19.9	19.8
0.54	0.14	22.7	21.6	21.3	20.6	20.2	20.1	20.0		20.0	19.9
0.64	0.07	23.1	22.0	21.7	20.9	20.4	20.4	20.2		20.2	20.1
0.68	0.05	23.3	22.2	21.8	20.9	20.5	20.4	20.3		20.2	20.1
0.74	0.01	23.4	22.3	22.0	21.1	20.5	20.5	20.4		20.3	20.2
0.76	0.00	23.4	22.3	22.0	21.1	20.5	20.5	20.4		20.3	20.2

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-55. Rock Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	20.8	20.8	20.8	20.8	20.8	20.8	20.8		20.8	20.8
0.04	0.45	21.0	20.9	20.9	20.9	20.9	20.9	20.9		20.9	20.9
0.09	0.42	21.1	21.0	21.0	20.9	20.9	20.9	20.9		20.9	20.9
0.19	0.35	21.4	21.2	21.1	21.0	21.0	20.9	20.9		20.9	20.9
0.29	0.29	21.7	21.4	21.4	21.2	21.1	21.1	21.1		21.1	21.0
0.34	0.26	21.9	21.6	21.5	21.3	21.2	21.2	21.2		21.1	21.1
0.44	0.20	22.1	21.7	21.6	21.4	21.3	21.3	21.2		21.2	21.2
0.50	0.16	22.2	21.9	21.8	21.5	21.4	21.4	21.4		21.3	21.3
0.54	0.14	22.4	22.0	21.9	21.6	21.5	21.5	21.4		21.4	21.4
0.64	0.07	22.6	22.2	22.1	21.8	21.6	21.6	21.6		21.5	21.5
0.68	0.05	22.6	22.3	22.1	21.8	21.7	21.6	21.6		21.6	21.5
0.74	0.01	22.7	22.4	22.2	21.9	21.7	21.7	21.6		21.6	21.6
0.76	0.00	22.7	22.4	22.2	21.9	21.7	21.7	21.6		21.6	21.6

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-56. Rock Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)									
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
0.00	0.47	20.4	20.4	20.4	20.4	20.4	20.4	20.4		20.4	20.4
0.04	0.45	20.5	20.5	20.5	20.5	20.5	20.5	20.5		20.5	20.5
0.09	0.42	20.5	20.5	20.5	20.5	20.5	20.5	20.5		20.5	20.5
0.19	0.35	20.6	20.6	20.5	20.5	20.5	20.5	20.5		20.5	20.5
0.29	0.29	20.8	20.7	20.7	20.6	20.6	20.6	20.6		20.6	20.6
0.34	0.26	20.9	20.8	20.8	20.7	20.7	20.7	20.7		20.7	20.7
0.44	0.20	21.0	20.9	20.9	20.8	20.8	20.8	20.7		20.7	20.7
0.50	0.16	21.1	21.0	21.0	20.9	20.9	20.9	20.8		20.8	20.8
0.54	0.14	21.2	21.1	21.0	21.0	20.9	20.9	20.9		20.9	20.9
0.64	0.07	21.4	21.2	21.2	21.1	21.0	21.0	21.0		21.0	21.0
0.68	0.05	21.4	21.3	21.2	21.1	21.1	21.1	21.0		21.0	21.1
0.74	0.01	21.5	21.3	21.3	21.1	21.1	21.1	21.1		21.1	21.1
0.76	0.00	21.5	21.3	21.3	21.1	21.1	21.1	21.1		21.1	21.1

* Downstream distances relative to Rock Creek Diversion

** Rock Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-57. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
0.50	16.69	14.4	14.0	13.0	11.6	10.9	10.6	10.3	10.1	10.0	9.9	9.8	9.7	9.6	9.5	9.5	9.4	9.4	9.2	9.2	9.1
0.85	16.48	15.3	15.0	14.1	12.6	11.8	11.3	11.0	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.8	9.7	9.6	9.4	9.3	9.2
1.00	16.38	15.4	15.2	14.4	13.0	12.1	11.6	11.2	10.9	10.7	10.6	10.4	10.3	10.1	10.0	9.9	9.8	9.7	9.4	9.3	9.3
1.41	16.13	15.8	15.6	14.9	13.6	12.8	12.2	11.8	11.4	11.2	11.0	10.8	10.7	10.5	10.3	10.2	10.1	10.0	9.6	9.4	9.4
1.50	16.07	15.8	15.7	15.0	13.7	12.9	12.3	11.9	11.6	11.3	11.1	10.9	10.8	10.6	10.4	10.2	10.1	10.0	9.6	9.4	9.4
1.94	15.80	16.1	15.9	15.4	14.3	13.5	12.9	12.4	12.1	11.8	11.5	11.4	11.2	10.9	10.7	10.5	10.4	10.3	9.8	9.6	9.5
2.00	15.76	16.1	15.9	15.4	14.3	13.5	12.9	12.5	12.1	11.8	11.6	11.4	11.2	11.0	10.8	10.6	10.4	10.3	9.8	9.6	9.5
2.22	15.62	16.1	16.0	15.5	14.5	13.7	13.1	12.7	12.3	12.0	11.8	11.6	11.4	11.1	10.9	10.7	10.6	10.4	9.9	9.6	9.5
2.50	15.45	16.2	16.1	15.6	14.7	14.0	13.4	12.9	12.6	12.3	12.0	11.8	11.6	11.3	11.1	10.9	10.7	10.6	10.0	9.7	9.6
2.61	15.38	16.2	16.1	15.7	14.8	14.1	13.5	13.1	12.7	12.4	12.1	11.9	11.7	11.4	11.2	11.0	10.8	10.7	10.0	9.8	9.6
3.00	15.14	16.3	16.2	15.9	15.0	14.3	13.8	13.4	13.0	12.7	12.4	12.2	12.0	11.7	11.4	11.2	11.0	10.9	10.1	9.9	9.7
3.03	15.12	16.3	16.2	15.9	15.0	14.4	13.8	13.4	13.0	12.7	12.4	12.2	12.0	11.7	11.4	11.2	11.1	10.9	10.2	9.9	9.7
3.04	15.12	16.3	16.2	15.9	15.0	14.4	13.8	11.7	13.0	12.7	12.4	11.3	12.0	11.7	11.4	11.2	11.1	10.9	10.2	9.9	9.7
3.20	15.02	12.4	12.4	12.4	12.2	12.1	11.9	11.8	11.7	11.6	11.5	11.4	11.3	11.1	11.0	10.9	10.8	10.7	10.2	9.9	9.8
3.50	14.83	12.7	12.7	12.6	12.5	12.3	12.2	12.1	11.9	11.8	11.7	11.6	11.5	11.3	11.2	11.1	11.0	10.9	10.3	10.0	9.9
3.63	14.75	12.8	12.8	12.8	12.6	12.4	12.3	12.1	12.0	11.9	11.8	11.7	11.6	11.4	11.3	11.2	11.0	10.9	10.4	10.1	9.9
4.00	14.52	13.0	13.0	13.0	12.8	12.6	12.5	12.4	12.2	12.1	12.0	11.9	11.8	11.6	11.4	11.3	11.2	11.1	10.5	10.2	10.0
4.50	14.21	13.3	13.3	13.2	13.1	12.9	12.8	12.6	12.5	12.3	12.2	12.1	12.0	11.8	11.7	11.5	11.4	11.3	10.6	10.3	10.1
4.55	14.18	13.3	13.3	13.3	13.1	12.9	12.8	12.6	12.5	12.4	12.2	12.1	12.0	11.8	11.7	11.5	11.4	11.3	10.6	10.3	10.1
5.00	13.90	13.6	13.6	13.5	13.3	13.2	13.0	12.9	12.7	12.6	12.5	12.4	12.2	12.1	11.9	11.7	11.6	11.5	10.8	10.4	10.2
5.50	13.59	13.8	13.8	13.7	13.6	13.4	13.2	13.1	12.9	12.8	12.7	12.6	12.5	12.3	12.1	11.9	11.8	11.7	10.9	10.6	10.4
5.65	13.49	13.9	13.9	13.8	13.6	13.5	13.3	13.2	13.0	12.9	12.8	12.6	12.5	12.3	12.2	12.0	11.9	11.8	11.0	10.6	10.4
5.74	13.44	13.9	13.9	13.8	13.7	13.5	13.3	13.2	13.0	12.9	12.8	12.7	12.6	12.4	12.2	12.0	11.9	11.8	11.0	10.6	10.4
5.75	13.43	13.9	14.9	13.8	14.7	13.5	13.3	13.2	14.2	14.1	12.8	13.8	12.6	13.5	13.3	13.1	13.0	12.9	11.0	10.6	11.0
6.00	13.28	15.0	15.0	14.9	14.8	14.6	14.5	14.4	14.2	14.1	14.0	13.9	13.8	13.6	13.4	13.2	13.1	12.9	11.9	11.4	11.1
6.11	13.21	15.0	15.0	14.9	14.8	14.6	14.5	14.4	14.2	14.1	14.0	13.9	13.8	13.6	13.4	13.2	13.1	12.9	11.9	11.4	11.1
6.38	13.04	15.1	15.1	15.0	14.9	14.7	14.6	14.5	14.3	14.2	14.1	14.0	13.9	13.7	13.5	13.3	13.1	13.0	12.0	11.5	11.1
6.50	12.97	15.1	15.1	15.0	14.9	14.8	14.6	14.5	14.4	14.2	14.1	14.0	13.9	13.7	13.5	13.3	13.2	13.0	12.1	11.5	11.2
6.67	12.86	15.1	15.1	15.1	14.9	14.8	14.6	14.5	14.4	14.3	14.1	14.0	13.9	13.7	13.5	13.4	13.2	13.1	12.1	11.5	11.2
7.00	12.65	15.2	15.2	15.1	15.0	14.8	14.7	14.6	14.4	14.3	14.2	14.1	14.0	13.8	13.6	13.4	13.3	13.1	12.1	11.6	11.2
7.37	12.42	15.2	15.2	15.2	15.0	14.9	14.8	14.6	14.5	14.4	14.3	14.2	14.1	13.9	13.7	13.5	13.4	13.2	12.2	11.7	11.3
7.50	12.34	15.3	15.3	15.2	15.1	14.9	14.8	14.7	14.6	14.4	14.3	14.2	14.1	13.9	13.7	13.6	13.4	13.3	12.3	11.7	11.3
7.67	12.24	15.3	15.3	15.3	15.1	15.0	14.9	14.7	14.6	14.5	14.4	14.3	14.1	13.9	13.8	13.6	13.4	13.3	12.3	11.7	11.4
7.83	12.14	15.4	15.4	15.3	15.2	15.0	14.9	14.8	14.6	14.5	14.4	14.3	14.2	14.0	13.8	13.7	13.5	13.4	12.4	11.8	11.4
8.00	12.03	15.4	15.4	15.3	15.2	15.1	14.9	14.8	14.7	14.6	14.4	14.3	14.2	14.0	13.9	13.7	13.5	13.4	12.4	11.8	11.4
8.09	11.98	15.4	15.4	15.3	15.2	15.1	14.9	14.8	14.7	14.6	14.4	14.3	14.2	14.0	13.9	13.7	13.5	13.4	12.4	11.8	11.4
8.50	11.72	15.5	15.5	15.5	15.3	15.2	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.2	14.0	13.8	13.7	13.5	12.5	11.9	11.5
8.74	11.57	15.6	15.6	15.5	15.4	15.3	15.1	15.0	14.9	14.8	14.6	14.5	14.4	14.2	14.1	13.9	13.7	13.6	12.6	12.0	11.6
8.89	11.48	15.6	15.6	15.5	15.4	15.3	15.1	15.0	14.9	14.8	14.7	14.6	14.5	14.3	14.1	13.9	13.8	13.6	12.6	12.0	11.6

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-58. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
0.50	16.69	15.2	14.8	13.9	13.0	12.6	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.0	12.0	12.0	12.0	11.9	11.9	11.9	11.9
0.85	16.48	16.4	16.0	14.9	13.6	13.1	12.8	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.1	12.1	12.1	12.0	11.9	11.9	11.9
1.00	16.38	16.7	16.3	15.1	13.8	13.3	12.9	12.7	12.6	12.5	12.4	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.0	11.9	11.9
1.41	16.13	17.2	16.8	15.7	14.3	13.6	13.3	13.0	12.8	12.7	12.6	12.5	12.5	12.4	12.3	12.3	12.2	12.2	12.0	12.0	11.9
1.50	16.07	17.4	17.0	15.9	14.4	13.7	13.3	13.1	12.9	12.8	12.7	12.6	12.5	12.4	12.3	12.3	12.2	12.2	12.1	12.0	12.0
1.94	15.80	17.9	17.5	16.5	15.0	14.2	13.7	13.4	13.2	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.4	12.3	12.1	12.1	12.0
2.00	15.76	17.9	17.6	16.6	15.1	14.3	13.8	13.5	13.2	13.1	12.9	12.8	12.8	12.6	12.5	12.4	12.4	12.3	12.1	12.1	12.0
2.22	15.62	17.9	17.7	16.7	15.2	14.4	13.9	13.6	13.4	13.2	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.4	12.2	12.1	12.0
2.50	15.45	18.1	17.9	17.0	15.5	14.7	14.2	13.8	13.6	13.4	13.2	13.1	13.0	12.8	12.7	12.6	12.5	12.5	12.2	12.1	12.1
2.61	15.38	18.1	17.9	17.1	15.6	14.8	14.3	13.9	13.6	13.4	13.3	13.1	13.0	12.9	12.7	12.6	12.6	12.5	12.2	12.1	12.1
3.00	15.14	18.3	18.1	17.4	16.0	15.1	14.6	14.2	13.9	13.6	13.5	13.3	13.2	13.0	12.9	12.8	12.7	12.6	12.3	12.2	12.2
3.03	15.12	18.3	18.1	17.4	16.0	15.1	14.6	14.2	13.9	13.7	13.5	13.4	13.2	13.0	12.9	12.8	12.7	12.6	12.3	12.2	12.2
3.04	15.12	15.1	18.1	17.4	16.0	15.2	14.0	14.2	13.9	13.4	13.5	13.4	13.2	13.1	12.9	12.8	12.7	12.6	12.3	12.2	12.2
3.20	15.02	15.2	15.2	15.2	14.8	14.4	14.1	13.9	13.7	13.5	13.4	13.3	13.2	13.0	12.9	12.8	12.7	12.7	12.4	12.2	12.2
3.50	14.83	15.7	15.7	15.6	15.2	14.8	14.4	14.1	13.9	13.8	13.6	13.5	13.4	13.2	13.1	13.0	12.9	12.8	12.4	12.3	12.3
3.63	14.75	15.9	15.9	15.8	15.3	14.9	14.5	14.3	14.0	13.8	13.7	13.6	13.4	13.3	13.1	13.0	12.9	12.9	12.5	12.4	12.3
4.00	14.52	16.2	16.2	16.0	15.6	15.1	14.7	14.4	14.2	14.0	13.8	13.7	13.6	13.4	13.2	13.1	13.0	12.9	12.5	12.4	12.3
4.50	14.21	16.6	16.5	16.4	15.9	15.4	15.0	14.7	14.4	14.2	14.0	13.9	13.8	13.6	13.4	13.3	13.1	13.1	12.6	12.5	12.4
4.55	14.18	16.6	16.6	16.4	15.9	15.4	15.0	14.7	14.4	14.2	14.1	13.9	13.8	13.6	13.4	13.3	13.2	13.1	12.6	12.5	12.4
5.00	13.90	16.9	16.9	16.7	16.2	15.7	15.3	14.9	14.7	14.4	14.3	14.1	14.0	13.7	13.6	13.4	13.3	13.2	12.7	12.6	12.5
5.50	13.59	17.3	17.2	17.0	16.5	16.0	15.5	15.2	14.9	14.7	14.5	14.3	14.2	13.9	13.7	13.6	13.5	13.4	12.8	12.6	12.5
5.65	13.49	17.3	17.3	17.1	16.5	16.0	15.6	15.3	15.0	14.8	14.5	14.4	14.2	14.0	13.8	13.6	13.5	13.4	12.9	12.7	12.6
5.74	13.44	17.4	17.3	17.1	16.6	16.1	15.6	15.3	15.0	14.8	14.6	14.4	14.2	14.0	13.8	13.6	13.5	13.4	12.9	12.7	12.6
5.75	13.43	16.9	16.9	17.1	16.6	16.8	16.7	15.3	15.0	14.8	16.4	16.3	16.3	14.0	16.0	13.6	13.5	15.7	12.9	14.5	12.6
6.00	13.28	16.9	16.9	16.9	16.8	16.8	16.7	16.6	16.6	16.5	16.4	16.4	16.3	16.2	16.0	15.9	15.8	15.7	15.0	14.5	14.1
6.11	13.21	16.9	16.9	16.9	16.9	16.8	16.7	16.6	16.6	16.5	16.4	16.4	16.3	16.2	16.1	15.9	15.8	15.7	15.0	14.5	14.1
6.38	13.04	17.0	17.0	16.9	16.9	16.8	16.8	16.7	16.6	16.5	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.8	15.0	14.5	14.2
6.50	12.97	17.0	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.5	16.5	16.4	16.4	16.2	16.1	16.0	15.9	15.8	15.0	14.5	14.2
6.67	12.86	17.0	17.0	17.0	16.9	16.9	16.8	16.7	16.6	16.6	16.5	16.4	16.4	16.2	16.1	16.0	15.9	15.8	15.0	14.5	14.2
7.00	12.65	17.0	17.0	17.0	16.9	16.9	16.8	16.7	16.7	16.6	16.5	16.5	16.4	16.3	16.1	16.0	15.9	15.8	15.1	14.6	14.2
7.37	12.42	17.0	17.0	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.5	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.1	14.6	14.3
7.50	12.34	17.0	17.0	17.0	17.0	16.9	16.9	16.8	16.7	16.6	16.6	16.5	16.4	16.3	16.2	16.1	16.0	15.9	15.1	14.6	14.3
7.67	12.24	17.1	17.1	17.1	17.0	16.9	16.9	16.8	16.7	16.7	16.6	16.5	16.5	16.3	16.2	16.1	16.0	15.9	15.1	14.6	14.3
7.83	12.14	17.1	17.1	17.1	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.6	16.5	16.4	16.3	16.1	16.0	15.9	15.2	14.7	14.3
8.00	12.03	17.1	17.1	17.1	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.6	16.5	16.4	16.3	16.1	16.0	15.9	15.2	14.7	14.3
8.09	11.98	17.1	17.1	17.1	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.6	16.5	16.4	16.3	16.1	16.0	15.9	15.2	14.7	14.3
8.50	11.72	17.2	17.2	17.2	17.1	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.6	16.4	16.3	16.2	16.1	16.0	15.2	14.7	14.4
8.74	11.57	17.2	17.2	17.2	17.1	17.1	17.0	17.0	16.9	16.8	16.7	16.7	16.6	16.5	16.4	16.3	16.1	16.0	15.3	14.8	14.4
8.89	11.48	17.2	17.2	17.2	17.2	17.1	17.0	17.0	16.9	16.8	16.8	16.7	16.6	16.5	16.4	16.3	16.1	16.0	15.3	14.8	14.4

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-59. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
0.50	16.69	17.3	16.8	15.7	14.7	14.3	14.2	14.1	14.0	13.9	13.9	13.9	13.8	13.8	13.8	13.7	13.7	13.7	13.6	13.6	13.6
0.85	16.48	19.0	18.4	16.8	15.4	14.8	14.5	14.4	14.2	14.1	14.1	14.0	14.0	13.9	13.9	13.9	13.8	13.8	13.7	13.7	13.7
1.00	16.38	19.4	18.7	17.1	15.6	15.0	14.6	14.4	14.3	14.2	14.1	14.1	14.1	14.0	13.9	13.9	13.9	13.8	13.7	13.7	13.7
1.41	16.13	20.2	19.6	17.9	16.1	15.3	14.9	14.7	14.5	14.4	14.3	14.2	14.2	14.1	14.0	14.0	13.9	13.9	13.8	13.7	13.7
1.50	16.07	20.5	19.9	18.1	16.2	15.4	15.0	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.0	14.0	13.9	13.8	13.8	13.7
1.94	15.80	21.3	20.8	19.1	16.9	16.0	15.5	15.1	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.1	13.9	13.8	13.8
2.00	15.76	21.4	20.8	19.1	17.0	16.0	15.5	15.2	14.9	14.8	14.6	14.5	14.5	14.3	14.2	14.2	14.1	14.1	13.9	13.8	13.8
2.22	15.62	21.4	21.0	19.4	17.3	16.3	15.7	15.3	15.1	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.2	14.1	13.9	13.8	13.8
2.50	15.45	21.6	21.3	19.9	17.7	16.6	16.0	15.6	15.3	15.1	14.9	14.8	14.7	14.5	14.4	14.3	14.3	14.2	14.0	13.9	13.8
2.61	15.38	21.7	21.4	20.0	17.8	16.7	16.1	15.6	15.4	15.1	15.0	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.0	13.9	13.9
3.00	15.14	21.9	21.6	20.4	18.3	17.1	16.4	16.0	15.6	15.4	15.2	15.1	14.9	14.7	14.6	14.5	14.4	14.4	14.1	13.9	13.9
3.03	15.12	21.9	21.6	20.5	18.3	17.1	16.5	16.0	15.6	15.4	15.2	15.1	14.9	14.8	14.6	14.5	14.4	14.4	14.1	14.0	13.9
3.04	15.12	21.9	21.6	20.5	18.3	17.2	16.5	16.0	15.7	15.4	15.2	15.1	14.9	14.8	14.6	14.5	14.4	14.4	14.1	14.0	13.9
3.20	15.02	20.5	20.5	19.9	18.2	17.2	16.5	16.1	15.7	15.5	15.3	15.1	15.0	14.8	14.7	14.6	14.5	14.4	14.1	14.0	13.9
3.50	14.83	21.6	21.5	20.7	18.8	17.7	16.9	16.4	16.0	15.8	15.6	15.4	15.2	15.0	14.9	14.7	14.6	14.6	14.2	14.1	14.0
3.63	14.75	22.0	21.8	21.0	19.1	17.9	17.1	16.6	16.2	15.9	15.7	15.5	15.3	15.1	14.9	14.8	14.7	14.6	14.2	14.1	14.0
4.00	14.52	22.6	22.4	21.5	19.5	18.2	17.4	16.8	16.4	16.1	15.8	15.6	15.5	15.2	15.0	14.9	14.8	14.7	14.3	14.1	14.1
4.50	14.21	23.2	23.0	22.0	19.9	18.6	17.7	17.1	16.7	16.3	16.0	15.8	15.7	15.4	15.2	15.0	14.9	14.8	14.3	14.2	14.1
4.55	14.18	23.3	23.0	22.1	20.0	18.6	17.8	17.1	16.7	16.3	16.1	15.9	15.7	15.4	15.2	15.0	14.9	14.8	14.4	14.2	14.1
5.00	13.90	23.6	23.4	22.5	20.4	19.0	18.1	17.5	17.0	16.6	16.3	16.1	15.9	15.6	15.4	15.2	15.1	14.9	14.4	14.3	14.2
5.50	13.59	23.8	23.6	22.9	20.9	19.5	18.5	17.8	17.3	16.9	16.6	16.3	16.1	15.8	15.6	15.4	15.2	15.1	14.5	14.3	14.2
5.65	13.49	23.9	23.7	23.0	21.0	19.6	18.6	17.9	17.4	17.0	16.7	16.4	16.2	15.9	15.6	15.4	15.3	15.1	14.6	14.4	14.3
5.74	13.44	23.8	23.7	22.9	21.0	19.6	18.7	18.0	17.4	17.0	16.7	16.4	16.2	15.9	15.6	15.4	15.3	15.2	14.6	14.4	14.3
5.75	13.43	23.8	23.6	22.9	21.0	19.6	18.7	17.6	17.2	17.0	16.7	16.4	16.2	15.9	15.6	15.4	15.3	15.2	14.6	14.4	14.3
6.00	13.28	19.7	19.8	20.1	19.6	18.9	18.2	17.7	17.3	17.0	16.7	16.5	16.3	15.9	15.7	15.5	15.4	15.3	14.6	14.4	14.3
6.11	13.21	19.8	19.9	20.1	19.6	18.9	18.3	17.8	17.3	17.0	16.7	16.5	16.3	16.0	15.7	15.5	15.4	15.3	14.6	14.4	14.3
6.38	13.04	20.4	20.5	20.6	20.0	19.2	18.6	18.0	17.6	17.2	16.9	16.7	16.5	16.1	15.9	15.7	15.5	15.4	14.7	14.5	14.4
6.50	12.97	20.5	20.6	20.6	20.1	19.3	18.6	18.1	17.6	17.3	17.0	16.7	16.5	16.2	15.9	15.7	15.6	15.4	14.7	14.5	14.4
6.67	12.86	20.6	20.7	20.8	20.2	19.4	18.7	18.2	17.7	17.4	17.0	16.8	16.6	16.2	16.0	15.8	15.6	15.4	14.8	14.5	14.4
7.00	12.65	20.8	20.8	20.9	20.3	19.5	18.8	18.2	17.8	17.4	17.1	16.9	16.6	16.3	16.0	15.8	15.6	15.5	14.8	14.6	14.4
7.37	12.42	20.9	21.0	21.0	20.4	19.6	18.9	18.3	17.9	17.5	17.2	16.9	16.7	16.4	16.1	15.9	15.7	15.5	14.8	14.6	14.4
7.50	12.34	21.2	21.3	21.2	20.6	19.7	19.0	18.5	18.0	17.6	17.3	17.0	16.8	16.4	16.1	15.9	15.7	15.6	14.9	14.6	14.5
7.67	12.24	21.6	21.6	21.5	20.8	19.9	19.2	18.6	18.1	17.7	17.4	17.1	16.9	16.5	16.2	16.0	15.8	15.7	14.9	14.6	14.5
7.83	12.14	21.8	21.8	21.7	21.0	20.1	19.4	18.8	18.3	17.9	17.5	17.3	17.0	16.6	16.3	16.1	15.9	15.7	15.0	14.7	14.5
8.00	12.03	21.9	21.9	21.8	21.0	20.2	19.4	18.8	18.3	17.9	17.6	17.3	17.0	16.7	16.4	16.1	15.9	15.8	15.0	14.7	14.5
8.09	11.98	21.9	21.9	21.8	21.0	20.2	19.5	18.9	18.4	17.9	17.6	17.3	17.1	16.7	16.4	16.1	15.9	15.8	15.0	14.7	14.5
8.50	11.72	22.8	22.7	22.5	21.7	20.8	20.0	19.3	18.8	18.4	18.0	17.7	17.4	17.0	16.7	16.4	16.2	16.0	15.1	14.8	14.6
8.74	11.57	23.1	23.1	22.8	22.0	21.1	20.3	19.6	19.1	18.6	18.2	17.9	17.6	17.2	16.8	16.5	16.3	16.1	15.2	14.8	14.7
8.89	11.48	23.3	23.2	23.0	22.1	21.1	20.4	19.7	19.1	18.7	18.3	18.0	17.7	17.2	16.9	16.6	16.3	16.1	15.2	14.9	14.7

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-63. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Table with 22 columns: Dist (km)*, Dist (RM)** (2.5, 3.0, 5.0, 10.0, 15.0, 20.0, 25.0, 30.0, 35.0, 40.0, 45.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0, 200.0, 300.0, 400.0) and 22 rows of temperature data.

* Downstream distances relative to Dam 6
** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-64. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
0.50	16.69	17.9	17.5	16.5	15.6	15.3	15.1	15.0	15.0	14.9	14.9	14.9	14.8	14.8	14.8	14.8	14.8	14.7	14.7	14.7	14.7
0.85	16.48	19.4	18.9	17.5	16.2	15.7	15.5	15.3	15.2	15.1	15.1	15.0	15.0	14.9	14.9	14.9	14.8	14.8	14.7	14.7	14.7
1.00	16.38	19.8	19.2	17.8	16.4	15.9	15.6	15.4	15.3	15.2	15.1	15.1	15.0	15.0	14.9	14.9	14.9	14.9	14.8	14.7	14.7
1.41	16.13	20.6	20.0	18.5	16.8	16.2	15.8	15.6	15.5	15.4	15.3	15.2	15.2	15.1	15.0	15.0	14.9	14.9	14.8	14.8	14.8
1.50	16.07	20.8	20.3	18.7	17.0	16.3	15.9	15.7	15.5	15.4	15.3	15.3	15.2	15.1	15.1	15.0	15.0	14.9	14.8	14.8	14.8
1.94	15.80	21.6	21.1	19.5	17.6	16.8	16.3	16.0	15.8	15.6	15.5	15.4	15.4	15.3	15.2	15.1	15.1	15.1	14.9	14.8	14.8
2.00	15.76	21.6	21.2	19.6	17.7	16.8	16.4	16.0	15.8	15.7	15.6	15.5	15.4	15.3	15.2	15.1	15.1	15.1	14.9	14.8	14.8
2.22	15.62	21.7	21.3	19.9	17.9	17.0	16.5	16.2	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.2	15.1	15.1	14.9	14.9	14.8
2.50	15.45	21.9	21.6	20.3	18.3	17.3	16.8	16.4	16.1	16.0	15.8	15.7	15.6	15.5	15.4	15.3	15.2	15.2	15.0	14.9	14.9
2.61	15.38	22.0	21.6	20.4	18.4	17.4	16.9	16.5	16.2	16.0	15.9	15.8	15.7	15.5	15.4	15.3	15.3	15.2	15.0	14.9	14.9
3.00	15.14	22.1	21.9	20.8	18.9	17.8	17.2	16.8	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.1	15.0	14.9
3.03	15.12	22.1	21.9	20.8	18.9	17.8	17.2	16.8	16.5	16.3	16.1	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.1	15.0	14.9
3.04	15.12	22.1	21.9	20.9	18.9	17.8	17.2	16.8	16.5	16.3	16.1	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.1	15.0	14.9
3.20	15.02	21.4	21.3	20.6	18.9	17.9	17.3	16.9	16.6	16.4	16.2	16.0	15.9	15.8	15.6	15.5	15.4	15.4	15.1	15.0	14.9
3.50	14.83	22.4	22.2	21.3	19.5	18.4	17.7	17.2	16.9	16.6	16.4	16.3	16.1	15.9	15.8	15.7	15.6	15.5	15.2	15.1	15.0
3.63	14.75	22.7	22.5	21.6	19.7	18.6	17.8	17.3	17.0	16.7	16.5	16.3	16.2	16.0	15.9	15.7	15.6	15.6	15.2	15.1	15.0
4.00	14.52	23.2	23.0	22.0	20.1	18.9	18.1	17.5	17.2	16.9	16.7	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.3	15.1	15.1
4.50	14.21	23.8	23.6	22.6	20.5	19.2	18.4	17.8	17.4	17.1	16.9	16.7	16.5	16.3	16.1	15.9	15.8	15.7	15.3	15.2	15.1
4.55	14.18	23.9	23.6	22.6	20.5	19.3	18.4	17.9	17.4	17.1	16.9	16.7	16.5	16.3	16.1	15.9	15.8	15.8	15.3	15.2	15.1
5.00	13.90	24.1	23.9	23.0	21.0	19.6	18.8	18.2	17.7	17.4	17.1	16.9	16.7	16.5	16.3	16.1	16.0	15.9	15.4	15.3	15.2
5.50	13.59	24.2	24.1	23.3	21.4	20.0	19.1	18.5	18.0	17.6	17.4	17.1	16.9	16.6	16.4	16.3	16.1	16.0	15.5	15.3	15.2
5.65	13.49	24.3	24.1	23.4	21.5	20.1	19.2	18.6	18.1	17.7	17.4	17.2	17.0	16.7	16.5	16.3	16.2	16.0	15.5	15.4	15.3
5.74	13.44	24.2	24.0	23.4	21.5	20.2	19.3	18.6	18.1	17.8	17.5	17.2	17.0	16.7	16.5	16.3	16.2	16.1	15.5	15.4	15.3
5.75	13.43	20.4	20.6	20.9	21.5	20.2	19.3	18.6	18.1	17.8	17.5	17.2	17.0	16.7	16.5	16.4	16.2	16.1	15.6	15.4	15.3
6.00	13.28	20.5	20.7	21.0	20.4	19.6	19.0	18.5	18.1	17.8	17.5	17.3	17.1	16.8	16.6	16.4	16.3	16.1	15.6	15.4	15.3
6.11	13.21	20.6	20.8	21.0	20.5	19.7	19.0	18.5	18.1	17.8	17.5	17.3	17.1	16.8	16.6	16.4	16.3	16.2	15.6	15.4	15.3
6.38	13.04	21.2	21.3	21.4	20.8	20.0	19.3	18.8	18.4	18.0	17.7	17.5	17.3	17.0	16.7	16.5	16.4	16.3	15.7	15.5	15.4
6.50	12.97	21.4	21.4	21.5	20.9	20.1	19.4	18.8	18.4	18.0	17.8	17.5	17.3	17.0	16.8	16.6	16.4	16.3	15.7	15.5	15.4
6.67	12.86	21.5	21.6	21.6	21.0	20.1	19.5	18.9	18.5	18.1	17.8	17.6	17.4	17.0	16.8	16.6	16.5	16.3	15.7	15.5	15.4
7.00	12.65	21.6	21.7	21.7	21.1	20.2	19.5	19.0	18.5	18.2	17.9	17.6	17.4	17.1	16.9	16.7	16.5	16.4	15.8	15.5	15.4
7.37	12.42	21.8	21.9	21.9	21.2	20.3	19.6	19.1	18.6	18.3	18.0	17.7	17.5	17.2	16.9	16.7	16.5	16.4	15.8	15.6	15.4
7.50	12.34	22.1	22.1	22.1	21.3	20.5	19.8	19.2	18.7	18.4	18.0	17.8	17.6	17.2	17.0	16.8	16.6	16.5	15.8	15.6	15.4
7.67	12.24	22.5	22.5	22.3	21.5	20.7	19.9	19.3	18.9	18.5	18.2	17.9	17.7	17.3	17.0	16.8	16.7	16.5	15.8	15.6	15.5
7.83	12.14	22.7	22.7	22.5	21.7	20.8	20.1	19.5	19.0	18.6	18.3	18.0	17.8	17.4	17.1	16.9	16.8	16.6	15.9	15.6	15.5
8.00	12.03	22.8	22.7	22.6	21.8	20.9	20.1	19.5	19.0	18.6	18.3	18.0	17.8	17.5	17.2	17.0	16.8	16.6	15.9	15.6	15.5
8.09	11.98	22.8	22.8	22.6	21.8	20.9	20.1	19.5	19.1	18.7	18.3	18.1	17.8	17.5	17.2	17.0	16.8	16.6	15.9	15.6	15.5
8.50	11.72	23.5	23.5	23.3	22.4	21.4	20.6	20.0	19.5	19.1	18.7	18.4	18.2	17.8	17.5	17.2	17.0	16.8	16.0	15.7	15.6
8.74	11.57	23.9	23.8	23.5	22.6	21.7	20.9	20.3	19.7	19.3	18.9	18.6	18.4	17.9	17.6	17.3	17.1	17.0	16.1	15.8	15.6
8.89	11.48	24.0	23.9	23.6	22.7	21.8	21.0	20.3	19.8	19.4	19.0	18.7	18.4	18.0	17.6	17.4	17.2	17.0	16.1	15.8	15.6

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-65. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
0.50	16.69	19.6	19.3	18.5	17.9	17.7	17.6	17.5	17.4	17.4	17.4	17.4	17.3	17.3	17.3	17.3	17.3	17.3	17.2	17.2	17.2
0.85	16.48	20.7	20.3	19.3	18.4	18.0	17.8	17.7	17.6	17.6	17.5	17.5	17.5	17.4	17.4	17.4	17.4	17.3	17.3	17.3	17.2
1.00	16.38	21.0	20.6	19.5	18.5	18.1	17.9	17.8	17.7	17.6	17.6	17.5	17.5	17.5	17.4	17.4	17.4	17.4	17.3	17.3	17.3
1.41	16.13	21.6	21.2	20.0	18.8	18.3	18.1	17.9	17.8	17.7	17.7	17.6	17.6	17.5	17.5	17.5	17.4	17.4	17.3	17.3	17.3
1.50	16.07	21.8	21.4	20.2	18.9	18.4	18.1	18.0	17.9	17.8	17.7	17.7	17.6	17.6	17.5	17.5	17.5	17.4	17.3	17.3	17.3
1.94	15.80	22.3	22.0	20.8	19.4	18.8	18.4	18.2	18.1	18.0	17.9	17.8	17.8	17.7	17.6	17.6	17.5	17.5	17.4	17.4	17.3
2.00	15.76	22.3	22.0	20.9	19.4	18.8	18.5	18.3	18.1	18.0	17.9	17.8	17.8	17.7	17.6	17.6	17.6	17.5	17.4	17.4	17.3
2.22	15.62	22.3	22.0	21.0	19.6	18.9	18.6	18.3	18.2	18.0	18.0	17.9	17.8	17.7	17.7	17.6	17.6	17.6	17.4	17.4	17.4
2.50	15.45	22.3	22.1	21.2	19.8	19.1	18.8	18.5	18.3	18.2	18.1	18.0	17.9	17.8	17.8	17.7	17.7	17.6	17.5	17.4	17.4
2.61	15.38	22.3	22.1	21.3	19.9	19.2	18.8	18.5	18.4	18.2	18.1	18.0	18.0	17.9	17.8	17.7	17.7	17.6	17.5	17.4	17.4
3.00	15.14	22.4	22.2	21.5	20.2	19.5	19.0	18.7	18.5	18.4	18.3	18.2	18.1	18.0	17.9	17.8	17.8	17.7	17.5	17.5	17.4
3.03	15.12	22.4	22.2	21.6	20.2	19.5	19.0	18.8	18.5	18.4	18.3	18.2	18.1	18.0	17.9	17.8	17.8	17.7	17.5	17.5	17.4
3.04	15.12	22.2	22.1	21.5	20.2	19.5	19.0	18.8	18.5	18.4	18.3	18.2	18.1	18.0	17.9	17.8	17.8	17.7	17.5	17.5	17.4
3.20	15.02	22.3	22.2	21.6	20.3	19.6	19.1	18.8	18.6	18.5	18.3	18.2	18.1	18.0	17.9	17.9	17.8	17.8	17.6	17.5	17.5
3.50	14.83	23.1	22.9	22.2	20.8	19.9	19.4	19.1	18.8	18.7	18.5	18.4	18.3	18.2	18.1	18.0	17.9	17.9	17.6	17.6	17.5
3.63	14.75	23.4	23.2	22.4	21.0	20.1	19.6	19.2	18.9	18.8	18.6	18.5	18.4	18.2	18.1	18.0	18.0	17.9	17.7	17.6	17.5
4.00	14.52	24.1	23.8	22.9	21.3	20.4	19.8	19.4	19.1	18.9	18.7	18.6	18.5	18.3	18.2	18.1	18.0	18.0	17.7	17.6	17.6
4.50	14.21	24.8	24.5	23.5	21.7	20.7	20.1	19.6	19.3	19.1	18.9	18.8	18.6	18.5	18.3	18.2	18.1	18.1	17.8	17.7	17.6
4.55	14.18	24.9	24.6	23.5	21.8	20.7	20.1	19.7	19.3	19.1	18.9	18.8	18.6	18.5	18.3	18.2	18.1	18.1	17.8	17.7	17.6
5.00	13.90	24.8	24.6	23.8	22.1	21.0	20.4	19.9	19.6	19.3	19.1	19.0	18.8	18.6	18.5	18.4	18.3	18.2	17.8	17.7	17.7
5.50	13.59	24.7	24.6	24.0	22.4	21.4	20.6	20.2	19.8	19.5	19.3	19.1	19.0	18.8	18.6	18.5	18.4	18.3	17.9	17.8	17.7
5.65	13.49	24.7	24.6	24.0	22.5	21.5	20.7	20.2	19.9	19.6	19.4	19.2	19.0	18.8	18.6	18.5	18.4	18.3	18.0	17.8	17.7
5.74	13.44	24.6	24.5	24.0	22.5	21.5	20.8	20.3	19.9	19.6	19.4	19.2	19.1	18.8	18.7	18.5	18.4	18.3	18.0	17.8	17.8
5.75	13.43	24.6	24.5	24.0	22.5	20.5	20.8	20.3	19.5	19.6	19.4	19.2	19.1	18.7	18.7	18.5	18.4	18.3	18.0	17.8	17.7
6.00	13.28	20.2	20.5	21.1	21.0	20.6	20.2	19.9	19.6	19.4	19.2	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.0	17.8	17.8
6.11	13.21	20.3	20.5	21.1	21.1	20.6	20.2	19.9	19.6	19.4	19.2	19.1	19.0	18.8	18.6	18.5	18.4	18.3	18.0	17.8	17.8
6.38	13.04	21.1	21.2	21.6	21.4	20.9	20.5	20.1	19.8	19.6	19.4	19.2	19.1	18.9	18.7	18.6	18.5	18.4	18.0	17.9	17.8
6.50	12.97	21.2	21.4	21.7	21.5	21.0	20.5	20.1	19.9	19.6	19.4	19.3	19.1	18.9	18.8	18.6	18.5	18.4	18.0	17.9	17.8
6.67	12.86	21.4	21.6	21.8	21.6	21.0	20.6	20.2	19.9	19.7	19.5	19.3	19.2	19.0	18.8	18.7	18.5	18.5	18.0	17.9	17.8
7.00	12.65	21.6	21.7	21.9	21.6	21.1	20.6	20.3	20.0	19.7	19.5	19.4	19.2	19.0	18.8	18.7	18.6	18.5	18.1	17.9	17.9
7.37	12.42	21.8	21.9	22.1	21.8	21.2	20.7	20.4	20.0	19.8	19.6	19.4	19.3	19.0	18.9	18.7	18.6	18.5	18.1	18.0	17.9
7.50	12.34	22.2	22.3	22.4	21.9	21.4	20.9	20.5	20.1	19.9	19.7	19.5	19.4	19.1	18.9	18.8	18.7	18.6	18.1	18.0	17.9
7.67	12.24	22.7	22.7	22.7	22.2	21.5	21.0	20.6	20.3	20.0	19.8	19.6	19.4	19.2	19.0	18.9	18.7	18.6	18.2	18.0	17.9
7.83	12.14	23.0	23.0	22.9	22.4	21.7	21.2	20.7	20.4	20.1	19.9	19.7	19.5	19.3	19.1	18.9	18.8	18.7	18.2	18.0	17.9
8.00	12.03	23.0	23.0	23.0	22.4	21.8	21.2	20.8	20.4	20.1	19.9	19.7	19.6	19.3	19.1	19.0	18.8	18.7	18.2	18.0	17.9
8.09	11.98	23.1	23.1	23.0	22.4	21.8	21.2	20.8	20.5	20.2	19.9	19.7	19.6	19.3	19.1	19.0	18.8	18.7	18.2	18.0	18.0
8.50	11.72	24.0	23.9	23.7	23.0	22.3	21.7	21.2	20.8	20.5	20.3	20.0	19.9	19.6	19.3	19.2	19.0	18.9	18.3	18.1	18.0
8.74	11.57	24.3	24.2	24.0	23.2	22.5	21.9	21.4	21.0	20.7	20.4	20.2	20.0	19.7	19.5	19.3	19.1	19.0	18.4	18.2	18.0
8.89	11.48	24.4	24.4	24.1	23.3	22.6	22.0	21.5	21.1	20.8	20.5	20.3	20.0	19.7	19.5	19.3	19.1	19.0	18.4	18.2	18.0

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-66. Stevenson Reach - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = September, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release (cfs)

Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
0.50	16.69	20.4	20.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
0.85	16.48	20.5	20.5	20.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
1.00	16.38	20.5	20.5	20.4	20.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
1.41	16.13	20.6	20.6	20.5	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
1.50	16.07	20.6	20.6	20.5	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
1.94	15.80	20.6	20.6	20.5	20.5	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.3	20.3
2.00	15.76	20.6	20.6	20.5	20.5	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3	20.3
2.22	15.62	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.3
2.50	15.45	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
2.61	15.38	20.2	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
3.00	15.14	20.0	20.1	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
3.03	15.12	20.0	20.1	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
3.04	15.12	20.0	20.1	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
3.20	15.02	19.9	20.0	20.1	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
3.50	14.83	20.3	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
3.63	14.75	20.5	20.5	20.4	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
4.00	14.52	21.2	21.0	20.8	20.6	20.6	20.6	20.6	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
4.50	14.21	21.9	21.7	21.3	20.9	20.8	20.7	20.7	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.5	20.5	20.5	20.5
4.55	14.18	21.9	21.7	21.3	20.9	20.8	20.7	20.7	20.7	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.5	20.5	20.5
5.00	13.90	21.9	21.7	21.4	21.0	20.9	20.8	20.8	20.7	20.7	20.7	20.7	20.7	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
5.50	13.59	21.8	21.7	21.5	21.1	21.0	20.9	20.8	20.8	20.8	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.6	20.6	20.6	20.6
5.65	13.49	21.8	21.7	21.5	21.1	21.0	20.9	20.9	20.8	20.8	20.8	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.6	20.6	20.6
5.74	13.44	21.7	21.7	21.5	21.1	21.0	20.9	20.9	20.8	20.8	20.8	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.6	20.6	20.6
5.75	13.43	21.7	21.7	21.5	21.1	21.0	20.9	20.9	20.8	20.8	20.8	20.8	20.7	20.4	20.7	20.7	20.7	20.5	20.6	20.6	20.6
6.00	13.28	17.7	18.0	18.7	19.4	19.8	20.0	20.1	20.2	20.2	20.3	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.6	20.6
6.11	13.21	17.8	18.0	18.7	19.5	19.8	20.0	20.1	20.2	20.2	20.3	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.6	20.6
6.38	13.04	18.5	18.6	19.1	19.6	19.9	20.1	20.2	20.2	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.6	20.6	20.6
6.50	12.97	18.6	18.7	19.2	19.7	19.9	20.1	20.2	20.3	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.6	20.6	20.6
6.67	12.86	18.8	18.9	19.3	19.8	20.0	20.1	20.2	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.6	20.6	20.6
7.00	12.65	18.9	19.0	19.4	19.8	20.0	20.1	20.2	20.3	20.4	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.6	20.6	20.6
7.37	12.42	19.1	19.2	19.5	19.9	20.1	20.2	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6
7.50	12.34	19.4	19.4	19.7	20.0	20.2	20.3	20.3	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6	20.6	20.7
7.67	12.24	19.7	19.8	19.9	20.1	20.3	20.3	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6	20.6	20.7	20.7
7.83	12.14	20.0	20.0	20.1	20.3	20.4	20.4	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.7	20.7	20.7
8.00	12.03	20.1	20.1	20.1	20.3	20.4	20.4	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.7	20.7	20.7
8.09	11.98	20.1	20.1	20.2	20.3	20.4	20.4	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.7	20.7	20.7
8.50	11.72	21.0	20.9	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
8.74	11.57	21.3	21.3	21.1	20.9	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.7
8.89	11.48	21.4	21.4	21.2	21.0	20.9	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.7	20.7

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-67. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
0.50	16.69	14.4	14.0	13.0	11.6	10.9	10.6	10.3	10.1	10.0	9.9	9.9	9.8	9.8	9.8	9.7	9.7	9.7	9.6	9.6	9.6
0.85	16.48	15.3	15.0	14.1	12.6	11.8	11.3	11.0	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.9	9.8	9.8	9.7	9.6	9.6
1.00	16.38	15.5	15.2	14.4	13.0	12.1	11.6	11.2	10.9	10.7	10.6	10.4	10.3	10.1	10.0	9.9	9.9	9.9	9.7	9.7	9.6
1.41	16.13	15.8	15.6	14.9	13.6	12.8	12.2	11.8	11.4	11.2	11.0	10.8	10.7	10.5	10.3	10.2	10.1	10.0	9.8	9.7	9.7
1.50	16.07	15.9	15.7	15.0	13.7	12.9	12.3	11.9	11.6	11.3	11.1	10.9	10.8	10.6	10.4	10.2	10.1	10.0	9.8	9.8	9.7
1.94	15.80	16.3	16.1	15.4	14.3	13.5	12.9	12.4	12.1	11.8	11.5	11.4	11.2	10.9	10.7	10.5	10.4	10.3	9.9	9.8	9.8
2.00	15.76	16.4	16.1	15.4	14.3	13.5	12.9	12.5	12.1	11.8	11.6	11.4	11.2	11.0	10.8	10.6	10.4	10.3	9.9	9.8	9.8
2.22	15.62	16.4	16.2	15.5	14.5	13.7	13.1	12.7	12.3	12.0	11.8	11.6	11.4	11.1	10.9	10.7	10.6	10.4	10.0	9.9	9.8
2.50	15.45	16.6	16.4	15.7	14.7	14.0	13.4	12.9	12.6	12.3	12.0	11.8	11.6	11.3	11.1	10.9	10.7	10.6	10.0	9.9	9.9
2.61	15.38	16.6	16.4	15.8	14.8	14.1	13.5	13.1	12.7	12.4	12.1	11.9	11.7	11.4	11.2	11.0	10.8	10.7	10.1	9.9	9.9
3.00	15.14	16.8	16.6	15.9	15.0	14.3	13.8	13.4	13.0	12.7	12.4	12.2	12.0	11.7	11.4	11.2	11.0	10.9	10.1	10.0	10.0
3.03	15.12	16.8	16.6	15.9	15.0	14.4	13.8	13.4	13.0	12.7	12.4	12.2	12.0	11.7	11.4	11.2	11.1	10.9	10.2	10.0	10.0
3.04	15.12	16.8	16.6	16.0	15.0	14.4	13.8	12.6	13.0	12.7	12.4	12.0	12.0	11.7	11.4	11.2	11.1	10.9	10.2	10.0	10.0
3.20	15.02	13.8	13.7	13.5	13.3	13.0	12.8	12.7	12.5	12.3	12.2	12.1	12.0	11.8	11.6	11.4	11.3	11.2	10.4	10.3	10.2
3.50	14.83	14.0	13.9	13.7	13.5	13.3	13.1	12.9	12.7	12.5	12.4	12.3	12.1	11.9	11.8	11.6	11.4	11.3	10.6	10.4	10.3
3.63	14.75	14.1	14.0	13.8	13.6	13.3	13.1	12.9	12.8	12.6	12.5	12.3	12.2	12.0	11.8	11.6	11.5	11.4	10.6	10.4	10.3
4.00	14.52	14.2	14.2	14.0	13.7	13.5	13.3	13.1	12.9	12.8	12.6	12.5	12.3	12.1	11.9	11.8	11.6	11.5	10.7	10.5	10.4
4.50	14.21	14.4	14.4	14.2	13.9	13.7	13.5	13.3	13.1	12.9	12.8	12.6	12.5	12.3	12.1	11.9	11.8	11.6	10.8	10.6	10.5
4.55	14.18	14.4	14.4	14.2	13.9	13.7	13.5	13.3	13.1	12.9	12.8	12.6	12.5	12.3	12.1	11.9	11.8	11.6	10.8	10.6	10.5
5.00	13.90	14.6	14.6	14.4	14.1	13.9	13.6	13.4	13.3	13.1	12.9	12.8	12.7	12.4	12.2	12.1	11.9	11.8	10.9	10.7	10.6
5.50	13.59	14.8	14.8	14.6	14.3	14.1	13.8	13.6	13.4	13.3	13.1	13.0	12.8	12.6	12.4	12.2	12.1	11.9	11.1	10.8	10.7
5.65	13.49	14.9	14.8	14.6	14.3	14.1	13.9	13.7	13.5	13.3	13.2	13.0	12.9	12.6	12.4	12.3	12.1	12.0	11.1	10.9	10.7
5.74	13.44	14.9	14.8	14.6	14.4	14.1	13.9	13.7	13.5	13.3	13.2	13.0	12.9	12.7	12.4	12.3	12.1	12.0	11.1	10.9	10.7
5.75	13.43	14.9	16.4	14.6	16.0	14.1	13.9	13.7	15.2	15.0	13.2	14.7	12.9	14.3	14.1	13.9	13.7	13.5	11.1	10.9	11.6
6.00	13.28	16.5	16.4	16.3	16.0	15.8	15.6	15.4	15.2	15.1	14.9	14.8	14.6	14.4	14.1	13.9	13.7	13.5	12.4	11.9	11.6
6.11	13.21	16.5	16.4	16.3	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.6	14.4	14.1	13.9	13.7	13.6	12.4	11.9	11.6
6.38	13.04	16.5	16.5	16.4	16.1	15.9	15.7	15.5	15.3	15.2	15.0	14.9	14.7	14.4	14.2	14.0	13.8	13.6	12.5	11.9	11.6
6.50	12.97	16.6	16.5	16.4	16.1	15.9	15.7	15.5	15.4	15.2	15.0	14.9	14.7	14.5	14.2	14.0	13.8	13.6	12.5	12.0	11.7
6.67	12.86	16.6	16.5	16.4	16.2	16.0	15.8	15.6	15.4	15.2	15.1	14.9	14.8	14.5	14.3	14.1	13.9	13.7	12.5	12.0	11.7
7.00	12.65	16.6	16.6	16.4	16.2	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.5	14.3	14.1	13.9	13.7	12.5	12.0	11.7
7.37	12.42	16.7	16.6	16.5	16.3	16.0	15.8	15.6	15.5	15.3	15.1	15.0	14.9	14.6	14.4	14.1	13.9	13.8	12.6	12.1	11.8
7.50	12.34	16.7	16.7	16.5	16.3	16.1	15.9	15.7	15.5	15.4	15.2	15.0	14.9	14.6	14.4	14.2	14.0	13.8	12.6	12.1	11.8
7.67	12.24	16.8	16.7	16.6	16.4	16.1	15.9	15.8	15.6	15.4	15.3	15.1	14.9	14.7	14.4	14.2	14.0	13.9	12.7	12.1	11.8
7.83	12.14	16.9	16.8	16.7	16.4	16.2	16.0	15.8	15.6	15.5	15.3	15.2	15.0	14.8	14.5	14.3	14.1	13.9	12.7	12.2	11.9
8.00	12.03	16.9	16.8	16.7	16.4	16.2	16.0	15.8	15.6	15.5	15.3	15.2	15.0	14.8	14.5	14.3	14.1	13.9	12.7	12.2	11.9
8.09	11.98	16.9	16.8	16.7	16.4	16.2	16.0	15.8	15.6	15.5	15.3	15.2	15.0	14.8	14.5	14.3	14.1	13.9	12.7	12.2	11.9
8.50	11.72	17.0	17.0	16.8	16.6	16.4	16.2	16.0	15.8	15.6	15.5	15.3	15.2	14.9	14.7	14.4	14.3	14.1	12.9	12.3	12.0
8.74	11.57	17.1	17.1	16.9	16.7	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.3	15.0	14.8	14.5	14.3	14.1	12.9	12.4	12.0
8.89	11.48	17.1	17.1	16.9	16.7	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.3	15.0	14.8	14.5	14.3	14.1	12.9	12.4	12.0

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-68. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.50	16.69	15.9	15.5	14.5	13.6	13.3	13.1	12.9	12.9	12.8	12.8	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.5	12.5	12.5
0.85	16.48	17.0	16.6	15.5	14.3	13.8	13.5	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.7	12.6	12.6	12.5
1.00	16.38	17.4	17.0	15.8	14.5	13.9	13.6	13.4	13.3	13.1	13.1	13.0	13.0	12.9	12.8	12.8	12.8	12.7	12.6	12.6	12.6
1.41	16.13	18.2	17.8	16.5	15.0	14.3	13.9	13.7	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9	12.9	12.8	12.7	12.6	12.6
1.50	16.07	18.5	18.0	16.7	15.1	14.4	14.0	13.8	13.6	13.4	13.3	13.2	13.2	13.1	13.0	12.9	12.9	12.9	12.7	12.6	12.6
1.94	15.80	19.2	18.8	17.5	15.8	14.9	14.4	14.1	13.9	13.7	13.6	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.8	12.7	12.7
2.00	15.76	19.3	18.8	17.5	15.8	15.0	14.5	14.1	13.9	13.7	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.0	12.8	12.7	12.7
2.22	15.62	19.3	18.9	17.7	16.0	15.1	14.6	14.3	14.0	13.8	13.7	13.6	13.5	13.3	13.2	13.2	13.1	13.0	12.8	12.7	12.7
2.50	15.45	19.5	19.2	18.0	16.3	15.4	14.8	14.5	14.2	14.0	13.9	13.7	13.6	13.5	13.4	13.3	13.2	13.1	12.9	12.8	12.8
2.61	15.38	19.6	19.3	18.1	16.4	15.5	14.9	14.5	14.3	14.1	13.9	13.8	13.7	13.5	13.4	13.3	13.2	13.2	12.9	12.8	12.8
3.00	15.14	19.8	19.5	18.4	16.7	15.8	15.2	14.8	14.5	14.3	14.1	14.0	13.9	13.7	13.5	13.4	13.4	13.3	13.0	12.9	12.8
3.03	15.12	19.8	19.5	18.4	16.8	15.8	15.2	14.8	14.5	14.3	14.1	14.0	13.9	13.7	13.6	13.4	13.4	13.3	13.0	12.9	12.9
3.04	15.12	17.0	19.5	18.5	16.8	15.8	15.1	14.8	14.5	14.3	14.1	14.0	13.9	13.7	13.6	13.4	13.4	13.3	13.0	12.9	12.9
3.20	15.02	17.1	17.1	16.8	16.1	15.6	15.1	14.9	14.6	14.4	14.3	14.1	14.0	13.8	13.7	13.6	13.5	13.4	13.1	13.0	12.9
3.50	14.83	17.8	17.7	17.4	16.6	16.0	15.6	15.2	14.9	14.7	14.6	14.4	14.3	14.1	13.9	13.8	13.7	13.6	13.2	13.1	13.0
3.63	14.75	18.0	17.9	17.6	16.8	16.2	15.7	15.4	15.1	14.9	14.7	14.5	14.4	14.2	14.0	13.9	13.8	13.7	13.3	13.1	13.1
4.00	14.52	18.4	18.3	18.0	17.1	16.5	16.0	15.6	15.3	15.1	14.9	14.7	14.6	14.3	14.1	14.0	13.9	13.8	13.3	13.2	13.1
4.50	14.21	18.9	18.8	18.4	17.5	16.8	16.3	15.9	15.6	15.3	15.1	14.9	14.8	14.5	14.3	14.2	14.1	13.9	13.4	13.3	13.2
4.55	14.18	19.0	18.9	18.4	17.5	16.9	16.3	15.9	15.6	15.3	15.1	14.9	14.8	14.5	14.3	14.2	14.1	14.0	13.4	13.3	13.2
5.00	13.90	19.4	19.3	18.8	17.9	17.2	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.7	14.5	14.4	14.2	14.1	13.6	13.4	13.3
5.50	13.59	19.7	19.6	19.2	18.3	17.5	17.0	16.5	16.2	15.9	15.6	15.4	15.2	15.0	14.7	14.6	14.4	14.3	13.7	13.5	13.4
5.65	13.49	19.8	19.7	19.3	18.4	17.6	17.0	16.6	16.3	15.9	15.7	15.5	15.3	15.0	14.8	14.6	14.5	14.3	13.7	13.5	13.4
5.74	13.44	19.8	19.7	19.3	18.4	17.6	17.1	16.6	16.3	16.0	15.7	15.5	15.3	15.0	14.8	14.6	14.5	14.4	13.8	13.5	13.4
5.75	13.43	19.3	19.3	19.3	18.4	19.1	19.0	16.6	16.3	16.0	18.6	18.5	18.4	15.0	18.1	14.6	14.5	17.6	13.8	16.0	13.4
6.00	13.28	19.3	19.3	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.5	18.4	18.3	18.1	17.9	17.8	17.7	16.6	16.0	15.6
6.11	13.21	19.3	19.3	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.5	18.4	18.3	18.1	18.0	17.8	17.7	16.7	16.0	15.6
6.38	13.04	19.4	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.6	18.5	18.3	18.1	18.0	17.9	17.7	16.7	16.1	15.6
6.50	12.97	19.4	19.4	19.4	19.3	19.1	19.0	19.0	18.9	18.8	18.7	18.6	18.5	18.3	18.1	18.0	17.9	17.7	16.7	16.1	15.6
6.67	12.86	19.4	19.4	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.5	18.3	18.2	18.0	17.9	17.7	16.7	16.1	15.6
7.00	12.65	19.4	19.4	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.5	18.4	18.2	18.0	17.9	17.8	16.8	16.1	15.7
7.37	12.42	19.5	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.6	18.4	18.2	18.1	18.0	17.8	16.8	16.2	15.7
7.50	12.34	19.5	19.5	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.4	18.3	18.1	18.0	17.8	16.8	16.2	15.7
7.67	12.24	19.5	19.5	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.7	18.6	18.5	18.3	18.1	18.0	17.9	16.9	16.2	15.8
7.83	12.14	19.6	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.8	18.7	18.5	18.3	18.2	18.0	17.9	16.9	16.3	15.8
8.00	12.03	19.6	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.8	18.7	18.5	18.3	18.2	18.0	17.9	16.9	16.3	15.8
8.09	11.98	19.6	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.8	18.7	18.5	18.3	18.2	18.0	17.9	16.9	16.3	15.8
8.50	11.72	19.7	19.6	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.8	18.6	18.4	18.3	18.1	18.0	17.0	16.3	15.9
8.74	11.57	19.7	19.7	19.7	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.6	18.5	18.3	18.2	18.0	17.0	16.4	15.9
8.89	11.48	19.7	19.7	19.7	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.9	18.8	18.6	18.5	18.3	18.2	18.0	17.0	16.4	15.9

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-69. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
0.50	16.69	18.8	18.3	16.9	15.7	15.3	15.0	14.9	14.8	14.7	14.7	14.6	14.6	14.5	14.5	14.5	14.4	14.4	14.4	14.3	14.3
0.85	16.48	20.7	20.0	18.3	16.6	15.9	15.5	15.3	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.6	14.6	14.6	14.4	14.4	14.4
1.00	16.38	21.2	20.5	18.7	16.8	16.1	15.7	15.4	15.2	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.6	14.6	14.5	14.4	14.4
1.41	16.13	22.2	21.5	19.6	17.4	16.5	16.0	15.7	15.5	15.4	15.2	15.1	15.1	14.9	14.9	14.8	14.8	14.7	14.6	14.5	14.5
1.50	16.07	22.5	21.8	19.9	17.6	16.7	16.2	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9	14.9	14.8	14.8	14.6	14.5	14.5
1.94	15.80	23.3	22.7	20.9	18.4	17.3	16.7	16.3	16.0	15.8	15.6	15.5	15.4	15.2	15.1	15.0	14.9	14.9	14.6	14.6	14.5
2.00	15.76	23.2	22.7	20.9	18.5	17.4	16.7	16.3	16.0	15.8	15.6	15.5	15.4	15.3	15.1	15.0	15.0	14.9	14.7	14.6	14.5
2.22	15.62	23.0	22.6	21.0	18.7	17.6	16.9	16.5	16.1	15.9	15.7	15.6	15.5	15.3	15.2	15.1	15.0	15.0	14.7	14.6	14.6
2.50	15.45	23.0	22.7	21.3	19.1	17.9	17.2	16.7	16.4	16.1	15.9	15.8	15.6	15.5	15.3	15.2	15.1	15.1	14.8	14.7	14.6
2.61	15.38	23.0	22.7	21.4	19.2	18.0	17.3	16.8	16.5	16.2	16.0	15.8	15.7	15.5	15.4	15.3	15.2	15.1	14.8	14.7	14.6
3.00	15.14	23.0	22.8	21.8	19.6	18.4	17.6	17.1	16.7	16.5	16.2	16.1	15.9	15.7	15.5	15.4	15.3	15.2	14.9	14.8	14.7
3.03	15.12	23.0	22.8	21.8	19.7	18.4	17.7	17.1	16.8	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.3	15.3	14.9	14.8	14.7
3.04	15.12	23.0	22.8	21.8	19.7	18.4	17.7	17.1	16.8	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.3	15.3	14.9	14.8	14.7
3.20	15.02	21.8	21.8	21.3	19.6	18.5	17.8	17.3	16.9	16.6	16.4	16.2	16.0	15.8	15.6	15.5	15.4	15.3	14.9	14.8	14.8
3.50	14.83	23.4	23.3	22.4	20.5	19.2	18.4	17.8	17.3	17.0	16.7	16.5	16.4	16.1	15.9	15.7	15.6	15.5	15.1	14.9	14.9
3.63	14.75	24.0	23.8	22.9	20.8	19.5	18.6	18.0	17.5	17.2	16.9	16.7	16.5	16.2	16.0	15.8	15.7	15.6	15.1	15.0	14.9
4.00	14.52	25.0	24.7	23.6	21.4	20.0	19.0	18.3	17.8	17.5	17.2	16.9	16.7	16.4	16.2	16.0	15.9	15.7	15.2	15.0	15.0
4.50	14.21	26.0	25.7	24.5	22.1	20.6	19.5	18.8	18.3	17.8	17.5	17.2	17.0	16.7	16.4	16.2	16.0	15.9	15.3	15.1	15.0
4.55	14.18	26.1	25.8	24.6	22.2	20.6	19.6	18.8	18.3	17.9	17.5	17.3	17.0	16.7	16.4	16.2	16.1	15.9	15.3	15.1	15.1
5.00	13.90	26.3	26.0	25.0	22.7	21.1	20.0	19.3	18.7	18.2	17.9	17.6	17.3	16.9	16.6	16.4	16.3	16.1	15.5	15.3	15.1
5.50	13.59	26.4	26.2	25.4	23.2	21.6	20.5	19.7	19.1	18.6	18.2	17.9	17.6	17.2	16.9	16.7	16.5	16.3	15.6	15.4	15.3
5.65	13.49	26.5	26.3	25.4	23.3	21.8	20.6	19.8	19.2	18.7	18.3	18.0	17.7	17.3	17.0	16.7	16.5	16.4	15.6	15.4	15.3
5.74	13.44	26.3	26.2	25.4	23.3	21.8	20.6	19.8	19.2	18.7	18.3	18.0	17.7	17.3	17.0	16.8	16.6	16.4	15.7	15.4	15.3
5.75	13.43	26.3	26.1	25.4	23.3	21.8	20.7	19.6	19.1	18.7	18.3	18.0	17.7	17.3	17.0	16.8	16.6	16.5	15.7	15.5	15.3
6.00	13.28	22.1	22.2	22.4	21.9	21.1	20.3	19.7	19.2	18.8	18.4	18.1	17.9	17.5	17.1	16.9	16.7	16.5	15.8	15.5	15.4
6.11	13.21	22.1	22.2	22.4	21.9	21.1	20.3	19.7	19.2	18.8	18.4	18.1	17.9	17.5	17.2	16.9	16.7	16.6	15.8	15.5	15.4
6.38	13.04	22.6	22.7	22.8	22.2	21.4	20.6	20.0	19.5	19.0	18.7	18.4	18.1	17.7	17.4	17.1	16.9	16.7	15.9	15.6	15.4
6.50	12.97	22.8	22.9	22.9	22.3	21.5	20.7	20.1	19.5	19.1	18.7	18.4	18.2	17.7	17.4	17.1	16.9	16.8	15.9	15.6	15.4
6.67	12.86	23.0	23.0	23.1	22.4	21.6	20.8	20.1	19.6	19.2	18.8	18.5	18.2	17.8	17.5	17.2	17.0	16.8	15.9	15.6	15.5
7.00	12.65	23.1	23.2	23.2	22.5	21.7	20.9	20.3	19.7	19.3	18.9	18.6	18.3	17.9	17.5	17.3	17.0	16.9	16.0	15.7	15.5
7.37	12.42	23.3	23.3	23.3	22.7	21.8	21.0	20.4	19.8	19.4	19.0	18.7	18.4	17.9	17.6	17.3	17.1	16.9	16.0	15.7	15.6
7.50	12.34	23.7	23.7	23.7	22.9	22.0	21.2	20.5	20.0	19.5	19.1	18.8	18.5	18.0	17.7	17.4	17.2	17.0	16.1	15.7	15.6
7.67	12.24	24.2	24.2	24.0	23.2	22.3	21.5	20.8	20.2	19.7	19.3	19.0	18.7	18.2	17.8	17.5	17.3	17.1	16.1	15.8	15.6
7.83	12.14	24.4	24.4	24.3	23.4	22.5	21.6	21.0	20.4	19.9	19.5	19.1	18.8	18.3	18.0	17.6	17.4	17.2	16.2	15.9	15.7
8.00	12.03	24.4	24.4	24.3	23.4	22.5	21.6	21.0	20.4	19.9	19.5	19.1	18.8	18.3	18.0	17.6	17.4	17.2	16.2	15.9	15.7
8.09	11.98	24.4	24.4	24.3	23.4	22.5	21.6	21.0	20.4	19.9	19.5	19.1	18.8	18.3	18.0	17.6	17.4	17.2	16.2	15.9	15.7
8.50	11.72	25.3	25.2	25.0	24.1	23.1	22.3	21.5	20.9	20.4	20.0	19.6	19.3	18.8	18.3	18.0	17.7	17.5	16.4	16.0	15.8
8.74	11.57	25.7	25.6	25.3	24.4	23.5	22.6	21.9	21.2	20.7	20.3	19.9	19.5	19.0	18.5	18.2	17.9	17.7	16.5	16.1	15.9
8.89	11.48	25.7	25.6	25.3	24.4	23.5	22.6	21.9	21.2	20.7	20.3	19.9	19.5	19.0	18.5	18.2	17.9	17.7	16.5	16.1	15.9

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-70. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																				
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	
0.00	17.00	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
0.50	16.69	20.1	19.8	19.2	18.6	18.4	18.3	18.3	18.2	18.2	18.2	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.0	18.0	18.0
0.85	16.48	21.0	20.7	19.9	19.0	18.7	18.6	18.5	18.4	18.3	18.3	18.3	18.2	18.2	18.2	18.2	18.1	18.1	18.1	18.1	18.1	18.0
1.00	16.38	21.3	21.0	20.1	19.2	18.8	18.6	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2	18.2	18.1	18.1	18.1	18.1
1.41	16.13	21.9	21.5	20.5	19.5	19.1	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3	18.3	18.3	18.2	18.1	18.1	18.1	18.1
1.50	16.07	22.0	21.6	20.7	19.6	19.1	18.9	18.7	18.6	18.5	18.5	18.5	18.4	18.4	18.3	18.3	18.3	18.2	18.2	18.2	18.1	18.1
1.94	15.80	22.3	22.0	21.1	20.0	19.4	19.1	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
2.00	15.76	22.1	21.9	21.1	20.0	19.4	19.1	19.0	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.4	18.4	18.3	18.2	18.2	18.2	18.2
2.22	15.62	21.8	21.6	21.0	20.0	19.5	19.2	19.0	18.9	18.8	18.7	18.6	18.6	18.5	18.4	18.4	18.4	18.3	18.2	18.2	18.2	18.2
2.50	15.45	21.4	21.4	21.0	20.0	19.5	19.3	19.1	18.9	18.8	18.7	18.7	18.6	18.5	18.5	18.5	18.4	18.4	18.3	18.2	18.2	18.2
2.61	15.38	21.4	21.3	20.9	20.1	19.6	19.3	19.1	19.0	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.4	18.3	18.2	18.2	18.2
3.00	15.14	21.1	21.1	20.9	20.1	19.7	19.4	19.2	19.0	18.9	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.3	18.3	18.3	18.3
3.03	15.12	21.1	21.1	20.9	20.2	19.7	19.4	19.2	19.0	18.9	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.3	18.3	18.3	18.3
3.04	15.12	20.9	21.1	20.8	20.2	19.7	19.4	19.2	19.0	18.9	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.3	18.3	18.3	18.3
3.20	15.02	20.9	20.9	20.8	20.2	19.7	19.4	19.2	19.1	19.0	18.9	18.8	18.8	18.7	18.6	18.6	18.5	18.5	18.4	18.3	18.3	18.3
3.50	14.83	22.4	22.2	21.7	20.7	20.1	19.8	19.5	19.4	19.2	19.1	19.0	19.0	18.8	18.8	18.7	18.6	18.6	18.4	18.4	18.4	18.4
3.63	14.75	22.9	22.7	22.0	21.0	20.3	19.9	19.6	19.5	19.3	19.2	19.1	19.0	18.9	18.8	18.8	18.7	18.7	18.5	18.4	18.4	18.4
4.00	14.52	24.2	23.9	22.9	21.5	20.7	20.3	19.9	19.7	19.5	19.4	19.3	19.2	19.0	19.0	18.9	18.8	18.8	18.5	18.5	18.5	18.5
4.50	14.21	25.5	25.1	23.9	22.2	21.3	20.7	20.3	20.0	19.8	19.6	19.5	19.4	19.2	19.1	19.0	19.0	18.9	18.6	18.5	18.5	18.5
4.55	14.18	25.6	25.2	24.0	22.2	21.3	20.7	20.3	20.0	19.8	19.7	19.5	19.4	19.3	19.1	19.0	19.0	18.9	18.6	18.5	18.5	18.5
5.00	13.90	25.3	25.0	24.1	22.5	21.6	21.0	20.6	20.3	20.0	19.9	19.7	19.6	19.4	19.3	19.2	19.1	19.0	18.7	18.6	18.6	18.6
5.50	13.59	25.0	24.9	24.2	22.8	21.9	21.2	20.8	20.5	20.2	20.0	19.9	19.8	19.6	19.4	19.3	19.2	19.1	18.8	18.7	18.7	18.7
5.65	13.49	24.9	24.8	24.3	22.9	21.9	21.3	20.9	20.5	20.3	20.1	19.9	19.8	19.6	19.5	19.3	19.3	19.2	18.8	18.7	18.7	18.7
5.74	13.44	24.7	24.6	24.1	22.8	21.9	21.3	20.9	20.5	20.3	20.1	20.0	19.8	19.6	19.5	19.4	19.3	19.2	18.8	18.7	18.7	18.7
5.75	13.43	24.6	24.6	21.3	22.8	21.9	21.3	20.4	20.6	20.3	20.1	20.0	19.8	19.6	19.5	19.4	19.2	19.2	18.8	18.7	18.7	18.7
6.00	13.28	20.5	20.8	21.3	21.4	21.0	20.7	20.5	20.3	20.1	19.9	19.8	19.7	19.5	19.4	19.3	19.2	19.1	18.8	18.7	18.7	18.7
6.11	13.21	20.6	20.8	21.3	21.4	21.0	20.7	20.5	20.3	20.1	19.9	19.8	19.7	19.5	19.4	19.3	19.2	19.2	18.9	18.8	18.7	18.7
6.38	13.04	21.1	21.3	21.6	21.6	21.3	20.9	20.6	20.4	20.2	20.1	19.9	19.8	19.6	19.5	19.4	19.3	19.2	18.9	18.8	18.8	18.8
6.50	12.97	21.3	21.4	21.7	21.7	21.3	21.0	20.7	20.5	20.3	20.1	20.0	19.9	19.7	19.5	19.4	19.3	19.3	18.9	18.8	18.8	18.8
6.67	12.86	21.5	21.6	21.9	21.8	21.4	21.0	20.7	20.5	20.3	20.1	20.0	19.9	19.7	19.6	19.5	19.4	19.3	18.9	18.8	18.8	18.8
7.00	12.65	21.6	21.8	22.0	21.8	21.5	21.1	20.8	20.6	20.4	20.2	20.1	19.9	19.8	19.6	19.5	19.4	19.3	19.0	18.9	18.8	18.8
7.37	12.42	21.8	21.9	22.1	21.9	21.5	21.2	20.9	20.6	20.4	20.3	20.1	20.0	19.8	19.6	19.5	19.4	19.4	19.0	18.9	18.8	18.8
7.50	12.34	22.4	22.4	22.5	22.2	21.8	21.4	21.0	20.8	20.5	20.4	20.2	20.1	19.9	19.7	19.6	19.5	19.4	19.0	18.9	18.9	18.9
7.67	12.24	23.0	23.0	23.0	22.5	22.0	21.6	21.2	21.0	20.7	20.5	20.4	20.2	20.0	19.8	19.7	19.6	19.5	19.1	18.9	18.9	18.9
7.83	12.14	23.3	23.2	23.1	22.7	22.2	21.7	21.4	21.1	20.8	20.6	20.5	20.3	20.1	19.9	19.8	19.7	19.6	19.1	19.0	18.9	18.9
8.00	12.03	23.3	23.2	23.1	22.7	22.2	21.7	21.4	21.1	20.8	20.6	20.5	20.3	20.1	19.9	19.8	19.7	19.6	19.1	19.0	18.9	18.9
8.09	11.98	23.3	23.2	23.1	22.7	22.2	21.7	21.4	21.1	20.8	20.6	20.5	20.3	20.1	19.9	19.8	19.7	19.6	19.1	19.0	18.9	18.9
8.50	11.72	24.1	24.1	23.9	23.3	22.7	22.2	21.8	21.5	21.2	21.0	20.8	20.6	20.4	20.1	20.0	19.9	19.8	19.3	19.1	19.0	19.0
8.74	11.57	24.5	24.4	24.2	23.5	22.9	22.4	22.0	21.6	21.4	21.1	20.9	20.8	20.5	20.3	20.1	20.0	19.9	19.3	19.1	19.0	19.0
8.89	11.48	24.5	24.4	24.2	23.5	22.9	22.4	22.0	21.6	21.4	21.1	20.9	20.8	20.5	20.3	20.1	20.0	19.9	19.3	19.1	19.0	19.0

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-71. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = September, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
0.50	16.69	19.6	19.5	19.3	19.1	19.0	19.0	19.0	19.0	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
0.85	16.48	20.0	19.8	19.5	19.2	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.9	18.9	18.9	18.9
1.00	16.38	20.1	20.0	19.6	19.3	19.2	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.9	18.9
1.41	16.13	20.4	20.2	19.8	19.4	19.3	19.2	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
1.50	16.07	20.4	20.2	19.9	19.5	19.3	19.2	19.2	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
1.94	15.80	20.4	20.3	20.0	19.6	19.4	19.3	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0
2.00	15.76	20.3	20.2	19.9	19.6	19.4	19.3	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0
2.22	15.62	19.9	19.9	19.8	19.5	19.4	19.3	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0
2.50	15.45	19.4	19.5	19.5	19.4	19.3	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0
2.61	15.38	19.2	19.3	19.4	19.4	19.3	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0
3.00	15.14	18.8	18.9	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
3.03	15.12	18.8	18.9	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
3.04	15.12	18.8	18.9	19.1	19.2	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
3.20	15.02	18.6	18.7	19.0	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
3.50	14.83	19.5	19.5	19.5	19.4	19.4	19.3	19.3	19.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.1	19.1	19.1	19.1	19.1
3.63	14.75	19.8	19.8	19.6	19.5	19.4	19.4	19.3	19.3	19.3	19.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
4.00	14.52	21.5	21.2	20.6	20.0	19.8	19.6	19.5	19.5	19.4	19.4	19.4	19.4	19.3	19.3	19.3	19.3	19.3	19.2	19.2	19.2
4.50	14.21	23.1	22.7	21.6	20.6	20.2	20.0	19.8	19.7	19.7	19.6	19.6	19.5	19.5	19.4	19.4	19.4	19.4	19.3	19.3	19.3
4.55	14.18	23.2	22.8	21.7	20.7	20.3	20.0	19.9	19.8	19.7	19.6	19.6	19.5	19.5	19.4	19.4	19.4	19.4	19.3	19.3	19.3
5.00	13.90	22.8	22.5	21.8	20.8	20.4	20.1	20.0	19.9	19.8	19.7	19.7	19.6	19.5	19.5	19.5	19.5	19.4	19.3	19.3	19.3
5.50	13.59	22.4	22.3	21.8	20.9	20.5	20.3	20.1	20.0	19.9	19.8	19.8	19.7	19.6	19.6	19.5	19.5	19.5	19.4	19.4	19.4
5.65	13.49	22.3	22.2	21.8	21.0	20.5	20.3	20.1	20.0	19.9	19.8	19.8	19.7	19.7	19.6	19.6	19.5	19.5	19.4	19.4	19.4
5.74	13.44	22.1	22.0	21.7	20.9	20.5	20.3	20.1	20.0	19.9	19.8	19.8	19.7	19.7	19.6	19.6	19.5	19.5	19.4	19.4	19.4
5.75	13.43	22.1	22.0	21.7	19.2	20.5	20.3	20.1	20.0	19.9	19.8	19.8	19.7	19.7	19.6	19.6	19.5	19.5	19.4	19.3	19.4
6.00	13.28	17.9	18.2	18.8	19.3	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.4	19.4
6.11	13.21	18.0	18.2	18.8	19.3	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
6.38	13.04	18.5	18.7	19.1	19.4	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
6.50	12.97	18.7	18.8	19.2	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
6.67	12.86	18.8	19.0	19.3	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.4	19.4	19.4	19.4	19.4
7.00	12.65	19.0	19.1	19.4	19.6	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.4	19.4	19.4
7.37	12.42	19.1	19.2	19.5	19.7	19.7	19.7	19.6	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
7.50	12.34	19.5	19.6	19.8	19.9	19.9	19.8	19.8	19.7	19.7	19.7	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.5	19.5
7.67	12.24	20.1	20.1	20.2	20.1	20.0	20.0	19.9	19.8	19.8	19.7	19.7	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.5	19.5
7.83	12.14	20.3	20.4	20.4	20.3	20.1	20.0	20.0	19.9	19.9	19.8	19.8	19.8	19.7	19.7	19.6	19.6	19.6	19.5	19.5	19.5
8.00	12.03	20.3	20.4	20.4	20.3	20.1	20.0	20.0	19.9	19.9	19.8	19.8	19.8	19.7	19.7	19.6	19.6	19.6	19.5	19.5	19.5
8.09	11.98	20.3	20.4	20.4	20.3	20.1	20.0	20.0	19.9	19.9	19.8	19.8	19.8	19.7	19.7	19.6	19.6	19.6	19.5	19.5	19.5
8.50	11.72	21.4	21.3	21.2	20.8	20.6	20.4	20.3	20.2	20.1	20.0	20.0	20.0	19.9	19.8	19.8	19.8	19.7	19.6	19.6	19.6
8.74	11.57	21.8	21.8	21.5	21.1	20.8	20.6	20.5	20.4	20.3	20.2	20.1	20.0	20.0	19.9	19.9	19.8	19.8	19.6	19.6	19.6
8.89	11.48	21.8	21.8	21.5	21.1	20.8	20.6	20.5	20.4	20.3	20.2	20.1	20.0	20.0	19.9	19.9	19.8	19.8	19.6	19.6	19.6

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-72. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
0.50	16.69	14.8	14.4	13.3	11.8	11.1	10.7	10.4	10.2	10.1	10.0	9.9	9.9	9.8	9.8	9.8	9.7	9.7	9.6	9.6	9.6
0.85	16.48	15.7	15.4	14.4	12.9	12.1	11.5	11.1	10.9	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.9	9.9	9.7	9.7	9.6
1.00	16.38	15.9	15.6	14.7	13.3	12.4	11.8	11.4	11.1	10.9	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.7
1.41	16.13	16.3	16.0	15.3	13.9	13.0	12.4	12.0	11.6	11.4	11.2	11.0	10.8	10.6	10.4	10.3	10.1	10.1	9.8	9.8	9.7
1.50	16.07	16.5	16.2	15.4	14.1	13.2	12.6	12.1	11.8	11.5	11.3	11.1	10.9	10.7	10.5	10.3	10.2	10.1	9.9	9.8	9.8
1.94	15.80	16.9	16.7	15.9	14.6	13.8	13.2	12.7	12.3	12.0	11.8	11.5	11.4	11.1	10.8	10.7	10.5	10.4	10.0	9.9	9.8
2.00	15.76	17.0	16.7	15.9	14.7	13.9	13.2	12.8	12.4	12.1	11.8	11.6	11.4	11.1	10.9	10.7	10.6	10.4	10.0	9.9	9.8
2.22	15.62	17.1	16.8	16.0	14.9	14.1	13.4	13.0	12.6	12.3	12.0	11.8	11.6	11.3	11.0	10.9	10.7	10.6	10.0	9.9	9.9
2.50	15.45	17.3	17.0	16.3	15.1	14.4	13.8	13.3	12.9	12.6	12.3	12.1	11.9	11.5	11.3	11.1	10.9	10.8	10.1	10.0	9.9
2.61	15.38	17.4	17.1	16.3	15.2	14.4	13.9	13.4	13.0	12.7	12.4	12.1	11.9	11.6	11.4	11.1	11.0	10.8	10.1	10.0	9.9
3.00	15.14	17.6	17.4	16.6	15.5	14.8	14.2	13.7	13.3	13.0	12.7	12.5	12.3	11.9	11.6	11.4	11.2	11.1	10.3	10.1	10.0
3.03	15.12	17.6	17.4	16.6	15.5	14.8	14.2	13.7	13.3	13.0	12.7	12.5	12.3	11.9	11.6	11.4	11.2	11.1	10.3	10.1	10.0
3.04	15.12	17.6	15.1	14.9	15.5	14.8	14.2	13.7	13.4	13.0	12.7	12.5	12.3	12.5	11.6	11.4	11.2	11.1	10.3	10.1	10.0
3.20	15.02	15.3	15.2	14.9	14.5	14.3	14.0	13.8	13.6	13.4	13.2	13.0	12.9	12.6	12.4	12.1	12.0	11.8	10.9	10.6	10.4
3.50	14.83	15.5	15.4	15.2	14.8	14.5	14.2	14.0	13.8	13.6	13.4	13.2	13.1	12.8	12.5	12.3	12.1	12.0	11.0	10.7	10.5
3.63	14.75	15.6	15.5	15.3	14.9	14.6	14.3	14.1	13.9	13.6	13.5	13.3	13.1	12.9	12.6	12.4	12.2	12.1	11.1	10.8	10.6
4.00	14.52	15.8	15.7	15.4	15.0	14.7	14.4	14.2	14.0	13.8	13.6	13.4	13.3	13.0	12.7	12.5	12.3	12.1	11.2	10.8	10.7
4.50	14.21	15.9	15.9	15.6	15.2	14.9	14.6	14.4	14.2	13.9	13.8	13.6	13.4	13.1	12.9	12.6	12.5	12.3	11.3	10.9	10.7
4.55	14.18	15.9	15.9	15.6	15.2	14.9	14.6	14.4	14.2	14.0	13.8	13.6	13.4	13.1	12.9	12.7	12.5	12.3	11.3	10.9	10.8
5.00	13.90	16.1	16.1	15.8	15.4	15.1	14.8	14.6	14.4	14.1	13.9	13.8	13.6	13.3	13.1	12.8	12.6	12.4	11.4	11.1	10.9
5.50	13.59	16.3	16.2	16.0	15.6	15.3	15.0	14.8	14.5	14.3	14.1	13.9	13.8	13.5	13.2	13.0	12.8	12.6	11.5	11.2	11.0
5.65	13.49	16.4	16.3	16.0	15.6	15.3	15.1	14.8	14.6	14.4	14.2	14.0	13.8	13.5	13.3	13.0	12.8	12.6	11.6	11.2	11.0
5.74	13.44	16.4	16.3	16.1	15.7	15.4	15.1	14.8	14.6	14.4	14.2	14.0	13.8	13.5	13.3	13.1	12.9	12.7	11.6	11.2	11.0
5.75	13.43	16.4	16.3	16.1	16.0	15.8	15.6	15.4	15.2	15.1	14.2	14.0	13.8	13.5	13.3	13.1	13.7	13.5	12.4	11.9	11.0
6.00	13.28	16.5	16.5	16.3	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.6	14.4	14.1	13.9	13.7	13.6	12.4	11.9	11.6
6.11	13.21	16.5	16.5	16.3	16.1	15.9	15.6	15.4	15.3	15.1	14.9	14.8	14.6	14.4	14.2	13.9	13.8	13.6	12.4	11.9	11.6
6.38	13.04	16.7	16.6	16.4	16.2	15.9	15.8	15.6	15.4	15.2	15.1	14.9	14.8	14.5	14.3	14.0	13.9	13.7	12.5	12.0	11.7
6.50	12.97	16.7	16.6	16.5	16.2	16.0	15.8	15.6	15.4	15.2	15.1	14.9	14.8	14.5	14.3	14.1	13.9	13.7	12.5	12.0	11.7
6.67	12.86	16.7	16.7	16.5	16.2	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.5	14.3	14.1	13.9	13.7	12.5	12.0	11.7
7.00	12.65	16.8	16.7	16.5	16.3	16.0	15.9	15.7	15.5	15.3	15.1	15.0	14.9	14.6	14.4	14.1	13.9	13.8	12.6	12.1	11.8
7.37	12.42	16.8	16.8	16.6	16.3	16.1	15.9	15.7	15.5	15.4	15.2	15.1	14.9	14.6	14.4	14.2	14.0	13.8	12.6	12.1	11.8
7.50	12.34	16.9	16.8	16.6	16.4	16.2	15.9	15.8	15.6	15.4	15.3	15.1	14.9	14.7	14.4	14.2	14.0	13.9	12.7	12.1	11.8
7.67	12.24	16.9	16.9	16.7	16.4	16.2	16.0	15.8	15.6	15.5	15.3	15.2	15.0	14.8	14.5	14.3	14.1	13.9	12.7	12.2	11.9
7.83	12.14	17.0	17.0	16.8	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.2	15.1	14.8	14.6	14.4	14.2	14.0	12.8	12.3	11.9
8.00	12.03	17.0	17.0	16.8	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.2	15.1	14.8	14.6	14.4	14.2	14.0	12.8	12.3	11.9
8.09	11.98	17.0	17.0	16.8	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.2	15.1	14.8	14.6	14.4	14.2	14.0	12.8	12.3	11.9
8.50	11.72	17.2	17.1	17.0	16.7	16.5	16.3	16.1	15.9	15.7	15.6	15.4	15.3	15.0	14.8	14.5	14.3	14.2	12.9	12.4	12.1
8.74	11.57	17.3	17.3	17.1	16.8	16.6	16.4	16.2	16.0	15.8	15.7	15.5	15.4	15.1	14.9	14.6	14.4	14.3	13.0	12.4	12.1
8.89	11.48	17.3	17.3	17.1	16.8	16.6	16.4	16.2	16.0	15.8	15.7	15.5	15.4	15.1	14.9	14.6	14.4	14.3	13.0	12.4	12.1

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-73. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
0.50	16.69	17.5	16.9	15.6	14.3	13.8	13.5	13.4	13.2	13.2	13.1	13.1	13.0	13.0	12.9	12.9	12.9	12.9	12.8	12.7	12.7
0.85	16.48	19.3	18.7	17.0	15.2	14.4	14.1	13.8	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.1	13.0	13.0	12.9	12.8	12.8
1.00	16.38	19.8	19.2	17.4	15.5	14.7	14.2	13.9	13.8	13.6	13.5	13.4	13.4	13.3	13.2	13.1	13.1	13.0	12.9	12.8	12.8
1.41	16.13	20.8	20.2	18.3	16.1	15.2	14.6	14.3	14.1	13.9	13.7	13.6	13.6	13.4	13.3	13.3	13.2	13.2	13.0	12.9	12.9
1.50	16.07	21.0	20.4	18.6	16.3	15.3	14.8	14.4	14.1	14.0	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.0	12.9	12.9
1.94	15.80	21.8	21.3	19.6	17.2	16.0	15.3	14.9	14.6	14.3	14.2	14.0	13.9	13.7	13.6	13.5	13.4	13.4	13.1	13.0	12.9
2.00	15.76	21.8	21.3	19.6	17.3	16.1	15.4	14.9	14.6	14.4	14.2	14.1	13.9	13.8	13.6	13.5	13.4	13.4	13.1	13.0	12.9
2.22	15.62	21.7	21.3	19.8	17.5	16.3	15.6	15.1	14.8	14.5	14.3	14.1	14.0	13.8	13.7	13.6	13.5	13.4	13.1	13.0	13.0
2.50	15.45	21.7	21.4	20.1	17.9	16.6	15.9	15.4	15.0	14.7	14.5	14.3	14.2	14.0	13.8	13.7	13.6	13.6	13.2	13.1	13.0
2.61	15.38	21.7	21.4	20.2	18.0	16.8	16.0	15.5	15.1	14.8	14.6	14.4	14.3	14.1	13.9	13.8	13.7	13.6	13.2	13.1	13.1
3.00	15.14	21.8	21.5	20.5	18.4	17.2	16.4	15.8	15.4	15.1	14.9	14.7	14.5	14.3	14.1	13.9	13.8	13.7	13.3	13.2	13.1
3.03	15.12	21.8	21.5	20.5	18.5	17.2	16.4	15.8	15.4	15.1	14.9	14.7	14.5	14.3	14.1	13.9	13.8	13.8	13.3	13.2	13.1
3.04	15.12	21.8	19.6	20.5	18.5	17.2	16.4	15.8	15.4	15.1	14.9	14.7	14.5	14.3	14.2	14.0	13.8	13.8	13.3	13.2	13.1
3.20	15.02	19.8	19.8	19.5	18.2	17.2	16.5	16.0	15.6	15.3	15.1	14.9	14.7	14.4	14.3	14.1	14.0	13.9	13.4	13.3	13.2
3.50	14.83	21.0	21.0	20.5	19.0	17.9	17.1	16.5	16.1	15.7	15.5	15.2	15.1	14.8	14.5	14.4	14.2	14.1	13.6	13.4	13.3
3.63	14.75	21.5	21.4	20.9	19.3	18.2	17.4	16.8	16.3	15.9	15.6	15.4	15.2	14.9	14.6	14.5	14.3	14.2	13.6	13.4	13.4
4.00	14.52	22.2	22.1	21.5	19.8	18.6	17.7	17.1	16.6	16.2	15.9	15.6	15.4	15.1	14.8	14.6	14.5	14.3	13.7	13.5	13.4
4.50	14.21	23.1	22.9	22.2	20.5	19.2	18.2	17.5	17.0	16.6	16.2	15.9	15.7	15.3	15.1	14.8	14.7	14.5	13.8	13.6	13.5
4.55	14.18	23.1	23.0	22.3	20.5	19.2	18.3	17.6	17.0	16.6	16.3	16.0	15.7	15.4	15.1	14.9	14.7	14.5	13.9	13.6	13.5
5.00	13.90	23.6	23.4	22.7	21.0	19.7	18.7	18.0	17.4	17.0	16.6	16.3	16.0	15.6	15.3	15.1	14.9	14.7	14.0	13.7	13.6
5.50	13.59	24.0	23.8	23.1	21.5	20.2	19.2	18.4	17.8	17.3	17.0	16.6	16.4	15.9	15.6	15.3	15.1	14.9	14.1	13.9	13.7
5.65	13.49	24.0	23.9	23.3	21.6	20.3	19.3	18.5	17.9	17.4	17.0	16.7	16.4	16.0	15.7	15.4	15.2	15.0	14.2	13.9	13.8
5.74	13.44	24.0	23.9	23.2	21.6	20.3	19.3	18.5	18.0	17.5	17.1	16.7	16.5	16.0	15.7	15.4	15.2	15.0	14.2	13.9	13.8
5.75	13.43	21.1	23.9	21.0	21.6	20.3	18.9	18.6	18.0	17.5	17.1	16.8	16.5	16.0	15.7	15.6	15.2	15.2	14.3	14.0	13.8
6.00	13.28	21.1	21.1	21.1	20.4	19.7	19.0	18.4	17.9	17.5	17.2	16.9	16.6	16.2	15.9	15.6	15.4	15.2	14.3	14.0	13.8
6.11	13.21	21.1	21.2	21.1	20.5	19.7	19.0	18.4	18.0	17.5	17.2	16.9	16.6	16.2	15.9	15.6	15.4	15.2	14.3	14.0	13.9
6.38	13.04	21.5	21.5	21.4	20.8	20.0	19.3	18.7	18.2	17.8	17.4	17.1	16.9	16.4	16.1	15.8	15.6	15.4	14.4	14.1	13.9
6.50	12.97	21.6	21.6	21.5	20.8	20.1	19.4	18.8	18.3	17.9	17.5	17.2	16.9	16.5	16.1	15.9	15.6	15.4	14.5	14.1	13.9
6.67	12.86	21.7	21.7	21.6	20.9	20.2	19.5	18.9	18.4	17.9	17.6	17.3	17.0	16.5	16.2	15.9	15.7	15.5	14.5	14.1	14.0
7.00	12.65	21.9	21.9	21.7	21.0	20.3	19.6	19.0	18.5	18.0	17.7	17.3	17.1	16.6	16.3	16.0	15.7	15.5	14.5	14.2	14.0
7.37	12.42	22.0	22.0	21.9	21.2	20.4	19.7	19.1	18.6	18.1	17.8	17.4	17.2	16.7	16.3	16.0	15.8	15.6	14.6	14.2	14.1
7.50	12.34	22.3	22.3	22.1	21.4	20.6	19.9	19.2	18.7	18.3	17.9	17.6	17.3	16.8	16.4	16.1	15.9	15.7	14.6	14.3	14.1
7.67	12.24	22.6	22.6	22.4	21.6	20.8	20.1	19.4	18.9	18.5	18.1	17.7	17.4	17.0	16.6	16.3	16.0	15.8	14.7	14.3	14.1
7.83	12.14	22.8	22.8	22.6	21.8	21.0	20.3	19.6	19.1	18.6	18.2	17.9	17.6	17.1	16.7	16.4	16.1	15.9	14.8	14.4	14.2
8.00	12.03	22.8	22.8	22.6	21.8	21.0	20.3	19.6	19.1	18.6	18.2	17.9	17.6	17.1	16.7	16.4	16.1	15.9	14.8	14.4	14.2
8.09	11.98	22.8	22.8	22.6	21.8	21.0	20.3	19.6	19.1	18.6	18.2	17.9	17.6	17.1	16.7	16.4	16.1	15.9	14.8	14.4	14.2
8.50	11.72	23.5	23.4	23.2	22.4	21.6	20.8	20.2	19.6	19.1	18.7	18.4	18.0	17.5	17.1	16.7	16.5	16.2	15.0	14.5	14.3
8.74	11.57	23.8	23.8	23.5	22.7	21.9	21.1	20.5	19.9	19.4	19.0	18.6	18.3	17.7	17.3	16.9	16.6	16.4	15.1	14.6	14.4
8.89	11.48	23.8	23.8	23.5	22.7	21.9	21.1	20.5	19.9	19.4	19.0	18.6	18.3	17.7	17.3	16.9	16.6	16.4	15.1	14.6	14.4

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-74. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
0.50	16.69	19.4	19.0	18.0	17.0	16.7	16.5	16.4	16.4	16.3	16.3	16.2	16.2	16.2	16.1	16.1	16.1	16.1	16.0	16.0	16.0
0.85	16.48	20.9	20.3	19.0	17.7	17.2	16.9	16.7	16.6	16.5	16.5	16.4	16.4	16.3	16.3	16.2	16.2	16.2	16.1	16.1	16.1
1.00	16.38	21.3	20.7	19.3	17.9	17.3	17.0	16.8	16.7	16.6	16.5	16.5	16.4	16.4	16.3	16.3	16.3	16.2	16.1	16.1	16.1
1.41	16.13	22.1	21.5	20.0	18.4	17.7	17.3	17.1	16.9	16.8	16.7	16.6	16.6	16.5	16.4	16.4	16.4	16.3	16.2	16.1	16.1
1.50	16.07	22.3	21.7	20.2	18.5	17.8	17.4	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5	16.4	16.4	16.4	16.2	16.2	16.1
1.94	15.80	22.9	22.4	21.0	19.1	18.3	17.8	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5	16.5	16.3	16.2	16.2
2.00	15.76	22.8	22.4	21.0	19.2	18.3	17.8	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.5	16.5	16.3	16.2	16.2
2.22	15.62	22.6	22.3	21.1	19.3	18.4	17.9	17.6	17.4	17.2	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5	16.3	16.2	16.2
2.50	15.45	22.5	22.3	21.3	19.6	18.7	18.1	17.8	17.5	17.4	17.2	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.4	16.3	16.3
2.61	15.38	22.5	22.3	21.4	19.7	18.8	18.2	17.9	17.6	17.4	17.3	17.2	17.1	16.9	16.8	16.7	16.7	16.6	16.4	16.3	16.3
3.00	15.14	22.4	22.3	21.6	20.0	19.1	18.5	18.1	17.8	17.6	17.5	17.3	17.2	17.1	16.9	16.9	16.8	16.7	16.5	16.4	16.3
3.03	15.12	22.4	22.3	21.6	20.0	19.1	18.5	18.1	17.8	17.6	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.5	16.4	16.4
3.04	15.12	22.4	22.3	21.6	20.0	19.1	18.5	18.1	17.8	17.6	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.5	16.4	16.4
3.20	15.02	21.9	21.9	21.4	20.0	19.2	18.6	18.2	17.9	17.7	17.5	17.4	17.3	17.1	17.0	16.9	16.8	16.8	16.5	16.4	16.4
3.50	14.83	23.4	23.2	22.4	20.8	19.8	19.1	18.6	18.3	18.0	17.9	17.7	17.6	17.4	17.2	17.1	17.0	17.0	16.6	16.5	16.5
3.63	14.75	23.9	23.7	22.8	21.1	20.0	19.3	18.8	18.5	18.2	18.0	17.8	17.7	17.5	17.3	17.2	17.1	17.0	16.7	16.6	16.5
4.00	14.52	24.8	24.5	23.5	21.6	20.4	19.6	19.1	18.7	18.4	18.2	18.0	17.9	17.6	17.5	17.3	17.2	17.1	16.7	16.6	16.6
4.50	14.21	25.8	25.5	24.3	22.2	20.9	20.1	19.5	19.1	18.7	18.5	18.3	18.1	17.8	17.6	17.5	17.4	17.3	16.8	16.7	16.6
4.55	14.18	25.9	25.5	24.4	22.3	21.0	20.1	19.5	19.1	18.8	18.5	18.3	18.1	17.9	17.6	17.5	17.4	17.3	16.8	16.7	16.6
5.00	13.90	25.9	25.7	24.7	22.7	21.4	20.5	19.9	19.4	19.0	18.8	18.5	18.4	18.1	17.8	17.7	17.5	17.4	17.0	16.8	16.7
5.50	13.59	25.9	25.8	25.0	23.1	21.8	20.9	20.2	19.7	19.4	19.0	18.8	18.6	18.3	18.0	17.9	17.7	17.6	17.1	16.9	16.8
5.65	13.49	26.0	25.8	25.0	23.2	21.9	21.0	20.3	19.8	19.4	19.1	18.9	18.7	18.4	18.1	17.9	17.8	17.6	17.1	16.9	16.8
5.74	13.44	25.8	25.6	25.0	23.2	21.9	21.0	20.3	19.8	19.5	19.1	18.9	18.7	18.4	18.1	17.9	17.8	17.7	17.1	16.9	16.9
5.75	13.43	22.3	22.5	22.7	23.2	21.9	21.0	20.3	19.8	19.5	19.1	18.9	18.7	18.4	18.1	18.0	17.8	17.7	17.1	16.9	16.9
6.00	13.28	22.3	22.5	22.7	22.2	21.4	20.8	20.2	19.8	19.5	19.2	19.0	18.8	18.5	18.2	18.0	17.9	17.8	17.2	17.0	16.9
6.11	13.21	22.3	22.5	22.7	22.2	21.4	20.8	20.3	19.8	19.5	19.2	19.0	18.8	18.5	18.2	18.0	17.9	17.8	17.2	17.0	16.9
6.38	13.04	22.8	22.9	23.0	22.4	21.7	21.0	20.5	20.1	19.7	19.4	19.2	19.0	18.6	18.4	18.2	18.0	17.9	17.3	17.1	17.0
6.50	12.97	22.9	23.0	23.1	22.5	21.8	21.1	20.5	20.1	19.8	19.5	19.2	19.0	18.7	18.4	18.2	18.1	17.9	17.3	17.1	17.0
6.67	12.86	23.1	23.1	23.2	22.6	21.8	21.2	20.6	20.2	19.8	19.5	19.3	19.1	18.7	18.5	18.3	18.1	18.0	17.3	17.1	17.0
7.00	12.65	23.2	23.3	23.3	22.7	21.9	21.3	20.7	20.3	19.9	19.6	19.4	19.1	18.8	18.5	18.3	18.1	18.0	17.4	17.1	17.0
7.37	12.42	23.4	23.4	23.5	22.8	22.0	21.4	20.8	20.4	20.0	19.7	19.4	19.2	18.9	18.6	18.4	18.2	18.1	17.4	17.2	17.1
7.50	12.34	23.8	23.8	23.8	23.0	22.2	21.5	21.0	20.5	20.1	19.8	19.5	19.3	19.0	18.7	18.5	18.3	18.1	17.4	17.2	17.1
7.67	12.24	24.3	24.3	24.1	23.3	22.5	21.8	21.1	20.7	20.3	20.0	19.7	19.4	19.1	18.8	18.5	18.4	18.2	17.5	17.2	17.1
7.83	12.14	24.5	24.5	24.3	23.5	22.6	21.9	21.3	20.8	20.4	20.1	19.8	19.6	19.2	18.9	18.6	18.5	18.3	17.5	17.3	17.2
8.00	12.03	24.5	24.5	24.3	23.5	22.6	21.9	21.3	20.8	20.4	20.1	19.8	19.6	19.2	18.9	18.6	18.5	18.3	17.5	17.3	17.2
8.09	11.98	24.5	24.5	24.3	23.5	22.6	21.9	21.3	20.8	20.4	20.1	19.8	19.6	19.2	18.9	18.6	18.5	18.3	17.5	17.3	17.2
8.50	11.72	25.2	25.2	24.9	24.1	23.2	22.4	21.8	21.3	20.9	20.5	20.2	20.0	19.5	19.2	18.9	18.7	18.5	17.7	17.4	17.3
8.74	11.57	25.5	25.5	25.2	24.4	23.5	22.7	22.1	21.5	21.1	20.7	20.4	20.1	19.7	19.4	19.1	18.9	18.7	17.8	17.5	17.3
8.89	11.48	25.5	25.5	25.2	24.4	23.5	22.7	22.1	21.5	21.1	20.7	20.4	20.1	19.7	19.4	19.1	18.9	18.7	17.8	17.5	17.3

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-76. Stevenson Reach - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = September, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																			
Dist (km)*	Dist (RM)**	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
0.00	17.00	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
0.50	16.69	21.7	21.6	21.4	21.3	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
0.85	16.48	22.0	21.9	21.6	21.4	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
1.00	16.38	22.1	22.0	21.7	21.4	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.1	21.1	21.1	21.1	21.1
1.41	16.13	22.3	22.2	21.9	21.5	21.4	21.4	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
1.50	16.07	22.3	22.2	21.9	21.6	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
1.94	15.80	22.3	22.2	22.0	21.6	21.5	21.4	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2
2.00	15.76	22.1	22.1	21.9	21.6	21.5	21.4	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2
2.22	15.62	21.7	21.8	21.7	21.5	21.5	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2
2.50	15.45	21.2	21.3	21.4	21.4	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2
2.61	15.38	21.0	21.1	21.3	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2
3.00	15.14	20.6	20.7	21.0	21.2	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
3.03	15.12	20.5	20.7	21.0	21.2	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
3.04	15.12	20.5	20.7	21.0	21.2	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
3.20	15.02	20.4	20.5	20.9	21.1	21.2	21.2	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
3.50	14.83	21.3	21.3	21.3	21.4	21.4	21.4	21.4	21.4	21.4	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
3.63	14.75	21.6	21.6	21.5	21.5	21.5	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
4.00	14.52	23.4	23.1	22.5	22.0	21.8	21.7	21.6	21.6	21.6	21.5	21.5	21.5	21.5	21.5	21.4	21.4	21.4	21.4	21.4	21.4
4.50	14.21	25.0	24.6	23.6	22.6	22.3	22.0	21.9	21.8	21.8	21.7	21.7	21.7	21.6	21.6	21.6	21.5	21.5	21.5	21.5	21.5
4.55	14.18	25.1	24.7	23.6	22.7	22.3	22.1	22.0	21.9	21.8	21.7	21.7	21.7	21.6	21.6	21.6	21.5	21.5	21.5	21.5	21.5
5.00	13.90	24.6	24.4	23.6	22.8	22.4	22.2	22.0	22.0	21.9	21.8	21.8	21.8	21.7	21.7	21.6	21.6	21.6	21.5	21.5	21.5
5.50	13.59	24.2	24.1	23.6	22.9	22.5	22.3	22.1	22.0	22.0	21.9	21.9	21.8	21.8	21.7	21.7	21.7	21.7	21.6	21.6	21.6
5.65	13.49	24.1	24.0	23.6	22.9	22.5	22.3	22.2	22.1	22.0	21.9	21.9	21.9	21.8	21.8	21.7	21.7	21.7	21.6	21.6	21.6
5.74	13.44	23.9	23.8	23.5	22.9	22.5	22.3	22.2	22.1	22.0	21.9	21.9	21.9	21.8	21.8	21.7	21.7	21.7	21.6	21.6	21.6
5.75	13.43	23.9	23.8	23.5	22.9	22.5	22.3	22.2	22.1	22.0	21.9	21.9	21.9	21.5	21.8	21.7	21.7	21.5	21.6	21.6	21.6
6.00	13.28	19.4	19.7	20.5	21.1	21.3	21.4	21.4	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
6.11	13.21	19.5	19.8	20.5	21.1	21.3	21.4	21.4	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.6
6.38	13.04	20.2	20.4	20.9	21.3	21.4	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.6	21.6
6.50	12.97	20.3	20.5	20.9	21.3	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.6	21.6	21.6
6.67	12.86	20.5	20.7	21.1	21.4	21.5	21.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
7.00	12.65	20.7	20.8	21.2	21.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
7.37	12.42	20.9	21.0	21.3	21.5	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
7.50	12.34	21.4	21.5	21.6	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.6	21.6	21.6	21.6	21.6	21.7
7.67	12.24	22.0	22.0	22.0	22.0	22.0	21.9	21.9	21.9	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
7.83	12.14	22.3	22.3	22.3	22.2	22.1	22.0	22.0	21.9	21.9	21.9	21.8	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.7
8.00	12.03	22.3	22.3	22.3	22.2	22.1	22.0	22.0	21.9	21.9	21.9	21.8	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.7
8.09	11.98	22.3	22.3	22.3	22.2	22.1	22.0	22.0	21.9	21.9	21.9	21.8	21.8	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.7
8.50	11.72	23.4	23.4	23.1	22.8	22.5	22.4	22.3	22.2	22.1	22.1	22.0	22.0	22.0	21.9	21.9	21.9	21.9	21.8	21.8	21.8
8.74	11.57	23.9	23.8	23.5	23.1	22.8	22.6	22.5	22.4	22.3	22.2	22.2	22.1	22.0	22.0	22.0	21.9	21.9	21.8	21.8	21.8
8.89	11.48	23.9	23.8	23.5	23.1	22.8	22.6	22.5	22.4	22.3	22.2	22.2	22.1	22.0	22.0	22.0	21.9	21.9	21.8	21.8	21.8

* Downstream distances relative to Dam 6

** Stevenson Reach RM relative to Powerhouse 4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-77. Stevenson Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
0.00	4.32	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
0.40	4.08	12.0	11.6	11.2	10.9	10.8	10.7	10.7	10.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
0.50	4.01	12.2	11.8	11.3	11.0	10.8	10.8	10.7	10.7	10.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
0.60	3.95	12.4	11.9	11.5	11.1	10.9	10.8	10.8	10.7	10.7	10.7	10.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6
0.75	3.86	12.6	12.2	11.7	11.2	11.0	10.9	10.8	10.8	10.7	10.7	10.7	10.7	10.7	10.6	10.6	10.6	10.6	10.6
0.95	3.73	13.2	12.8	12.2	11.6	11.4	11.2	11.2	11.1	11.1	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9	10.9
1.00	3.70	13.3	12.8	12.3	11.7	11.4	11.3	11.2	11.1	11.1	11.1	11.0	11.0	11.0	11.0	10.9	10.9	10.9	10.9
1.10	3.64	13.5	13.0	12.4	11.8	11.5	11.4	11.3	11.2	11.2	11.1	11.1	11.1	11.1	11.0	11.0	11.0	11.0	11.0
1.45	3.42	13.9	13.4	12.9	12.2	11.9	11.7	11.6	11.5	11.4	11.4	11.3	11.3	11.2	11.2	11.2	11.1	11.1	11.1
1.50	3.39	13.9	13.5	12.9	12.2	11.9	11.7	11.6	11.5	11.4	11.4	11.3	11.3	11.3	11.2	11.2	11.2	11.2	11.1
1.90	3.14	14.2	13.9	13.3	12.6	12.2	12.0	11.9	11.8	11.7	11.6	11.6	11.5	11.4	11.4	11.4	11.3	11.3	11.3
2.00	3.08	14.3	13.9	13.4	12.7	12.3	12.1	11.9	11.8	11.7	11.6	11.6	11.5	11.5	11.4	11.4	11.3	11.3	11.3
2.15	2.99	14.4	14.1	13.5	12.8	12.4	12.1	11.9	11.8	11.7	11.7	11.6	11.6	11.5	11.4	11.4	11.4	11.4	11.3
2.40	2.83	14.5	14.2	13.7	12.9	12.5	12.2	12.0	11.9	11.8	11.7	11.7	11.6	11.6	11.5	11.4	11.4	11.4	11.4
2.45	2.80	14.5	14.2	13.7	12.9	12.5	12.2	12.1	11.9	11.8	11.8	11.7	11.6	11.6	11.5	11.4	11.4	11.4	11.4
2.50	2.77	14.6	14.2	13.7	12.9	12.5	12.3	12.1	12.0	11.9	11.8	11.7	11.7	11.6	11.5	11.5	11.4	11.4	11.4
2.70	2.65	14.8	14.5	13.9	13.2	12.7	12.4	12.3	12.1	12.0	11.9	11.9	11.8	11.7	11.7	11.6	11.6	11.6	11.6
3.00	2.46	15.1	14.8	14.3	13.5	13.0	12.7	12.5	12.4	12.2	12.1	12.1	12.0	11.9	11.8	11.8	11.7	11.7	11.7
3.11	2.39	15.1	14.8	14.3	13.5	13.1	12.8	12.6	12.4	12.3	12.2	12.1	12.0	11.9	11.9	11.8	11.8	11.8	11.7
3.25	2.31	14.7	14.5	14.1	13.4	13.0	12.7	12.5	12.4	12.3	12.2	12.1	12.1	11.9	11.9	11.8	11.8	11.8	11.7
3.50	2.15	14.9	14.7	14.3	13.6	13.2	12.9	12.7	12.5	12.4	12.3	12.2	12.2	12.1	12.0	11.9	11.9	11.9	11.9
3.55	2.12	15.0	14.8	14.4	13.7	13.2	12.9	12.7	12.6	12.4	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.9	11.9
3.80	1.96	15.1	14.9	14.5	13.8	13.4	13.1	12.9	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.1	12.0	12.0	12.0
4.00	1.84	15.4	15.2	14.8	14.1	13.6	13.3	13.1	12.9	12.8	12.6	12.6	12.5	12.4	12.3	12.2	12.1	12.1	12.1
4.10	1.78	15.4	15.2	14.9	14.2	13.7	13.4	13.2	13.0	12.8	12.7	12.6	12.6	12.4	12.3	12.3	12.2	12.2	12.1
4.45	1.56	15.5	15.4	15.1	14.4	14.0	13.7	13.4	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.4	12.4
4.50	1.53	15.6	15.4	15.1	14.5	14.0	13.7	13.5	13.3	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.4	12.4
4.80	1.34	15.9	15.8	15.4	14.8	14.3	14.0	13.7	13.5	13.4	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.5
5.00	1.22	16.0	15.8	15.5	14.9	14.4	14.1	13.8	13.6	13.4	13.3	13.2	13.1	12.9	12.8	12.7	12.6	12.6	12.6
5.15	1.12	16.0	15.9	15.6	14.9	14.4	14.1	13.8	13.6	13.5	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.6	12.6
5.30	1.03	16.0	15.9	15.6	15.0	14.5	14.2	13.9	13.7	13.5	13.4	13.3	13.2	13.0	12.9	12.8	12.7	12.7	12.7
5.40	0.97	16.0	15.9	15.6	15.0	14.5	14.2	13.9	13.7	13.6	13.4	13.3	13.2	13.1	12.9	12.8	12.8	12.7	12.7
5.50	0.91	16.0	15.9	15.6	15.0	14.6	14.2	14.0	13.8	13.6	13.5	13.3	13.3	13.1	13.0	12.9	12.8	12.7	12.7
5.60	0.85	16.1	15.9	15.7	15.1	14.6	14.3	14.0	13.8	13.6	13.5	13.4	13.3	13.1	13.0	12.9	12.8	12.8	12.8
5.80	0.72	16.2	16.0	15.8	15.2	14.7	14.4	14.1	13.9	13.7	13.6	13.5	13.4	13.2	13.1	13.0	12.9	12.8	12.8
6.00	0.60	16.6	16.5	16.2	15.6	15.2	14.8	14.6	14.4	14.2	14.1	13.9	13.8	13.7	13.5	13.4	13.3	13.3	13.3
6.05	0.57	16.7	16.6	16.3	15.7	15.3	15.0	14.7	14.5	14.3	14.2	14.1	13.9	13.8	13.6	13.5	13.4	13.4	13.4
6.25	0.44	16.6	16.6	16.3	15.8	15.4	15.1	14.8	14.6	14.5	14.3	14.2	14.1	13.9	13.8	13.7	13.6	13.6	13.6
6.35	0.38	16.8	16.7	16.5	16.0	15.6	15.3	15.1	14.9	14.7	14.6	14.5	14.4	14.2	14.1	14.0	13.9	13.8	13.8
6.45	0.32	16.6	16.6	16.4	16.0	15.6	15.4	15.1	14.9	14.8	14.7	14.6	14.4	14.3	14.2	14.1	14.0	13.9	13.9
6.50	0.29	16.6	16.6	16.4	16.0	15.6	15.4	15.1	14.9	14.8	14.7	14.6	14.4	14.3	14.2	14.1	14.0	13.9	13.9
6.95	0.01	15.9	15.9	15.9	15.7	15.4	15.3	15.1	14.9	14.8	14.7	14.6	14.6	14.4	14.3	14.2	14.2	14.1	14.1
6.96	0.00	15.9	15.9	15.9	15.7	15.4	15.3	15.1	14.9	14.8	14.7	14.6	14.6	14.4	14.3	14.2	14.2	14.1	14.1

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-78. Stevenson Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.40	4.08	12.7	12.4	12.2	12.0	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
0.50	4.01	12.9	12.5	12.2	12.0	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
0.60	3.95	13.0	12.6	12.3	12.0	11.9	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
0.75	3.86	13.3	12.9	12.5	12.1	12.0	11.9	11.9	11.9	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8
0.95	3.73	14.1	13.5	13.0	12.6	12.4	12.3	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
1.00	3.70	14.2	13.6	13.1	12.6	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.1
1.10	3.64	14.4	13.9	13.3	12.8	12.6	12.4	12.4	12.3	12.3	12.3	12.3	12.2	12.2	12.2	12.2	12.1	12.1
1.45	3.42	15.1	14.5	13.8	13.2	12.9	12.7	12.6	12.6	12.5	12.5	12.4	12.4	12.4	12.4	12.3	12.3	12.3
1.50	3.39	15.2	14.6	13.9	13.2	12.9	12.8	12.7	12.6	12.5	12.5	12.5	12.4	12.4	12.4	12.4	12.3	12.3
1.90	3.14	15.7	15.1	14.4	13.6	13.3	13.1	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.5	12.5	12.5	12.5
2.00	3.08	15.8	15.2	14.5	13.6	13.3	13.1	12.9	12.9	12.8	12.7	12.7	12.6	12.6	12.6	12.5	12.5	12.5
2.15	2.99	16.0	15.4	14.6	13.7	13.4	13.1	13.0	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.5	12.5	12.5
2.40	2.83	16.2	15.6	14.8	13.9	13.4	13.2	13.1	13.0	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.6	12.5
2.45	2.80	16.3	15.6	14.8	13.9	13.5	13.2	13.1	13.0	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.6	12.5
2.50	2.77	16.4	15.7	14.9	13.9	13.5	13.3	13.1	13.0	12.9	12.9	12.8	12.8	12.7	12.6	12.6	12.6	12.6
2.70	2.65	16.7	16.0	15.1	14.1	13.7	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.7
3.00	2.46	17.2	16.5	15.6	14.5	14.0	13.7	13.5	13.4	13.3	13.2	13.1	13.1	13.0	12.9	12.9	12.8	12.8
3.11	2.39	17.3	16.6	15.7	14.6	14.1	13.8	13.6	13.4	13.3	13.2	13.2	13.1	13.0	13.0	12.9	12.9	12.8
3.25	2.31	17.3	16.7	15.8	14.6	14.1	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.0	12.9	12.9	12.9
3.50	2.15	17.6	17.0	16.0	14.9	14.3	14.0	13.8	13.6	13.5	13.4	13.3	13.3	13.2	13.1	13.1	13.0	13.0
3.55	2.12	17.7	17.0	16.1	14.9	14.3	14.0	13.8	13.6	13.5	13.4	13.4	13.3	13.2	13.1	13.1	13.0	13.0
3.80	1.96	17.8	17.2	16.3	15.1	14.5	14.2	13.9	13.8	13.6	13.6	13.5	13.4	13.3	13.2	13.2	13.1	13.1
4.00	1.84	18.2	17.6	16.6	15.4	14.8	14.4	14.1	14.0	13.8	13.7	13.6	13.6	13.4	13.4	13.3	13.2	13.2
4.10	1.78	18.4	17.7	16.8	15.5	14.9	14.5	14.2	14.1	13.9	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.3
4.45	1.56	18.8	18.2	17.3	16.0	15.3	14.9	14.6	14.4	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
4.50	1.53	18.9	18.3	17.4	16.0	15.3	14.9	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
4.80	1.34	19.3	18.7	17.8	16.4	15.7	15.2	14.9	14.7	14.5	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.6
5.00	1.22	19.3	18.8	17.9	16.5	15.7	15.3	14.9	14.7	14.5	14.4	14.3	14.2	14.0	13.9	13.8	13.7	13.7
5.15	1.12	19.3	18.8	17.9	16.5	15.8	15.3	15.0	14.8	14.6	14.4	14.3	14.2	14.1	13.9	13.8	13.8	13.7
5.30	1.03	19.3	18.8	17.9	16.6	15.8	15.4	15.0	14.8	14.6	14.5	14.4	14.3	14.1	14.0	13.9	13.8	13.7
5.40	0.97	19.3	18.8	18.0	16.6	15.9	15.4	15.1	14.8	14.6	14.5	14.4	14.3	14.1	14.0	13.9	13.8	13.8
5.50	0.91	19.3	18.9	18.0	16.6	15.9	15.4	15.1	14.9	14.7	14.5	14.4	14.3	14.1	14.0	13.9	13.9	13.8
5.60	0.85	19.4	18.9	18.0	16.7	15.9	15.5	15.1	14.9	14.7	14.6	14.4	14.4	14.2	14.1	14.0	13.9	13.8
5.80	0.72	19.4	19.0	18.1	16.8	16.0	15.6	15.2	15.0	14.8	14.7	14.5	14.4	14.3	14.1	14.0	14.0	13.9
6.00	0.60	19.8	19.4	18.5	17.2	16.5	16.0	15.7	15.4	15.2	15.1	14.9	14.8	14.7	14.5	14.4	14.4	14.3
6.05	0.57	19.9	19.5	18.6	17.3	16.6	16.1	15.8	15.5	15.3	15.2	15.1	14.9	14.8	14.6	14.6	14.5	14.4
6.25	0.44	19.6	19.3	18.7	17.5	16.7	16.3	15.9	15.7	15.5	15.4	15.2	15.1	14.9	14.8	14.7	14.6	14.6
6.35	0.38	19.6	19.4	18.8	17.7	17.0	16.5	16.2	16.0	15.8	15.6	15.5	15.4	15.2	15.1	15.0	14.9	14.9
6.45	0.32	19.2	19.1	18.7	17.6	17.0	16.6	16.3	16.0	15.9	15.7	15.6	15.5	15.3	15.2	15.1	15.0	14.9
6.50	0.29	19.2	19.1	18.7	17.6	17.0	16.6	16.3	16.0	15.9	15.7	15.6	15.5	15.4	15.2	15.1	15.0	15.0
6.95	0.01	17.9	18.1	18.0	17.5	17.0	16.6	16.4	16.2	16.0	15.9	15.8	15.7	15.5	15.4	15.3	15.2	15.2
6.96	0.00	17.9	18.1	18.0	17.4	17.0	16.6	16.4	16.2	16.0	15.9	15.8	15.7	15.5	15.4	15.3	15.2	15.2

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-79. Stevenson Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
0.00	4.32	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
0.40	4.08	13.3	13.1	13.0	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
0.50	4.01	13.3	13.1	13.0	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
0.60	3.95	13.4	13.2	13.0	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
0.75	3.86	13.6	13.3	13.1	12.9	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
0.95	3.73	14.1	13.8	13.5	13.3	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.0	13.0	13.0	13.0	13.0	13.0
1.00	3.70	14.2	13.9	13.6	13.3	13.2	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.0	13.0
1.10	3.64	14.3	14.0	13.7	13.4	13.3	13.3	13.2	13.2	13.2	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.45	3.42	14.7	14.4	14.0	13.6	13.5	13.4	13.4	13.4	13.3	13.3	13.3	13.3	13.3	13.2	13.2	13.2	13.2	13.2
1.50	3.39	14.7	14.4	14.0	13.7	13.5	13.4	13.4	13.4	13.3	13.3	13.3	13.3	13.3	13.3	13.2	13.2	13.2	13.2
1.90	3.14	15.0	14.7	14.3	13.9	13.7	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.3
2.00	3.08	15.1	14.7	14.3	13.9	13.7	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
2.15	2.99	15.2	14.8	14.4	14.0	13.8	13.7	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
2.40	2.83	15.4	15.0	14.5	14.0	13.8	13.7	13.6	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4
2.45	2.80	15.4	15.0	14.5	14.0	13.8	13.7	13.6	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4
2.50	2.77	15.5	15.1	14.6	14.1	13.9	13.8	13.7	13.6	13.6	13.6	13.5	13.5	13.5	13.5	13.4	13.4	13.4	13.4
2.70	2.65	15.7	15.3	14.8	14.2	14.0	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.6	13.6	13.6	13.5	13.5
3.00	2.46	16.2	15.7	15.1	14.5	14.2	14.1	14.0	13.9	13.9	13.8	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.6
3.11	2.39	16.3	15.8	15.2	14.5	14.3	14.1	14.0	13.9	13.9	13.8	13.8	13.8	13.7	13.7	13.7	13.7	13.7	13.6
3.25	2.31	16.4	15.9	15.3	14.6	14.3	14.2	14.1	14.0	13.9	13.9	13.8	13.8	13.8	13.7	13.7	13.7	13.7	13.7
3.50	2.15	16.6	16.1	15.5	14.8	14.4	14.3	14.2	14.1	14.0	14.0	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8
3.55	2.12	16.7	16.1	15.5	14.8	14.5	14.3	14.2	14.1	14.1	14.0	14.0	13.9	13.9	13.8	13.8	13.8	13.8	13.8
3.80	1.96	16.8	16.3	15.6	14.9	14.6	14.4	14.3	14.2	14.1	14.1	14.0	14.0	14.0	13.9	13.9	13.9	13.9	13.8
4.00	1.84	17.1	16.6	15.9	15.1	14.8	14.6	14.4	14.3	14.3	14.2	14.2	14.1	14.1	14.0	14.0	14.0	14.0	13.9
4.10	1.78	17.2	16.7	16.0	15.2	14.9	14.6	14.5	14.4	14.3	14.3	14.2	14.2	14.1	14.1	14.0	14.0	14.0	14.0
4.45	1.56	17.7	17.1	16.4	15.6	15.1	14.9	14.8	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.1	14.1
4.50	1.53	17.7	17.2	16.5	15.6	15.2	14.9	14.8	14.7	14.6	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.2
4.80	1.34	18.1	17.5	16.8	15.9	15.4	15.1	15.0	14.8	14.7	14.7	14.6	14.6	14.5	14.4	14.4	14.3	14.3	14.3
5.00	1.22	18.1	17.6	16.8	15.9	15.4	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.3	14.3	14.3
5.15	1.12	18.1	17.6	16.9	15.9	15.5	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.4	14.3
5.30	1.03	18.1	17.6	16.9	16.0	15.5	15.2	15.1	14.9	14.8	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.4	14.4
5.40	0.97	18.1	17.6	16.9	16.0	15.5	15.3	15.1	14.9	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.4
5.50	0.91	18.1	17.7	17.0	16.0	15.6	15.3	15.1	15.0	14.9	14.8	14.7	14.7	14.6	14.5	14.5	14.4	14.4	14.4
5.60	0.85	18.2	17.7	17.0	16.1	15.6	15.3	15.1	15.0	14.9	14.8	14.8	14.7	14.6	14.6	14.5	14.5	14.4	14.4
5.80	0.72	18.2	17.8	17.1	16.1	15.7	15.4	15.2	15.1	15.0	14.9	14.8	14.8	14.7	14.6	14.6	14.5	14.5	14.5
6.00	0.60	18.6	18.1	17.5	16.5	16.1	15.8	15.6	15.5	15.4	15.3	15.2	15.2	15.1	15.0	14.9	14.9	14.9	14.9
6.05	0.57	18.7	18.2	17.5	16.6	16.2	15.9	15.7	15.6	15.5	15.4	15.3	15.3	15.2	15.1	15.1	15.0	15.0	15.0
6.25	0.44	18.4	18.1	17.6	16.7	16.3	16.0	15.9	15.7	15.6	15.5	15.5	15.4	15.3	15.3	15.2	15.2	15.1	15.1
6.35	0.38	18.5	18.2	17.7	17.0	16.5	16.3	16.1	16.0	15.9	15.8	15.7	15.7	15.6	15.5	15.5	15.4	15.4	15.4
6.45	0.32	18.1	18.0	17.6	17.0	16.6	16.3	16.2	16.0	15.9	15.9	15.8	15.8	15.7	15.6	15.6	15.5	15.5	15.5
6.50	0.29	18.1	18.0	17.6	17.0	16.6	16.3	16.2	16.1	15.9	15.9	15.8	15.8	15.7	15.6	15.6	15.5	15.5	15.5
6.95	0.01	16.9	17.1	17.1	16.8	16.6	16.4	16.3	16.2	16.1	16.0	16.0	15.9	15.9	15.8	15.8	15.7	15.7	15.7
6.96	0.00	16.8	17.1	17.1	16.8	16.6	16.4	16.3	16.2	16.1	16.0	16.0	15.9	15.9	15.8	15.8	15.7	15.7	15.7

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-80. Stevenson Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
0.40	4.08	9.8	9.3	8.9	8.5	8.4	8.4	8.3	8.3	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.2	8.2
0.50	4.01	10.1	9.5	9.0	8.6	8.5	8.4	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.2
0.60	3.95	10.4	9.8	9.2	8.7	8.5	8.4	8.4	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.2	8.2	8.2
0.75	3.86	10.9	10.1	9.4	8.9	8.6	8.5	8.4	8.4	8.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.2
0.95	3.73	11.9	11.0	10.2	9.4	9.1	8.9	8.8	8.8	8.7	8.7	8.7	8.6	8.6	8.6	8.6	8.5	8.5
1.00	3.70	12.0	11.2	10.3	9.5	9.2	9.0	8.9	8.8	8.8	8.7	8.7	8.7	8.6	8.6	8.6	8.6	8.6
1.10	3.64	12.4	11.5	10.5	9.7	9.3	9.1	9.0	8.9	8.9	8.8	8.8	8.8	8.7	8.7	8.7	8.6	8.6
1.45	3.42	13.3	12.4	11.3	10.2	9.8	9.5	9.4	9.3	9.2	9.1	9.1	9.0	8.9	8.9	8.9	8.8	8.8
1.50	3.39	13.4	12.5	11.4	10.3	9.8	9.6	9.4	9.3	9.2	9.1	9.1	9.0	9.0	8.9	8.9	8.9	8.8
1.90	3.14	14.2	13.3	12.1	10.8	10.3	10.0	9.8	9.6	9.5	9.4	9.4	9.3	9.2	9.1	9.1	9.1	9.0
2.00	3.08	14.4	13.4	12.2	10.9	10.3	10.0	9.8	9.6	9.5	9.4	9.4	9.3	9.2	9.2	9.1	9.1	9.0
2.15	2.99	14.6	13.6	12.4	11.0	10.4	10.1	9.9	9.7	9.6	9.5	9.4	9.4	9.3	9.2	9.1	9.1	9.1
2.40	2.83	14.9	13.9	12.7	11.2	10.6	10.2	10.0	9.8	9.7	9.6	9.5	9.4	9.3	9.2	9.2	9.1	9.1
2.45	2.80	14.9	13.9	12.7	11.3	10.6	10.2	10.0	9.8	9.7	9.6	9.5	9.4	9.3	9.3	9.2	9.1	9.1
2.50	2.77	15.0	14.0	12.8	11.3	10.7	10.3	10.0	9.9	9.7	9.6	9.5	9.5	9.4	9.3	9.2	9.2	9.1
2.70	2.65	15.4	14.4	13.1	11.6	10.9	10.5	10.2	10.0	9.9	9.8	9.7	9.6	9.5	9.4	9.4	9.3	9.3
3.00	2.46	16.0	15.0	13.7	12.1	11.3	10.8	10.5	10.3	10.2	10.0	9.9	9.8	9.7	9.6	9.5	9.5	9.4
3.11	2.39	16.1	15.1	13.8	12.2	11.4	10.9	10.6	10.4	10.2	10.1	10.0	9.9	9.8	9.6	9.6	9.5	9.5
3.25	2.31	15.9	15.1	13.8	12.2	11.4	10.9	10.6	10.4	10.3	10.1	10.0	9.9	9.8	9.7	9.6	9.6	9.5
3.50	2.15	16.3	15.4	14.1	12.5	11.6	11.1	10.8	10.6	10.4	10.3	10.2	10.1	9.9	9.8	9.7	9.7	9.6
3.55	2.12	16.3	15.5	14.2	12.5	11.7	11.2	10.9	10.6	10.4	10.3	10.2	10.1	9.9	9.8	9.8	9.7	9.6
3.80	1.96	16.5	15.8	14.5	12.8	11.9	11.4	11.1	10.8	10.6	10.5	10.4	10.3	10.1	10.0	9.9	9.8	9.7
4.00	1.84	17.0	16.1	14.9	13.1	12.2	11.7	11.3	11.0	10.8	10.7	10.5	10.4	10.3	10.1	10.0	9.9	9.9
4.10	1.78	17.1	16.3	15.1	13.3	12.4	11.8	11.4	11.1	10.9	10.8	10.6	10.5	10.3	10.2	10.1	10.0	9.9
4.45	1.56	17.5	16.8	15.6	13.8	12.8	12.2	11.8	11.5	11.3	11.1	10.9	10.8	10.6	10.5	10.4	10.3	10.2
4.50	1.53	17.6	16.9	15.7	13.9	12.9	12.3	11.9	11.6	11.3	11.1	11.0	10.9	10.7	10.5	10.4	10.3	10.2
4.80	1.34	18.0	17.4	16.2	14.3	13.3	12.6	12.2	11.9	11.6	11.4	11.2	11.1	10.9	10.7	10.6	10.5	10.4
5.00	1.22	18.0	17.4	16.3	14.4	13.4	12.7	12.3	11.9	11.7	11.5	11.3	11.2	10.9	10.8	10.6	10.5	10.4
5.15	1.12	18.1	17.4	16.3	14.5	13.5	12.8	12.3	12.0	11.7	11.5	11.4	11.2	11.0	10.8	10.7	10.6	10.5
5.30	1.03	18.1	17.5	16.4	14.6	13.5	12.9	12.4	12.1	11.8	11.6	11.4	11.3	11.0	10.9	10.7	10.6	10.5
5.40	0.97	18.0	17.5	16.4	14.6	13.6	12.9	12.4	12.1	11.8	11.6	11.4	11.3	11.1	10.9	10.8	10.6	10.5
5.50	0.91	18.1	17.5	16.4	14.7	13.6	13.0	12.5	12.1	11.9	11.7	11.5	11.3	11.1	10.9	10.8	10.7	10.6
5.60	0.85	18.1	17.5	16.5	14.7	13.7	13.0	12.5	12.2	11.9	11.7	11.5	11.4	11.1	11.0	10.8	10.7	10.6
5.80	0.72	18.2	17.6	16.6	14.8	13.8	13.1	12.7	12.3	12.0	11.8	11.6	11.5	11.2	11.1	10.9	10.8	10.7
6.00	0.60	18.6	18.1	17.1	15.3	14.3	13.6	13.1	12.8	12.5	12.3	12.1	11.9	11.7	11.5	11.3	11.2	11.1
6.05	0.57	18.7	18.2	17.2	15.4	14.4	13.7	13.3	12.9	12.6	12.4	12.2	12.0	11.8	11.6	11.4	11.3	11.2
6.25	0.44	18.7	18.3	17.3	15.7	14.6	14.0	13.5	13.1	12.8	12.6	12.4	12.3	12.0	11.8	11.7	11.5	11.4
6.35	0.38	18.9	18.5	17.6	15.9	14.9	14.3	13.8	13.4	13.1	12.9	12.7	12.6	12.3	12.1	12.0	11.8	11.7
6.45	0.32	18.7	18.4	17.6	16.0	15.0	14.4	13.9	13.5	13.3	13.0	12.8	12.7	12.4	12.2	12.1	11.9	11.9
6.50	0.29	18.7	18.4	17.6	16.0	15.0	14.4	13.9	13.6	13.3	13.1	12.8	12.7	12.4	12.2	12.1	11.9	11.9
6.95	0.01	18.1	17.9	17.4	16.1	15.2	14.6	14.2	13.8	13.6	13.3	13.1	13.0	12.7	12.6	12.4	12.3	12.2
6.96	0.00	18.1	17.9	17.4	16.1	15.2	14.6	14.2	13.8	13.6	13.3	13.1	13.0	12.7	12.6	12.4	12.3	12.2

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-81. Stevenson Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
0.40	4.08	10.9	10.5	10.3	10.0	9.9	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.50	4.01	11.1	10.7	10.4	10.1	10.0	9.9	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.60	3.95	11.3	10.8	10.4	10.1	10.0	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.8	9.8
0.75	3.86	11.6	11.1	10.6	10.2	10.1	10.0	10.0	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.8	9.8	9.8
0.95	3.73	12.5	11.9	11.2	10.7	10.5	10.4	10.3	10.3	10.2	10.2	10.2	10.2	10.1	10.1	10.1	10.1	10.1
1.00	3.70	12.6	12.0	11.4	10.8	10.6	10.4	10.4	10.3	10.3	10.3	10.2	10.2	10.2	10.2	10.1	10.1	10.1
1.10	3.64	12.9	12.2	11.6	10.9	10.7	10.6	10.5	10.4	10.4	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.2
1.45	3.42	13.8	13.0	12.2	11.4	11.1	10.9	10.8	10.7	10.6	10.6	10.5	10.5	10.5	10.4	10.4	10.4	10.4
1.50	3.39	13.9	13.1	12.3	11.4	11.1	10.9	10.8	10.7	10.6	10.6	10.6	10.5	10.5	10.4	10.4	10.4	10.4
1.90	3.14	14.6	13.8	12.9	11.9	11.5	11.3	11.1	11.0	10.9	10.8	10.8	10.8	10.7	10.6	10.6	10.6	10.5
2.00	3.08	14.7	13.9	13.0	12.0	11.5	11.3	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.6	10.6	10.6	10.6
2.15	2.99	14.9	14.1	13.1	12.1	11.6	11.4	11.2	11.1	11.0	10.9	10.9	10.8	10.7	10.7	10.6	10.6	10.6
2.40	2.83	15.2	14.4	13.3	12.2	11.7	11.4	11.3	11.1	11.0	11.0	10.9	10.9	10.8	10.7	10.7	10.6	10.6
2.45	2.80	15.3	14.4	13.4	12.2	11.7	11.5	11.3	11.1	11.1	11.0	10.9	10.9	10.8	10.7	10.7	10.6	10.6
2.50	2.77	15.4	14.5	13.4	12.3	11.8	11.5	11.3	11.2	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.7	10.6
2.70	2.65	15.7	14.8	13.7	12.5	12.0	11.7	11.5	11.3	11.2	11.1	11.1	11.0	10.9	10.9	10.8	10.8	10.8
3.00	2.46	16.3	15.4	14.3	12.9	12.3	12.0	11.8	11.6	11.5	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.9
3.11	2.39	16.4	15.5	14.4	13.0	12.4	12.0	11.8	11.6	11.5	11.4	11.3	11.3	11.1	11.1	11.0	11.0	10.9
3.25	2.31	16.5	15.6	14.5	13.1	12.5	12.1	11.9	11.7	11.6	11.4	11.4	11.3	11.2	11.1	11.1	11.0	11.0
3.50	2.15	16.9	16.0	14.8	13.3	12.6	12.3	12.0	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.2	11.1	11.1
3.55	2.12	16.9	16.0	14.8	13.4	12.7	12.3	12.0	11.9	11.7	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.1
3.80	1.96	17.1	16.3	15.1	13.6	12.9	12.5	12.2	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.2
4.00	1.84	17.5	16.7	15.5	13.9	13.2	12.7	12.4	12.2	12.1	11.9	11.8	11.7	11.6	11.5	11.4	11.4	11.3
4.10	1.78	17.7	16.9	15.7	14.1	13.3	12.9	12.5	12.3	12.1	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.4
4.45	1.56	18.2	17.4	16.2	14.6	13.8	13.3	12.9	12.7	12.5	12.3	12.2	12.1	11.9	11.8	11.7	11.6	11.6
4.50	1.53	18.3	17.5	16.3	14.6	13.8	13.3	12.9	12.7	12.5	12.4	12.2	12.1	12.0	11.9	11.8	11.7	11.6
4.80	1.34	18.7	18.0	16.8	15.1	14.2	13.6	13.3	13.0	12.8	12.6	12.5	12.4	12.2	12.0	11.9	11.9	11.8
5.00	1.22	18.7	18.0	16.8	15.1	14.2	13.7	13.3	13.0	12.8	12.6	12.5	12.4	12.2	12.1	12.0	11.9	11.8
5.15	1.12	18.7	18.0	16.9	15.2	14.3	13.7	13.4	13.1	12.9	12.7	12.6	12.4	12.3	12.1	12.0	11.9	11.9
5.30	1.03	18.8	18.1	17.0	15.3	14.4	13.8	13.4	13.1	12.9	12.7	12.6	12.5	12.3	12.2	12.1	12.0	11.9
5.40	0.97	18.7	18.1	17.0	15.3	14.4	13.8	13.4	13.2	12.9	12.8	12.6	12.5	12.3	12.2	12.1	12.0	11.9
5.50	0.91	18.8	18.1	17.0	15.4	14.4	13.9	13.5	13.2	13.0	12.8	12.7	12.6	12.4	12.2	12.1	12.0	11.9
5.60	0.85	18.8	18.2	17.1	15.4	14.5	13.9	13.5	13.3	13.0	12.9	12.7	12.6	12.4	12.3	12.1	12.1	12.0
5.80	0.72	18.9	18.3	17.2	15.5	14.6	14.0	13.6	13.4	13.1	12.9	12.8	12.7	12.5	12.3	12.2	12.1	12.1
6.00	0.60	19.2	18.6	17.6	15.9	15.0	14.5	14.1	13.8	13.5	13.4	13.2	13.1	12.9	12.7	12.6	12.5	12.4
6.05	0.57	19.3	18.7	17.7	16.0	15.1	14.6	14.2	13.9	13.6	13.5	13.3	13.2	13.0	12.9	12.7	12.6	12.6
6.25	0.44	19.0	18.6	17.7	16.2	15.3	14.8	14.4	14.1	13.8	13.7	13.5	13.4	13.2	13.0	12.9	12.8	12.7
6.35	0.38	19.0	18.7	17.9	16.4	15.6	15.0	14.6	14.3	14.1	13.9	13.8	13.7	13.5	13.3	13.2	13.1	13.0
6.45	0.32	18.6	18.4	17.8	16.4	15.6	15.1	14.7	14.4	14.2	14.0	13.9	13.8	13.6	13.4	13.3	13.2	13.1
6.50	0.29	18.6	18.3	17.7	16.4	15.6	15.1	14.7	14.4	14.2	14.0	13.9	13.8	13.6	13.4	13.3	13.2	13.2
6.95	0.01	17.2	17.4	17.2	16.3	15.6	15.2	14.9	14.6	14.4	14.2	14.1	14.0	13.8	13.6	13.5	13.4	13.4
6.96	0.00	17.2	17.3	17.1	16.3	15.6	15.2	14.8	14.6	14.4	14.2	14.1	14.0	13.8	13.6	13.5	13.4	13.4

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-82. Stevenson Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release (cfs)

Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
0.40	4.08	12.2	11.9	11.8	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
0.50	4.01	12.3	12.0	11.8	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
0.60	3.95	12.4	12.1	11.9	11.7	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
0.75	3.86	12.6	12.3	12.0	11.7	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
0.95	3.73	13.3	12.9	12.5	12.1	12.0	11.9	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.7	11.7
1.00	3.70	13.4	13.0	12.6	12.2	12.1	12.0	11.9	11.9	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.10	3.64	13.6	13.1	12.7	12.3	12.1	12.1	12.0	12.0	11.9	11.9	11.9	11.9	11.9	11.9	11.8	11.8	11.8
1.45	3.42	14.1	13.6	13.1	12.6	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.0	12.0	12.0	12.0	12.0
1.50	3.39	14.1	13.7	13.2	12.6	12.4	12.3	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.0	12.0	12.0	12.0
1.90	3.14	14.6	14.1	13.6	13.0	12.7	12.6	12.5	12.4	12.3	12.3	12.3	12.2	12.2	12.2	12.1	12.1	12.1
2.00	3.08	14.6	14.2	13.6	13.0	12.7	12.6	12.5	12.4	12.4	12.3	12.3	12.3	12.2	12.2	12.2	12.1	12.1
2.15	2.99	14.8	14.3	13.7	13.1	12.8	12.6	12.5	12.4	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.1	12.1
2.40	2.83	15.0	14.5	13.9	13.2	12.9	12.7	12.6	12.5	12.4	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.2
2.45	2.80	15.0	14.5	13.9	13.2	12.9	12.7	12.6	12.5	12.4	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.2
2.50	2.77	15.1	14.6	13.9	13.2	12.9	12.7	12.6	12.5	12.5	12.4	12.4	12.4	12.3	12.3	12.2	12.2	12.2
2.70	2.65	15.4	14.8	14.2	13.4	13.1	12.9	12.8	12.7	12.6	12.6	12.5	12.5	12.4	12.4	12.4	12.3	12.3
3.00	2.46	15.9	15.3	14.6	13.7	13.3	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.6	12.5	12.5	12.4	12.4
3.11	2.39	16.0	15.4	14.6	13.8	13.4	13.2	13.0	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.5	12.5	12.4
3.25	2.31	16.0	15.5	14.7	13.9	13.4	13.2	13.1	12.9	12.9	12.8	12.8	12.7	12.6	12.6	12.5	12.5	12.5
3.50	2.15	16.4	15.8	15.0	14.0	13.6	13.4	13.2	13.1	13.0	12.9	12.9	12.8	12.7	12.7	12.6	12.6	12.6
3.55	2.12	16.4	15.8	15.0	14.1	13.6	13.4	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.7	12.6	12.6	12.6
3.80	1.96	16.5	16.0	15.2	14.3	13.8	13.5	13.4	13.2	13.1	13.1	13.0	12.9	12.9	12.8	12.7	12.7	12.7
4.00	1.84	16.8	16.3	15.5	14.5	14.0	13.7	13.5	13.4	13.3	13.2	13.1	13.1	13.0	12.9	12.9	12.8	12.8
4.10	1.78	17.0	16.4	15.6	14.6	14.1	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9	12.9	12.8
4.45	1.56	17.4	16.9	16.1	15.0	14.5	14.1	13.9	13.7	13.6	13.5	13.4	13.4	13.3	13.2	13.1	13.1	13.0
4.50	1.53	17.5	17.0	16.2	15.1	14.5	14.2	13.9	13.8	13.6	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.1
4.80	1.34	17.8	17.3	16.5	15.4	14.8	14.4	14.2	14.0	13.9	13.7	13.6	13.6	13.5	13.4	13.3	13.2	13.2
5.00	1.22	17.9	17.4	16.6	15.4	14.9	14.5	14.2	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2
5.15	1.12	17.9	17.4	16.6	15.5	14.9	14.5	14.3	14.1	13.9	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.2
5.30	1.03	17.9	17.4	16.7	15.5	14.9	14.6	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3
5.40	0.97	17.9	17.4	16.7	15.6	15.0	14.6	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3
5.50	0.91	17.9	17.5	16.7	15.6	15.0	14.6	14.4	14.2	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.4	13.3
5.60	0.85	17.9	17.5	16.8	15.6	15.0	14.7	14.4	14.2	14.1	13.9	13.9	13.8	13.6	13.5	13.5	13.4	13.4
5.80	0.72	18.0	17.6	16.9	15.7	15.1	14.8	14.5	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5	13.4
6.00	0.60	18.3	17.9	17.2	16.1	15.5	15.1	14.9	14.7	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.9	13.8
6.05	0.57	18.4	18.0	17.3	16.2	15.6	15.3	15.0	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.0	14.0	13.9
6.25	0.44	18.0	17.8	17.3	16.3	15.7	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.1
6.35	0.38	17.9	17.8	17.4	16.5	16.0	15.6	15.4	15.2	15.1	14.9	14.8	14.8	14.6	14.5	14.4	14.4	14.3
6.45	0.32	17.3	17.4	17.1	16.4	16.0	15.6	15.4	15.2	15.1	15.0	14.9	14.8	14.7	14.6	14.5	14.5	14.4
6.50	0.29	17.3	17.4	17.1	16.4	16.0	15.6	15.4	15.2	15.1	15.0	14.9	14.8	14.7	14.6	14.5	14.5	14.4
6.95	0.01	15.5	16.0	16.3	16.1	15.8	15.6	15.4	15.3	15.2	15.1	15.0	15.0	14.9	14.8	14.7	14.7	14.6
6.96	0.00	15.5	16.0	16.3	16.1	15.8	15.6	15.4	15.3	15.2	15.1	15.0	15.0	14.9	14.8	14.7	14.7	14.6

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-83. Stevenson Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
0.00	4.32	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
0.40	4.08	12.0	11.6	11.2	10.9	10.9	10.8	10.8	10.8	10.8	10.8	10.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0.50	4.01	12.0	11.6	11.2	10.9	10.9	10.8	10.8	10.8	10.8	10.8	10.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0.60	3.95	12.0	11.6	11.2	10.9	10.9	10.8	10.8	10.8	10.8	10.8	10.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0.75	3.86	12.6	12.2	11.7	11.2	11.0	10.9	10.9	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.7	10.7	10.7	10.7
0.95	3.73	13.4	12.9	12.3	11.7	11.5	11.4	11.3	11.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
1.00	3.70	13.4	12.9	12.4	11.8	11.5	11.4	11.4	11.3	11.3	11.3	11.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2
1.10	3.64	13.6	13.1	12.6	11.9	11.7	11.5	11.5	11.4	11.4	11.4	11.4	11.3	11.3	11.3	11.3	11.3	11.3	11.3
1.45	3.42	14.1	13.6	13.0	12.3	12.0	11.9	11.8	11.7	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5
1.50	3.39	14.1	13.6	13.1	12.4	12.1	11.9	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5
1.90	3.14	14.4	14.0	13.5	12.8	12.4	12.2	12.1	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.7	11.7
2.00	3.08	14.5	14.1	13.5	12.8	12.4	12.2	12.1	12.0	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.7
2.15	2.99	14.6	14.2	13.6	12.9	12.5	12.3	12.2	12.1	12.0	11.9	11.9	11.9	11.8	11.8	11.7	11.7	11.7	11.7
2.40	2.83	14.8	14.4	13.8	13.0	12.6	12.4	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.8	11.8	11.8	11.8	11.7
2.45	2.80	14.8	14.4	13.8	13.0	12.6	12.4	12.3	12.1	12.1	12.0	12.0	11.9	11.9	11.8	11.8	11.8	11.8	11.8
2.50	2.77	14.9	14.5	13.9	13.1	12.7	12.4	12.3	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.8	11.8	11.8	11.8
2.70	2.65	15.2	14.8	14.1	13.3	12.9	12.7	12.5	12.4	12.3	12.3	12.2	12.2	12.1	12.1	12.0	12.0	12.0	12.0
3.00	2.46	15.6	15.2	14.6	13.7	13.3	13.0	12.8	12.7	12.6	12.5	12.5	12.4	12.3	12.3	12.2	12.2	12.2	12.2
3.11	2.39	15.7	15.3	14.7	13.8	13.3	13.1	12.9	12.7	12.6	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2
3.25	2.31	15.8	15.4	14.8	13.9	13.4	13.1	12.9	12.8	12.7	12.6	12.6	12.5	12.4	12.4	12.3	12.3	12.3	12.3
3.50	2.15	16.1	15.7	15.0	14.1	13.6	13.3	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.5	12.4	12.4	12.4
3.55	2.12	16.1	15.7	15.1	14.2	13.7	13.4	13.2	13.0	12.9	12.8	12.8	12.7	12.6	12.6	12.5	12.5	12.5	12.4
3.80	1.96	16.2	15.9	15.3	14.4	13.9	13.5	13.3	13.2	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.6	12.6	12.6
4.00	1.84	16.6	16.2	15.6	14.7	14.1	13.8	13.6	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.8	12.7
4.10	1.78	16.7	16.4	15.8	14.8	14.3	13.9	13.7	13.5	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.8
4.45	1.56	17.2	16.9	16.3	15.3	14.8	14.4	14.1	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.1
4.50	1.53	17.3	16.9	16.4	15.4	14.8	14.4	14.2	14.0	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.2	13.1	13.1
4.80	1.34	17.7	17.3	16.8	15.8	15.2	14.8	14.5	14.3	14.1	14.0	13.9	13.8	13.6	13.6	13.5	13.4	13.4	13.4
5.00	1.22	17.7	17.4	16.8	15.9	15.3	14.9	14.6	14.4	14.2	14.1	13.9	13.9	13.7	13.6	13.5	13.4	13.4	13.4
5.15	1.12	17.8	17.4	16.9	15.9	15.3	14.9	14.6	14.4	14.2	14.1	14.0	13.9	13.7	13.6	13.5	13.5	13.4	13.4
5.30	1.03	17.8	17.5	16.9	16.0	15.4	15.0	14.7	14.5	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5	13.5
5.40	0.97	17.8	17.5	16.9	16.0	15.4	15.0	14.7	14.5	14.3	14.2	14.1	14.0	13.8	13.7	13.6	13.6	13.5	13.5
5.50	0.91	17.9	17.5	17.0	16.0	15.4	15.0	14.8	14.5	14.4	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
5.60	0.85	17.9	17.5	17.0	16.1	15.5	15.1	14.8	14.6	14.4	14.3	14.2	14.1	13.9	13.8	13.7	13.6	13.6	13.6
5.80	0.72	18.0	17.6	17.1	16.2	15.6	15.2	14.9	14.7	14.5	14.4	14.3	14.2	14.0	13.9	13.8	13.7	13.7	13.7
6.00	0.60	18.5	18.2	17.7	16.8	16.3	15.9	15.6	15.4	15.3	15.1	15.0	15.0	14.8	14.7	14.7	14.6	14.6	14.6
6.05	0.57	18.6	18.3	17.8	17.0	16.4	16.0	15.8	15.6	15.4	15.3	15.2	15.2	15.0	14.9	14.9	14.8	14.8	14.8
6.25	0.44	18.6	18.3	17.8	17.0	16.5	16.2	16.0	15.8	15.6	15.5	15.4	15.4	15.2	15.2	15.1	15.1	15.0	15.0
6.35	0.38	18.7	18.5	18.1	17.3	16.9	16.5	16.3	16.1	16.0	15.9	15.8	15.8	15.7	15.6	15.6	15.6	15.6	15.6
6.45	0.32	18.6	18.4	18.0	17.3	16.9	16.6	16.4	16.2	16.1	16.0	15.9	15.9	15.8	15.7	15.7	15.7	15.6	15.6
6.50	0.29	18.6	18.4	18.0	17.3	16.9	16.6	16.4	16.2	16.1	16.0	15.9	15.9	15.8	15.7	15.7	15.7	15.6	15.6
6.95	0.01	18.1	17.9	17.6	17.1	16.8	16.5	16.4	16.3	16.2	16.1	16.0	16.0	15.9	15.9	15.9	15.9	15.9	15.9
6.96	0.00	18.1	17.9	17.6	17.1	16.8	16.5	16.4	16.3	16.2	16.1	16.0	16.0	15.9	15.9	15.9	15.9	15.9	15.9

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-84. Stevenson Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
0.00	4.32	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
0.40	4.08	13.8	13.3	12.9	12.5	12.3	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
0.50	4.01	13.8	13.3	12.9	12.5	12.3	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
0.60	3.95	13.8	13.3	12.9	12.5	12.3	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
0.75	3.86	14.4	13.8	13.1	12.6	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.1
0.95	3.73	15.8	14.9	14.1	13.4	13.1	13.0	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6
1.00	3.70	16.0	15.1	14.3	13.5	13.2	13.1	12.9	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.7
1.10	3.64	16.4	15.5	14.6	13.7	13.4	13.2	13.1	13.0	13.0	12.9	12.9	12.9	12.8	12.8	12.8	12.8	12.8	12.8
1.45	3.42	17.4	16.4	15.4	14.4	13.9	13.7	13.5	13.4	13.3	13.3	13.2	13.2	13.1	13.1	13.0	13.0	13.0	13.0
1.50	3.39	17.5	16.5	15.5	14.4	14.0	13.7	13.6	13.4	13.4	13.3	13.3	13.2	13.1	13.1	13.1	13.1	13.1	13.0
1.90	3.14	18.2	17.3	16.2	15.0	14.5	14.2	13.9	13.8	13.7	13.6	13.6	13.5	13.4	13.4	13.3	13.3	13.3	13.3
2.00	3.08	18.4	17.5	16.4	15.1	14.5	14.2	14.0	13.9	13.7	13.7	13.6	13.5	13.4	13.4	13.4	13.3	13.3	13.3
2.15	2.99	18.7	17.7	16.5	15.2	14.6	14.3	14.1	13.9	13.8	13.7	13.6	13.6	13.5	13.4	13.4	13.3	13.3	13.3
2.40	2.83	19.0	18.0	16.8	15.4	14.8	14.4	14.2	14.0	13.9	13.8	13.7	13.6	13.6	13.5	13.4	13.4	13.4	13.4
2.45	2.80	19.1	18.1	16.9	15.5	14.8	14.4	14.2	14.0	13.9	13.8	13.7	13.7	13.6	13.5	13.4	13.4	13.4	13.4
2.50	2.77	19.2	18.2	17.0	15.6	14.9	14.5	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.6	13.5	13.5	13.5	13.4
2.70	2.65	19.7	18.7	17.4	15.9	15.2	14.8	14.5	14.3	14.2	14.1	14.0	13.9	13.9	13.8	13.7	13.7	13.7	13.7
3.00	2.46	20.5	19.5	18.1	16.5	15.7	15.2	14.9	14.7	14.6	14.4	14.3	14.3	14.1	14.0	14.0	13.9	13.9	13.9
3.11	2.39	20.6	19.6	18.3	16.6	15.8	15.3	15.0	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.0	14.0	13.9	13.9
3.25	2.31	20.8	19.8	18.4	16.7	15.9	15.4	15.1	14.9	14.7	14.6	14.4	14.4	14.2	14.1	14.1	14.0	14.0	14.0
3.50	2.15	21.2	20.2	18.8	17.0	16.2	15.6	15.3	15.1	14.9	14.8	14.6	14.6	14.4	14.3	14.3	14.2	14.2	14.2
3.55	2.12	21.3	20.3	18.9	17.1	16.2	15.7	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.2	14.2
3.80	1.96	21.3	20.5	19.1	17.4	16.5	15.9	15.6	15.3	15.1	15.0	14.9	14.8	14.6	14.5	14.4	14.4	14.4	14.3
4.00	1.84	21.8	21.0	19.6	17.8	16.9	16.3	15.9	15.6	15.4	15.3	15.1	15.0	14.9	14.7	14.6	14.6	14.6	14.5
4.10	1.78	22.0	21.2	19.9	18.0	17.0	16.5	16.0	15.8	15.6	15.4	15.2	15.1	15.0	14.8	14.7	14.7	14.7	14.6
4.45	1.56	22.7	21.9	20.6	18.7	17.6	17.0	16.6	16.3	16.0	15.8	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.9
4.50	1.53	22.8	22.0	20.7	18.8	17.7	17.1	16.6	16.3	16.1	15.9	15.7	15.6	15.4	15.3	15.1	15.1	15.0	15.0
4.80	1.34	23.3	22.5	21.2	19.3	18.2	17.5	17.1	16.7	16.4	16.2	16.1	15.9	15.7	15.5	15.4	15.3	15.2	15.2
5.00	1.22	23.3	22.5	21.3	19.4	18.3	17.6	17.1	16.8	16.5	16.3	16.1	16.0	15.8	15.6	15.5	15.4	15.3	15.3
5.15	1.12	23.3	22.5	21.3	19.4	18.4	17.7	17.2	16.8	16.6	16.3	16.2	16.0	15.8	15.6	15.5	15.4	15.3	15.3
5.30	1.03	23.2	22.5	21.4	19.5	18.4	17.7	17.2	16.9	16.6	16.4	16.2	16.1	15.9	15.7	15.6	15.4	15.4	15.4
5.40	0.97	23.2	22.5	21.4	19.5	18.5	17.8	17.3	16.9	16.6	16.4	16.3	16.1	15.9	15.7	15.6	15.5	15.4	15.4
5.50	0.91	23.2	22.6	21.4	19.6	18.5	17.8	17.3	17.0	16.7	16.5	16.3	16.2	15.9	15.8	15.6	15.5	15.4	15.4
5.60	0.85	23.2	22.6	21.5	19.6	18.6	17.9	17.4	17.0	16.8	16.5	16.4	16.2	16.0	15.8	15.7	15.6	15.5	15.5
5.80	0.72	23.3	22.7	21.6	19.7	18.7	18.0	17.5	17.1	16.9	16.6	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.6
6.00	0.60	23.7	23.1	22.1	20.4	19.4	18.7	18.3	18.0	17.7	17.5	17.3	17.2	17.0	16.9	16.8	16.7	16.6	16.6
6.05	0.57	23.8	23.3	22.2	20.5	19.5	18.9	18.5	18.1	17.9	17.7	17.6	17.4	17.2	17.1	17.0	16.9	16.9	16.9
6.25	0.44	23.5	23.1	22.2	20.7	19.7	19.1	18.7	18.4	18.1	18.0	17.8	17.7	17.5	17.4	17.3	17.2	17.1	17.1
6.35	0.38	23.5	23.2	22.4	21.0	20.1	19.5	19.1	18.8	18.6	18.4	18.3	18.2	18.0	17.9	17.8	17.8	17.7	17.7
6.45	0.32	23.1	22.9	22.3	20.9	20.1	19.6	19.2	18.9	18.7	18.5	18.4	18.3	18.1	18.0	18.0	17.9	17.9	17.9
6.50	0.29	23.1	22.9	22.3	20.9	20.1	19.6	19.2	18.9	18.7	18.5	18.4	18.3	18.2	18.0	18.0	17.9	17.9	17.9
6.95	0.01	22.0	22.0	21.8	20.8	20.1	19.7	19.4	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.3	18.2	18.2	18.2
6.96	0.00	22.0	22.0	21.8	20.8	20.1	19.7	19.4	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.3	18.2	18.2	18.2

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-85. Stevenson Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
0.00	4.32	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
0.40	4.08	14.6	14.2	13.8	13.4	13.3	13.2	13.2	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
0.50	4.01	14.6	14.2	13.8	13.4	13.3	13.2	13.2	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
0.60	3.95	14.6	14.2	13.8	13.4	13.3	13.2	13.2	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
0.75	3.86	15.2	14.6	14.0	13.6	13.4	13.3	13.3	13.2	13.2	13.2	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1
0.95	3.73	16.5	15.7	14.9	14.3	14.0	13.9	13.8	13.8	13.7	13.7	13.7	13.7	13.6	13.6	13.6	13.6	13.6	13.6
1.00	3.70	16.6	15.8	15.1	14.4	14.1	14.0	13.9	13.8	13.8	13.8	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1.10	3.64	17.0	16.1	15.3	14.6	14.3	14.1	14.0	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1.45	3.42	17.9	17.0	16.0	15.1	14.7	14.5	14.4	14.3	14.2	14.2	14.1	14.1	14.1	14.0	14.0	14.0	14.0	14.0
1.50	3.39	18.0	17.0	16.1	15.1	14.8	14.5	14.4	14.3	14.3	14.2	14.2	14.1	14.1	14.1	14.0	14.0	14.0	14.0
1.90	3.14	18.6	17.7	16.7	15.6	15.1	14.9	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.2
2.00	3.08	18.7	17.8	16.8	15.7	15.2	14.9	14.8	14.6	14.6	14.5	14.4	14.4	14.3	14.3	14.3	14.2	14.2	14.2
2.15	2.99	19.0	18.0	17.0	15.8	15.3	15.0	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3	14.2	14.2
2.40	2.83	19.3	18.3	17.2	15.9	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3	14.3
2.45	2.80	19.4	18.4	17.2	16.0	15.4	15.1	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.3	14.3	14.3	14.3
2.50	2.77	19.5	18.5	17.3	16.1	15.5	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.4	14.4
2.70	2.65	19.9	18.9	17.7	16.4	15.8	15.4	15.2	15.1	15.0	14.9	14.8	14.8	14.7	14.7	14.6	14.6	14.6	14.6
3.00	2.46	20.8	19.7	18.4	16.9	16.2	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9	14.9	14.8	14.8	14.8	14.8
3.11	2.39	20.9	19.9	18.5	17.0	16.3	15.9	15.6	15.5	15.3	15.2	15.2	15.1	15.0	14.9	14.9	14.9	14.9	14.8
3.25	2.31	21.1	20.0	18.7	17.1	16.4	16.0	15.7	15.5	15.4	15.3	15.2	15.1	15.1	15.0	14.9	14.9	14.9	14.9
3.50	2.15	21.5	20.5	19.1	17.4	16.6	16.2	15.9	15.7	15.6	15.5	15.4	15.3	15.2	15.2	15.1	15.1	15.1	15.0
3.55	2.12	21.6	20.5	19.1	17.5	16.7	16.3	16.0	15.8	15.6	15.5	15.4	15.4	15.3	15.2	15.1	15.1	15.1	15.1
3.80	1.96	21.6	20.6	19.3	17.7	16.9	16.5	16.1	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.3	15.2	15.2	15.2
4.00	1.84	22.1	21.1	19.8	18.1	17.2	16.8	16.4	16.2	16.0	15.9	15.8	15.7	15.6	15.5	15.4	15.4	15.4	15.4
4.10	1.78	22.3	21.4	20.0	18.3	17.4	16.9	16.6	16.3	16.1	16.0	15.9	15.8	15.7	15.6	15.5	15.5	15.5	15.4
4.45	1.56	23.0	22.0	20.7	18.9	18.0	17.4	17.0	16.8	16.6	16.4	16.3	16.2	16.0	15.9	15.9	15.8	15.8	15.8
4.50	1.53	23.0	22.1	20.8	18.9	18.0	17.5	17.1	16.8	16.6	16.5	16.3	16.2	16.1	16.0	15.9	15.8	15.8	15.8
4.80	1.34	23.5	22.6	21.3	19.4	18.4	17.8	17.4	17.1	16.9	16.8	16.6	16.5	16.3	16.2	16.1	16.1	16.1	16.0
5.00	1.22	23.5	22.6	21.3	19.5	18.5	17.9	17.5	17.2	17.0	16.8	16.7	16.6	16.4	16.3	16.2	16.1	16.1	16.0
5.15	1.12	23.5	22.7	21.4	19.5	18.5	18.0	17.5	17.3	17.0	16.9	16.7	16.6	16.4	16.3	16.2	16.1	16.1	16.1
5.30	1.03	23.4	22.6	21.4	19.6	18.6	18.0	17.6	17.3	17.1	16.9	16.8	16.6	16.5	16.3	16.2	16.2	16.1	16.1
5.40	0.97	23.4	22.6	21.4	19.6	18.6	18.0	17.6	17.3	17.1	16.9	16.8	16.7	16.5	16.4	16.3	16.2	16.1	16.1
5.50	0.91	23.4	22.7	21.5	19.6	18.7	18.1	17.7	17.4	17.1	17.0	16.8	16.7	16.5	16.4	16.3	16.2	16.2	16.2
5.60	0.85	23.4	22.7	21.5	19.7	18.7	18.1	17.7	17.4	17.2	17.0	16.9	16.8	16.6	16.5	16.4	16.3	16.2	16.2
5.80	0.72	23.4	22.7	21.6	19.8	18.8	18.2	17.8	17.5	17.3	17.1	17.0	16.9	16.7	16.5	16.5	16.4	16.3	16.3
6.00	0.60	23.8	23.2	22.1	20.4	19.5	19.0	18.6	18.4	18.1	18.0	17.9	17.8	17.6	17.5	17.5	17.4	17.4	17.4
6.05	0.57	24.0	23.3	22.3	20.6	19.7	19.2	18.8	18.5	18.4	18.2	18.1	18.0	17.9	17.8	17.7	17.7	17.6	17.6
6.25	0.44	23.7	23.2	22.3	20.8	19.9	19.4	19.0	18.8	18.6	18.5	18.3	18.2	18.1	18.0	18.0	17.9	17.9	17.9
6.35	0.38	23.7	23.3	22.5	21.1	20.3	19.8	19.5	19.2	19.1	18.9	18.8	18.8	18.7	18.6	18.6	18.5	18.5	18.5
6.45	0.32	23.3	23.1	22.4	21.1	20.3	19.9	19.5	19.3	19.2	19.0	19.0	18.9	18.8	18.7	18.7	18.7	18.7	18.7
6.50	0.29	23.3	23.1	22.4	21.1	20.3	19.9	19.5	19.4	19.2	19.0	19.0	18.9	18.8	18.7	18.7	18.7	18.7	18.7
6.95	0.01	22.3	22.4	22.1	21.1	20.5	20.1	19.8	19.6	19.4	19.3	19.3	19.2	19.1	19.0	19.0	19.0	19.0	19.0
6.96	0.00	22.3	22.4	22.1	21.1	20.5	20.1	19.8	19.6	19.4	19.3	19.3	19.2	19.1	19.0	19.0	19.0	19.0	19.0

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-86. Stevenson Creek - Simulated Daily Maximum Temperatures (°C) with Distancem as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
0.40	4.08	11.1	10.4	9.8	9.3	9.1	9.0	9.0	8.9	8.9	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.8
0.50	4.01	11.1	10.4	9.8	9.3	9.1	9.0	9.0	8.9	8.9	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.8
0.60	3.95	11.1	10.4	9.8	9.3	9.1	9.0	9.0	8.9	8.9	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.8
0.75	3.86	11.8	11.0	10.2	9.6	9.3	9.2	9.1	9.0	9.0	9.0	8.9	8.9	8.9	8.9	8.9	8.9	8.8
0.95	3.73	13.5	12.4	11.4	10.5	10.1	9.9	9.8	9.7	9.6	9.6	9.6	9.5	9.5	9.5	9.5	9.4	9.4
1.00	3.70	13.7	12.7	11.6	10.6	10.2	10.0	9.9	9.8	9.7	9.7	9.6	9.6	9.6	9.5	9.5	9.5	9.5
1.10	3.64	14.2	13.1	12.0	10.9	10.4	10.2	10.1	10.0	9.9	9.8	9.8	9.8	9.7	9.7	9.6	9.6	9.6
1.45	3.42	15.6	14.4	13.1	11.7	11.1	10.8	10.6	10.4	10.3	10.3	10.2	10.1	10.1	10.0	10.0	9.9	9.9
1.50	3.39	15.7	14.5	13.2	11.8	11.2	10.9	10.7	10.5	10.4	10.3	10.3	10.2	10.1	10.1	10.0	10.0	9.9
1.90	3.14	16.8	15.6	14.2	12.6	11.9	11.4	11.2	11.0	10.8	10.7	10.6	10.6	10.5	10.4	10.3	10.3	10.2
2.00	3.08	17.0	15.8	14.3	12.7	11.9	11.5	11.2	11.0	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.3	10.3
2.15	2.99	17.3	16.1	14.6	12.9	12.1	11.6	11.3	11.1	11.0	10.8	10.7	10.7	10.5	10.4	10.4	10.3	10.3
2.40	2.83	17.8	16.5	14.9	13.1	12.3	11.8	11.5	11.3	11.1	10.9	10.8	10.8	10.6	10.5	10.4	10.4	10.4
2.45	2.80	17.8	16.6	15.0	13.2	12.3	11.8	11.5	11.3	11.1	11.0	10.9	10.8	10.6	10.5	10.5	10.4	10.4
2.50	2.77	18.0	16.7	15.1	13.3	12.4	11.9	11.6	11.3	11.2	11.0	10.9	10.8	10.7	10.6	10.5	10.5	10.4
2.70	2.65	18.5	17.2	15.6	13.6	12.8	12.2	11.9	11.6	11.4	11.3	11.2	11.1	11.0	10.9	10.8	10.8	10.7
3.00	2.46	19.5	18.2	16.5	14.4	13.4	12.8	12.4	12.1	11.9	11.7	11.6	11.5	11.3	11.2	11.1	11.0	11.0
3.11	2.39	19.6	18.4	16.7	14.5	13.5	12.9	12.5	12.2	12.0	11.8	11.6	11.5	11.4	11.2	11.1	11.1	11.0
3.25	2.31	19.8	18.6	16.9	14.7	13.6	13.0	12.6	12.3	12.1	11.9	11.7	11.6	11.4	11.3	11.2	11.1	11.1
3.50	2.15	20.3	19.0	17.3	15.1	13.9	13.3	12.8	12.5	12.3	12.1	12.0	11.8	11.6	11.5	11.4	11.4	11.3
3.55	2.12	20.4	19.1	17.4	15.1	14.0	13.3	12.9	12.6	12.3	12.1	12.0	11.9	11.7	11.6	11.5	11.4	11.3
3.80	1.96	20.6	19.4	17.7	15.5	14.3	13.6	13.2	12.8	12.6	12.4	12.2	12.1	11.9	11.8	11.6	11.6	11.5
4.00	1.84	21.1	20.0	18.3	16.0	14.8	14.1	13.6	13.2	12.9	12.7	12.5	12.4	12.2	12.0	11.9	11.8	11.7
4.10	1.78	21.4	20.3	18.6	16.3	15.0	14.3	13.8	13.4	13.1	12.9	12.7	12.5	12.3	12.1	12.0	11.9	11.8
4.45	1.56	22.2	21.1	19.5	17.1	15.8	15.0	14.4	14.0	13.7	13.4	13.2	13.0	12.8	12.6	12.4	12.3	12.2
4.50	1.53	22.3	21.2	19.6	17.2	15.9	15.1	14.5	14.1	13.7	13.5	13.3	13.1	12.8	12.6	12.5	12.4	12.3
4.80	1.34	22.8	21.8	20.3	17.8	16.5	15.6	15.0	14.5	14.2	13.9	13.7	13.5	13.2	13.0	12.8	12.7	12.6
5.00	1.22	22.9	21.9	20.3	17.9	16.6	15.7	15.1	14.6	14.3	14.0	13.8	13.6	13.3	13.1	12.9	12.8	12.6
5.15	1.12	22.9	22.0	20.4	18.0	16.6	15.8	15.1	14.7	14.3	14.1	13.8	13.6	13.3	13.1	12.9	12.8	12.7
5.30	1.03	22.9	22.0	20.5	18.1	16.7	15.8	15.2	14.8	14.4	14.1	13.9	13.7	13.4	13.2	13.0	12.9	12.8
5.40	0.97	22.9	22.0	20.5	18.1	16.8	15.9	15.3	14.8	14.4	14.2	13.9	13.7	13.4	13.2	13.0	12.9	12.8
5.50	0.91	23.0	22.0	20.5	18.2	16.8	15.9	15.3	14.9	14.5	14.2	14.0	13.8	13.5	13.3	13.1	13.0	12.8
5.60	0.85	23.0	22.1	20.6	18.2	16.9	16.0	15.4	14.9	14.6	14.3	14.1	13.9	13.6	13.3	13.1	13.0	12.9
5.80	0.72	23.1	22.2	20.7	18.4	17.0	16.2	15.5	15.1	14.7	14.4	14.2	14.0	13.7	13.4	13.3	13.1	13.0
6.00	0.60	23.6	22.7	21.4	19.1	17.8	17.0	16.4	16.0	15.6	15.4	15.2	15.0	14.7	14.5	14.4	14.2	14.1
6.05	0.57	23.7	22.9	21.5	19.3	18.0	17.2	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.8	14.6	14.5	14.4
6.25	0.44	23.7	22.9	21.7	19.6	18.3	17.5	16.9	16.5	16.2	15.9	15.7	15.6	15.3	15.1	14.9	14.8	14.8
6.35	0.38	23.9	23.2	22.0	19.9	18.8	18.0	17.4	17.0	16.7	16.5	16.3	16.1	15.9	15.7	15.6	15.5	15.4
6.45	0.32	23.7	23.1	22.0	20.0	18.9	18.1	17.6	17.2	16.9	16.6	16.5	16.3	16.1	15.9	15.8	15.7	15.6
6.50	0.29	23.7	23.1	22.0	20.0	18.9	18.1	17.6	17.2	16.9	16.7	16.5	16.3	16.1	15.9	15.8	15.7	15.6
6.95	0.01	23.3	22.8	21.9	20.3	19.2	18.5	18.0	17.6	17.3	17.1	16.9	16.7	16.5	16.3	16.2	16.1	16.1
6.96	0.00	23.3	22.8	21.9	20.3	19.2	18.5	18.0	17.6	17.3	17.1	16.9	16.7	16.5	16.3	16.2	16.1	16.1

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-87. Stevenson Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																
Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
0.40	4.08	12.3	11.7	11.2	10.8	10.7	10.6	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.50	4.01	12.3	11.7	11.2	10.8	10.7	10.6	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.60	3.95	12.3	11.7	11.2	10.8	10.7	10.6	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.75	3.86	12.9	12.2	11.5	11.0	10.8	10.7	10.6	10.6	10.6	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4
0.95	3.73	14.4	13.4	12.6	11.8	11.5	11.3	11.2	11.2	11.1	11.1	11.1	11.0	11.0	11.0	11.0	11.0	10.9
1.00	3.70	14.6	13.6	12.7	11.9	11.6	11.4	11.3	11.2	11.2	11.1	11.1	11.1	11.1	11.0	11.0	11.0	11.0
1.10	3.64	15.0	14.0	13.0	12.1	11.8	11.6	11.5	11.4	11.3	11.3	11.2	11.2	11.2	11.1	11.1	11.1	11.1
1.45	3.42	16.2	15.1	14.0	12.8	12.3	12.1	11.9	11.8	11.7	11.6	11.6	11.5	11.5	11.4	11.4	11.4	11.4
1.50	3.39	16.3	15.2	14.1	12.9	12.4	12.1	12.0	11.8	11.8	11.7	11.6	11.6	11.5	11.5	11.4	11.4	11.4
1.90	3.14	17.2	16.1	14.9	13.6	13.0	12.6	12.4	12.2	12.1	12.0	12.0	11.9	11.8	11.8	11.7	11.7	11.6
2.00	3.08	17.4	16.3	15.1	13.6	13.0	12.7	12.4	12.3	12.2	12.1	12.0	11.9	11.8	11.8	11.7	11.7	11.7
2.15	2.99	17.6	16.6	15.3	13.8	13.1	12.8	12.5	12.4	12.2	12.1	12.1	12.0	11.9	11.8	11.8	11.7	11.7
2.40	2.83	18.0	16.9	15.6	14.0	13.3	12.9	12.6	12.5	12.3	12.2	12.1	12.1	11.9	11.9	11.8	11.8	11.7
2.45	2.80	18.1	17.0	15.6	14.1	13.3	12.9	12.7	12.5	12.3	12.2	12.1	12.1	12.0	11.9	11.8	11.8	11.8
2.50	2.77	18.2	17.1	15.7	14.1	13.4	13.0	12.7	12.5	12.4	12.3	12.2	12.1	12.0	11.9	11.9	11.9	11.8
2.70	2.65	18.7	17.6	16.1	14.5	13.7	13.3	13.0	12.8	12.6	12.5	12.4	12.4	12.3	12.2	12.1	12.1	12.1
3.00	2.46	19.6	18.4	16.9	15.1	14.3	13.8	13.4	13.2	13.0	12.9	12.8	12.7	12.5	12.4	12.4	12.3	12.3
3.11	2.39	19.7	18.6	17.1	15.2	14.3	13.8	13.5	13.3	13.1	12.9	12.8	12.7	12.6	12.5	12.4	12.4	12.3
3.25	2.31	19.8	18.7	17.2	15.4	14.5	13.9	13.6	13.3	13.1	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.4
3.50	2.15	20.3	19.2	17.6	15.7	14.7	14.2	13.8	13.6	13.4	13.2	13.1	13.0	12.9	12.7	12.7	12.6	12.6
3.55	2.12	20.4	19.3	17.7	15.7	14.8	14.2	13.9	13.6	13.4	13.3	13.1	13.0	12.9	12.8	12.7	12.6	12.6
3.80	1.96	20.4	19.5	18.0	16.0	15.1	14.5	14.1	13.8	13.6	13.4	13.3	13.2	13.1	12.9	12.9	12.8	12.7
4.00	1.84	20.9	20.0	18.5	16.5	15.5	14.9	14.4	14.1	13.9	13.7	13.6	13.5	13.3	13.2	13.1	13.0	12.9
4.10	1.78	21.1	20.2	18.8	16.7	15.7	15.0	14.6	14.3	14.1	13.9	13.7	13.6	13.4	13.3	13.2	13.1	13.0
4.45	1.56	21.8	20.9	19.5	17.4	16.3	15.6	15.1	14.8	14.5	14.3	14.2	14.0	13.8	13.7	13.5	13.4	13.4
4.50	1.53	21.9	21.0	19.6	17.5	16.4	15.7	15.2	14.9	14.6	14.4	14.2	14.1	13.9	13.7	13.6	13.5	13.4
4.80	1.34	22.4	21.5	20.2	18.1	16.9	16.1	15.6	15.3	15.0	14.7	14.6	14.4	14.2	14.0	13.9	13.8	13.7
5.00	1.22	22.4	21.6	20.3	18.1	17.0	16.2	15.7	15.3	15.1	14.8	14.6	14.5	14.2	14.1	13.9	13.8	13.7
5.15	1.12	22.4	21.6	20.3	18.2	17.0	16.3	15.8	15.4	15.1	14.9	14.7	14.5	14.3	14.1	14.0	13.9	13.8
5.30	1.03	22.3	21.6	20.3	18.3	17.1	16.4	15.8	15.5	15.2	14.9	14.7	14.6	14.3	14.1	14.0	13.9	13.8
5.40	0.97	22.3	21.6	20.4	18.3	17.1	16.4	15.9	15.5	15.2	15.0	14.8	14.6	14.4	14.2	14.1	13.9	13.9
5.50	0.91	22.3	21.6	20.4	18.4	17.2	16.5	15.9	15.6	15.3	15.0	14.8	14.7	14.4	14.2	14.1	14.0	13.9
5.60	0.85	22.4	21.7	20.4	18.4	17.3	16.5	16.0	15.6	15.3	15.1	14.9	14.7	14.5	14.3	14.1	14.0	13.9
5.80	0.72	22.4	21.8	20.5	18.5	17.4	16.6	16.1	15.7	15.4	15.2	15.0	14.8	14.6	14.4	14.3	14.1	14.1
6.00	0.60	22.8	22.2	21.1	19.2	18.1	17.4	16.9	16.5	16.3	16.1	15.9	15.7	15.5	15.4	15.3	15.2	15.1
6.05	0.57	22.9	22.3	21.2	19.4	18.3	17.6	17.1	16.8	16.5	16.3	16.1	16.0	15.8	15.6	15.5	15.4	15.4
6.25	0.44	22.6	22.2	21.2	19.5	18.5	17.8	17.3	17.0	16.7	16.5	16.4	16.2	16.0	15.9	15.8	15.7	15.6
6.35	0.38	22.6	22.2	21.4	19.8	18.8	18.2	17.8	17.4	17.2	17.0	16.8	16.7	16.5	16.4	16.3	16.3	16.2
6.45	0.32	22.1	21.9	21.3	19.8	18.9	18.3	17.8	17.5	17.3	17.1	17.0	16.8	16.7	16.5	16.5	16.4	16.4
6.50	0.29	22.1	21.8	21.2	19.8	18.9	18.3	17.9	17.5	17.3	17.1	17.0	16.9	16.7	16.6	16.5	16.5	16.4
6.95	0.01	20.9	21.0	20.7	19.7	18.9	18.4	18.0	17.8	17.5	17.4	17.2	17.1	17.0	16.9	16.8	16.7	16.7
6.96	0.00	20.9	21.0	20.7	19.7	18.9	18.4	18.0	17.8	17.5	17.4	17.2	17.1	17.0	16.9	16.8	16.7	16.7

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-88. Stevenson Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release (cfs)

Dist (km)*	Dist (RM)**	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	4.32	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.40	4.08	13.7	13.2	12.7	12.3	12.2	12.1	12.1	12.1	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
0.50	4.01	13.7	13.2	12.7	12.3	12.2	12.1	12.1	12.1	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
0.60	3.95	13.7	13.2	12.7	12.3	12.2	12.1	12.1	12.1	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
0.75	3.86	14.2	13.6	13.0	12.5	12.3	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.0	12.0	12.0	12.0	12.0
0.95	3.73	15.5	14.7	13.9	13.2	13.0	12.8	12.7	12.7	12.6	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.5
1.00	3.70	15.7	14.9	14.1	13.3	13.1	12.9	12.8	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.5	12.5	12.5
1.10	3.64	16.0	15.2	14.3	13.5	13.2	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.6	12.6	12.6
1.45	3.42	16.9	16.0	15.1	14.1	13.7	13.5	13.3	13.2	13.1	13.1	13.0	13.0	12.9	12.9	12.9	12.9	12.9
1.50	3.39	17.0	16.1	15.2	14.2	13.8	13.5	13.4	13.3	13.2	13.1	13.1	13.0	13.0	12.9	12.9	12.9	12.9
1.90	3.14	17.6	16.8	15.8	14.7	14.2	13.9	13.7	13.6	13.5	13.4	13.4	13.3	13.2	13.2	13.1	13.1	13.1
2.00	3.08	17.7	16.9	15.9	14.8	14.3	14.0	13.8	13.6	13.5	13.4	13.4	13.3	13.3	13.2	13.2	13.1	13.1
2.15	2.99	18.0	17.1	16.1	14.9	14.4	14.0	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.2	13.2	13.2	13.1
2.40	2.83	18.3	17.4	16.3	15.1	14.5	14.1	13.9	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.2	13.2	13.2
2.45	2.80	18.3	17.5	16.4	15.1	14.5	14.2	13.9	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.3	13.2	13.2
2.50	2.77	18.4	17.6	16.5	15.2	14.6	14.2	14.0	13.9	13.7	13.6	13.6	13.5	13.4	13.4	13.3	13.3	13.2
2.70	2.65	18.8	18.0	16.8	15.5	14.8	14.5	14.2	14.1	13.9	13.9	13.8	13.7	13.6	13.6	13.5	13.5	13.5
3.00	2.46	19.6	18.8	17.6	16.0	15.3	14.9	14.6	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.8	13.7	13.7
3.11	2.39	19.8	18.9	17.7	16.1	15.4	15.0	14.7	14.5	14.3	14.2	14.1	14.1	13.9	13.9	13.8	13.7	13.7
3.25	2.31	19.9	19.0	17.8	16.3	15.5	15.1	14.8	14.6	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.8	13.8
3.50	2.15	20.3	19.4	18.2	16.5	15.8	15.3	15.0	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.0	14.0	13.9
3.55	2.12	20.4	19.5	18.3	16.6	15.8	15.3	15.0	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.0	14.0	14.0
3.80	1.96	20.3	19.6	18.4	16.9	16.0	15.6	15.2	15.0	14.8	14.7	14.6	14.5	14.3	14.3	14.2	14.1	14.1
4.00	1.84	20.7	20.0	18.9	17.2	16.4	15.9	15.5	15.3	15.1	14.9	14.8	14.7	14.6	14.4	14.4	14.3	14.3
4.10	1.78	20.9	20.2	19.1	17.4	16.6	16.0	15.7	15.4	15.2	15.0	14.9	14.8	14.7	14.6	14.5	14.4	14.4
4.45	1.56	21.5	20.9	19.7	18.0	17.1	16.5	16.1	15.9	15.6	15.5	15.3	15.2	15.0	14.9	14.8	14.7	14.7
4.50	1.53	21.6	20.9	19.8	18.1	17.2	16.6	16.2	15.9	15.7	15.5	15.4	15.3	15.1	14.9	14.8	14.8	14.7
4.80	1.34	22.0	21.4	20.3	18.6	17.6	17.0	16.6	16.3	16.0	15.8	15.7	15.5	15.3	15.2	15.1	15.0	14.9
5.00	1.22	21.9	21.4	20.3	18.6	17.7	17.1	16.6	16.3	16.1	15.9	15.7	15.6	15.4	15.2	15.1	15.0	15.0
5.15	1.12	21.9	21.4	20.4	18.7	17.7	17.1	16.7	16.4	16.1	15.9	15.8	15.6	15.4	15.3	15.2	15.1	15.0
5.30	1.03	21.9	21.4	20.4	18.7	17.8	17.2	16.7	16.4	16.2	16.0	15.8	15.7	15.5	15.3	15.2	15.1	15.0
5.40	0.97	21.8	21.3	20.4	18.8	17.8	17.2	16.8	16.5	16.2	16.0	15.9	15.7	15.5	15.4	15.2	15.1	15.1
5.50	0.91	21.8	21.4	20.4	18.8	17.9	17.3	16.8	16.5	16.3	16.0	15.9	15.8	15.6	15.4	15.3	15.2	15.1
5.60	0.85	21.8	21.4	20.5	18.9	17.9	17.3	16.9	16.5	16.3	16.1	15.9	15.8	15.6	15.4	15.3	15.2	15.2
5.80	0.72	21.8	21.4	20.5	19.0	18.0	17.4	17.0	16.7	16.4	16.2	16.0	15.9	15.7	15.5	15.4	15.3	15.3
6.00	0.60	22.2	21.8	21.0	19.5	18.7	18.1	17.7	17.4	17.2	17.0	16.9	16.7	16.6	16.4	16.3	16.3	16.2
6.05	0.57	22.3	21.9	21.1	19.7	18.8	18.3	17.9	17.6	17.4	17.2	17.1	16.9	16.8	16.6	16.6	16.5	16.5
6.25	0.44	21.8	21.6	21.1	19.8	19.0	18.4	18.1	17.8	17.6	17.4	17.3	17.2	17.0	16.9	16.8	16.7	16.7
6.35	0.38	21.7	21.6	21.2	20.0	19.3	18.8	18.4	18.2	18.0	17.8	17.7	17.6	17.5	17.4	17.3	17.3	17.3
6.45	0.32	21.2	21.3	21.0	20.0	19.3	18.8	18.5	18.2	18.0	17.9	17.8	17.7	17.6	17.5	17.4	17.4	17.4
6.50	0.29	21.2	21.3	21.0	20.0	19.3	18.8	18.5	18.2	18.0	17.9	17.8	17.7	17.6	17.5	17.4	17.4	17.4
6.95	0.01	19.7	20.1	20.3	19.7	19.2	18.9	18.6	18.4	18.2	18.1	18.0	17.9	17.8	17.7	17.7	17.7	17.6
6.96	0.00	19.7	20.1	20.3	19.7	19.2	18.9	18.6	18.4	18.2	18.1	18.0	17.9	17.8	17.7	17.7	17.7	17.6

* Downstream distances relative to Shaver Lake Dam

** Stevenson Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-89. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
0.35	5.98	13.9	12.0	11.4	9.6	8.4	8.0	7.8	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0.50	5.89	15.2	13.4	12.8	10.7	9.1	8.5	8.1	7.9	7.8	7.7	7.6	7.5	7.5	7.4	7.3	7.3	7.3	7.3
0.83	5.68	16.2	15.1	14.6	12.4	10.4	9.4	8.9	8.6	8.3	8.2	8.0	7.9	7.9	7.7	7.6	7.6	7.5	7.5
0.95	5.61	15.8	15.1	14.6	12.7	10.6	9.7	9.1	8.8	8.5	8.3	8.2	8.1	8.0	7.8	7.7	7.6	7.6	7.5
1.00	5.58	15.9	15.2	14.8	12.9	10.8	9.8	9.2	8.8	8.6	8.4	8.2	8.1	8.0	7.9	7.8	7.7	7.6	7.6
1.26	5.42	16.1	15.6	15.2	13.5	11.3	10.2	9.6	9.2	8.9	8.6	8.5	8.4	8.2	8.1	7.9	7.8	7.8	7.7
1.42	5.32	16.0	15.6	15.3	13.8	11.6	10.5	9.8	9.4	9.1	8.8	8.6	8.5	8.4	8.2	8.1	8.0	7.9	7.8
1.50	5.27	16.0	15.6	15.4	13.9	11.8	10.6	9.9	9.5	9.1	8.9	8.7	8.6	8.4	8.3	8.1	8.0	7.9	7.8
1.56	5.23	15.9	15.6	15.4	13.9	11.9	10.7	10.0	9.6	9.2	9.0	8.8	8.6	8.5	8.3	8.1	8.0	7.9	7.9
1.75	5.11	16.0	15.7	15.4	14.0	12.0	10.8	10.1	9.6	9.3	9.0	8.8	8.7	8.5	8.3	8.2	8.1	8.0	7.9
2.00	4.96	16.0	15.8	15.5	14.2	12.1	10.9	10.2	9.7	9.4	9.1	8.9	8.8	8.6	8.4	8.3	8.2	8.1	8.0
2.01	4.95	16.0	15.8	15.5	14.2	12.1	10.9	10.2	9.7	9.4	9.1	8.9	8.8	8.6	8.4	8.3	8.2	8.1	8.0
2.04	4.93	16.0	15.8	15.6	14.2	12.1	10.9	10.2	9.8	9.4	9.1	8.9	8.8	8.6	8.4	8.3	8.2	8.1	8.0
2.09	4.90	12.4	12.7	12.8	14.2	12.1	11.0	10.3	9.8	9.4	9.2	8.9	8.8	8.7	8.5	8.3	8.2	8.1	8.0
2.23	4.81	12.4	12.8	12.9	12.6	11.5	10.7	10.2	9.8	9.4	9.2	9.0	8.9	8.7	8.5	8.4	8.3	8.2	8.1
2.50	4.65	12.6	12.9	13.0	12.7	11.7	10.9	10.3	9.9	9.6	9.3	9.1	9.0	8.9	8.6	8.5	8.4	8.3	8.2
2.66	4.55	12.7	13.0	13.1	12.8	11.7	10.9	10.4	9.9	9.6	9.4	9.2	9.0	8.9	8.7	8.6	8.4	8.4	8.3
2.90	4.40	12.8	13.1	9.9	12.9	11.8	11.0	10.4	10.0	9.7	9.4	9.3	9.1	9.0	8.8	8.5	8.4	8.4	8.3
3.00	4.34	9.6	9.9	10.0	10.2	10.1	9.8	9.6	9.4	9.3	9.1	9.0	8.9	8.8	8.7	8.5	8.4	8.4	8.3
3.02	4.32	9.6	9.9	10.0	10.2	10.1	9.8	9.6	9.4	9.3	9.1	9.0	8.9	8.8	8.7	8.5	8.4	8.4	8.3
3.21	4.21	9.7	9.9	10.0	10.2	10.1	9.9	9.7	9.5	9.3	9.2	9.0	8.9	8.9	8.7	8.6	8.5	8.4	8.4
3.50	4.03	9.8	10.1	10.2	10.4	10.2	10.0	9.8	9.6	9.4	9.3	9.1	9.1	9.0	8.8	8.7	8.6	8.5	8.4
3.51	4.02	9.8	10.1	10.2	10.4	10.3	10.0	9.8	9.6	9.4	9.3	9.2	9.1	9.0	8.8	8.7	8.6	8.5	8.4
4.00	3.71	10.0	10.3	10.3	10.5	10.4	10.2	9.9	9.7	9.6	9.4	9.3	9.2	9.1	8.9	8.8	8.7	8.6	8.6
4.02	3.70	10.0	10.3	10.4	10.5	10.4	10.2	9.9	9.7	9.6	9.4	9.3	9.2	9.1	8.9	8.8	8.7	8.6	8.6
4.17	3.61	10.1	10.3	10.4	10.6	10.5	10.2	10.0	9.8	9.6	9.5	9.3	9.2	9.1	9.0	8.9	8.8	8.7	8.6
4.50	3.40	10.3	10.5	10.6	10.7	10.6	10.4	10.1	9.9	9.7	9.6	9.5	9.4	9.3	9.1	9.0	8.9	8.8	8.7
4.53	3.39	10.3	10.5	10.6	10.7	10.6	10.4	10.1	9.9	9.8	9.6	9.5	9.4	9.3	9.1	9.0	8.9	8.8	8.7
4.62	3.33	10.3	10.5	10.6	10.8	10.6	10.4	10.1	9.9	9.8	9.6	9.5	9.4	9.3	9.1	9.0	8.9	8.8	8.8
4.81	3.21	10.4	10.6	10.6	10.8	10.7	10.4	10.2	10.0	9.8	9.7	9.5	9.4	9.3	9.2	9.0	8.9	8.9	8.8
4.94	3.13	10.4	10.6	10.7	10.8	10.7	10.4	10.2	10.0	9.8	9.7	9.6	9.4	9.4	9.2	9.1	9.0	8.9	8.8
5.00	3.09	10.4	10.6	10.7	10.9	10.7	10.5	10.2	10.0	9.8	9.7	9.6	9.4	9.4	9.2	9.1	9.0	8.9	8.8
5.26	2.93	10.5	10.7	10.8	10.9	10.8	10.5	10.3	10.1	9.9	9.7	9.6	9.5	9.4	9.2	9.1	9.0	8.9	8.9
5.50	2.78	10.6	10.8	10.8	11.0	10.8	10.6	10.3	10.1	9.9	9.8	9.7	9.5	9.4	9.3	9.1	9.1	9.0	8.9
5.83	2.58	10.6	10.9	10.9	11.1	10.9	10.6	10.4	10.2	10.0	9.9	9.7	9.6	9.5	9.3	9.2	9.1	9.0	8.9
5.92	2.52	10.7	10.9	10.9	11.1	10.9	10.7	10.4	10.2	10.0	9.9	9.7	9.6	9.5	9.4	9.2	9.1	9.0	9.0
6.00	2.47	10.7	10.9	11.0	11.1	11.0	10.7	10.4	10.2	10.1	9.9	9.8	9.6	9.6	9.4	9.3	9.1	9.1	9.0
6.23	2.33	10.8	11.0	11.1	11.2	11.0	10.8	10.5	10.3	10.1	10.0	9.8	9.7	9.6	9.5	9.3	9.2	9.1	9.1
6.37	2.24	10.9	11.1	11.1	11.3	11.1	10.8	10.6	10.4	10.2	10.0	9.9	9.8	9.7	9.5	9.4	9.3	9.2	9.1
6.50	2.16	10.9	11.1	11.1	11.3	11.1	10.8	10.6	10.4	10.2	10.0	9.9	9.8	9.7	9.5	9.4	9.3	9.2	9.1
6.60	2.10	10.9	11.1	11.2	11.3	11.1	10.9	10.6	10.4	10.2	10.0	9.9	9.8	9.7	9.5	9.4	9.3	9.2	9.1
6.68	2.05	10.9	10.8	10.9	11.3	11.1	10.9	10.6	10.4	10.2	10.1	9.9	9.8	9.7	9.5	9.5	9.4	9.3	9.2
6.70	2.04	10.7	10.8	10.9	11.0	10.9	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.8	9.6	9.5	9.4	9.3	9.2
6.92	1.90	10.7	10.9	10.9	11.0	10.9	10.8	10.6	10.4	10.3	10.1	10.0	9.9	9.8	9.6	9.5	9.4	9.3	9.2

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-90. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
0.35	5.98	15.8	13.5	12.8	10.9	9.7	9.3	9.1	8.9	8.9	8.8	8.7	8.7	8.7	8.6	8.6	8.6	8.5	8.5
0.50	5.89	17.3	15.1	14.3	12.0	10.4	9.8	9.4	9.2	9.1	9.0	8.9	8.9	8.8	8.8	8.7	8.7	8.6	8.6
0.83	5.68	18.4	17.1	16.4	13.9	11.6	10.7	10.2	9.9	9.6	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.9	8.8
0.95	5.61	17.8	17.1	16.6	14.2	11.9	10.9	10.4	10.0	9.8	9.6	9.5	9.4	9.3	9.1	9.0	9.0	8.9	8.9
1.00	5.58	17.9	17.2	16.7	14.4	12.1	11.0	10.5	10.1	9.8	9.7	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.9
1.26	5.42	18.3	17.7	17.2	15.1	12.6	11.5	10.8	10.4	10.1	9.9	9.8	9.6	9.5	9.4	9.3	9.2	9.1	9.0
1.42	5.32	18.1	17.8	17.4	15.4	13.0	11.8	11.1	10.6	10.3	10.1	9.9	9.8	9.7	9.5	9.4	9.3	9.2	9.1
1.50	5.27	18.1	17.8	17.5	15.6	13.1	11.9	11.2	10.7	10.4	10.2	10.0	9.8	9.7	9.5	9.4	9.3	9.2	9.2
1.56	5.23	18.1	17.8	17.5	15.7	13.3	12.0	11.3	10.8	10.5	10.2	10.0	9.9	9.8	9.6	9.4	9.4	9.3	9.2
1.75	5.11	18.1	17.9	17.6	15.8	13.3	12.1	11.4	10.9	10.5	10.3	10.1	9.9	9.8	9.6	9.5	9.4	9.3	9.2
2.00	4.96	18.1	17.9	17.6	15.9	13.4	12.2	11.4	11.0	10.6	10.4	10.2	10.0	9.9	9.7	9.6	9.4	9.4	9.3
2.01	4.95	18.1	17.9	17.6	15.9	13.4	12.2	11.4	11.0	10.6	10.4	10.2	10.0	9.9	9.7	9.6	9.5	9.4	9.3
2.04	4.93	18.1	17.9	17.7	15.9	13.5	12.2	11.5	11.0	10.6	10.4	10.2	10.0	9.9	9.7	9.6	9.5	9.4	9.3
2.09	4.90	14.6	15.4	17.7	14.9	13.2	12.2	11.5	11.0	10.6	10.4	10.3	10.0	10.0	9.7	9.6	9.5	9.4	9.4
2.23	4.81	14.6	15.4	15.5	15.0	13.3	12.2	11.5	11.1	10.7	10.5	10.3	10.1	10.0	9.8	9.7	9.6	9.5	9.4
2.50	4.65	14.8	15.5	15.6	15.1	13.4	12.3	11.6	11.2	10.8	10.6	10.4	10.2	10.1	9.9	9.8	9.6	9.6	9.5
2.66	4.55	14.9	15.6	15.7	15.1	13.4	12.4	11.7	11.2	10.9	10.6	10.4	10.3	10.1	9.9	9.8	9.7	9.6	9.5
2.90	4.40	12.5	13.2	15.8	15.2	12.8	12.4	11.7	11.1	10.8	10.6	10.4	10.3	10.2	10.0	9.8	9.7	9.6	9.6
3.00	4.34	12.5	13.3	13.5	13.7	12.8	12.1	11.5	11.1	10.9	10.6	10.4	10.3	10.2	10.0	9.9	9.7	9.6	9.6
3.02	4.32	12.5	13.3	13.5	13.7	12.8	12.1	11.5	11.1	10.9	10.6	10.4	10.3	10.2	10.0	9.9	9.7	9.6	9.6
3.21	4.21	12.6	13.3	13.6	13.7	12.9	12.1	11.6	11.2	10.9	10.7	10.5	10.3	10.2	10.0	9.9	9.8	9.7	9.6
3.50	4.03	12.7	13.5	13.7	13.8	13.0	12.2	11.7	11.3	11.0	10.8	10.6	10.4	10.3	10.1	10.0	9.9	9.8	9.7
3.51	4.02	12.7	13.5	13.7	13.8	13.0	12.2	11.7	11.3	11.0	10.8	10.6	10.4	10.3	10.1	10.0	9.9	9.8	9.7
4.00	3.71	13.0	13.7	13.9	14.0	13.1	12.3	11.8	11.4	11.1	10.9	10.7	10.5	10.4	10.2	10.1	9.9	9.9	9.8
4.02	3.70	13.0	13.7	13.9	14.0	13.1	12.4	11.8	11.4	11.1	10.9	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.8
4.17	3.61	13.1	13.8	14.0	14.1	13.2	12.4	11.9	11.4	11.1	10.9	10.7	10.6	10.4	10.3	10.1	10.0	9.9	9.8
4.50	3.40	13.3	13.9	14.1	14.2	13.3	12.5	11.9	11.6	11.3	11.0	10.8	10.7	10.5	10.4	10.2	10.1	10.0	9.9
4.53	3.39	13.3	13.9	14.1	14.2	13.3	12.5	12.0	11.6	11.3	11.0	10.8	10.7	10.6	10.4	10.2	10.1	10.0	9.9
4.62	3.33	13.3	13.9	14.1	14.2	13.3	12.5	12.0	11.6	11.3	11.0	10.9	10.7	10.6	10.4	10.2	10.1	10.0	9.9
4.81	3.21	13.4	14.0	14.2	14.3	13.4	12.6	12.0	11.6	11.3	11.1	10.9	10.7	10.6	10.4	10.2	10.1	10.0	10.0
4.94	3.13	13.4	14.0	14.2	14.3	13.4	12.6	12.0	11.6	11.3	11.1	10.9	10.7	10.6	10.4	10.3	10.1	10.1	10.0
5.00	3.09	13.4	14.1	14.2	14.3	13.4	12.6	12.1	11.6	11.3	11.1	10.9	10.8	10.6	10.4	10.3	10.1	10.1	10.0
5.26	2.93	13.6	14.2	14.3	14.4	13.5	12.7	12.1	11.7	11.4	11.1	10.9	10.8	10.7	10.5	10.3	10.2	10.1	10.0
5.50	2.78	13.7	14.3	14.4	14.4	13.5	12.7	12.2	11.7	11.4	11.2	11.0	10.8	10.7	10.5	10.3	10.2	10.1	10.1
5.83	2.58	13.8	14.4	14.5	14.5	13.6	12.8	12.2	11.8	11.5	11.2	11.1	10.9	10.8	10.6	10.4	10.3	10.2	10.1
5.92	2.52	13.9	14.4	14.5	14.6	13.6	12.8	12.2	11.8	11.5	11.3	11.1	10.9	10.8	10.6	10.4	10.3	10.2	10.1
6.00	2.47	13.9	14.4	14.6	14.6	13.6	12.8	12.3	11.9	11.5	11.3	11.1	10.9	10.8	10.6	10.4	10.3	10.2	10.1
6.23	2.33	14.0	14.5	14.6	14.6	13.7	12.9	12.3	11.9	11.6	11.4	11.1	11.0	10.9	10.6	10.5	10.4	10.3	10.2
6.37	2.24	14.1	14.6	14.7	14.7	13.8	12.9	12.4	11.9	11.6	11.4	11.2	11.0	10.9	10.7	10.5	10.4	10.3	10.2
6.50	2.16	14.1	14.6	14.7	14.7	13.8	13.0	12.4	12.0	11.6	11.4	11.2	11.0	10.9	10.7	10.5	10.4	10.3	10.2
6.60	2.10	14.1	14.6	14.7	14.7	13.8	13.0	12.4	12.0	11.7	11.4	11.2	11.1	10.9	10.7	10.5	10.4	10.3	10.2
6.68	2.05	13.7	14.6	14.8	14.7	13.6	13.0	12.4	12.0	11.7	11.4	11.2	11.1	11.0	10.7	10.6	10.5	10.3	10.2
6.70	2.04	13.7	14.1	14.3	14.4	13.6	12.9	12.4	12.0	11.7	11.5	11.3	11.1	11.0	10.8	10.6	10.5	10.4	10.3
6.92	1.90	13.8	14.2	14.3	14.4	13.7	13.0	12.4	12.1	11.7	11.5	11.3	11.1	11.0	10.8	10.6	10.5	10.4	10.3

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-91. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	10.9	10.9	10.9	10.9	11.0	11.0	11.0	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	11.0	11.0	11.0
0.35	5.98	20.5	17.5	16.6	14.2	12.8	12.3	12.0	11.8	11.7	11.6	11.5	11.5	11.4	11.4	11.3	11.4	11.3	11.4
0.50	5.89	22.4	19.6	18.5	15.6	13.6	12.8	12.4	12.2	12.0	11.9	11.8	11.7	11.6	11.6	11.5	11.5	11.4	11.5
0.83	5.68	23.6	22.1	21.2	17.9	15.1	13.9	13.3	12.9	12.6	12.4	12.3	12.1	12.1	11.9	11.8	11.8	11.7	11.7
0.95	5.61	23.0	22.1	21.4	18.4	15.5	14.3	13.6	13.1	12.8	12.6	12.4	12.3	12.2	12.0	11.9	11.9	11.8	11.8
1.00	5.58	23.1	22.3	21.6	18.6	15.6	14.4	13.6	13.2	12.9	12.6	12.5	12.3	12.2	12.0	11.9	11.9	11.8	11.8
1.26	5.42	23.5	22.9	22.3	19.4	16.3	14.9	14.1	13.6	13.2	12.9	12.7	12.6	12.4	12.3	12.1	12.1	12.0	12.0
1.42	5.32	23.3	23.0	22.5	19.9	16.8	15.2	14.4	13.8	13.4	13.1	12.9	12.8	12.6	12.4	12.2	12.2	12.1	12.1
1.50	5.27	23.3	23.0	22.6	20.1	17.0	15.4	14.5	13.9	13.5	13.2	13.0	12.8	12.7	12.5	12.3	12.2	12.1	12.1
1.56	5.23	23.2	23.0	22.7	20.3	17.1	15.6	14.6	14.0	13.6	13.3	13.1	12.9	12.7	12.5	12.4	12.3	12.2	12.1
1.75	5.11	23.2	23.0	22.7	20.4	17.2	15.6	14.7	14.1	13.7	13.4	13.1	12.9	12.8	12.6	12.4	12.3	12.2	12.2
2.00	4.96	23.3	23.1	22.8	20.5	17.3	15.7	14.8	14.2	13.8	13.4	13.2	13.0	12.9	12.6	12.4	12.4	12.3	12.3
2.01	4.95	23.3	23.1	22.8	20.5	17.3	15.7	14.8	14.2	13.8	13.5	13.2	13.0	12.9	12.6	12.5	12.4	12.3	12.3
2.04	4.93	23.3	23.1	22.8	20.5	17.3	15.8	14.8	14.2	13.8	13.5	13.2	13.0	12.9	12.6	12.5	12.4	12.3	12.3
2.09	4.90	18.0	19.4	19.7	20.5	17.4	15.8	14.8	14.2	13.8	13.5	13.2	13.0	12.9	12.6	12.5	12.4	12.3	12.3
2.23	4.81	18.0	19.5	19.8	19.2	17.0	15.6	14.8	14.2	13.8	13.5	13.3	13.1	12.9	12.7	12.5	12.4	12.3	12.3
2.50	4.65	18.3	19.6	19.9	19.3	17.1	15.8	14.9	14.3	13.9	13.6	13.4	13.2	13.0	12.8	12.6	12.5	12.4	12.4
2.66	4.55	18.4	19.7	19.9	19.3	17.2	15.8	15.0	14.4	14.0	13.7	13.4	13.2	13.1	12.8	12.7	12.6	12.5	12.4
2.90	4.40	17.8	19.8	20.0	19.4	17.2	15.9	15.0	14.4	14.0	13.7	13.5	13.3	13.1	12.9	12.7	12.6	12.5	12.5
3.00	4.34	17.9	19.2	19.5	19.1	17.1	15.8	15.0	14.4	14.0	13.7	13.5	13.3	13.1	12.9	12.7	12.6	12.5	12.5
3.02	4.32	17.9	19.2	19.5	19.1	17.1	15.8	15.0	14.4	14.0	13.7	13.5	13.3	13.1	12.9	12.7	12.6	12.5	12.5
3.21	4.21	18.0	19.3	19.5	19.2	17.2	15.9	15.0	14.5	14.1	13.8	13.5	13.3	13.2	12.9	12.8	12.7	12.6	12.5
3.50	4.03	18.2	19.4	19.7	19.3	17.3	16.0	15.1	14.6	14.1	13.8	13.6	13.4	13.3	13.0	12.8	12.7	12.6	12.6
3.51	4.02	18.2	19.4	19.7	19.3	17.3	16.0	15.1	14.6	14.1	13.8	13.6	13.4	13.3	13.0	12.8	12.7	12.6	12.6
4.00	3.71	18.6	19.6	19.9	19.4	17.4	16.1	15.3	14.7	14.3	14.0	13.7	13.5	13.4	13.1	12.9	12.8	12.7	12.7
4.02	3.70	18.6	19.7	19.9	19.4	17.4	16.1	15.3	14.7	14.3	14.0	13.7	13.5	13.4	13.1	12.9	12.8	12.7	12.7
4.17	3.61	18.8	19.8	20.0	19.5	17.5	16.2	15.3	14.8	14.3	14.0	13.8	13.6	13.4	13.1	13.0	12.9	12.8	12.7
4.50	3.40	18.9	19.9	20.1	19.6	17.6	16.3	15.4	14.8	14.4	14.1	13.9	13.6	13.5	13.2	13.1	13.0	12.9	12.8
4.53	3.39	18.9	19.9	20.1	19.6	17.6	16.3	15.4	14.9	14.4	14.1	13.9	13.7	13.5	13.2	13.1	13.0	12.9	12.8
4.62	3.33	19.0	20.0	20.1	19.7	17.6	16.3	15.5	14.9	14.4	14.1	13.9	13.7	13.5	13.3	13.1	13.0	12.9	12.8
4.81	3.21	19.2	20.0	20.2	19.7	17.7	16.4	15.5	14.9	14.5	14.2	13.9	13.7	13.5	13.3	13.1	13.0	12.9	12.9
4.94	3.13	19.2	20.1	20.3	19.7	17.7	16.4	15.5	14.9	14.5	14.2	13.9	13.7	13.6	13.3	13.1	13.0	12.9	12.9
5.00	3.09	19.2	20.1	20.3	19.8	17.7	16.4	15.5	14.9	14.5	14.2	13.9	13.7	13.6	13.3	13.1	13.0	12.9	12.9
5.26	2.93	19.5	20.3	20.4	19.9	17.8	16.5	15.6	15.0	14.6	14.2	14.0	13.8	13.6	13.4	13.2	13.1	12.9	12.9
5.50	2.78	19.6	20.4	20.5	19.9	17.9	16.5	15.7	15.1	14.6	14.3	14.0	13.8	13.6	13.4	13.2	13.1	13.0	12.9
5.83	2.58	19.8	20.5	20.6	20.0	18.0	16.6	15.7	15.1	14.7	14.4	14.1	13.9	13.7	13.4	13.2	13.1	13.0	13.0
5.92	2.52	19.9	20.5	20.7	20.1	18.0	16.6	15.8	15.1	14.7	14.4	14.1	13.9	13.7	13.4	13.3	13.2	13.0	13.0
6.00	2.47	19.9	20.6	20.7	20.1	18.0	16.7	15.8	15.2	14.7	14.4	14.1	13.9	13.7	13.5	13.3	13.2	13.1	13.0
6.23	2.33	20.1	20.6	20.8	20.2	18.1	16.7	15.9	15.2	14.8	14.4	14.2	14.0	13.8	13.5	13.3	13.2	13.1	13.1
6.37	2.24	20.2	20.7	20.8	20.2	18.2	16.8	15.9	15.3	14.8	14.5	14.2	14.0	13.8	13.6	13.4	13.3	13.1	13.1
6.50	2.16	20.2	20.7	20.8	20.2	18.2	16.8	15.9	15.3	14.8	14.5	14.2	14.0	13.9	13.6	13.4	13.3	13.2	13.1
6.60	2.10	20.2	20.7	20.9	20.2	18.2	16.8	15.9	15.3	14.9	14.5	14.2	14.0	13.9	13.6	13.4	13.3	13.2	13.1
6.68	2.05	19.8	20.4	20.6	20.2	18.1	16.8	15.9	15.3	14.9	14.5	14.3	14.0	13.9	13.6	13.4	13.3	13.2	13.1
6.70	2.04	19.8	20.4	20.6	20.1	18.1	16.8	15.9	15.3	14.9	14.5	14.3	14.1	13.9	13.6	13.4	13.3	13.2	13.1
6.92	1.90	19.9	20.5	20.6	20.1	18.2	16.9	16.0	15.4	14.9	14.6	14.3	14.1	13.9	13.6	13.4	13.3	13.2	13.2

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-92. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.1	13.1	13.1	13.1
0.35	5.98	18.8	17.0	16.4	15.0	14.1	13.9	13.7	13.6	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3	13.3
0.50	5.89	20.3	18.4	17.7	15.9	14.7	14.2	14.0	13.8	13.7	13.6	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4
0.83	5.68	21.4	20.3	19.6	17.5	15.7	15.0	14.6	14.3	14.1	14.0	13.9	13.9	13.8	13.7	13.7	13.6	13.6	13.6
0.95	5.61	20.7	20.1	19.7	17.7	15.9	15.1	14.7	14.4	14.3	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.6	13.6
1.00	5.58	20.8	20.3	19.8	17.9	16.0	15.2	14.8	14.5	14.3	14.2	14.1	14.0	13.9	13.8	13.8	13.7	13.7	13.6
1.26	5.42	21.3	20.7	20.3	18.4	16.5	15.6	15.1	14.8	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.9	13.8	13.8
1.42	5.32	21.0	20.7	20.4	18.7	16.7	15.8	15.3	14.9	14.7	14.5	14.4	14.3	14.2	14.1	14.0	13.9	13.9	13.8
1.50	5.27	20.9	20.7	20.5	18.8	16.9	15.9	15.4	15.0	14.8	14.6	14.4	14.3	14.3	14.1	14.1	14.0	13.9	13.9
1.56	5.23	20.8	20.7	20.5	18.9	17.0	16.0	15.4	15.1	14.8	14.6	14.5	14.4	14.3	14.1	14.1	14.0	13.9	13.9
1.75	5.11	20.9	20.8	20.5	19.0	17.0	16.1	15.5	15.1	14.9	14.7	14.5	14.4	14.3	14.2	14.1	14.0	14.0	13.9
2.00	4.96	21.0	20.8	20.6	19.1	17.1	16.1	15.6	15.2	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.0	14.0
2.01	4.95	21.0	20.8	20.6	19.1	17.1	16.2	15.6	15.2	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.0	14.0
2.04	4.93	21.0	20.8	20.6	19.1	17.1	16.2	15.6	15.2	14.9	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.0
2.09	4.90	17.0	18.1	20.6	19.1	17.1	16.2	15.6	15.2	14.9	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.0
2.23	4.81	17.0	18.2	18.4	18.1	16.8	16.0	15.5	15.2	14.9	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.0
2.50	4.65	17.2	18.3	18.5	18.2	16.9	16.1	15.6	15.3	15.0	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.2	14.1
2.66	4.55	17.3	18.3	18.5	18.2	17.0	16.2	15.7	15.3	15.1	14.9	14.8	14.6	14.6	14.4	14.3	14.3	14.2	14.2
2.90	4.40	17.4	18.4	18.6	18.3	17.0	16.2	15.7	15.4	15.1	14.9	14.8	14.7	14.6	14.4	14.4	14.3	14.2	14.2
3.00	4.34	17.4	18.4	18.6	18.3	17.0	16.2	15.7	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.3	14.2
3.02	4.32	17.4	18.4	18.6	18.3	17.0	16.2	15.7	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.3	14.2
3.21	4.21	17.5	18.5	18.6	18.3	17.0	16.3	15.8	15.4	15.2	15.0	14.8	14.7	14.6	14.5	14.4	14.3	14.3	14.2
3.50	4.03	17.7	18.6	18.7	18.4	17.1	16.4	15.8	15.5	15.2	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.4	14.3
3.51	4.02	17.7	18.6	18.7	18.4	17.1	16.4	15.8	15.5	15.2	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.4	14.3
4.00	3.71	17.9	18.7	18.9	18.5	17.3	16.5	15.9	15.6	15.3	15.1	15.0	14.9	14.8	14.7	14.6	14.5	14.4	14.4
4.02	3.70	17.9	18.7	18.9	18.5	17.3	16.5	15.9	15.6	15.4	15.2	15.0	14.9	14.8	14.7	14.6	14.5	14.4	14.4
4.17	3.61	18.0	18.8	18.9	18.6	17.3	16.5	16.0	15.6	15.4	15.2	15.1	14.9	14.8	14.7	14.6	14.5	14.5	14.4
4.50	3.40	18.2	18.9	19.0	18.7	17.4	16.6	16.1	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7	14.6	14.6	14.5
4.53	3.39	18.2	18.9	19.1	18.7	17.4	16.6	16.1	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7	14.6	14.6	14.5
4.62	3.33	18.3	19.0	19.1	18.7	17.4	16.6	16.1	15.8	15.5	15.3	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5
4.81	3.21	18.4	19.0	19.1	18.8	17.5	16.7	16.1	15.8	15.5	15.3	15.2	15.1	15.0	14.8	14.7	14.6	14.6	14.5
4.94	3.13	18.4	19.0	19.2	18.8	17.5	16.7	16.1	15.8	15.5	15.3	15.2	15.1	15.0	14.8	14.8	14.7	14.6	14.6
5.00	3.09	18.4	19.1	19.2	18.8	17.5	16.7	16.2	15.8	15.5	15.4	15.2	15.1	15.0	14.8	14.8	14.7	14.6	14.6
5.26	2.93	18.6	19.2	19.3	18.9	17.6	16.8	16.2	15.9	15.6	15.4	15.2	15.1	15.0	14.9	14.8	14.7	14.6	14.6
5.50	2.78	18.7	19.3	19.4	18.9	17.6	16.8	16.3	15.9	15.6	15.4	15.3	15.1	15.1	14.9	14.8	14.7	14.7	14.6
5.83	2.58	18.9	19.4	19.4	19.0	17.7	16.9	16.3	15.9	15.7	15.5	15.3	15.2	15.1	14.9	14.9	14.8	14.7	14.6
5.92	2.52	19.0	19.4	19.5	19.0	17.7	16.9	16.3	16.0	15.7	15.5	15.3	15.2	15.1	15.0	14.9	14.8	14.7	14.7
6.00	2.47	19.0	19.4	19.5	19.1	17.7	16.9	16.4	16.0	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.8	14.7	14.7
6.23	2.33	19.1	19.5	19.6	19.1	17.8	17.0	16.4	16.0	15.8	15.6	15.4	15.3	15.2	15.0	14.9	14.9	14.8	14.7
6.37	2.24	19.2	19.5	19.6	19.2	17.8	17.0	16.5	16.1	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9	14.8	14.8
6.50	2.16	19.1	19.5	19.6	19.2	17.9	17.0	16.5	16.1	15.8	15.6	15.5	15.3	15.2	15.1	15.0	14.9	14.8	14.8
6.60	2.10	19.1	19.5	19.6	19.2	17.9	17.0	16.5	16.1	15.8	15.6	15.5	15.3	15.2	15.1	15.0	14.9	14.8	14.8
6.68	2.05	19.1	19.5	19.6	19.2	17.9	17.0	16.5	16.1	15.8	15.6	15.5	15.3	15.2	15.1	15.0	14.9	14.8	14.8
6.70	2.04	19.1	19.5	19.6	19.2	17.9	17.0	16.5	16.1	15.8	15.6	15.5	15.4	15.3	15.1	15.0	14.9	14.8	14.8
6.92	1.90	19.2	19.5	19.6	19.2	17.9	17.1	16.5	16.1	15.9	15.7	15.5	15.4	15.3	15.1	15.0	14.9	14.9	14.8

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-93. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
0.35	5.98	16.5	13.7	12.8	10.1	8.4	7.8	7.5	7.3	7.1	7.0	7.0	6.9	6.9	6.8	6.7	6.7	6.7	6.6
0.50	5.89	18.1	15.7	14.7	11.6	9.4	8.5	8.0	7.7	7.5	7.3	7.2	7.2	7.1	7.0	6.9	6.8	6.8	6.8
0.83	5.68	19.2	18.0	17.2	14.1	11.1	9.8	9.0	8.6	8.2	8.0	7.8	7.7	7.6	7.4	7.3	7.2	7.1	7.1
0.95	5.61	18.8	18.0	17.4	14.6	11.5	10.1	9.3	8.8	8.5	8.2	8.0	7.8	7.7	7.5	7.4	7.3	7.2	7.1
1.00	5.58	18.9	18.1	17.5	14.8	11.7	10.3	9.4	8.9	8.6	8.3	8.1	7.9	7.8	7.6	7.4	7.3	7.2	7.2
1.26	5.42	19.1	18.6	18.1	15.6	12.4	10.9	9.9	9.4	8.9	8.6	8.4	8.2	8.1	7.8	7.7	7.5	7.4	7.3
1.42	5.32	19.0	18.6	18.3	16.0	12.9	11.3	10.3	9.6	9.2	8.9	8.6	8.4	8.2	8.0	7.8	7.7	7.6	7.5
1.50	5.27	19.0	18.7	18.4	16.2	13.1	11.5	10.5	9.8	9.3	9.0	8.7	8.5	8.3	8.1	7.9	7.7	7.6	7.5
1.56	5.23	19.0	18.7	18.4	16.4	13.3	11.6	10.6	9.9	9.4	9.1	8.8	8.6	8.4	8.1	7.9	7.8	7.7	7.6
1.75	5.11	19.0	18.7	18.4	16.5	13.4	11.7	10.7	10.0	9.5	9.1	8.9	8.6	8.5	8.2	8.0	7.8	7.7	7.6
2.00	4.96	18.9	18.7	18.5	16.6	13.5	11.8	10.8	10.1	9.6	9.2	9.0	8.7	8.6	8.3	8.1	7.9	7.8	7.7
2.01	4.95	18.9	18.7	18.5	16.6	13.5	11.8	10.8	10.1	9.6	9.3	9.0	8.7	8.6	8.3	8.1	7.9	7.8	7.7
2.04	4.93	18.9	18.7	18.5	16.6	13.6	11.9	10.8	10.1	9.6	9.3	9.0	8.8	8.6	8.3	8.1	7.9	7.8	7.7
2.09	4.90	15.2	15.8	18.5	16.6	13.6	11.8	10.8	10.1	9.6	9.3	9.0	8.8	8.6	8.3	8.1	7.9	7.8	7.7
2.23	4.81	15.2	15.9	15.9	15.3	13.3	11.8	10.9	10.3	9.8	9.4	9.1	8.9	8.7	8.4	8.2	8.0	7.9	7.8
2.50	4.65	15.4	16.0	16.1	15.4	13.4	12.0	11.0	10.4	9.9	9.5	9.3	9.0	8.8	8.5	8.3	8.1	8.0	7.9
2.66	4.55	15.5	16.0	16.1	15.5	13.5	12.1	11.1	10.5	10.0	9.6	9.3	9.1	8.9	8.6	8.4	8.2	8.1	8.0
2.90	4.40	13.9	14.5	14.7	14.6	13.1	12.1	11.2	10.5	10.1	9.7	9.4	9.1	9.0	8.7	8.4	8.3	8.1	8.0
3.00	4.34	14.0	14.6	14.8	14.6	13.1	11.9	11.1	10.5	10.0	9.7	9.4	9.2	9.0	8.7	8.5	8.3	8.2	8.1
3.02	4.32	14.0	14.6	14.8	14.6	13.1	12.0	11.1	10.5	10.1	9.7	9.4	9.2	9.0	8.7	8.5	8.3	8.2	8.1
3.21	4.21	14.1	14.7	14.8	14.7	13.2	12.0	11.2	10.6	10.1	9.7	9.5	9.2	9.0	8.7	8.5	8.4	8.2	8.1
3.50	4.03	14.2	14.8	14.9	14.8	13.3	12.1	11.3	10.7	10.2	9.9	9.6	9.3	9.1	8.8	8.6	8.4	8.3	8.2
3.51	4.02	14.2	14.8	15.0	14.8	13.3	12.1	11.3	10.7	10.2	9.9	9.6	9.3	9.1	8.9	8.6	8.4	8.3	8.2
4.00	3.71	14.5	15.0	15.2	15.0	13.5	12.3	11.5	10.8	10.4	10.0	9.7	9.5	9.3	9.0	8.8	8.6	8.4	8.3
4.02	3.70	14.5	15.0	15.2	15.0	13.5	12.3	11.5	10.9	10.4	10.0	9.7	9.5	9.3	9.0	8.8	8.6	8.4	8.3
4.17	3.61	14.6	15.1	15.3	15.1	13.6	12.4	11.5	10.9	10.4	10.1	9.8	9.6	9.4	9.0	8.8	8.6	8.5	8.4
4.50	3.40	14.8	15.3	15.4	15.2	13.7	12.5	11.7	11.0	10.6	10.2	9.9	9.7	9.5	9.2	8.9	8.7	8.6	8.5
4.53	3.39	14.8	15.3	15.4	15.2	13.7	12.5	11.7	11.1	10.6	10.2	9.9	9.7	9.5	9.2	8.9	8.8	8.6	8.5
4.62	3.33	14.8	15.3	15.4	15.2	13.8	12.6	11.7	11.1	10.6	10.2	9.9	9.7	9.5	9.2	8.9	8.8	8.6	8.5
4.81	3.21	14.9	15.4	15.5	15.3	13.8	12.6	11.8	11.1	10.6	10.3	10.0	9.7	9.5	9.2	9.0	8.8	8.7	8.5
4.94	3.13	15.0	15.4	15.5	15.3	13.9	12.6	11.8	11.1	10.7	10.3	10.0	9.8	9.6	9.3	9.0	8.8	8.7	8.6
5.00	3.09	15.0	15.4	15.6	15.3	13.9	12.7	11.8	11.2	10.7	10.3	10.0	9.8	9.6	9.3	9.0	8.8	8.7	8.6
5.26	2.93	15.1	15.6	15.6	15.4	14.0	12.8	11.9	11.3	10.8	10.4	10.1	9.8	9.6	9.3	9.1	8.9	8.7	8.6
5.50	2.78	15.2	15.6	15.7	15.5	14.0	12.8	11.9	11.3	10.8	10.4	10.1	9.9	9.7	9.4	9.1	8.9	8.8	8.6
5.83	2.58	15.3	15.6	15.7	15.5	14.1	12.9	12.0	11.4	10.9	10.5	10.2	10.0	9.8	9.4	9.2	9.0	8.8	8.7
5.92	2.52	15.3	15.7	15.8	15.5	14.1	12.9	12.1	11.4	10.9	10.6	10.3	10.0	9.8	9.5	9.2	9.0	8.9	8.7
6.00	2.47	15.3	15.7	15.8	15.6	14.1	13.0	12.1	11.5	11.0	10.6	10.3	10.0	9.8	9.5	9.2	9.0	8.9	8.8
6.23	2.33	15.4	15.8	15.9	15.6	14.2	13.1	12.2	11.5	11.1	10.7	10.4	10.1	9.9	9.6	9.3	9.1	9.0	8.8
6.37	2.24	15.5	15.8	15.9	15.7	14.3	13.1	12.2	11.6	11.1	10.7	10.4	10.1	9.9	9.6	9.3	9.1	9.0	8.9
6.50	2.16	15.5	15.9	15.9	15.7	14.3	13.1	12.3	11.6	11.1	10.7	10.4	10.2	9.9	9.6	9.4	9.2	9.0	8.9
6.60	2.10	15.5	15.9	15.9	15.7	14.3	13.1	12.3	11.6	11.1	10.8	10.4	10.2	10.0	9.6	9.4	9.2	9.0	8.9
6.68	2.05	15.1	15.4	15.5	15.4	14.2	13.2	12.3	11.6	11.1	10.8	10.4	10.2	10.0	9.6	9.4	9.2	9.0	8.9
6.70	2.04	15.1	15.4	15.5	15.4	14.2	13.1	12.3	11.7	11.2	10.8	10.5	10.2	10.0	9.7	9.4	9.2	9.1	8.9
6.92	1.90	15.1	15.5	15.6	15.4	14.2	13.2	12.3	11.7	11.2	10.9	10.5	10.3	10.1	9.7	9.5	9.3	9.1	9.0

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-94. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release (cfs)

Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
0.35	5.98	19.6	16.4	15.4	12.7	11.0	10.4	10.1	9.9	9.7	9.6	9.6	9.5	9.5	9.4	9.3	9.3	9.3	9.3
0.50	5.89	21.5	18.5	17.4	14.1	11.9	11.0	10.6	10.3	10.1	9.9	9.8	9.7	9.7	9.6	9.5	9.4	9.4	9.4
0.83	5.68	22.9	21.2	20.2	16.7	13.6	12.3	11.6	11.1	10.8	10.6	10.4	10.3	10.1	10.0	9.9	9.8	9.7	9.6
0.95	5.61	22.4	21.3	20.5	17.3	14.1	12.6	11.9	11.3	11.0	10.8	10.6	10.4	10.3	10.1	9.9	9.9	9.8	9.7
1.00	5.58	22.5	21.4	20.7	17.4	14.2	12.8	12.0	11.4	11.1	10.8	10.6	10.5	10.3	10.1	10.0	9.9	9.8	9.7
1.26	5.42	22.6	21.9	21.3	18.3	14.9	13.4	12.4	11.9	11.5	11.2	10.9	10.8	10.6	10.4	10.2	10.1	10.0	9.9
1.42	5.32	22.5	22.0	21.5	18.8	15.4	13.8	12.8	12.1	11.7	11.4	11.1	10.9	10.8	10.5	10.4	10.2	10.1	10.0
1.50	5.27	22.6	22.1	21.7	19.0	15.6	13.9	12.9	12.3	11.8	11.5	11.2	11.0	10.9	10.6	10.4	10.3	10.2	10.1
1.56	5.23	22.6	22.2	21.8	19.2	15.8	14.1	13.1	12.4	11.9	11.6	11.3	11.1	10.9	10.7	10.5	10.3	10.2	10.1
1.75	5.11	22.5	22.2	21.8	19.3	15.9	14.2	13.1	12.5	12.0	11.6	11.4	11.2	11.0	10.7	10.5	10.4	10.3	10.2
2.00	4.96	22.4	22.1	21.8	19.4	16.0	14.3	13.3	12.6	12.1	11.7	11.5	11.2	11.1	10.8	10.6	10.4	10.3	10.2
2.01	4.95	22.4	22.1	21.8	19.4	16.0	14.3	13.3	12.6	12.1	11.7	11.5	11.3	11.1	10.8	10.6	10.4	10.3	10.2
2.04	4.93	22.4	22.1	21.8	19.4	16.1	14.3	13.3	12.6	12.1	11.8	11.5	11.3	11.1	10.8	10.6	10.5	10.3	10.2
2.09	4.90	18.3	19.0	19.1	18.1	15.7	14.2	13.3	12.6	12.1	11.8	11.5	11.3	11.2	10.8	10.7	10.5	10.4	10.3
2.23	4.81	18.3	19.1	19.1	18.2	15.8	14.3	13.3	12.7	12.2	11.9	11.6	11.4	11.2	10.9	10.7	10.6	10.4	10.3
2.50	4.65	18.5	19.2	19.2	18.3	15.9	14.4	13.5	12.8	12.3	12.0	11.7	11.5	11.3	11.0	10.8	10.7	10.5	10.4
2.66	4.55	18.5	19.2	19.3	18.4	16.0	14.5	13.5	12.9	12.4	12.0	11.8	11.6	11.4	11.1	10.9	10.7	10.6	10.5
2.90	4.40	18.6	19.3	19.4	17.8	15.8	14.4	13.6	12.9	12.5	12.1	11.8	11.6	11.4	11.1	10.9	10.8	10.6	10.5
3.00	4.34	17.5	18.3	18.4	17.9	15.8	14.4	13.5	12.9	12.4	12.1	11.8	11.6	11.4	11.1	10.9	10.8	10.6	10.6
3.02	4.32	17.5	18.3	18.4	17.9	15.8	14.5	13.6	12.9	12.4	12.1	11.8	11.6	11.4	11.1	10.9	10.8	10.6	10.6
3.21	4.21	17.5	18.3	18.5	17.9	15.9	14.5	13.6	12.9	12.5	12.1	11.9	11.6	11.5	11.2	11.0	10.8	10.7	10.6
3.50	4.03	17.7	18.4	18.5	18.0	16.0	14.6	13.7	13.1	12.6	12.3	12.0	11.8	11.6	11.3	11.1	10.9	10.8	10.7
3.51	4.02	17.7	18.4	18.5	18.0	16.0	14.6	13.7	13.1	12.6	12.3	12.0	11.8	11.6	11.3	11.1	10.9	10.8	10.7
4.00	3.71	17.9	18.6	18.7	18.2	16.2	14.8	13.9	13.2	12.8	12.4	12.1	11.9	11.7	11.4	11.2	11.0	10.9	10.8
4.02	3.70	17.9	18.6	18.7	18.2	16.2	14.8	13.9	13.2	12.8	12.4	12.1	11.9	11.7	11.4	11.2	11.0	10.9	10.8
4.17	3.61	18.0	18.7	18.8	18.2	16.2	14.9	13.9	13.3	12.8	12.4	12.2	11.9	11.8	11.4	11.2	11.1	10.9	10.8
4.50	3.40	18.1	18.8	18.9	18.3	16.4	15.0	14.1	13.4	12.9	12.6	12.3	12.1	11.9	11.6	11.3	11.2	11.0	10.9
4.53	3.39	18.2	18.8	18.9	18.4	16.4	15.0	14.1	13.4	12.9	12.6	12.3	12.1	11.9	11.6	11.4	11.2	11.1	10.9
4.62	3.33	18.2	18.8	18.9	18.4	16.4	15.0	14.1	13.4	12.9	12.6	12.3	12.1	11.9	11.6	11.4	11.2	11.1	10.9
4.81	3.21	18.3	18.9	19.0	18.4	16.4	15.1	14.1	13.5	13.0	12.6	12.3	12.1	11.9	11.6	11.4	11.2	11.1	11.0
4.94	3.13	18.3	18.9	19.0	18.4	16.5	15.1	14.1	13.5	13.0	12.6	12.4	12.1	11.9	11.6	11.4	11.2	11.1	11.0
5.00	3.09	18.3	18.9	19.0	18.5	16.5	15.1	14.2	13.5	13.0	12.7	12.4	12.1	11.9	11.6	11.4	11.3	11.1	11.0
5.26	2.93	18.5	19.0	19.1	18.5	16.6	15.2	14.2	13.6	13.1	12.7	12.4	12.2	12.0	11.7	11.5	11.3	11.2	11.0
5.50	2.78	18.6	19.1	19.2	18.6	16.6	15.2	14.3	13.6	13.1	12.8	12.5	12.2	12.1	11.7	11.5	11.3	11.2	11.1
5.83	2.58	18.6	19.1	19.3	18.6	16.7	15.3	14.4	13.7	13.2	12.9	12.6	12.3	12.1	11.8	11.6	11.4	11.3	11.1
5.92	2.52	18.6	19.1	19.2	18.6	16.7	15.3	14.4	13.7	13.2	12.9	12.6	12.3	12.1	11.8	11.6	11.4	11.3	11.1
6.00	2.47	18.6	19.1	19.2	18.7	16.8	15.4	14.4	13.8	13.3	12.9	12.6	12.4	12.2	11.8	11.6	11.4	11.3	11.2
6.23	2.33	18.7	19.2	19.3	18.8	16.8	15.5	14.5	13.8	13.4	13.0	12.7	12.4	12.2	11.9	11.7	11.5	11.4	11.2
6.37	2.24	18.8	19.3	19.3	18.8	16.9	15.5	14.6	13.9	13.4	13.0	12.7	12.5	12.3	11.9	11.7	11.5	11.4	11.3
6.50	2.16	18.8	19.3	19.3	18.8	16.9	15.5	14.6	13.9	13.4	13.0	12.7	12.5	12.3	12.0	11.7	11.6	11.4	11.3
6.60	2.10	18.8	19.3	19.3	18.8	16.9	15.5	14.6	13.9	13.4	13.0	12.7	12.5	12.3	12.0	11.7	11.6	11.4	11.3
6.68	2.05	18.4	18.9	19.3	18.8	16.9	15.5	14.6	13.9	13.4	13.1	12.8	12.5	12.3	12.0	11.8	11.6	11.4	11.3
6.70	2.04	18.4	18.9	19.0	18.6	16.8	15.5	14.6	13.9	13.4	13.1	12.8	12.5	12.3	12.0	11.8	11.6	11.4	11.3
6.92	1.90	18.5	18.9	19.0	18.6	16.9	15.6	14.6	14.0	13.5	13.1	12.8	12.6	12.4	12.0	11.8	11.6	11.5	11.4

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-95. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
0.35	5.98	19.1	17.1	16.3	14.3	12.9	12.4	12.1	11.9	11.8	11.8	11.7	11.6	11.6	11.5	11.5	11.5	11.4	11.4
0.50	5.89	20.3	18.6	17.9	15.5	13.7	12.9	12.5	12.3	12.1	12.0	11.9	11.9	11.8	11.7	11.6	11.6	11.6	11.5
0.83	5.68	21.1	20.3	19.7	17.4	15.1	14.0	13.4	13.0	12.8	12.6	12.4	12.3	12.2	12.1	12.0	11.9	11.8	11.8
0.95	5.61	20.6	20.2	19.8	17.8	15.4	14.3	13.7	13.2	12.9	12.7	12.6	12.4	12.3	12.2	12.1	12.0	11.9	11.8
1.00	5.58	20.7	20.3	19.9	18.0	15.6	14.4	13.8	13.3	13.0	12.8	12.6	12.5	12.4	12.2	12.1	12.0	11.9	11.9
1.26	5.42	20.9	20.6	20.3	18.6	16.2	14.9	14.2	13.7	13.4	13.1	12.9	12.8	12.6	12.4	12.3	12.2	12.1	12.0
1.42	5.32	20.9	20.7	20.5	18.9	16.5	15.3	14.5	13.9	13.6	13.3	13.1	12.9	12.8	12.6	12.4	12.3	12.2	12.1
1.50	5.27	20.9	20.7	20.5	19.1	16.7	15.4	14.6	14.1	13.7	13.4	13.2	13.0	12.9	12.6	12.5	12.4	12.3	12.2
1.56	5.23	20.9	20.8	20.6	19.2	16.9	15.5	14.7	14.2	13.8	13.5	13.3	13.1	12.9	12.7	12.5	12.4	12.3	12.2
1.75	5.11	20.9	20.8	20.6	19.3	16.9	15.6	14.8	14.2	13.8	13.5	13.3	13.1	13.0	12.7	12.6	12.4	12.3	12.3
2.00	4.96	20.9	20.8	20.6	19.3	17.0	15.7	14.9	14.3	13.9	13.6	13.4	13.2	13.1	12.8	12.6	12.5	12.4	12.3
2.01	4.95	20.9	20.8	20.6	19.3	17.1	15.7	14.9	14.3	13.9	13.6	13.4	13.2	13.1	12.8	12.6	12.5	12.4	12.3
2.04	4.93	20.9	20.8	20.6	19.3	17.1	15.7	14.9	14.3	13.9	13.6	13.4	13.2	13.1	12.8	12.6	12.5	12.4	12.3
2.09	4.90	18.2	20.8	18.9	18.5	17.1	15.7	14.9	14.4	14.0	13.7	13.5	13.2	13.1	12.8	12.7	12.5	12.4	12.4
2.23	4.81	18.2	18.8	18.9	18.5	16.9	15.7	14.9	14.4	14.0	13.7	13.5	13.3	13.2	12.9	12.8	12.6	12.5	12.4
2.50	4.65	18.4	18.9	19.0	18.6	17.0	15.8	15.1	14.5	14.1	13.8	13.6	13.4	13.3	13.0	12.9	12.7	12.6	12.5
2.66	4.55	18.4	18.9	19.0	18.6	17.0	15.9	15.1	14.6	14.2	13.9	13.7	13.5	13.3	13.1	12.9	12.8	12.7	12.6
2.90	4.40	17.5	19.0	18.3	18.1	17.1	16.0	15.1	14.6	14.3	14.0	13.7	13.5	13.4	13.1	12.9	12.8	12.7	12.6
3.00	4.34	17.5	18.1	18.3	18.2	16.9	15.8	15.1	14.6	14.2	13.9	13.7	13.5	13.4	13.1	12.9	12.8	12.7	12.6
3.02	4.32	17.5	18.1	18.3	18.2	16.9	15.9	15.1	14.6	14.2	13.9	13.7	13.5	13.4	13.1	13.0	12.8	12.7	12.6
3.21	4.21	17.6	18.2	18.3	18.2	16.9	15.9	15.2	14.6	14.3	14.0	13.8	13.6	13.4	13.2	13.0	12.9	12.7	12.6
3.50	4.03	17.7	18.3	18.4	18.3	17.0	16.0	15.3	14.8	14.4	14.1	13.8	13.6	13.5	13.3	13.1	12.9	12.8	12.7
3.51	4.02	17.7	18.3	18.4	18.3	17.0	16.0	15.3	14.8	14.4	14.1	13.9	13.7	13.5	13.3	13.1	12.9	12.8	12.7
4.00	3.71	18.0	18.5	18.6	18.5	17.2	16.1	15.4	14.9	14.5	14.2	14.0	13.8	13.6	13.4	13.2	13.1	12.9	12.9
4.02	3.70	18.0	18.5	18.6	18.5	17.2	16.1	15.4	14.9	14.5	14.2	14.0	13.8	13.6	13.4	13.2	13.1	12.9	12.9
4.17	3.61	18.1	18.5	18.7	18.5	17.2	16.2	15.5	14.9	14.6	14.3	14.0	13.8	13.7	13.4	13.2	13.1	13.0	12.9
4.50	3.40	18.2	18.6	18.8	18.6	17.3	16.3	15.6	15.1	14.7	14.4	14.1	13.9	13.8	13.5	13.3	13.2	13.1	13.0
4.53	3.39	18.2	18.6	18.8	18.6	17.4	16.3	15.6	15.1	14.7	14.4	14.1	13.9	13.8	13.5	13.4	13.2	13.1	13.0
4.62	3.33	18.2	18.7	18.8	18.6	17.4	16.3	15.6	15.1	14.7	14.4	14.2	14.0	13.8	13.6	13.4	13.2	13.1	13.0
4.81	3.21	18.3	18.7	18.9	18.7	17.4	16.4	15.7	15.1	14.7	14.4	14.2	14.0	13.8	13.6	13.4	13.2	13.1	13.0
4.94	3.13	18.3	18.7	18.9	18.7	17.4	16.4	15.7	15.1	14.8	14.4	14.2	14.0	13.9	13.6	13.4	13.3	13.1	13.1
5.00	3.09	18.4	18.8	18.9	18.7	17.5	16.4	15.7	15.2	14.8	14.5	14.2	14.0	13.9	13.6	13.4	13.3	13.1	13.1
5.26	2.93	18.5	18.9	19.0	18.8	17.5	16.5	15.8	15.2	14.8	14.5	14.3	14.1	13.9	13.6	13.5	13.3	13.2	13.1
5.50	2.78	18.6	18.9	19.0	18.8	17.6	16.5	15.8	15.3	14.9	14.6	14.3	14.1	13.9	13.7	13.5	13.4	13.2	13.1
5.83	2.58	18.6	19.0	19.1	18.9	17.7	16.6	15.9	15.4	14.9	14.6	14.4	14.2	14.0	13.8	13.6	13.4	13.3	13.2
5.92	2.52	18.6	19.0	19.1	18.9	17.7	16.6	15.9	15.4	15.0	14.6	14.4	14.2	14.0	13.8	13.6	13.4	13.3	13.2
6.00	2.47	18.7	19.0	19.1	18.9	17.7	16.7	15.9	15.4	15.0	14.7	14.4	14.2	14.1	13.8	13.6	13.4	13.3	13.2
6.23	2.33	18.8	19.1	19.2	19.0	17.8	16.7	16.0	15.5	15.1	14.8	14.5	14.3	14.1	13.9	13.7	13.5	13.4	13.3
6.37	2.24	18.8	19.1	19.2	19.0	17.8	16.8	16.0	15.5	15.1	14.8	14.5	14.3	14.1	13.9	13.7	13.5	13.4	13.3
6.50	2.16	18.8	19.1	19.2	19.0	17.8	16.8	16.1	15.5	15.1	14.8	14.6	14.3	14.2	13.9	13.7	13.6	13.4	13.3
6.60	2.10	18.8	19.1	19.2	19.0	17.8	16.8	16.1	15.5	15.1	14.8	14.6	14.4	14.2	13.9	13.7	13.6	13.4	13.3
6.68	2.05	18.6	19.1	19.0	19.0	17.8	16.8	16.1	15.6	15.1	14.8	14.6	14.4	14.2	13.9	13.7	13.6	13.4	13.4
6.70	2.04	18.6	18.9	19.0	18.9	17.8	16.8	16.1	15.6	15.1	14.8	14.6	14.4	14.2	13.9	13.7	13.6	13.5	13.4
6.92	1.90	18.6	18.9	19.0	18.9	17.8	16.8	16.1	15.6	15.2	14.9	14.6	14.4	14.3	14.0	13.8	13.6	13.5	13.4

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-96. Upper Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
0.35	5.98	19.1	17.4	16.8	15.1	14.1	13.7	13.5	13.3	13.3	13.2	13.1	13.1	13.1	13.0	13.0	13.0	12.9	12.9
0.50	5.89	20.5	18.8	18.2	16.1	14.7	14.1	13.8	13.6	13.5	13.4	13.3	13.3	13.2	13.2	13.1	13.1	13.1	13.0
0.83	5.68	21.4	20.5	20.0	17.9	15.9	15.0	14.5	14.2	14.0	13.9	13.7	13.6	13.6	13.5	13.4	13.3	13.3	13.2
0.95	5.61	20.8	20.4	20.0	18.1	16.2	15.2	14.7	14.4	14.1	14.0	13.9	13.8	13.7	13.5	13.4	13.4	13.3	13.3
1.00	5.58	20.9	20.5	20.1	18.3	16.3	15.3	14.8	14.4	14.2	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.4	13.3
1.26	5.42	21.1	20.8	20.5	18.8	16.8	15.8	15.1	14.8	14.5	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
1.42	5.32	21.0	20.8	20.6	19.1	17.1	16.0	15.4	15.0	14.7	14.4	14.3	14.1	14.1	13.9	13.8	13.7	13.6	13.5
1.50	5.27	21.0	20.8	20.6	19.2	17.2	16.1	15.5	15.1	14.8	14.5	14.4	14.2	14.1	13.9	13.8	13.7	13.6	13.6
1.56	5.23	21.0	20.9	20.7	19.3	17.3	16.2	15.6	15.1	14.8	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7	13.6
1.75	5.11	21.0	20.9	20.7	19.4	17.4	16.3	15.6	15.2	14.9	14.6	14.5	14.3	14.2	14.0	13.9	13.8	13.7	13.6
2.00	4.96	21.0	20.9	20.7	19.5	17.5	16.4	15.7	15.3	15.0	14.7	14.5	14.4	14.3	14.1	14.0	13.9	13.8	13.7
2.01	4.95	21.0	20.9	20.7	19.5	17.5	16.4	15.7	15.3	15.0	14.7	14.5	14.4	14.3	14.1	14.0	13.9	13.8	13.7
2.04	4.93	21.0	20.9	20.7	19.5	17.5	16.4	15.7	15.3	15.0	14.7	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7
2.09	4.90	18.4	19.0	19.1	18.7	17.5	16.3	15.7	15.3	15.0	14.8	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7
2.23	4.81	18.4	19.0	19.1	18.7	17.3	16.3	15.7	15.3	15.0	14.8	14.6	14.5	14.4	14.2	14.0	13.9	13.9	13.8
2.50	4.65	18.5	19.1	19.2	18.8	17.4	16.5	15.8	15.4	15.1	14.9	14.7	14.6	14.4	14.3	14.1	14.0	13.9	13.9
2.66	4.55	18.5	19.1	19.2	18.8	17.4	16.5	15.9	15.5	15.2	14.9	14.8	14.6	14.5	14.3	14.2	14.1	14.0	13.9
2.90	4.40	17.5	18.2	19.3	18.3	17.5	16.4	15.8	15.4	15.2	15.0	14.8	14.7	14.5	14.4	14.2	14.1	14.0	14.0
3.00	4.34	17.5	18.2	18.4	18.3	17.2	16.4	15.9	15.5	15.2	15.0	14.8	14.6	14.5	14.3	14.2	14.1	14.0	14.0
3.02	4.32	17.6	18.2	18.4	18.3	17.2	16.4	15.9	15.5	15.2	15.0	14.8	14.6	14.5	14.4	14.2	14.1	14.0	14.0
3.21	4.21	17.6	18.3	18.4	18.4	17.3	16.5	15.9	15.5	15.2	15.0	14.8	14.7	14.6	14.4	14.3	14.1	14.1	14.0
3.50	4.03	17.7	18.4	18.5	18.4	17.4	16.5	16.0	15.6	15.3	15.1	14.9	14.8	14.6	14.5	14.3	14.2	14.1	14.1
3.51	4.02	17.7	18.4	18.5	18.4	17.4	16.6	16.0	15.6	15.3	15.1	14.9	14.8	14.6	14.5	14.3	14.2	14.1	14.1
4.00	3.71	17.9	18.5	18.6	18.6	17.5	16.7	16.1	15.7	15.4	15.2	15.0	14.9	14.8	14.6	14.4	14.3	14.3	14.2
4.02	3.70	17.9	18.5	18.6	18.6	17.5	16.7	16.1	15.7	15.4	15.2	15.0	14.9	14.8	14.6	14.4	14.3	14.3	14.2
4.17	3.61	18.0	18.6	18.7	18.6	17.6	16.7	16.2	15.8	15.5	15.3	15.1	14.9	14.8	14.6	14.5	14.4	14.3	14.2
4.50	3.40	18.1	18.7	18.8	18.7	17.7	16.8	16.3	15.9	15.6	15.4	15.2	15.0	14.9	14.7	14.6	14.5	14.4	14.3
4.53	3.39	18.1	18.7	18.8	18.7	17.7	16.9	16.3	15.9	15.6	15.4	15.2	15.0	14.9	14.7	14.6	14.5	14.4	14.3
4.62	3.33	18.2	18.7	18.8	18.7	17.7	16.9	16.3	15.9	15.6	15.4	15.2	15.1	14.9	14.7	14.6	14.5	14.4	14.3
4.81	3.21	18.3	18.8	18.9	18.8	17.7	16.9	16.3	15.9	15.6	15.4	15.2	15.1	15.0	14.8	14.6	14.5	14.4	14.4
4.94	3.13	18.3	18.8	18.9	18.8	17.8	16.9	16.4	16.0	15.7	15.4	15.3	15.1	15.0	14.8	14.6	14.5	14.4	14.4
5.00	3.09	18.3	18.8	18.9	18.8	17.8	16.9	16.4	16.0	15.7	15.4	15.3	15.1	15.0	14.8	14.6	14.5	14.4	14.4
5.26	2.93	18.4	18.9	19.0	18.9	17.8	17.0	16.4	16.0	15.7	15.5	15.3	15.1	15.0	14.8	14.7	14.6	14.5	14.4
5.50	2.78	18.5	18.9	19.0	18.9	17.9	17.0	16.5	16.1	15.8	15.5	15.3	15.2	15.1	14.9	14.7	14.6	14.5	14.4
5.83	2.58	18.6	19.0	19.1	19.0	17.9	17.1	16.5	16.1	15.8	15.6	15.4	15.2	15.1	14.9	14.8	14.7	14.6	14.5
5.92	2.52	18.6	19.0	19.1	19.0	17.9	17.1	16.5	16.1	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.6	14.5
6.00	2.47	18.6	19.0	19.1	19.0	18.0	17.1	16.6	16.2	15.9	15.6	15.4	15.3	15.2	15.0	14.8	14.7	14.6	14.5
6.23	2.33	18.7	19.1	19.2	19.0	18.0	17.2	16.6	16.2	15.9	15.7	15.5	15.4	15.2	15.0	14.9	14.8	14.7	14.6
6.37	2.24	18.8	19.1	19.2	19.1	18.1	17.3	16.7	16.3	16.0	15.7	15.5	15.4	15.3	15.1	14.9	14.8	14.7	14.6
6.50	2.16	18.8	19.1	19.2	19.1	18.1	17.3	16.7	16.3	16.0	15.7	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.6
6.60	2.10	18.8	19.1	19.2	19.1	18.1	17.3	16.7	16.3	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.6
6.68	2.05	18.5	19.1	19.2	19.1	18.0	17.3	16.7	16.3	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.6
6.70	2.04	18.5	18.9	19.0	18.9	18.0	17.3	16.7	16.3	16.0	15.8	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.6
6.92	1.90	18.5	18.9	19.0	19.0	18.1	17.3	16.7	16.3	16.0	15.8	15.6	15.4	15.3	15.1	15.0	14.9	14.8	14.7

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-97. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
0.35	5.98	15.4	13.3	12.6	10.7	9.3	8.7	8.4	8.3	8.1	8.1	8.0	7.9	7.9	7.8	7.8	7.8	7.7	7.7
0.50	5.89	17.5	15.4	14.6	12.1	10.2	9.4	9.0	8.7	8.5	8.4	8.3	8.2	8.1	8.1	8.0	7.9	7.9	7.9
0.83	5.68	19.0	17.6	16.9	14.4	11.9	10.7	10.0	9.6	9.3	9.1	8.9	8.8	8.7	8.5	8.4	8.3	8.2	8.2
0.95	5.61	18.3	17.4	16.8	14.6	12.1	10.9	10.2	9.8	9.5	9.2	9.0	8.9	8.8	8.6	8.5	8.4	8.3	8.2
1.00	5.58	18.4	17.5	17.0	14.7	12.3	11.1	10.4	9.9	9.6	9.3	9.1	9.0	8.8	8.6	8.5	8.4	8.3	8.3
1.26	5.42	18.8	18.0	17.6	15.5	12.9	11.6	10.8	10.3	9.9	9.7	9.4	9.3	9.1	8.9	8.8	8.6	8.6	8.5
1.42	5.32	18.5	18.0	17.6	15.7	13.3	11.9	11.1	10.5	10.1	9.9	9.6	9.4	9.3	9.1	8.9	8.8	8.7	8.6
1.50	5.27	18.4	17.9	17.6	15.8	13.4	12.1	11.2	10.7	10.3	9.9	9.7	9.5	9.4	9.1	9.0	8.8	8.7	8.7
1.56	5.23	18.3	17.9	17.6	15.9	13.5	12.1	11.3	10.7	10.3	10.0	9.8	9.6	9.4	9.2	9.0	8.9	8.8	8.7
1.75	5.11	18.3	17.9	17.6	15.9	13.6	12.2	11.4	10.8	10.4	10.1	9.8	9.6	9.5	9.3	9.1	8.9	8.8	8.8
2.00	4.96	18.3	18.0	17.7	16.0	13.7	12.3	11.5	10.9	10.5	10.2	9.9	9.8	9.6	9.4	9.2	9.1	8.9	8.9
2.01	4.95	18.3	18.0	17.7	16.0	13.7	12.3	11.5	10.9	10.5	10.2	9.9	9.8	9.6	9.4	9.2	9.1	8.9	8.9
2.04	4.93	18.3	18.0	17.7	16.0	13.7	12.3	11.5	10.9	10.5	10.2	10.0	9.8	9.6	9.4	9.2	9.1	9.0	8.9
2.09	4.90	15.0	15.2	15.3	16.0	13.7	12.4	11.5	10.9	10.5	10.2	10.0	9.8	9.8	9.5	9.2	9.2	9.1	8.9
2.23	4.81	15.0	15.3	15.3	14.8	13.4	12.4	11.6	11.1	10.7	10.4	10.2	10.0	9.8	9.6	9.4	9.3	9.2	9.1
2.50	4.65	15.1	15.3	15.3	14.9	13.5	12.5	11.8	11.2	10.9	10.6	10.3	10.1	10.0	9.8	9.6	9.4	9.3	9.3
2.66	4.55	15.1	15.4	15.4	14.9	13.5	12.5	11.8	11.3	10.9	10.6	10.4	10.2	10.1	9.8	9.7	9.5	9.4	9.4
2.90	4.40	15.1	15.4	12.6	14.9	13.6	12.6	11.9	11.4	11.0	10.7	10.5	10.3	10.1	9.9	9.9	9.8	9.7	9.4
3.00	4.34	12.4	12.6	12.6	12.7	12.4	12.0	11.6	11.3	11.0	10.8	10.6	10.5	10.3	10.1	9.9	9.8	9.7	9.6
3.02	4.32	12.4	12.6	12.7	12.7	12.4	12.0	11.6	11.3	11.0	10.8	10.6	10.5	10.3	10.1	9.9	9.8	9.7	9.6
3.21	4.21	12.4	12.6	12.7	12.8	12.4	12.0	11.6	11.3	11.1	10.9	10.7	10.5	10.4	10.2	10.0	9.9	9.8	9.7
3.50	4.03	12.5	12.8	12.8	12.9	12.6	12.1	11.8	11.5	11.2	11.0	10.8	10.7	10.6	10.4	10.2	10.1	10.0	9.9
3.51	4.02	12.6	12.8	12.8	12.9	12.6	12.1	11.8	11.5	11.2	11.0	10.8	10.7	10.6	10.4	10.2	10.1	10.0	9.9
4.00	3.71	12.7	12.9	12.9	13.0	12.7	12.3	11.9	11.6	11.4	11.1	11.0	10.8	10.7	10.5	10.4	10.2	10.1	10.1
4.02	3.70	12.7	12.9	12.9	13.0	12.7	12.3	11.9	11.6	11.4	11.2	11.0	10.8	10.7	10.5	10.4	10.2	10.1	10.1
4.17	3.61	12.7	12.9	13.0	13.1	12.7	12.3	12.0	11.7	11.4	11.2	11.0	10.9	10.8	10.6	10.4	10.3	10.2	10.1
4.50	3.40	12.9	13.1	13.1	13.2	12.9	12.5	12.1	11.8	11.6	11.4	11.2	11.1	11.0	10.8	10.6	10.5	10.4	10.4
4.53	3.39	12.9	13.1	13.1	13.2	12.9	12.5	12.1	11.9	11.6	11.4	11.2	11.1	11.0	10.8	10.6	10.5	10.5	10.4
4.62	3.33	12.9	13.1	13.2	13.2	12.9	12.5	12.2	11.9	11.6	11.4	11.3	11.1	11.0	10.8	10.7	10.6	10.5	10.4
4.81	3.21	12.9	13.1	13.2	13.3	12.9	12.6	12.2	11.9	11.7	11.5	11.3	11.1	11.0	10.8	10.7	10.6	10.5	10.4
4.94	3.13	12.9	13.1	13.2	13.3	13.0	12.6	12.2	11.9	11.7	11.5	11.3	11.2	11.1	10.9	10.7	10.6	10.5	10.5
5.00	3.09	13.0	13.2	13.2	13.3	13.0	12.6	12.2	11.9	11.7	11.5	11.3	11.2	11.1	10.9	10.7	10.6	10.6	10.5
5.26	2.93	13.0	13.2	13.3	13.3	13.0	12.6	12.3	12.0	11.7	11.5	11.4	11.2	11.1	10.9	10.8	10.7	10.6	10.5
5.50	2.78	13.1	13.3	13.3	13.4	13.1	12.7	12.3	12.0	11.8	11.6	11.4	11.3	11.1	11.0	10.8	10.7	10.6	10.6
5.83	2.58	13.1	13.3	13.4	13.4	13.1	12.7	12.4	12.1	11.8	11.6	11.5	11.3	11.2	11.0	10.9	10.8	10.7	10.6
5.92	2.52	13.1	13.3	13.4	13.4	13.1	12.7	12.4	12.1	11.9	11.7	11.5	11.4	11.2	11.1	10.9	10.8	10.7	10.7
6.00	2.47	13.1	13.4	13.4	13.5	13.2	12.8	12.4	12.1	11.9	11.7	11.5	11.4	11.3	11.1	10.9	10.9	10.8	10.7
6.23	2.33	13.2	13.4	13.5	13.5	13.2	12.9	12.5	12.2	12.0	11.8	11.6	11.5	11.4	11.2	11.1	11.0	10.9	10.8
6.37	2.24	13.3	13.4	13.5	13.6	13.3	12.9	12.5	12.3	12.0	11.8	11.7	11.5	11.4	11.2	11.1	11.0	10.9	10.9
6.50	2.16	13.3	13.5	13.5	13.6	13.3	12.9	12.6	12.3	12.0	11.8	11.7	11.5	11.4	11.2	11.1	11.0	10.9	10.9
6.60	2.10	13.3	13.5	13.5	13.6	13.3	12.9	12.6	12.3	12.0	11.8	11.7	11.5	11.4	11.3	11.1	11.0	10.9	10.9
6.68	2.05	13.3	13.0	13.1	13.6	13.3	12.9	12.6	12.3	12.0	11.8	11.7	11.6	11.4	11.3	11.2	11.1	11.0	11.0
6.70	2.04	12.9	13.0	13.1	13.1	13.0	12.7	12.4	12.2	12.0	11.9	11.7	11.6	11.5	11.3	11.2	11.1	11.0	11.0
6.92	1.90	12.9	13.1	13.1	13.2	13.0	12.7	12.5	12.3	12.1	11.9	11.8	11.6	11.6	11.4	11.3	11.2	11.1	11.0

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-98. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
0.00	6.20	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	
0.35	5.98	17.4	15.1	14.3	12.1	10.7	10.1	9.9	9.7	9.6	9.5	9.4	9.4	9.3	9.3	9.2	9.2	9.2	9.2	
0.50	5.89	19.3	17.0	16.1	13.5	11.6	10.8	10.4	10.1	9.9	9.8	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.3	
0.83	5.68	20.5	19.2	18.5	15.8	13.2	12.0	11.4	10.9	10.7	10.4	10.3	10.2	10.1	9.9	9.8	9.7	9.6	9.6	
0.95	5.61	19.4	18.9	18.4	16.0	13.5	12.3	11.6	11.1	10.8	10.6	10.4	10.3	10.2	10.0	9.9	9.8	9.7	9.7	
1.00	5.58	19.5	19.0	18.5	16.2	13.6	12.4	11.7	11.2	10.9	10.7	10.5	10.3	10.2	10.1	9.9	9.8	9.8	9.7	
1.26	5.42	20.0	19.5	19.1	16.9	14.3	12.9	12.1	11.6	11.3	11.0	10.8	10.6	10.5	10.3	10.2	10.1	10.0	9.9	
1.42	5.32	19.6	19.4	19.1	17.2	14.6	13.2	12.4	11.9	11.5	11.2	11.0	10.8	10.7	10.4	10.3	10.2	10.1	10.0	
1.50	5.27	19.5	19.3	19.1	17.3	14.8	13.4	12.6	12.0	11.6	11.3	11.1	10.9	10.8	10.5	10.4	10.2	10.1	10.1	
1.56	5.23	19.4	19.3	19.1	17.4	14.9	13.5	12.6	12.1	11.7	11.4	11.1	11.0	10.8	10.6	10.4	10.3	10.2	10.1	
1.75	5.11	19.3	19.3	19.1	17.5	15.0	13.6	12.7	12.1	11.7	11.4	11.2	11.0	10.9	10.6	10.5	10.3	10.3	10.2	
2.00	4.96	19.3	19.3	19.1	17.5	15.1	13.7	12.8	12.3	11.8	11.5	11.3	11.1	11.0	10.7	10.6	10.4	10.4	10.3	
2.01	4.95	19.3	19.3	19.1	17.5	15.1	13.7	12.8	12.3	11.8	11.5	11.3	11.1	11.0	10.7	10.6	10.4	10.4	10.3	
2.04	4.93	19.3	19.3	19.1	17.6	15.1	13.7	12.8	12.3	11.9	11.6	11.3	11.1	11.0	10.8	10.6	10.5	10.4	10.3	
2.09	4.90	16.6	17.3	19.1	16.8	15.0	13.7	12.9	12.4	11.9	11.7	11.4	11.1	11.1	10.8	10.7	10.6	10.4	10.4	
2.23	4.81	16.6	17.3	17.4	16.8	15.0	13.8	13.0	12.4	12.0	11.7	11.5	11.3	11.2	10.9	10.8	10.6	10.5	10.4	
2.50	4.65	16.6	17.3	17.4	16.9	15.1	13.9	13.1	12.6	12.2	11.9	11.6	11.4	11.3	11.1	10.9	10.8	10.7	10.6	
2.66	4.55	16.7	17.3	17.5	16.9	15.2	14.0	13.2	12.6	12.2	11.9	11.7	11.5	11.4	11.2	11.0	10.9	10.8	10.7	
2.90	4.40	14.8	15.5	17.5	17.0	14.8	14.0	13.2	12.7	12.3	12.0	11.8	11.6	11.5	11.3	11.1	11.0	10.9	10.8	
3.00	4.34	14.9	15.5	15.7	15.8	14.8	13.9	13.2	12.7	12.3	12.1	11.8	11.7	11.5	11.3	11.1	11.0	10.9	10.9	
3.02	4.32	14.9	15.5	15.7	15.8	14.8	13.9	13.2	12.7	12.4	12.1	11.9	11.7	11.5	11.3	11.1	11.0	10.9	10.9	
3.21	4.21	14.9	15.6	15.8	15.8	14.8	13.9	13.2	12.8	12.4	12.1	11.9	11.7	11.6	11.4	11.2	11.1	11.0	10.9	
3.50	4.03	15.0	15.7	15.9	15.9	14.9	14.0	13.4	12.9	12.5	12.3	12.1	11.9	11.7	11.5	11.4	11.3	11.2	11.1	
3.51	4.02	15.0	15.7	15.9	15.9	14.9	14.0	13.4	12.9	12.5	12.3	12.1	11.9	11.7	11.5	11.4	11.3	11.2	11.1	
4.00	3.71	15.2	15.8	16.0	16.1	15.1	14.2	13.5	13.0	12.7	12.4	12.2	12.0	11.9	11.7	11.5	11.4	11.4	11.3	
4.02	3.70	15.2	15.8	16.0	16.1	15.1	14.2	13.5	13.0	12.7	12.4	12.2	12.0	11.9	11.7	11.5	11.4	11.4	11.3	
4.17	3.61	15.3	15.9	16.0	16.1	15.1	14.2	13.6	13.1	12.7	12.5	12.3	12.1	11.9	11.7	11.6	11.5	11.4	11.4	
4.50	3.40	15.4	16.0	16.2	16.2	15.2	14.4	13.7	13.3	12.9	12.6	12.4	12.3	12.1	11.9	11.8	11.7	11.6	11.6	
4.53	3.39	15.4	16.0	16.2	16.3	15.3	14.4	13.7	13.3	12.9	12.6	12.4	12.3	12.1	11.9	11.8	11.7	11.6	11.6	
4.62	3.33	15.4	16.0	16.2	16.3	15.3	14.4	13.7	13.3	12.9	12.7	12.5	12.3	12.2	12.0	11.8	11.7	11.7	11.6	
4.81	3.21	15.5	16.1	16.3	16.3	15.3	14.4	13.8	13.3	13.0	12.7	12.5	12.3	12.2	12.0	11.9	11.8	11.7	11.6	
4.94	3.13	15.5	16.1	16.3	16.3	15.3	14.4	13.8	13.3	13.0	12.7	12.5	12.4	12.2	12.0	11.9	11.8	11.7	11.7	
5.00	3.09	15.6	16.1	16.3	16.3	15.3	14.5	13.8	13.4	13.0	12.7	12.5	12.4	12.2	12.0	11.9	11.8	11.7	11.7	
5.26	2.93	15.6	16.2	16.4	16.4	15.4	14.5	13.9	13.4	13.1	12.8	12.6	12.4	12.3	12.1	11.9	11.9	11.8	11.7	
5.50	2.78	15.7	16.3	16.4	16.4	15.4	14.6	13.9	13.4	13.1	12.8	12.6	12.5	12.3	12.1	12.0	11.9	11.8	11.8	
5.83	2.58	15.8	16.3	16.5	16.5	15.5	14.6	14.0	13.5	13.2	12.9	12.7	12.5	12.4	12.2	12.1	12.0	11.9	11.9	
5.92	2.52	15.8	16.3	16.5	16.5	15.5	14.6	14.0	13.5	13.2	12.9	12.7	12.6	12.4	12.2	12.1	12.0	11.9	11.9	
6.00	2.47	15.9	16.4	16.5	16.5	15.6	14.7	14.0	13.6	13.2	12.9	12.7	12.6	12.4	12.3	12.1	12.0	12.0	11.9	
6.23	2.33	15.9	16.4	16.6	16.6	15.6	14.7	14.1	13.6	13.3	13.0	12.8	12.7	12.5	12.4	12.2	12.1	12.1	12.0	
6.37	2.24	16.0	16.5	16.6	16.6	15.6	14.8	14.1	13.7	13.3	13.1	12.9	12.7	12.6	12.4	12.3	12.2	12.1	12.1	
6.50	2.16	16.0	16.5	16.6	16.6	15.6	14.8	14.1	13.7	13.4	13.1	12.9	12.7	12.6	12.4	12.3	12.2	12.1	12.1	
6.60	2.10	16.0	16.4	16.6	16.6	15.7	14.8	14.2	13.7	13.4	13.1	12.9	12.7	12.6	12.4	12.3	12.2	12.1	12.1	
6.68	2.05	15.6	16.4	16.6	16.6	15.5	14.8	14.2	13.7	13.4	13.1	12.9	12.7	12.7	12.4	12.4	12.3	12.1	12.1	
6.70	2.04	15.6	16.1	16.2	16.3	15.5	14.8	14.2	13.8	13.4	13.2	13.0	12.8	12.7	12.5	12.4	12.3	12.2	12.1	
6.92	1.90	15.7	16.1	16.2	16.3	15.6	14.8	14.2	13.8	13.5	13.2	13.0	12.9	12.7	12.5	12.4	12.3	12.2	12.2	

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-99. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	11.3	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.3	11.4	11.4	11.5
0.35	5.98	23.0	20.0	18.9	16.0	14.1	13.3	12.9	12.7	12.5	12.4	12.3	12.2	12.2	12.1	12.0	12.0	12.0	12.0
0.50	5.89	25.1	22.4	21.3	17.8	15.2	14.2	13.6	13.2	13.0	12.8	12.7	12.5	12.5	12.3	12.2	12.2	12.2	12.2
0.83	5.68	26.3	25.0	24.2	20.8	17.4	15.8	14.9	14.3	13.9	13.6	13.4	13.2	13.1	12.9	12.7	12.7	12.6	12.6
0.95	5.61	24.9	24.5	24.0	21.1	17.8	16.1	15.2	14.6	14.2	13.8	13.6	13.4	13.3	13.0	12.8	12.8	12.7	12.7
1.00	5.58	25.1	24.7	24.2	21.3	17.9	16.3	15.3	14.7	14.3	13.9	13.7	13.5	13.3	13.1	12.9	12.8	12.8	12.7
1.26	5.42	25.7	25.3	24.8	22.2	18.8	17.0	15.9	15.2	14.7	14.4	14.1	13.9	13.7	13.4	13.2	13.1	13.0	13.0
1.42	5.32	25.1	25.1	24.8	22.6	19.2	17.4	16.3	15.6	15.0	14.6	14.3	14.1	13.9	13.6	13.4	13.3	13.2	13.1
1.50	5.27	25.0	25.0	24.8	22.7	19.4	17.6	16.5	15.7	15.2	14.8	14.4	14.2	14.0	13.7	13.5	13.3	13.3	13.2
1.56	5.23	24.9	25.0	24.8	22.8	19.6	17.8	16.6	15.8	15.3	14.9	14.5	14.3	14.1	13.8	13.5	13.4	13.3	13.2
1.75	5.11	24.8	24.9	24.7	22.9	19.7	17.8	16.7	15.9	15.4	14.9	14.6	14.4	14.1	13.8	13.6	13.5	13.4	13.3
2.00	4.96	24.8	24.9	24.8	23.0	19.8	18.0	16.8	16.0	15.5	15.1	14.7	14.5	14.3	13.9	13.7	13.6	13.5	13.4
2.01	4.95	24.8	24.9	24.8	23.0	19.8	18.0	16.8	16.0	15.5	15.1	14.7	14.5	14.3	13.9	13.7	13.6	13.5	13.4
2.04	4.93	24.8	24.9	24.8	23.0	19.8	18.0	16.8	16.0	15.5	15.1	14.7	14.5	14.3	14.0	13.7	13.6	13.5	13.4
2.09	4.90	20.1	21.6	21.9	23.0	19.8	18.0	16.8	16.1	15.5	15.1	14.8	14.5	14.3	14.0	13.8	13.7	13.5	13.5
2.23	4.81	20.2	21.6	22.0	21.7	19.5	17.9	16.9	16.1	15.6	15.2	14.9	14.6	14.4	14.1	13.9	13.7	13.6	13.6
2.50	4.65	20.3	21.7	22.0	21.7	19.6	18.0	17.0	16.3	15.7	15.3	15.0	14.8	14.6	14.3	14.0	13.9	13.8	13.8
2.66	4.55	20.3	21.7	22.0	21.8	19.6	18.1	17.1	16.4	15.8	15.4	15.1	14.9	14.7	14.4	14.1	14.0	13.9	13.9
2.90	4.40	19.8	21.8	22.1	21.8	19.7	18.2	17.1	16.4	15.9	15.5	15.2	14.9	14.7	14.4	14.2	14.1	14.0	13.9
3.00	4.34	19.9	21.2	21.6	21.5	19.6	18.1	17.1	16.4	15.9	15.5	15.2	14.9	14.7	14.4	14.2	14.1	14.0	13.9
3.02	4.32	19.9	21.3	21.6	21.5	19.6	18.1	17.1	16.4	15.9	15.5	15.2	14.9	14.7	14.4	14.2	14.1	14.0	13.9
3.21	4.21	20.0	21.3	21.6	21.6	19.7	18.2	17.2	16.5	15.9	15.6	15.2	15.0	14.8	14.5	14.3	14.1	14.1	14.0
3.50	4.03	20.2	21.4	21.8	21.7	19.8	18.3	17.3	16.6	16.1	15.7	15.4	15.2	15.0	14.7	14.4	14.3	14.3	14.2
3.51	4.02	20.2	21.4	21.8	21.7	19.8	18.3	17.3	16.6	16.1	15.7	15.4	15.2	15.0	14.7	14.5	14.4	14.3	14.2
4.00	3.71	20.5	21.6	21.9	21.8	19.9	18.5	17.5	16.8	16.3	15.9	15.6	15.3	15.1	14.8	14.6	14.5	14.4	14.4
4.02	3.70	20.5	21.6	21.9	21.8	19.9	18.5	17.5	16.8	16.3	15.9	15.6	15.3	15.1	14.9	14.6	14.5	14.5	14.4
4.17	3.61	20.6	21.7	22.0	21.9	20.0	18.5	17.5	16.8	16.3	15.9	15.6	15.4	15.2	14.9	14.7	14.6	14.5	14.5
4.50	3.40	20.8	21.8	22.1	22.0	20.1	18.7	17.7	17.0	16.5	16.1	15.8	15.6	15.4	15.1	14.9	14.8	14.8	14.7
4.53	3.39	20.8	21.8	22.1	22.0	20.1	18.7	17.7	17.0	16.5	16.1	15.8	15.6	15.4	15.1	14.9	14.8	14.8	14.7
4.62	3.33	20.9	21.9	22.1	22.0	20.2	18.7	17.7	17.0	16.5	16.1	15.9	15.6	15.4	15.1	14.9	14.9	14.8	14.7
4.81	3.21	21.0	21.9	22.2	22.1	20.2	18.8	17.8	17.1	16.6	16.2	15.9	15.7	15.5	15.2	15.0	14.9	14.8	14.8
4.94	3.13	21.0	21.9	22.2	22.1	20.2	18.8	17.8	17.1	16.6	16.2	15.9	15.7	15.5	15.2	15.0	14.9	14.9	14.8
5.00	3.09	21.0	22.0	22.2	22.1	20.3	18.8	17.8	17.1	16.6	16.2	15.9	15.7	15.5	15.2	15.0	14.9	14.9	14.8
5.26	2.93	21.2	22.1	22.3	22.2	20.3	18.9	17.9	17.2	16.7	16.3	16.0	15.8	15.6	15.3	15.1	15.0	14.9	14.9
5.50	2.78	21.4	22.1	22.4	22.2	20.4	18.9	18.0	17.3	16.7	16.4	16.0	15.8	15.6	15.3	15.1	15.0	15.0	14.9
5.83	2.58	21.5	22.3	22.5	22.3	20.5	19.0	18.0	17.3	16.8	16.4	16.1	15.9	15.7	15.4	15.2	15.1	15.1	15.0
5.92	2.52	21.6	22.3	22.5	22.3	20.5	19.0	18.0	17.4	16.8	16.5	16.1	15.9	15.7	15.4	15.2	15.1	15.1	15.0
6.00	2.47	21.6	22.3	22.5	22.3	20.5	19.1	18.1	17.4	16.9	16.5	16.2	15.9	15.8	15.5	15.3	15.2	15.1	15.1
6.23	2.33	21.7	22.4	22.5	22.4	20.6	19.2	18.2	17.5	17.0	16.6	16.3	16.0	15.9	15.6	15.4	15.3	15.2	15.2
6.37	2.24	21.8	22.4	22.6	22.4	20.6	19.2	18.2	17.5	17.0	16.6	16.3	16.1	15.9	15.6	15.4	15.3	15.3	15.2
6.50	2.16	21.7	22.4	22.6	22.4	20.6	19.2	18.2	17.5	17.0	16.6	16.3	16.1	15.9	15.6	15.4	15.3	15.3	15.3
6.60	2.10	21.7	22.4	22.5	22.4	20.6	19.2	18.2	17.5	17.0	16.6	16.4	16.1	15.9	15.6	15.4	15.4	15.3	15.3
6.68	2.05	21.3	22.1	22.3	22.4	20.6	19.2	18.2	17.5	17.0	16.6	16.4	16.1	15.9	15.7	15.5	15.4	15.3	15.3
6.70	2.04	21.3	22.0	22.3	22.2	20.6	19.2	18.2	17.5	17.0	16.7	16.4	16.1	15.9	15.7	15.5	15.4	15.3	15.3
6.92	1.90	21.4	22.1	22.3	22.3	20.6	19.2	18.3	17.6	17.1	16.7	16.4	16.2	16.0	15.7	15.5	15.4	15.4	15.3

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-100. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Table with 20 columns: Dist (km)*, Dist (RM)** (1.0-100.0), and 19 columns of temperature values (°C) for various flow releases (cfs).

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-101. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	6.8	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
0.35	5.98	17.6	14.9	13.9	11.3	9.4	8.6	8.2	8.0	7.8	7.7	7.6	7.6	7.5	7.4	7.4	7.3	7.3	7.3
0.50	5.89	19.8	17.3	16.3	13.1	10.6	9.5	8.9	8.6	8.3	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.5	7.4
0.83	5.68	21.2	19.8	19.0	15.9	12.7	11.1	10.3	9.7	9.3	9.0	8.8	8.6	8.5	8.3	8.1	8.0	7.9	7.8
0.95	5.61	20.3	19.5	18.9	16.2	13.1	11.5	10.6	9.9	9.5	9.2	9.0	8.8	8.6	8.4	8.2	8.1	8.0	7.9
1.00	5.58	20.4	19.6	19.1	16.4	13.2	11.6	10.7	10.1	9.6	9.3	9.1	8.9	8.7	8.5	8.3	8.1	8.0	8.0
1.26	5.42	20.8	20.2	19.7	17.3	14.1	12.3	11.3	10.6	10.1	9.8	9.5	9.3	9.1	8.8	8.6	8.4	8.3	8.2
1.42	5.32	20.5	20.1	19.8	17.6	14.5	12.7	11.6	10.9	10.4	10.0	9.7	9.5	9.3	9.0	8.8	8.6	8.4	8.4
1.50	5.27	20.4	20.1	19.8	17.8	14.7	12.9	11.8	11.1	10.5	10.1	9.8	9.6	9.4	9.1	8.8	8.7	8.5	8.4
1.56	5.23	20.3	20.1	19.8	17.9	14.8	13.1	11.9	11.2	10.6	10.2	9.9	9.7	9.4	9.1	8.9	8.7	8.6	8.5
1.75	5.11	20.3	20.1	19.8	17.9	14.9	13.1	12.0	11.3	10.7	10.3	10.0	9.7	9.5	9.2	9.0	8.8	8.6	8.5
2.00	4.96	20.3	20.1	19.8	18.0	15.0	13.3	12.1	11.4	10.8	10.4	10.1	9.9	9.6	9.3	9.1	8.9	8.8	8.7
2.01	4.95	20.3	20.1	19.9	18.0	15.1	13.3	12.2	11.4	10.9	10.4	10.1	9.9	9.6	9.3	9.1	8.9	8.8	8.7
2.04	4.93	20.3	20.1	19.9	18.0	15.1	13.3	12.2	11.4	10.9	10.4	10.1	9.9	9.7	9.3	9.1	8.9	8.8	8.7
2.09	4.90	17.3	17.8	19.9	18.0	15.1	13.4	12.2	11.4	10.9	10.5	10.1	9.9	9.7	9.4	9.1	8.9	8.8	8.7
2.23	4.81	17.3	17.8	17.9	17.1	15.0	13.4	12.4	11.7	11.1	10.7	10.4	10.1	9.9	9.6	9.3	9.1	9.0	8.9
2.50	4.65	17.4	17.8	17.9	17.2	15.1	13.6	12.5	11.8	11.3	10.9	10.5	10.3	10.1	9.7	9.5	9.3	9.2	9.1
2.66	4.55	17.4	17.9	17.9	17.2	15.1	13.6	12.6	11.9	11.3	10.9	10.6	10.4	10.1	9.8	9.6	9.4	9.3	9.2
2.90	4.40	16.0	16.6	16.7	16.4	14.9	13.7	12.7	11.9	11.4	11.0	10.7	10.4	10.2	9.9	9.6	9.5	9.3	9.2
3.00	4.34	16.1	16.6	16.7	16.5	14.9	13.6	12.7	12.0	11.5	11.1	10.8	10.5	10.3	10.0	9.7	9.5	9.4	9.3
3.02	4.32	16.1	16.6	16.7	16.5	14.9	13.6	12.7	12.0	11.5	11.1	10.8	10.5	10.3	10.0	9.7	9.5	9.4	9.3
3.21	4.21	16.1	16.7	16.8	16.5	14.9	13.6	12.7	12.0	11.5	11.1	10.8	10.6	10.3	10.0	9.8	9.6	9.5	9.4
3.50	4.03	16.3	16.8	16.9	16.6	15.1	13.8	12.8	12.2	11.7	11.3	11.0	10.7	10.5	10.2	10.0	9.8	9.7	9.6
3.51	4.02	16.3	16.8	16.9	16.6	15.1	13.8	12.9	12.2	11.7	11.3	11.0	10.7	10.5	10.2	10.0	9.8	9.7	9.6
4.00	3.71	16.4	16.9	17.0	16.7	15.2	13.9	13.0	12.3	11.8	11.4	11.1	10.9	10.7	10.4	10.1	10.0	9.8	9.7
4.02	3.70	16.4	16.9	17.0	16.7	15.2	13.9	13.0	12.3	11.8	11.4	11.1	10.9	10.7	10.4	10.1	10.0	9.9	9.8
4.17	3.61	16.5	17.0	17.1	16.8	15.3	14.0	13.1	12.4	11.9	11.5	11.2	10.9	10.7	10.4	10.2	10.0	9.9	9.8
4.50	3.40	16.6	17.1	17.2	16.9	15.4	14.1	13.2	12.6	12.1	11.7	11.4	11.1	10.9	10.6	10.4	10.3	10.1	10.0
4.53	3.39	16.6	17.1	17.2	16.9	15.4	14.1	13.2	12.6	12.1	11.7	11.4	11.1	10.9	10.6	10.4	10.3	10.2	10.1
4.62	3.33	16.6	17.1	17.2	16.9	15.4	14.2	13.3	12.6	12.1	11.7	11.4	11.2	11.0	10.7	10.4	10.3	10.2	10.1
4.81	3.21	16.7	17.2	17.3	17.0	15.5	14.2	13.3	12.6	12.1	11.8	11.4	11.2	11.0	10.7	10.5	10.3	10.2	10.1
4.94	3.13	16.7	17.2	17.3	17.0	15.5	14.2	13.3	12.7	12.2	11.8	11.5	11.2	11.0	10.7	10.5	10.4	10.2	10.1
5.00	3.09	16.7	17.2	17.3	17.0	15.5	14.2	13.3	12.7	12.2	11.8	11.5	11.3	11.1	10.8	10.5	10.4	10.3	10.2
5.26	2.93	16.8	17.3	17.4	17.1	15.6	14.3	13.4	12.7	12.2	11.9	11.6	11.3	11.1	10.8	10.6	10.4	10.3	10.2
5.50	2.78	16.9	17.3	17.4	17.1	15.6	14.4	13.4	12.8	12.3	11.9	11.6	11.4	11.2	10.9	10.6	10.5	10.4	10.3
5.83	2.58	16.9	17.3	17.4	17.1	15.7	14.4	13.5	12.9	12.4	12.0	11.7	11.4	11.2	10.9	10.7	10.6	10.4	10.3
5.92	2.52	16.9	17.3	17.4	17.1	15.7	14.4	13.6	12.9	12.4	12.0	11.7	11.5	11.3	11.0	10.7	10.6	10.5	10.4
6.00	2.47	16.9	17.3	17.4	17.2	15.7	14.5	13.6	12.9	12.4	12.1	11.7	11.5	11.3	11.0	10.8	10.6	10.5	10.4
6.23	2.33	17.0	17.4	17.5	17.2	15.8	14.6	13.7	13.0	12.5	12.1	11.8	11.6	11.4	11.1	10.9	10.7	10.6	10.5
6.37	2.24	17.0	17.4	17.5	17.3	15.8	14.6	13.7	13.1	12.6	12.2	11.9	11.6	11.4	11.1	10.9	10.8	10.7	10.6
6.50	2.16	17.0	17.4	17.5	17.3	15.8	14.6	13.7	13.1	12.6	12.2	11.9	11.6	11.5	11.2	10.9	10.8	10.7	10.6
6.60	2.10	17.0	17.4	17.5	17.3	15.8	14.6	13.7	13.1	12.6	12.2	11.9	11.7	11.5	11.2	11.0	10.8	10.7	10.6
6.68	2.05	16.6	17.0	17.1	16.9	15.7	14.6	13.7	13.1	12.6	12.2	11.9	11.7	11.5	11.2	11.0	10.8	10.7	10.6
6.70	2.04	16.6	17.0	17.1	16.9	15.7	14.6	13.7	13.1	12.6	12.3	12.0	11.7	11.5	11.2	11.0	10.9	10.7	10.6
6.92	1.90	16.6	17.0	17.1	17.0	15.7	14.6	13.8	13.1	12.7	12.3	12.0	11.8	11.6	11.3	11.1	10.9	10.8	10.7

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-102. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	9.4	9.4	9.4	9.4	9.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.4	9.4	9.4	9.4	9.4
0.35	5.98	22.6	19.2	18.0	14.8	12.6	11.7	11.3	11.0	10.8	10.6	10.5	10.4	10.4	10.3	10.2	10.2	10.1	10.1
0.50	5.89	24.9	21.9	20.6	16.8	13.9	12.7	12.0	11.6	11.3	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.3
0.83	5.68	26.5	24.8	23.8	20.0	16.3	14.5	13.5	12.9	12.4	12.1	11.8	11.6	11.5	11.2	11.0	10.9	10.8	10.7
0.95	5.61	25.5	24.6	23.8	20.5	16.7	14.9	13.9	13.2	12.7	12.3	12.0	11.8	11.6	11.4	11.2	11.0	10.9	10.8
1.00	5.58	25.6	24.7	24.0	20.7	17.0	15.1	14.0	13.3	12.8	12.4	12.1	11.9	11.7	11.4	11.2	11.1	11.0	10.9
1.26	5.42	26.1	25.3	24.7	21.7	17.9	15.9	14.7	13.9	13.3	12.9	12.6	12.3	12.1	11.8	11.6	11.4	11.3	11.1
1.42	5.32	25.7	25.3	24.8	22.1	18.4	16.4	15.1	14.3	13.7	13.2	12.9	12.6	12.4	12.0	11.8	11.6	11.4	11.3
1.50	5.27	25.6	25.3	24.9	22.3	18.6	16.6	15.3	14.4	13.8	13.4	13.0	12.7	12.5	12.1	11.9	11.7	11.5	11.4
1.56	5.23	25.5	25.2	24.9	22.5	18.8	16.7	15.4	14.6	13.9	13.5	13.1	12.8	12.6	12.2	11.9	11.7	11.6	11.4
1.75	5.11	25.5	25.2	24.9	22.5	18.9	16.8	15.5	14.6	14.0	13.5	13.2	12.9	12.6	12.3	12.0	11.8	11.6	11.5
2.00	4.96	25.4	25.2	24.9	22.6	19.0	17.0	15.7	14.8	14.1	13.7	13.3	13.0	12.8	12.4	12.1	11.9	11.8	11.6
2.01	4.95	25.4	25.2	24.9	22.6	19.0	17.0	15.7	14.8	14.1	13.7	13.3	13.0	12.8	12.4	12.1	11.9	11.8	11.6
2.04	4.93	25.4	25.2	24.9	22.6	19.0	17.0	15.7	14.8	14.2	13.7	13.3	13.0	12.8	12.4	12.1	11.9	11.8	11.7
2.09	4.90	21.1	22.0	22.1	21.3	18.7	16.9	15.7	14.9	14.2	13.8	13.3	13.1	12.9	12.4	12.2	12.0	11.8	11.8
2.23	4.81	21.2	22.0	22.1	21.3	18.7	17.0	15.8	14.9	14.3	13.9	13.5	13.2	13.0	12.6	12.3	12.1	11.9	11.8
2.50	4.65	21.2	22.1	22.2	21.4	18.8	17.1	15.9	15.1	14.5	14.0	13.6	13.4	13.1	12.8	12.5	12.3	12.1	12.0
2.66	4.55	21.3	22.1	22.2	21.4	18.9	17.2	16.0	15.2	14.6	14.1	13.7	13.5	13.2	12.9	12.6	12.4	12.3	12.1
2.90	4.40	21.4	22.1	22.3	20.9	18.7	17.1	16.1	15.2	14.6	14.2	13.8	13.5	13.3	12.9	12.7	12.5	12.3	12.2
3.00	4.34	20.2	21.1	21.3	20.9	18.8	17.1	16.0	15.2	14.6	14.2	13.8	13.6	13.3	12.9	12.7	12.5	12.4	12.2
3.02	4.32	20.3	21.1	21.3	20.9	18.8	17.1	16.0	15.2	14.6	14.2	13.8	13.6	13.3	13.0	12.7	12.5	12.4	12.2
3.21	4.21	20.3	21.2	21.4	21.0	18.8	17.2	16.1	15.3	14.7	14.2	13.9	13.6	13.4	13.0	12.8	12.6	12.4	12.3
3.50	4.03	20.5	21.3	21.5	21.1	18.9	17.3	16.2	15.4	14.9	14.4	14.1	13.8	13.6	13.2	12.9	12.8	12.6	12.5
3.51	4.02	20.5	21.3	21.5	21.1	18.9	17.3	16.2	15.4	14.9	14.4	14.1	13.8	13.6	13.2	13.0	12.8	12.6	12.5
4.00	3.71	20.6	21.5	21.6	21.2	19.1	17.5	16.4	15.6	15.0	14.6	14.2	14.0	13.7	13.4	13.1	12.9	12.8	12.7
4.02	3.70	20.6	21.5	21.6	21.2	19.1	17.5	16.4	15.6	15.0	14.6	14.2	14.0	13.7	13.4	13.1	13.0	12.8	12.7
4.17	3.61	20.7	21.5	21.7	21.3	19.2	17.6	16.5	15.7	15.1	14.7	14.3	14.0	13.8	13.5	13.2	13.0	12.9	12.8
4.50	3.40	20.9	21.6	21.8	21.4	19.3	17.7	16.6	15.9	15.3	14.8	14.5	14.2	14.0	13.7	13.4	13.3	13.1	13.0
4.53	3.39	20.9	21.7	21.8	21.4	19.3	17.8	16.6	15.9	15.3	14.9	14.5	14.3	14.0	13.7	13.4	13.3	13.1	13.1
4.62	3.33	20.9	21.7	21.8	21.4	19.3	17.8	16.7	15.9	15.3	14.9	14.5	14.3	14.1	13.7	13.5	13.3	13.2	13.1
4.81	3.21	21.0	21.7	21.9	21.5	19.4	17.8	16.7	15.9	15.4	14.9	14.6	14.3	14.1	13.8	13.5	13.3	13.2	13.1
4.94	3.13	21.0	21.8	21.9	21.5	19.4	17.8	16.8	16.0	15.4	14.9	14.6	14.3	14.1	13.8	13.6	13.4	13.2	13.1
5.00	3.09	21.1	21.8	21.9	21.5	19.4	17.9	16.8	16.0	15.4	15.0	14.6	14.4	14.1	13.8	13.6	13.4	13.3	13.2
5.26	2.93	21.2	21.9	22.0	21.5	19.5	17.9	16.8	16.0	15.5	15.0	14.7	14.4	14.2	13.9	13.6	13.4	13.3	13.2
5.50	2.78	21.3	21.9	22.1	21.6	19.6	18.0	16.9	16.1	15.5	15.1	14.8	14.5	14.3	13.9	13.7	13.5	13.4	13.3
5.83	2.58	21.3	21.9	22.1	21.6	19.6	18.1	17.0	16.2	15.6	15.2	14.8	14.6	14.3	14.0	13.8	13.6	13.4	13.3
5.92	2.52	21.3	21.9	22.1	21.6	19.6	18.1	17.0	16.2	15.6	15.2	14.9	14.6	14.4	14.0	13.8	13.6	13.5	13.4
6.00	2.47	21.3	22.0	22.1	21.7	19.7	18.1	17.0	16.3	15.7	15.2	14.9	14.6	14.4	14.1	13.8	13.6	13.5	13.4
6.23	2.33	21.4	22.0	22.1	21.7	19.7	18.2	17.1	16.4	15.8	15.3	15.0	14.7	14.5	14.2	13.9	13.8	13.6	13.5
6.37	2.24	21.5	22.1	22.2	21.8	19.8	18.3	17.2	16.4	15.8	15.4	15.0	14.8	14.6	14.2	14.0	13.8	13.7	13.6
6.50	2.16	21.4	22.0	22.2	21.8	19.8	18.3	17.2	16.4	15.8	15.4	15.1	14.8	14.6	14.2	14.0	13.8	13.7	13.6
6.60	2.10	21.4	22.0	22.1	21.8	19.8	18.3	17.2	16.4	15.9	15.4	15.1	14.8	14.6	14.2	14.0	13.8	13.7	13.6
6.68	2.05	21.0	21.6	22.1	21.7	19.8	18.2	17.2	16.4	15.9	15.4	15.1	14.8	14.6	14.3	14.0	13.9	13.7	13.6
6.70	2.04	21.0	21.6	21.8	21.5	19.7	18.2	17.2	16.4	15.9	15.4	15.1	14.8	14.6	14.3	14.0	13.9	13.7	13.6
6.92	1.90	21.0	21.6	21.8	21.5	19.7	18.3	17.2	16.5	15.9	15.5	15.1	14.9	14.6	14.3	14.1	13.9	13.8	13.7

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-103. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.35	5.98	19.8	17.9	17.2	15.2	13.8	13.2	12.9	12.7	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.1
0.50	5.89	21.4	19.7	19.0	16.6	14.7	13.9	13.4	13.2	13.0	12.8	12.7	12.6	12.6	12.5	12.4	12.4	12.3	12.3
0.83	5.68	22.4	21.5	21.0	18.7	16.3	15.1	14.5	14.0	13.7	13.5	13.3	13.2	13.1	12.9	12.8	12.7	12.6	12.6
0.95	5.61	21.5	21.2	20.8	18.9	16.6	15.4	14.7	14.2	13.9	13.7	13.5	13.3	13.2	13.0	12.9	12.8	12.7	12.7
1.00	5.58	21.6	21.3	20.9	19.1	16.7	15.5	14.8	14.3	14.0	13.8	13.6	13.4	13.3	13.1	13.0	12.9	12.8	12.7
1.26	5.42	22.1	21.7	21.4	19.7	17.4	16.1	15.3	14.8	14.4	14.1	13.9	13.7	13.6	13.4	13.2	13.1	13.0	12.9
1.42	5.32	21.8	21.6	21.4	20.0	17.7	16.4	15.6	15.0	14.6	14.3	14.1	13.9	13.8	13.5	13.4	13.2	13.1	13.0
1.50	5.27	21.7	21.6	21.4	20.1	17.9	16.5	15.7	15.1	14.7	14.4	14.2	14.0	13.8	13.6	13.4	13.3	13.2	13.1
1.56	5.23	21.6	21.6	21.4	20.2	18.0	16.6	15.8	15.2	14.8	14.5	14.3	14.1	13.9	13.6	13.5	13.3	13.2	13.1
1.75	5.11	21.6	21.6	21.4	20.2	18.0	16.7	15.9	15.3	14.9	14.6	14.3	14.1	14.0	13.7	13.5	13.4	13.3	13.2
2.00	4.96	21.6	21.6	21.5	20.3	18.1	16.8	16.0	15.4	15.0	14.7	14.4	14.2	14.1	13.8	13.6	13.5	13.4	13.3
2.01	4.95	21.6	21.6	21.5	20.3	18.1	16.8	16.0	15.4	15.0	14.7	14.4	14.2	14.1	13.8	13.6	13.5	13.4	13.3
2.04	4.93	21.6	21.6	21.5	20.3	18.2	16.8	16.0	15.4	15.0	14.7	14.4	14.2	14.1	13.8	13.6	13.5	13.4	13.3
2.09	4.90	19.8	21.6	20.3	19.8	18.2	16.9	16.1	15.6	15.1	14.8	14.6	14.3	14.1	13.9	13.8	13.5	13.4	13.3
2.23	4.81	19.9	20.3	20.3	19.8	18.1	17.0	16.2	15.6	15.2	14.9	14.6	14.4	14.3	14.0	13.8	13.7	13.6	13.5
2.50	4.65	19.9	20.3	20.3	19.9	18.2	17.1	16.3	15.7	15.3	15.0	14.8	14.6	14.4	14.1	14.0	13.8	13.7	13.6
2.66	4.55	19.9	20.3	20.4	19.9	18.3	17.1	16.4	15.8	15.4	15.1	14.8	14.6	14.5	14.2	14.1	13.9	13.8	13.8
2.90	4.40	19.2	20.3	19.8	19.5	18.3	17.2	16.4	15.8	15.4	15.1	14.9	14.7	14.5	14.3	14.1	14.0	13.9	13.8
3.00	4.34	19.2	19.7	19.8	19.5	18.2	17.1	16.4	15.9	15.4	15.1	14.9	14.7	14.6	14.3	14.1	14.0	13.9	13.8
3.02	4.32	19.2	19.7	19.8	19.5	18.2	17.1	16.4	15.9	15.4	15.1	14.9	14.7	14.6	14.3	14.1	14.0	13.9	13.8
3.21	4.21	19.3	19.7	19.8	19.6	18.2	17.2	16.4	15.9	15.5	15.2	14.9	14.8	14.6	14.4	14.2	14.1	14.0	13.9
3.50	4.03	19.4	19.8	19.9	19.7	18.4	17.3	16.5	16.0	15.6	15.3	15.1	14.9	14.8	14.5	14.4	14.2	14.1	14.1
3.51	4.02	19.4	19.8	19.9	19.7	18.4	17.3	16.6	16.0	15.6	15.3	15.1	14.9	14.8	14.5	14.4	14.2	14.1	14.1
4.00	3.71	19.5	19.9	20.0	19.8	18.5	17.4	16.7	16.2	15.8	15.5	15.2	15.1	14.9	14.7	14.5	14.4	14.3	14.2
4.02	3.70	19.5	19.9	20.0	19.8	18.5	17.4	16.7	16.2	15.8	15.5	15.3	15.1	14.9	14.7	14.5	14.4	14.3	14.2
4.17	3.61	19.5	20.0	20.0	19.8	18.5	17.5	16.8	16.2	15.8	15.5	15.3	15.1	15.0	14.7	14.6	14.5	14.4	14.3
4.50	3.40	19.7	20.1	20.2	19.9	18.6	17.6	16.9	16.4	16.0	15.7	15.5	15.3	15.1	14.9	14.8	14.6	14.6	14.5
4.53	3.39	19.7	20.1	20.2	19.9	18.7	17.6	16.9	16.4	16.0	15.7	15.5	15.3	15.2	14.9	14.8	14.7	14.6	14.5
4.62	3.33	19.7	20.1	20.2	20.0	18.7	17.6	16.9	16.4	16.0	15.7	15.5	15.3	15.2	14.9	14.8	14.7	14.6	14.5
4.81	3.21	19.8	20.1	20.2	20.0	18.7	17.7	17.0	16.5	16.1	15.8	15.5	15.4	15.2	15.0	14.8	14.7	14.6	14.6
4.94	3.13	19.8	20.2	20.2	20.0	18.7	17.7	17.0	16.5	16.1	15.8	15.6	15.4	15.2	15.0	14.9	14.8	14.7	14.6
5.00	3.09	19.8	20.2	20.3	20.0	18.8	17.7	17.0	16.5	16.1	15.8	15.6	15.4	15.2	15.0	14.9	14.8	14.7	14.6
5.26	2.93	19.9	20.2	20.3	20.1	18.8	17.8	17.0	16.5	16.1	15.9	15.6	15.4	15.3	15.1	14.9	14.8	14.7	14.7
5.50	2.78	20.0	20.3	20.4	20.1	18.9	17.8	17.1	16.6	16.2	15.9	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7
5.83	2.58	20.0	20.3	20.4	20.1	18.9	17.9	17.2	16.7	16.3	16.0	15.7	15.6	15.4	15.2	15.0	14.9	14.8	14.8
5.92	2.52	20.0	20.3	20.4	20.2	18.9	17.9	17.2	16.7	16.3	16.0	15.8	15.6	15.4	15.2	15.1	14.9	14.9	14.8
6.00	2.47	20.0	20.3	20.4	20.2	19.0	18.0	17.2	16.7	16.3	16.0	15.8	15.6	15.5	15.2	15.1	15.0	14.9	14.8
6.23	2.33	20.1	20.4	20.5	20.2	19.0	18.0	17.3	16.8	16.4	16.1	15.9	15.7	15.6	15.3	15.2	15.1	15.0	14.9
6.37	2.24	20.1	20.4	20.5	20.3	19.1	18.1	17.3	16.8	16.4	16.1	15.9	15.7	15.6	15.4	15.2	15.1	15.0	15.0
6.50	2.16	20.1	20.4	20.5	20.3	19.1	18.1	17.4	16.8	16.5	16.2	15.9	15.8	15.6	15.4	15.2	15.1	15.1	15.0
6.60	2.10	20.1	20.4	20.5	20.3	19.1	18.1	17.4	16.9	16.5	16.2	15.9	15.8	15.6	15.4	15.3	15.1	15.1	15.0
6.68	2.05	19.9	20.4	20.3	20.3	19.0	18.1	17.4	16.9	16.5	16.2	15.9	15.8	15.6	15.4	15.3	15.1	15.1	15.0
6.70	2.04	19.9	20.2	20.3	20.1	19.0	18.1	17.4	16.9	16.5	16.2	16.0	15.8	15.6	15.4	15.3	15.2	15.1	15.0
6.92	1.90	19.9	20.2	20.3	20.2	19.1	18.1	17.4	16.9	16.5	16.3	16.0	15.8	15.7	15.5	15.3	15.2	15.1	15.1

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-104. Upper Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																	
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	6.20	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
0.35	5.98	21.3	19.3	18.5	16.5	15.1	14.6	14.3	14.1	14.0	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.5
0.50	5.89	23.3	21.4	20.5	18.0	16.1	15.3	14.8	14.6	14.4	14.2	14.1	14.0	14.0	13.9	13.8	13.8	13.7	13.7
0.83	5.68	24.6	23.5	22.9	20.4	17.8	16.6	15.9	15.5	15.2	14.9	14.8	14.6	14.5	14.4	14.2	14.1	14.1	14.0
0.95	5.61	23.3	23.0	22.5	20.5	18.0	16.8	16.1	15.6	15.3	15.1	14.9	14.7	14.6	14.4	14.3	14.2	14.1	14.1
1.00	5.58	23.5	23.1	22.7	20.7	18.2	17.0	16.2	15.7	15.4	15.1	15.0	14.8	14.7	14.5	14.4	14.3	14.2	14.1
1.26	5.42	24.0	23.6	23.3	21.4	18.9	17.5	16.7	16.2	15.8	15.5	15.3	15.1	15.0	14.8	14.6	14.5	14.4	14.3
1.42	5.32	23.5	23.4	23.1	21.6	19.2	17.8	17.0	16.4	16.0	15.7	15.5	15.3	15.1	14.9	14.8	14.6	14.5	14.4
1.50	5.27	23.3	23.3	23.1	21.7	19.3	18.0	17.1	16.5	16.1	15.8	15.6	15.4	15.2	15.0	14.8	14.7	14.6	14.5
1.56	5.23	23.2	23.2	23.0	21.7	19.4	18.0	17.2	16.6	16.2	15.9	15.6	15.4	15.3	15.0	14.9	14.7	14.6	14.5
1.75	5.11	23.2	23.2	23.1	21.8	19.5	18.1	17.3	16.7	16.3	15.9	15.7	15.5	15.4	15.1	14.9	14.8	14.7	14.6
2.00	4.96	23.2	23.2	23.1	21.9	19.6	18.2	17.4	16.8	16.4	16.0	15.8	15.6	15.4	15.2	15.0	14.9	14.8	14.7
2.01	4.95	23.2	23.2	23.1	21.9	19.6	18.2	17.4	16.8	16.4	16.1	15.8	15.6	15.5	15.2	15.0	14.9	14.8	14.7
2.04	4.93	23.2	23.2	23.1	21.9	19.6	18.3	17.4	16.8	16.4	16.1	15.8	15.6	15.5	15.2	15.0	14.9	14.8	14.7
2.09	4.90	20.8	21.4	21.5	21.1	19.6	18.2	17.4	16.9	16.4	16.1	15.8	15.6	15.5	15.2	15.1	14.9	14.8	14.8
2.23	4.81	20.8	21.4	21.5	21.1	19.4	18.3	17.5	16.9	16.5	16.2	15.9	15.8	15.6	15.3	15.2	15.0	14.9	14.9
2.50	4.65	20.8	21.4	21.5	21.1	19.5	18.4	17.6	17.0	16.6	16.3	16.1	15.9	15.7	15.5	15.3	15.2	15.1	15.0
2.66	4.55	20.8	21.4	21.5	21.2	19.6	18.4	17.6	17.1	16.7	16.4	16.1	16.0	15.8	15.6	15.4	15.3	15.2	15.1
2.90	4.40	19.8	20.5	21.6	20.6	19.6	18.3	17.6	17.1	16.7	16.4	16.2	16.0	15.9	15.6	15.5	15.3	15.2	15.2
3.00	4.34	19.8	20.6	20.8	20.7	19.4	18.3	17.6	17.1	16.7	16.4	16.2	16.0	15.9	15.6	15.5	15.4	15.3	15.2
3.02	4.32	19.8	20.6	20.8	20.7	19.4	18.3	17.6	17.1	16.7	16.4	16.2	16.0	15.9	15.6	15.5	15.4	15.3	15.2
3.21	4.21	19.9	20.6	20.8	20.7	19.4	18.4	17.7	17.1	16.8	16.5	16.3	16.1	15.9	15.7	15.5	15.4	15.3	15.3
3.50	4.03	20.0	20.7	20.9	20.8	19.5	18.5	17.8	17.3	16.9	16.6	16.4	16.2	16.1	15.9	15.7	15.6	15.5	15.4
3.51	4.02	20.0	20.7	20.9	20.8	19.5	18.5	17.8	17.3	16.9	16.6	16.4	16.2	16.1	15.9	15.7	15.6	15.5	15.4
4.00	3.71	20.1	20.8	21.0	20.9	19.6	18.6	17.9	17.4	17.0	16.8	16.5	16.4	16.2	16.0	15.9	15.7	15.7	15.6
4.02	3.70	20.1	20.8	21.0	20.9	19.6	18.6	17.9	17.4	17.0	16.8	16.5	16.4	16.2	16.0	15.9	15.8	15.7	15.6
4.17	3.61	20.2	20.8	21.0	20.9	19.7	18.7	18.0	17.5	17.1	16.8	16.6	16.4	16.3	16.1	15.9	15.8	15.7	15.7
4.50	3.40	20.3	20.9	21.1	21.0	19.8	18.8	18.1	17.6	17.3	17.0	16.8	16.6	16.5	16.2	16.1	16.0	15.9	15.9
4.53	3.39	20.3	21.0	21.1	21.0	19.8	18.8	18.1	17.6	17.3	17.0	16.8	16.6	16.5	16.3	16.1	16.0	15.9	15.9
4.62	3.33	20.4	21.0	21.1	21.1	19.8	18.8	18.1	17.6	17.3	17.0	16.8	16.6	16.5	16.3	16.1	16.0	16.0	15.9
4.81	3.21	20.4	21.0	21.2	21.1	19.9	18.9	18.2	17.7	17.3	17.0	16.8	16.6	16.5	16.3	16.2	16.1	16.0	15.9
4.94	3.13	20.4	21.0	21.2	21.1	19.9	18.9	18.2	17.7	17.3	17.1	16.9	16.7	16.5	16.3	16.2	16.1	16.0	16.0
5.00	3.09	20.5	21.0	21.2	21.1	19.9	18.9	18.2	17.7	17.4	17.1	16.9	16.7	16.5	16.4	16.2	16.1	16.0	16.0
5.26	2.93	20.6	21.1	21.3	21.2	20.0	19.0	18.3	17.8	17.4	17.1	16.9	16.7	16.6	16.4	16.3	16.1	16.1	16.0
5.50	2.78	20.6	21.2	21.3	21.2	20.0	19.0	18.3	17.8	17.5	17.2	17.0	16.8	16.6	16.4	16.3	16.2	16.1	16.1
5.83	2.58	20.7	21.2	21.4	21.3	20.1	19.1	18.4	17.9	17.5	17.2	17.0	16.9	16.7	16.5	16.4	16.3	16.2	16.1
5.92	2.52	20.7	21.2	21.4	21.3	20.1	19.1	18.4	17.9	17.5	17.3	17.0	16.9	16.7	16.5	16.4	16.3	16.2	16.2
6.00	2.47	20.7	21.2	21.4	21.3	20.1	19.1	18.4	17.9	17.6	17.3	17.1	16.9	16.8	16.6	16.4	16.3	16.3	16.2
6.23	2.33	20.8	21.3	21.4	21.3	20.2	19.2	18.5	18.0	17.6	17.4	17.2	17.0	16.9	16.7	16.5	16.4	16.4	16.3
6.37	2.24	20.8	21.3	21.5	21.4	20.2	19.2	18.5	18.0	17.7	17.4	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.4
6.50	2.16	20.8	21.3	21.4	21.3	20.2	19.2	18.5	18.0	17.7	17.4	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.4
6.60	2.10	20.8	21.3	21.4	21.3	20.2	19.2	18.5	18.1	17.7	17.4	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.4
6.68	2.05	20.6	21.3	21.4	21.3	20.1	19.2	18.6	18.1	17.7	17.4	17.2	17.1	16.9	16.7	16.6	16.5	16.4	16.4
6.70	2.04	20.6	21.1	21.2	21.2	20.1	19.2	18.6	18.1	17.7	17.5	17.2	17.1	16.9	16.7	16.6	16.5	16.5	16.4
6.92	1.90	20.6	21.1	21.2	21.2	20.2	19.3	18.6	18.1	17.8	17.5	17.3	17.1	17.0	16.8	16.6	16.5	16.5	16.4

* Downstream distances relative to Dam 4

** Upper Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-105. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
0.18	1.53	10.9	10.3	10.1	10.1	9.9	9.7	9.6	9.6	9.6	9.6	9.6	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
0.28	1.47	11.6	10.7	10.5	10.4	10.0	9.8	9.7	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.5	9.5	9.5	9.5	9.5
0.43	1.38	12.4	11.3	11.0	10.8	10.3	9.9	9.8	9.7	9.7	9.7	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
0.50	1.34	12.8	11.5	11.2	11.0	10.5	10.0	9.9	9.8	9.7	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.6	9.6	9.6
0.53	1.32	12.9	11.6	11.3	11.1	10.5	10.1	9.9	9.8	9.8	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.6	9.6	9.6
0.63	1.26	13.4	12.0	11.6	11.4	10.7	10.2	10.0	9.9	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.6
0.73	1.19	13.8	12.3	11.9	11.6	10.9	10.3	10.1	10.0	9.9	9.9	9.8	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.7
0.98	1.04	14.4	13.0	12.6	12.2	11.4	10.6	10.3	10.1	10.1	10.0	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.7	9.7
1.00	1.03	14.5	13.1	12.6	12.3	11.4	10.6	10.3	10.2	10.1	10.0	9.9	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.7
1.03	1.01	14.6	13.1	12.7	12.3	11.5	10.7	10.4	10.2	10.1	10.0	10.0	9.9	9.9	9.9	9.8	9.8	9.8	9.8	9.8
1.13	0.94	14.7	13.4	12.9	12.5	11.6	10.8	10.4	10.3	10.1	10.1	10.0	10.0	9.9	9.9	9.9	9.8	9.8	9.8	9.8
1.18	0.91	14.8	13.4	13.0	12.6	11.7	10.8	10.5	10.3	10.2	10.1	10.0	10.0	9.9	9.9	9.9	9.8	9.8	9.8	9.8
1.33	0.82	15.0	13.7	13.2	12.9	11.9	11.0	10.6	10.4	10.3	10.2	10.1	10.0	10.0	10.0	9.9	9.9	9.9	9.8	9.8
1.38	0.79	15.1	13.8	13.3	13.0	12.0	11.0	10.6	10.4	10.3	10.2	10.1	10.1	10.0	10.0	9.9	9.9	9.9	9.9	9.8
1.48	0.73	15.2	14.0	13.5	13.1	12.1	11.1	10.7	10.5	10.3	10.2	10.1	10.1	10.1	10.0	10.0	9.9	9.9	9.9	9.8
1.50	0.71	15.2	14.0	13.5	13.2	12.2	11.1	10.7	10.5	10.3	10.2	10.2	10.1	10.1	10.0	10.0	9.9	9.9	9.9	9.9
1.58	0.66	15.3	14.1	13.7	13.3	12.3	11.2	10.8	10.6	10.4	10.3	10.2	10.1	10.1	10.1	10.0	10.0	9.9	9.9	9.9
1.63	0.63	15.3	14.2	13.8	13.4	12.4	11.3	10.9	10.6	10.4	10.3	10.3	10.2	10.1	10.1	10.1	10.0	10.0	9.9	9.9
1.70	0.59	15.4	14.4	13.9	13.5	12.5	11.4	10.9	10.7	10.5	10.4	10.3	10.2	10.2	10.1	10.1	10.0	10.0	10.0	9.9
1.78	0.54	12.9	13.2	13.0	12.8	12.1	11.3	10.9	10.6	10.5	10.4	10.3	10.2	10.2	10.1	10.1	10.0	10.0	10.0	10.0
1.88	0.48	11.2	12.1	12.1	12.1	11.7	11.1	10.8	10.6	10.4	10.3	10.3	10.2	10.2	10.1	10.1	10.0	10.0	10.0	9.9
1.93	0.45	10.6	11.7	11.8	11.8	11.6	11.1	10.8	10.6	10.5	10.4	10.3	10.3	10.2	10.2	10.1	10.1	10.1	10.1	10.0
1.98	0.42	10.1	11.3	11.5	11.5	11.4	11.0	10.8	10.6	10.5	10.4	10.3	10.3	10.2	10.2	10.1	10.1	10.1	10.1	10.0
2.00	0.40	9.9	11.1	11.3	11.4	11.4	11.0	10.7	10.6	10.5	10.4	10.3	10.3	10.2	10.2	10.1	10.1	10.1	10.1	10.0
2.08	0.35	9.4	10.6	10.9	11.0	11.1	10.9	10.7	10.5	10.4	10.4	10.3	10.3	10.2	10.2	10.2	10.1	10.1	10.1	10.1
2.18	0.29	8.9	10.1	10.4	10.6	10.9	10.8	10.6	10.5	10.4	10.4	10.3	10.3	10.3	10.2	10.2	10.1	10.1	10.1	10.1
2.28	0.23	8.5	9.7	10.1	10.3	10.6	10.7	10.6	10.5	10.4	10.4	10.3	10.3	10.3	10.2	10.2	10.2	10.1	10.1	10.1
2.38	0.17	8.2	9.4	9.8	10.0	10.4	10.6	10.5	10.4	10.4	10.4	10.3	10.3	10.3	10.2	10.2	10.2	10.1	10.1	10.1
2.43	0.14	8.1	9.3	9.6	9.9	10.3	10.5	10.5	10.4	10.4	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.1	10.1	10.1
2.50	0.09	8.0	9.1	9.5	9.7	10.2	10.5	10.5	10.4	10.4	10.4	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.2	10.2
2.53	0.07	8.3	9.3	9.7	9.9	10.3	10.6	10.5	10.5	10.4	10.4	10.4	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.2
2.65	0.00	8.1	9.1	9.4	9.7	10.2	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4	10.3	10.3	10.3	10.3	10.3	10.3

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-106. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
0.18	1.53	12.9	12.2	12.1	12.0	11.8	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.4	11.4	11.4	11.4	11.4	11.4
0.28	1.47	13.5	12.6	12.4	12.3	12.0	11.7	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.4	11.4	11.4
0.43	1.38	14.3	13.2	12.9	12.7	12.3	11.9	11.7	11.7	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5
0.50	1.34	14.6	13.4	13.1	12.9	12.4	12.0	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5
0.53	1.32	14.8	13.6	13.2	13.0	12.5	12.0	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5
0.63	1.26	15.1	13.9	13.5	13.3	12.7	12.1	11.9	11.8	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.6	11.5	11.5
0.73	1.19	15.5	14.2	13.8	13.5	12.9	12.3	12.0	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.6	11.6	11.6	11.6	11.6
0.98	1.04	16.1	14.8	14.4	14.1	13.3	12.6	12.3	12.1	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.7	11.6
1.00	1.03	16.1	14.9	14.5	14.1	13.4	12.6	12.3	12.1	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.7	11.7
1.03	1.01	16.2	15.0	14.6	14.2	13.4	12.6	12.3	12.1	12.0	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.7
1.13	0.94	16.3	15.1	14.7	14.4	13.6	12.7	12.4	12.2	12.1	12.0	11.9	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7
1.18	0.91	16.4	15.2	14.8	14.5	13.6	12.8	12.4	12.2	12.1	12.0	12.0	11.9	11.9	11.9	11.8	11.8	11.7	11.7	11.7
1.33	0.82	16.5	15.5	15.1	14.7	13.8	12.9	12.5	12.3	12.2	12.1	12.0	12.0	11.9	11.9	11.9	11.8	11.8	11.8	11.7
1.38	0.79	16.5	15.6	15.1	14.8	13.9	13.0	12.6	12.4	12.2	12.1	12.1	12.0	11.9	11.9	11.9	11.8	11.8	11.8	11.8
1.48	0.73	16.6	15.7	15.3	15.0	14.0	13.1	12.6	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.9	11.9	11.8	11.8	11.8
1.50	0.71	16.7	15.7	15.3	15.0	14.1	13.1	12.6	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.9	11.9	11.8	11.8	11.8
1.58	0.66	16.7	15.8	15.4	15.1	14.2	13.2	12.7	12.5	12.3	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.9	11.8	11.8
1.63	0.63	16.8	15.9	15.5	15.2	14.3	13.2	12.8	12.5	12.4	12.3	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.9	11.9
1.70	0.59	16.8	16.0	15.6	15.3	14.4	13.3	12.9	12.6	12.4	12.3	12.2	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.9
1.78	0.54	16.4	15.9	15.6	15.3	14.4	13.4	12.9	12.6	12.5	12.4	12.3	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.9
1.88	0.48	15.9	15.7	15.4	15.2	14.4	13.4	12.9	12.7	12.5	12.4	12.3	12.2	12.2	12.1	12.1	12.0	12.0	11.9	11.9
1.93	0.45	15.7	15.6	15.4	15.2	14.5	13.5	13.0	12.7	12.6	12.4	12.4	12.3	12.2	12.2	12.1	12.1	12.0	12.0	12.0
1.98	0.42	15.6	15.6	15.4	15.2	14.5	13.5	13.0	12.8	12.6	12.5	12.4	12.3	12.3	12.2	12.1	12.1	12.1	12.0	12.0
2.00	0.40	15.5	15.5	15.4	15.2	14.5	13.5	13.0	12.8	12.6	12.5	12.4	12.3	12.3	12.2	12.1	12.1	12.1	12.0	12.0
2.08	0.35	15.3	15.4	15.3	15.1	14.5	13.5	13.1	12.8	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.1	12.1	12.1	12.0
2.18	0.29	15.1	15.3	15.2	15.1	14.5	13.6	13.1	12.9	12.7	12.6	12.5	12.4	12.4	12.3	12.2	12.2	12.1	12.1	12.1
2.28	0.23	14.9	15.2	15.1	15.0	14.5	13.6	13.2	12.9	12.7	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.1	12.1
2.38	0.17	14.7	15.1	15.1	15.0	14.5	13.7	13.2	13.0	12.8	12.7	12.6	12.5	12.4	12.4	12.3	12.2	12.2	12.2	12.1
2.43	0.14	14.7	15.1	15.1	15.0	14.5	13.7	13.3	13.0	12.8	12.7	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.1
2.50	0.09	14.6	15.0	15.1	15.0	14.6	13.8	13.3	13.1	12.9	12.7	12.6	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2
2.53	0.07	14.8	15.1	15.1	15.1	14.6	13.8	13.4	13.1	12.9	12.8	12.7	12.6	12.5	12.5	12.4	12.3	12.3	12.2	12.2
2.65	0.00	14.7	15.1	15.1	15.0	14.7	13.9	13.4	13.2	13.0	12.8	12.7	12.7	12.6	12.5	12.4	12.4	12.3	12.3	12.3

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-107. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
0.18	1.53	14.6	13.6	13.3	13.1	12.8	12.5	12.4	12.4	12.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.28	1.47	15.7	14.2	13.9	13.6	13.1	12.7	12.6	12.5	12.4	12.4	12.4	12.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.43	1.38	17.0	15.2	14.7	14.4	13.6	13.0	12.8	12.6	12.6	12.5	12.5	12.4	12.4	12.4	12.4	12.3	12.3	12.3	12.3
0.50	1.34	17.6	15.6	15.0	14.7	13.8	13.1	12.8	12.7	12.6	12.6	12.5	12.5	12.4	12.4	12.4	12.4	12.4	12.4	12.3
0.53	1.32	17.8	15.7	15.2	14.8	13.9	13.2	12.9	12.7	12.6	12.6	12.5	12.5	12.5	12.4	12.4	12.4	12.4	12.4	12.4
0.63	1.26	18.5	16.3	15.7	15.2	14.2	13.4	13.0	12.9	12.7	12.7	12.6	12.6	12.5	12.5	12.5	12.4	12.4	12.4	12.4
0.73	1.19	19.0	16.8	16.1	15.7	14.6	13.6	13.2	13.0	12.9	12.8	12.7	12.7	12.6	12.6	12.5	12.5	12.5	12.5	12.4
0.98	1.04	20.0	17.9	17.1	16.6	15.3	14.0	13.5	13.2	13.1	13.0	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.6	12.5
1.00	1.03	20.1	17.9	17.2	16.7	15.3	14.0	13.5	13.3	13.1	13.0	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.6	12.6
1.03	1.01	20.2	18.1	17.3	16.8	15.4	14.1	13.6	13.3	13.1	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.6	12.6	12.6
1.13	0.94	20.5	18.4	17.7	17.1	15.7	14.3	13.7	13.4	13.2	13.1	13.0	12.9	12.9	12.8	12.7	12.7	12.6	12.6	12.6
1.18	0.91	20.6	18.5	17.8	17.2	15.8	14.3	13.8	13.4	13.3	13.1	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.6	12.6
1.33	0.82	20.8	19.0	18.2	17.6	16.1	14.6	13.9	13.6	13.4	13.2	13.1	13.0	13.0	12.9	12.8	12.8	12.7	12.7	12.6
1.38	0.79	20.9	19.1	18.4	17.8	16.2	14.6	14.0	13.6	13.4	13.3	13.1	13.1	13.0	12.9	12.9	12.8	12.7	12.7	12.7
1.48	0.73	21.1	19.4	18.6	18.0	16.5	14.8	14.1	13.7	13.5	13.3	13.2	13.1	13.0	13.0	12.9	12.8	12.8	12.7	12.7
1.50	0.71	21.1	19.4	18.7	18.1	16.5	14.8	14.1	13.8	13.5	13.3	13.2	13.1	13.1	13.0	12.9	12.8	12.8	12.7	12.7
1.58	0.66	21.2	19.6	18.9	18.3	16.7	15.0	14.2	13.8	13.6	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.7
1.63	0.63	21.3	19.7	19.0	18.5	16.8	15.1	14.3	13.9	13.7	13.5	13.4	13.2	13.2	13.1	13.0	12.9	12.9	12.8	12.8
1.70	0.59	21.4	19.9	19.2	18.6	17.0	15.2	14.4	14.0	13.7	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9	12.9	12.8
1.78	0.54	21.4	20.0	19.4	18.8	17.1	15.3	14.5	14.1	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.9
1.88	0.48	21.4	20.2	19.5	19.0	17.3	15.4	14.6	14.2	13.9	13.7	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9	12.9
1.93	0.45	21.5	20.3	19.7	19.1	17.5	15.6	14.7	14.3	14.0	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9
1.98	0.42	21.5	20.4	19.8	19.2	17.6	15.6	14.8	14.3	14.0	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.0	13.0
2.00	0.40	21.5	20.4	19.8	19.2	17.6	15.7	14.8	14.3	14.0	13.8	13.6	13.5	13.4	13.4	13.2	13.1	13.1	13.0	13.0
2.08	0.35	21.5	20.5	19.9	19.4	17.7	15.8	14.9	14.4	14.1	13.9	13.7	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.0
2.18	0.29	21.6	20.6	20.1	19.5	17.9	15.9	15.0	14.5	14.2	14.0	13.8	13.7	13.6	13.5	13.3	13.3	13.2	13.1	13.1
2.28	0.23	21.6	20.7	20.2	19.7	18.1	16.1	15.1	14.6	14.3	14.1	13.9	13.7	13.6	13.5	13.4	13.3	13.2	13.1	13.1
2.38	0.17	21.6	20.8	20.3	19.8	18.3	16.2	15.3	14.7	14.4	14.1	13.9	13.8	13.7	13.6	13.4	13.4	13.3	13.2	13.1
2.43	0.14	21.6	20.9	20.4	19.9	18.3	16.3	15.3	14.8	14.4	14.2	14.0	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.2
2.50	0.09	21.7	21.0	20.5	20.0	18.4	16.4	15.4	14.9	14.5	14.2	14.1	13.9	13.8	13.7	13.5	13.4	13.3	13.3	13.2
2.53	0.07	21.7	21.0	20.5	20.1	18.5	16.4	15.5	14.9	14.5	14.3	14.1	13.9	13.8	13.7	13.6	13.4	13.4	13.3	13.2
2.65	0.00	21.8	21.1	20.7	20.3	18.7	16.6	15.6	15.1	14.7	14.4	14.2	14.0	13.9	13.8	13.6	13.5	13.4	13.4	13.3

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-108. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
0.18	1.53	15.2	14.6	14.4	14.4	14.2	14.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
0.28	1.47	15.8	15.0	14.8	14.6	14.4	14.1	14.0	14.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
0.43	1.38	16.6	15.5	15.2	15.1	14.6	14.3	14.1	14.1	14.0	14.0	14.0	14.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9
0.50	1.34	16.9	15.8	15.4	15.2	14.8	14.3	14.2	14.1	14.1	14.0	14.0	14.0	14.0	14.0	13.9	13.9	13.9	13.9	13.9
0.53	1.32	17.1	15.9	15.5	15.3	14.8	14.4	14.2	14.1	14.1	14.1	14.0	14.0	14.0	14.0	14.0	13.9	13.9	13.9	13.9
0.63	1.26	17.5	16.2	15.8	15.6	15.0	14.5	14.3	14.2	14.1	14.1	14.1	14.1	14.0	14.0	14.0	14.0	14.0	14.0	13.9
0.73	1.19	17.8	16.5	16.1	15.8	15.2	14.6	14.4	14.3	14.2	14.2	14.1	14.1	14.1	14.1	14.1	14.0	14.0	14.0	14.0
0.98	1.04	18.5	17.1	16.7	16.4	15.6	14.9	14.6	14.5	14.4	14.3	14.3	14.2	14.2	14.2	14.1	14.1	14.1	14.1	14.1
1.00	1.03	18.5	17.2	16.8	16.4	15.6	14.9	14.6	14.5	14.4	14.3	14.3	14.2	14.2	14.2	14.1	14.1	14.1	14.1	14.1
1.03	1.01	18.6	17.3	16.8	16.5	15.7	15.0	14.7	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.1	14.1	14.1	14.1
1.13	0.94	18.8	17.5	17.0	16.7	15.9	15.1	14.7	14.6	14.5	14.4	14.3	14.3	14.3	14.2	14.2	14.2	14.1	14.1	14.1
1.18	0.91	18.8	17.5	17.1	16.8	15.9	15.1	14.8	14.6	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.1	14.1	14.1
1.33	0.82	19.0	17.8	17.4	17.0	16.1	15.2	14.9	14.7	14.6	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.2	14.1
1.38	0.79	19.1	17.9	17.5	17.1	16.2	15.3	14.9	14.7	14.6	14.5	14.4	14.4	14.3	14.3	14.3	14.2	14.2	14.2	14.2
1.48	0.73	19.2	18.1	17.6	17.3	16.3	15.4	15.0	14.8	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.2
1.50	0.71	19.2	18.1	17.6	17.3	16.4	15.4	15.0	14.8	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3	14.2	14.2	14.2
1.58	0.66	19.3	18.2	17.8	17.4	16.5	15.5	15.1	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3	14.2	14.2
1.63	0.63	19.3	18.3	17.9	17.5	16.5	15.5	15.1	14.9	14.7	14.6	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3	14.3
1.70	0.59	19.4	18.4	18.0	17.6	16.6	15.6	15.2	14.9	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.4	14.3	14.3	14.3
1.78	0.54	19.5	18.5	18.1	17.7	16.8	15.7	15.2	15.0	14.8	14.7	14.6	14.6	14.5	14.5	14.4	14.4	14.4	14.3	14.3
1.88	0.48	19.6	18.6	18.2	17.9	16.9	15.8	15.3	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.3	14.3
1.93	0.45	19.6	18.8	18.4	18.0	17.0	15.9	15.4	15.1	15.0	14.8	14.8	14.7	14.6	14.6	14.5	14.5	14.4	14.4	14.4
1.98	0.42	19.7	18.8	18.4	18.0	17.0	15.9	15.4	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.5	14.4	14.4	14.4
2.00	0.40	19.7	18.8	18.4	18.1	17.1	15.9	15.4	15.2	15.0	14.9	14.8	14.7	14.7	14.6	14.6	14.5	14.5	14.4	14.4
2.08	0.35	19.7	18.9	18.5	18.2	17.2	16.0	15.5	15.2	15.1	14.9	14.8	14.8	14.7	14.6	14.6	14.5	14.5	14.4	14.4
2.18	0.29	19.8	19.0	18.7	18.3	17.3	16.1	15.6	15.3	15.1	15.0	14.9	14.8	14.8	14.7	14.6	14.6	14.5	14.5	14.5
2.28	0.23	19.9	19.1	18.8	18.4	17.4	16.2	15.7	15.4	15.2	15.0	14.9	14.9	14.8	14.7	14.7	14.6	14.6	14.5	14.5
2.38	0.17	19.9	19.2	18.9	18.5	17.5	16.3	15.8	15.4	15.2	15.1	15.0	14.9	14.8	14.8	14.7	14.6	14.6	14.6	14.5
2.43	0.14	19.9	19.3	18.9	18.6	17.6	16.3	15.8	15.5	15.3	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.6	14.6	14.5
2.50	0.09	20.0	19.3	19.0	18.7	17.7	16.4	15.9	15.5	15.3	15.2	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.6	14.6
2.53	0.07	20.0	19.4	19.0	18.7	17.7	16.5	15.9	15.6	15.4	15.2	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.6	14.6
2.65	0.00	20.1	19.5	19.2	18.9	17.9	16.6	16.0	15.7	15.4	15.3	15.2	15.1	15.0	15.0	14.9	14.8	14.8	14.7	14.7

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-109. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
0.18	1.53	10.0	8.7	8.4	8.0	7.8	7.4	7.3	7.2	7.2	7.2	7.2	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
0.28	1.47	11.4	9.6	9.1	8.5	8.2	7.7	7.5	7.4	7.3	7.3	7.2	7.2	7.2	7.2	7.2	7.1	7.1	7.1	7.1
0.43	1.38	13.2	10.8	10.1	9.2	8.8	8.0	7.7	7.5	7.4	7.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2	7.2
0.50	1.34	13.9	11.3	10.6	9.5	9.1	8.1	7.8	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.3	7.2	7.2	7.2	7.2
0.53	1.32	14.2	11.5	10.8	9.6	9.2	8.2	7.9	7.7	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.3	7.2	7.2	7.2
0.63	1.26	15.0	12.2	11.4	10.1	9.6	8.4	8.0	7.8	7.7	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.3	7.3	7.2
0.73	1.19	15.8	12.8	12.0	10.5	9.9	8.7	8.2	8.0	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3	7.3	7.3
0.98	1.04	17.2	14.2	13.3	11.5	10.8	9.2	8.6	8.3	8.1	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.4
1.00	1.03	17.2	14.3	13.4	11.6	10.9	9.3	8.6	8.3	8.1	8.0	7.9	7.8	7.7	7.7	7.6	7.5	7.5	7.4	7.4
1.03	1.01	17.4	14.5	13.5	11.7	11.0	9.4	8.7	8.4	8.1	8.0	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.4
1.13	0.94	17.7	14.9	13.9	12.0	11.3	9.6	8.9	8.5	8.3	8.1	8.0	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5
1.18	0.91	17.9	15.1	14.1	12.2	11.5	9.6	8.9	8.5	8.3	8.1	8.0	7.9	7.8	7.8	7.7	7.6	7.6	7.5	7.5
1.33	0.82	18.3	15.7	14.7	12.6	11.9	9.9	9.1	8.7	8.4	8.3	8.1	8.0	7.9	7.9	7.8	7.7	7.6	7.6	7.5
1.38	0.79	18.4	15.9	14.9	12.8	12.1	10.0	9.2	8.8	8.5	8.3	8.2	8.1	8.0	7.9	7.8	7.7	7.7	7.6	7.6
1.48	0.73	18.6	16.2	15.2	13.0	12.4	10.2	9.4	8.9	8.6	8.4	8.2	8.1	8.0	7.9	7.8	7.8	7.7	7.6	7.6
1.50	0.71	18.6	16.3	15.3	13.1	12.4	10.3	9.4	8.9	8.6	8.4	8.3	8.1	8.0	8.0	7.8	7.8	7.7	7.6	7.6
1.58	0.66	18.8	16.5	15.6	13.3	12.6	10.4	9.5	9.0	8.7	8.5	8.3	8.2	8.1	8.0	7.9	7.8	7.7	7.7	7.6
1.63	0.63	18.9	16.7	15.7	13.5	12.8	10.6	9.6	9.1	8.8	8.6	8.4	8.3	8.2	8.1	7.9	7.9	7.8	7.7	7.7
1.70	0.59	19.0	16.9	16.0	13.6	13.0	10.7	9.7	9.2	8.9	8.6	8.4	8.3	8.2	8.1	8.0	7.9	7.8	7.8	7.7
1.78	0.54	15.8	15.5	15.0	13.0	12.8	10.7	9.8	9.2	8.9	8.7	8.5	8.4	8.3	8.2	8.0	7.9	7.9	7.8	7.8
1.88	0.48	13.6	14.3	14.0	12.3	12.5	10.6	9.8	9.3	8.9	8.7	8.5	8.4	8.3	8.2	8.1	8.0	7.9	7.8	7.8
1.93	0.45	13.0	13.9	13.7	12.1	12.4	10.7	9.8	9.3	9.0	8.8	8.6	8.5	8.4	8.3	8.1	8.1	8.0	7.9	7.9
1.98	0.42	12.4	13.4	13.4	11.8	12.3	10.7	9.9	9.4	9.0	8.8	8.6	8.5	8.4	8.3	8.2	8.1	8.0	7.9	7.9
2.00	0.40	12.2	13.3	13.3	11.7	12.2	10.7	9.9	9.4	9.0	8.8	8.6	8.5	8.4	8.3	8.2	8.1	8.0	7.9	7.9
2.08	0.35	11.5	12.7	12.8	11.4	12.1	10.6	9.9	9.4	9.1	8.9	8.7	8.6	8.4	8.4	8.2	8.1	8.0	8.0	7.9
2.18	0.29	10.9	12.2	12.3	11.0	11.9	10.6	9.9	9.4	9.1	8.9	8.8	8.6	8.5	8.4	8.3	8.2	8.1	8.0	8.0
2.28	0.23	10.5	11.7	11.9	10.7	11.7	10.6	9.9	9.5	9.2	9.0	8.8	8.7	8.6	8.5	8.3	8.2	8.1	8.1	8.0
2.38	0.17	10.2	11.4	11.6	10.4	11.5	10.6	9.9	9.5	9.2	9.0	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.1
2.43	0.14	10.1	11.3	11.5	10.3	11.5	10.6	9.9	9.5	9.2	9.0	8.9	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.1
2.50	0.09	10.0	11.1	11.4	10.2	11.4	10.6	10.0	9.6	9.3	9.1	8.9	8.8	8.7	8.6	8.4	8.3	8.3	8.2	8.1
2.53	0.07	10.3	11.3	11.5	10.4	11.5	10.7	10.1	9.7	9.4	9.1	9.0	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.2
2.65	0.00	10.1	11.1	11.3	10.2	11.4	10.7	10.1	9.7	9.4	9.2	9.1	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.3

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-110. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
0.18	1.53	12.1	10.8	10.5	10.1	9.9	9.5	9.4	9.4	9.3	9.3	9.3	9.3	9.2	9.2	9.2	9.2	9.2	9.2	9.2
0.28	1.47	13.5	11.7	11.2	10.6	10.3	9.8	9.6	9.5	9.4	9.4	9.3	9.3	9.3	9.3	9.3	9.2	9.2	9.2	9.2
0.43	1.38	15.3	12.8	12.2	11.4	10.9	10.1	9.8	9.6	9.6	9.5	9.4	9.4	9.4	9.4	9.3	9.3	9.3	9.3	9.3
0.50	1.34	16.0	13.4	12.7	11.7	11.1	10.2	9.9	9.7	9.6	9.6	9.5	9.5	9.4	9.4	9.4	9.3	9.3	9.3	9.3
0.53	1.32	16.3	13.6	12.9	11.8	11.3	10.3	10.0	9.8	9.7	9.6	9.5	9.5	9.5	9.4	9.4	9.4	9.3	9.3	9.3
0.63	1.26	17.1	14.3	13.5	12.3	11.6	10.6	10.1	9.9	9.8	9.7	9.6	9.6	9.5	9.5	9.4	9.4	9.4	9.4	9.4
0.73	1.19	17.9	14.9	14.1	12.8	12.0	10.8	10.3	10.1	9.9	9.8	9.7	9.7	9.6	9.6	9.5	9.5	9.5	9.4	9.4
0.98	1.04	19.3	16.3	15.4	13.7	12.9	11.3	10.7	10.4	10.2	10.0	9.9	9.9	9.8	9.8	9.7	9.6	9.6	9.5	9.5
1.00	1.03	19.4	16.4	15.4	13.8	13.0	11.4	10.8	10.4	10.2	10.1	10.0	9.9	9.8	9.8	9.7	9.6	9.6	9.6	9.5
1.03	1.01	19.6	16.6	15.6	13.9	13.1	11.4	10.8	10.5	10.3	10.1	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.6	9.6
1.13	0.94	19.9	17.0	16.0	14.3	13.4	11.6	10.9	10.6	10.4	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.6	9.6	9.6
1.18	0.91	20.1	17.2	16.2	14.4	13.6	11.7	11.0	10.6	10.4	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.7	9.6	9.6
1.33	0.82	20.4	17.8	16.8	14.9	14.0	12.0	11.2	10.8	10.5	10.4	10.2	10.1	10.0	10.0	9.9	9.8	9.7	9.7	9.6
1.38	0.79	20.6	18.0	17.0	15.1	14.2	12.1	11.3	10.9	10.6	10.4	10.3	10.1	10.1	10.0	9.9	9.8	9.8	9.7	9.7
1.48	0.73	20.8	18.3	17.4	15.4	14.5	12.3	11.5	11.0	10.7	10.5	10.3	10.2	10.1	10.1	9.9	9.9	9.8	9.7	9.7
1.50	0.71	20.8	18.4	17.4	15.4	14.5	12.4	11.5	11.0	10.7	10.5	10.4	10.2	10.1	10.1	9.9	9.9	9.8	9.8	9.7
1.58	0.66	21.0	18.7	17.7	15.6	14.7	12.5	11.6	11.1	10.8	10.6	10.4	10.3	10.2	10.1	10.0	9.9	9.9	9.8	9.8
1.63	0.63	21.1	18.8	17.9	15.8	14.9	12.6	11.7	11.2	10.9	10.7	10.5	10.4	10.3	10.2	10.1	10.0	9.9	9.8	9.8
1.70	0.59	21.2	19.0	18.1	16.0	15.1	12.8	11.8	11.3	11.0	10.7	10.6	10.4	10.3	10.2	10.1	10.0	9.9	9.9	9.8
1.78	0.54	21.1	19.2	18.3	16.1	15.3	12.9	11.9	11.4	11.0	10.8	10.6	10.5	10.4	10.3	10.1	10.1	10.0	9.9	9.9
1.88	0.48	21.0	19.3	18.5	16.3	15.5	13.1	12.1	11.5	11.1	10.9	10.7	10.5	10.4	10.3	10.2	10.1	10.0	9.9	9.9
1.93	0.45	21.0	19.4	18.6	16.5	15.7	13.2	12.2	11.6	11.2	11.0	10.8	10.6	10.5	10.4	10.3	10.2	10.1	10.0	10.0
1.98	0.42	20.9	19.5	18.7	16.5	15.8	13.3	12.3	11.7	11.3	11.0	10.8	10.7	10.6	10.5	10.3	10.2	10.1	10.1	10.0
2.00	0.40	20.9	19.5	18.7	16.6	15.8	13.4	12.3	11.7	11.3	11.0	10.8	10.7	10.6	10.5	10.3	10.2	10.1	10.1	10.0
2.08	0.35	20.9	19.6	18.8	16.7	16.0	13.5	12.4	11.8	11.4	11.1	10.9	10.8	10.6	10.5	10.4	10.3	10.2	10.1	10.1
2.18	0.29	20.8	19.7	19.0	16.9	16.2	13.7	12.6	11.9	11.5	11.2	11.0	10.9	10.7	10.6	10.4	10.3	10.2	10.2	10.1
2.28	0.23	20.8	19.8	19.1	17.0	16.4	13.8	12.7	12.0	11.6	11.3	11.1	10.9	10.8	10.7	10.5	10.4	10.3	10.2	10.1
2.38	0.17	20.7	19.9	19.2	17.1	16.6	14.0	12.8	12.1	11.7	11.4	11.2	11.0	10.9	10.8	10.6	10.4	10.4	10.3	10.2
2.43	0.14	20.7	19.9	19.3	17.2	16.7	14.1	12.9	12.2	11.8	11.4	11.2	11.0	10.9	10.8	10.6	10.5	10.4	10.3	10.2
2.50	0.09	20.7	20.0	19.4	17.3	16.8	14.2	13.0	12.3	11.9	11.5	11.3	11.1	11.0	10.9	10.7	10.5	10.4	10.3	10.3
2.53	0.07	20.8	20.0	19.5	17.4	16.9	14.3	13.1	12.4	11.9	11.6	11.3	11.1	11.0	10.9	10.7	10.6	10.5	10.4	10.3
2.65	0.00	20.8	20.2	19.6	17.5	17.1	14.5	13.2	12.5	12.1	11.7	11.5	11.3	11.1	11.0	10.8	10.7	10.6	10.5	10.4

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-111. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
0.18	1.53	14.2	13.0	12.7	12.4	12.1	11.8	11.7	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
0.28	1.47	15.5	13.8	13.4	12.9	12.5	12.0	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.5	11.5
0.43	1.38	17.1	14.9	14.3	13.6	13.1	12.3	12.1	11.9	11.8	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.6	11.5
0.50	1.34	17.7	15.4	14.7	13.9	13.3	12.5	12.2	12.0	11.9	11.8	11.8	11.7	11.7	11.7	11.6	11.6	11.6	11.6	11.6
0.53	1.32	18.0	15.6	14.9	14.1	13.4	12.5	12.2	12.0	11.9	11.9	11.8	11.8	11.7	11.7	11.7	11.6	11.6	11.6	11.6
0.63	1.26	18.7	16.2	15.5	14.5	13.8	12.8	12.4	12.2	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	11.6	11.6
0.73	1.19	19.4	16.8	16.0	14.9	14.2	13.0	12.5	12.3	12.2	12.1	12.0	11.9	11.9	11.9	11.8	11.8	11.7	11.7	11.7
0.98	1.04	20.5	18.0	17.2	15.9	15.0	13.5	12.9	12.6	12.4	12.3	12.2	12.1	12.1	12.0	11.9	11.9	11.8	11.8	11.8
1.00	1.03	20.6	18.1	17.3	16.0	15.0	13.5	12.9	12.6	12.4	12.3	12.2	12.1	12.1	12.0	11.9	11.9	11.9	11.8	11.8
1.03	1.01	20.7	18.3	17.4	16.1	15.1	13.6	13.0	12.7	12.5	12.4	12.3	12.2	12.1	12.1	12.0	11.9	11.9	11.9	11.8
1.13	0.94	21.0	18.6	17.8	16.4	15.4	13.8	13.1	12.8	12.6	12.4	12.3	12.2	12.2	12.1	12.0	12.0	11.9	11.9	11.9
1.18	0.91	21.1	18.8	18.0	16.5	15.6	13.9	13.2	12.9	12.6	12.5	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.9	11.9
1.33	0.82	21.4	19.3	18.5	17.0	16.0	14.1	13.4	13.0	12.8	12.6	12.4	12.4	12.3	12.2	12.1	12.0	12.0	11.9	11.9
1.38	0.79	21.5	19.5	18.6	17.1	16.1	14.3	13.5	13.1	12.8	12.6	12.5	12.4	12.3	12.3	12.1	12.1	12.0	12.0	11.9
1.48	0.73	21.7	19.8	18.9	17.4	16.4	14.4	13.6	13.2	12.9	12.7	12.6	12.4	12.4	12.3	12.2	12.1	12.1	12.0	12.0
1.50	0.71	21.7	19.8	19.0	17.4	16.4	14.5	13.6	13.2	12.9	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.1	12.0	12.0
1.58	0.66	21.8	20.0	19.2	17.6	16.6	14.6	13.8	13.3	13.0	12.8	12.6	12.5	12.4	12.4	12.3	12.2	12.1	12.1	12.0
1.63	0.63	21.9	20.2	19.4	17.8	16.8	14.7	13.9	13.4	13.1	12.9	12.7	12.6	12.5	12.4	12.3	12.2	12.1	12.1	12.1
1.70	0.59	22.0	20.4	19.6	18.0	17.0	14.9	14.0	13.5	13.1	12.9	12.8	12.6	12.6	12.5	12.4	12.3	12.2	12.1	12.1
1.78	0.54	22.1	20.5	19.8	18.1	17.2	15.0	14.1	13.6	13.2	13.0	12.8	12.7	12.6	12.5	12.4	12.3	12.2	12.2	12.1
1.88	0.48	22.1	20.7	20.0	18.4	17.4	15.2	14.2	13.7	13.3	13.1	12.9	12.8	12.7	12.6	12.4	12.3	12.3	12.2	12.1
1.93	0.45	22.2	20.9	20.1	18.5	17.5	15.3	14.3	13.8	13.4	13.2	13.0	12.9	12.8	12.6	12.5	12.4	12.3	12.3	12.2
1.98	0.42	22.2	20.9	20.2	18.6	17.6	15.4	14.4	13.8	13.5	13.2	13.0	12.9	12.8	12.7	12.6	12.4	12.4	12.3	12.3
2.00	0.40	22.2	21.0	20.3	18.6	17.7	15.4	14.4	13.9	13.5	13.2	13.1	12.9	12.8	12.7	12.6	12.4	12.4	12.3	12.3
2.08	0.35	22.3	21.1	20.4	18.8	17.9	15.6	14.5	13.9	13.6	13.3	13.1	13.0	12.9	12.8	12.6	12.5	12.4	12.4	12.3
2.18	0.29	22.3	21.2	20.6	19.0	18.1	15.7	14.7	14.1	13.7	13.4	13.2	13.1	12.9	12.8	12.7	12.6	12.5	12.4	12.4
2.28	0.23	22.4	21.4	20.7	19.1	18.3	15.9	14.8	14.2	13.8	13.5	13.3	13.1	13.0	12.9	12.7	12.6	12.5	12.5	12.4
2.38	0.17	22.4	21.5	20.9	19.3	18.5	16.0	14.9	14.3	13.9	13.6	13.4	13.2	13.1	13.0	12.8	12.7	12.6	12.5	12.4
2.43	0.14	22.4	21.5	21.0	19.3	18.5	16.1	15.0	14.4	13.9	13.6	13.4	13.3	13.1	13.0	12.8	12.7	12.6	12.5	12.5
2.50	0.09	22.5	21.6	21.1	19.5	18.7	16.3	15.1	14.4	14.0	13.7	13.5	13.3	13.2	13.1	12.9	12.8	12.7	12.6	12.5
2.53	0.07	22.5	21.7	21.1	19.5	18.8	16.3	15.2	14.5	14.1	13.8	13.5	13.4	13.2	13.1	12.9	12.8	12.7	12.6	12.6
2.65	0.00	22.6	21.8	21.3	19.7	19.0	16.5	15.4	14.7	14.2	13.9	13.7	13.5	13.3	13.2	13.0	12.9	12.8	12.7	12.6

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-112. Lower Big Creek - Simulated Daily Mean Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release (cfs)

Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
0.18	1.53	15.1	14.3	14.1	13.8	13.7	13.5	13.4	13.4	13.4	13.4	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
0.28	1.47	16.0	14.8	14.6	14.1	14.0	13.6	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3	13.3	13.3	13.3	13.3
0.43	1.38	17.0	15.6	15.2	14.6	14.4	13.9	13.7	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4	13.3	13.3
0.50	1.34	17.4	15.9	15.5	14.8	14.5	14.0	13.8	13.6	13.6	13.5	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4	13.4
0.53	1.32	17.6	16.0	15.6	14.9	14.6	14.0	13.8	13.7	13.6	13.6	13.5	13.5	13.5	13.5	13.4	13.4	13.4	13.4	13.4
0.63	1.26	18.0	16.4	16.0	15.1	14.9	14.2	13.9	13.8	13.7	13.6	13.6	13.6	13.5	13.5	13.5	13.4	13.4	13.4	13.4
0.73	1.19	18.5	16.8	16.3	15.4	15.1	14.3	14.0	13.9	13.8	13.7	13.7	13.6	13.6	13.6	13.5	13.5	13.5	13.5	13.5
0.98	1.04	19.2	17.6	17.1	16.0	15.6	14.7	14.3	14.1	14.0	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.6	13.5
1.00	1.03	19.3	17.7	17.1	16.0	15.7	14.7	14.3	14.1	14.0	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.6	13.6
1.03	1.01	19.3	17.8	17.2	16.1	15.8	14.8	14.4	14.2	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.6
1.13	0.94	19.5	18.0	17.5	16.3	16.0	14.9	14.5	14.2	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6
1.18	0.91	19.6	18.1	17.6	16.4	16.0	14.9	14.5	14.3	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6
1.33	0.82	19.8	18.4	17.9	16.6	16.3	15.1	14.6	14.4	14.2	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.7	13.6
1.38	0.79	19.8	18.5	18.0	16.7	16.4	15.2	14.7	14.4	14.2	14.1	14.0	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.7
1.48	0.73	20.0	18.7	18.2	16.9	16.6	15.3	14.8	14.5	14.3	14.2	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.7
1.50	0.71	20.0	18.8	18.2	16.9	16.6	15.3	14.8	14.5	14.3	14.2	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.7	13.7
1.58	0.66	20.0	18.9	18.4	17.0	16.8	15.4	14.9	14.6	14.4	14.2	14.1	14.1	14.0	13.9	13.9	13.8	13.8	13.7	13.7
1.63	0.63	20.1	19.0	18.5	17.1	16.9	15.5	15.0	14.6	14.4	14.3	14.2	14.1	14.1	14.0	13.9	13.9	13.8	13.8	13.8
1.70	0.59	20.2	19.1	18.6	17.2	17.0	15.6	15.0	14.7	14.5	14.4	14.2	14.2	14.1	14.0	14.0	13.9	13.9	13.8	13.8
1.78	0.54	20.2	19.3	18.8	17.3	17.1	15.7	15.1	14.8	14.6	14.4	14.3	14.2	14.1	14.1	14.0	13.9	13.9	13.9	13.8
1.88	0.48	20.3	19.4	18.9	17.5	17.3	15.8	15.2	14.8	14.6	14.4	14.3	14.3	14.2	14.1	14.0	14.0	13.9	13.9	13.8
1.93	0.45	20.4	19.5	19.0	17.6	17.4	15.9	15.3	14.9	14.7	14.5	14.4	14.3	14.3	14.2	14.1	14.0	14.0	13.9	13.9
1.98	0.42	20.4	19.6	19.1	17.6	17.5	16.0	15.4	15.0	14.7	14.6	14.4	14.4	14.3	14.2	14.1	14.1	14.0	13.9	13.9
2.00	0.40	20.4	19.6	19.1	17.7	17.5	16.0	15.4	15.0	14.8	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.0	14.0	13.9
2.08	0.35	20.5	19.7	19.2	17.8	17.6	16.1	15.4	15.1	14.8	14.6	14.5	14.4	14.3	14.3	14.2	14.1	14.0	14.0	14.0
2.18	0.29	20.6	19.8	19.4	17.9	17.8	16.3	15.6	15.2	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.1	14.0
2.28	0.23	20.6	19.9	19.5	18.0	17.9	16.4	15.6	15.2	15.0	14.8	14.6	14.5	14.4	14.4	14.3	14.2	14.1	14.1	14.0
2.38	0.17	20.7	20.0	19.6	18.1	18.0	16.5	15.8	15.3	15.1	14.9	14.7	14.6	14.5	14.4	14.3	14.2	14.2	14.1	14.1
2.43	0.14	20.7	20.0	19.7	18.2	18.1	16.5	15.8	15.4	15.1	14.9	14.7	14.6	14.5	14.4	14.3	14.3	14.2	14.1	14.1
2.50	0.09	20.7	20.1	19.8	18.3	18.2	16.6	15.9	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.2	14.2	14.1
2.53	0.07	20.8	20.2	19.8	18.3	18.3	16.7	15.9	15.5	15.2	15.0	14.8	14.7	14.6	14.5	14.4	14.3	14.3	14.2	14.2
2.65	0.00	20.9	20.3	20.0	18.4	18.4	16.8	16.0	15.6	15.3	15.1	14.9	14.8	14.7	14.6	14.5	14.4	14.3	14.3	14.2

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-113. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
0.18	1.53	12.8	11.6	11.4	11.2	10.8	10.5	10.4	10.3	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.1
0.28	1.47	12.8	11.6	11.4	11.2	10.8	10.5	10.4	10.3	10.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.1
0.43	1.38	14.5	12.8	12.4	12.1	11.4	10.8	10.6	10.5	10.4	10.4	10.3	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.2
0.50	1.34	15.2	13.3	12.8	12.4	11.6	11.0	10.7	10.6	10.5	10.4	10.4	10.4	10.4	10.3	10.3	10.3	10.3	10.3	10.2
0.53	1.32	15.4	13.5	13.0	12.6	11.8	11.0	10.8	10.6	10.5	10.5	10.4	10.4	10.4	10.4	10.3	10.3	10.3	10.3	10.3
0.63	1.26	16.2	14.1	13.5	13.1	12.1	11.3	10.9	10.8	10.6	10.6	10.5	10.5	10.4	10.4	10.4	10.4	10.3	10.3	10.3
0.73	1.19	16.9	14.7	14.1	13.6	12.5	11.5	11.1	10.9	10.8	10.7	10.6	10.6	10.6	10.5	10.5	10.4	10.4	10.4	10.4
0.98	1.04	18.0	15.9	15.2	14.6	13.3	12.0	11.5	11.2	11.1	10.9	10.9	10.8	10.7	10.7	10.6	10.6	10.6	10.5	10.5
1.00	1.03	18.1	15.9	15.3	14.7	13.4	12.1	11.5	11.3	11.1	11.0	10.9	10.8	10.8	10.7	10.6	10.6	10.6	10.5	10.5
1.03	1.01	18.2	16.1	15.4	14.8	13.5	12.1	11.6	11.3	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.6	10.6	10.6	10.6
1.13	0.94	18.2	16.1	15.4	14.8	13.5	12.1	11.6	11.3	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.6	10.6	10.6	10.6
1.18	0.91	18.2	16.1	15.4	14.8	13.5	12.1	11.6	11.3	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.6	10.6	10.6	10.6
1.33	0.82	18.5	16.5	15.9	15.3	13.9	12.4	11.8	11.5	11.3	11.1	11.0	11.0	10.9	10.9	10.8	10.7	10.7	10.6	10.6
1.38	0.79	18.6	16.7	16.0	15.4	14.0	12.5	11.9	11.6	11.3	11.2	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.7	10.6
1.48	0.73	18.6	16.7	16.0	15.4	14.0	12.5	11.9	11.6	11.3	11.2	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.7	10.6
1.50	0.71	18.6	16.8	16.1	15.5	14.0	12.5	11.9	11.6	11.4	11.2	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.7	10.7
1.58	0.66	18.7	17.0	16.3	15.7	14.3	12.7	12.0	11.7	11.4	11.3	11.2	11.1	11.0	11.0	10.9	10.8	10.8	10.7	10.7
1.63	0.63	18.8	17.1	16.5	15.9	14.4	12.8	12.1	11.8	11.5	11.4	11.3	11.2	11.1	11.0	10.9	10.9	10.9	10.8	10.8
1.70	0.59	19.0	17.4	16.7	16.1	14.6	12.9	12.2	11.9	11.6	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.9	10.9	10.8
1.78	0.54	19.1	17.5	16.9	16.3	14.8	13.1	12.4	12.0	11.7	11.5	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.9	10.9
1.88	0.48	19.1	17.5	16.9	16.3	14.8	13.1	12.4	12.0	11.7	11.5	11.4	11.3	11.2	11.1	11.1	11.0	10.9	10.9	10.9
1.93	0.45	19.2	17.7	17.0	16.5	14.9	13.2	12.5	12.1	11.8	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.1	11.0	11.0
1.98	0.42	19.2	17.8	17.1	16.6	15.1	13.3	12.6	12.2	11.9	11.7	11.6	11.5	11.4	11.3	11.2	11.1	11.1	11.1	11.0
2.00	0.40	19.2	17.8	17.2	16.6	15.1	13.4	12.6	12.2	11.9	11.7	11.6	11.5	11.4	11.3	11.2	11.2	11.1	11.1	11.0
2.08	0.35	19.3	17.9	17.3	16.8	15.2	13.5	12.7	12.3	12.0	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.2	11.1	11.1
2.18	0.29	19.4	18.1	17.5	17.0	15.4	13.6	12.9	12.4	12.1	11.9	11.8	11.6	11.6	11.5	11.4	11.3	11.2	11.2	11.2
2.28	0.23	19.5	18.2	17.6	17.1	15.6	13.8	13.0	12.5	12.2	12.0	11.8	11.7	11.6	11.6	11.4	11.4	11.3	11.3	11.2
2.38	0.17	19.5	18.3	17.8	17.3	15.8	13.9	13.1	12.6	12.3	12.1	11.9	11.8	11.7	11.6	11.5	11.4	11.4	11.3	11.3
2.43	0.14	19.5	18.3	17.8	17.3	15.8	13.9	13.1	12.6	12.3	12.1	11.9	11.8	11.7	11.6	11.5	11.4	11.4	11.3	11.3
2.50	0.09	19.6	18.4	17.9	17.4	15.9	14.1	13.2	12.7	12.4	12.2	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.4	11.4
2.53	0.07	19.6	18.5	17.9	17.4	16.0	14.1	13.3	12.8	12.5	12.2	12.1	11.9	11.8	11.8	11.6	11.6	11.5	11.4	11.4
2.65	0.00	19.7	18.6	18.1	17.6	16.2	14.3	13.5	12.9	12.6	12.4	12.2	12.1	12.0	11.9	11.8	11.7	11.6	11.5	11.5

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-114. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.18	1.53	14.1	13.1	12.8	12.7	12.3	12.0	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.7	11.7	11.7
0.28	1.47	14.1	13.1	12.8	12.7	12.3	12.0	11.9	11.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.7	11.7	11.7
0.43	1.38	15.6	14.1	13.7	13.4	12.8	12.3	12.1	12.0	12.0	11.9	11.9	11.9	11.9	11.9	11.8	11.8	11.8	11.8	11.8
0.50	1.34	16.1	14.5	14.1	13.8	13.1	12.5	12.2	12.1	12.1	12.0	12.0	11.9	11.9	11.9	11.9	11.9	11.8	11.8	11.8
0.53	1.32	16.3	14.7	14.2	13.9	13.2	12.5	12.3	12.2	12.1	12.0	12.0	12.0	11.9	11.9	11.9	11.9	11.9	11.8	11.8
0.63	1.26	17.0	15.2	14.7	14.4	13.5	12.7	12.4	12.3	12.2	12.1	12.1	12.0	12.0	12.0	11.9	11.9	11.9	11.9	11.9
0.73	1.19	17.5	15.7	15.2	14.8	13.8	12.9	12.6	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.0	12.0	12.0	12.0	12.0
0.98	1.04	18.4	16.7	16.1	15.7	14.5	13.4	13.0	12.7	12.6	12.4	12.4	12.3	12.3	12.2	12.2	12.1	12.1	12.1	12.1
1.00	1.03	18.5	16.8	16.2	15.8	14.6	13.4	13.0	12.8	12.6	12.5	12.4	12.3	12.3	12.3	12.2	12.1	12.1	12.1	12.1
1.03	1.01	18.6	16.9	16.3	15.9	14.7	13.5	13.1	12.8	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.1	12.1
1.13	0.94	18.6	16.9	16.3	15.9	14.7	13.5	13.1	12.8	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.1	12.1
1.18	0.91	18.6	16.9	16.3	15.9	14.7	13.5	13.1	12.8	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2	12.1	12.1
1.33	0.82	18.8	17.3	16.7	16.3	15.0	13.8	13.2	12.9	12.8	12.6	12.6	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2
1.38	0.79	18.9	17.4	16.9	16.4	15.1	13.9	13.3	13.0	12.8	12.7	12.6	12.5	12.5	12.4	12.3	12.3	12.3	12.2	12.2
1.48	0.73	18.9	17.4	16.9	16.4	15.1	13.9	13.3	13.0	12.8	12.7	12.6	12.5	12.5	12.4	12.3	12.3	12.3	12.2	12.2
1.50	0.71	18.9	17.5	16.9	16.4	15.2	13.9	13.3	13.0	12.8	12.7	12.6	12.5	12.5	12.4	12.4	12.3	12.3	12.2	12.2
1.58	0.66	19.0	17.6	17.1	16.6	15.4	14.0	13.4	13.1	12.9	12.8	12.7	12.6	12.5	12.5	12.4	12.4	12.3	12.3	12.3
1.63	0.63	19.1	17.8	17.3	16.8	15.5	14.1	13.5	13.2	13.0	12.9	12.8	12.7	12.6	12.6	12.5	12.4	12.4	12.4	12.3
1.70	0.59	19.2	18.0	17.4	17.0	15.7	14.3	13.6	13.3	13.1	12.9	12.8	12.7	12.7	12.6	12.5	12.5	12.4	12.4	12.4
1.78	0.54	19.3	18.1	17.6	17.1	15.9	14.4	13.7	13.4	13.2	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.5	12.4	12.4
1.88	0.48	19.3	18.1	17.6	17.1	15.9	14.4	13.7	13.4	13.2	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.5	12.4	12.4
1.93	0.45	19.4	18.3	17.8	17.3	16.0	14.5	13.9	13.5	13.3	13.1	13.0	12.9	12.8	12.8	12.7	12.6	12.6	12.6	12.5
1.98	0.42	19.4	18.4	17.8	17.4	16.1	14.6	13.9	13.6	13.3	13.2	13.0	12.9	12.9	12.8	12.7	12.7	12.6	12.6	12.6
2.00	0.40	19.4	18.4	17.9	17.4	16.1	14.6	14.0	13.6	13.4	13.2	13.1	13.0	12.9	12.8	12.7	12.7	12.6	12.6	12.6
2.08	0.35	19.5	18.5	18.0	17.6	16.3	14.8	14.1	13.7	13.4	13.3	13.1	13.0	12.9	12.9	12.8	12.7	12.7	12.6	12.6
2.18	0.29	19.6	18.7	18.2	17.8	16.5	14.9	14.2	13.8	13.5	13.4	13.2	13.1	13.0	13.0	12.9	12.8	12.8	12.7	12.7
2.28	0.23	19.6	18.8	18.3	17.9	16.6	15.1	14.3	13.9	13.6	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.7
2.38	0.17	19.7	18.9	18.5	18.1	16.8	15.2	14.4	14.0	13.7	13.5	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8
2.43	0.14	19.7	18.9	18.5	18.1	16.8	15.2	14.4	14.0	13.7	13.5	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.8	12.8
2.50	0.09	19.8	19.0	18.6	18.2	16.9	15.3	14.6	14.1	13.8	13.6	13.5	13.4	13.3	13.2	13.1	13.0	12.9	12.9	12.9
2.53	0.07	19.8	19.1	18.6	18.3	17.0	15.4	14.6	14.2	13.9	13.7	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9	12.9
2.65	0.00	19.9	19.2	18.8	18.4	17.2	15.6	14.8	14.3	14.0	13.8	13.6	13.5	13.4	13.4	13.2	13.1	13.1	13.0	13.0

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-115. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
0.18	1.53	16.3	14.7	14.3	14.1	13.5	13.1	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6
0.28	1.47	16.3	14.7	14.3	14.1	13.5	13.1	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6
0.43	1.38	18.5	16.2	15.7	15.2	14.3	13.5	13.2	13.1	13.0	12.9	12.9	12.8	12.8	12.8	12.8	12.7	12.7	12.7	12.7
0.50	1.34	19.4	16.9	16.2	15.7	14.7	13.7	13.4	13.2	13.1	13.0	12.9	12.9	12.9	12.9	12.8	12.8	12.8	12.7	12.7
0.53	1.32	19.7	17.1	16.5	16.0	14.8	13.8	13.5	13.3	13.1	13.1	13.0	12.9	12.9	12.9	12.8	12.8	12.8	12.8	12.7
0.63	1.26	20.6	18.0	17.2	16.6	15.3	14.1	13.7	13.4	13.3	13.2	13.1	13.1	13.0	13.0	12.9	12.9	12.9	12.8	12.8
0.73	1.19	21.5	18.7	17.9	17.3	15.8	14.5	13.9	13.6	13.5	13.4	13.3	13.2	13.1	13.1	13.0	13.0	13.0	12.9	12.9
0.98	1.04	22.8	20.2	19.3	18.6	16.9	15.1	14.4	14.1	13.8	13.7	13.5	13.4	13.4	13.3	13.2	13.2	13.1	13.1	13.1
1.00	1.03	22.9	20.3	19.4	18.7	17.0	15.2	14.5	14.1	13.9	13.7	13.6	13.5	13.4	13.4	13.3	13.2	13.1	13.1	13.1
1.03	1.01	23.0	20.5	19.6	18.9	17.1	15.3	14.6	14.2	13.9	13.8	13.6	13.5	13.5	13.4	13.3	13.2	13.2	13.1	13.1
1.13	0.94	23.0	20.5	19.6	18.9	17.1	15.3	14.6	14.2	13.9	13.8	13.6	13.5	13.5	13.4	13.3	13.2	13.2	13.1	13.1
1.18	0.91	23.0	20.5	19.6	18.9	17.1	15.3	14.6	14.2	13.9	13.8	13.6	13.5	13.5	13.4	13.3	13.2	13.2	13.1	13.1
1.33	0.82	23.3	21.1	20.2	19.5	17.6	15.7	14.9	14.4	14.1	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2	13.2
1.38	0.79	23.5	21.3	20.4	19.7	17.8	15.8	14.9	14.5	14.2	14.0	13.8	13.7	13.6	13.6	13.4	13.4	13.3	13.3	13.2
1.48	0.73	23.5	21.3	20.4	19.7	17.8	15.8	14.9	14.5	14.2	14.0	13.8	13.7	13.6	13.6	13.4	13.4	13.3	13.3	13.2
1.50	0.71	23.5	21.3	20.5	19.8	17.9	15.8	15.0	14.5	14.2	14.0	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2
1.58	0.66	23.6	21.6	20.8	20.1	18.1	16.0	15.1	14.7	14.3	14.1	14.0	13.8	13.7	13.7	13.5	13.5	13.4	13.3	13.3
1.63	0.63	23.8	21.8	21.0	20.3	18.3	16.2	15.3	14.8	14.4	14.2	14.1	13.9	13.8	13.8	13.6	13.5	13.5	13.4	13.4
1.70	0.59	23.9	22.1	21.2	20.5	18.6	16.4	15.4	14.9	14.6	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5	13.4
1.78	0.54	24.0	22.3	21.5	20.8	18.8	16.6	15.6	15.0	14.7	14.4	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
1.88	0.48	24.0	22.3	21.5	20.8	18.8	16.6	15.6	15.0	14.7	14.4	14.2	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
1.93	0.45	24.1	22.5	21.7	21.0	19.0	16.8	15.8	15.2	14.8	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7	13.7	13.6
1.98	0.42	24.2	22.6	21.8	21.2	19.2	16.9	15.9	15.3	14.9	14.6	14.4	14.3	14.2	14.1	13.9	13.9	13.8	13.7	13.7
2.00	0.40	24.2	22.7	21.9	21.2	19.2	16.9	15.9	15.3	14.9	14.7	14.5	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.7
2.08	0.35	24.3	22.9	22.1	21.4	19.5	17.1	16.0	15.4	15.0	14.8	14.6	14.4	14.3	14.2	14.0	13.9	13.9	13.8	13.7
2.18	0.29	24.5	23.1	22.4	21.7	19.7	17.3	16.2	15.6	15.2	14.9	14.7	14.5	14.4	14.3	14.1	14.0	13.9	13.9	13.8
2.28	0.23	24.5	23.3	22.6	21.9	20.0	17.5	16.4	15.8	15.3	15.0	14.8	14.6	14.5	14.4	14.2	14.1	14.0	13.9	13.9
2.38	0.17	24.6	23.5	22.8	22.2	20.2	17.8	16.6	15.9	15.5	15.2	14.9	14.8	14.6	14.5	14.3	14.2	14.1	14.0	14.0
2.43	0.14	24.6	23.5	22.8	22.2	20.2	17.8	16.6	15.9	15.5	15.2	14.9	14.8	14.6	14.5	14.3	14.2	14.1	14.0	14.0
2.50	0.09	24.7	23.6	23.0	22.3	20.4	17.9	16.7	16.0	15.6	15.3	15.1	14.9	14.7	14.6	14.4	14.3	14.2	14.1	14.1
2.53	0.07	24.8	23.7	23.0	22.4	20.5	18.0	16.8	16.1	15.7	15.3	15.1	14.9	14.8	14.6	14.5	14.3	14.2	14.2	14.1
2.65	0.00	24.9	23.9	23.3	22.7	20.8	18.3	17.0	16.3	15.9	15.5	15.3	15.1	14.9	14.8	14.6	14.5	14.4	14.3	14.2

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-116. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
0.18	1.53	16.6	15.6	15.3	15.1	14.8	14.5	14.4	14.3	14.3	14.3	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
0.28	1.47	16.6	15.6	15.3	15.1	14.8	14.5	14.4	14.3	14.3	14.3	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
0.43	1.38	18.3	16.6	16.2	15.9	15.3	14.8	14.6	14.5	14.4	14.4	14.3	14.3	14.3	14.3	14.3	14.2	14.2	14.2	14.2
0.50	1.34	18.9	17.1	16.6	16.3	15.6	14.9	14.7	14.6	14.5	14.4	14.4	14.4	14.4	14.3	14.3	14.3	14.3	14.3	14.3
0.53	1.32	19.1	17.3	16.8	16.5	15.7	15.0	14.7	14.6	14.5	14.5	14.4	14.4	14.4	14.4	14.3	14.3	14.3	14.3	14.3
0.63	1.26	19.9	17.9	17.3	16.9	16.0	15.2	14.9	14.7	14.6	14.6	14.5	14.5	14.4	14.4	14.4	14.4	14.4	14.3	14.3
0.73	1.19	20.5	18.4	17.9	17.4	16.4	15.4	15.1	14.9	14.8	14.7	14.6	14.6	14.6	14.5	14.5	14.5	14.4	14.4	14.4
0.98	1.04	21.5	19.5	18.9	18.4	17.1	15.9	15.4	15.2	15.0	14.9	14.8	14.8	14.7	14.7	14.6	14.6	14.6	14.5	14.5
1.00	1.03	21.6	19.6	18.9	18.4	17.2	15.9	15.5	15.2	15.1	14.9	14.9	14.8	14.8	14.7	14.6	14.6	14.6	14.6	14.5
1.03	1.01	21.7	19.7	19.1	18.5	17.3	16.0	15.5	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.7	14.6	14.6	14.6	14.6
1.13	0.94	21.7	19.7	19.1	18.5	17.3	16.0	15.5	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.7	14.6	14.6	14.6	14.6
1.18	0.91	21.7	19.7	19.1	18.5	17.3	16.0	15.5	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.7	14.6	14.6	14.6	14.6
1.33	0.82	22.0	20.2	19.5	19.0	17.6	16.3	15.7	15.4	15.2	15.1	15.0	14.9	14.9	14.8	14.8	14.7	14.7	14.6	14.6
1.38	0.79	22.1	20.3	19.6	19.1	17.8	16.4	15.8	15.5	15.3	15.1	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.7	14.6
1.48	0.73	22.1	20.3	19.6	19.1	17.8	16.4	15.8	15.5	15.3	15.1	15.1	15.0	14.9	14.9	14.8	14.7	14.7	14.7	14.6
1.50	0.71	22.1	20.4	19.7	19.2	17.8	16.4	15.8	15.5	15.3	15.2	15.1	15.0	14.9	14.9	14.8	14.8	14.7	14.7	14.6
1.58	0.66	22.2	20.6	19.9	19.4	18.0	16.5	15.9	15.6	15.4	15.2	15.1	15.1	15.0	14.9	14.9	14.8	14.8	14.7	14.7
1.63	0.63	22.3	20.7	20.1	19.5	18.1	16.6	16.0	15.7	15.5	15.3	15.2	15.1	15.1	15.0	14.9	14.9	14.8	14.8	14.8
1.70	0.59	22.5	20.9	20.3	19.8	18.3	16.8	16.1	15.8	15.6	15.4	15.3	15.2	15.1	15.1	15.0	14.9	14.9	14.8	14.8
1.78	0.54	22.6	21.1	20.5	20.0	18.5	16.9	16.3	15.9	15.6	15.5	15.4	15.3	15.2	15.1	15.0	15.0	14.9	14.9	14.9
1.88	0.48	22.6	21.1	20.5	20.0	18.5	16.9	16.3	15.9	15.6	15.5	15.4	15.3	15.2	15.1	15.0	15.0	14.9	14.9	14.9
1.93	0.45	22.7	21.3	20.7	20.1	18.7	17.1	16.4	16.0	15.8	15.6	15.5	15.4	15.3	15.3	15.2	15.1	15.1	15.0	15.0
1.98	0.42	22.8	21.4	20.8	20.2	18.8	17.1	16.5	16.1	15.8	15.6	15.5	15.4	15.4	15.3	15.2	15.1	15.1	15.1	15.0
2.00	0.40	22.8	21.4	20.8	20.3	18.8	17.2	16.5	16.1	15.8	15.7	15.5	15.4	15.4	15.3	15.2	15.1	15.1	15.1	15.0
2.08	0.35	22.9	21.6	21.0	20.5	19.0	17.3	16.6	16.2	15.9	15.7	15.6	15.5	15.4	15.4	15.3	15.2	15.1	15.1	15.1
2.18	0.29	23.0	21.8	21.2	20.7	19.2	17.5	16.7	16.3	16.0	15.9	15.7	15.6	15.5	15.4	15.4	15.3	15.2	15.2	15.1
2.28	0.23	23.1	21.9	21.4	20.9	19.4	17.6	16.9	16.4	16.1	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.3	15.2	15.2
2.38	0.17	23.2	22.1	21.6	21.1	19.6	17.8	17.0	16.5	16.2	16.0	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.3	15.3
2.43	0.14	23.2	22.1	21.6	21.1	19.6	17.8	17.0	16.5	16.2	16.0	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.3	15.3
2.50	0.09	23.3	22.2	21.7	21.2	19.7	17.9	17.1	16.6	16.3	16.1	16.0	15.9	15.8	15.7	15.6	15.5	15.4	15.4	15.3
2.53	0.07	23.3	22.3	21.8	21.3	19.8	18.0	17.2	16.7	16.4	16.2	16.0	15.9	15.8	15.7	15.6	15.5	15.5	15.4	15.4
2.65	0.00	23.5	22.5	22.0	21.5	20.0	18.2	17.4	16.9	16.5	16.3	16.1	16.0	15.9	15.8	15.7	15.6	15.6	15.5	15.5

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-117. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
0.18	1.53	12.2	10.2	9.7	9.1	8.7	8.1	7.9	7.8	7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.5	7.5	7.5	7.5
0.28	1.47	12.2	10.2	9.7	9.1	8.7	8.1	7.9	7.8	7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.5	7.5	7.5	7.5
0.43	1.38	15.1	12.2	11.4	10.3	9.7	8.7	8.3	8.1	8.0	7.9	7.8	7.8	7.8	7.7	7.7	7.7	7.6	7.6	7.6
0.50	1.34	16.2	13.0	12.1	10.9	10.2	8.9	8.5	8.3	8.1	8.0	7.9	7.9	7.8	7.8	7.8	7.7	7.7	7.7	7.7
0.53	1.32	16.7	13.4	12.5	11.1	10.4	9.1	8.6	8.3	8.2	8.1	8.0	7.9	7.9	7.8	7.8	7.8	7.7	7.7	7.7
0.63	1.26	17.9	14.4	13.4	11.8	11.0	9.5	8.9	8.6	8.4	8.3	8.1	8.1	8.0	8.0	7.9	7.8	7.8	7.8	7.8
0.73	1.19	18.9	15.4	14.3	12.6	11.6	9.9	9.2	8.8	8.6	8.4	8.3	8.3	8.2	8.1	8.0	8.0	7.9	7.9	7.9
0.98	1.04	20.6	17.3	16.1	14.0	13.0	10.7	9.8	9.4	9.0	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.1	8.1	8.0
1.00	1.03	20.7	17.4	16.3	14.1	13.1	10.8	9.9	9.4	9.1	8.9	8.7	8.6	8.5	8.4	8.3	8.2	8.2	8.1	8.1
1.03	1.01	20.9	17.6	16.5	14.3	13.3	10.9	10.0	9.5	9.2	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.2	8.1
1.13	0.94	20.9	17.6	16.5	14.3	13.3	10.9	10.0	9.5	9.2	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.2	8.1
1.18	0.91	20.9	17.6	16.5	14.3	13.3	10.9	10.0	9.5	9.2	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.2	8.1
1.33	0.82	21.3	18.4	17.3	15.0	13.9	11.4	10.4	9.8	9.4	9.2	9.0	8.8	8.7	8.6	8.5	8.4	8.3	8.3	8.2
1.38	0.79	21.5	18.7	17.5	15.2	14.1	11.6	10.5	9.9	9.5	9.2	9.1	8.9	8.8	8.7	8.5	8.4	8.4	8.3	8.3
1.48	0.73	21.5	18.7	17.5	15.2	14.1	11.6	10.5	9.9	9.5	9.2	9.1	8.9	8.8	8.7	8.5	8.4	8.4	8.3	8.3
1.50	0.71	21.6	18.7	17.6	15.3	14.2	11.6	10.5	9.9	9.5	9.3	9.1	8.9	8.8	8.7	8.6	8.5	8.4	8.3	8.3
1.58	0.66	21.7	19.1	18.0	15.6	14.6	11.9	10.7	10.1	9.7	9.4	9.2	9.0	8.9	8.8	8.6	8.5	8.4	8.4	8.3
1.63	0.63	21.9	19.3	18.3	15.9	14.8	12.1	10.9	10.2	9.8	9.5	9.3	9.1	9.0	8.9	8.8	8.6	8.6	8.5	8.4
1.70	0.59	22.1	19.6	18.6	16.2	15.1	12.3	11.1	10.4	9.9	9.6	9.4	9.2	9.1	9.0	8.8	8.7	8.6	8.5	8.5
1.78	0.54	22.2	19.9	18.9	16.5	15.4	12.5	11.3	10.5	10.1	9.8	9.5	9.4	9.2	9.1	8.9	8.8	8.7	8.6	8.6
1.88	0.48	22.2	19.9	18.9	16.5	15.4	12.5	11.3	10.5	10.1	9.8	9.5	9.4	9.2	9.1	8.9	8.8	8.7	8.6	8.6
1.93	0.45	22.3	20.1	19.1	16.7	15.7	12.7	11.4	10.7	10.3	9.9	9.7	9.5	9.4	9.3	9.1	8.9	8.8	8.8	8.7
1.98	0.42	22.4	20.3	19.3	16.8	15.8	12.9	11.6	10.8	10.3	10.0	9.8	9.6	9.4	9.3	9.1	9.0	8.9	8.8	8.8
2.00	0.40	22.4	20.3	19.3	16.9	15.9	12.9	11.6	10.9	10.4	10.0	9.8	9.6	9.4	9.3	9.1	9.0	8.9	8.8	8.8
2.08	0.35	22.5	20.5	19.5	17.1	16.1	13.1	11.8	11.0	10.5	10.2	9.9	9.7	9.6	9.4	9.2	9.1	9.0	8.9	8.8
2.18	0.29	22.6	20.7	19.8	17.3	16.5	13.4	12.0	11.2	10.7	10.3	10.1	9.9	9.7	9.6	9.4	9.2	9.1	9.0	8.9
2.28	0.23	22.6	20.9	20.0	17.5	16.7	13.6	12.2	11.4	10.9	10.5	10.2	10.0	9.8	9.7	9.4	9.3	9.2	9.1	9.0
2.38	0.17	22.7	21.0	20.2	17.7	17.0	13.9	12.4	11.6	11.0	10.6	10.3	10.1	9.9	9.8	9.6	9.4	9.3	9.2	9.1
2.43	0.14	22.7	21.0	20.2	17.7	17.0	13.9	12.4	11.6	11.0	10.6	10.3	10.1	9.9	9.8	9.6	9.4	9.3	9.2	9.1
2.50	0.09	22.8	21.2	20.3	17.9	17.2	14.1	12.6	11.7	11.2	10.8	10.5	10.3	10.1	9.9	9.7	9.5	9.4	9.3	9.2
2.53	0.07	22.8	21.2	20.4	18.0	17.3	14.2	12.7	11.8	11.3	10.8	10.5	10.3	10.1	10.0	9.7	9.6	9.4	9.3	9.3
2.65	0.00	22.9	21.4	20.6	18.2	17.5	14.5	12.9	12.1	11.5	11.1	10.7	10.5	10.3	10.1	9.9	9.7	9.6	9.5	9.4

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-118. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
0.18	1.53	14.4	12.4	11.9	11.3	10.8	10.2	10.0	9.9	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.6
0.28	1.47	14.4	12.4	11.9	11.3	10.8	10.2	10.0	9.9	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.6	9.6	9.6	9.6
0.43	1.38	17.4	14.4	13.6	12.6	11.9	10.8	10.4	10.2	10.1	10.0	9.9	9.9	9.9	9.8	9.8	9.8	9.7	9.7	9.7
0.50	1.34	18.5	15.2	14.3	13.1	12.3	11.1	10.6	10.4	10.2	10.1	10.1	10.0	10.0	9.9	9.9	9.8	9.8	9.8	9.8
0.53	1.32	18.9	15.6	14.7	13.4	12.5	11.2	10.7	10.5	10.3	10.2	10.1	10.1	10.0	10.0	9.9	9.9	9.8	9.8	9.8
0.63	1.26	20.2	16.6	15.6	14.1	13.1	11.6	11.0	10.7	10.5	10.4	10.3	10.2	10.1	10.1	10.0	10.0	9.9	9.9	9.9
0.73	1.19	21.2	17.6	16.5	14.9	13.8	12.0	11.3	10.9	10.7	10.6	10.4	10.4	10.3	10.2	10.1	10.1	10.0	10.0	10.0
0.98	1.04	23.0	19.6	18.4	16.5	15.2	12.9	12.0	11.5	11.2	11.0	10.8	10.7	10.6	10.5	10.4	10.3	10.2	10.2	10.1
1.00	1.03	23.1	19.7	18.5	16.6	15.3	13.0	12.0	11.5	11.2	11.0	10.8	10.7	10.6	10.5	10.4	10.3	10.3	10.2	10.2
1.03	1.01	23.3	19.9	18.8	16.8	15.5	13.1	12.1	11.6	11.3	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.3	10.2
1.13	0.94	23.3	19.9	18.8	16.8	15.5	13.1	12.1	11.6	11.3	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.3	10.2
1.18	0.91	23.3	19.9	18.8	16.8	15.5	13.1	12.1	11.6	11.3	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.3	10.2
1.33	0.82	23.7	20.7	19.6	17.5	16.1	13.6	12.5	11.9	11.6	11.3	11.1	11.0	10.9	10.8	10.6	10.5	10.4	10.4	10.3
1.38	0.79	23.9	21.0	19.8	17.7	16.4	13.7	12.6	12.0	11.6	11.4	11.2	11.0	10.9	10.8	10.7	10.6	10.5	10.4	10.4
1.48	0.73	23.9	21.0	19.8	17.7	16.4	13.7	12.6	12.0	11.6	11.4	11.2	11.0	10.9	10.8	10.7	10.6	10.5	10.4	10.4
1.50	0.71	24.0	21.1	19.9	17.8	16.5	13.8	12.7	12.1	11.7	11.4	11.2	11.1	10.9	10.8	10.7	10.6	10.5	10.4	10.4
1.58	0.66	24.1	21.4	20.3	18.1	16.8	14.1	12.9	12.2	11.8	11.5	11.3	11.2	11.0	10.9	10.8	10.7	10.6	10.5	10.4
1.63	0.63	24.3	21.7	20.6	18.4	17.1	14.3	13.1	12.4	12.0	11.7	11.4	11.3	11.1	11.0	10.9	10.8	10.7	10.6	10.6
1.70	0.59	24.5	22.0	20.9	18.7	17.4	14.5	13.2	12.5	12.1	11.8	11.6	11.4	11.2	11.1	11.0	10.8	10.7	10.7	10.6
1.78	0.54	24.6	22.3	21.3	19.0	17.7	14.7	13.4	12.7	12.2	11.9	11.7	11.5	11.3	11.2	11.0	10.9	10.8	10.7	10.7
1.88	0.48	24.6	22.3	21.3	19.0	17.7	14.7	13.4	12.7	12.2	11.9	11.7	11.5	11.3	11.2	11.0	10.9	10.8	10.7	10.7
1.93	0.45	24.8	22.5	21.5	19.3	18.0	14.9	13.6	12.9	12.4	12.1	11.8	11.6	11.5	11.4	11.2	11.1	11.0	10.9	10.8
1.98	0.42	24.8	22.7	21.7	19.4	18.1	15.1	13.8	13.0	12.5	12.2	11.9	11.7	11.6	11.4	11.3	11.1	11.0	10.9	10.9
2.00	0.40	24.9	22.8	21.7	19.5	18.2	15.1	13.8	13.0	12.5	12.2	11.9	11.8	11.6	11.5	11.3	11.1	11.0	11.0	10.9
2.08	0.35	25.0	23.0	22.0	19.7	18.5	15.4	14.0	13.2	12.7	12.3	12.1	11.9	11.7	11.6	11.4	11.2	11.1	11.0	11.0
2.18	0.29	25.1	23.3	22.3	20.0	18.9	15.7	14.2	13.4	12.9	12.5	12.2	12.0	11.9	11.7	11.5	11.4	11.2	11.1	11.1
2.28	0.23	25.2	23.5	22.6	20.3	19.2	15.9	14.4	13.6	13.1	12.6	12.4	12.1	12.0	11.8	11.6	11.4	11.3	11.2	11.1
2.38	0.17	25.3	23.7	22.9	20.6	19.5	16.2	14.7	13.8	13.2	12.8	12.5	12.3	12.1	11.9	11.7	11.5	11.4	11.3	11.2
2.43	0.14	25.3	23.7	22.9	20.6	19.5	16.2	14.7	13.8	13.2	12.8	12.5	12.3	12.1	11.9	11.7	11.5	11.4	11.3	11.2
2.50	0.09	25.4	23.9	23.0	20.8	19.7	16.4	14.9	14.0	13.4	13.0	12.7	12.4	12.2	12.1	11.8	11.7	11.5	11.4	11.3
2.53	0.07	25.5	24.0	23.1	20.9	19.8	16.5	15.0	14.1	13.5	13.0	12.7	12.5	12.3	12.1	11.9	11.7	11.6	11.5	11.4
2.65	0.00	25.6	24.2	23.4	21.2	20.2	16.9	15.3	14.3	13.7	13.3	12.9	12.7	12.5	12.3	12.1	11.9	11.7	11.6	11.5

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-119. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Temperature (°C) Resulting from Indicated Flow Release (cfs)																		
Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
0.18	1.53	16.8	15.0	14.6	14.1	13.6	13.1	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6
0.28	1.47	16.8	15.0	14.6	14.1	13.6	13.1	12.9	12.8	12.8	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.6	12.6	12.6
0.43	1.38	19.3	16.7	16.1	15.3	14.5	13.6	13.3	13.1	13.0	12.9	12.9	12.8	12.8	12.8	12.7	12.7	12.7	12.7	12.7
0.50	1.34	20.2	17.4	16.7	15.8	14.9	13.9	13.5	13.3	13.1	13.0	13.0	12.9	12.9	12.9	12.8	12.8	12.7	12.7	12.7
0.53	1.32	20.6	17.8	17.0	16.0	15.1	14.0	13.6	13.3	13.2	13.1	13.0	13.0	12.9	12.9	12.8	12.8	12.8	12.8	12.7
0.63	1.26	21.6	18.7	17.8	16.7	15.7	14.3	13.8	13.5	13.4	13.3	13.2	13.1	13.0	13.0	12.9	12.9	12.9	12.8	12.8
0.73	1.19	22.5	19.5	18.6	17.3	16.2	14.7	14.1	13.8	13.6	13.4	13.3	13.3	13.2	13.1	13.1	13.0	13.0	12.9	12.9
0.98	1.04	23.9	21.1	20.1	18.7	17.4	15.5	14.7	14.2	14.0	13.8	13.6	13.5	13.4	13.4	13.3	13.2	13.1	13.1	13.1
1.00	1.03	23.9	21.2	20.3	18.8	17.5	15.5	14.7	14.3	14.0	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.2	13.1	13.1
1.03	1.01	24.1	21.4	20.5	19.0	17.7	15.6	14.8	14.4	14.1	13.9	13.7	13.6	13.5	13.5	13.4	13.3	13.2	13.2	13.1
1.13	0.94	24.1	21.4	20.5	19.0	17.7	15.6	14.8	14.4	14.1	13.9	13.7	13.6	13.5	13.5	13.4	13.3	13.2	13.2	13.1
1.18	0.91	24.1	21.4	20.5	19.0	17.7	15.6	14.8	14.4	14.1	13.9	13.7	13.6	13.5	13.5	13.4	13.3	13.2	13.2	13.1
1.33	0.82	24.4	22.1	21.1	19.5	18.3	16.0	15.1	14.6	14.3	14.1	13.9	13.8	13.7	13.6	13.5	13.4	13.3	13.3	13.2
1.38	0.79	24.5	22.3	21.3	19.8	18.5	16.2	15.2	14.7	14.4	14.1	14.0	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.3
1.48	0.73	24.5	22.3	21.3	19.8	18.5	16.2	15.2	14.7	14.4	14.1	14.0	13.8	13.7	13.6	13.5	13.4	13.4	13.3	13.3
1.50	0.71	24.6	22.3	21.4	19.8	18.5	16.2	15.3	14.8	14.4	14.2	14.0	13.9	13.8	13.7	13.5	13.4	13.4	13.3	13.3
1.58	0.66	24.7	22.6	21.7	20.1	18.8	16.5	15.5	14.9	14.5	14.3	14.1	14.0	13.9	13.8	13.6	13.5	13.4	13.4	13.3
1.63	0.63	24.8	22.8	22.0	20.3	19.0	16.6	15.6	15.0	14.7	14.4	14.2	14.1	13.9	13.9	13.7	13.6	13.5	13.5	13.4
1.70	0.59	25.0	23.1	22.2	20.6	19.3	16.8	15.8	15.2	14.8	14.5	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5	13.5
1.78	0.54	25.1	23.4	22.5	20.9	19.6	17.1	15.9	15.3	14.9	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5
1.88	0.48	25.1	23.4	22.5	20.9	19.6	17.1	15.9	15.3	14.9	14.6	14.4	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.5
1.93	0.45	25.2	23.5	22.7	21.1	19.8	17.3	16.1	15.5	15.1	14.8	14.6	14.4	14.3	14.2	14.0	13.9	13.8	13.7	13.7
1.98	0.42	25.3	23.7	22.9	21.2	20.0	17.4	16.2	15.6	15.1	14.9	14.6	14.5	14.3	14.2	14.1	13.9	13.9	13.8	13.7
2.00	0.40	25.3	23.7	22.9	21.3	20.0	17.4	16.3	15.6	15.2	14.9	14.7	14.5	14.4	14.2	14.1	14.0	13.9	13.8	13.7
2.08	0.35	25.4	23.9	23.1	21.5	20.3	17.6	16.4	15.8	15.3	15.0	14.8	14.6	14.4	14.3	14.2	14.0	13.9	13.9	13.8
2.18	0.29	25.5	24.1	23.4	21.8	20.6	17.9	16.7	15.9	15.5	15.2	14.9	14.7	14.6	14.5	14.3	14.1	14.0	14.0	13.9
2.28	0.23	25.6	24.3	23.6	22.0	20.8	18.1	16.9	16.1	15.6	15.3	15.0	14.8	14.7	14.6	14.4	14.2	14.1	14.0	14.0
2.38	0.17	25.7	24.5	23.8	22.2	21.1	18.4	17.0	16.3	15.8	15.4	15.2	15.0	14.8	14.7	14.5	14.3	14.2	14.1	14.1
2.43	0.14	25.7	24.5	23.8	22.2	21.1	18.4	17.0	16.3	15.8	15.4	15.2	15.0	14.8	14.7	14.5	14.3	14.2	14.1	14.1
2.50	0.09	25.8	24.7	24.0	22.4	21.3	18.5	17.2	16.4	15.9	15.6	15.3	15.1	14.9	14.8	14.6	14.4	14.3	14.2	14.1
2.53	0.07	25.8	24.7	24.1	22.5	21.4	18.6	17.3	16.5	16.0	15.6	15.4	15.1	15.0	14.8	14.6	14.5	14.4	14.3	14.2
2.65	0.00	25.9	24.9	24.3	22.7	21.7	18.9	17.6	16.8	16.2	15.8	15.5	15.3	15.1	15.0	14.8	14.6	14.5	14.4	14.3

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

Table CAWG 5 Appendix D-120. Lower Big Creek - Simulated Daily Maximum Temperatures (°C) with Distance as a Function of Simulated Flows; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Temperature (°C) Resulting from Indicated Flow Release (cfs)

Dist (km)*	Dist (RM)**	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
0.00	1.65	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
0.18	1.53	16.9	15.6	15.3	14.9	14.6	14.3	14.1	14.1	14.0	14.0	14.0	14.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9
0.28	1.47	16.9	15.6	15.3	14.9	14.6	14.3	14.1	14.1	14.0	14.0	14.0	14.0	13.9	13.9	13.9	13.9	13.9	13.9	13.9
0.43	1.38	18.7	16.9	16.4	15.7	15.3	14.6	14.4	14.3	14.2	14.1	14.1	14.1	14.1	14.0	14.0	14.0	14.0	13.9	13.9
0.50	1.34	19.4	17.4	16.9	16.1	15.6	14.8	14.5	14.4	14.3	14.2	14.2	14.1	14.1	14.1	14.1	14.0	14.0	14.0	14.0
0.53	1.32	19.7	17.6	17.1	16.2	15.7	14.9	14.6	14.4	14.3	14.3	14.2	14.2	14.1	14.1	14.1	14.1	14.0	14.0	14.0
0.63	1.26	20.5	18.3	17.7	16.7	16.1	15.2	14.8	14.6	14.5	14.4	14.3	14.3	14.2	14.2	14.1	14.1	14.1	14.1	14.1
0.73	1.19	21.1	18.9	18.3	17.2	16.5	15.4	15.0	14.8	14.6	14.5	14.4	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.1
0.98	1.04	22.1	20.1	19.4	18.1	17.4	16.0	15.4	15.1	14.9	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.3	14.3
1.00	1.03	22.2	20.2	19.5	18.2	17.5	16.0	15.5	15.1	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.3	14.3
1.03	1.01	22.3	20.3	19.6	18.3	17.6	16.1	15.5	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.3
1.13	0.94	22.3	20.3	19.6	18.3	17.6	16.1	15.5	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.3
1.18	0.91	22.3	20.3	19.6	18.3	17.6	16.1	15.5	15.2	15.0	14.9	14.8	14.7	14.6	14.6	14.5	14.4	14.4	14.4	14.3
1.33	0.82	22.5	20.8	20.1	18.7	18.0	16.4	15.8	15.4	15.2	15.0	14.9	14.8	14.7	14.7	14.6	14.5	14.5	14.4	14.4
1.38	0.79	22.6	20.9	20.3	18.9	18.1	16.5	15.8	15.5	15.2	15.1	14.9	14.8	14.8	14.7	14.6	14.5	14.5	14.4	14.4
1.48	0.73	22.6	20.9	20.3	18.9	18.1	16.5	15.8	15.5	15.2	15.1	14.9	14.8	14.8	14.7	14.6	14.5	14.5	14.4	14.4
1.50	0.71	22.6	21.0	20.3	18.9	18.2	16.5	15.9	15.5	15.2	15.1	14.9	14.9	14.8	14.7	14.6	14.6	14.5	14.5	14.4
1.58	0.66	22.7	21.2	20.5	19.1	18.4	16.7	16.0	15.6	15.3	15.2	15.0	14.9	14.9	14.8	14.7	14.6	14.6	14.5	14.5
1.63	0.63	22.8	21.4	20.7	19.3	18.6	16.9	16.1	15.7	15.4	15.3	15.1	15.0	14.9	14.9	14.8	14.7	14.6	14.6	14.6
1.70	0.59	23.0	21.5	20.9	19.4	18.8	17.0	16.2	15.8	15.5	15.3	15.2	15.1	15.0	14.9	14.8	14.7	14.7	14.6	14.6
1.78	0.54	23.1	21.8	21.1	19.6	19.0	17.2	16.4	15.9	15.6	15.4	15.3	15.1	15.1	15.0	14.9	14.8	14.7	14.7	14.6
1.88	0.48	23.1	21.8	21.1	19.6	19.0	17.2	16.4	15.9	15.6	15.4	15.3	15.1	15.1	15.0	14.9	14.8	14.7	14.7	14.6
1.93	0.45	23.2	21.9	21.3	19.8	19.2	17.3	16.5	16.0	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9	14.9	14.8	14.8
1.98	0.42	23.2	22.0	21.4	19.9	19.3	17.4	16.6	16.1	15.8	15.6	15.4	15.3	15.2	15.2	15.1	15.0	14.9	14.9	14.8
2.00	0.40	23.2	22.0	21.4	20.0	19.3	17.5	16.6	16.1	15.8	15.6	15.5	15.4	15.3	15.2	15.1	15.0	14.9	14.9	14.8
2.08	0.35	23.3	22.2	21.6	20.1	19.5	17.6	16.7	16.3	15.9	15.7	15.6	15.4	15.3	15.3	15.1	15.0	15.0	14.9	14.9
2.18	0.29	23.5	22.4	21.8	20.3	19.8	17.8	16.9	16.4	16.1	15.8	15.7	15.5	15.4	15.4	15.2	15.1	15.1	15.0	15.0
2.28	0.23	23.5	22.5	22.0	20.5	20.0	18.0	17.0	16.5	16.2	15.9	15.8	15.6	15.5	15.4	15.3	15.2	15.1	15.1	15.0
2.38	0.17	23.6	22.7	22.2	20.7	20.2	18.1	17.2	16.7	16.3	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.2	15.1	15.1
2.43	0.14	23.6	22.7	22.2	20.7	20.2	18.1	17.2	16.7	16.3	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.2	15.1	15.1
2.50	0.09	23.7	22.8	22.3	20.8	20.3	18.3	17.3	16.8	16.4	16.2	16.0	15.8	15.7	15.6	15.5	15.4	15.3	15.2	15.2
2.53	0.07	23.7	22.9	22.4	20.9	20.4	18.4	17.4	16.8	16.5	16.2	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.3	15.2
2.65	0.00	23.8	23.1	22.6	21.1	20.6	18.6	17.6	17.0	16.6	16.4	16.2	16.0	15.9	15.8	15.6	15.5	15.4	15.4	15.3

* Downstream distances relative to Dam 5

** Lower Big Creek RM relative to SJR Confluence

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

TEMPERATURE MODEL SIMULATION FIGURES

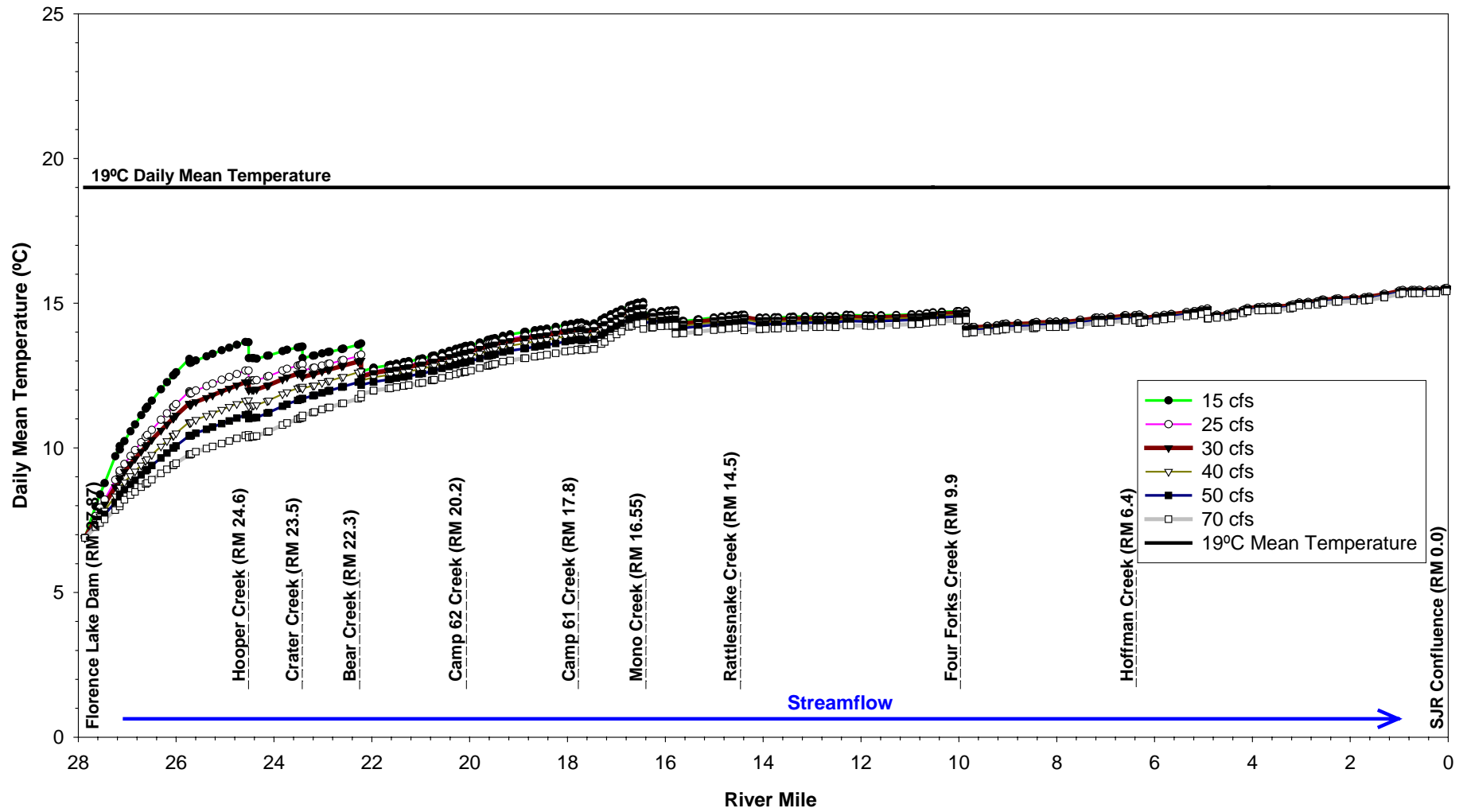


Figure CAWG 5 Appendix D-1. South Fork San Joaquin River Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for June in Above Normal Water Years with Normal Meteorology.

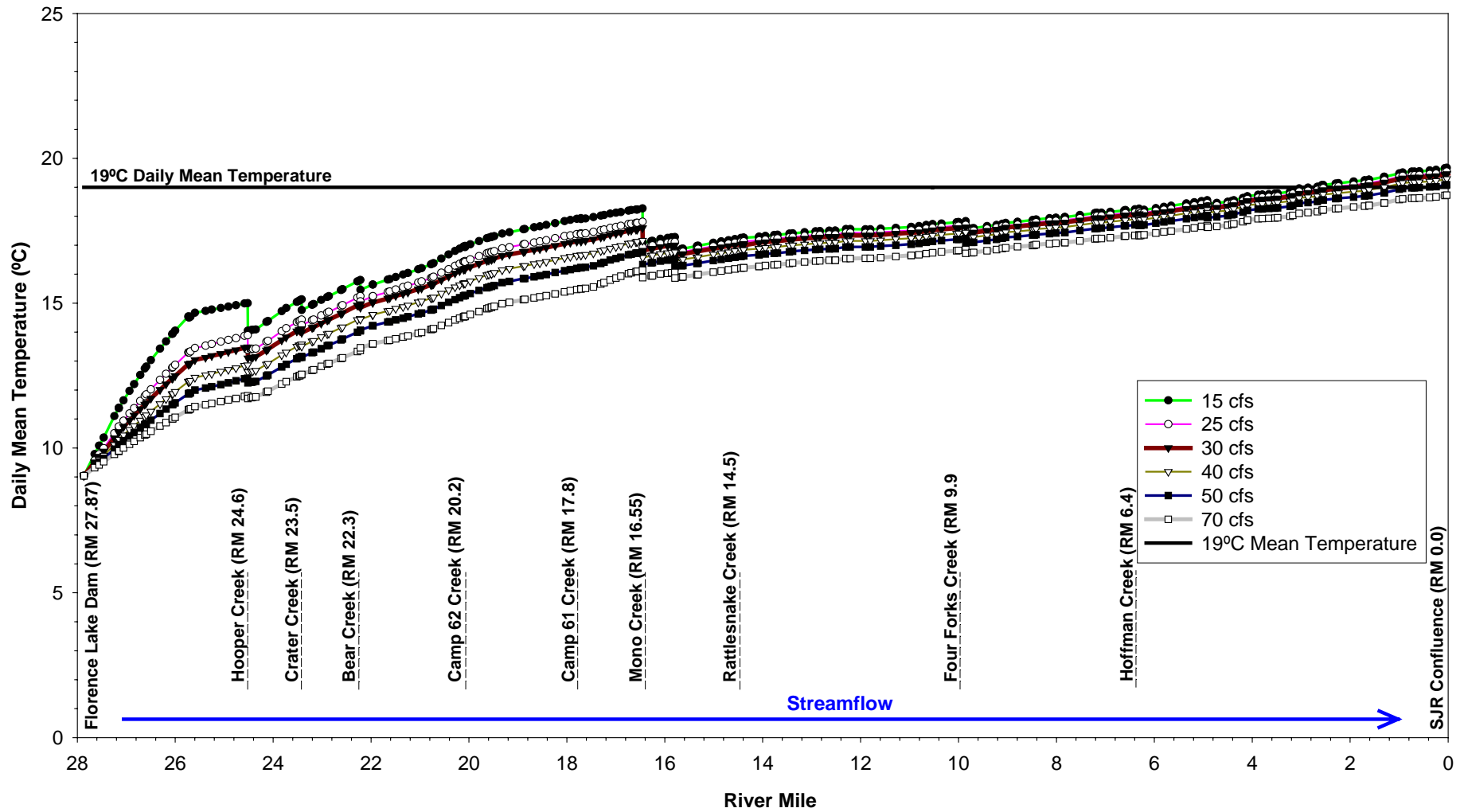


Figure CAWG 5 Appendix D-2. South Fork San Joaquin River Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for July in Above Normal Water Years with Normal Meteorology.

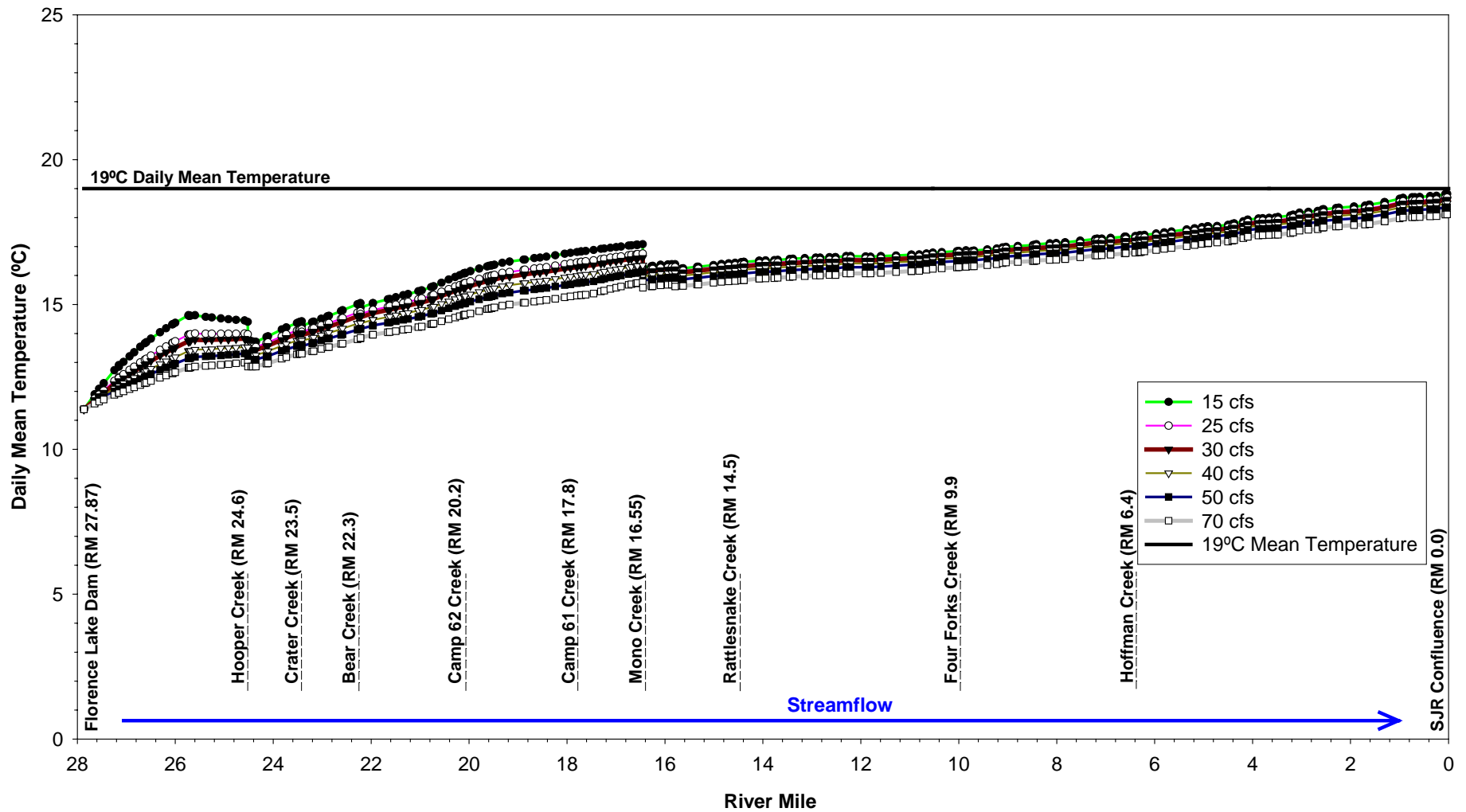


Figure CAWG 5 Appendix D-3. South Fork San Joaquin River Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for August in Above Normal Water Years with Normal Meteorology.

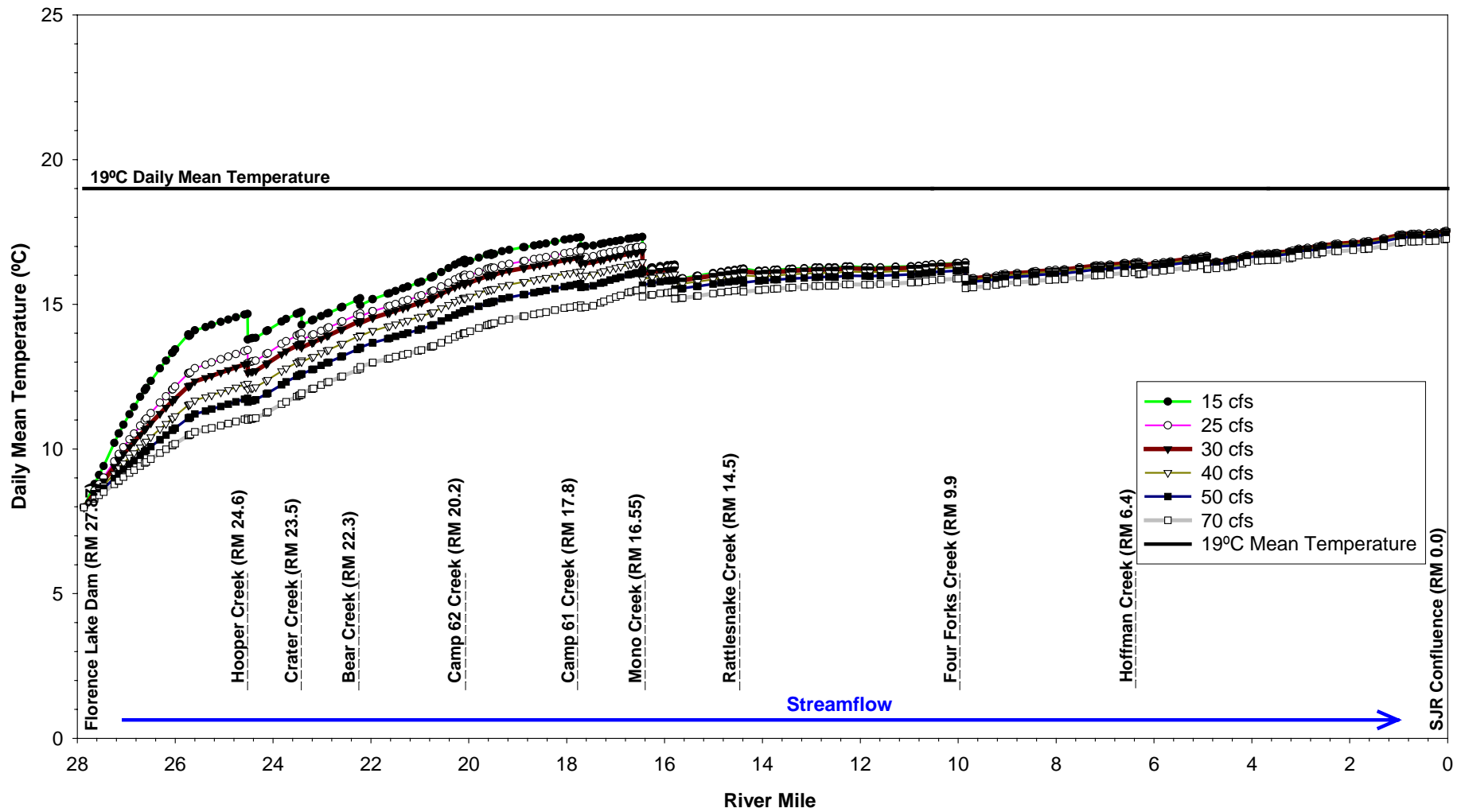


Figure CAWG 5 Appendix D-4. South Fork San Joaquin River Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for June in Dry Water Years with Warm Meteorology.

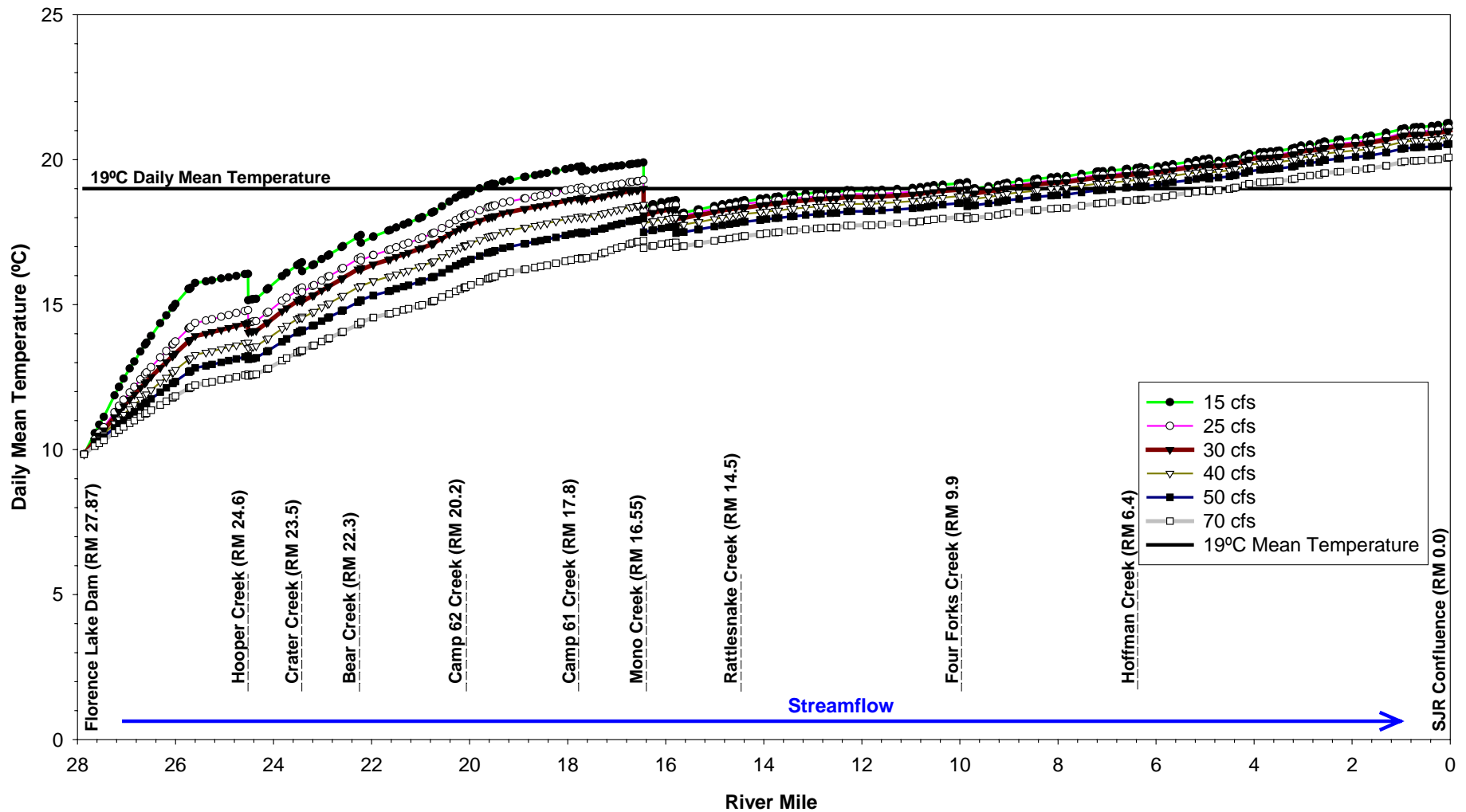


Figure CAWG 5 Appendix D-5. South Fork San Joaquin River Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for July in Dry Water Years with Warm Meteorology.

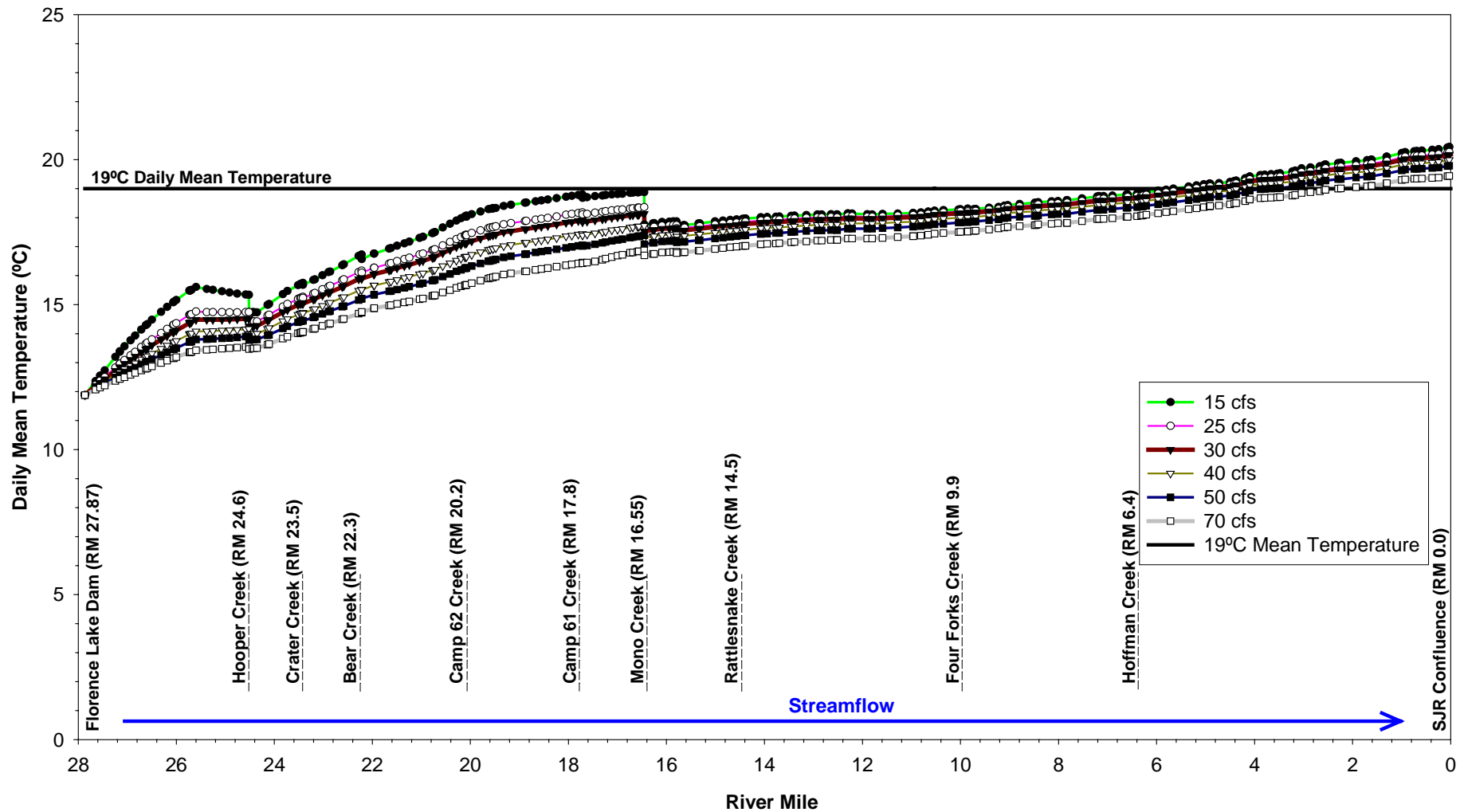


Figure CAWG 5 Appendix D-6. South Fork San Joaquin River Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for August in Dry Water Years with Warm Meteorology.

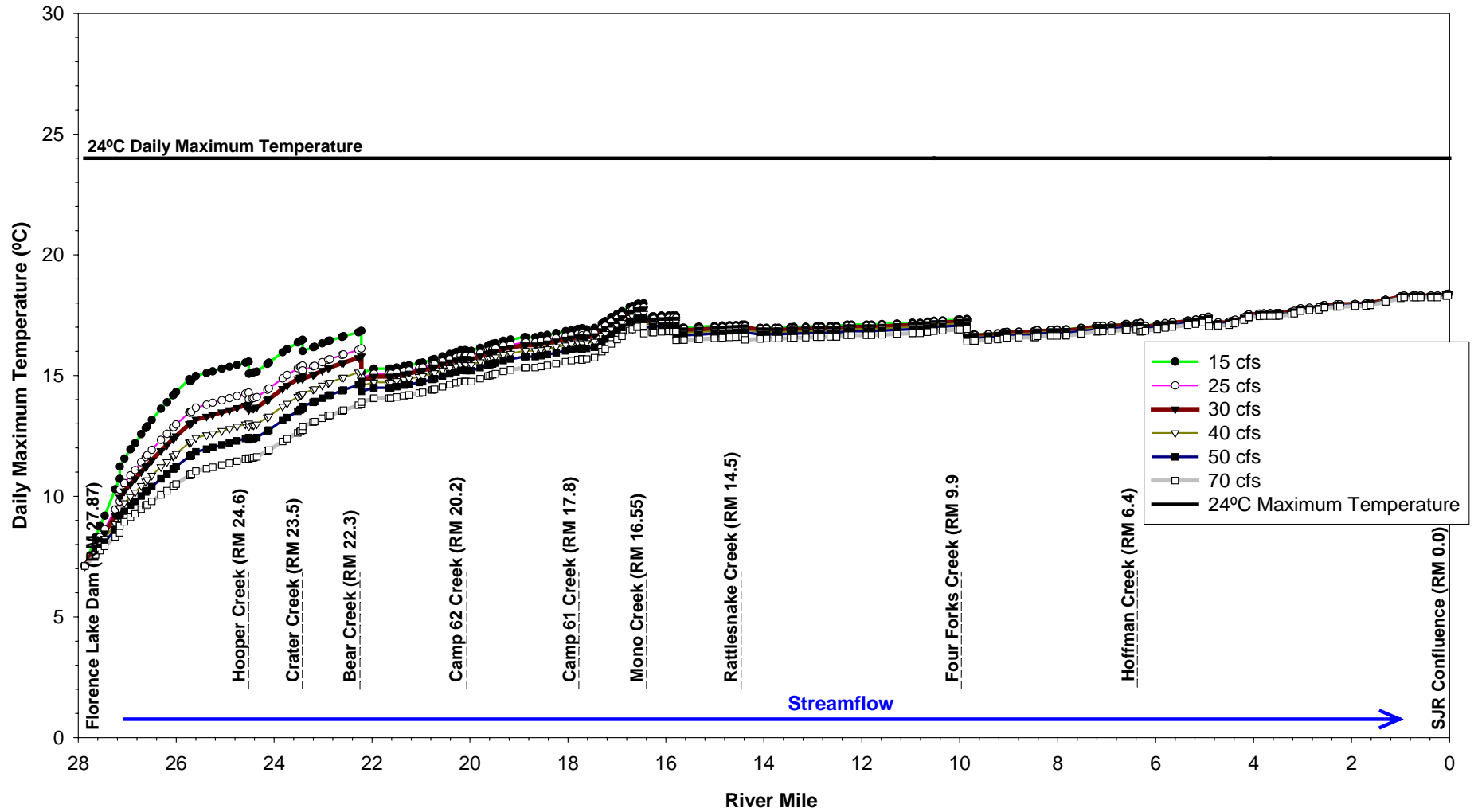


Figure CAWG 5 Appendix D-7. South Fork San Joaquin River Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for June in Above Normal Water Years with Normal Meteorology.

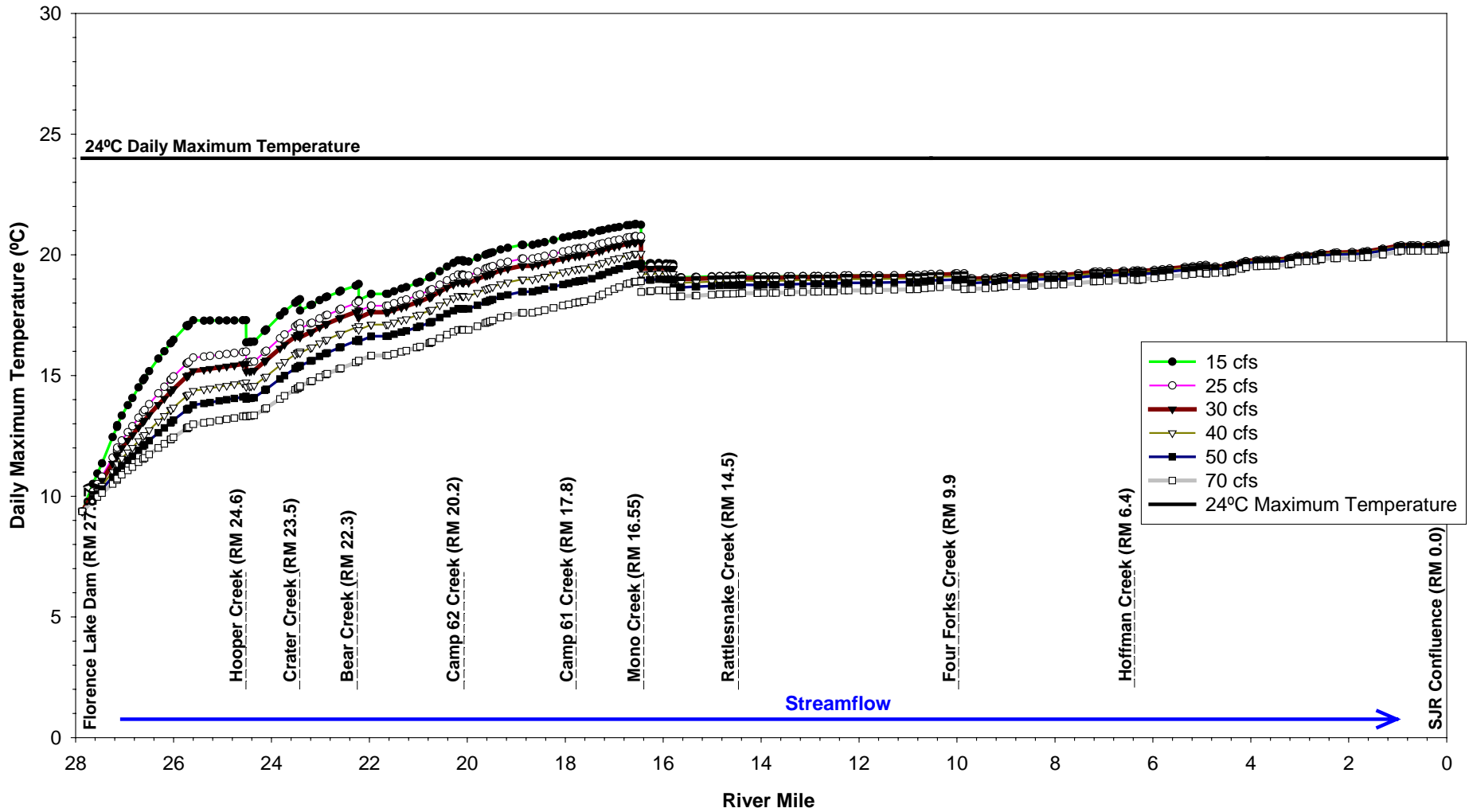


Figure CAWG 5 Appendix D-8. South Fork San Joaquin River Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for July in Above Normal Water Years with Normal Meteorology.

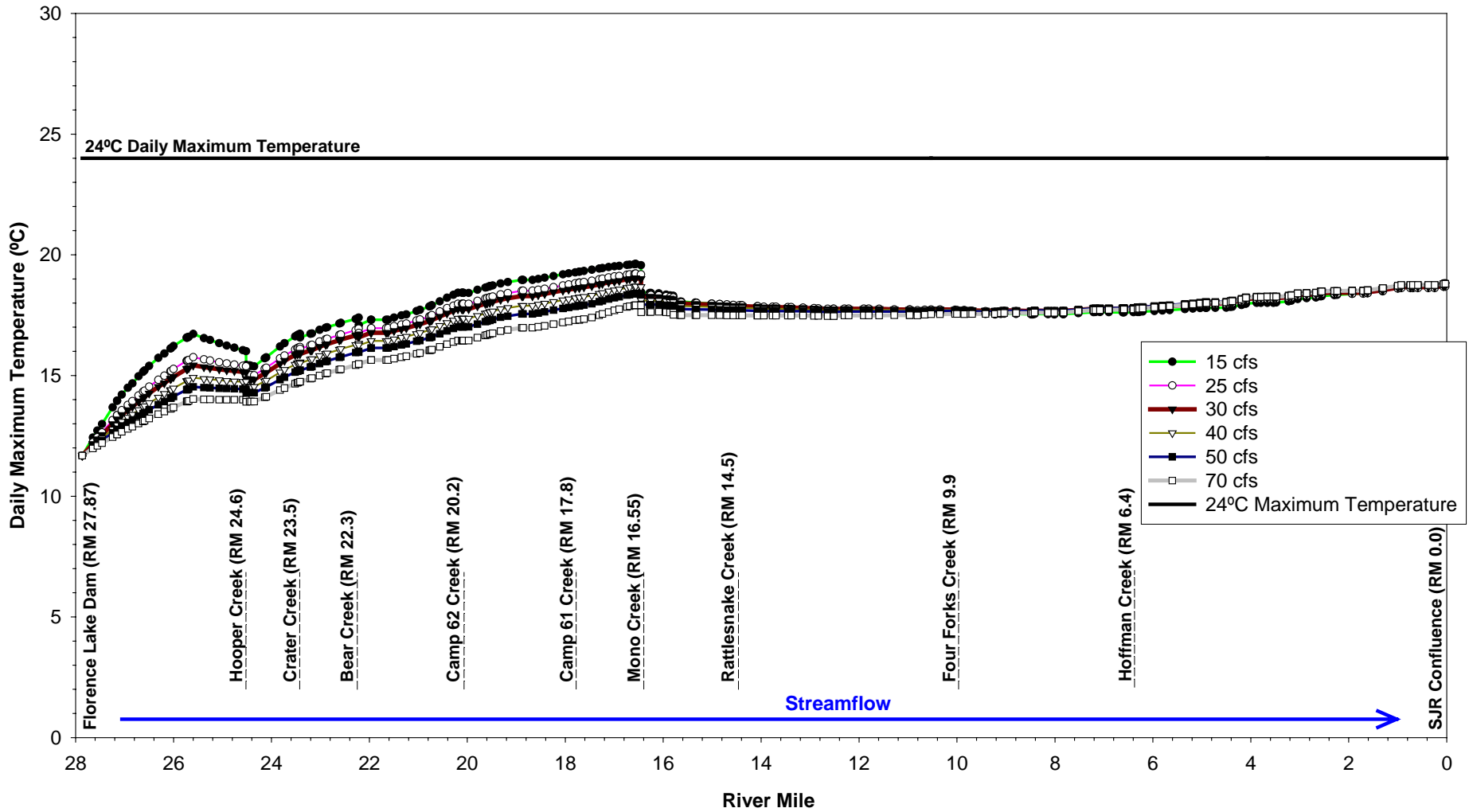


Figure CAWG 5 Appendix D-9. South Fork San Joaquin River Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for August in Above Normal Water Years with Normal Meteorology.

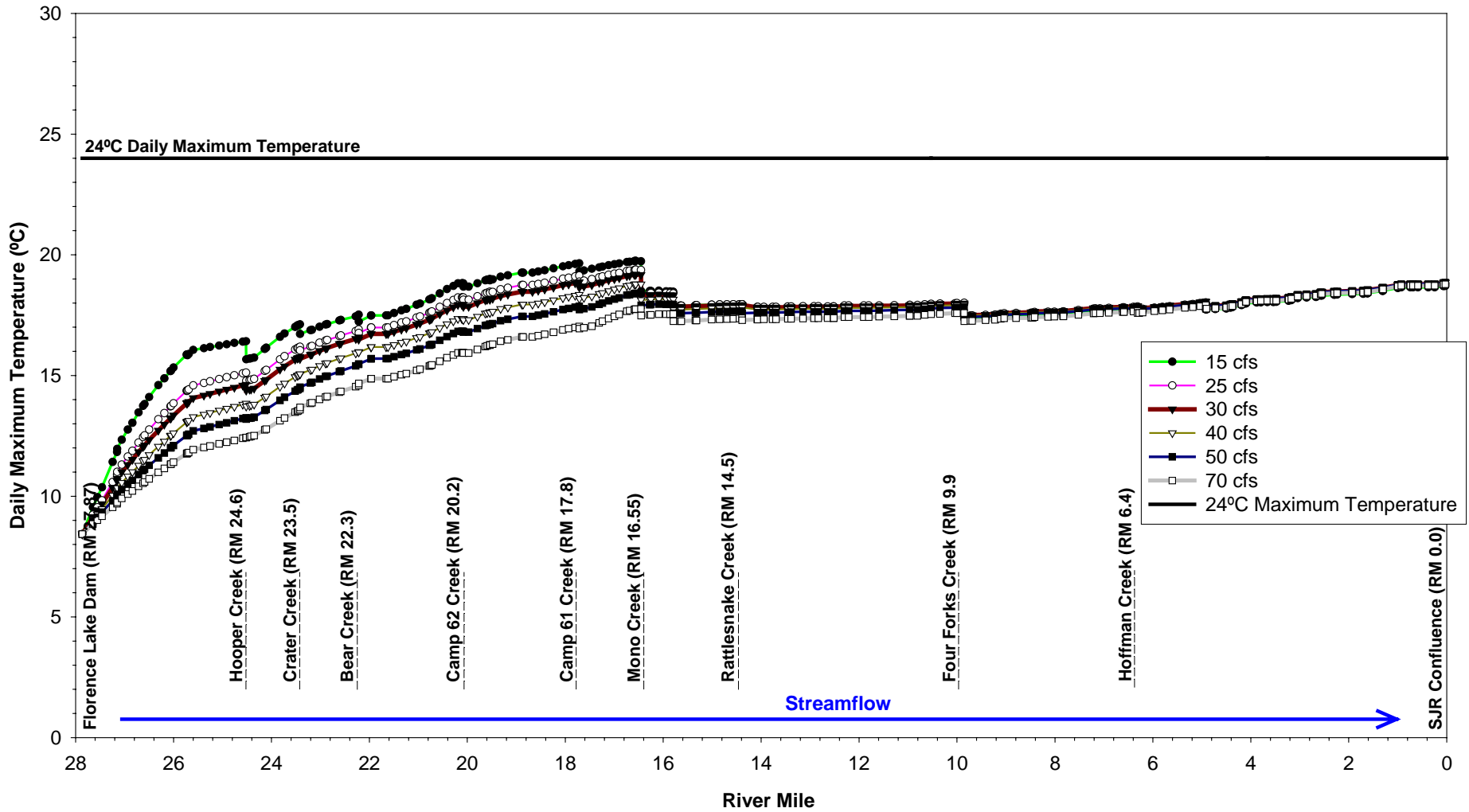


Figure CAWG 5 Appendix D-10. South Fork San Joaquin River Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for June in Dry Water Years with Warm Meteorology.

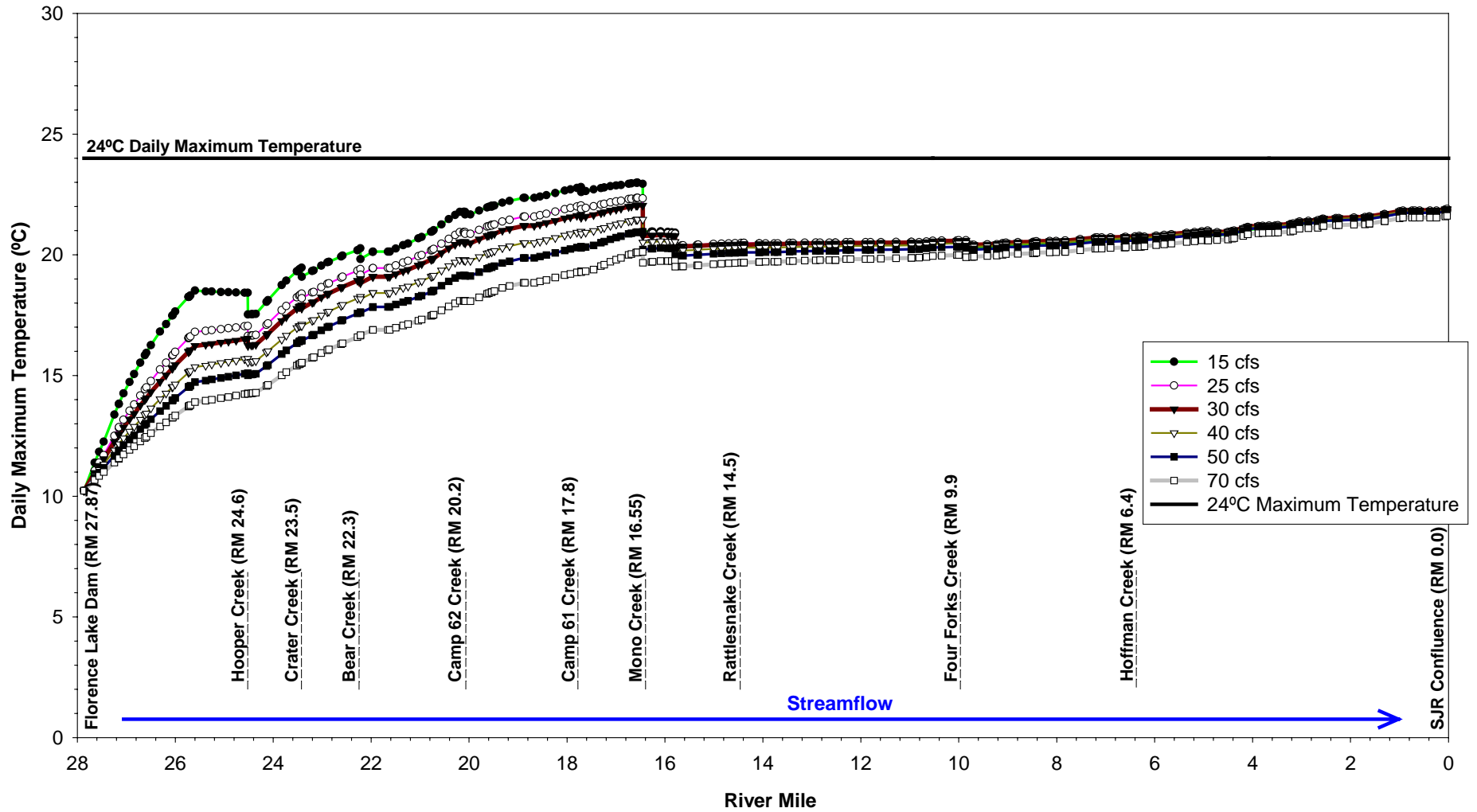


Figure CAWG 5 Appendix D-11. South Fork San Joaquin River Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for July in Dry Water Years with Warm Meteorology.

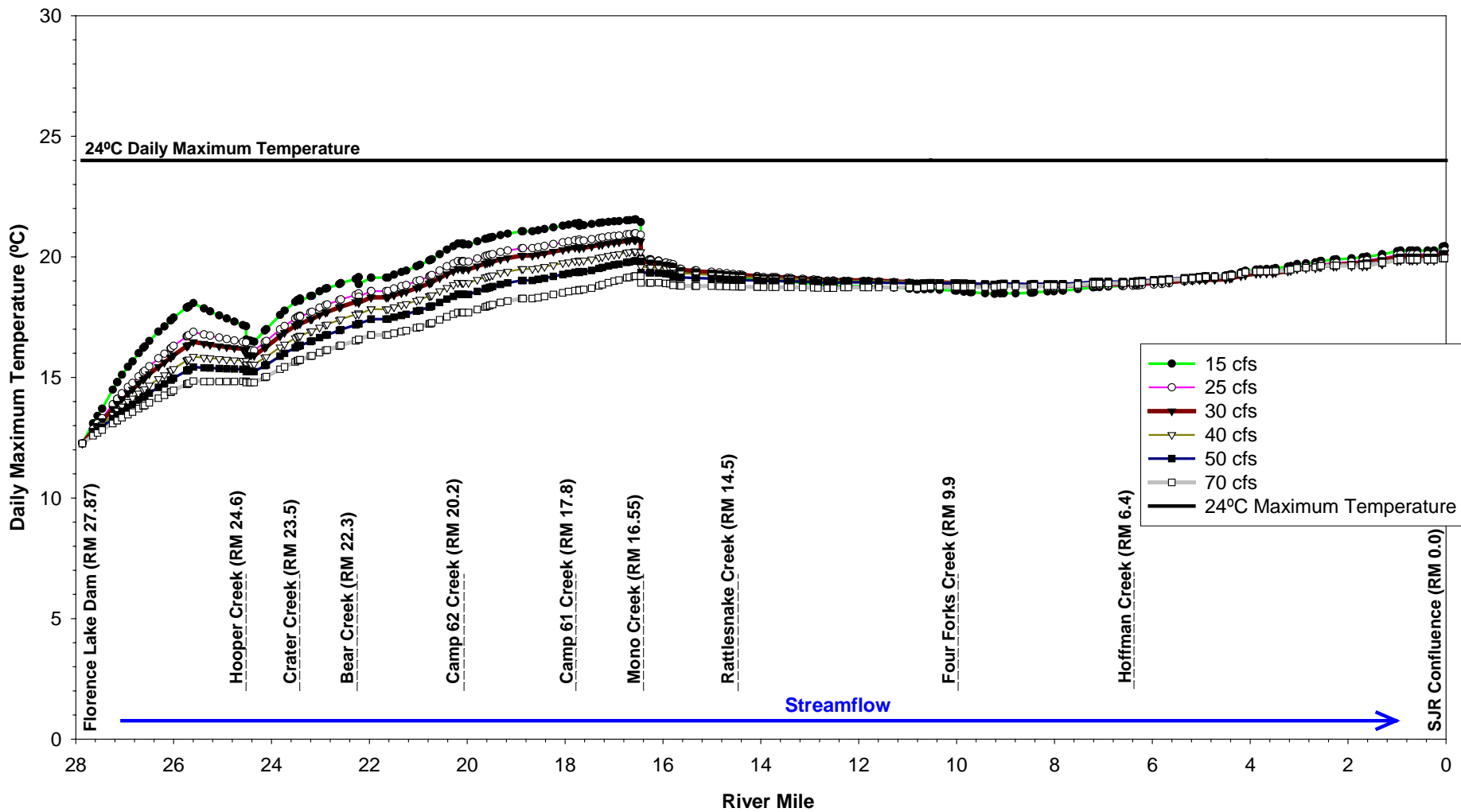


Figure CAWG 5 Appendix D-12. South Fork San Joaquin River Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for August in Dry Water Years with Warm Meteorology.

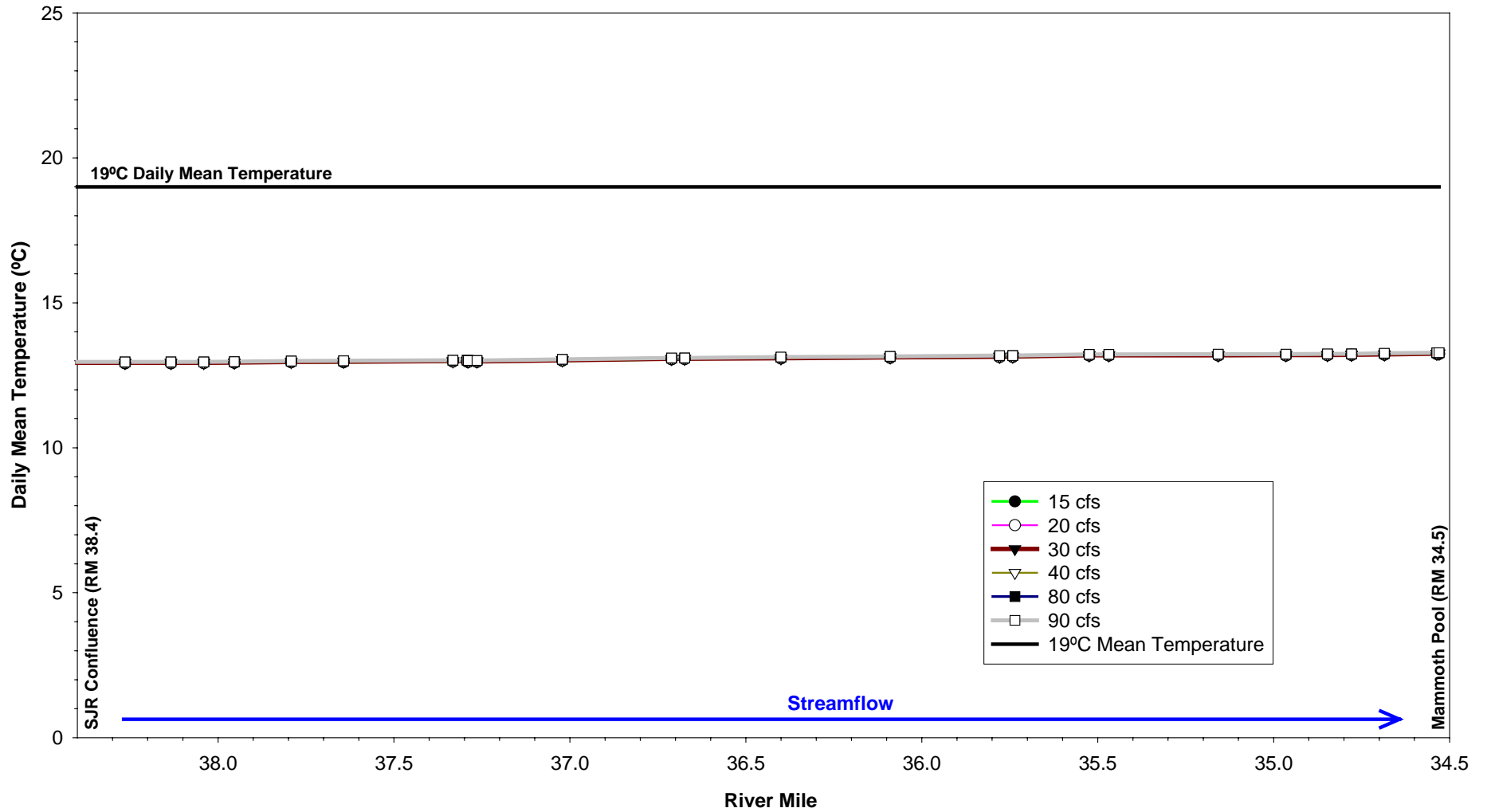


Figure CAWG 5 Appendix D-13. San Joaquin River Upstream of Mammoth Pool Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for June in Above Normal Water Years with Normal Meteorology.

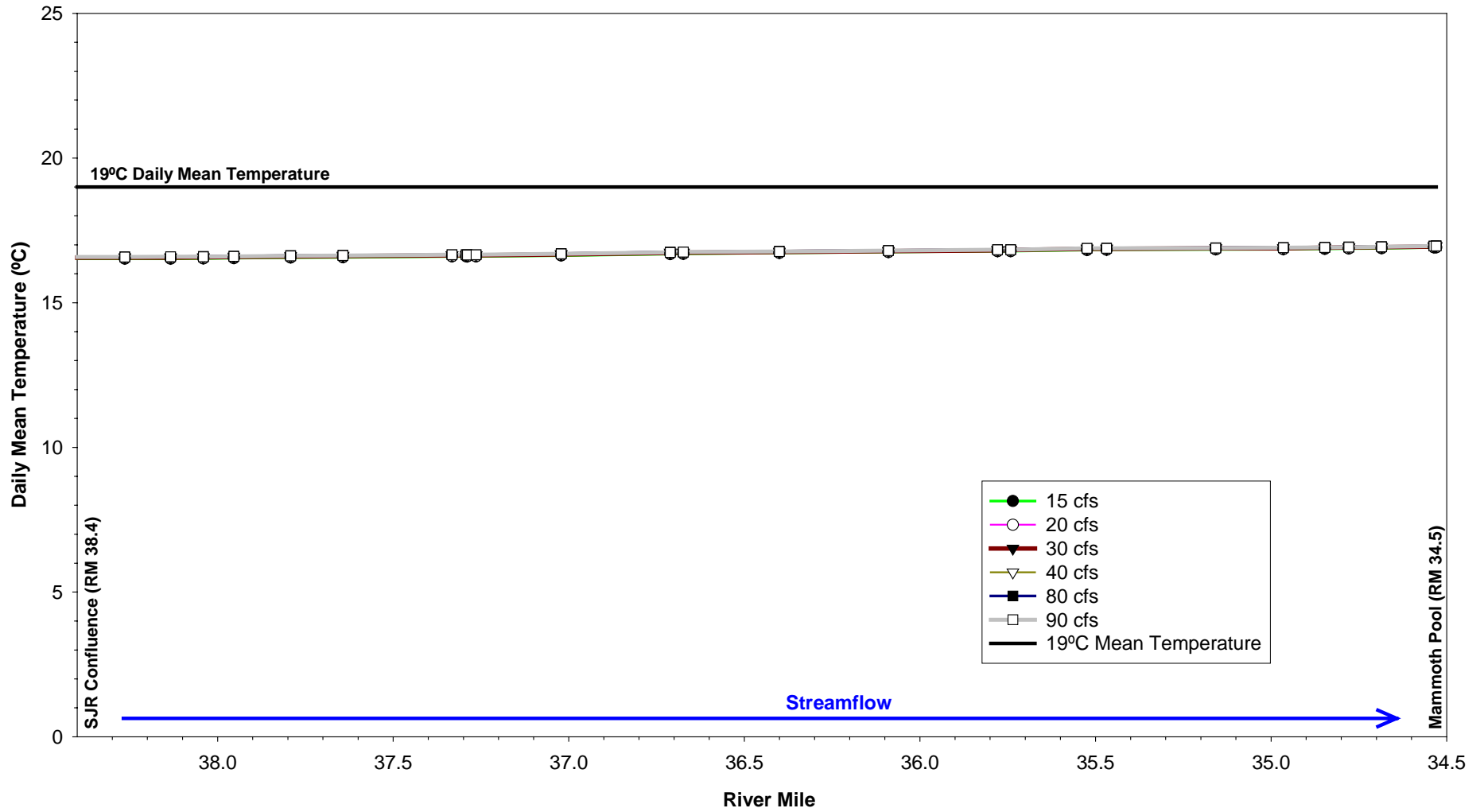


Figure CAWG 5 Appendix D-14. San Joaquin River Upstream of Mammoth Pool Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for July in Above Normal Water Years with Normal Meteorology.

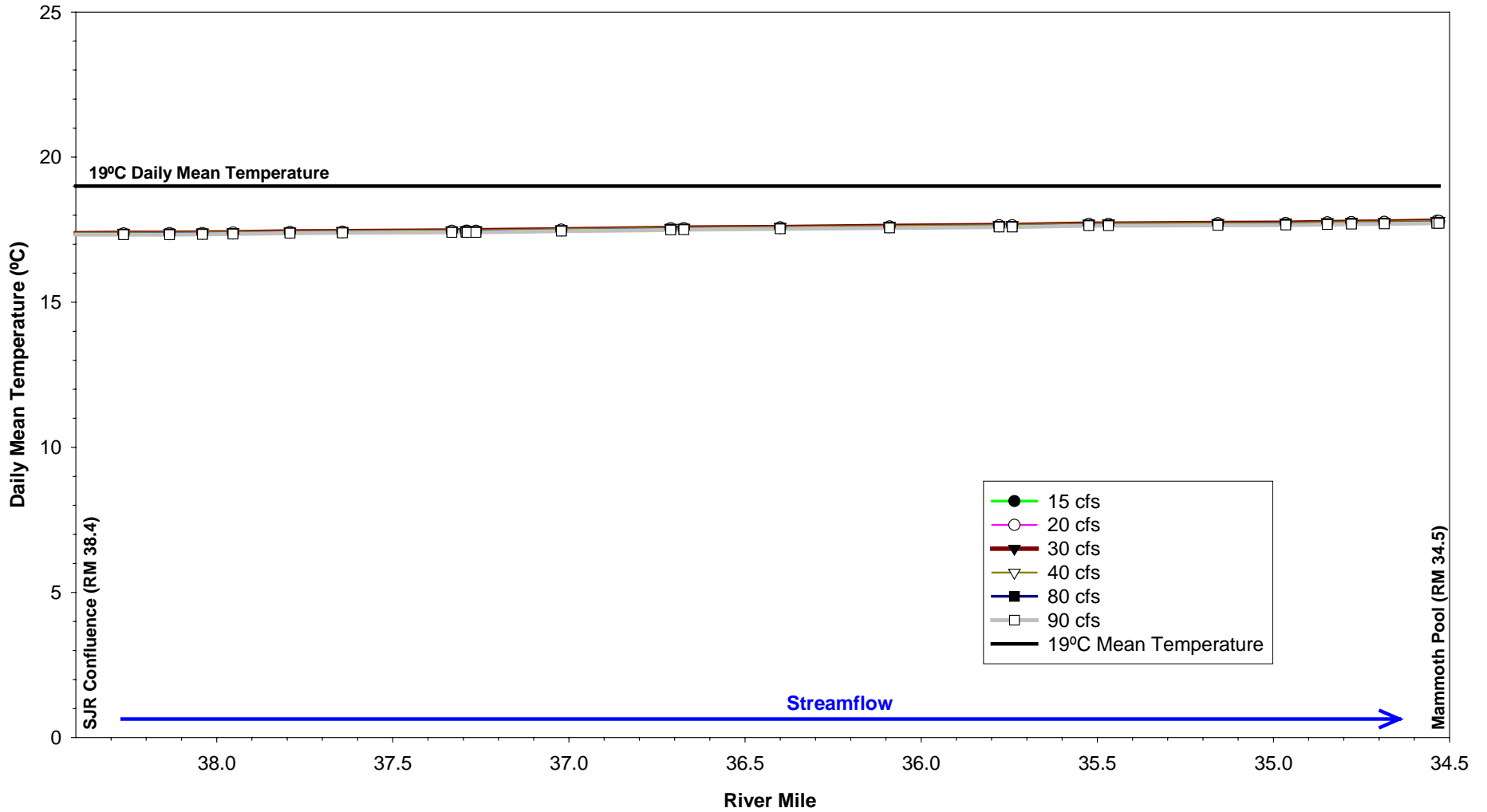


Figure CAWG 5 Appendix D-15. San Joaquin River Upstream of Mammoth Pool Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for August in Above Normal Water Years with Normal Meteorology.

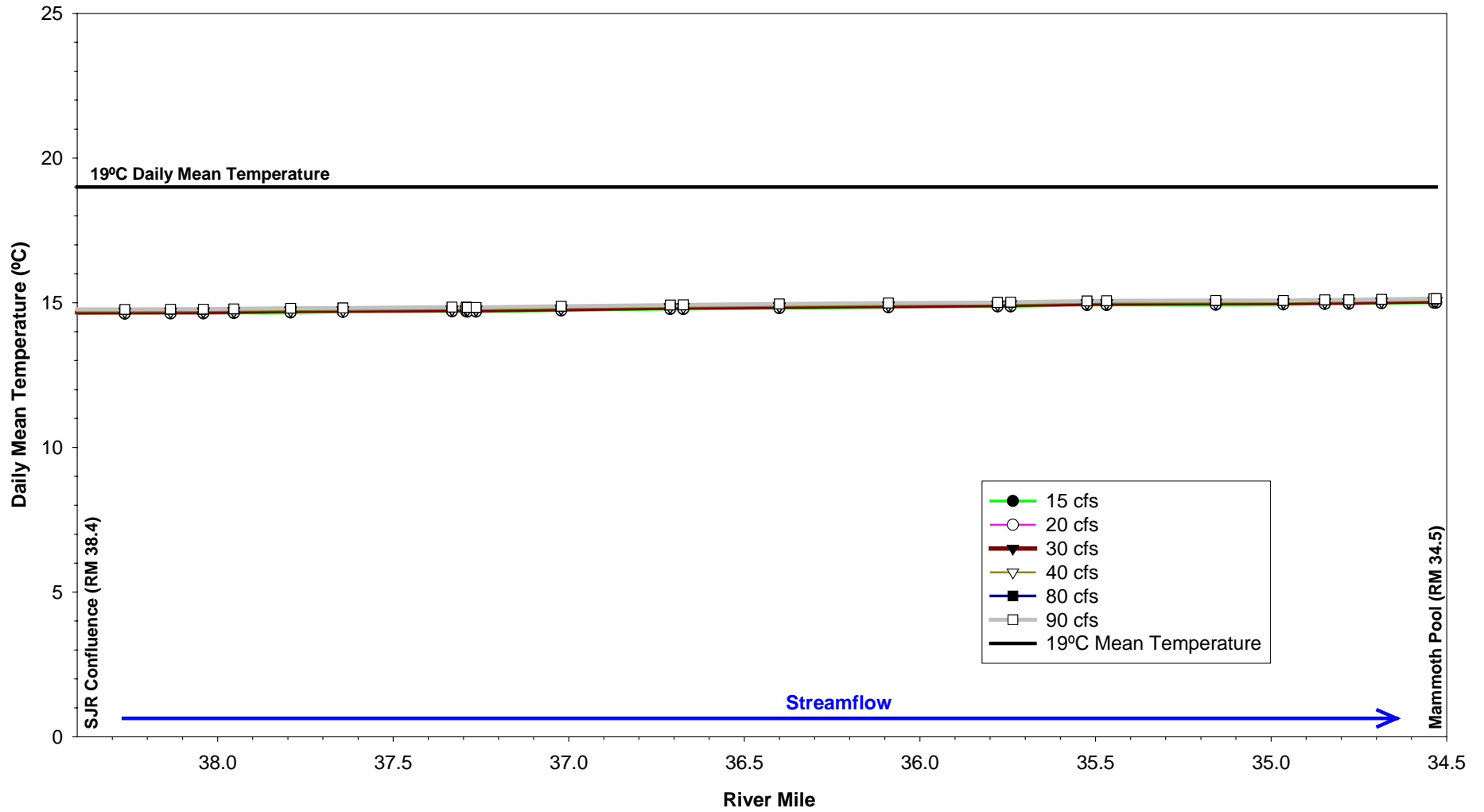


Figure CAWG 5 Appendix D-16. San Joaquin River Upstream of Mammoth Pool Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for June in Dry Water Years with Warm Meteorology.

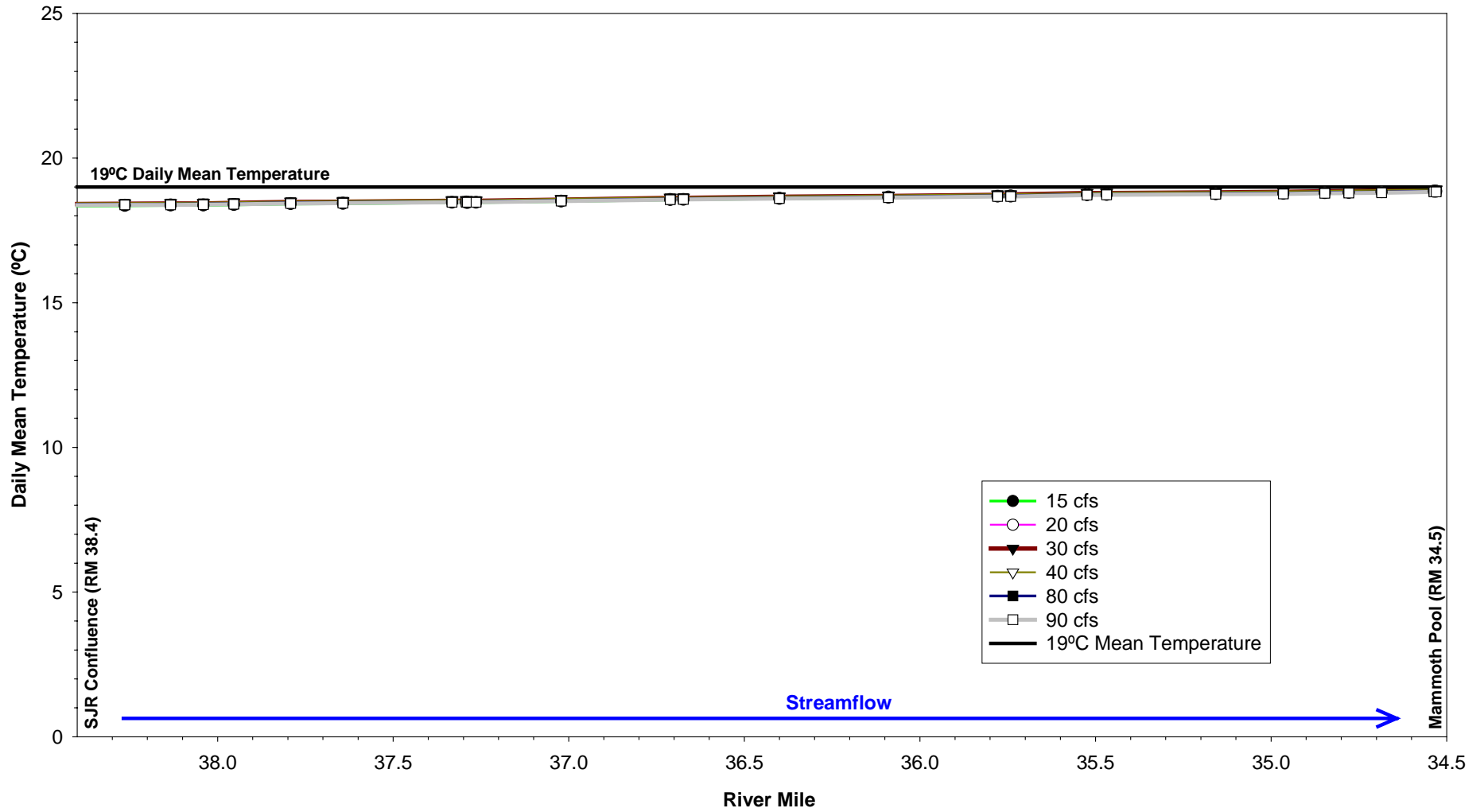


Figure CAWG 5 Appendix D-17. San Joaquin River Upstream of Mammoth Pool Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for July in Dry Water Years with Warm Meteorology.

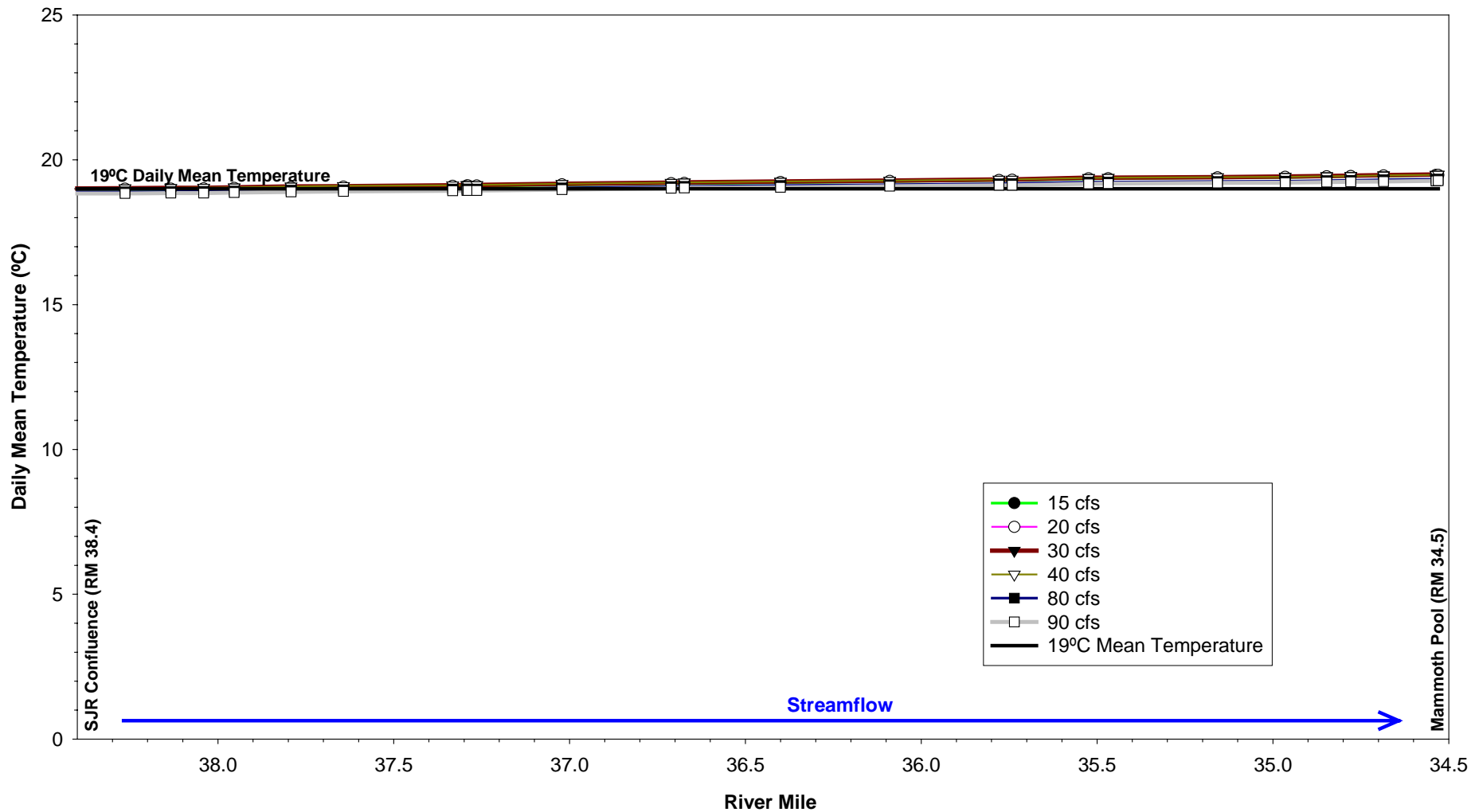


Figure CAWG 5 Appendix D-18. San Joaquin River Upstream of Mammoth Pool Simulated Daily Mean Water Temperatures for Flows Released from Florence Dam for August in Dry Water Years with Warm Meteorology.

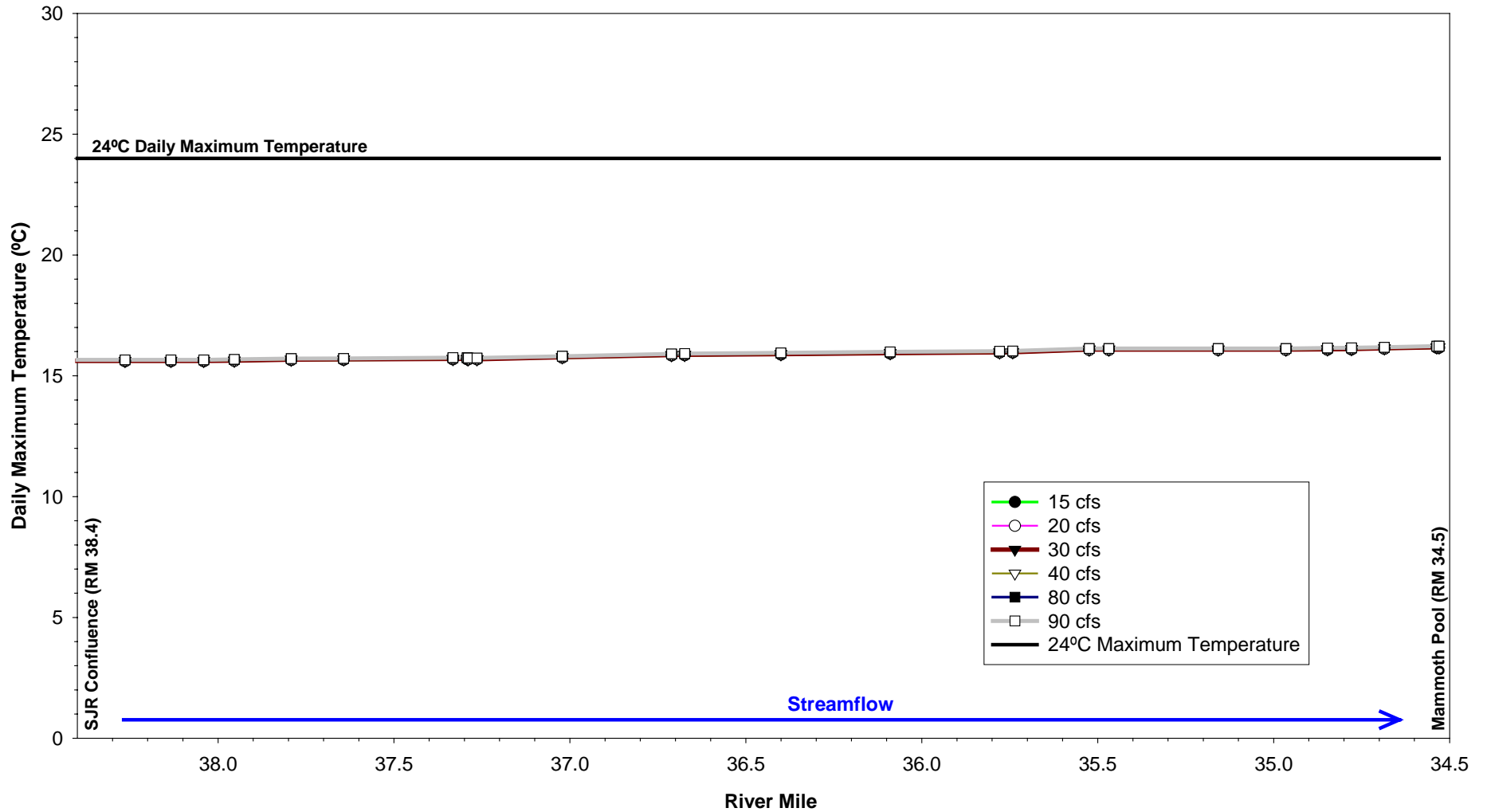


Figure CAWG 5 Appendix D-19. San Joaquin River Upstream of Mammoth Pool Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for June in Above Normal Water Years with Normal Meteorology.

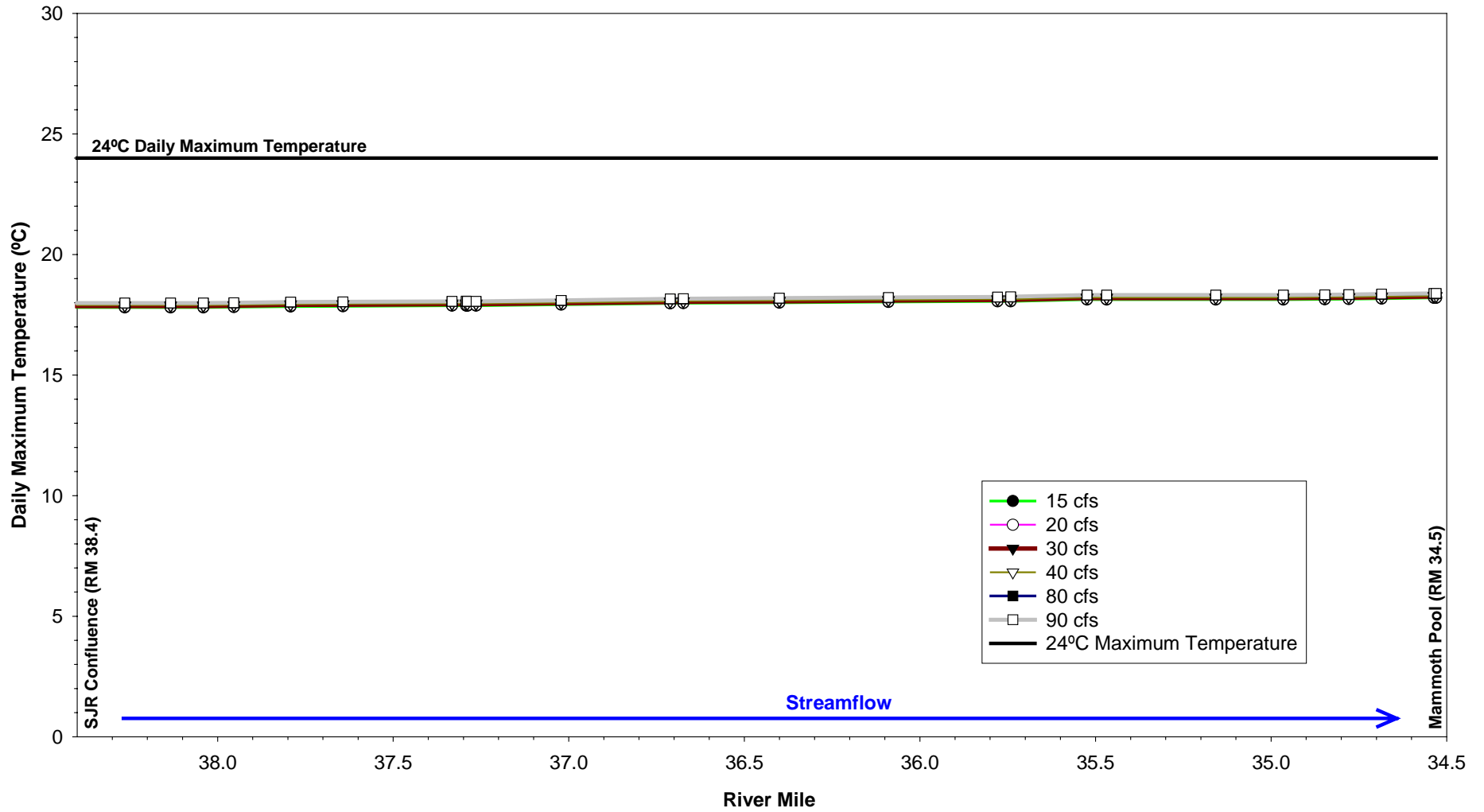


Figure CAWG 5 Appendix D-20. San Joaquin River Upstream of Mammoth Pool Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for July in Above Normal Water Years with Normal Meteorology.

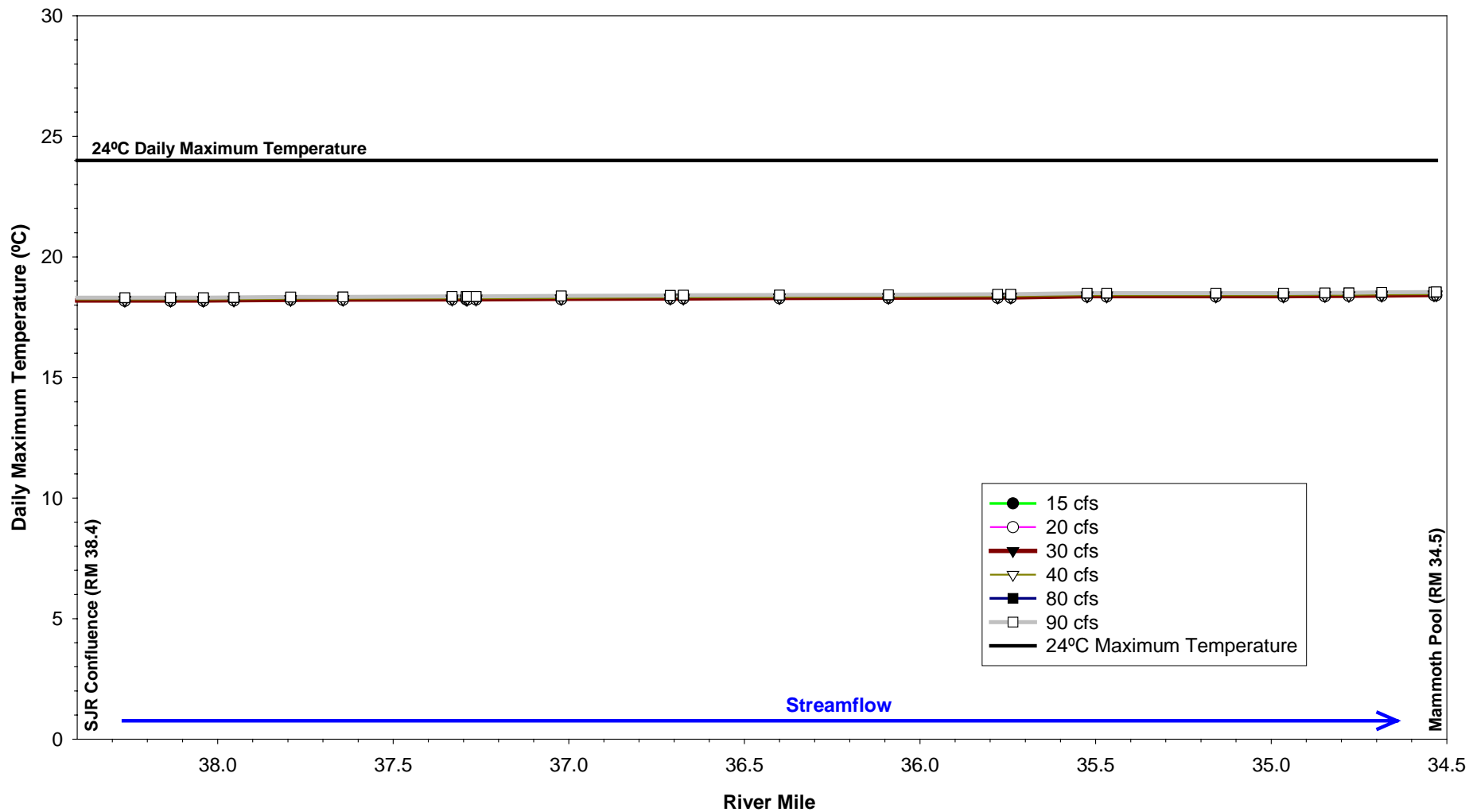


Figure CAWG 5 Appendix D-21. San Joaquin River Upstream of Mammoth Pool Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for August in Above Normal Water Years with Normal Meteorology.

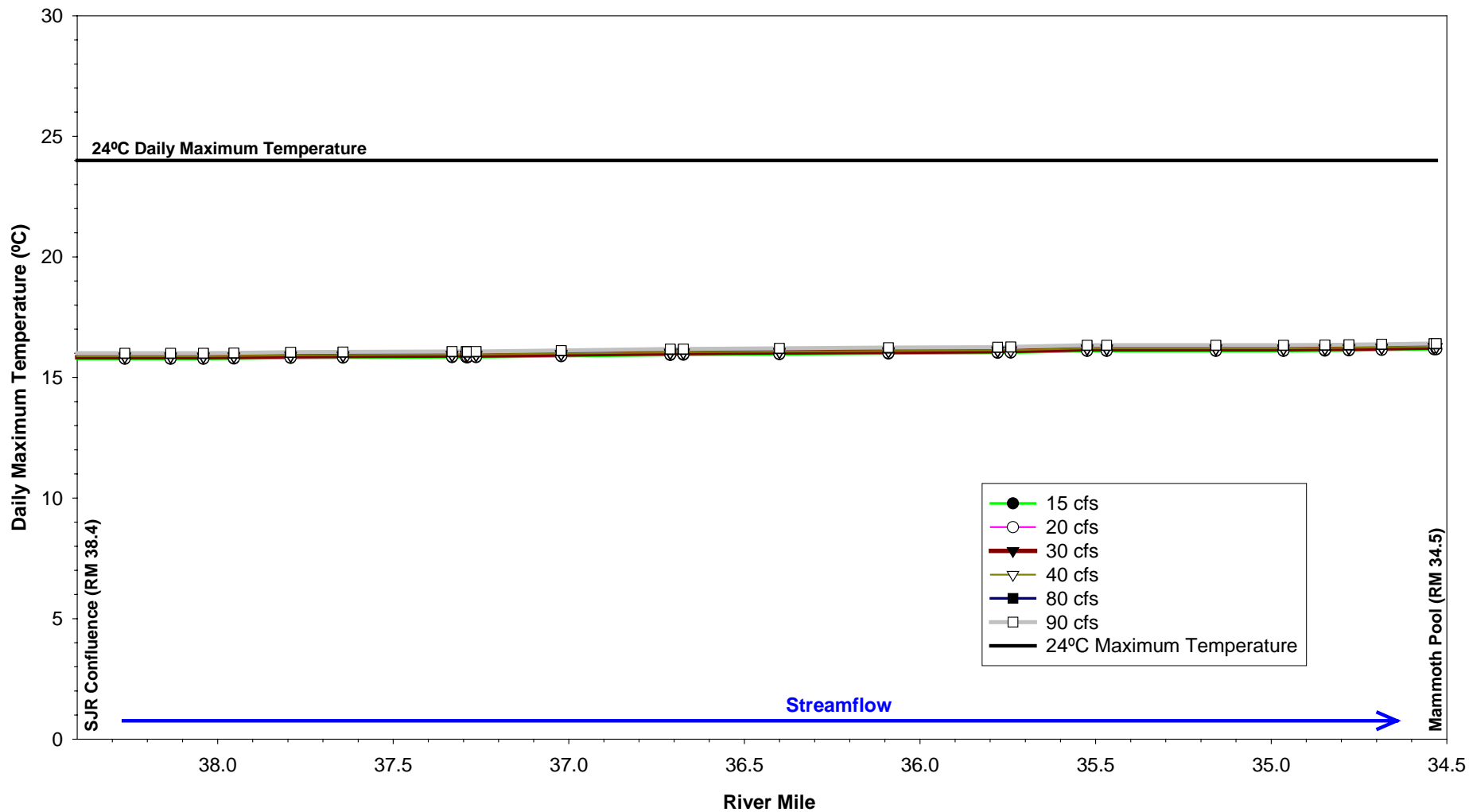


Figure CAWG 5 Appendix D-22. San Joaquin River Upstream of Mammoth Pool Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for June in Dry Water Years with Warm Meteorology.

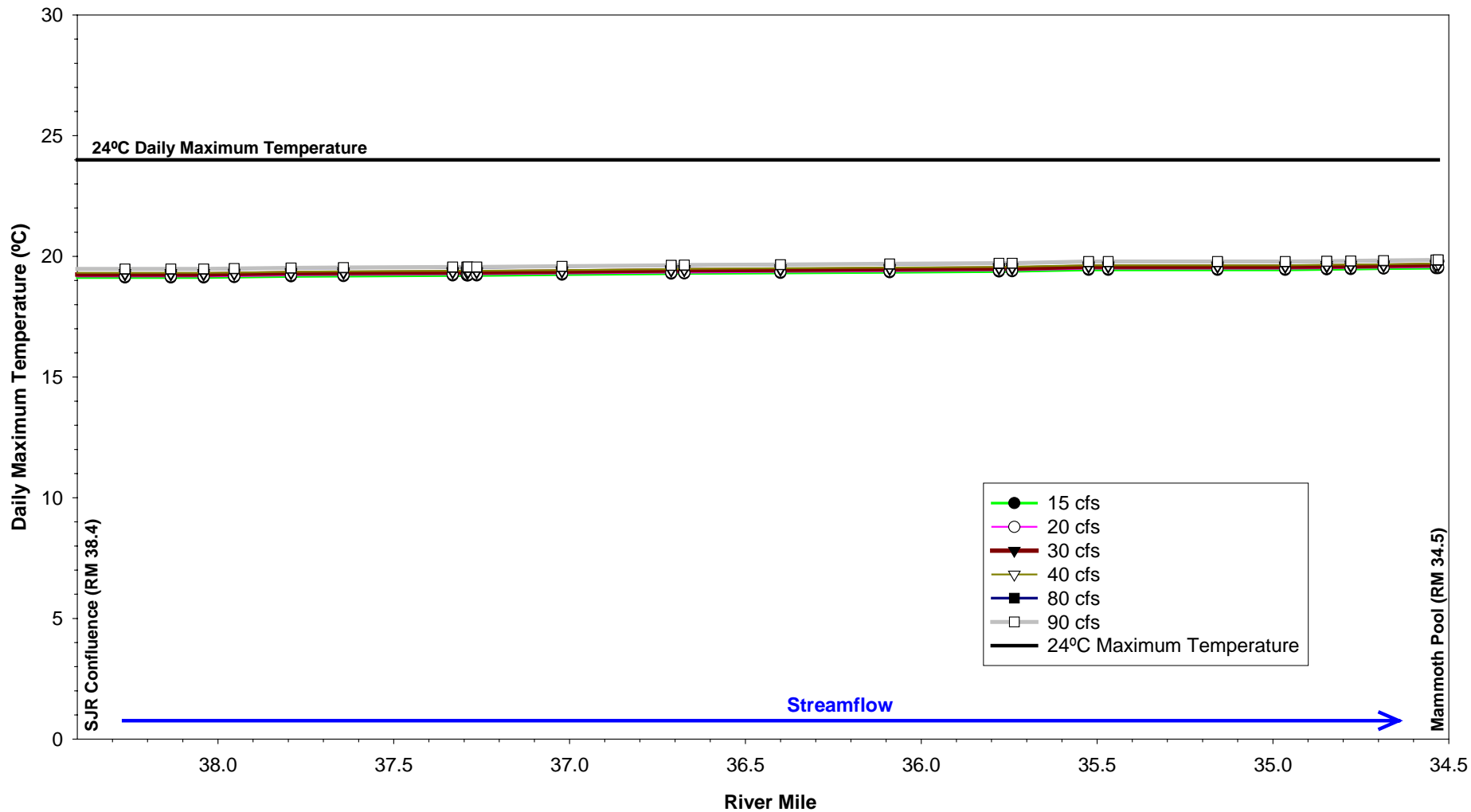


Figure CAWG 5 Appendix D-23. San Joaquin River Upstream of Mammoth Pool Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for July in Dry Water Years with Warm Meteorology.

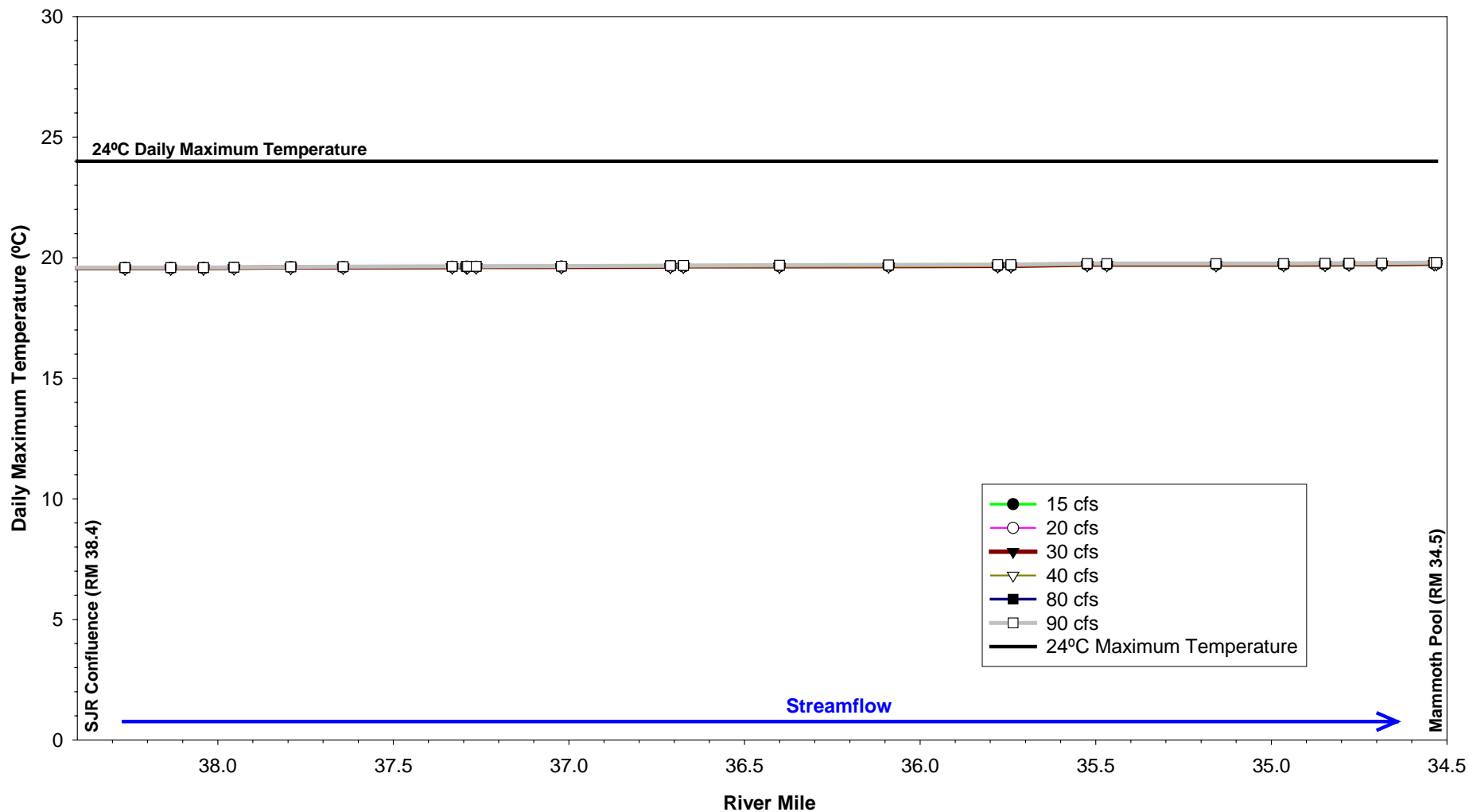


Figure CAWG 5 Appendix D-24. San Joaquin River Upstream of Mammoth Pool Simulated Daily Maximum Water Temperatures for Flows Released from Florence Dam for August in Dry Water Years with Warm Meteorology.

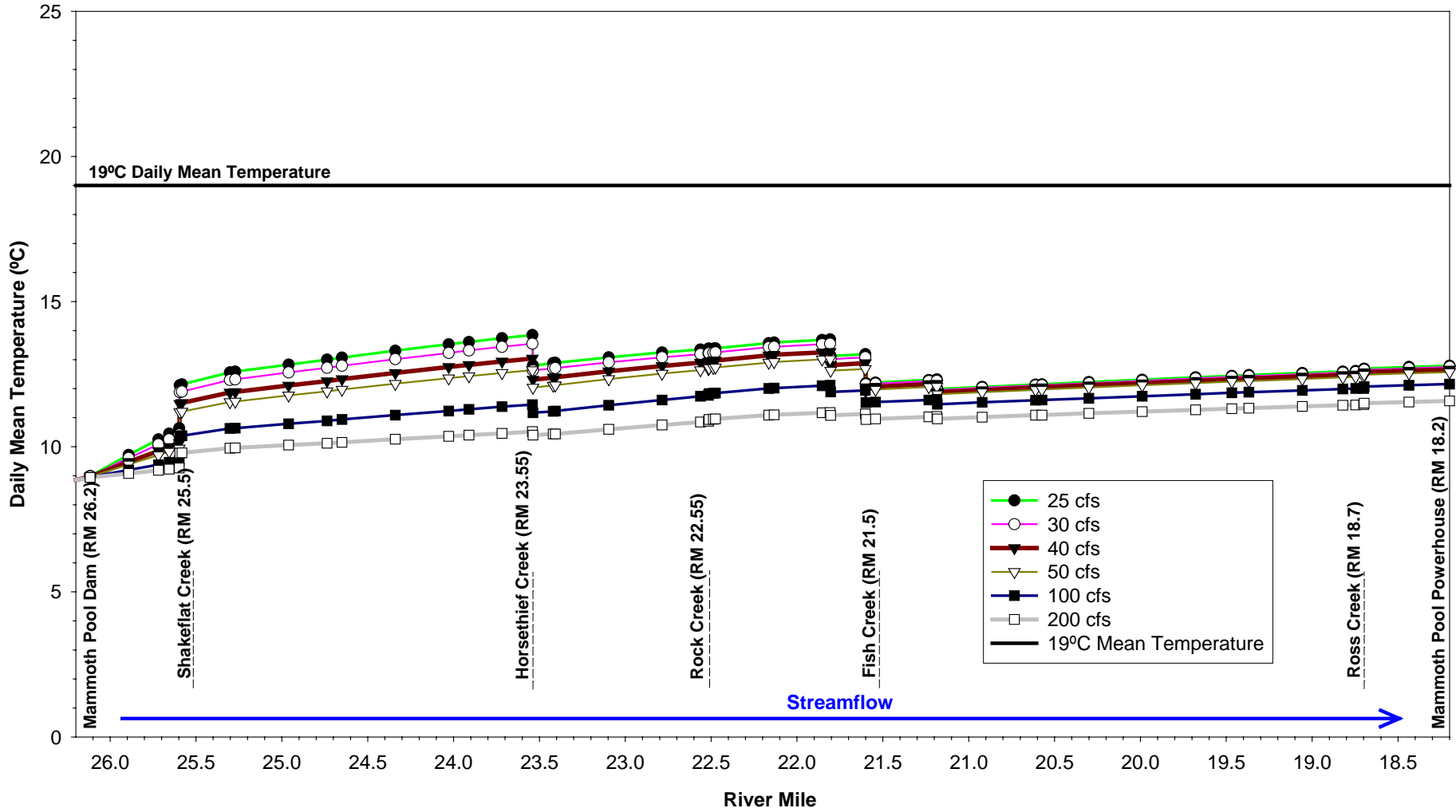


Figure CAWG 5 Appendix D-25. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for May in Above Normal Water Years with Normal Meteorology.

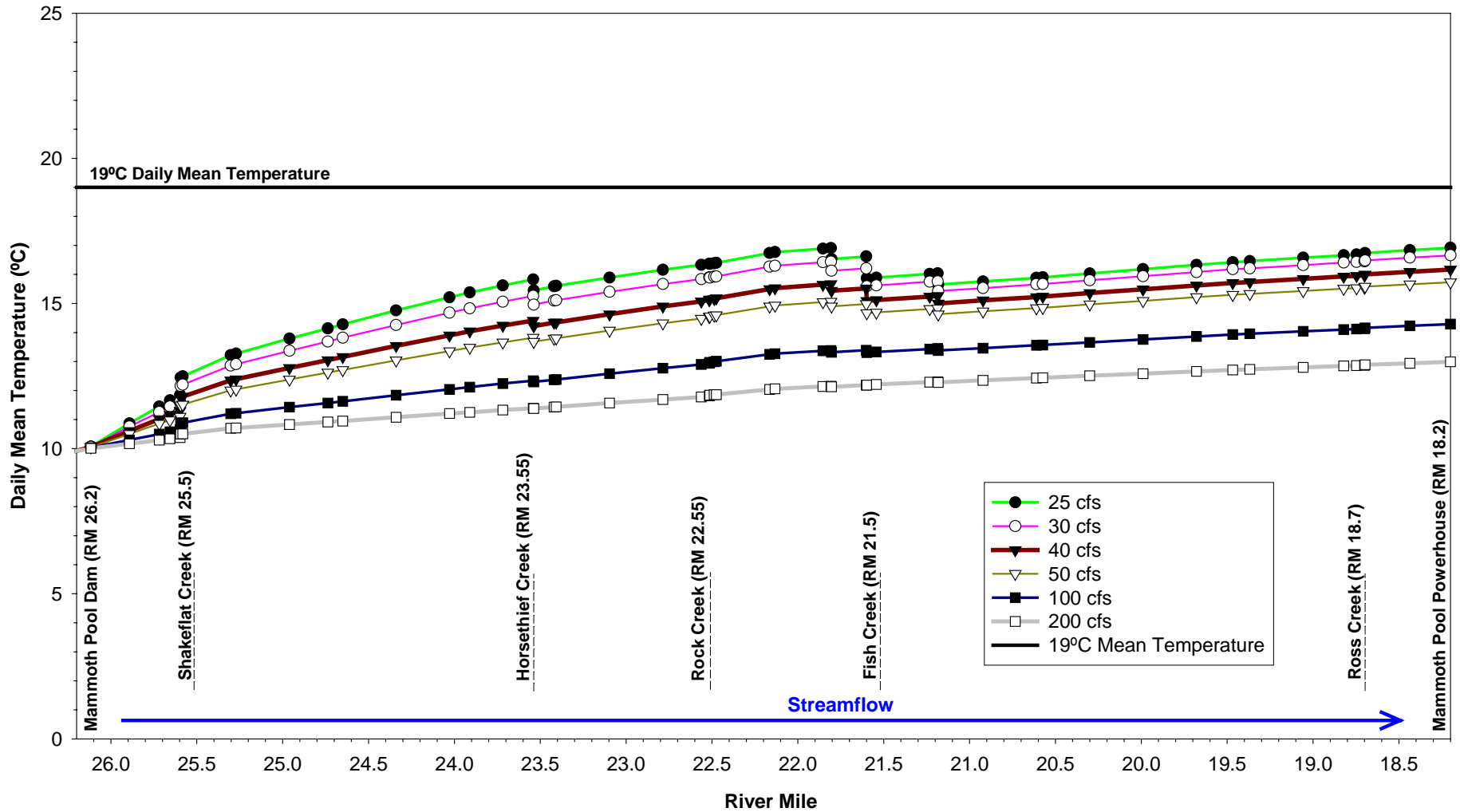


Figure CAWG 5 Appendix D-26. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for June in Above Normal Water Years with Normal Meteorology.

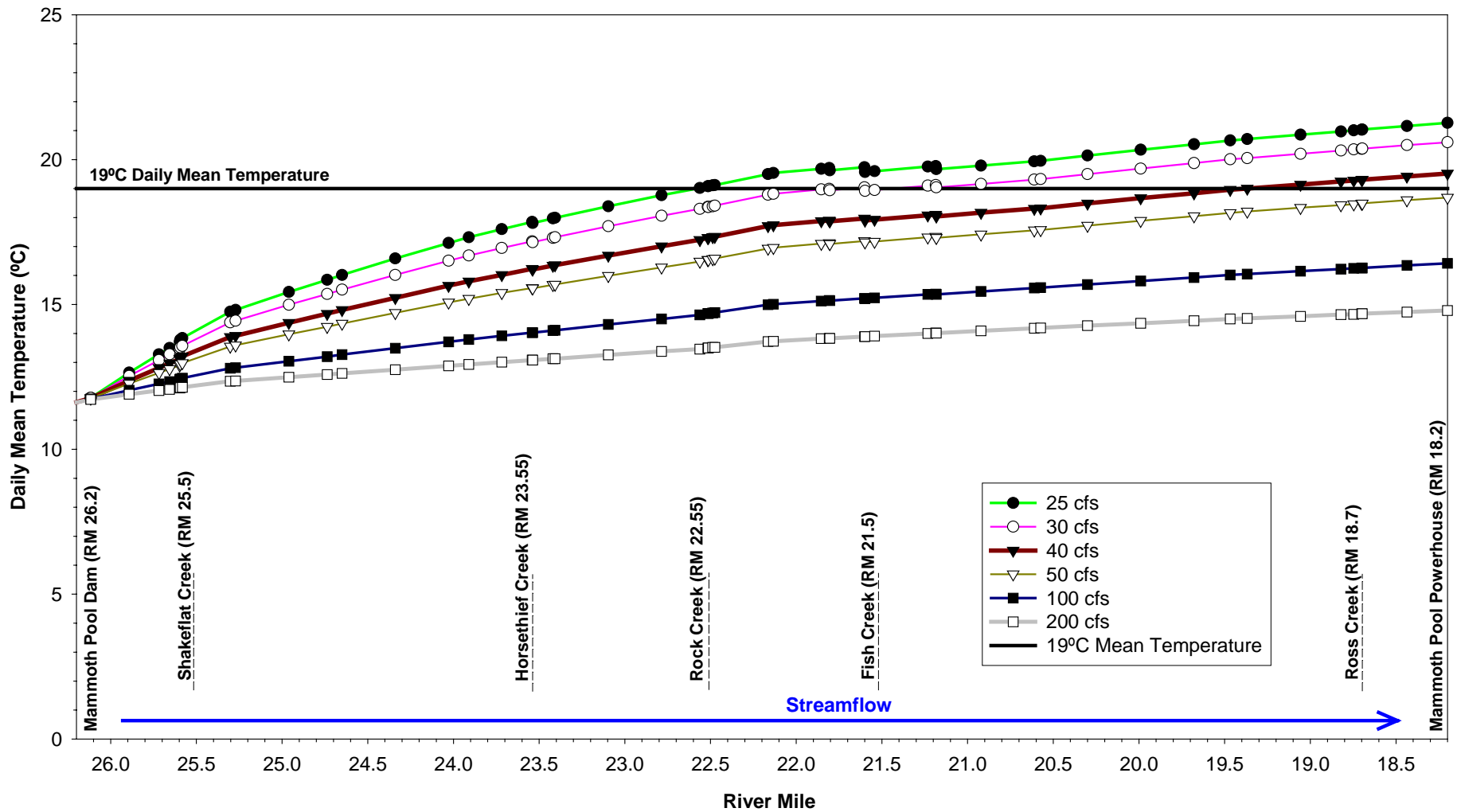


Figure CAWG 5 Appendix D-27. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for July in Above Normal Water Years with Normal Meteorology.

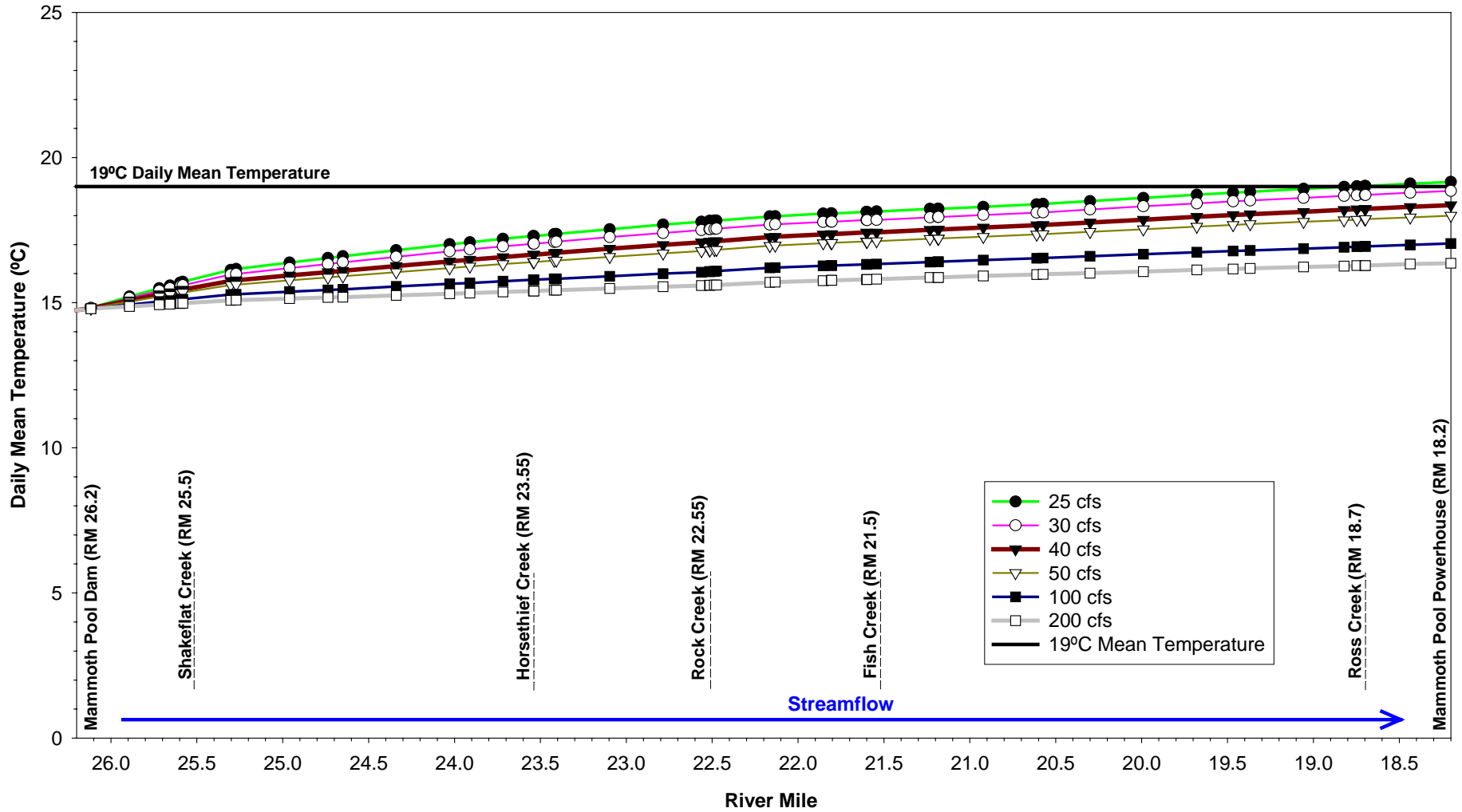


Figure CAWG 5 Appendix D-28. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for August in Above Normal Water Years with Normal Meteorology.

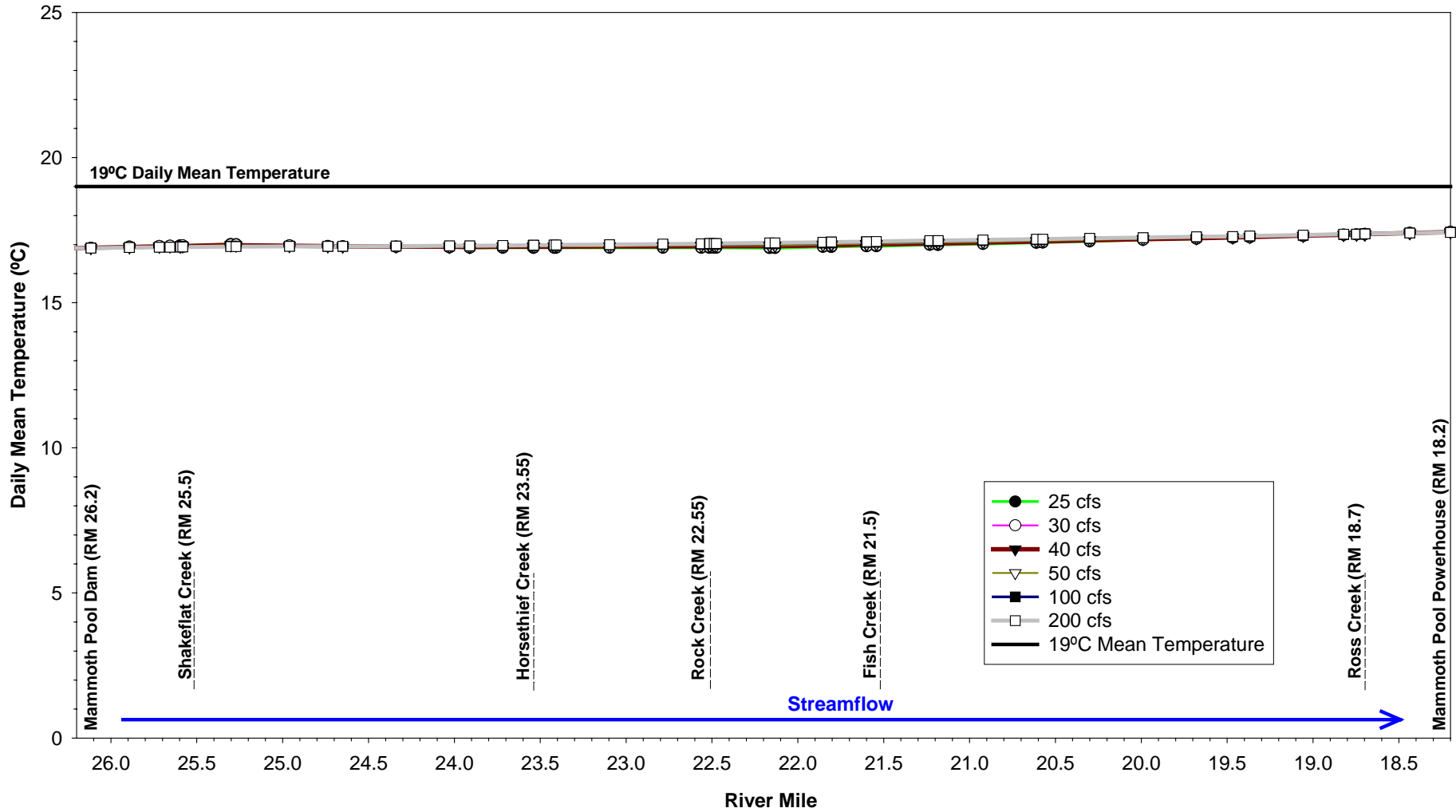


Figure CAWG 5 Appendix D-29. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for September in Above Normal Water Years with Normal Meteorology.

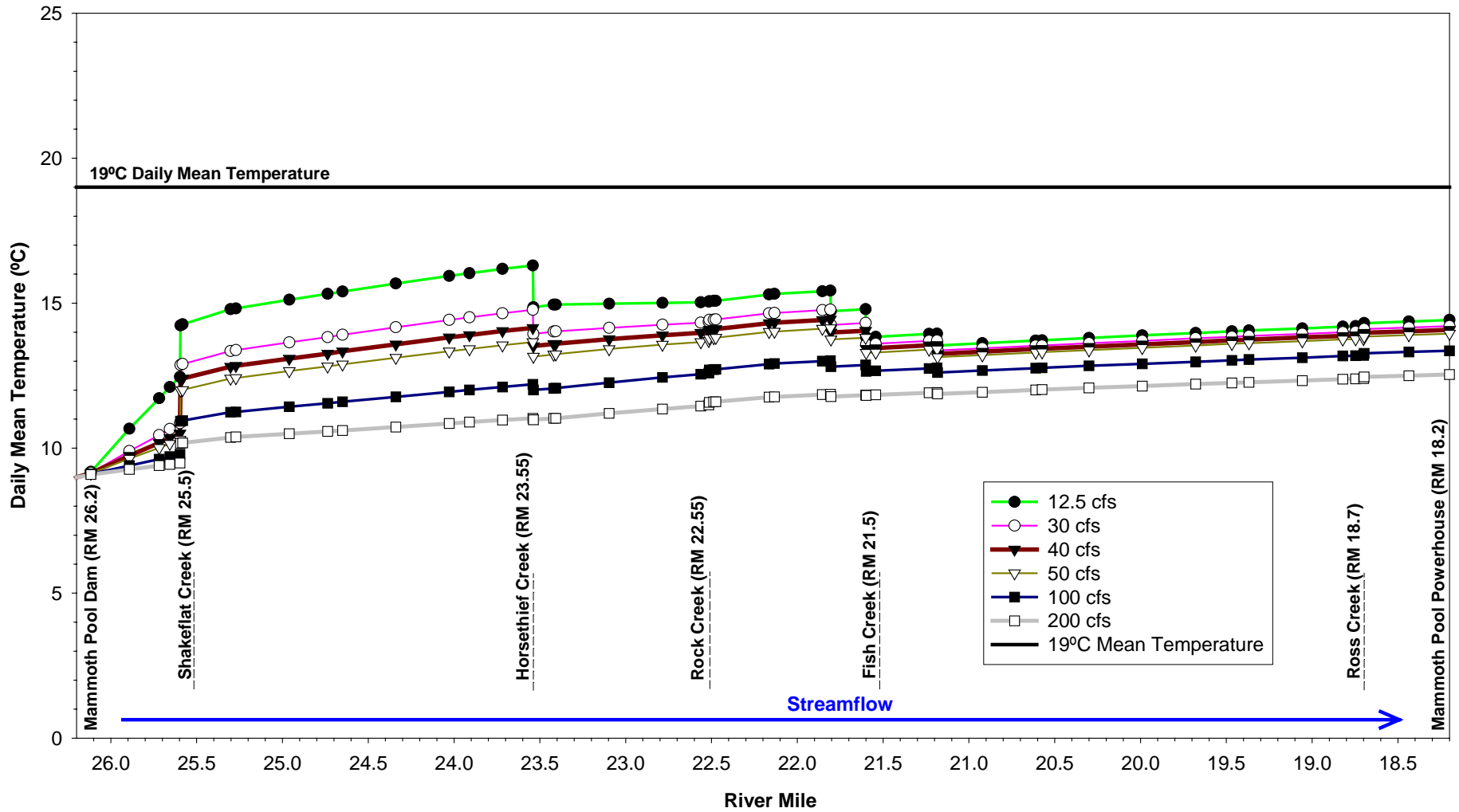


Figure CAWG 5 Appendix D-30. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for May in Dry Water Years with Warm Meteorology.

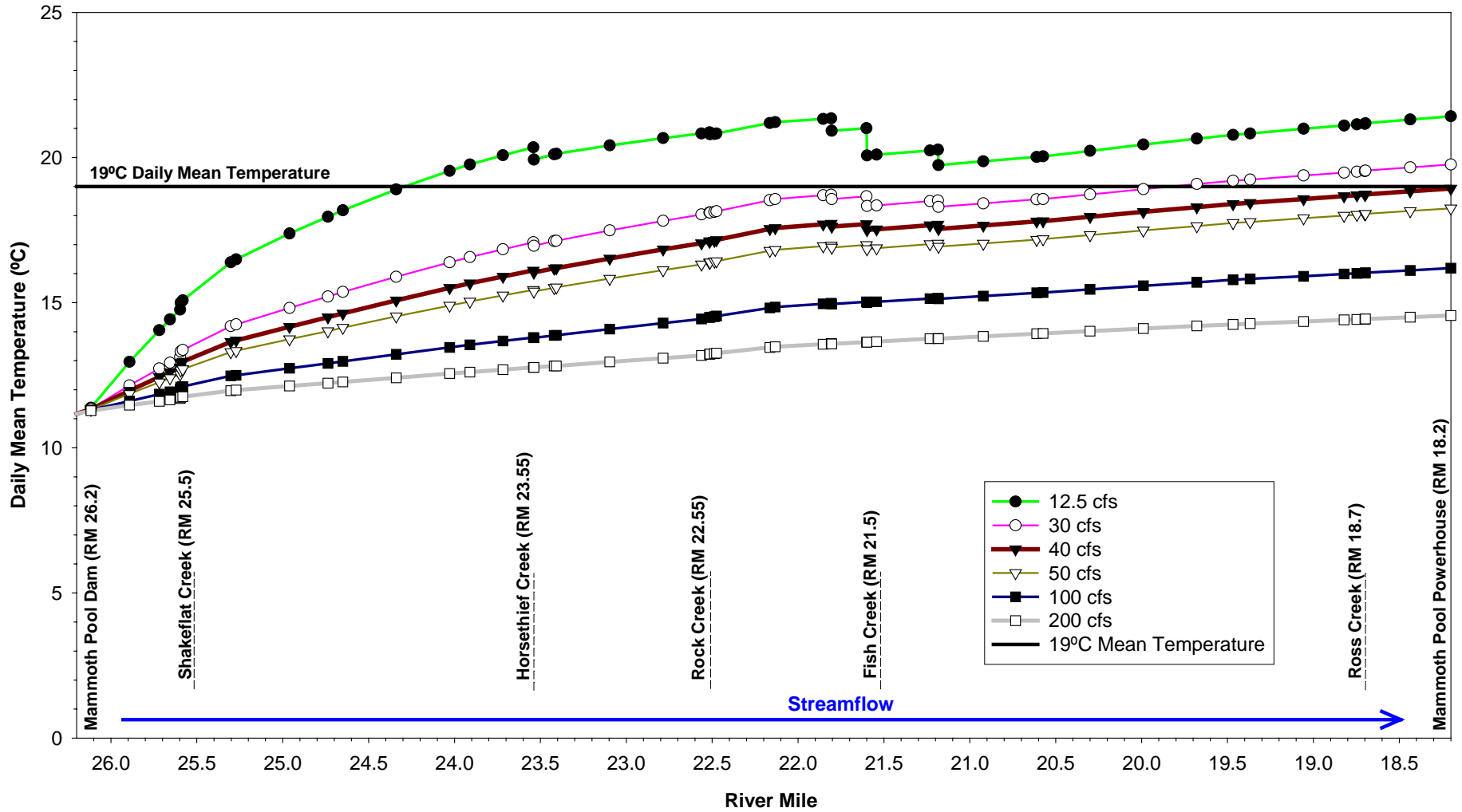


Figure CAWG 5 Appendix D-31. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for June in Dry Water Years with Warm Meteorology.

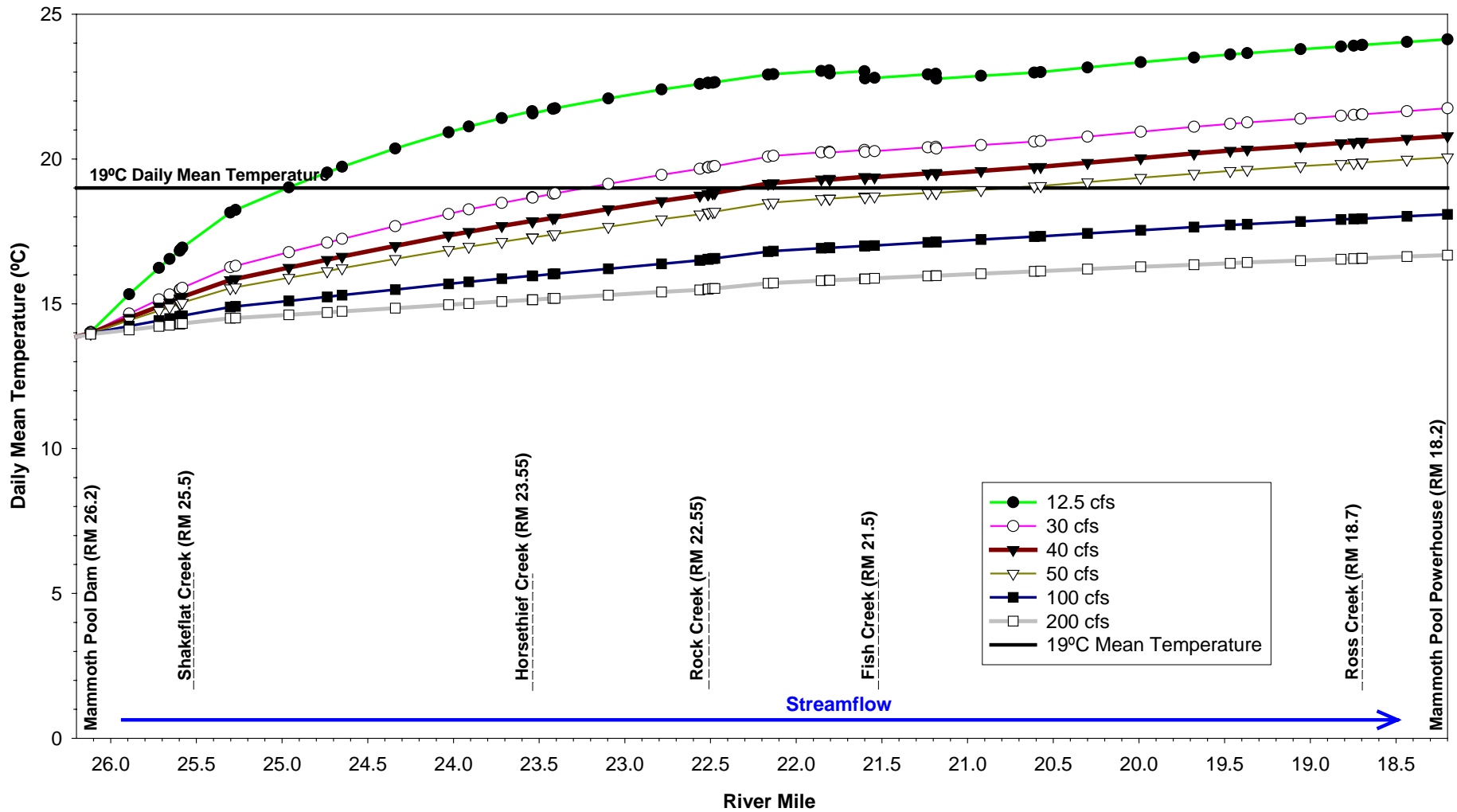


Figure CAWG 5 Appendix D-32. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for July in Dry Water Years with Warm Meteorology.

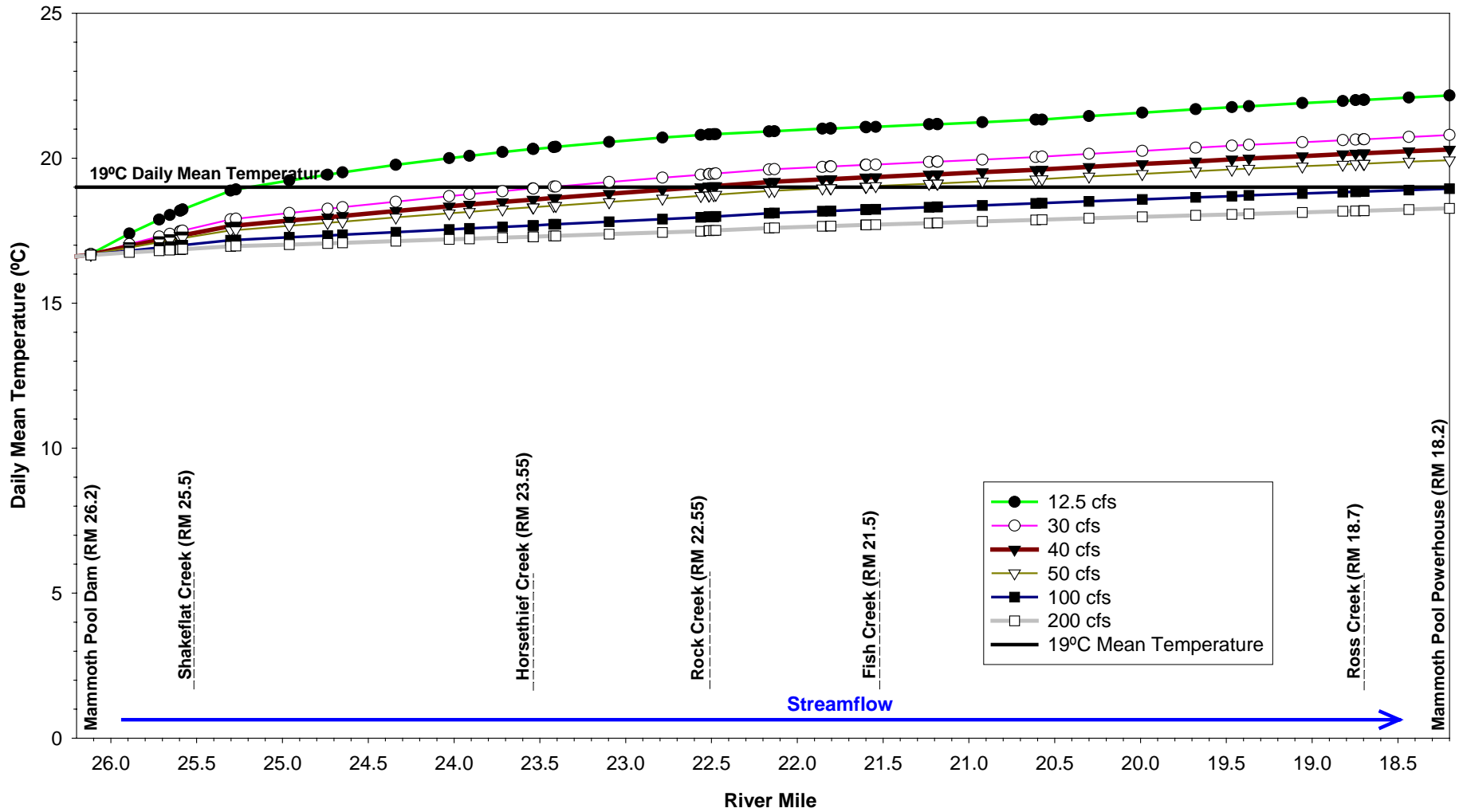


Figure CAWG 5 Appendix D-33. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for August in Dry Water Years with Warm Meteorology.

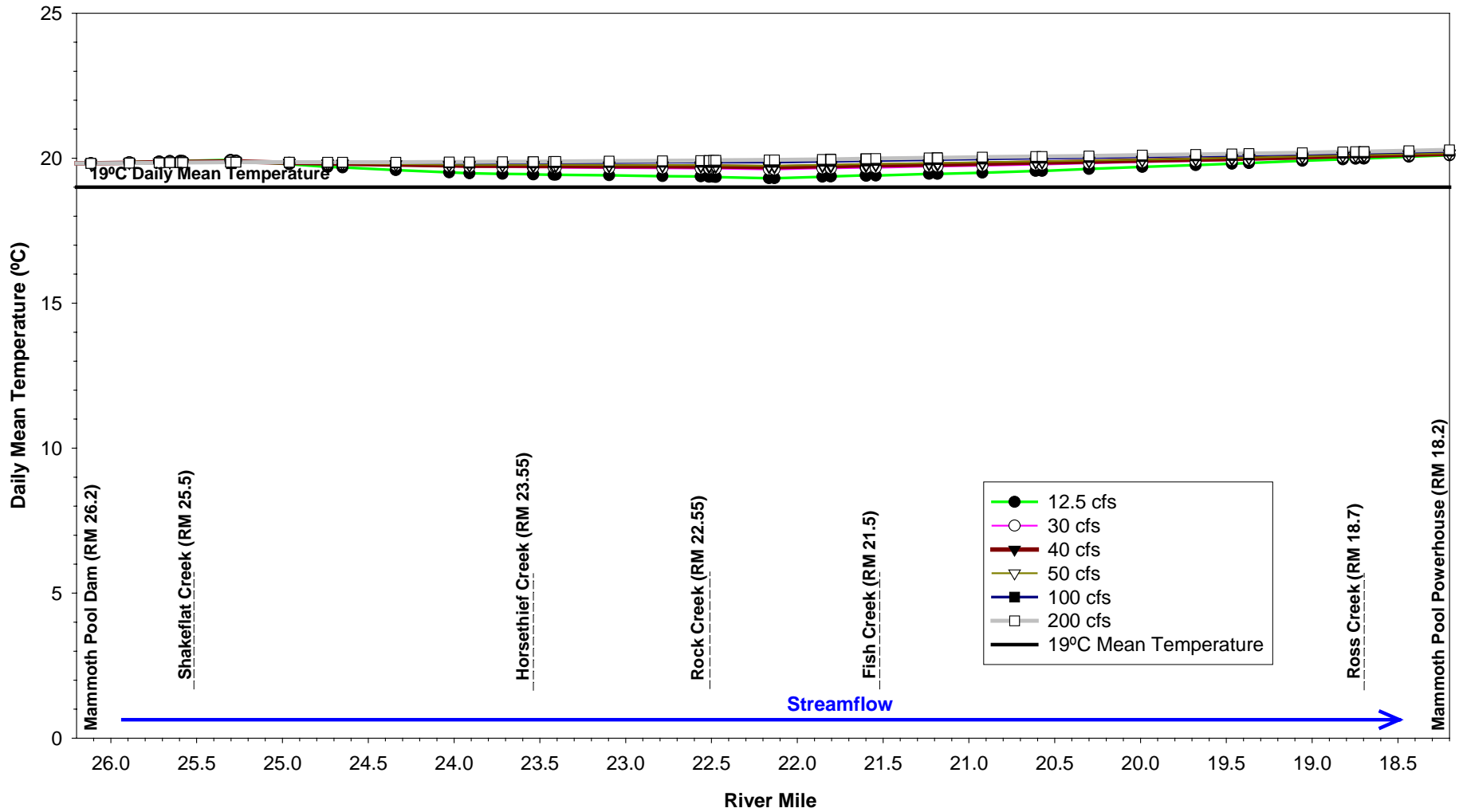


Figure CAWG 5 Appendix D-34. San Joaquin River Mammoth Reach Simulated Daily Mean Water Temperatures for Flows Released from Mammoth Pool Dam for September in Dry Water Years with Warm Meteorology.

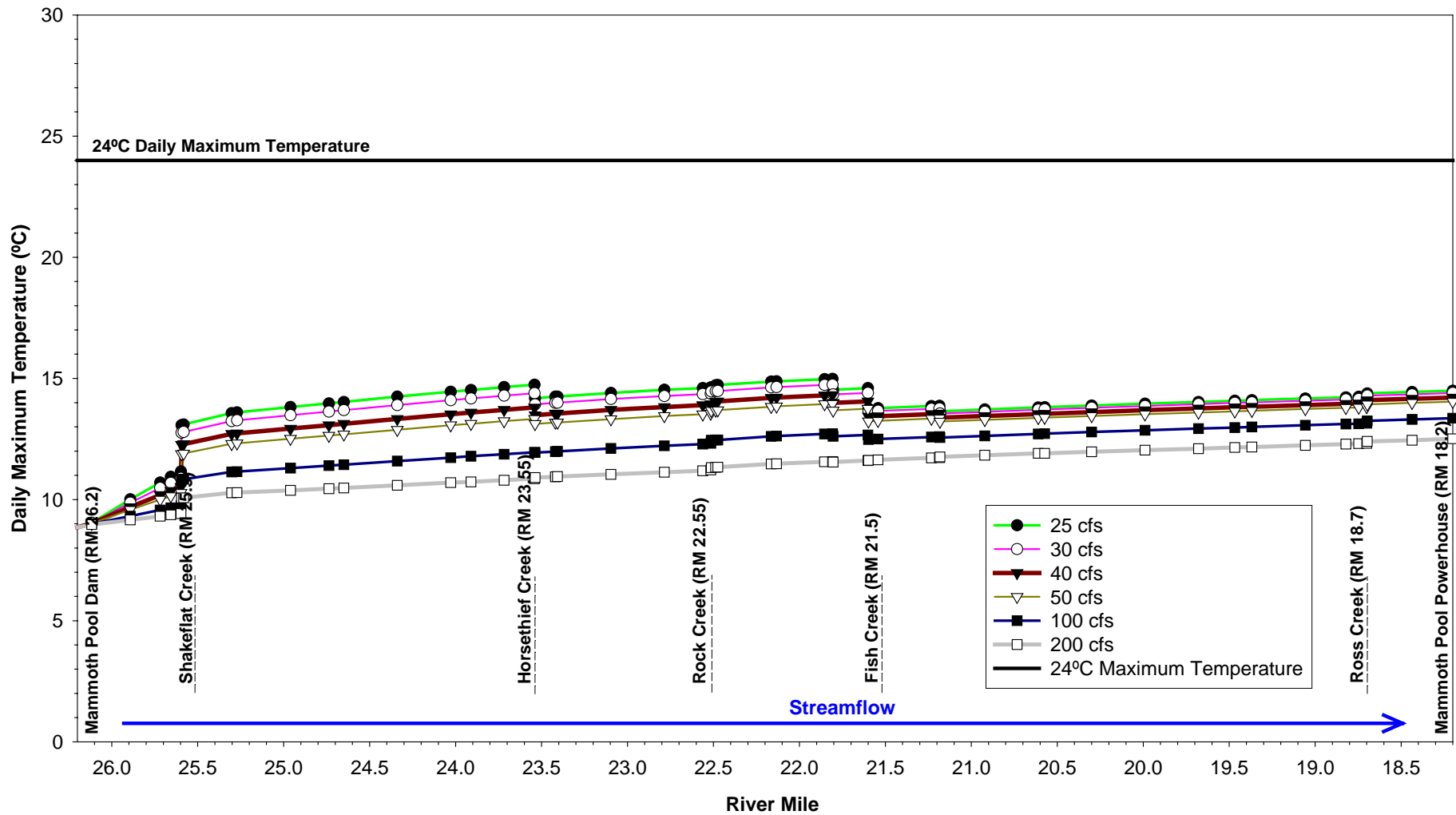


Figure CAWG 5 Appendix D-35. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for May in Above Normal Water Years with Normal Meteorology.

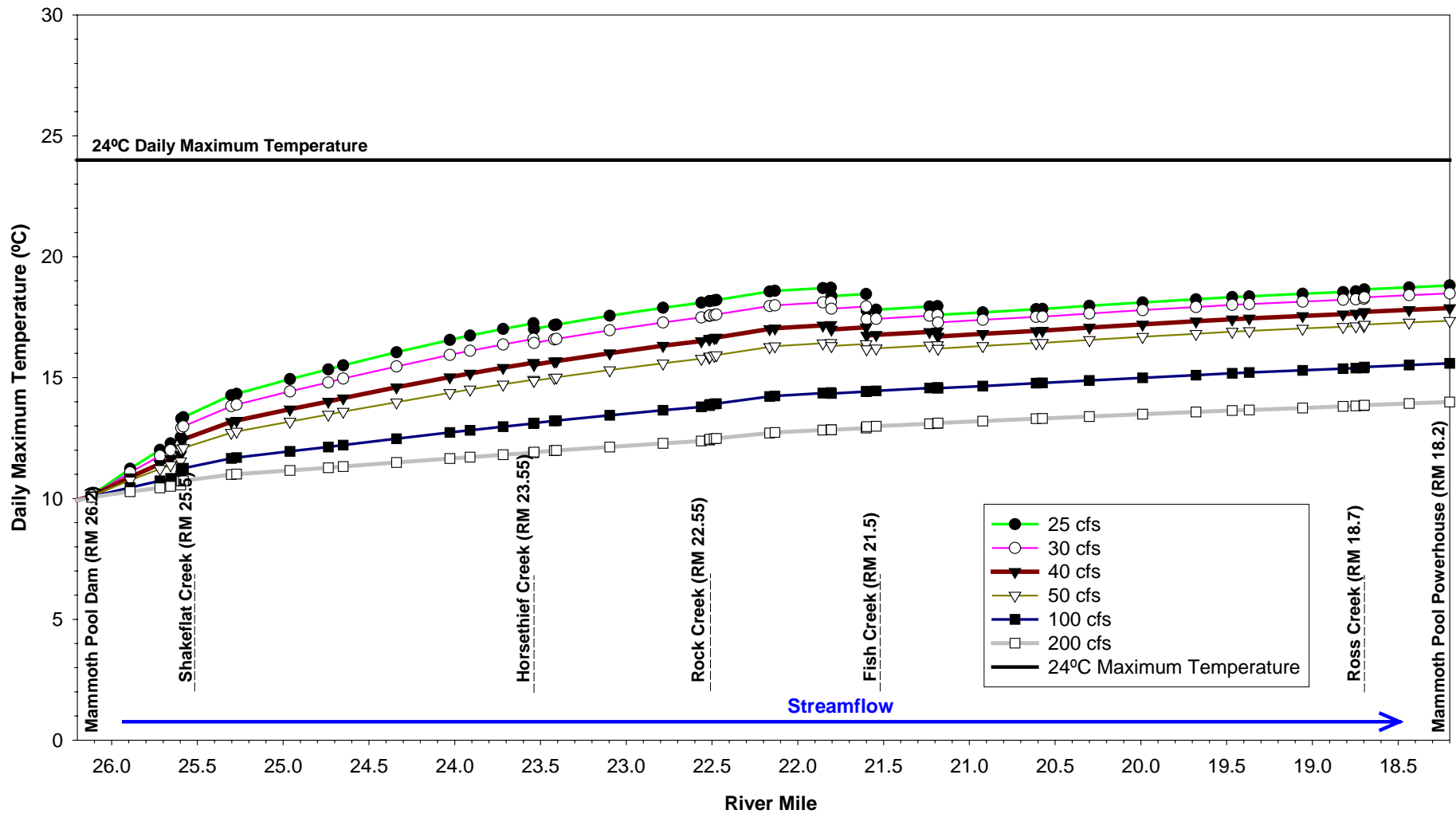


Figure CAWG 5 Appendix D-36. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for June in Above Normal Water Years with Normal Meteorology.

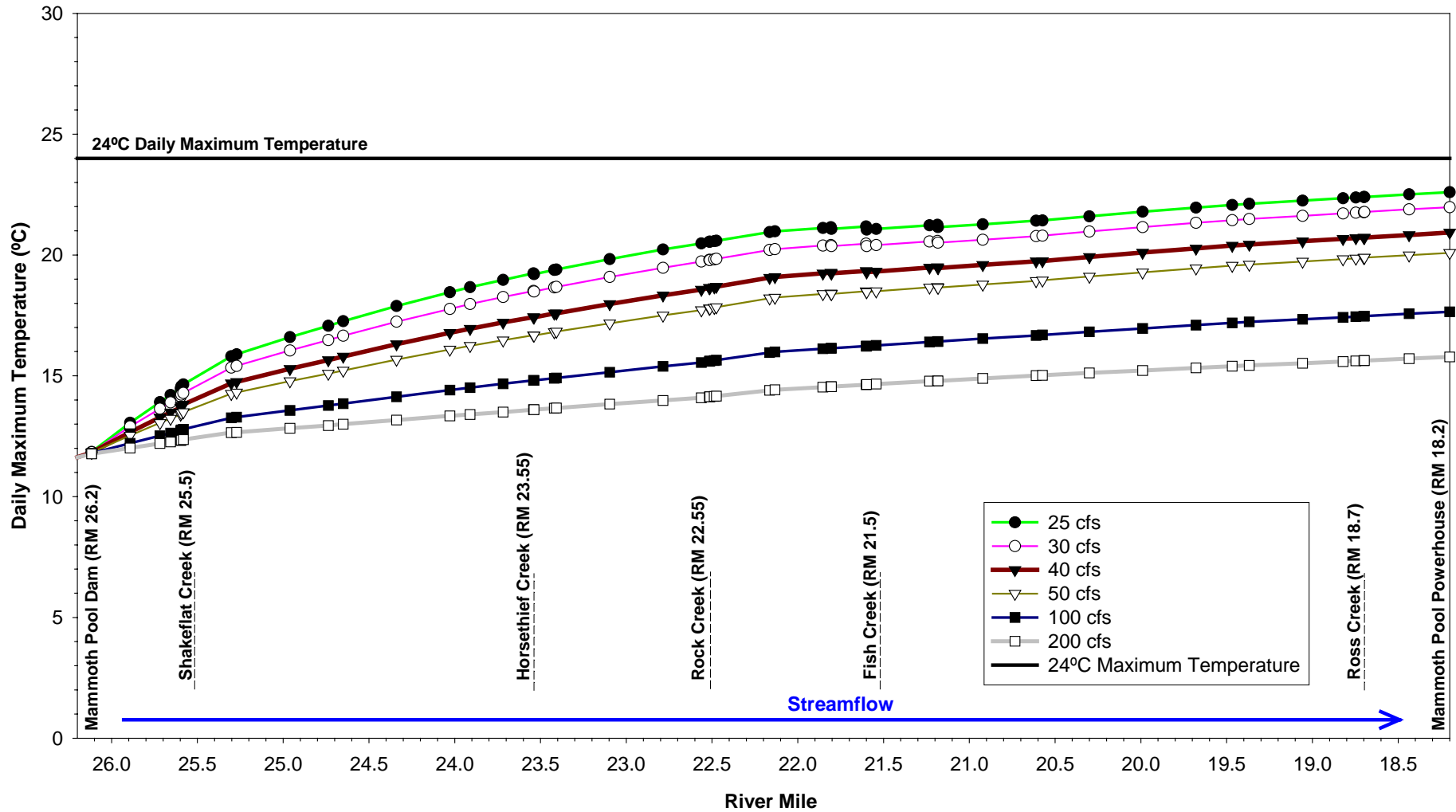


Figure CAWG 5 Appendix D-37. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for July in Above Normal Water Years with Normal Meteorology.

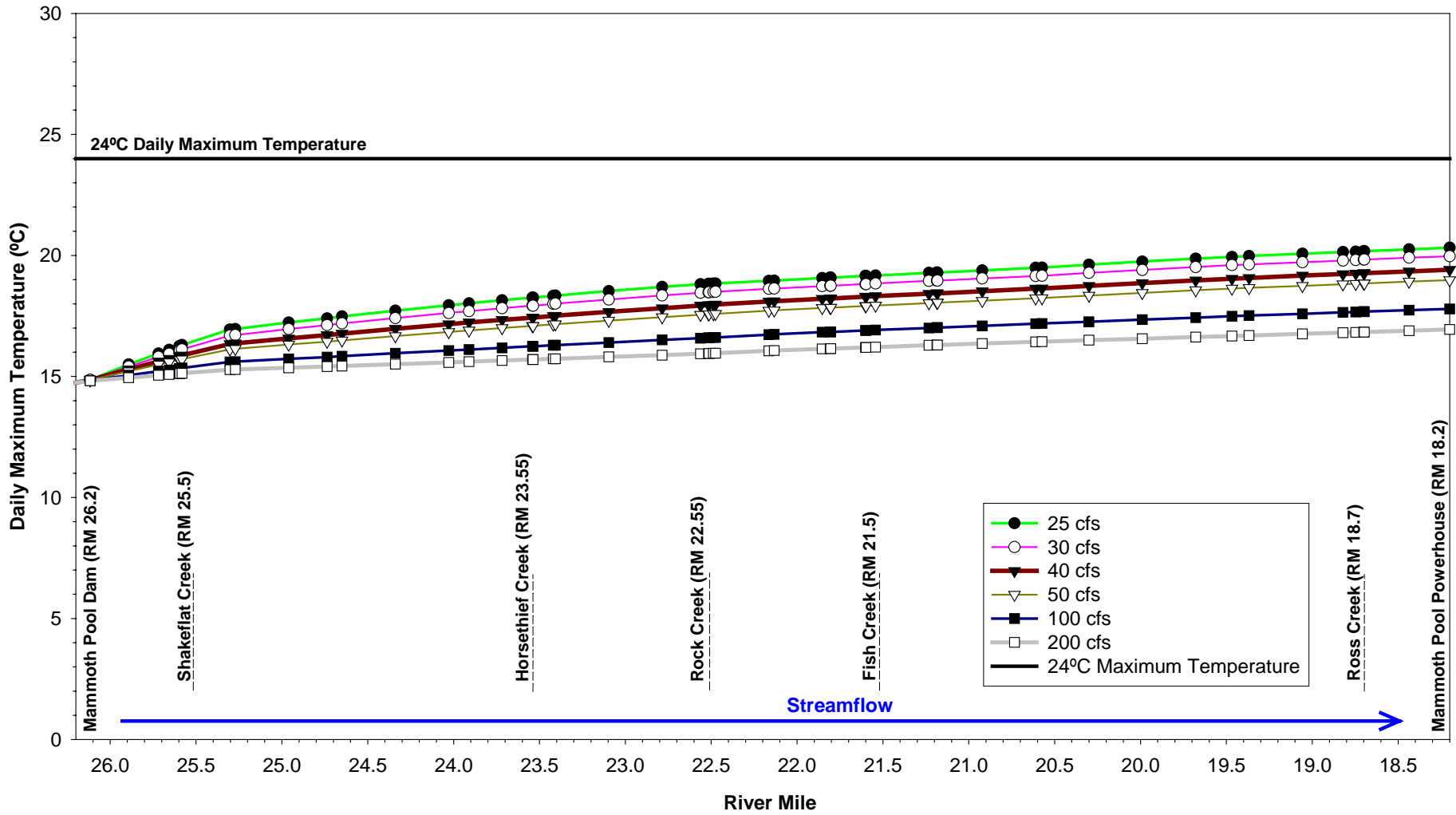


Figure CAWG 5 Appendix D-38. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for August in Above Normal Water Years with Normal Meteorology.

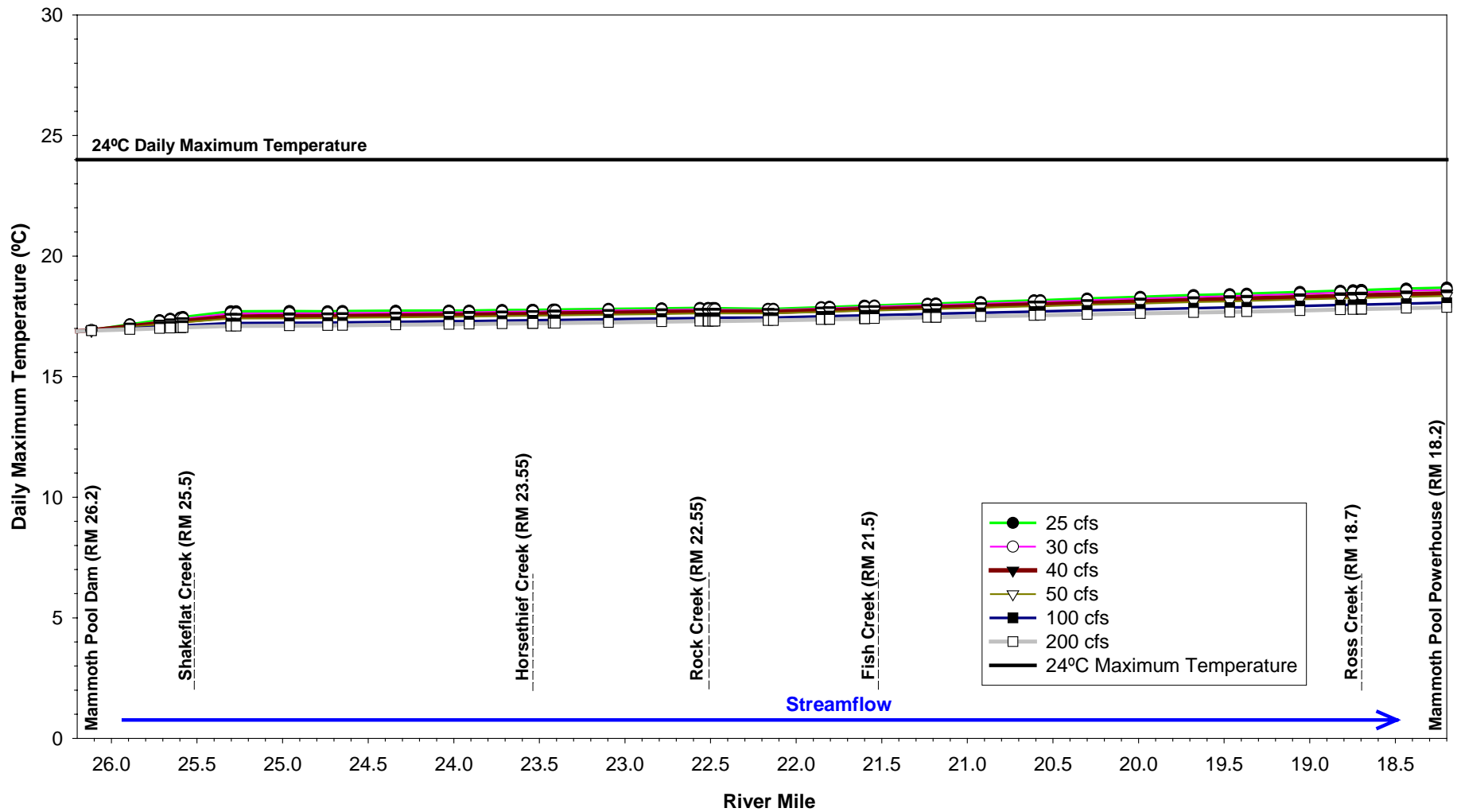


Figure CAWG 5 Appendix D-39. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for September in Above Normal Water Years with Normal Meteorology.

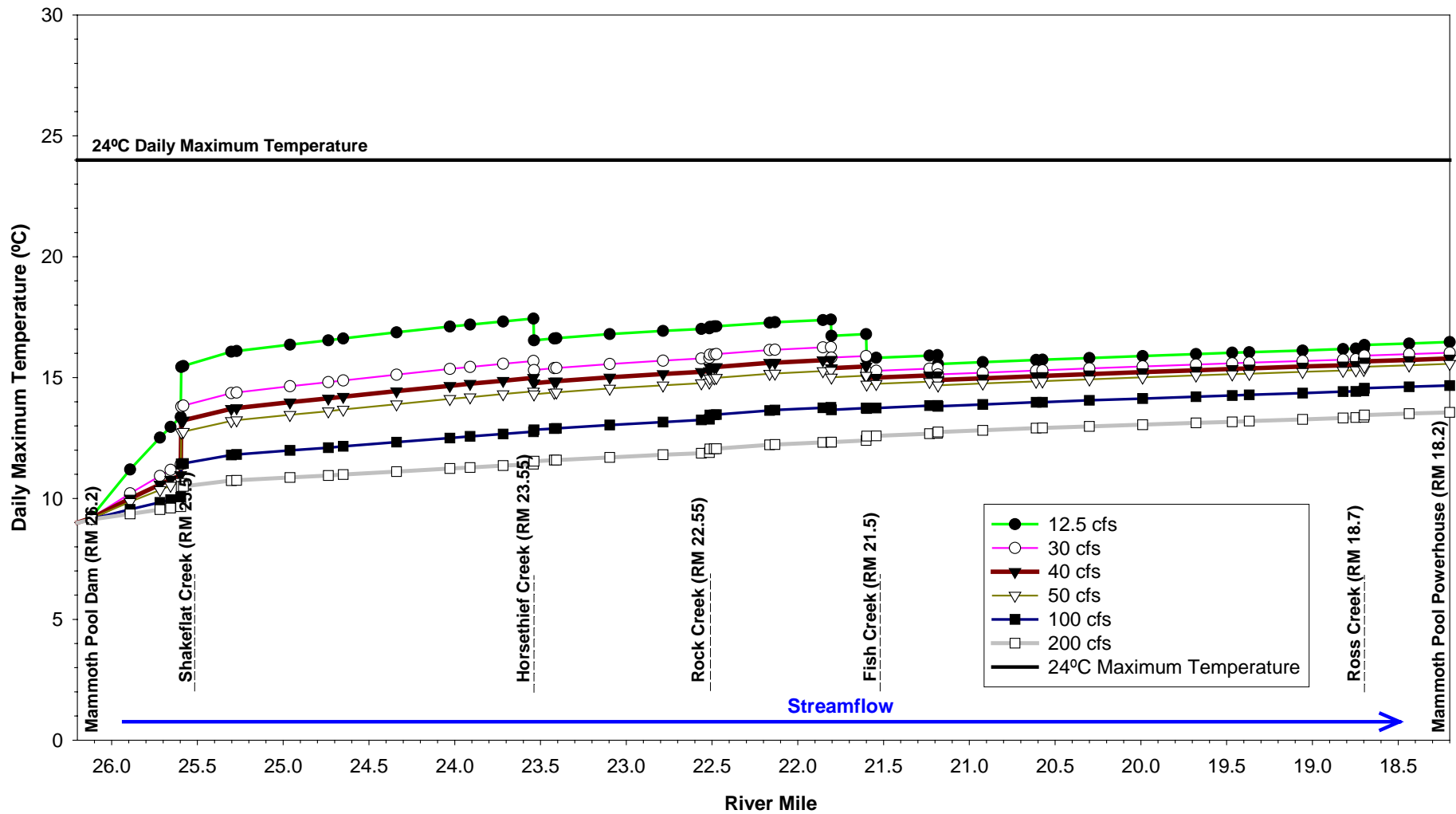


Figure CAWG 5 Appendix D-40. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for May in Dry Water Years with Warm Meteorology.

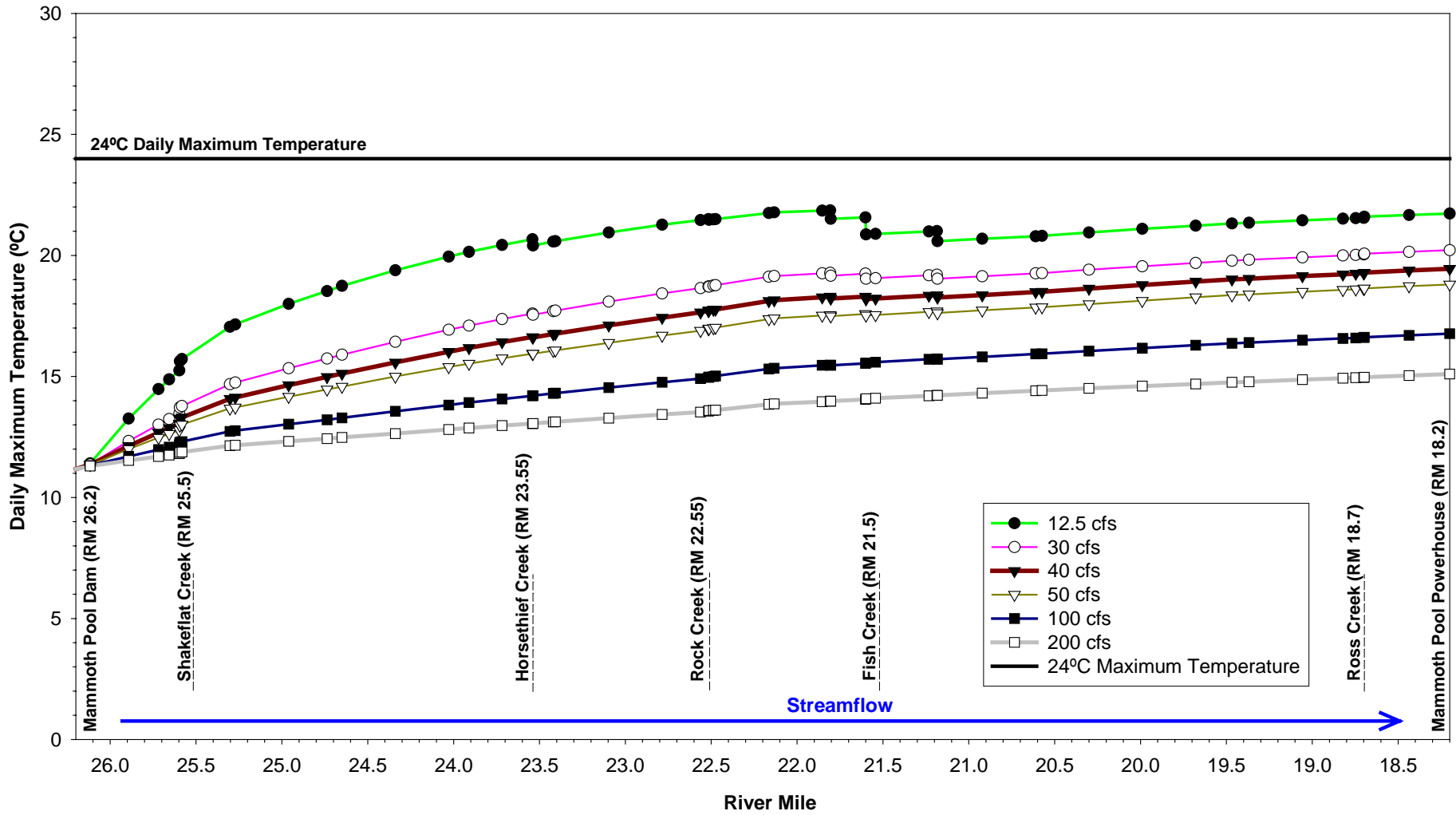


Figure CAWG 5 Appendix D-41. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for June in Dry Water Years with Warm Meteorology.

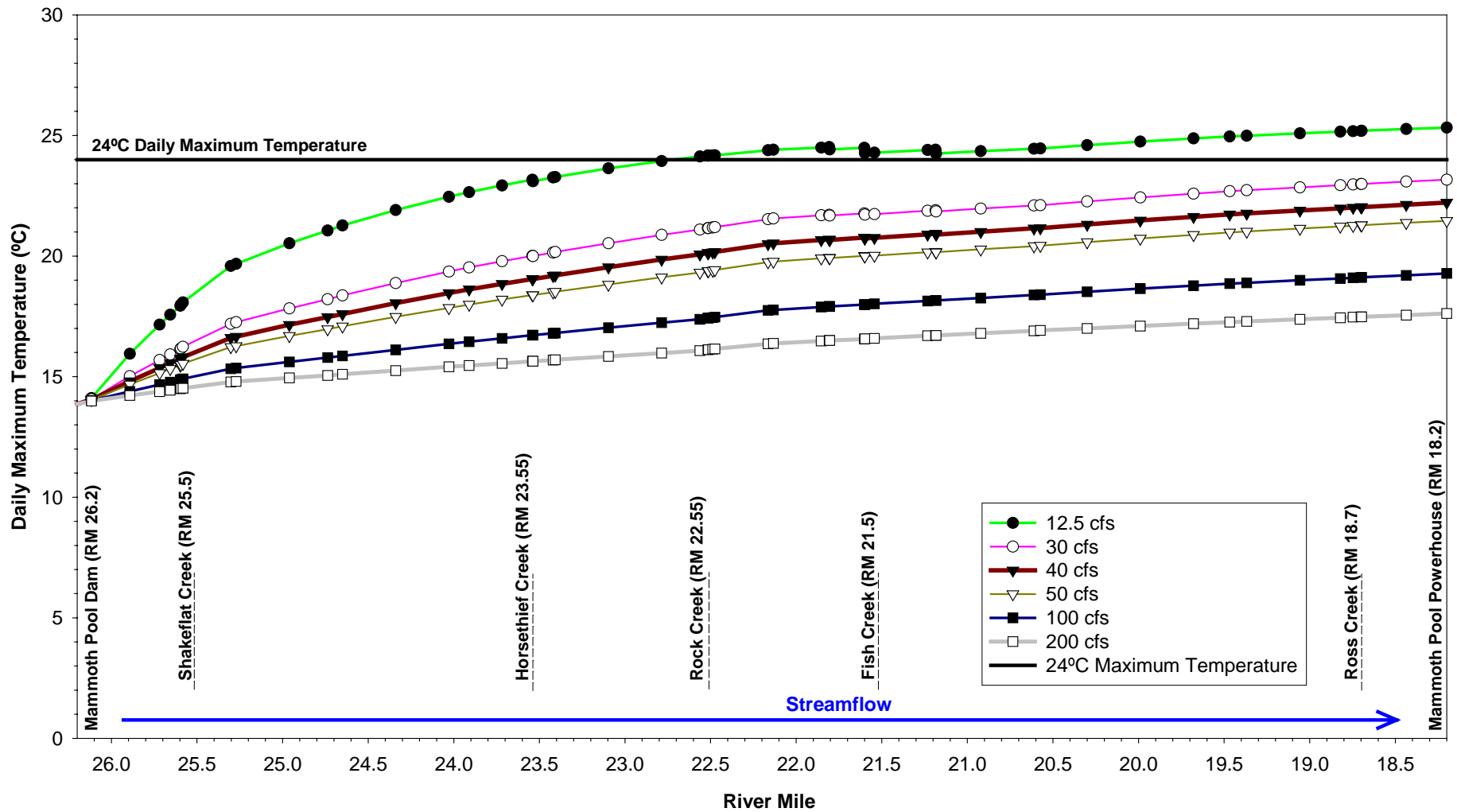


Figure CAWG 5 Appendix D-42. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for July in Dry Water Years with Warm Meteorology.

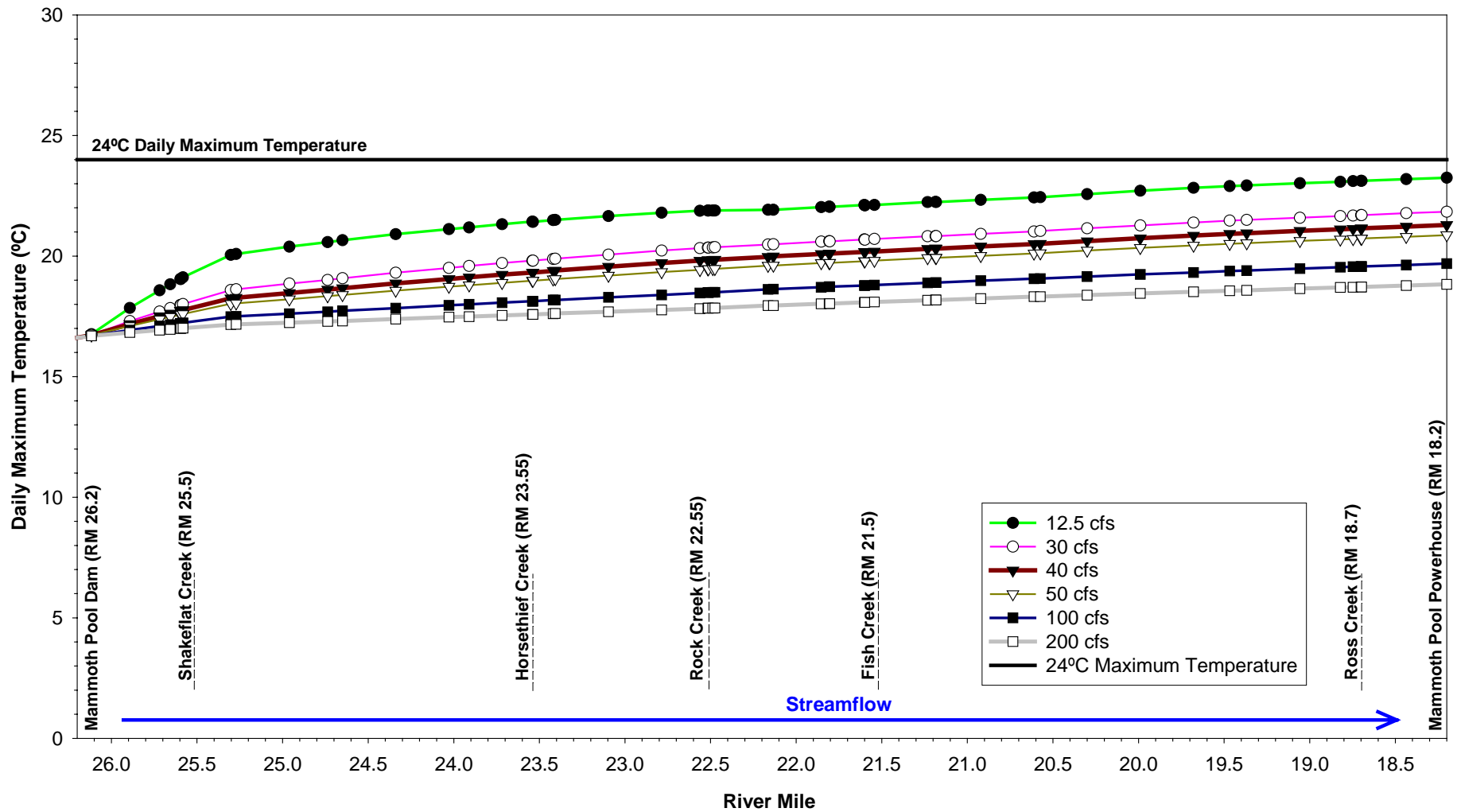


Figure CAWG 5 Appendix D-43. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for August in Dry Water Years with Warm Meteorology.

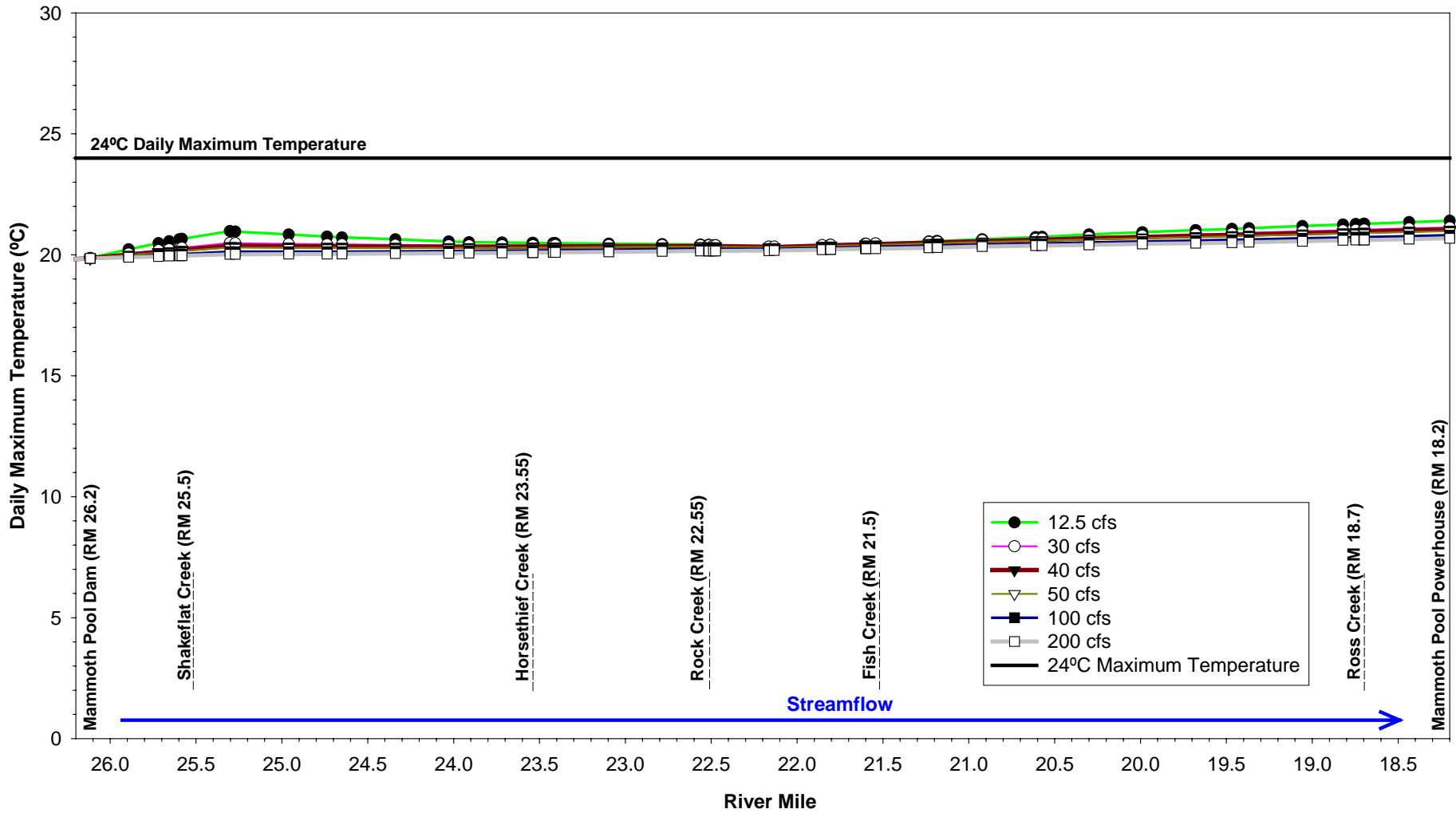


Figure CAWG 5 Appendix D-44. San Joaquin River Mammoth Reach Simulated Daily Maximum Water Temperatures for Flows Released from Mammoth Pool Dam for September in Dry Water Years with Warm Meteorology.

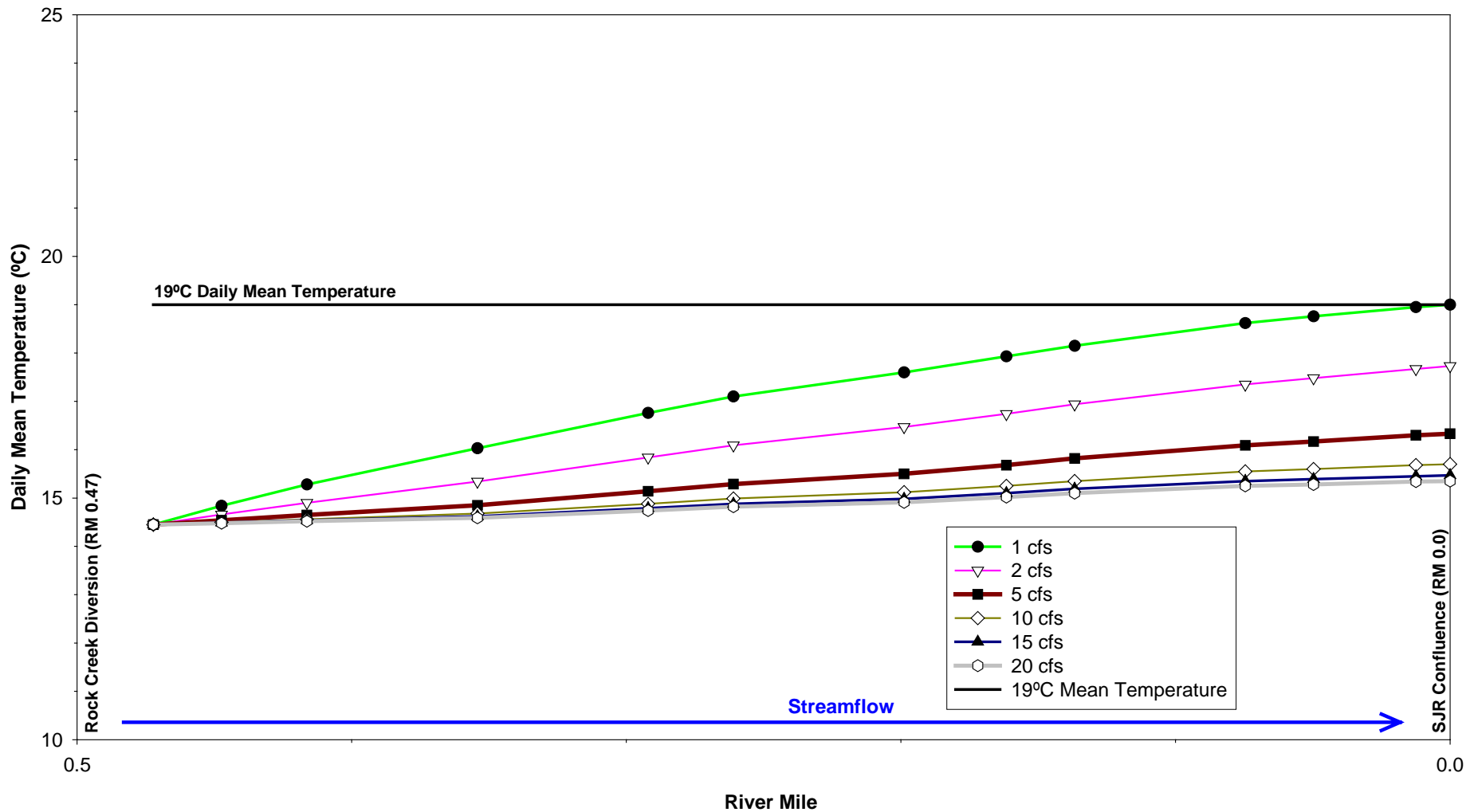


Figure CAWG 5 Appendix D-45. Rock Creek Simulated Daily Mean Water Temperatures for Flows Released from Rock Creek Diversion for June in Above Normal Water Years with Normal Meteorology.

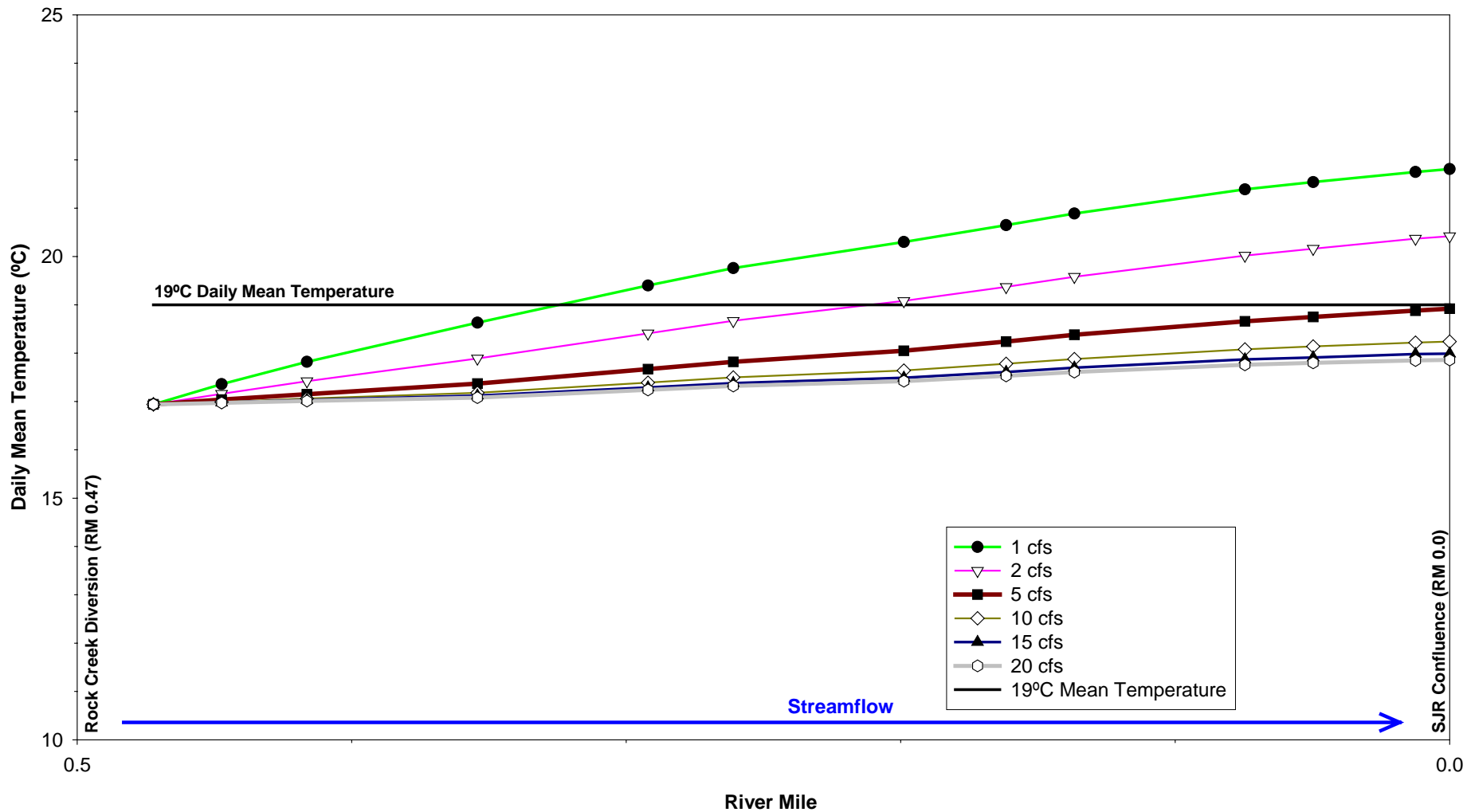


Figure CAWG 5 Appendix D-46. Rock Creek Simulated Daily Mean Water Temperatures for Flows Released from Rock Creek Diversion for July in Above Normal Water Years with Normal Meteorology.

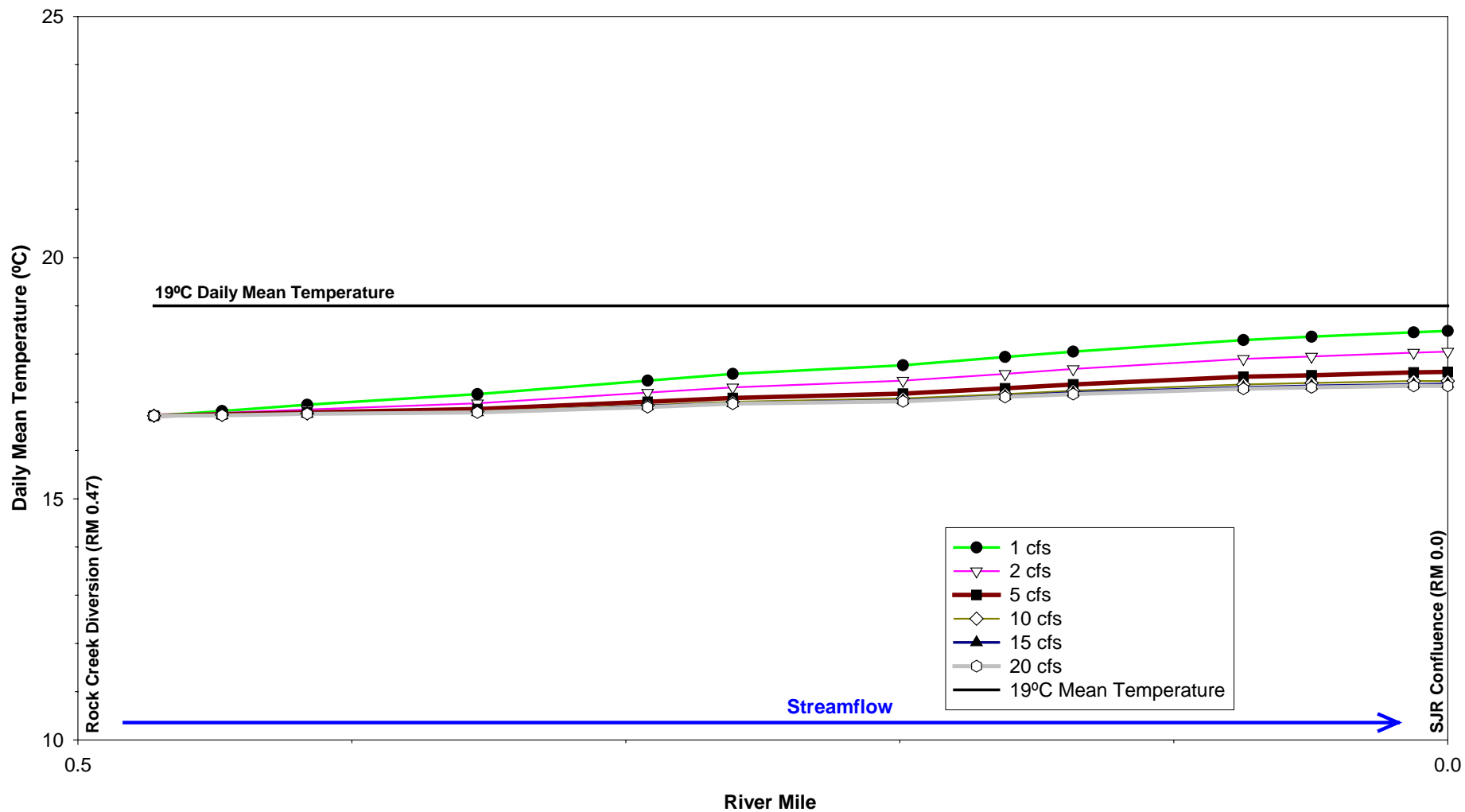


Figure CAWG 5 Appendix D-47. Rock Creek Simulated Daily Mean Water Temperatures for Flows Released from Rock Creek Diversion for August in Above Normal Water Years with Normal Meteorology.

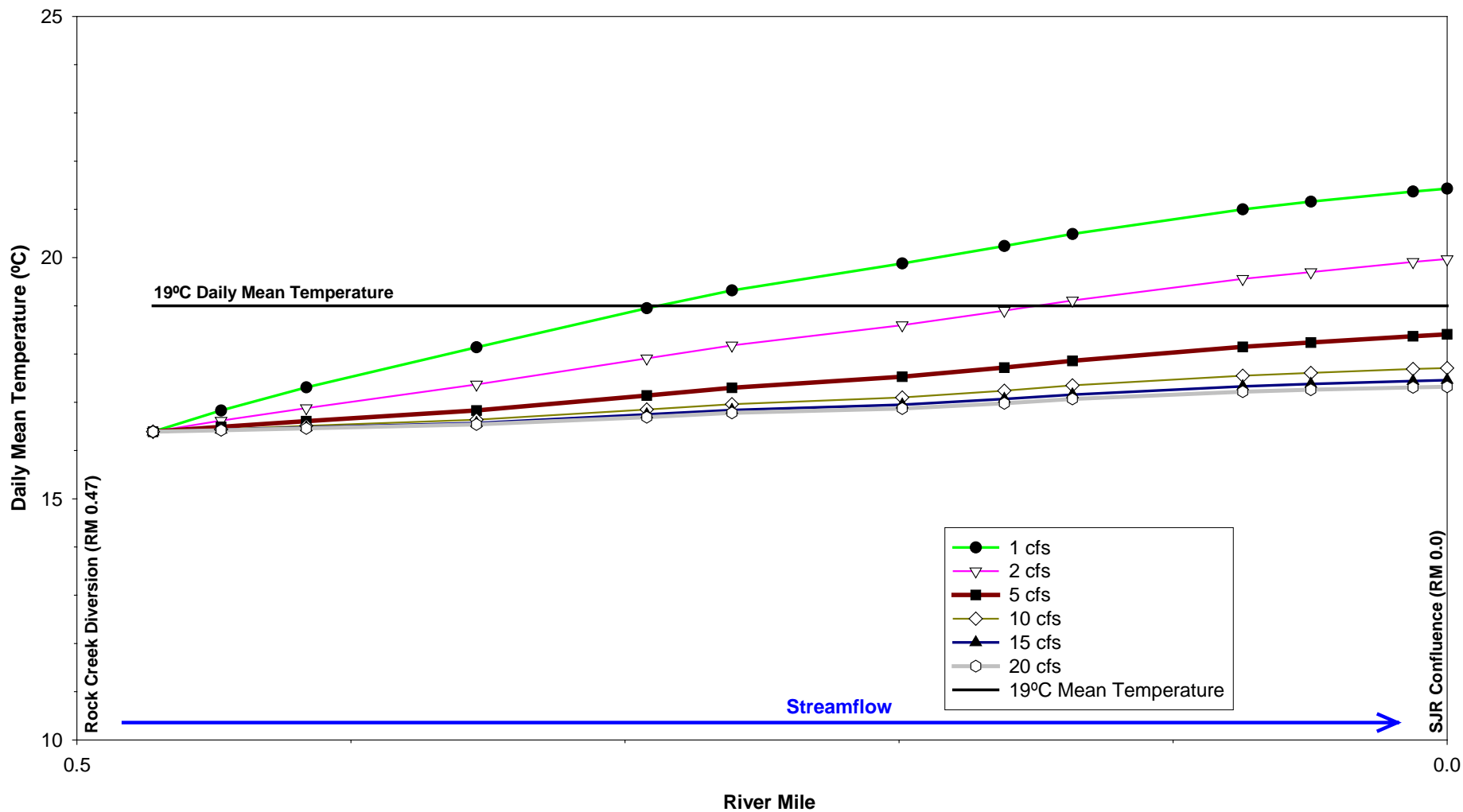


Figure CAWG 5 Appendix D-48. Rock Creek Simulated Daily Mean Water Temperatures for Flows Released from Rock Creek Diversion for June in Dry Water Years with Warm Meteorology.

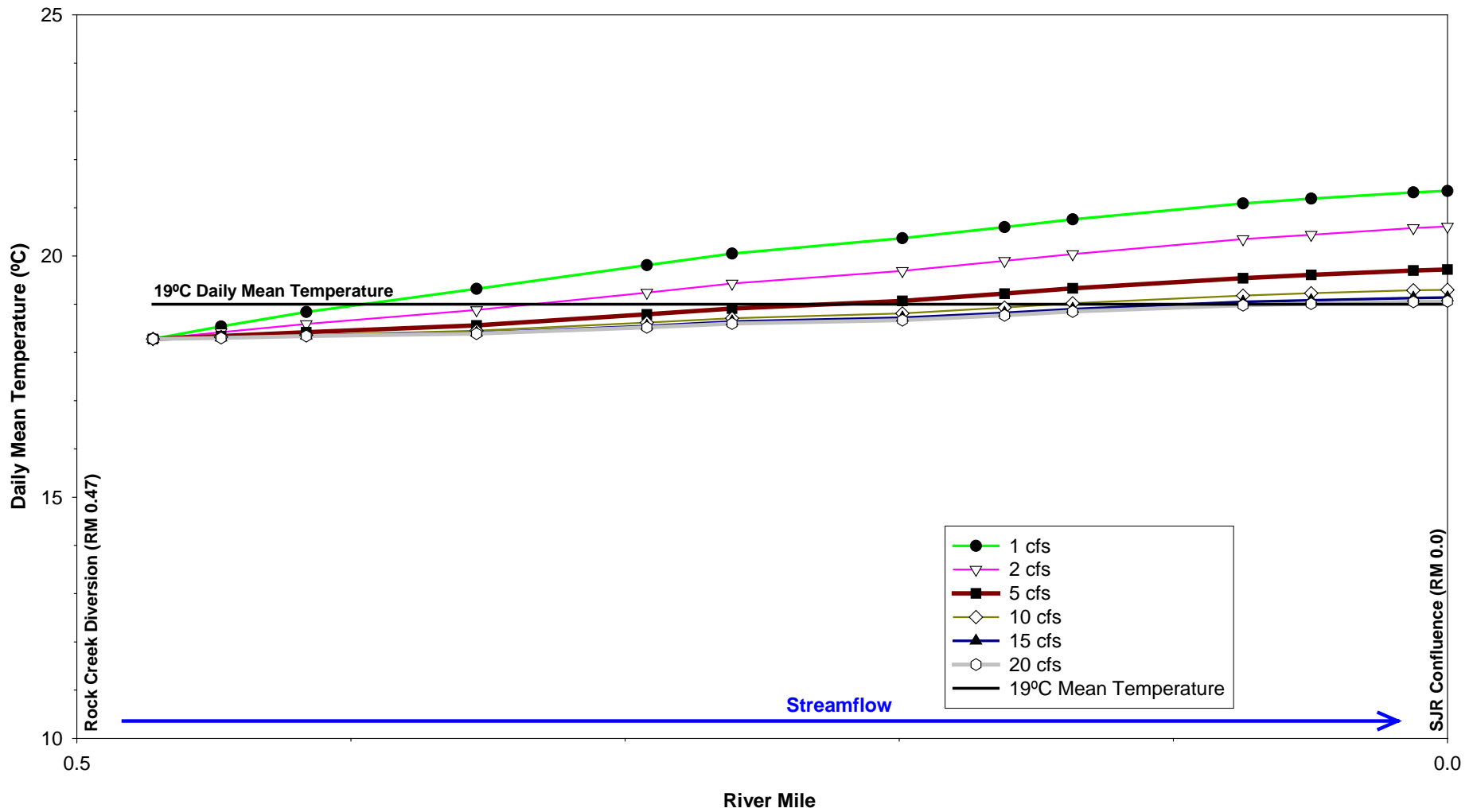


Figure CAWG 5 Appendix D-49. Rock Creek Simulated Daily Mean Water Temperatures for Flows Released from Rock Creek Diversion for July in Dry Water Years with Warm Meteorology.

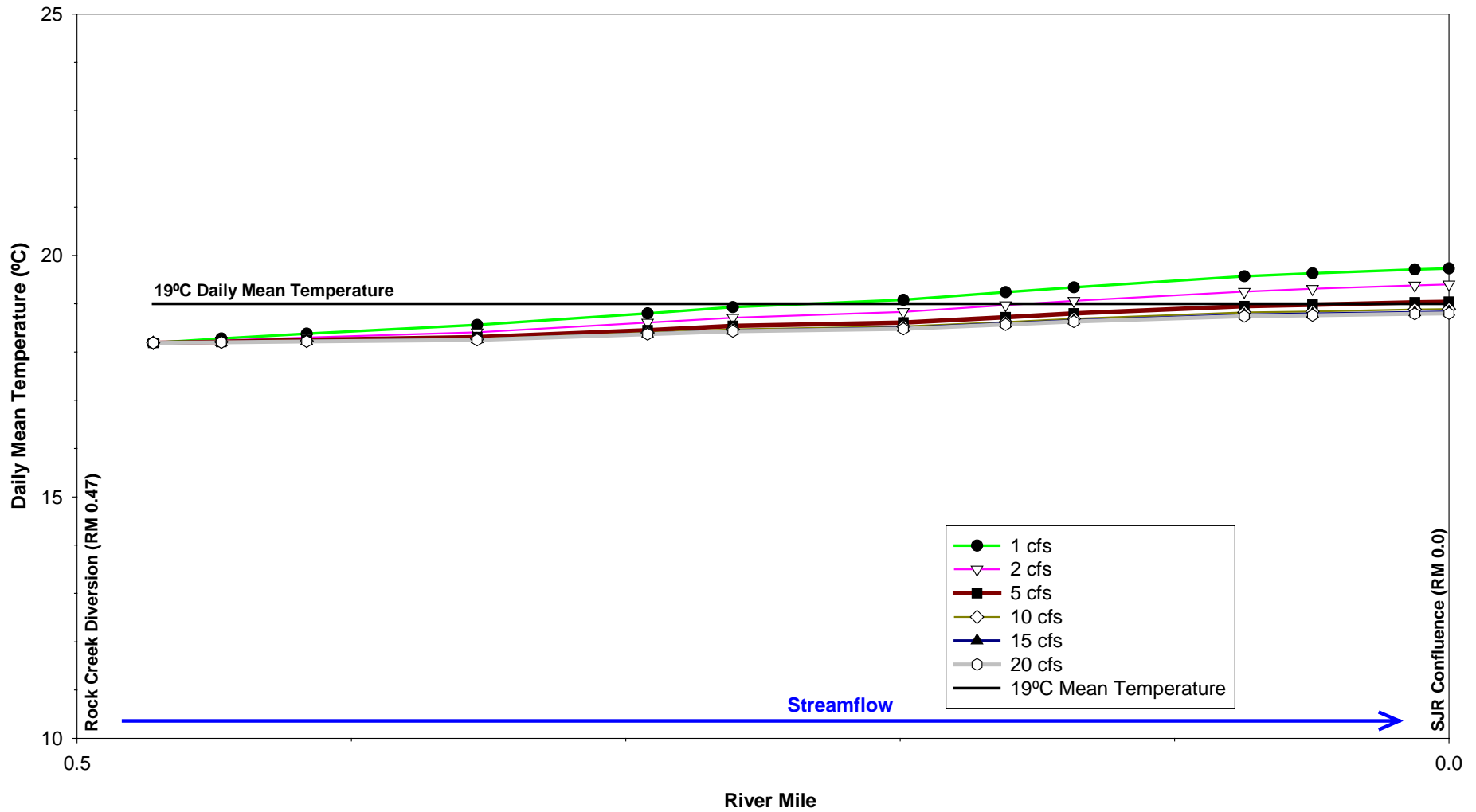


Figure CAWG 5 Appendix D-50. Rock Creek Simulated Daily Mean Water Temperatures for Flows Released from Rock Creek Diversion for August in Dry Water Years with Warm Meteorology.

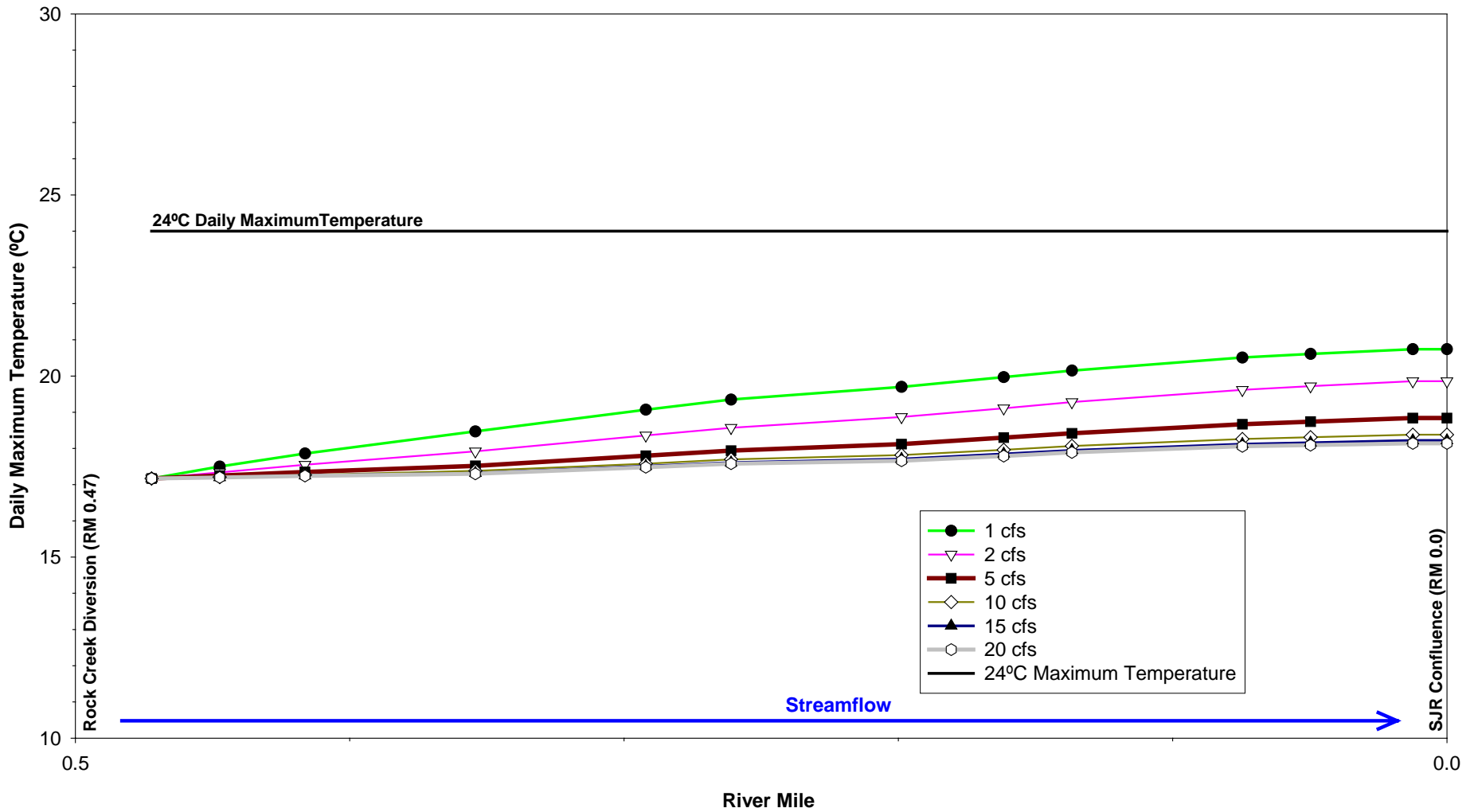


Figure CAWG 5 Appendix D-51. Rock Creek Simulated Daily Maximum Water Temperatures for Flows Released from Rock Creek Diversion for June in Above Normal Water Years with Normal Meteorology.

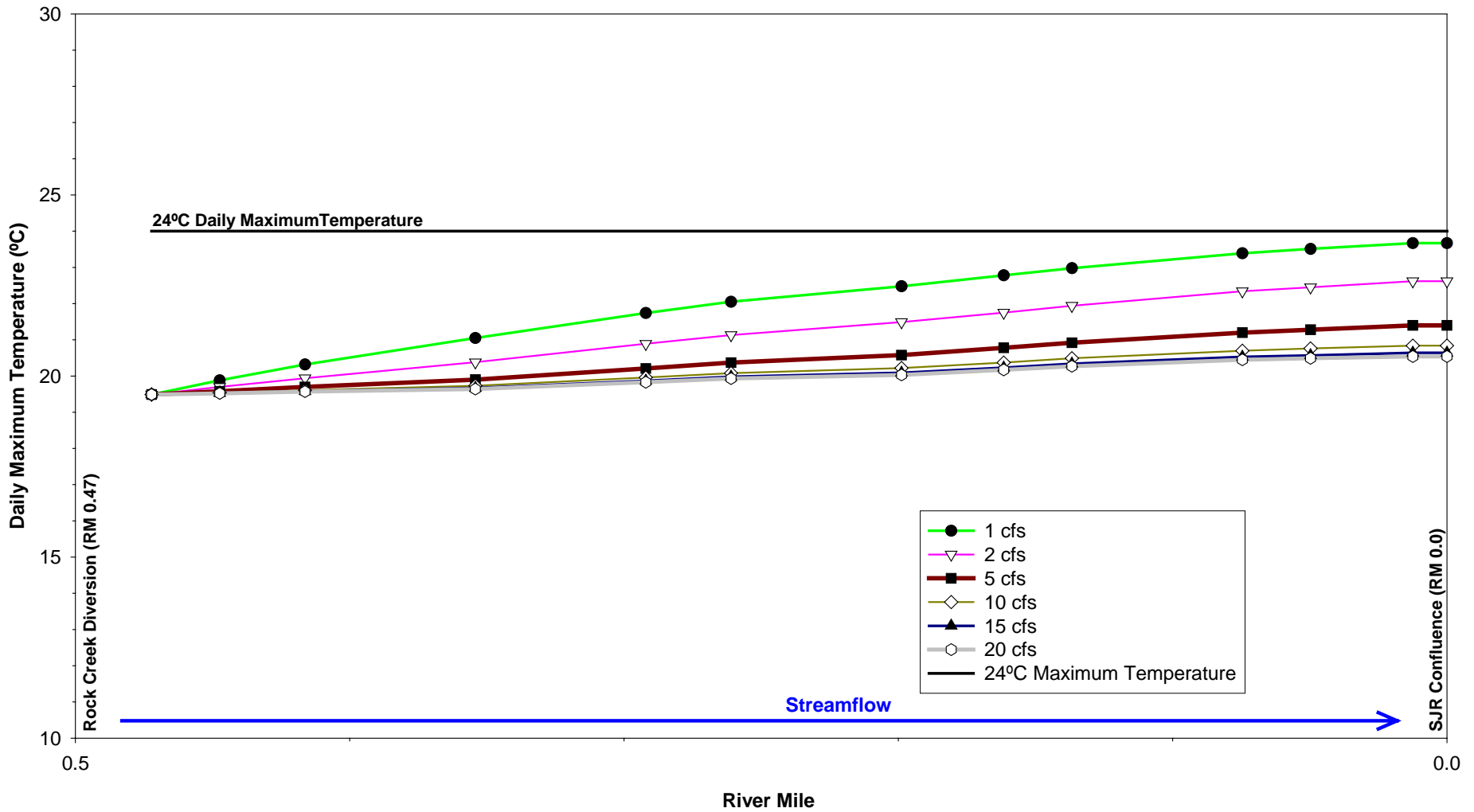


Figure CAWG 5 Appendix D-52. Rock Creek Simulated Daily Maximum Water Temperatures for Flows Released from Rock Creek Diversion for July in Above Normal Water Years with Normal Meteorology.

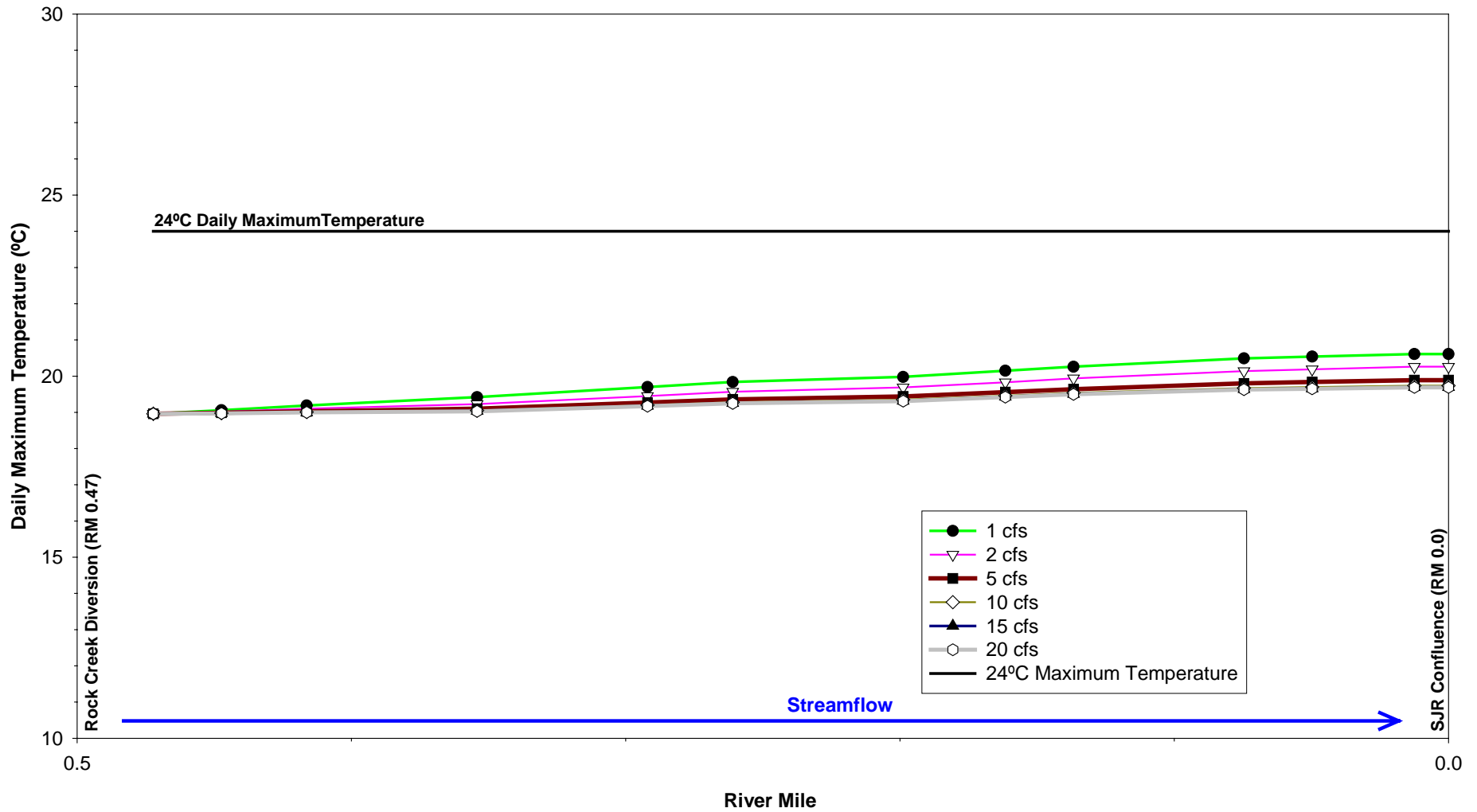


Figure CAWG 5 Appendix D-53. Rock Creek Simulated Daily Maximum Water Temperatures for Flows Released from Rock Creek Diversion for August in Above Normal Water Years with Normal Meteorology.

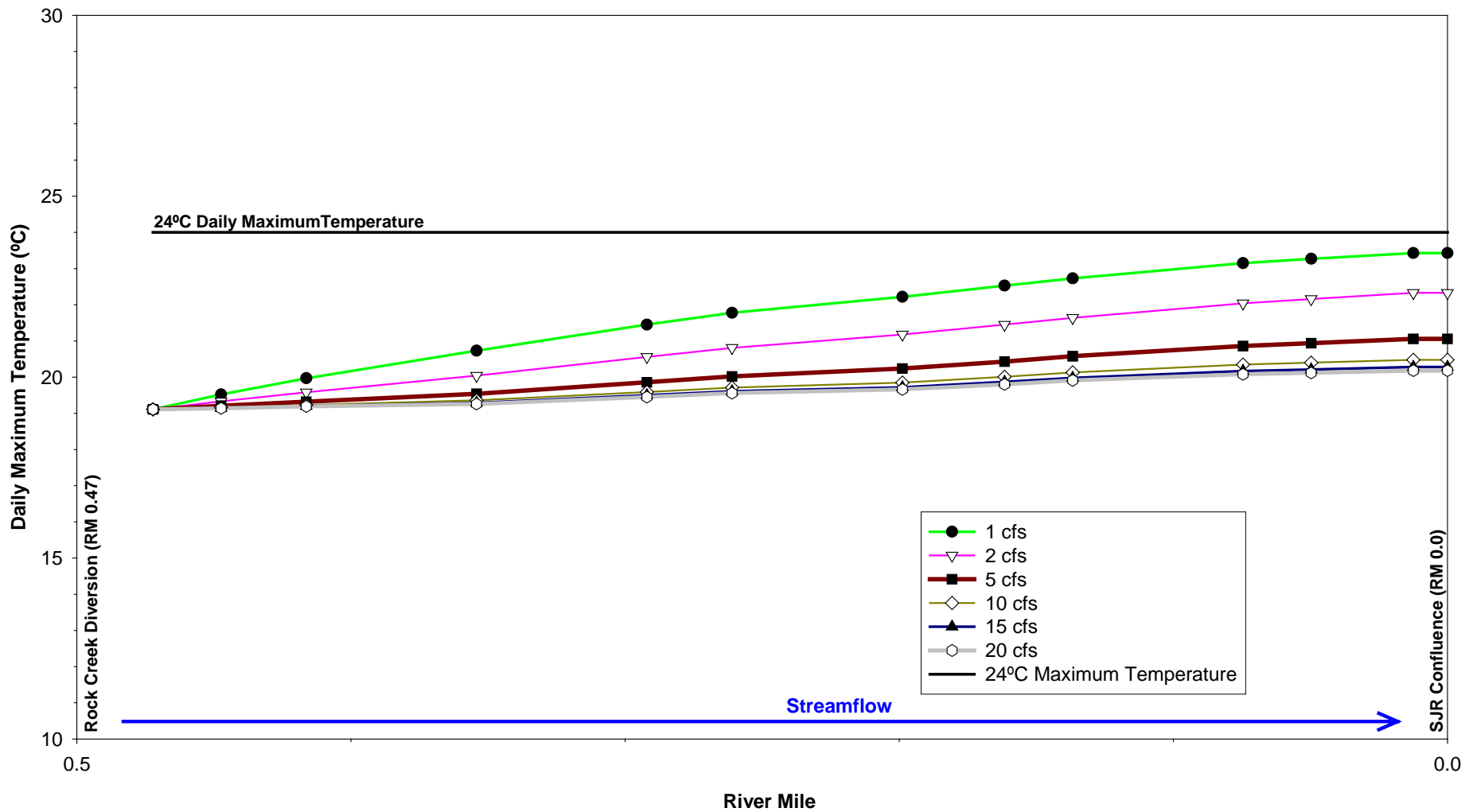


Figure CAWG 5 Appendix D-54. Rock Creek Simulated Daily Maximum Water Temperatures for Flows Released from Rock Creek Diversion for June in Dry Water Years with Warm Meteorology.

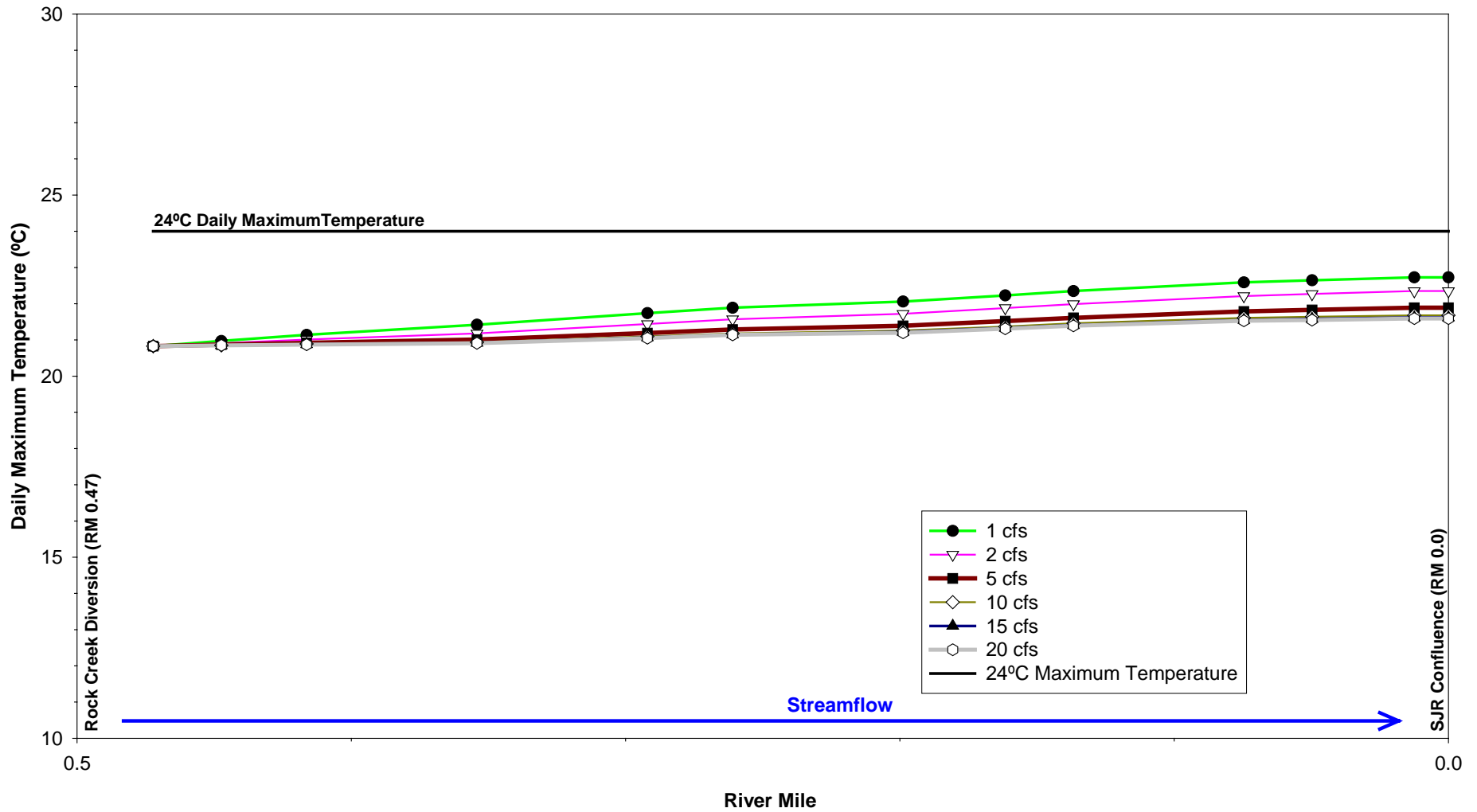


Figure CAWG 5 Appendix D-55. Rock Creek Simulated Daily Maximum Water Temperatures for Flows Released from Rock Creek Diversion for July in Dry Water Years with Warm Meteorology.

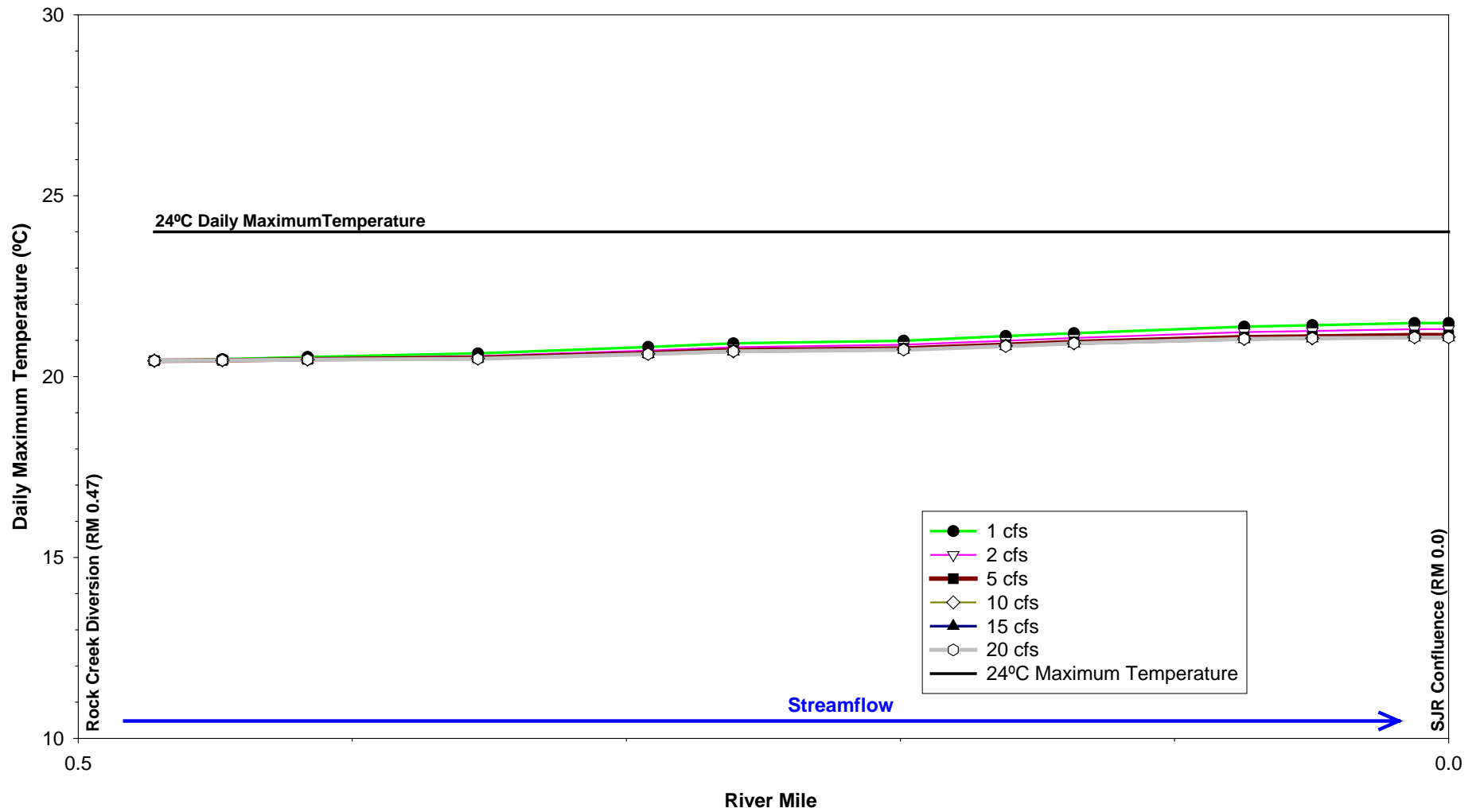


Figure CAWG 5 Appendix D-56. Rock Creek Simulated Daily Maximum Water Temperatures for Flows Released from Rock Creek Diversion for August in Dry Water Years with Warm Meteorology.

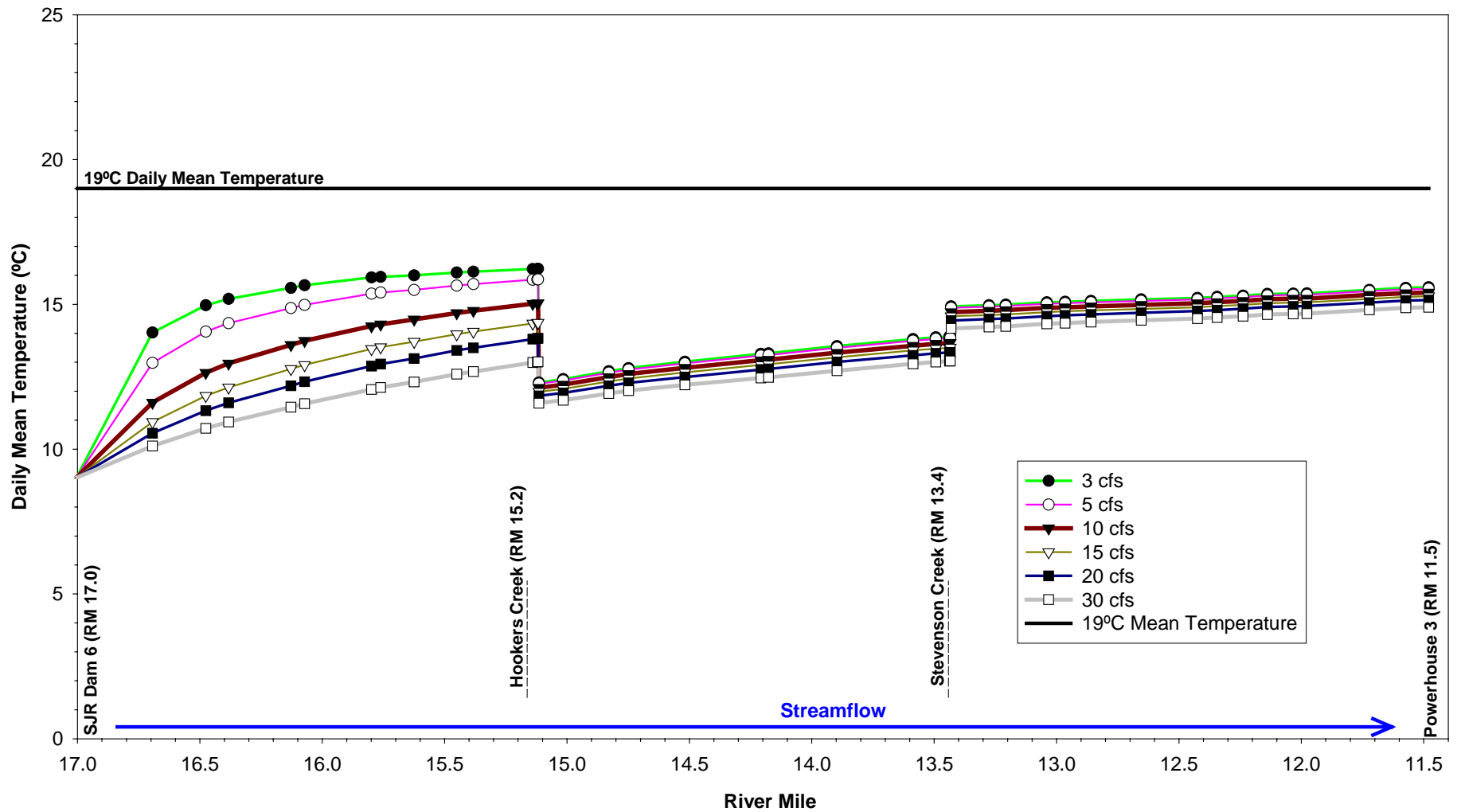


Figure CAWG 5 Appendix D-57. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for May in Above Normal Water Years with Normal Meteorology.

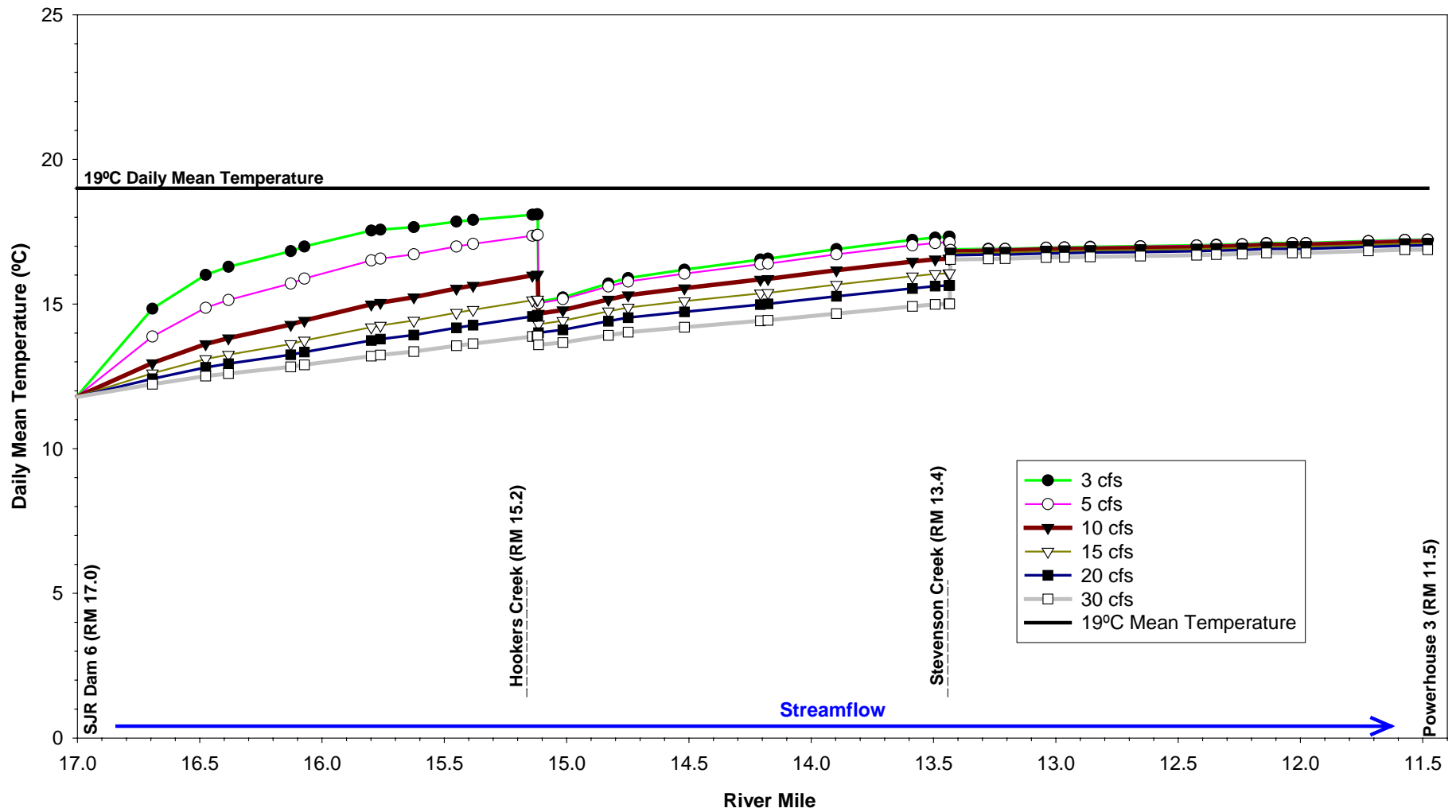


Figure CAWG 5 Appendix D-58. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for June in Above Normal Water Years with Normal Meteorology.

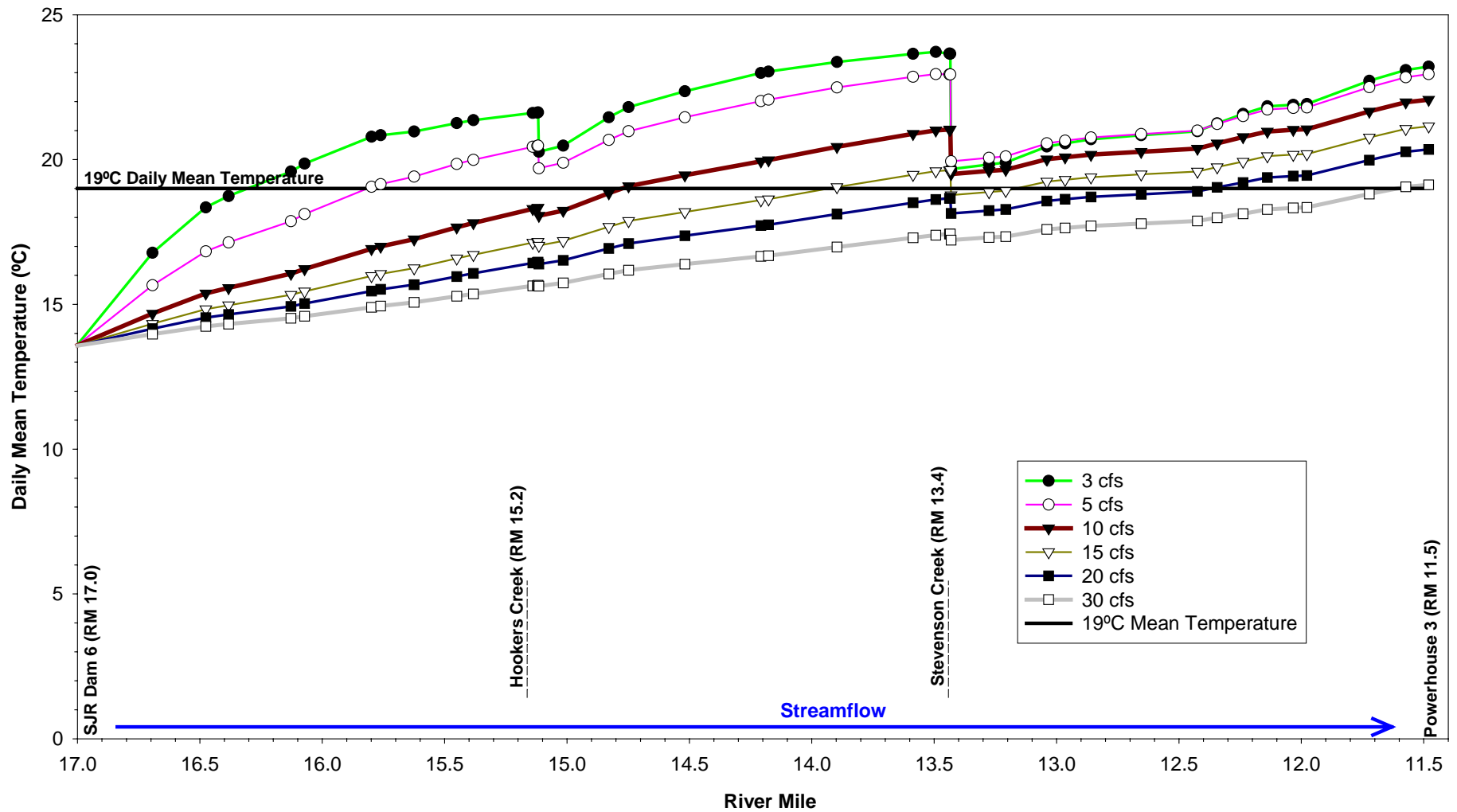


Figure CAWG 5 Appendix D-59. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for July in Above Normal Water Years with Normal Meteorology.

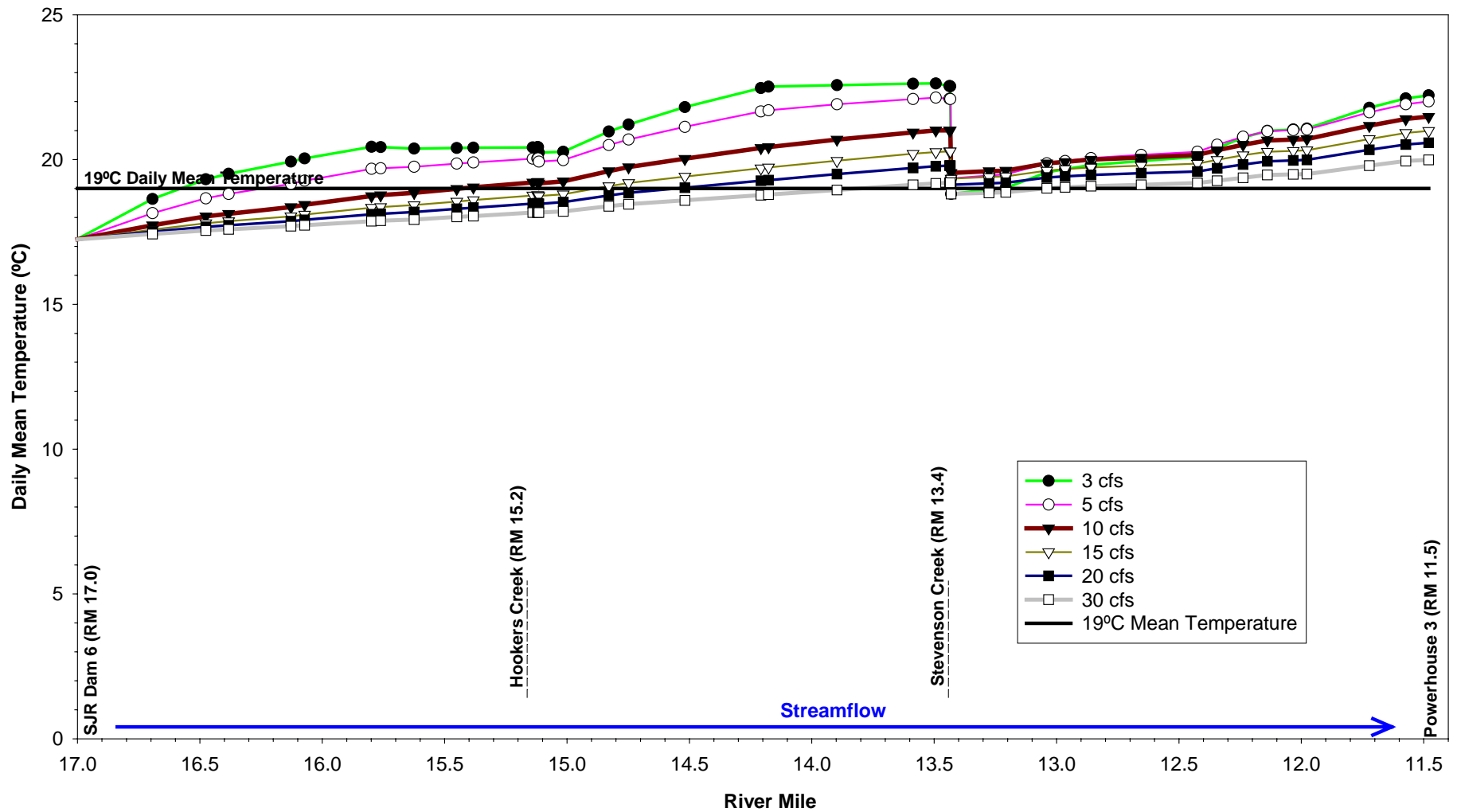


Figure CAWG 5 Appendix D-60. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for August in Above Normal Water Years with Normal Meteorology.

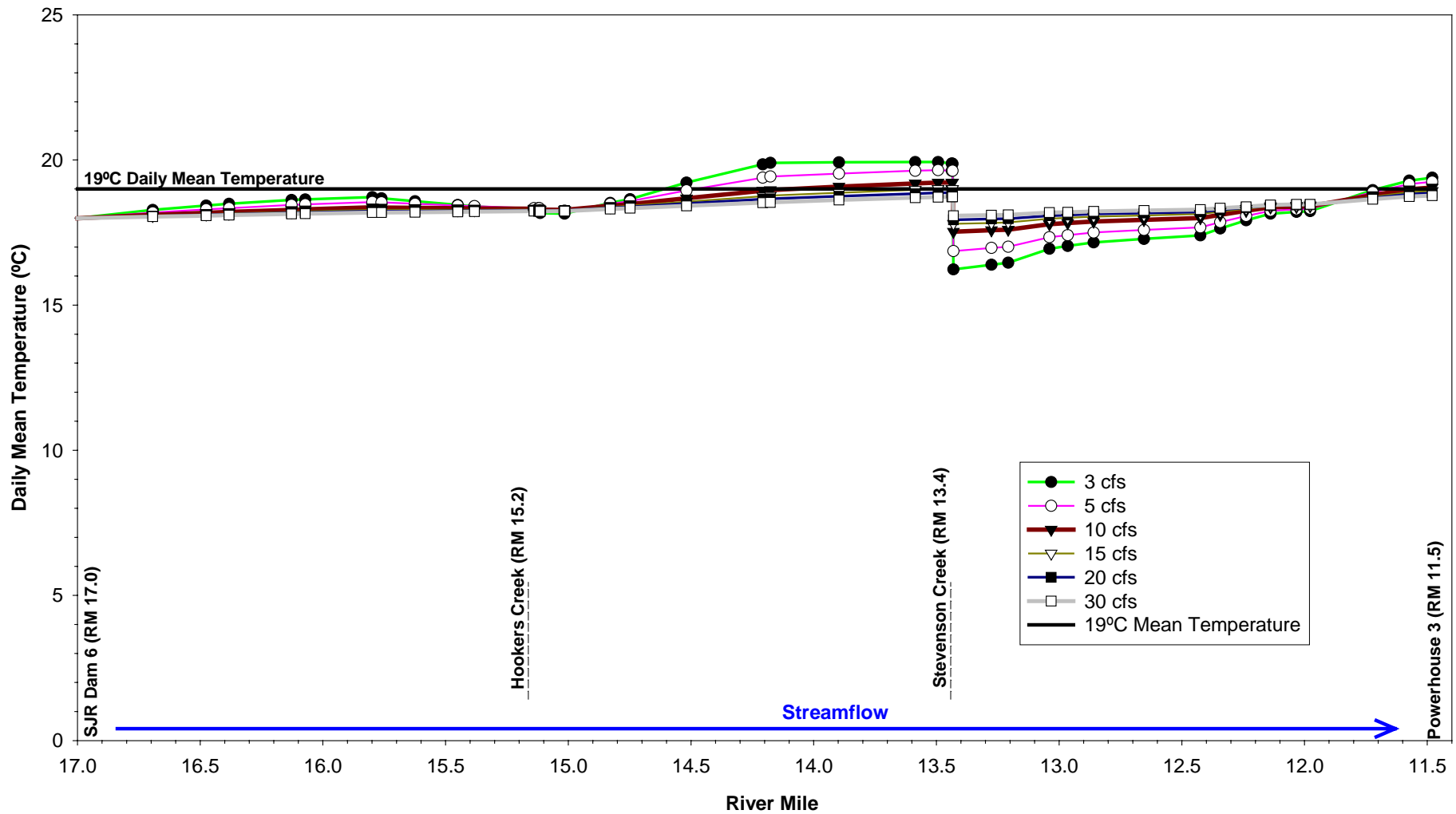


Figure CAWG 5 Appendix D-61. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for September in Above Normal Water Years with Normal Meteorology.

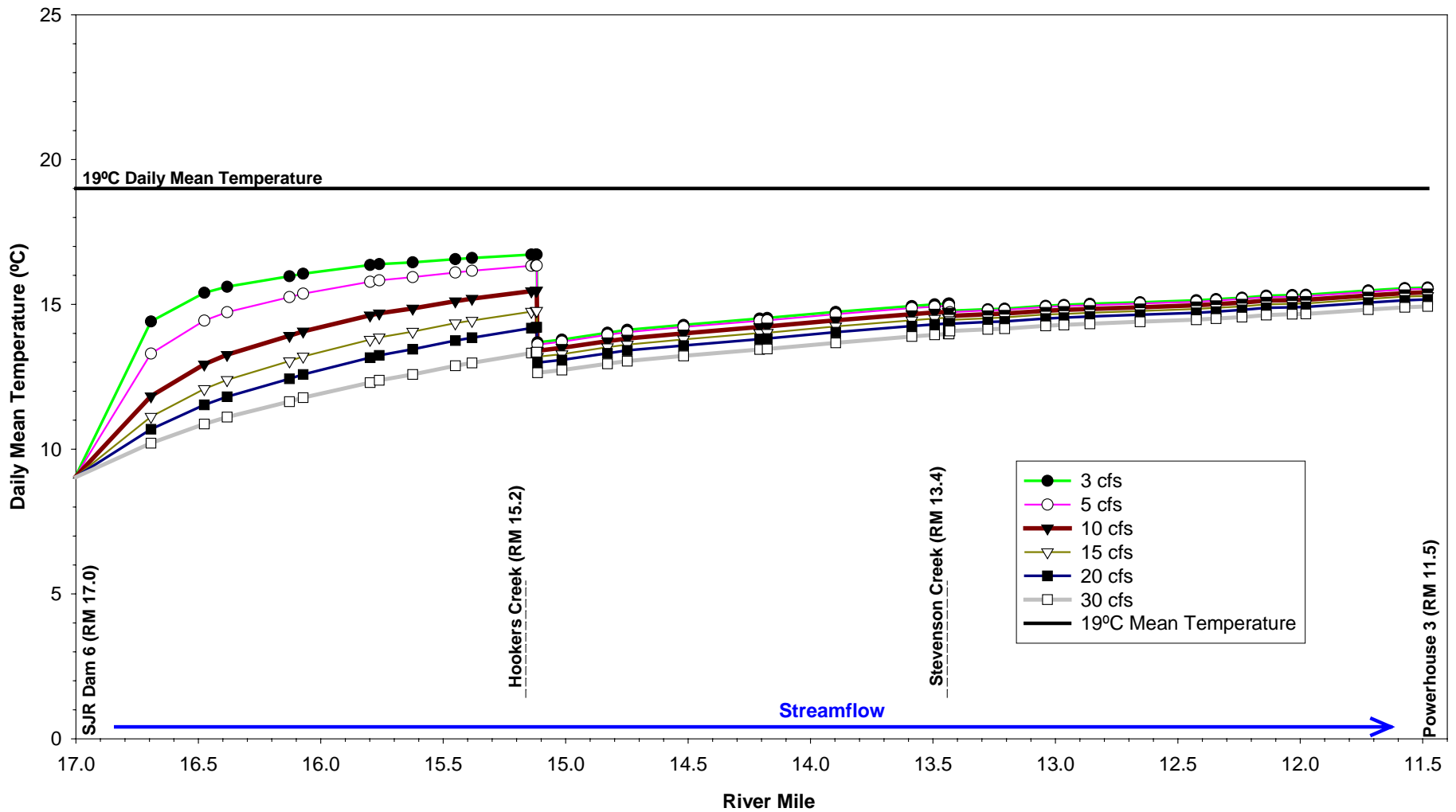


Figure CAWG 5 Appendix D-62. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for May in Dry Water Years with Warm Meteorology.

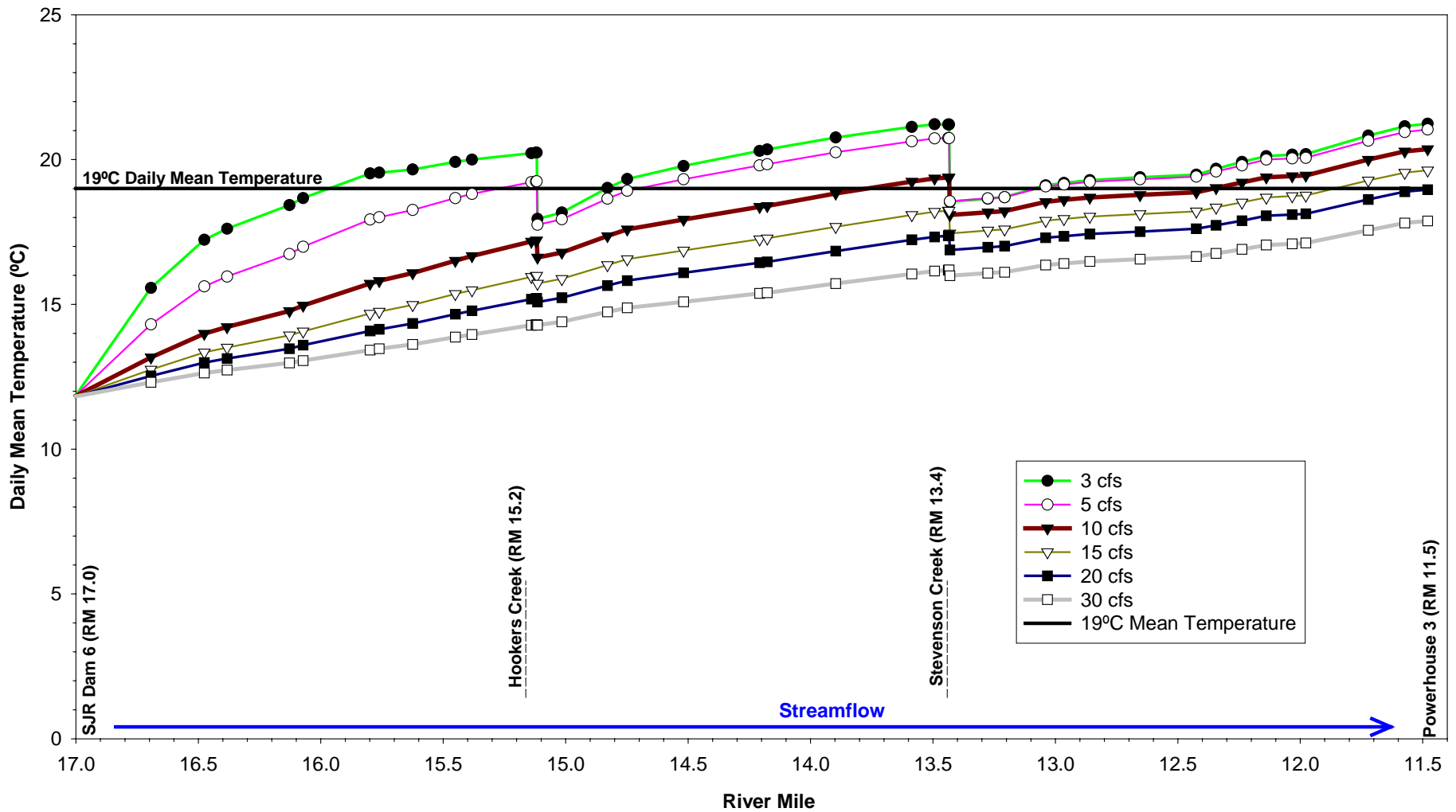


Figure CAWG 5 Appendix D-63. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for June in Dry Water Years with Warm Meteorology.

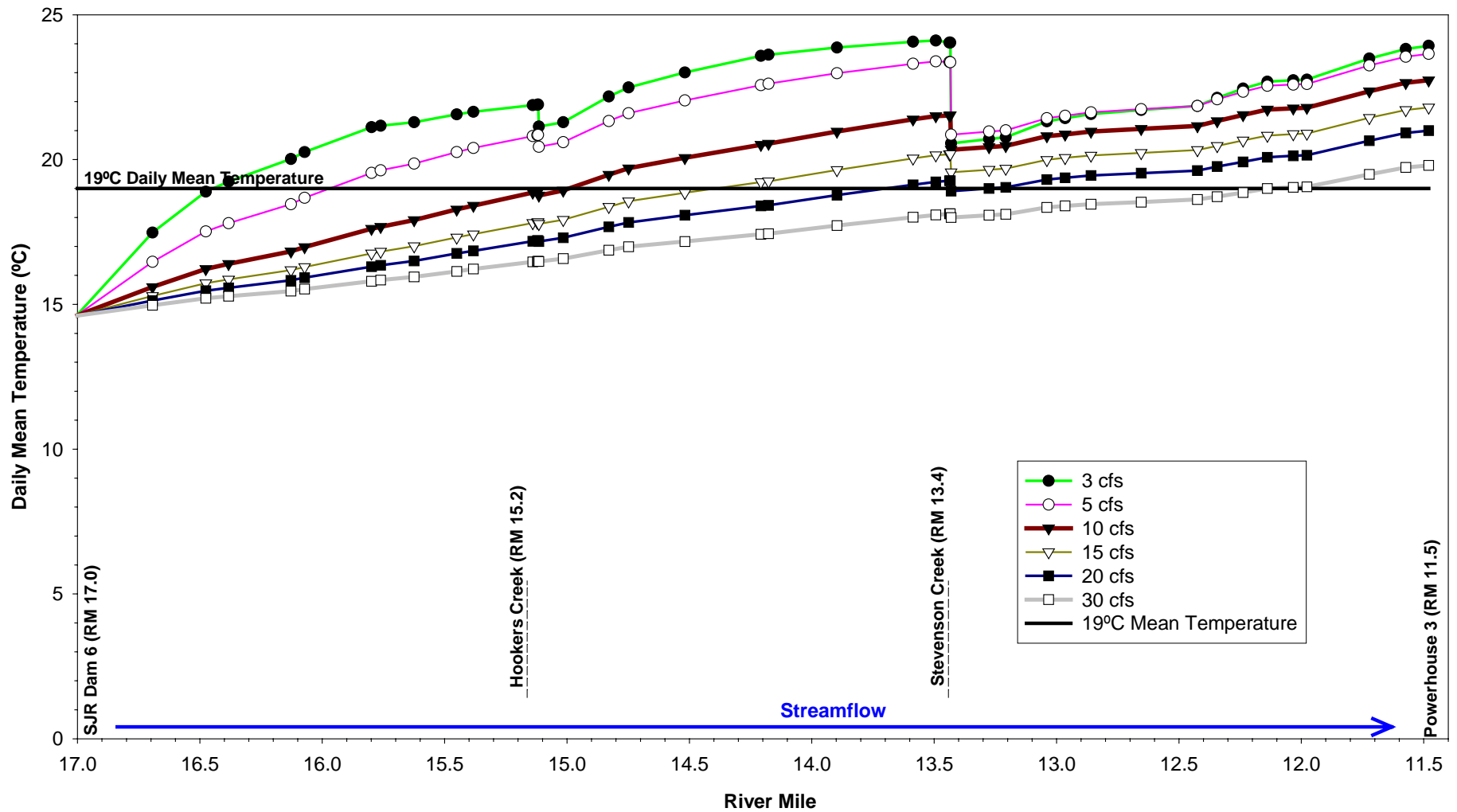


Figure CAWG 5 Appendix D-64. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for July in Dry Water Years with Warm Meteorology.

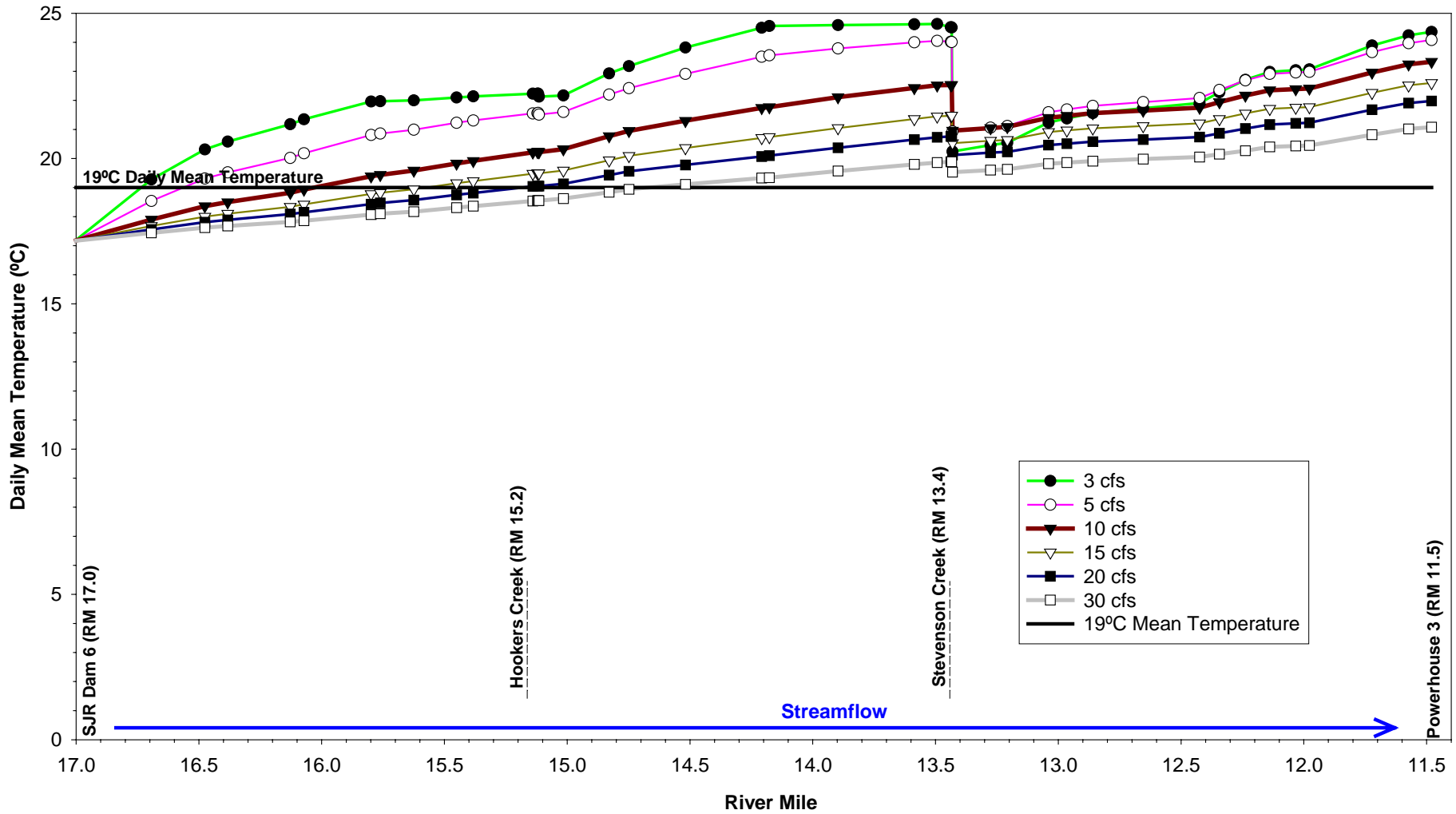


Figure CAWG 5 Appendix D-65. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for August in Dry Water Years with Warm Meteorology.

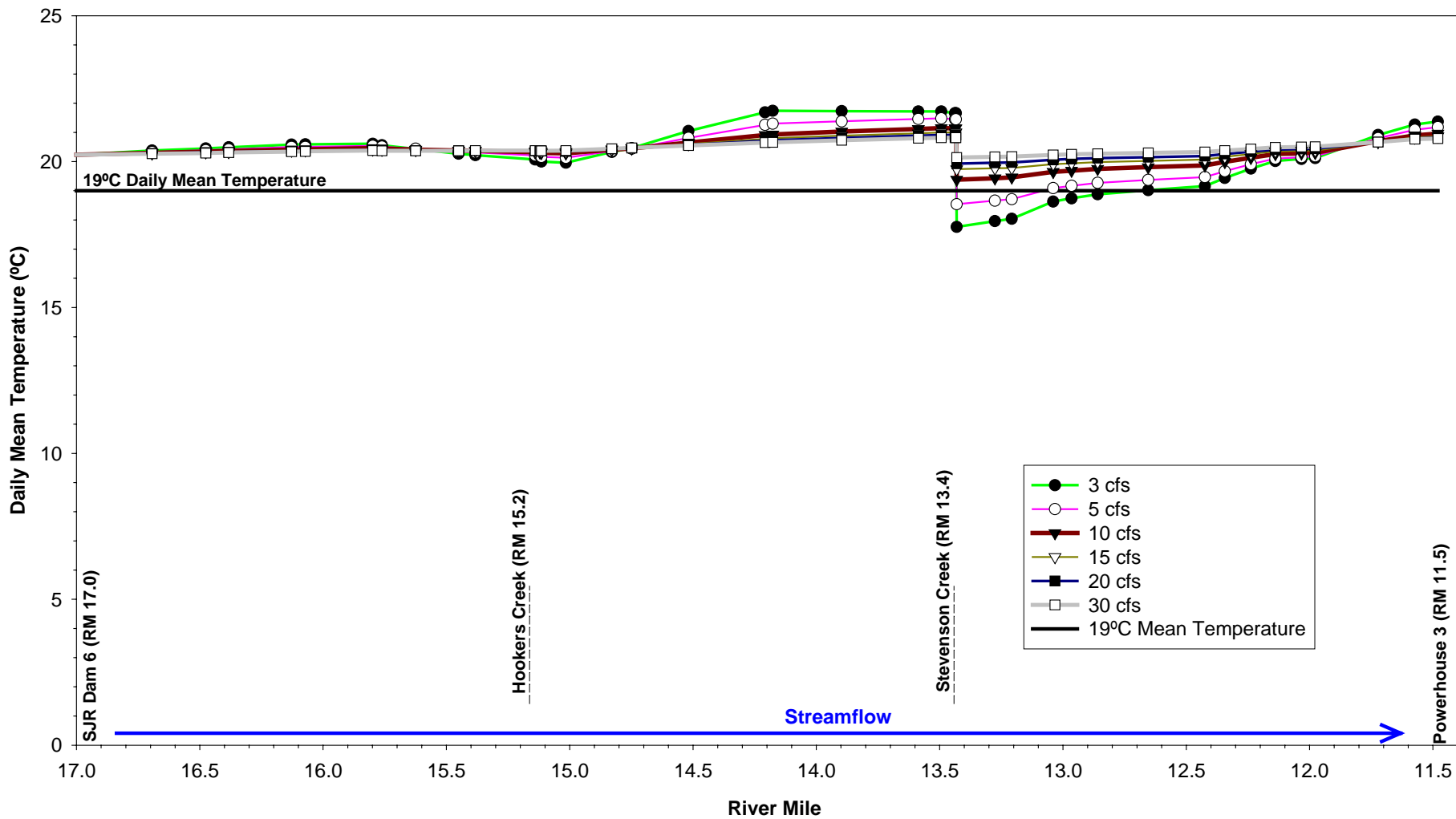


Figure CAWG 5 Appendix D-66. San Joaquin River Stevenson Reach Simulated Daily Mean Water Temperatures for Flows Released from Dam 6 for September in Dry Water Years with Warm Meteorology.

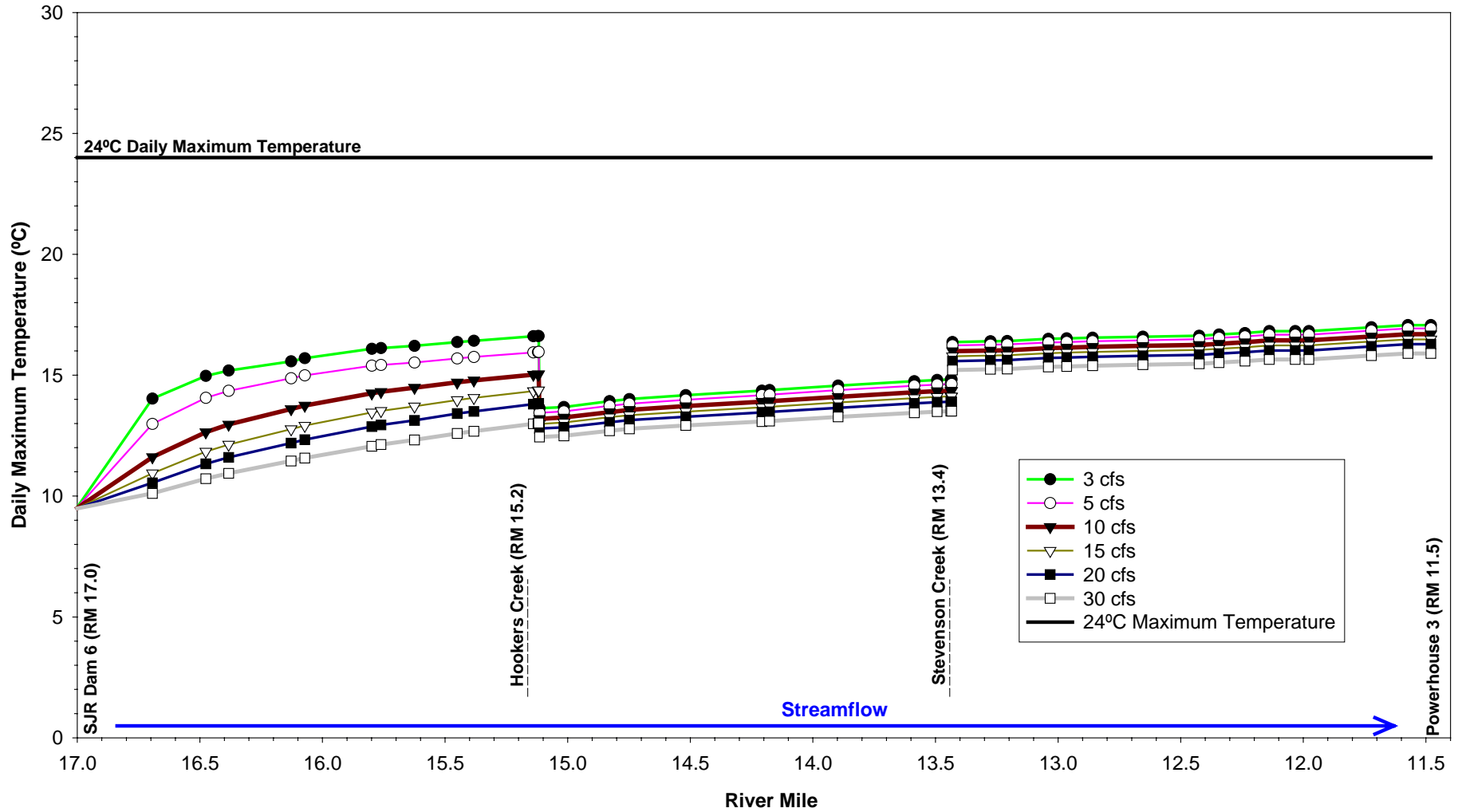


Figure CAWG 5 Appendix D-67. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for May in Above Normal Water Years with Normal Meteorology.

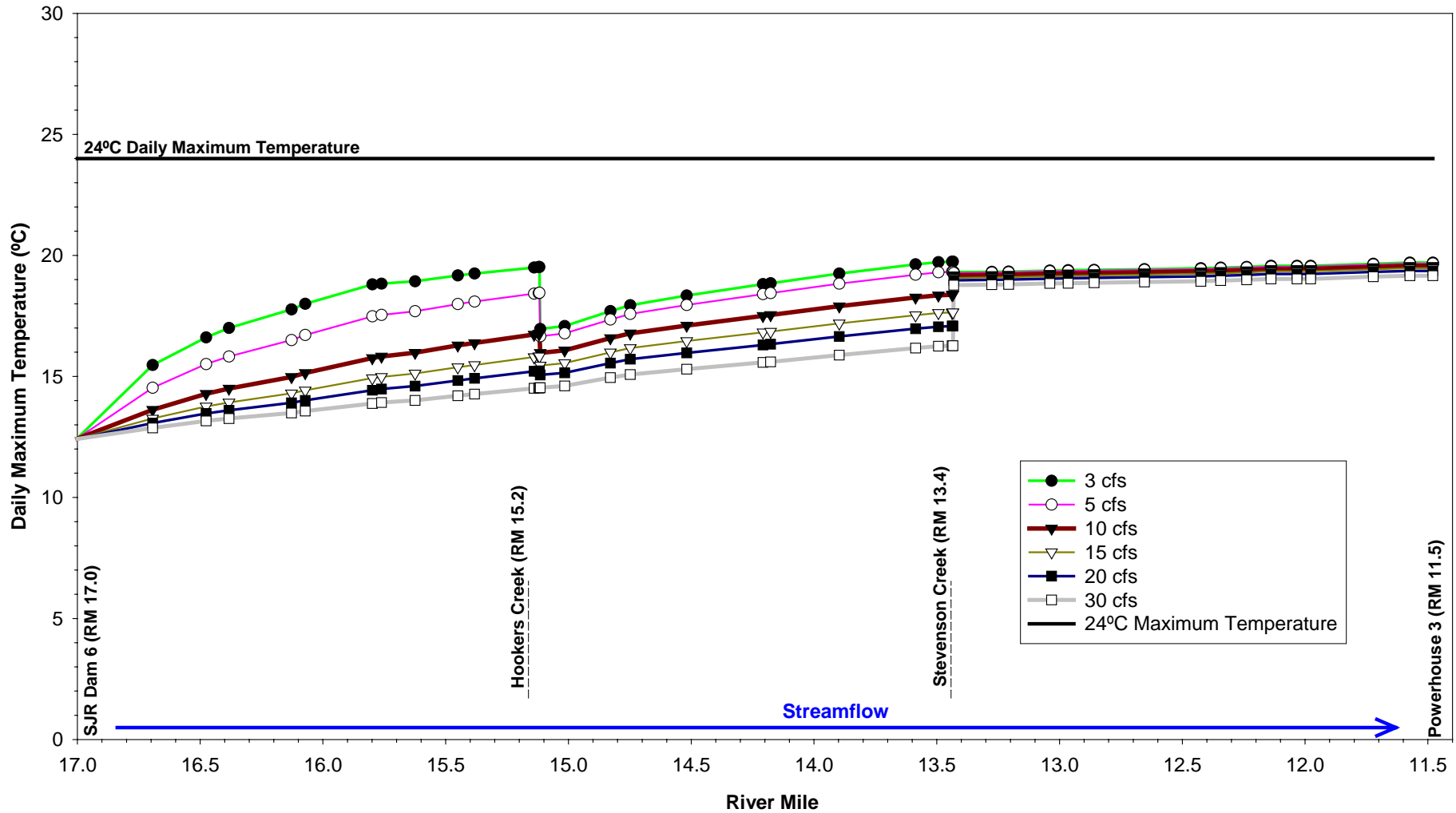


Figure CAWG 5 Appendix D-68. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for June in Above Normal Water Years with Normal Meteorology.

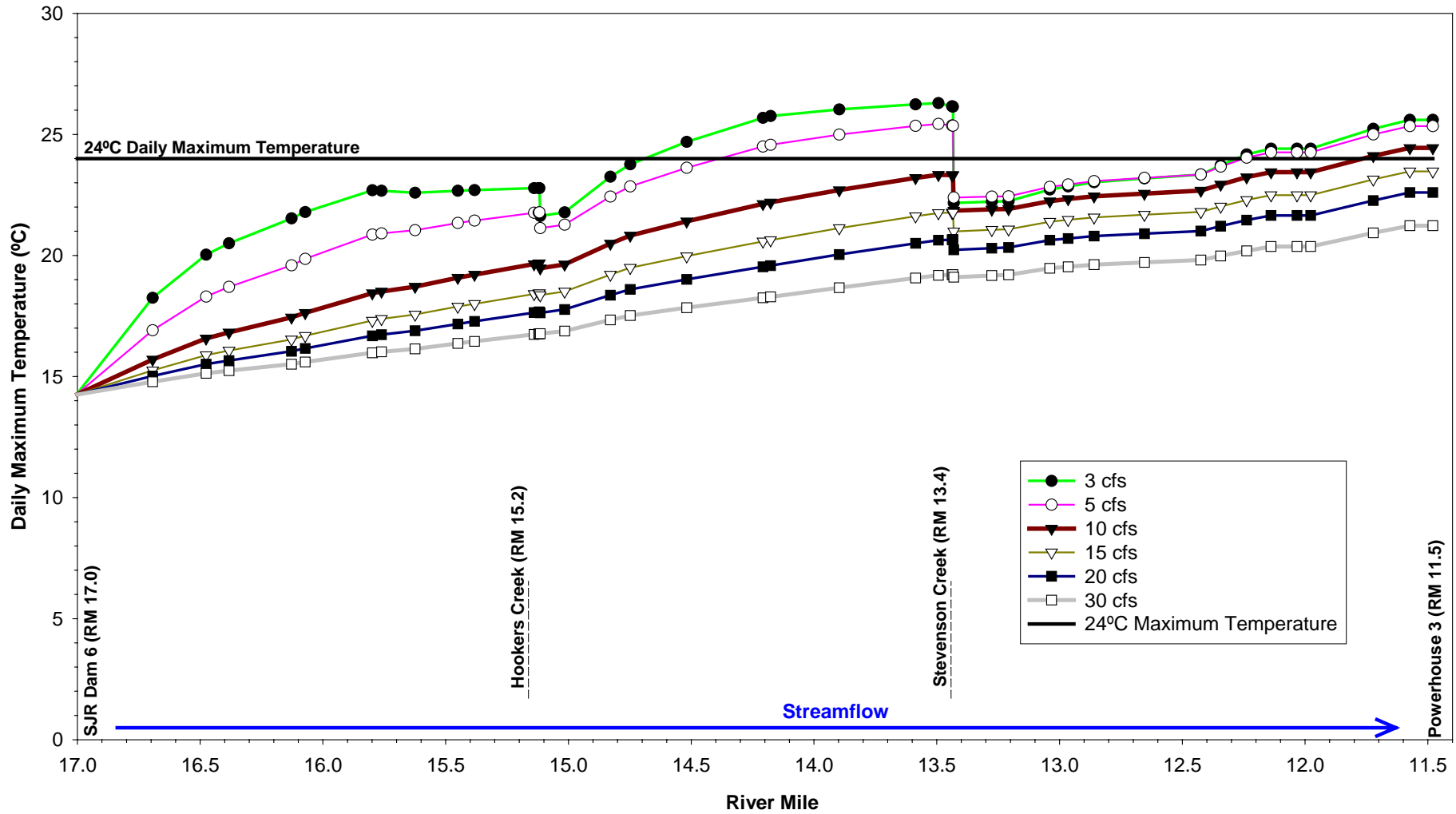


Figure CAWG 5 Appendix D-69. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for July in Above Normal Water Years with Normal Meteorology.

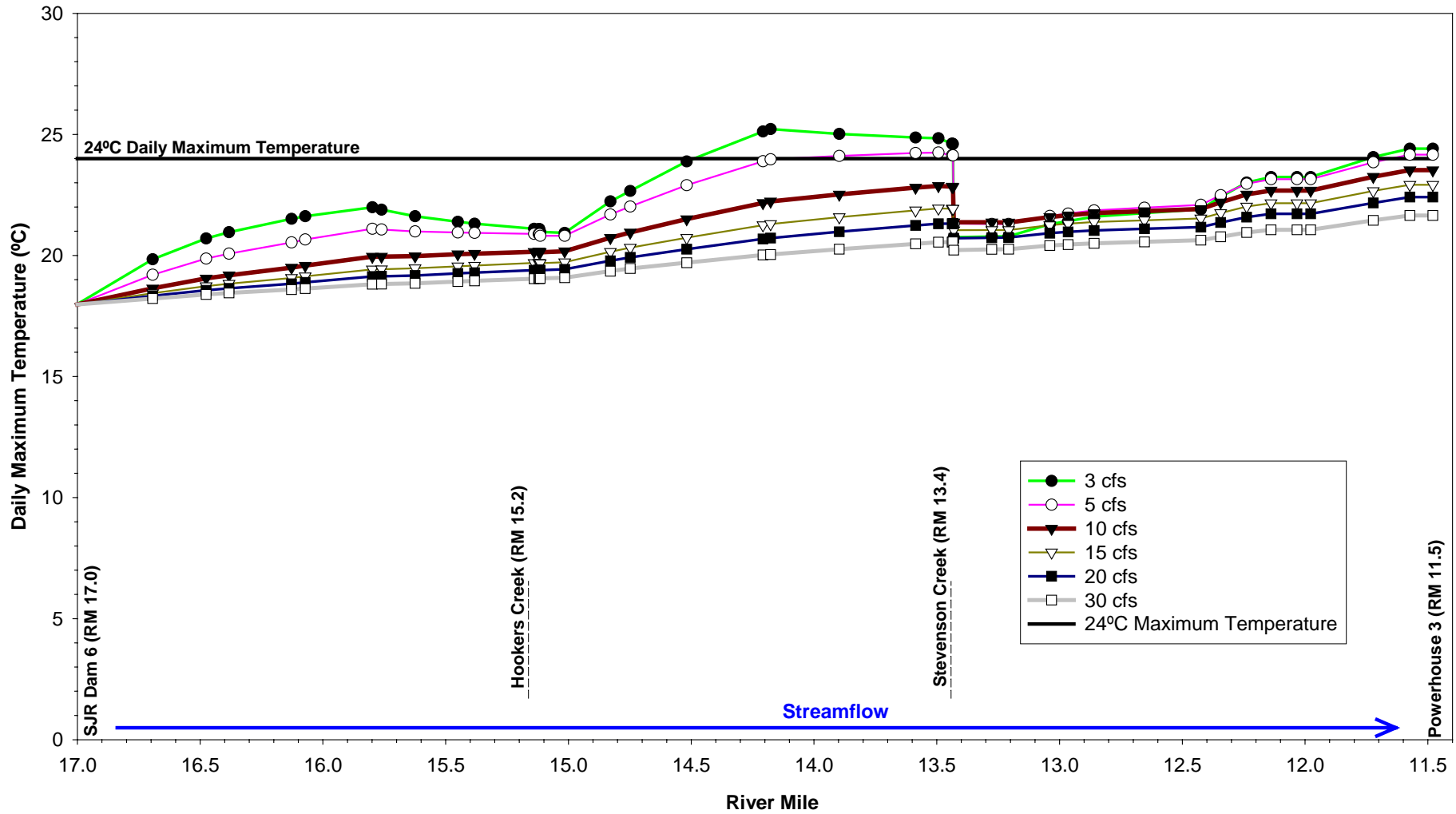


Figure CAWG 5 Appendix D-70. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for August in Above Normal Water Years with Normal Meteorology.

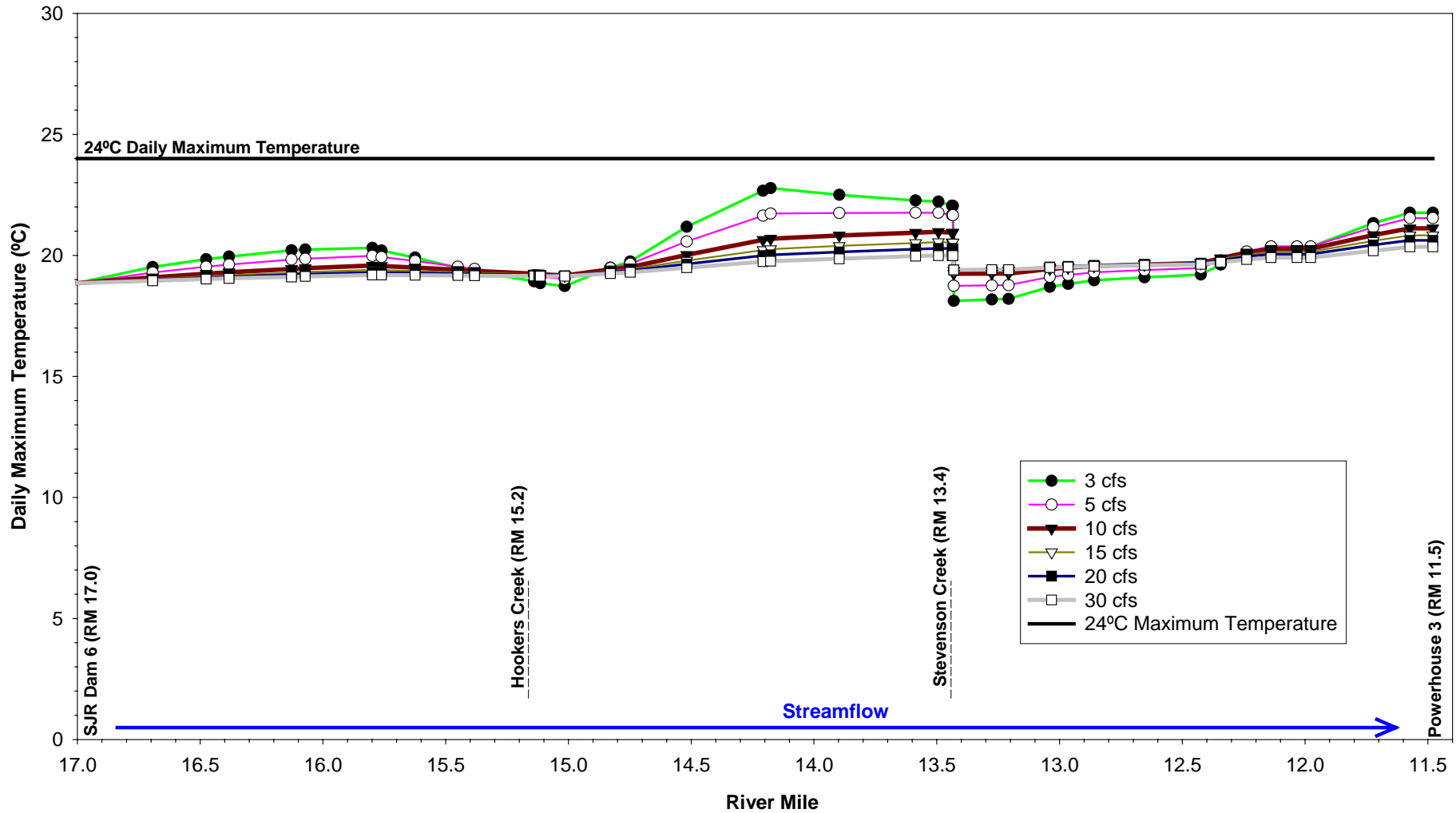


Figure CAWG 5 Appendix D-71. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for September in Above Normal Water Years with Normal Meteorology.

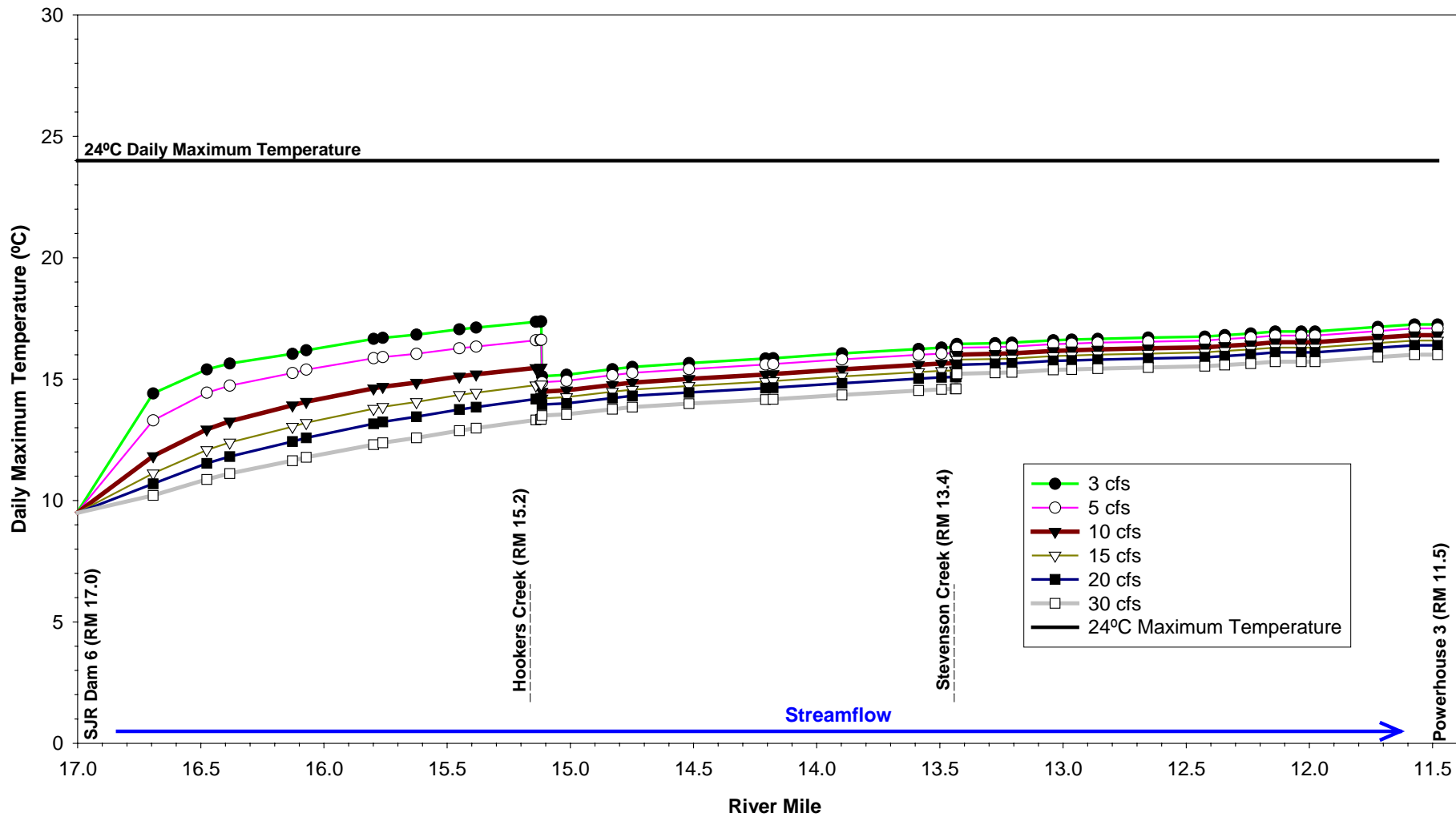


Figure CAWG 5 Appendix D-72. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for May in Dry Water Years with Warm Meteorology.

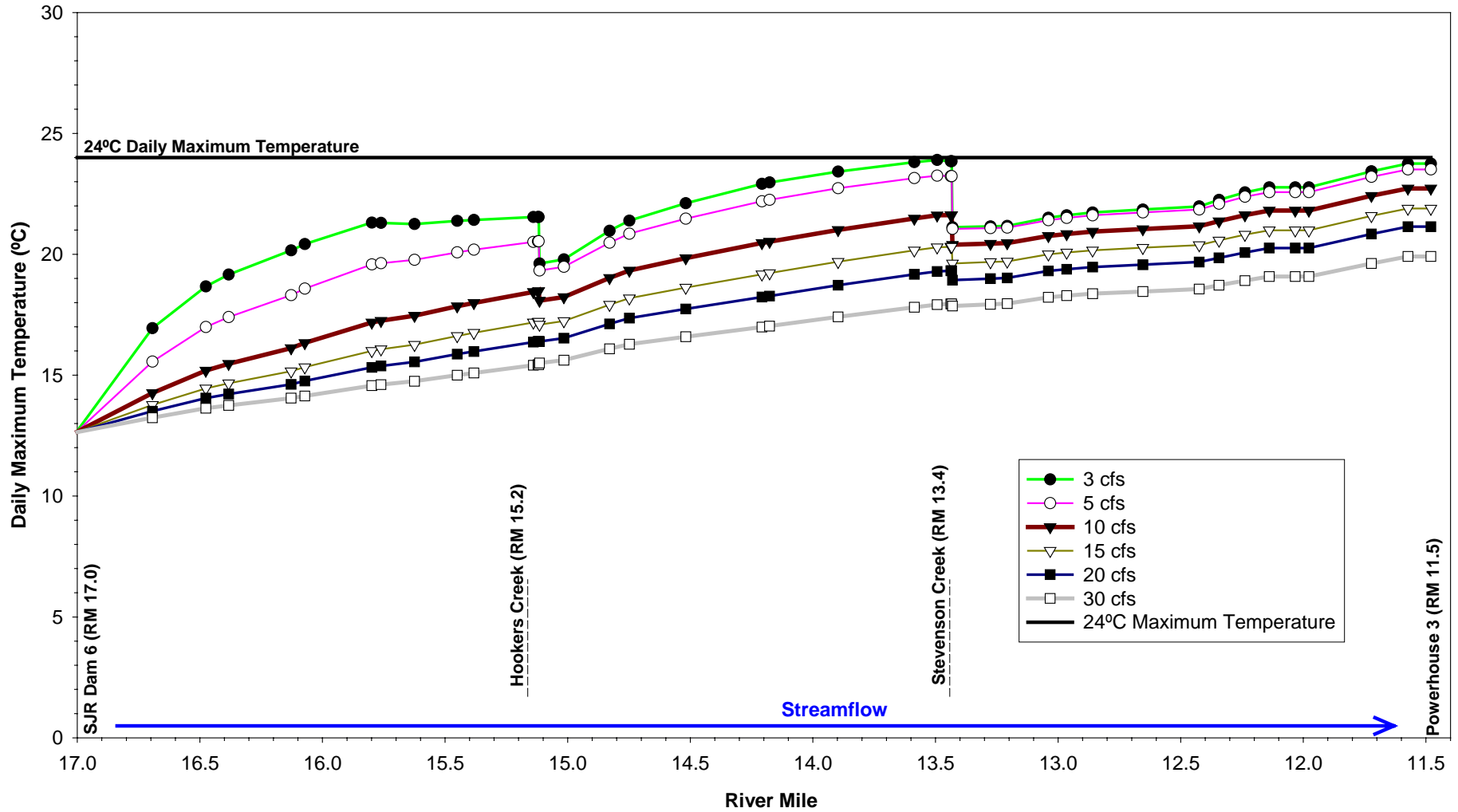


Figure CAWG 5 Appendix D-73. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for June in Dry Water Years with Warm Meteorology.

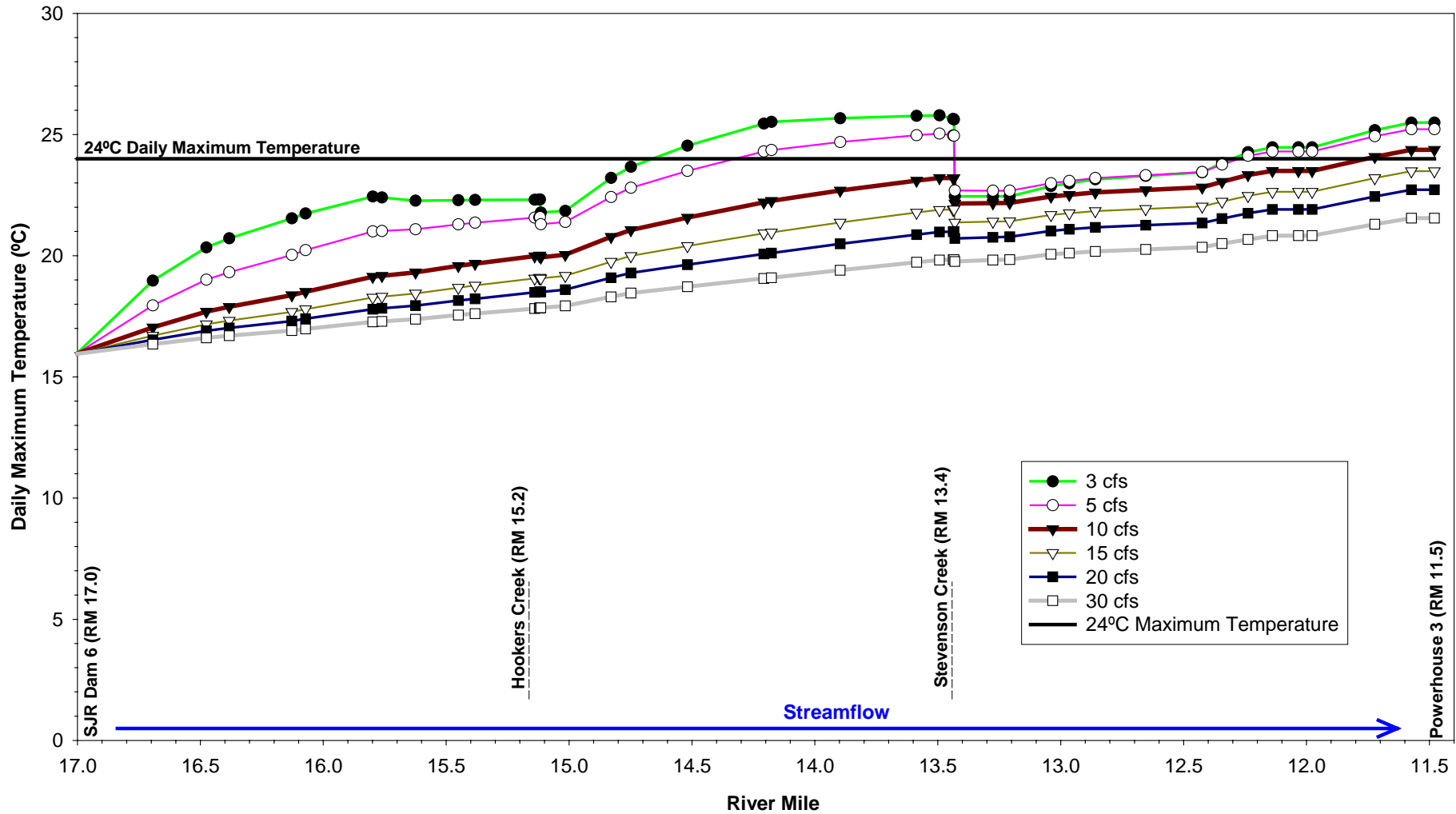


Figure CAWG 5 Appendix D-74. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for July in Dry Water Years with Warm Meteorology.

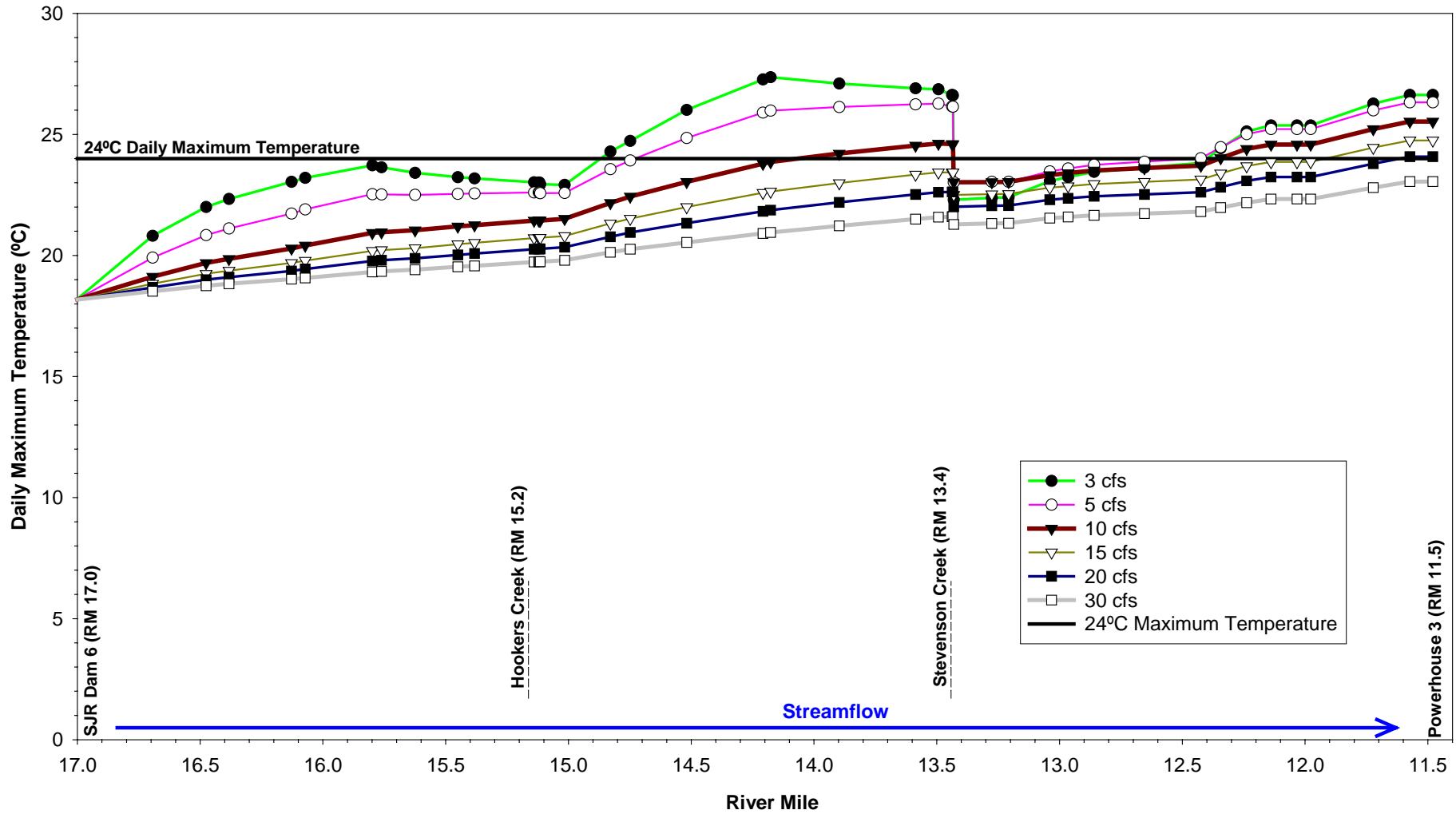


Figure CAWG 5 Appendix D-75. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for August in Dry Water Years with Warm Meteorology.

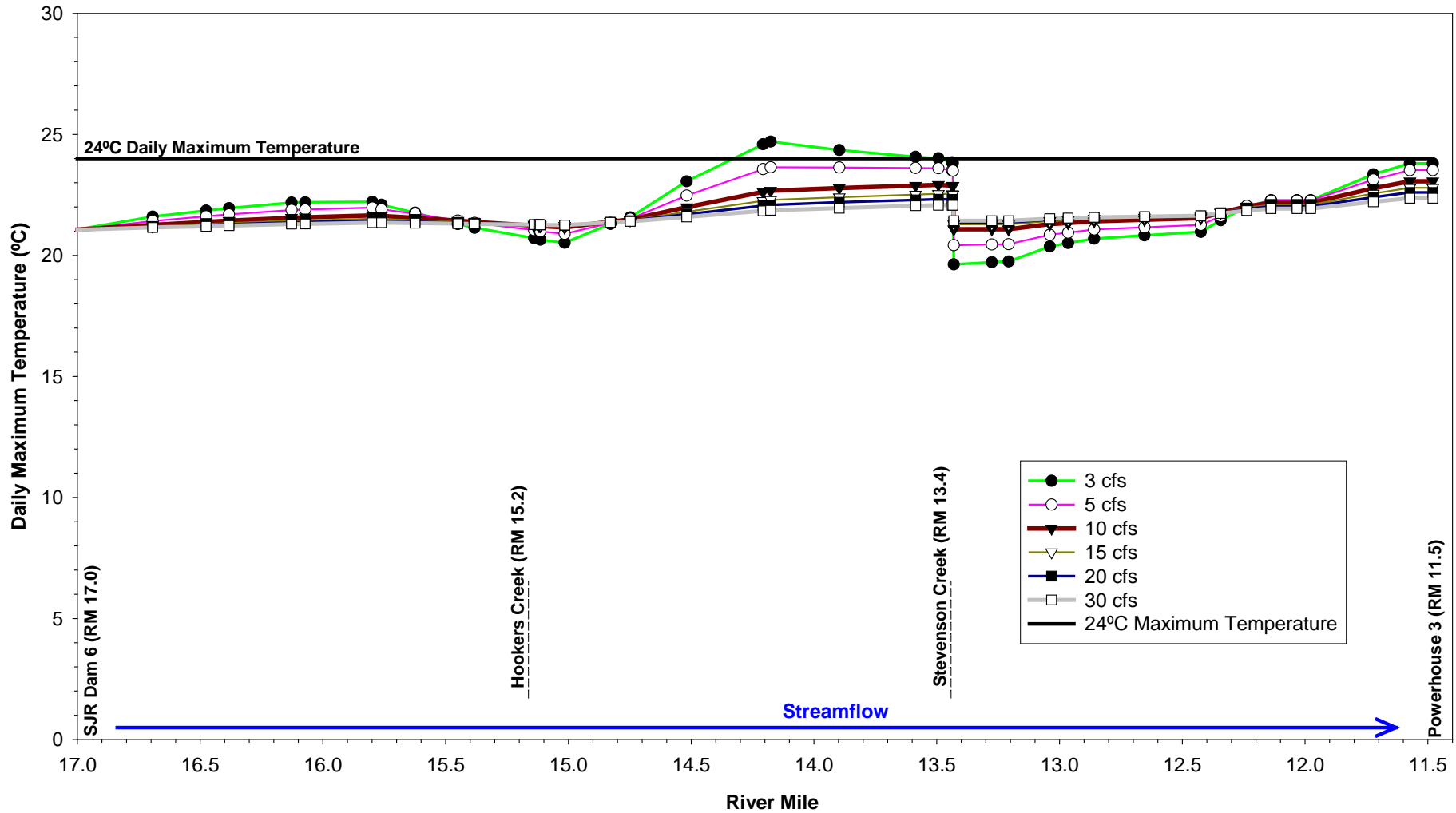


Figure CAWG 5 Appendix D-76. San Joaquin River Stevenson Reach Simulated Daily Maximum Water Temperatures for Flows Released from Dam 6 for September in Dry Water Years with Warm Meteorology.

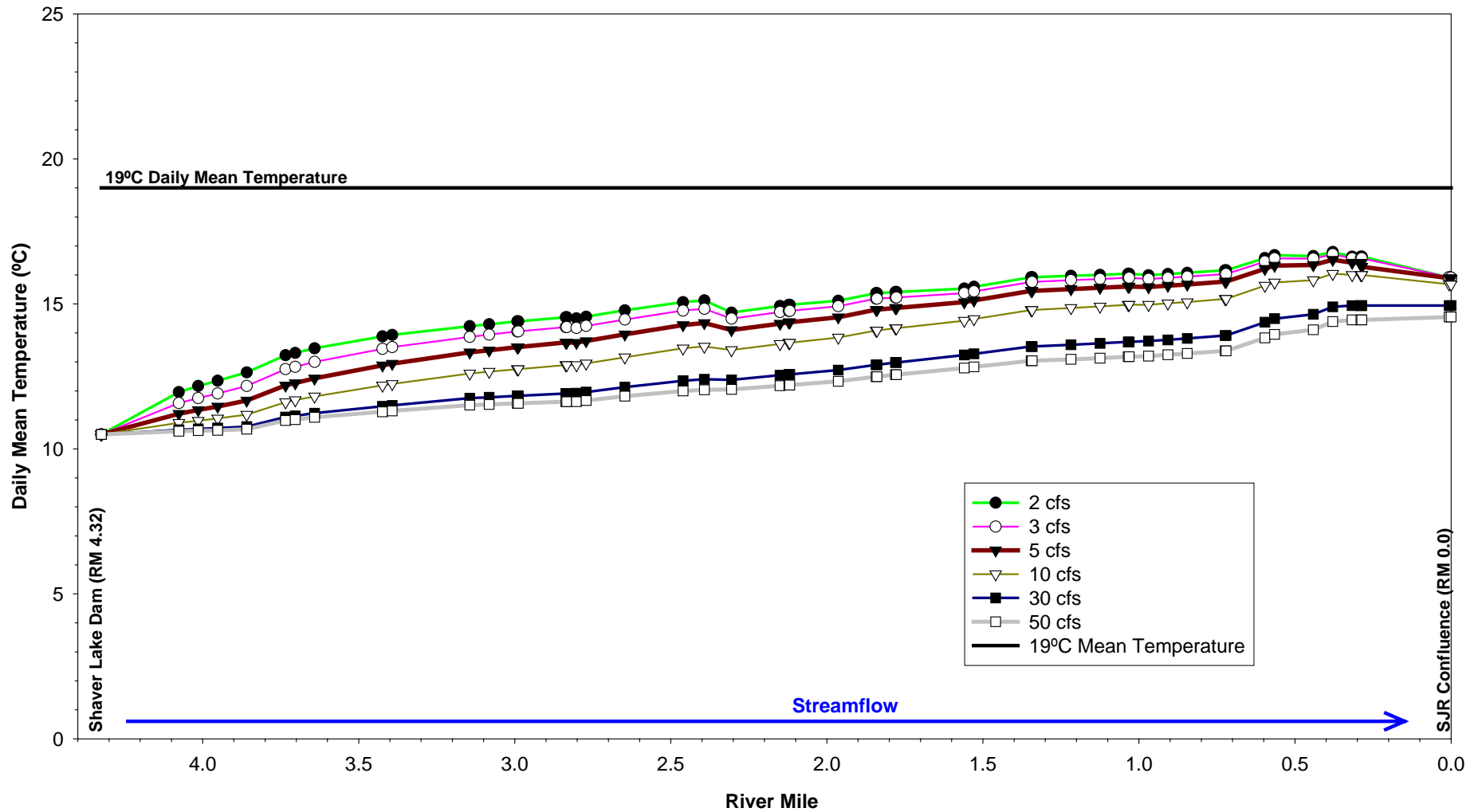


Figure CAWG 5 Appendix D-77. Stevenson Creek Simulated Daily Mean Water Temperatures for Flows Released from Shaver Lake Dam for June in Above Normal Water Years with Normal Meteorology.

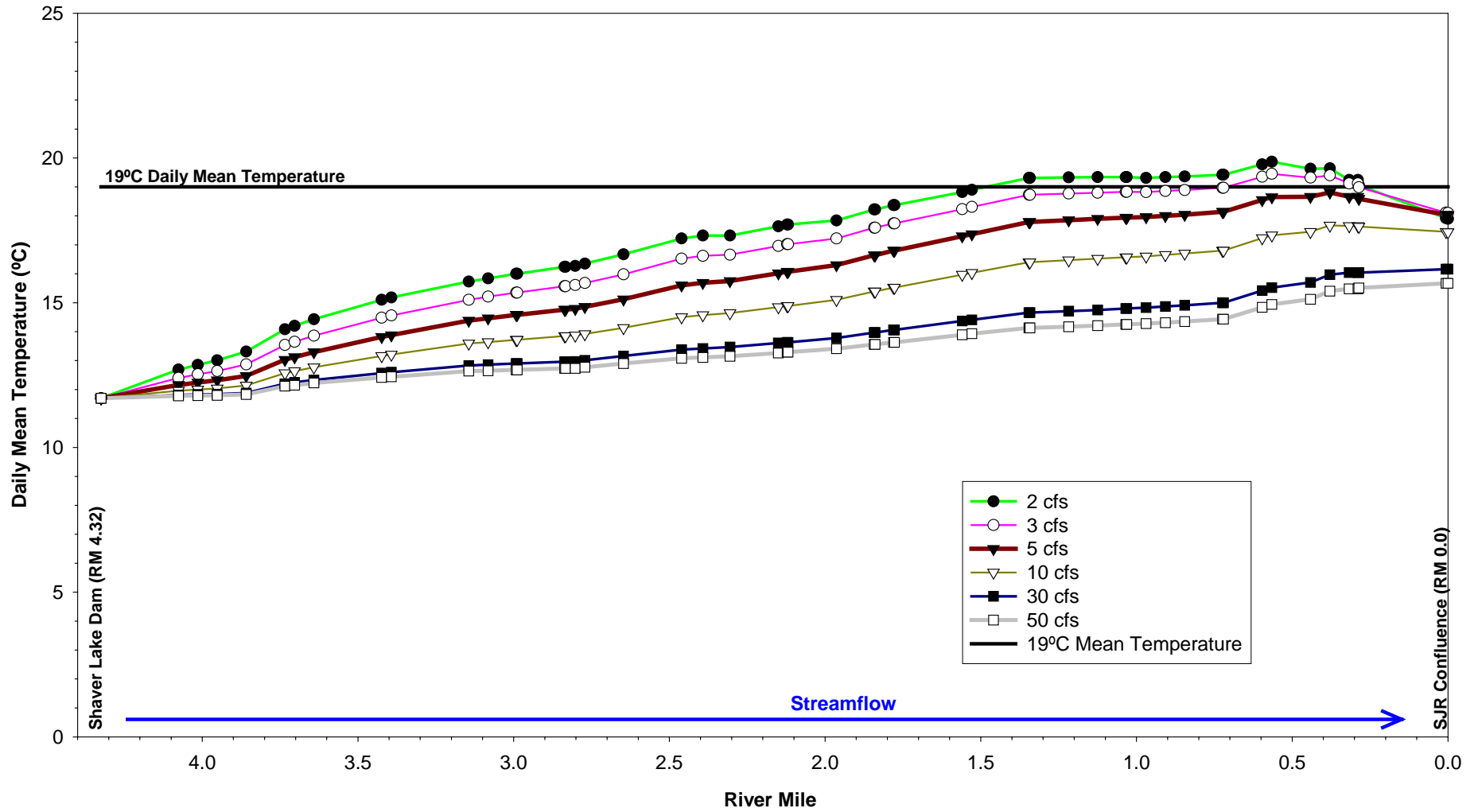


Figure CAWG 5 Appendix D-78. Stevenson Creek Simulated Daily Mean Water Temperatures for Flows Released from Shaver Lake Dam for July in Above Normal Water Years with Normal Meteorology.

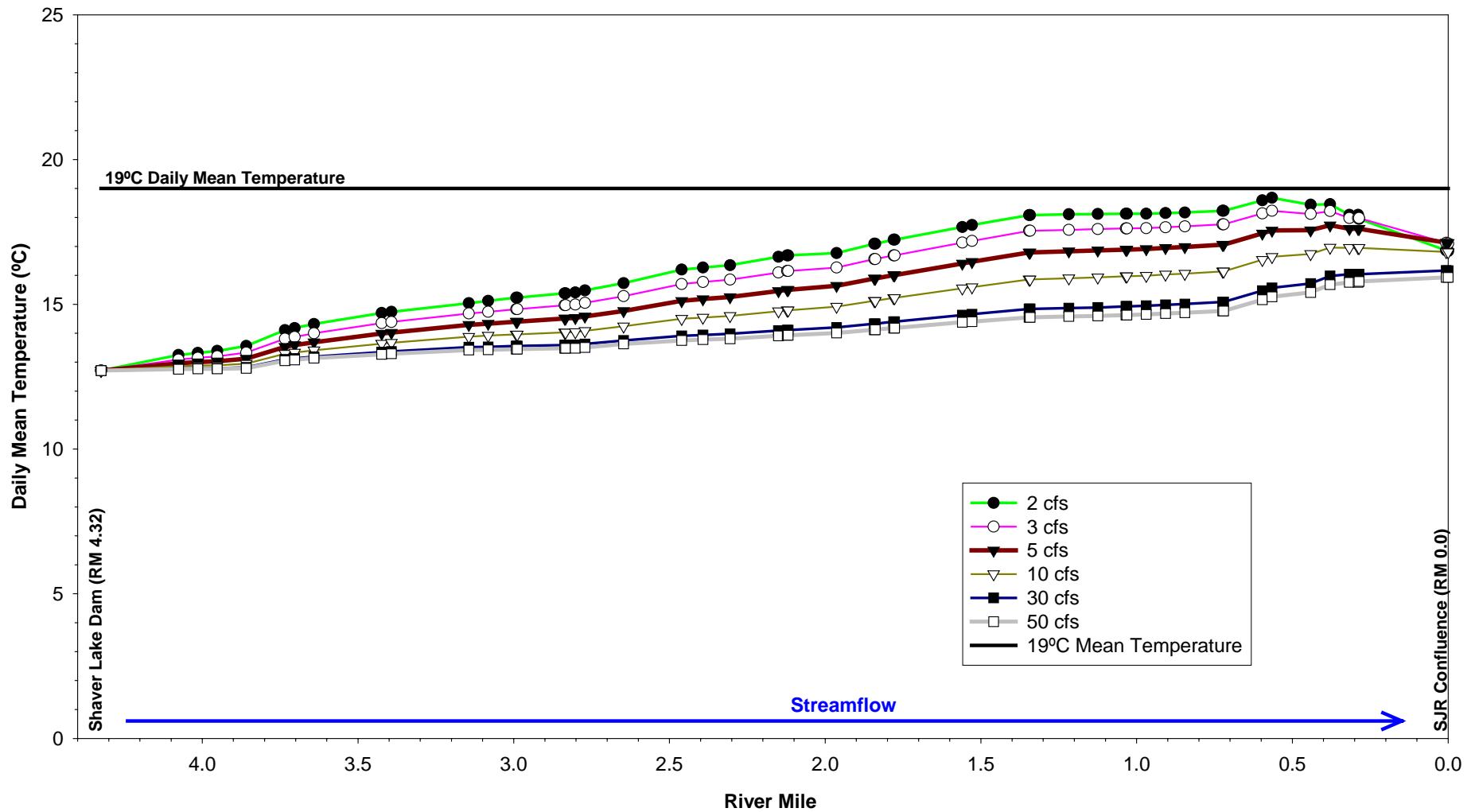


Figure CAWG 5 Appendix D-79. Stevenson Creek Simulated Daily Mean Water Temperatures for Flows Released from Shaver Lake Dam for August in Above Normal Water Years with Normal Meteorology.

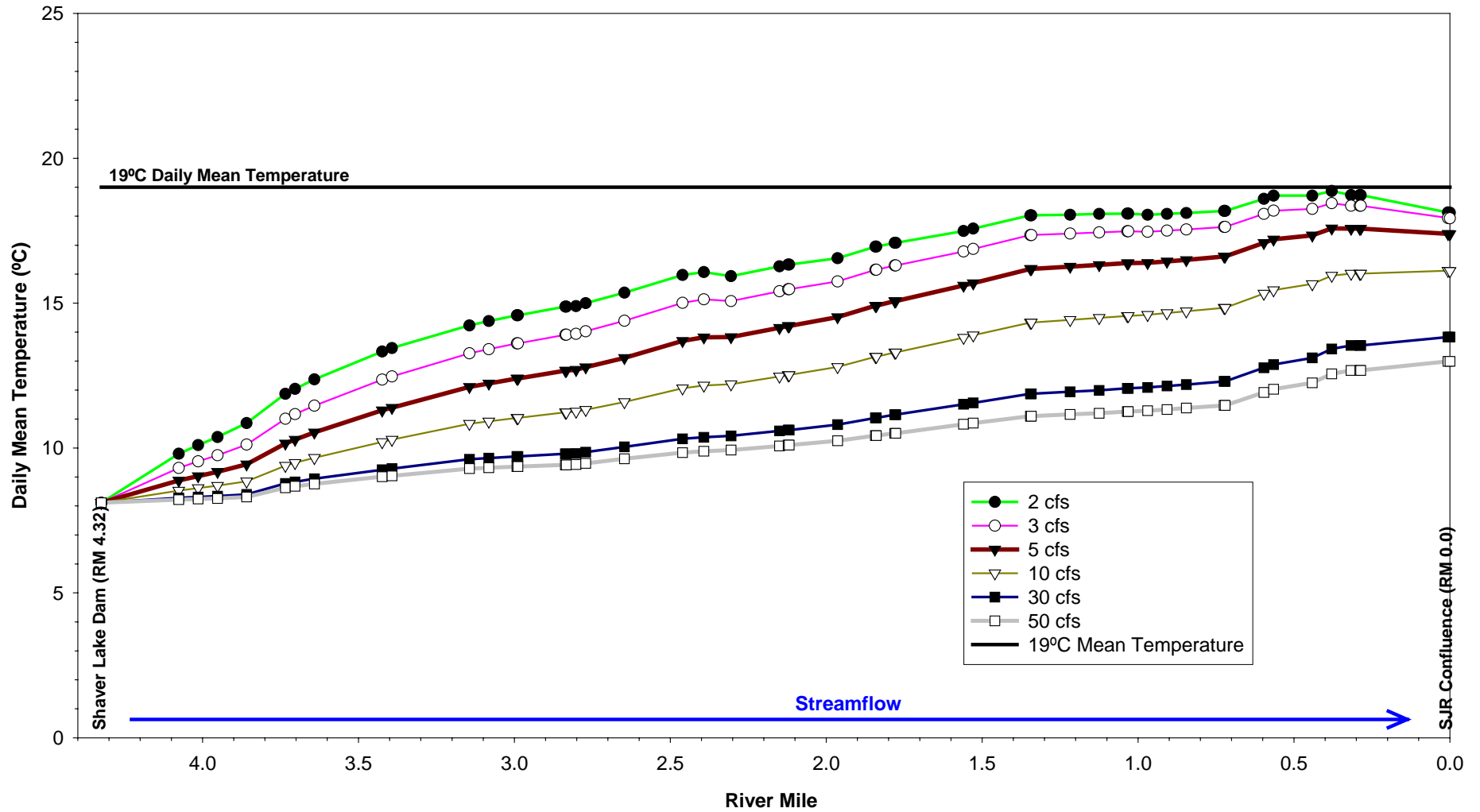


Figure CAWG 5 Appendix D-80. Stevenson Creek Simulated Daily Mean Water Temperatures for Flows Released from Shaver Lake Dam for June in Dry Water Years with Warm Meteorology.

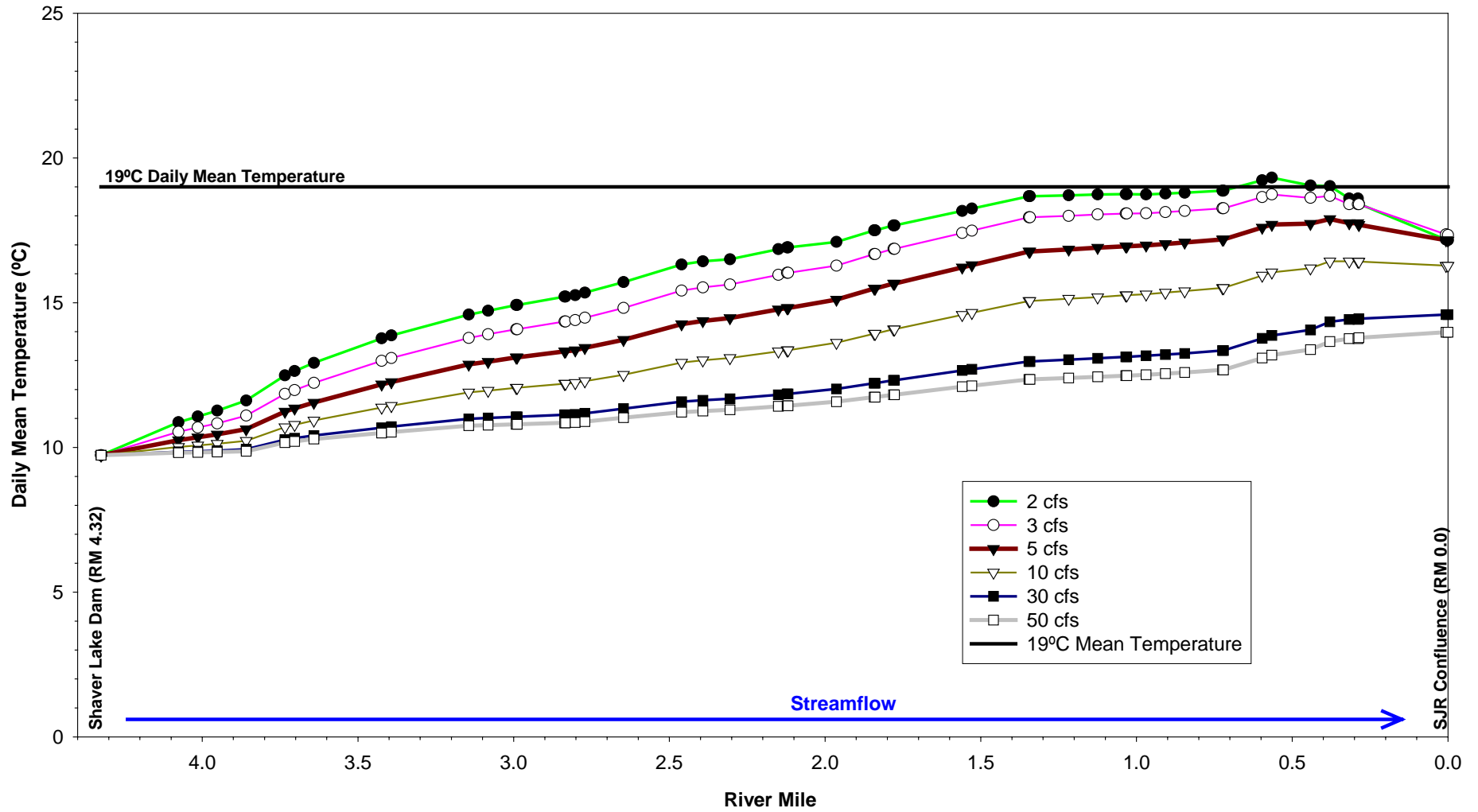


Figure CAWG 5 Appendix D-81. Stevenson Creek Simulated Daily Mean Water Temperatures for Flows Released from Shaver Lake Dam for July in Dry Water Years with Warm Meteorology.

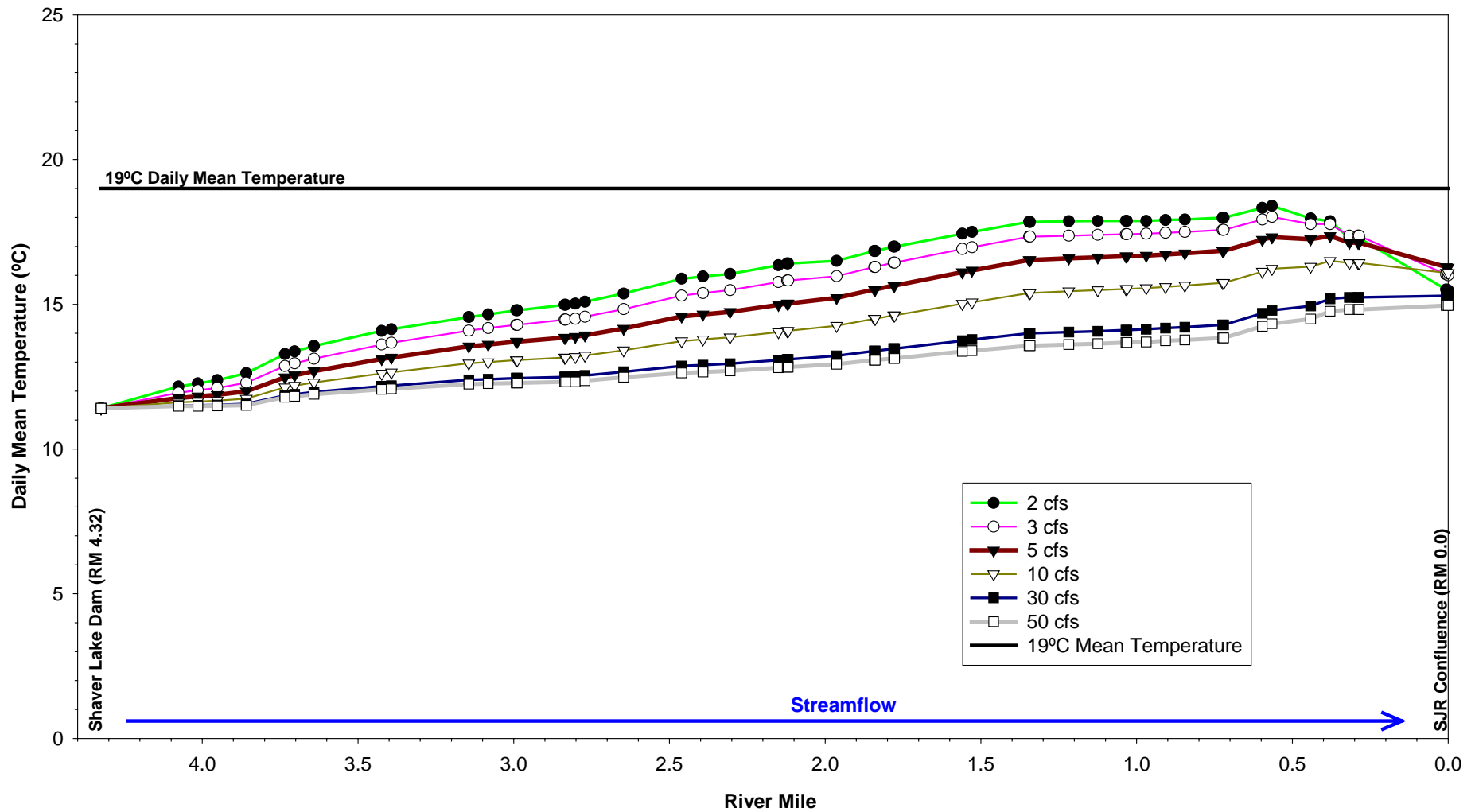


Figure CAWG 5 Appendix D-82. Stevenson Creek Simulated Daily Mean Water Temperatures for Flows Released from Shaver Lake Dam for August in Dry Water Years with Warm Meteorology.

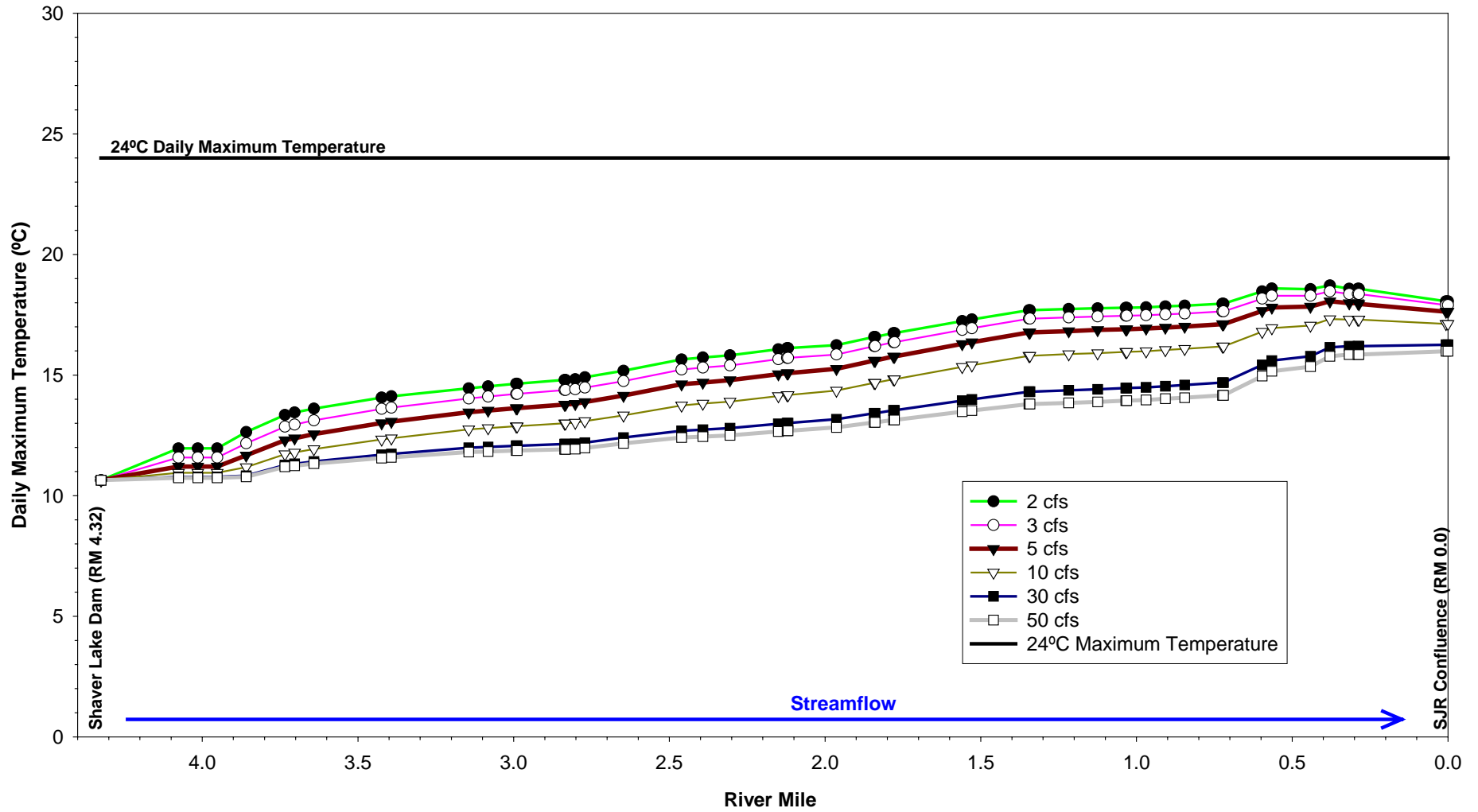


Figure CAWG 5 Appendix D-83. Stevenson Creek Simulated Daily Maximum Water Temperatures for Flows Released from Shaver Lake Dam for June in Above Normal Water Years with Normal Meteorology.

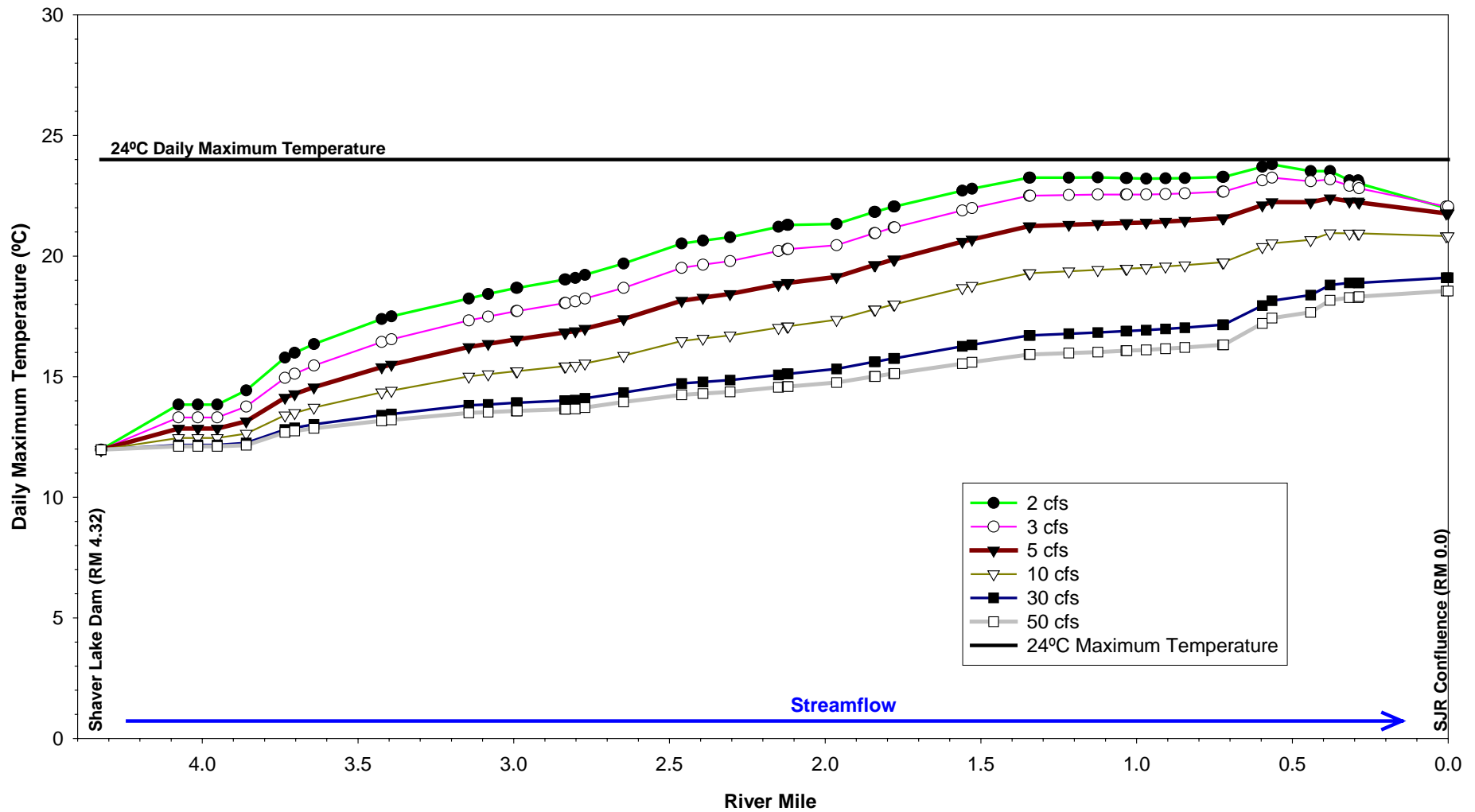


Figure CAWG 5 Appendix D-84. Stevenson Creek Simulated Daily Maximum Water Temperatures for Flows Released from Shaver Lake Dam for July in Above Normal Water Years with Normal Meteorology.

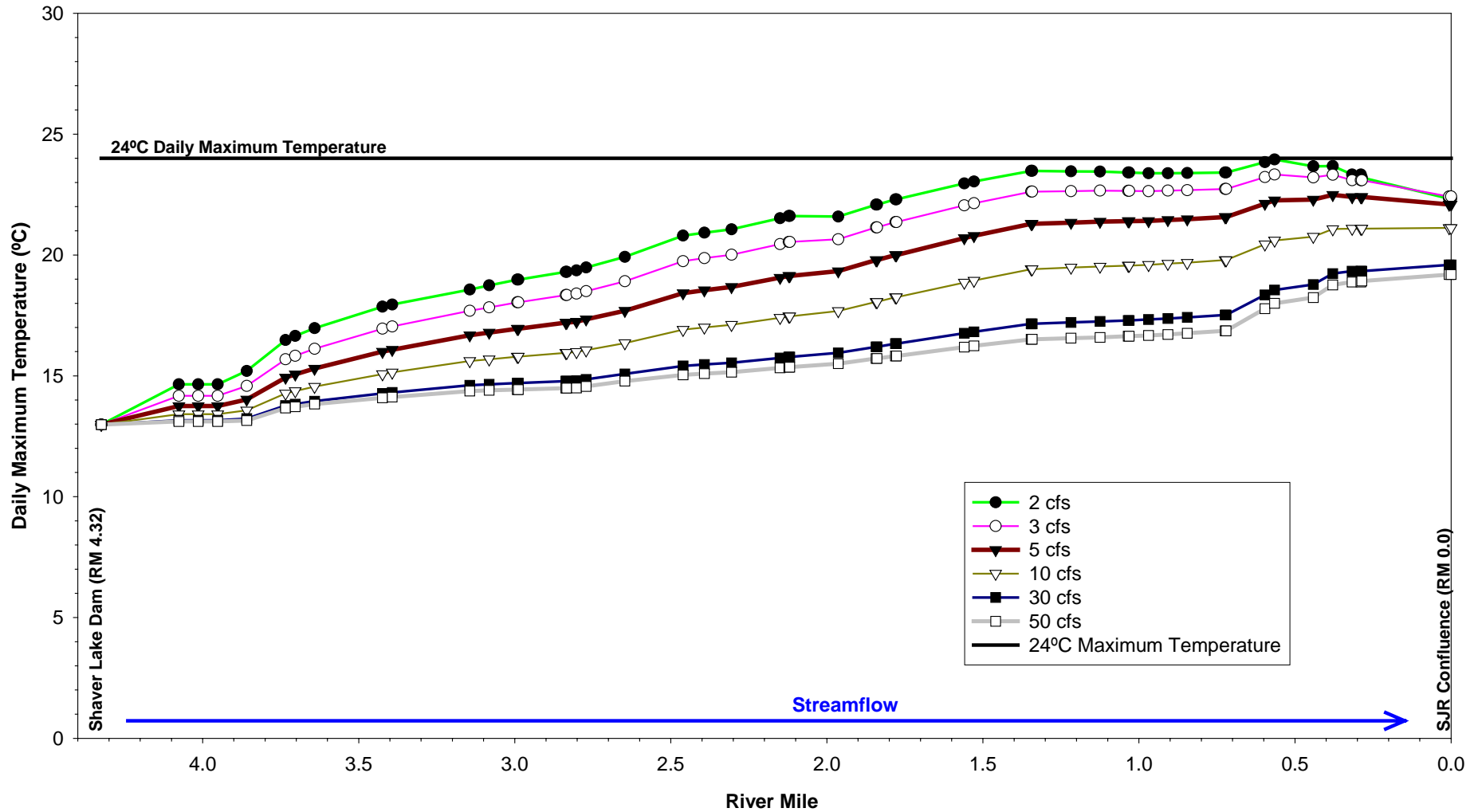


Figure CAWG 5 Appendix D-85. Stevenson Creek Simulated Daily Maximum Water Temperatures for Flows Released from Shaver Lake Dam for August in Above Normal Water Years with Normal Meteorology.

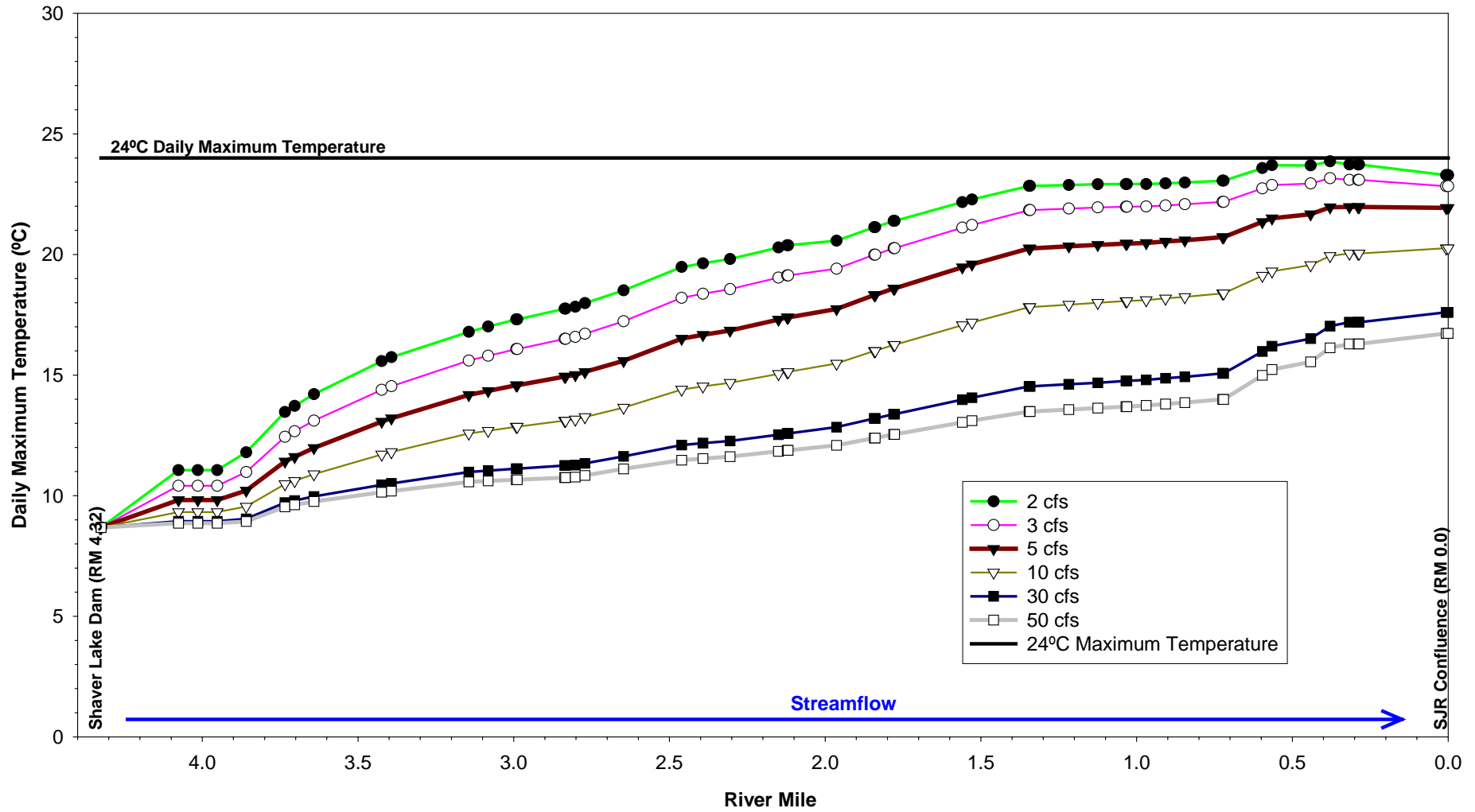


Figure CAWG 5 Appendix D-86. Stevenson Creek Simulated Daily Maximum Water Temperatures for Flows Released from Shaver Lake Dam for June in Dry Water Years with Warm Meteorology.

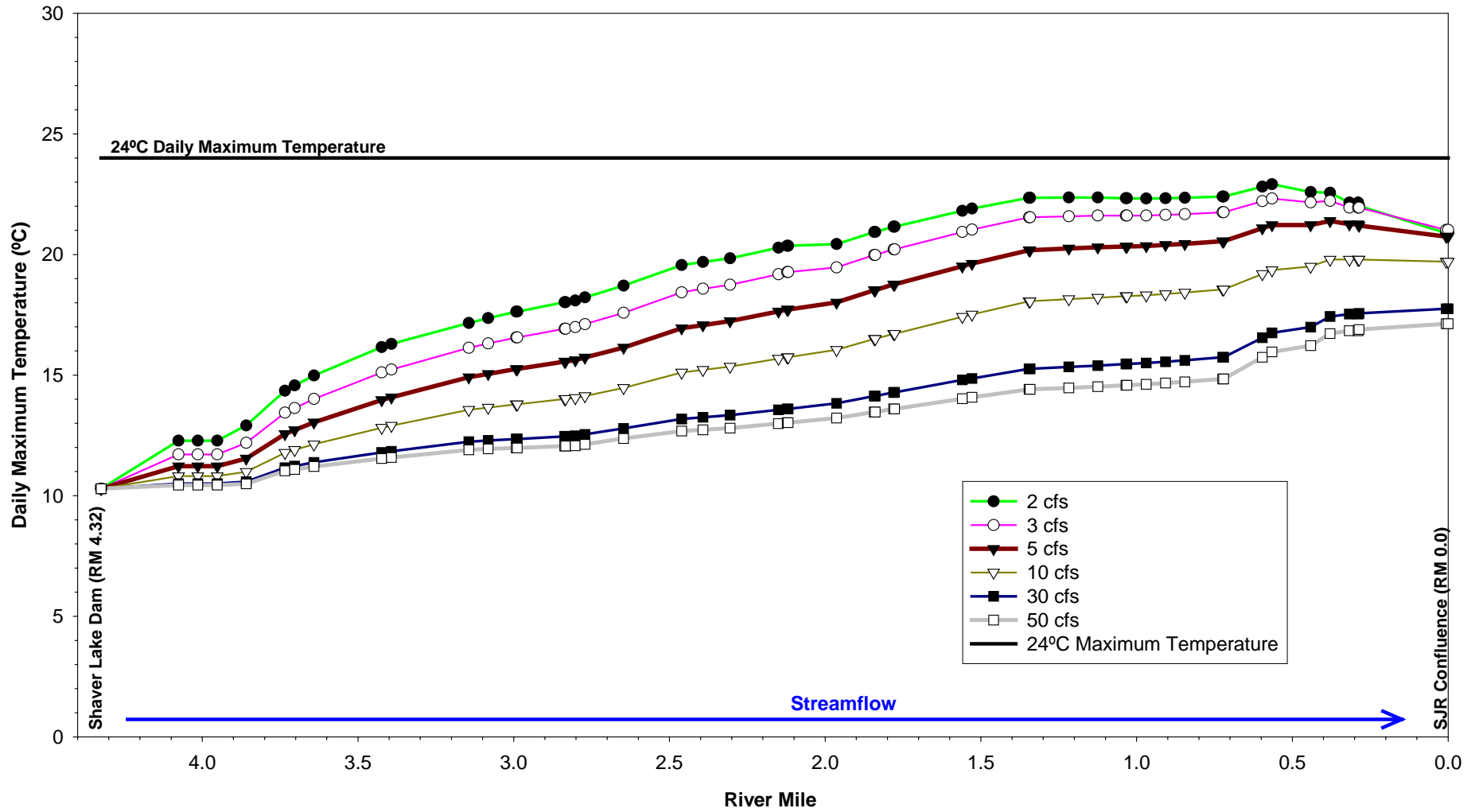


Figure CAWG 5 Appendix D-87. Stevenson Creek Simulated Daily Maximum Water Temperatures for Flows Released from Shaver Lake Dam for July in Dry Water Years with Warm Meteorology.

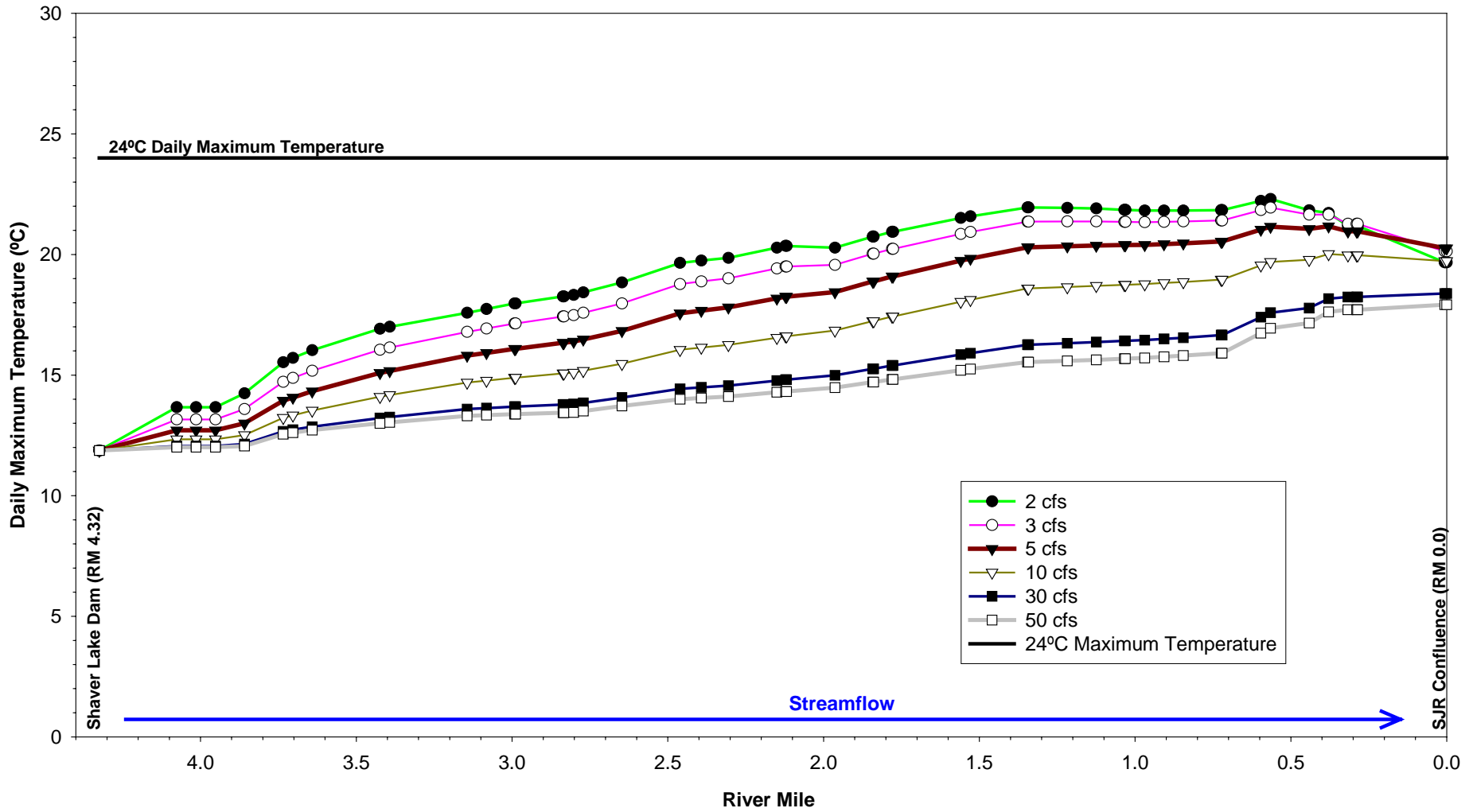


Figure CAWG 5 Appendix D-88. Stevenson Creek Simulated Daily Maximum Water Temperatures for Flows Released from Shaver Lake Dam for August in Dry Water Years with Warm Meteorology.

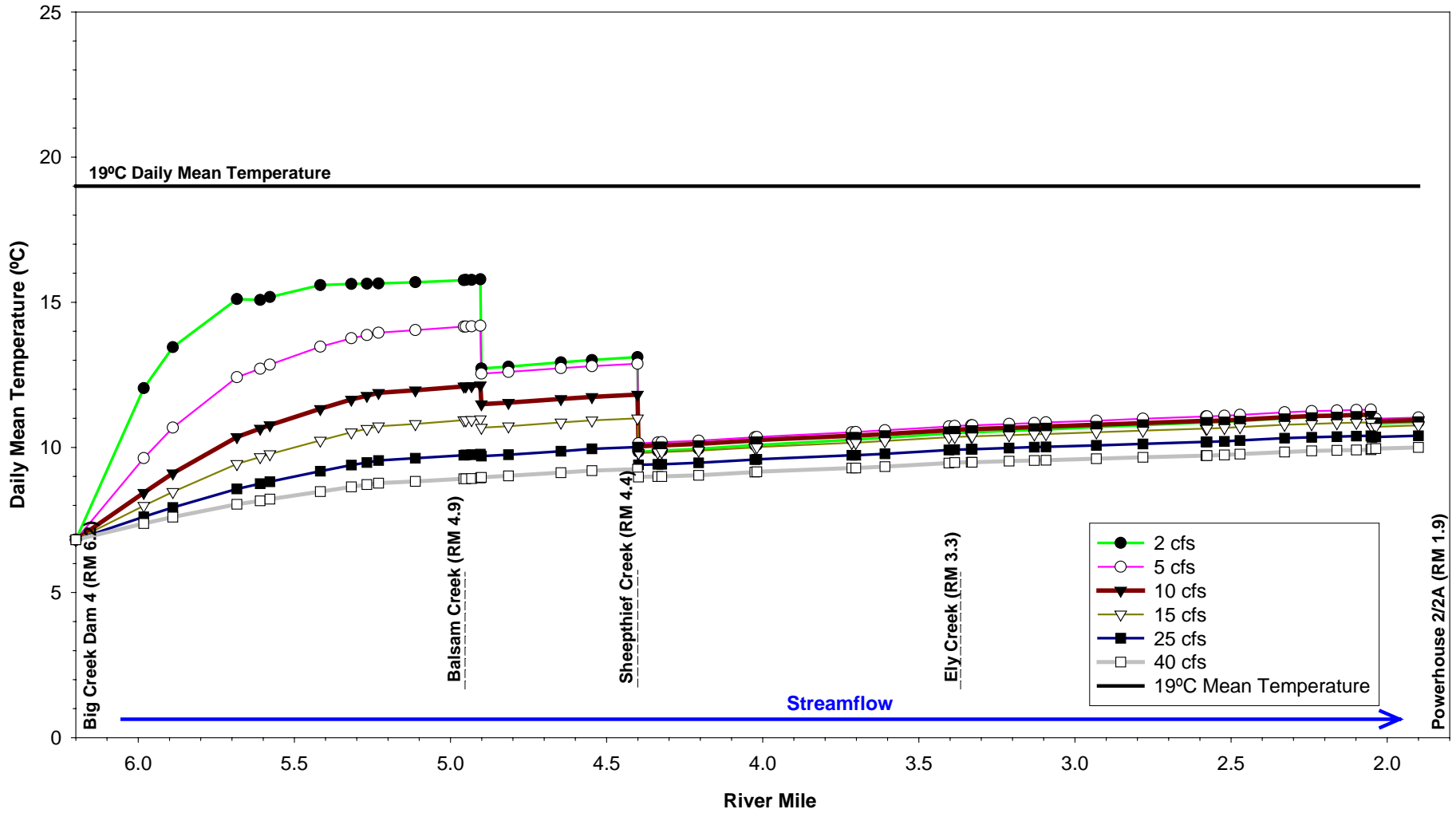


Figure CAWG 5 Appendix D-89. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for May in Above Normal Water Years with Normal Meteorology.

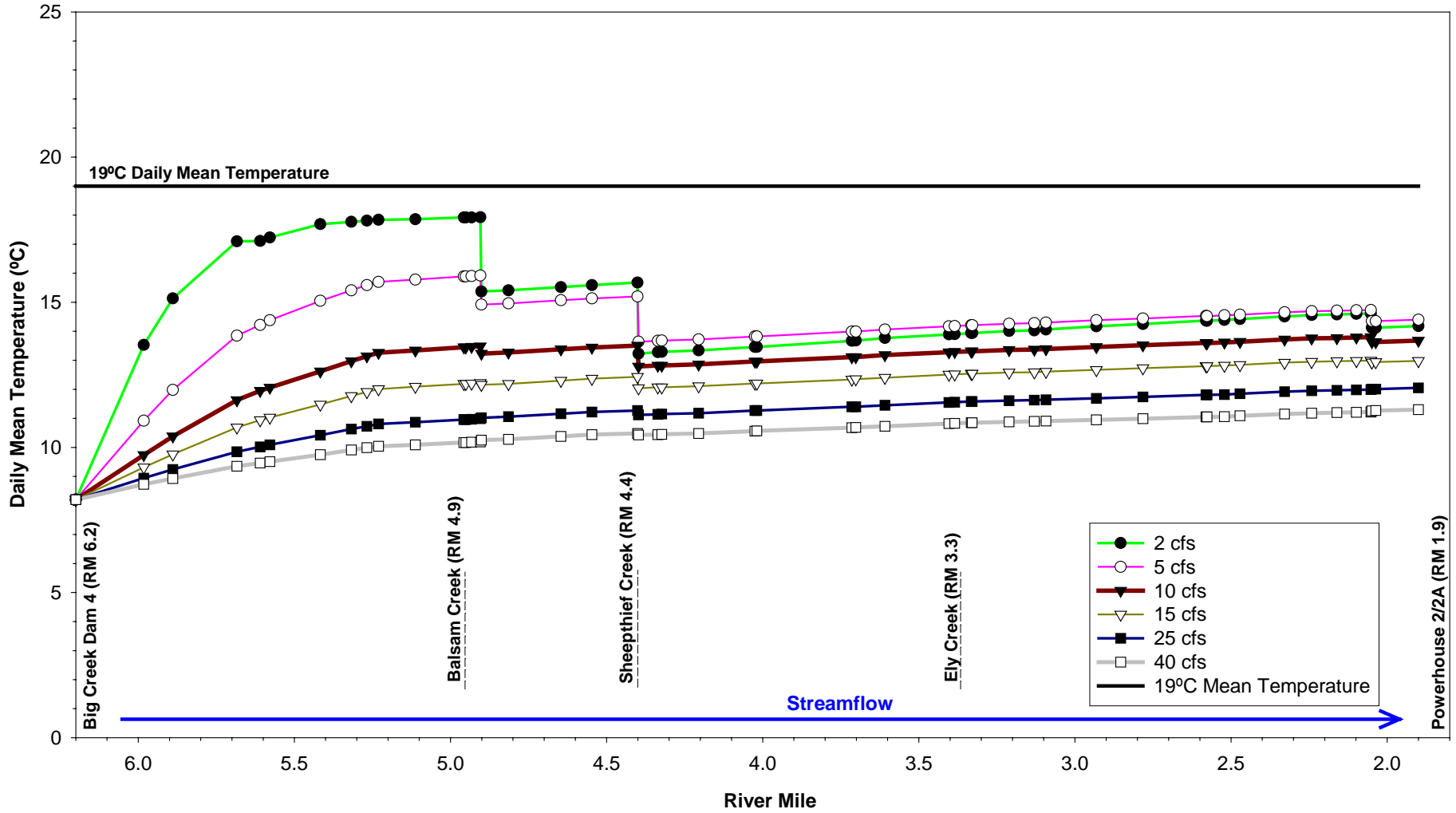


Figure CAWG 5 Appendix D-90. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for June in Above Normal Water Years with Normal Meteorology.

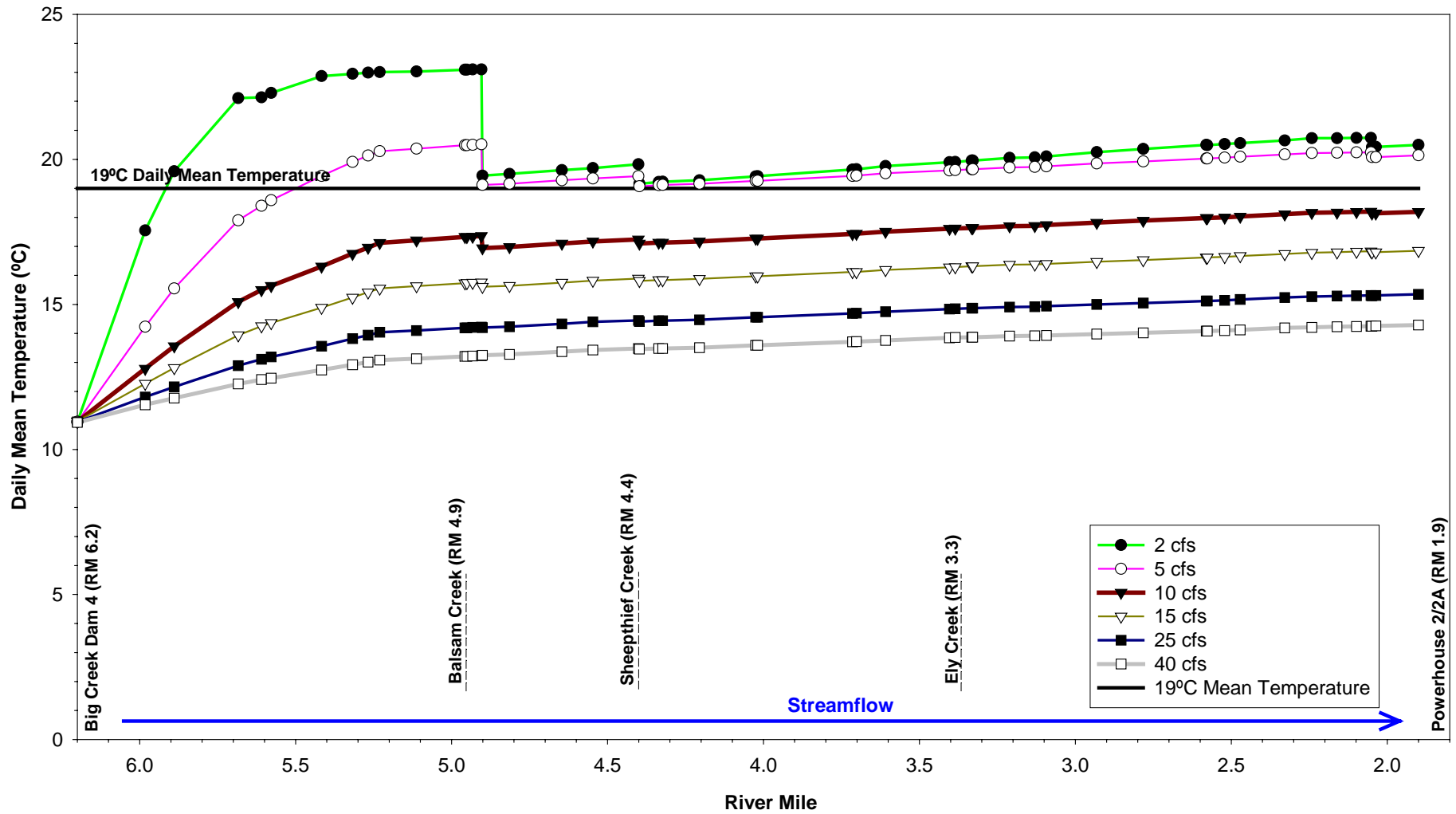


Figure CAWG 5 Appendix D-91. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for July in Above Normal Water Years with Normal Meteorology.

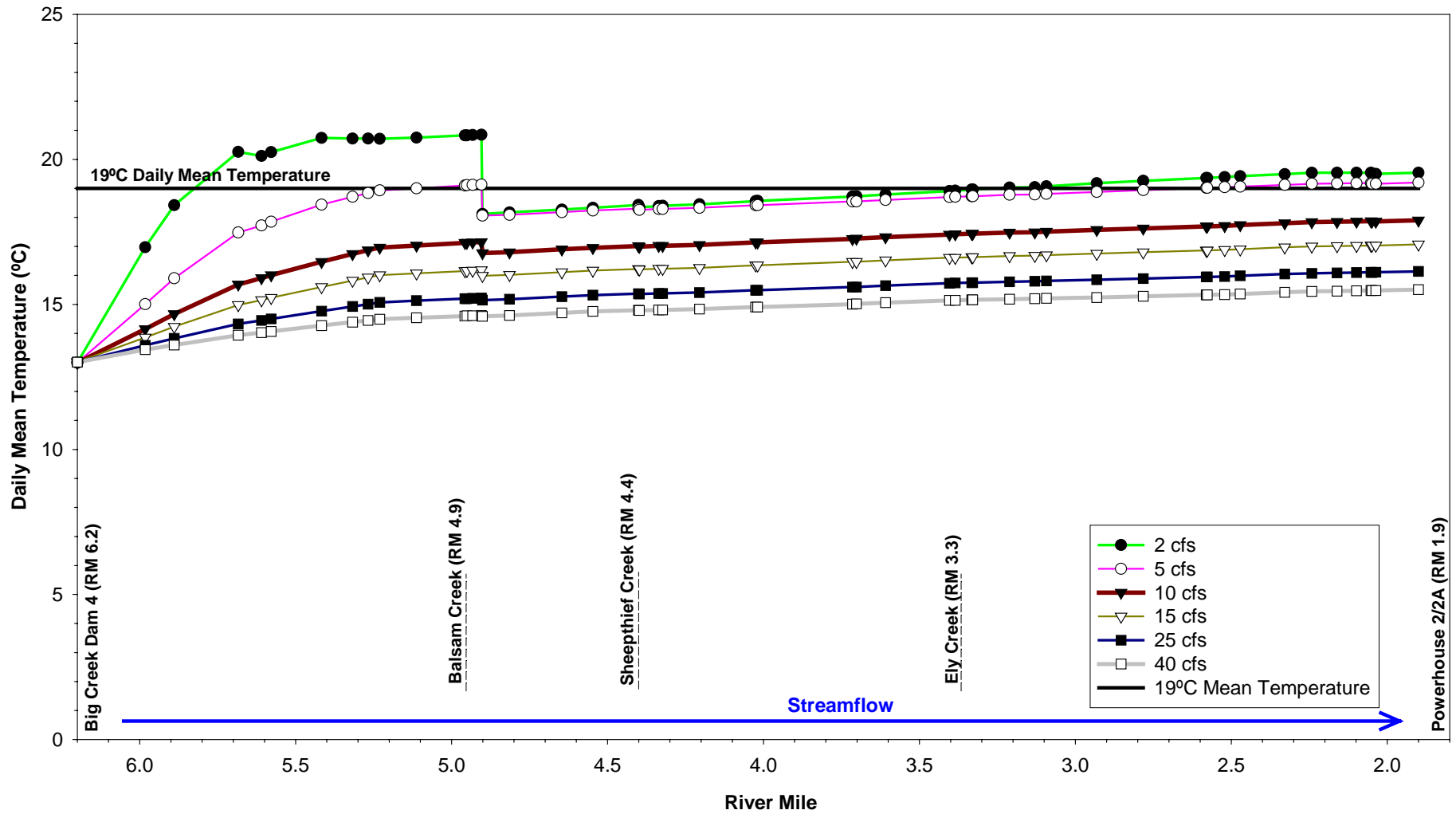


Figure CAWG 5 Appendix D-92. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for August in Above Normal Water Years with Normal Meteorology.

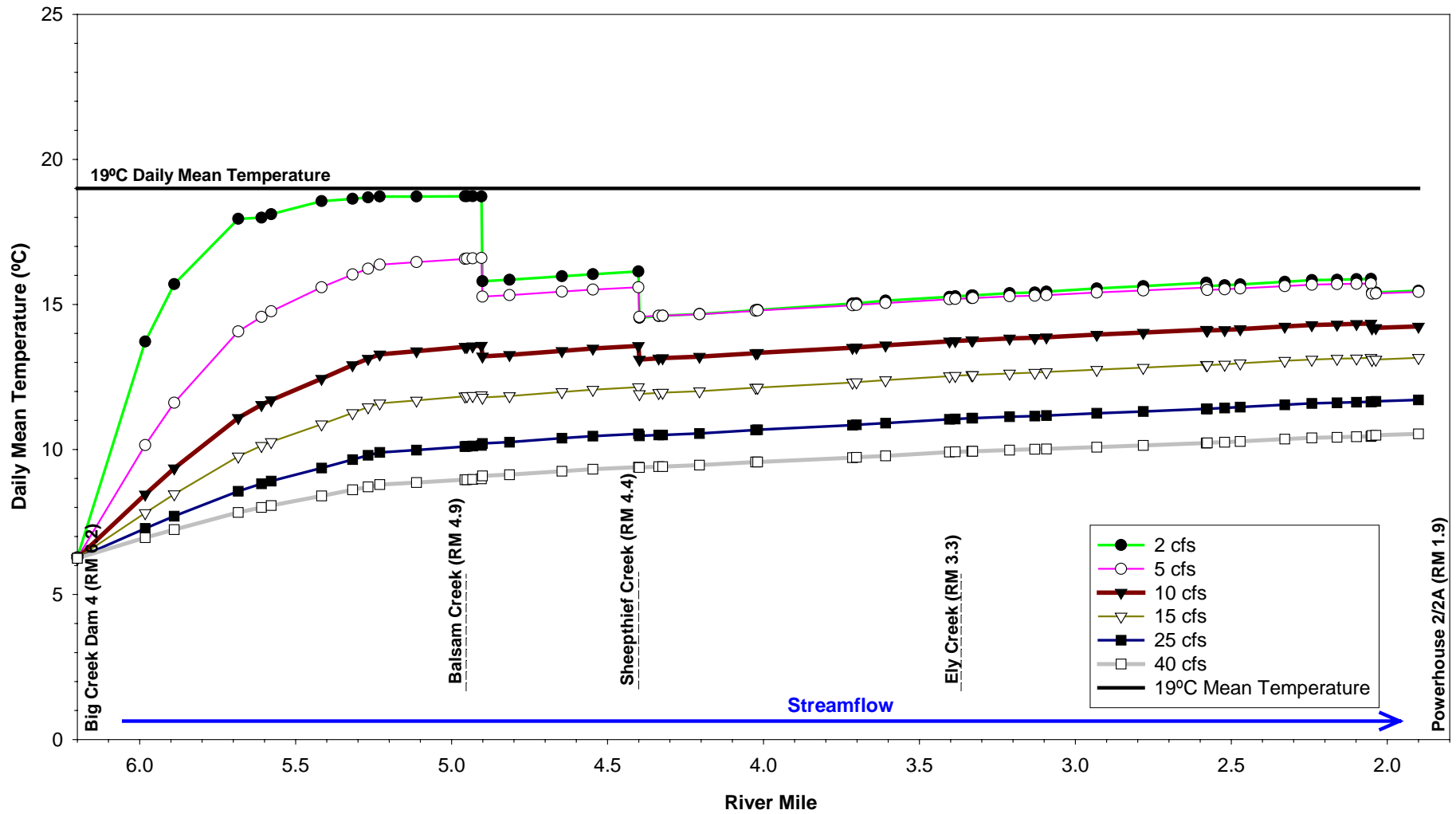


Figure CAWG 5 Appendix D-93. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for May in Dry Water Years with Warm Meteorology.

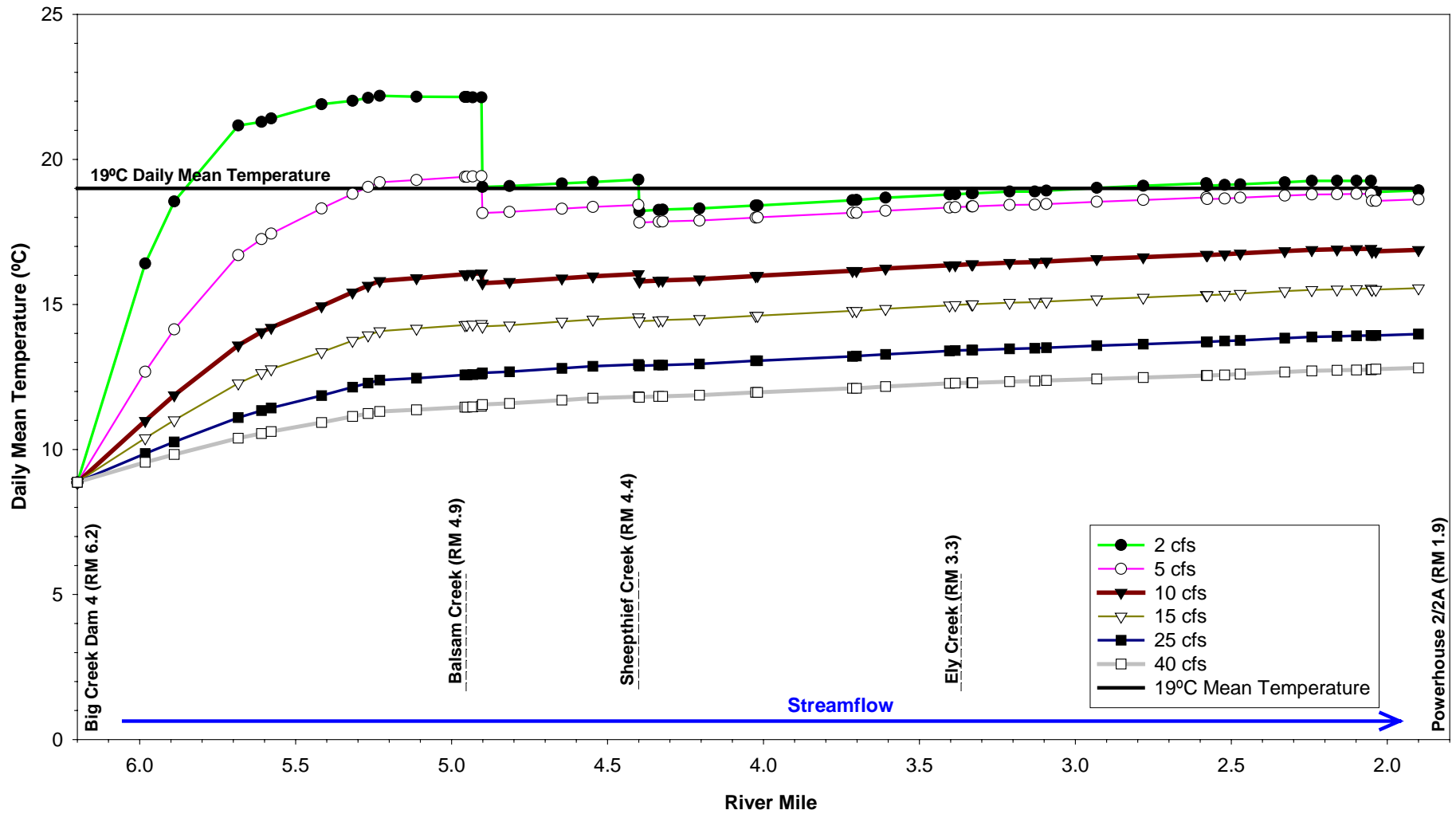


Figure CAWG 5 Appendix D-94. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for June in Dry Water Years with Warm Meteorology.

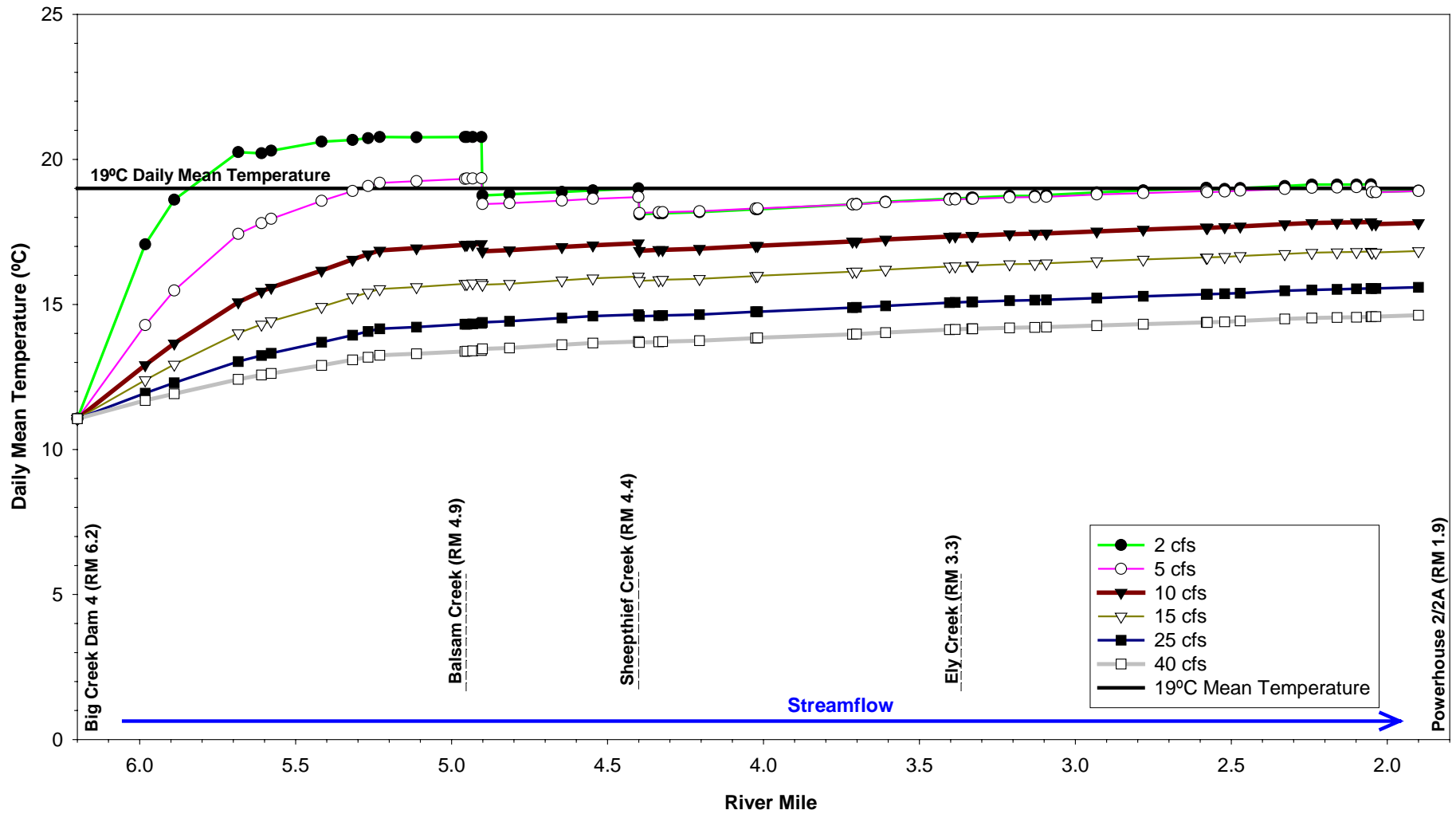


Figure CAWG 5 Appendix D-95. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for July in Dry Water Years with Warm Meteorology.

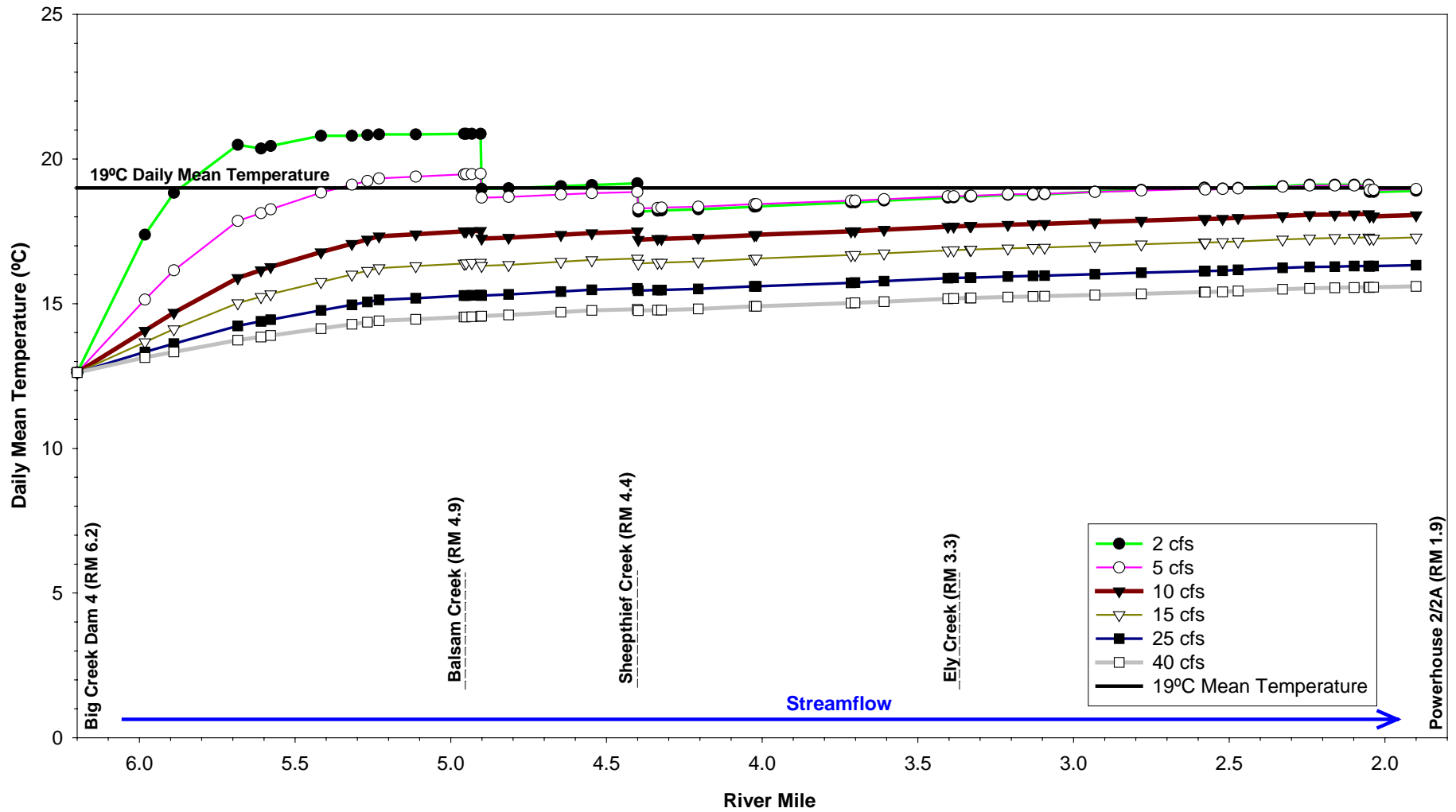


Figure CAWG 5 Appendix D-96. Upper Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 4 for August in Dry Water Years with Warm Meteorology.

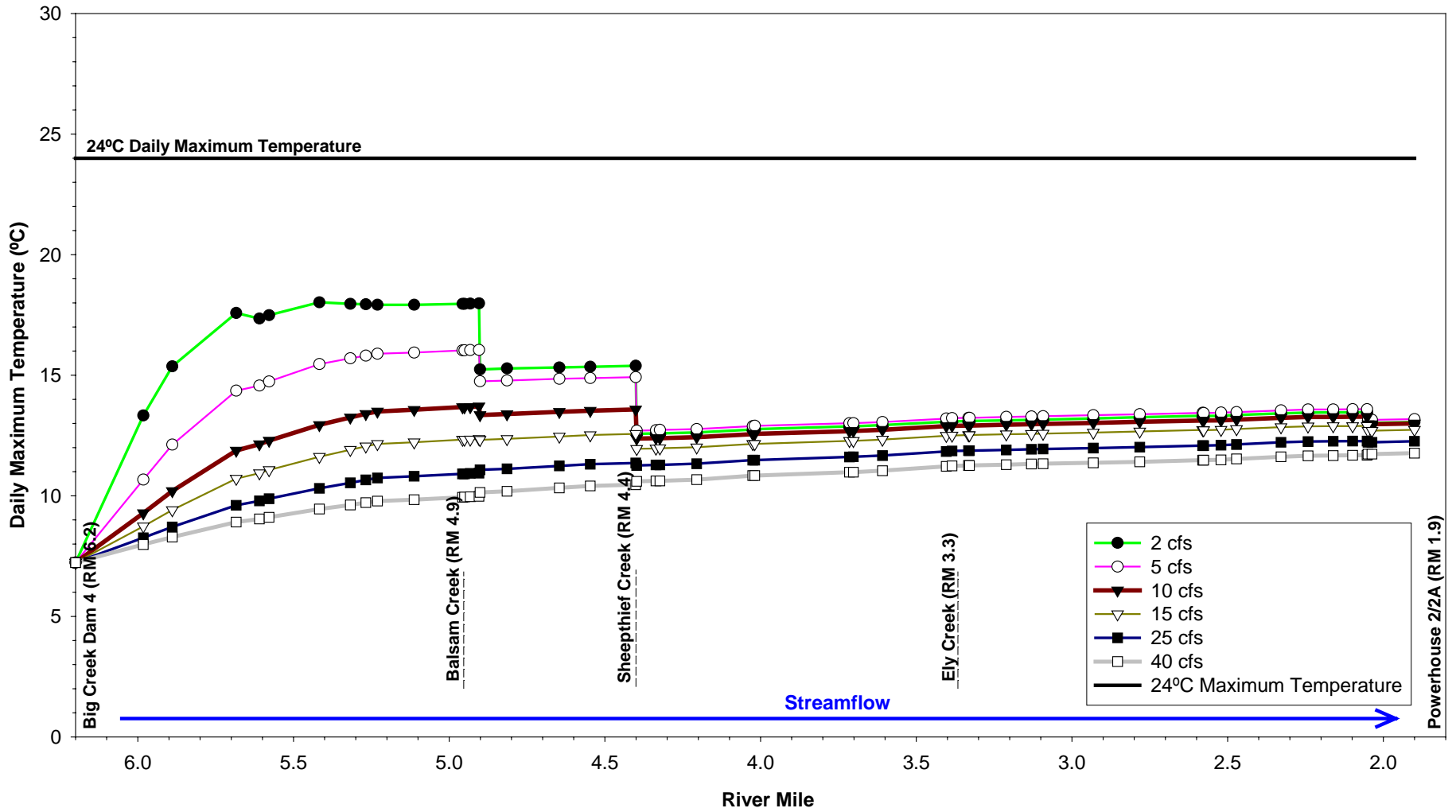


Figure CAWG 5 Appendix D-97. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for May in Above Normal Water Years with Normal Meteorology.

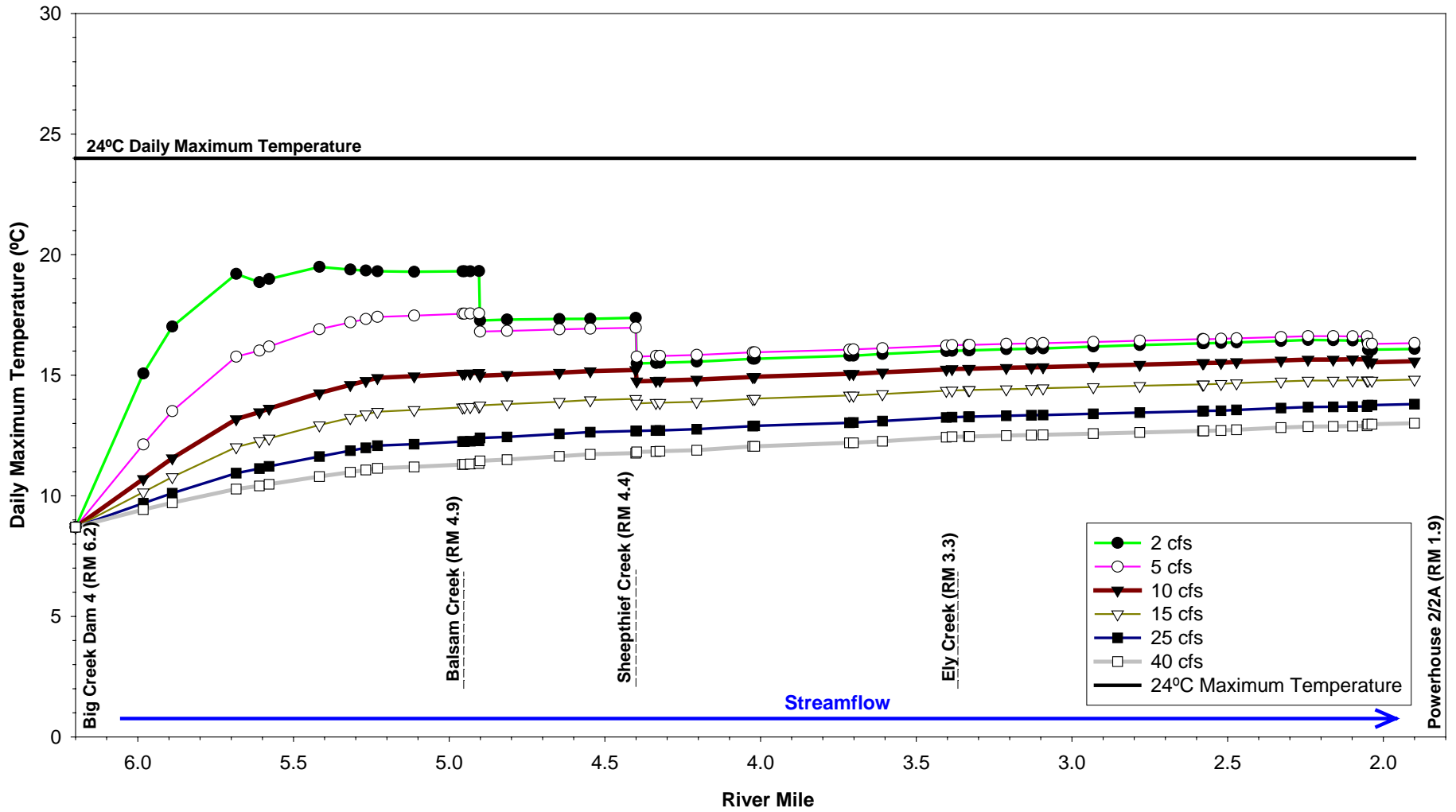


Figure CAWG 5 Appendix D-98. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for June in Above Normal Water Years with Normal Meteorology.

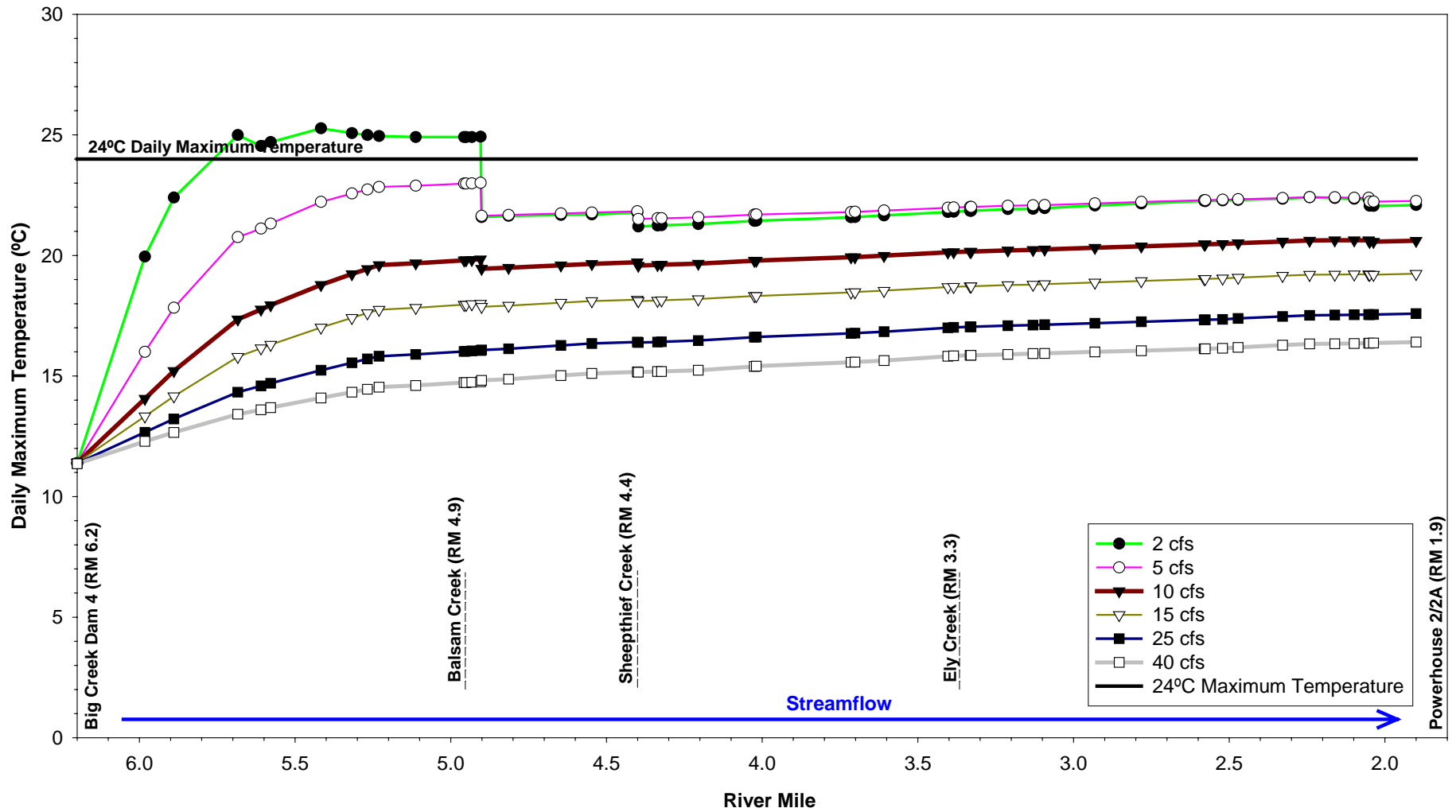


Figure CAWG 5 Appendix D-99. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for July in Above Normal Water Years with Normal Meteorology.

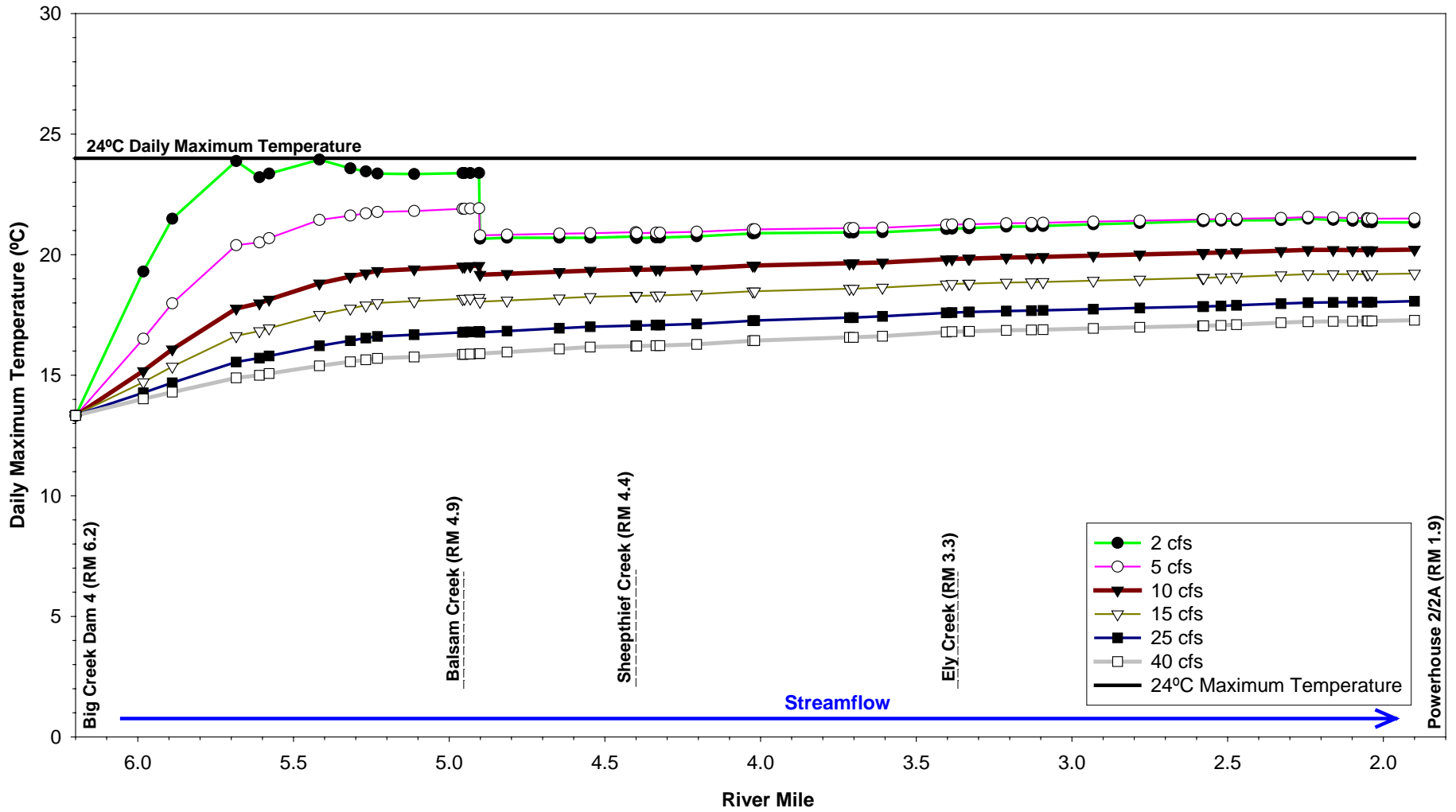


Figure CAWG 5 Appendix D-100. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for August in Above Normal Water Years with Normal Meteorology.

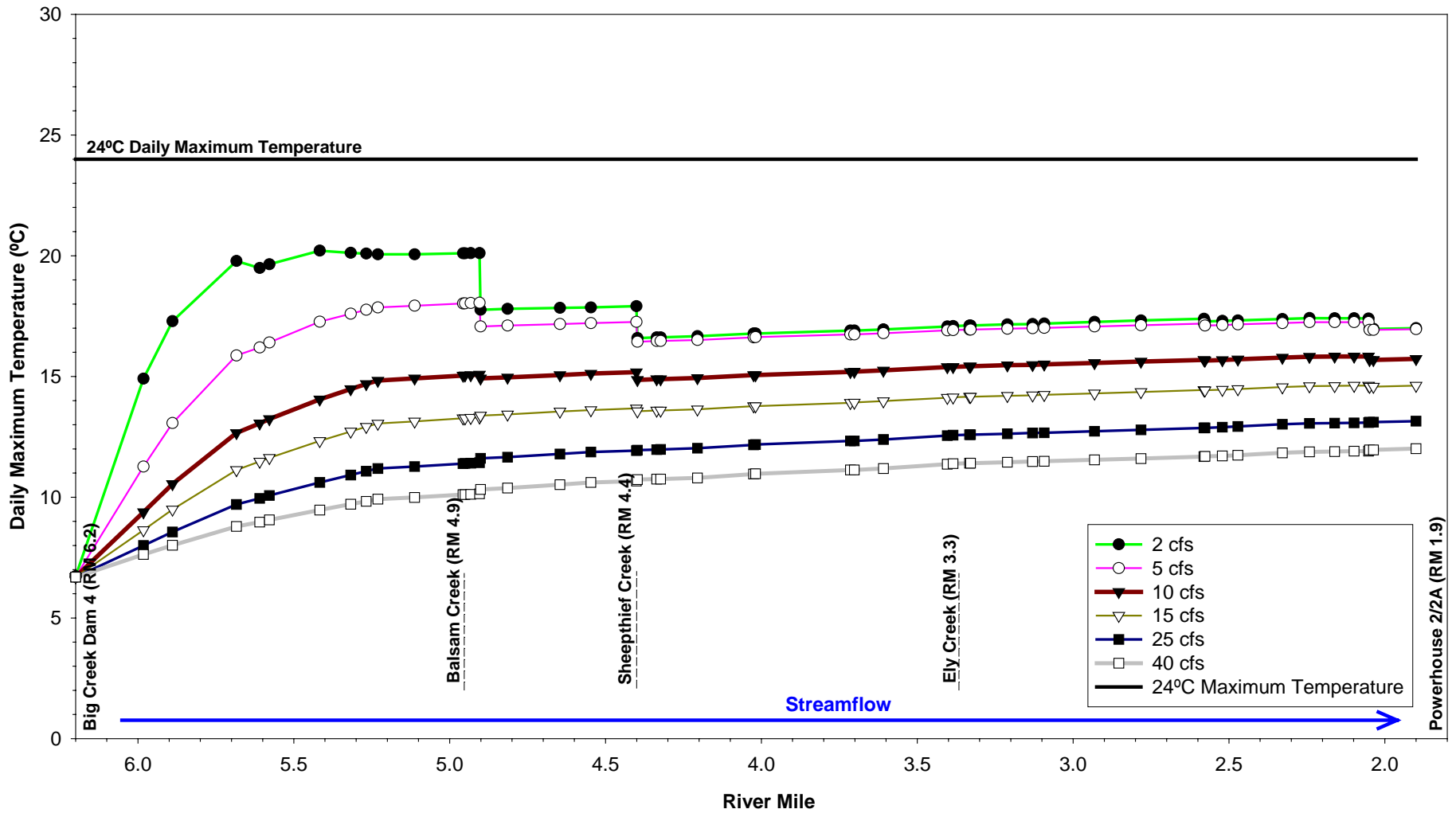


Figure CAWG 5 Appendix D-101. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for May in Dry Water Years with Warm Meteorology.

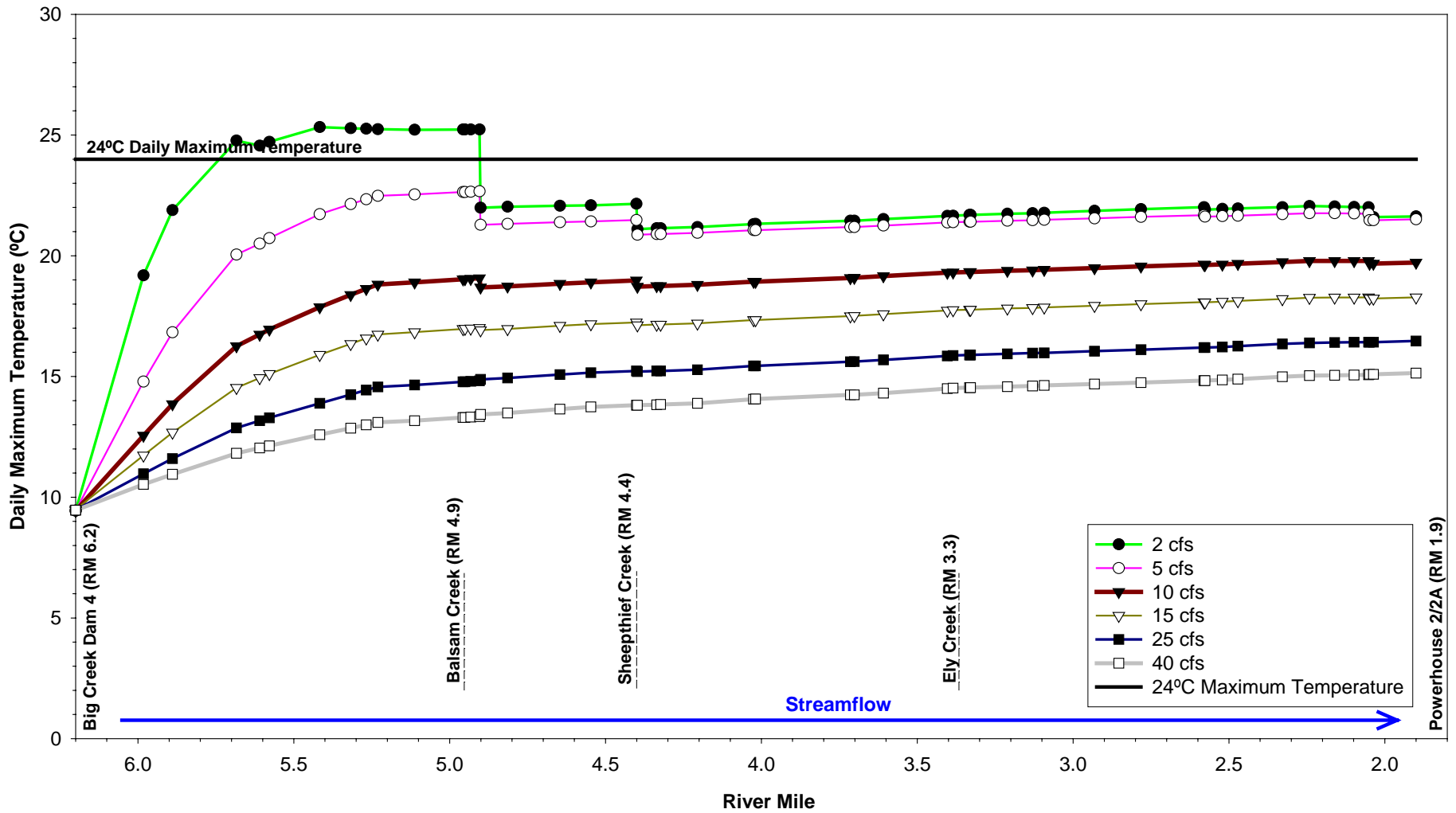


Figure CAWG 5 Appendix D-102. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for June in Dry Water Years with Warm Meteorology.

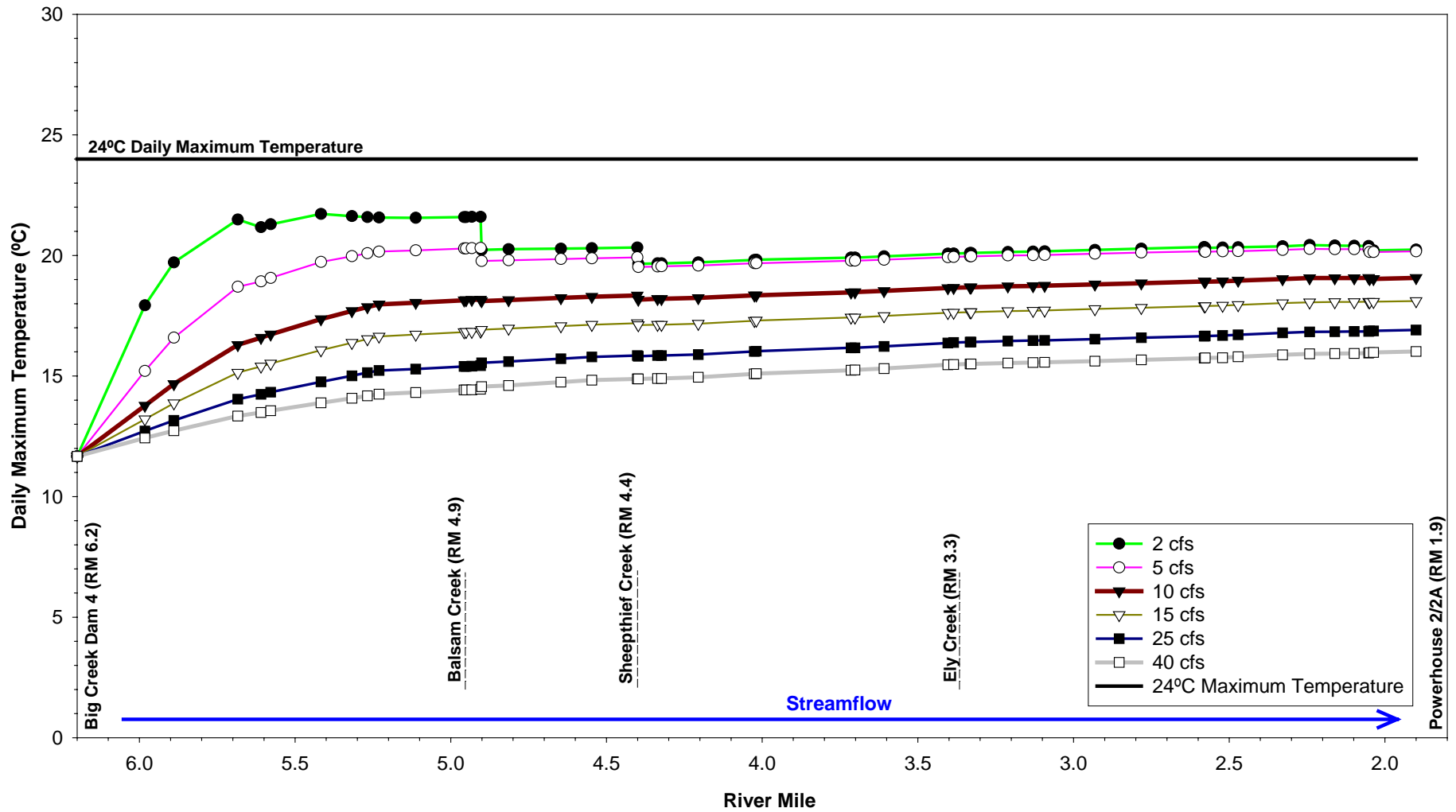


Figure CAWG 5 Appendix D-103. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for July in Dry Water Years with Warm Meteorology.

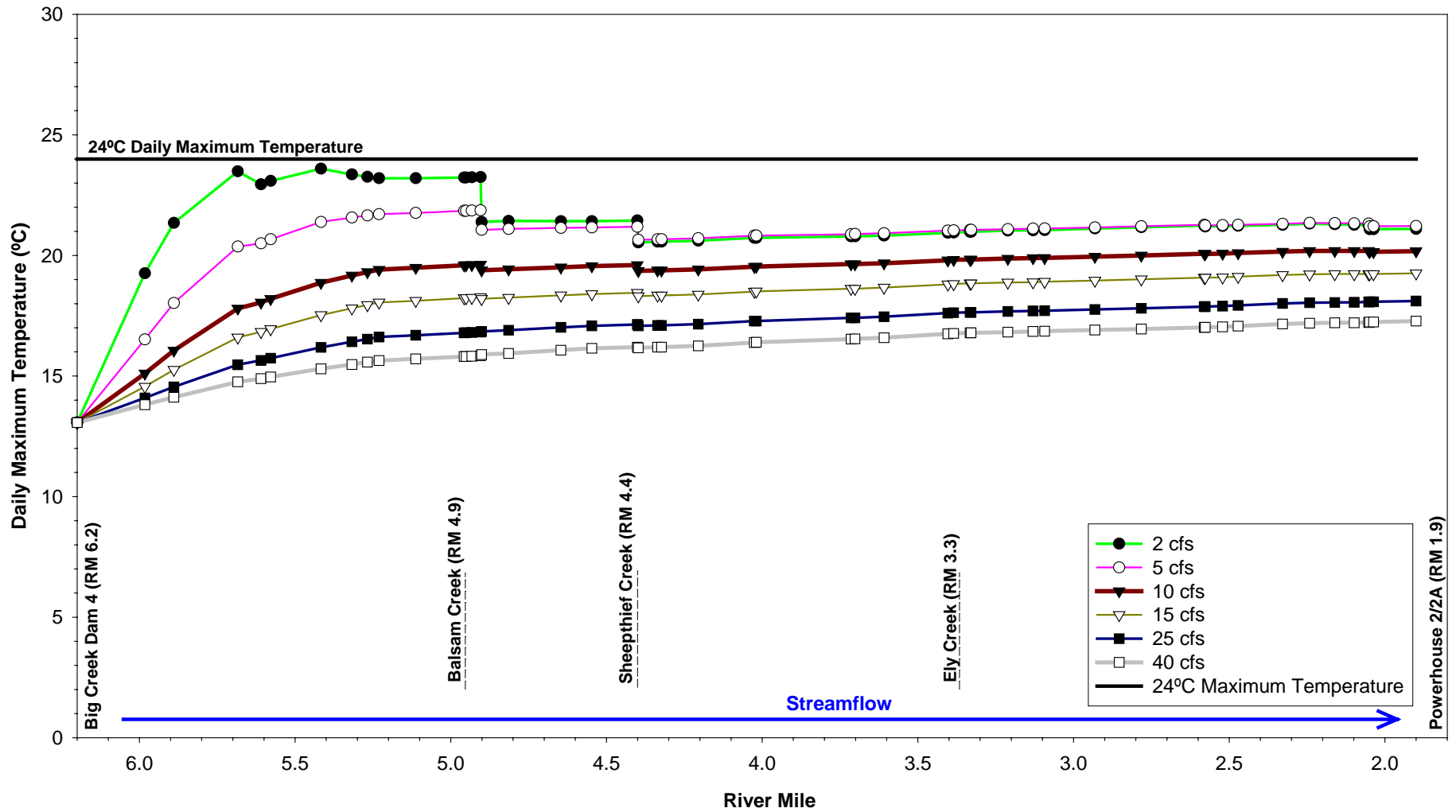


Figure CAWG 5 Appendix D-104. Upper Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 4 for August in Dry Water Years with Warm Meteorology.

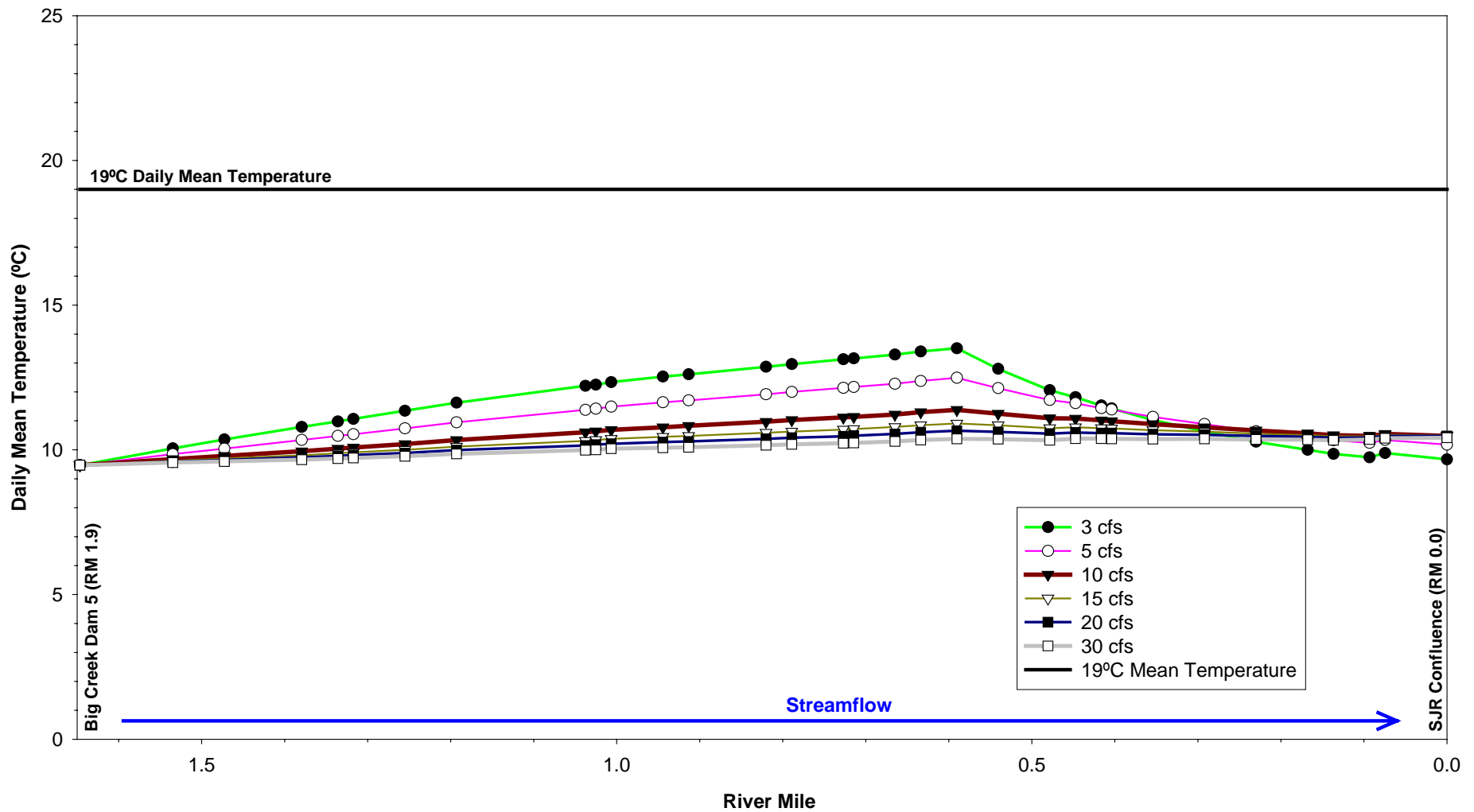


Figure CAWG 5 Appendix D-105. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for May in Above Normal Water Years with Normal Meteorology.

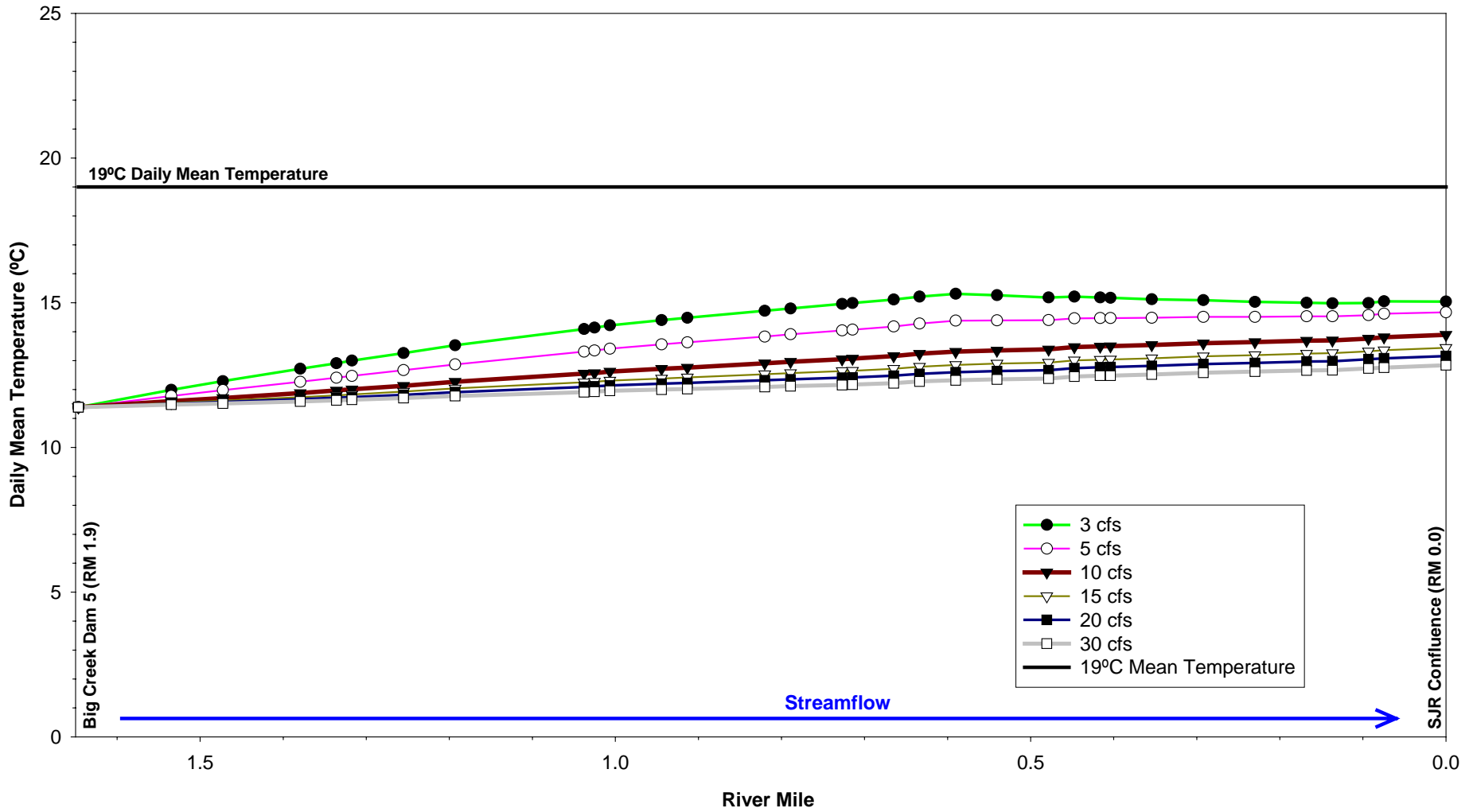


Figure CAWG 5 Appendix D-106. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for June in Above Normal Water Years with Normal Meteorology.

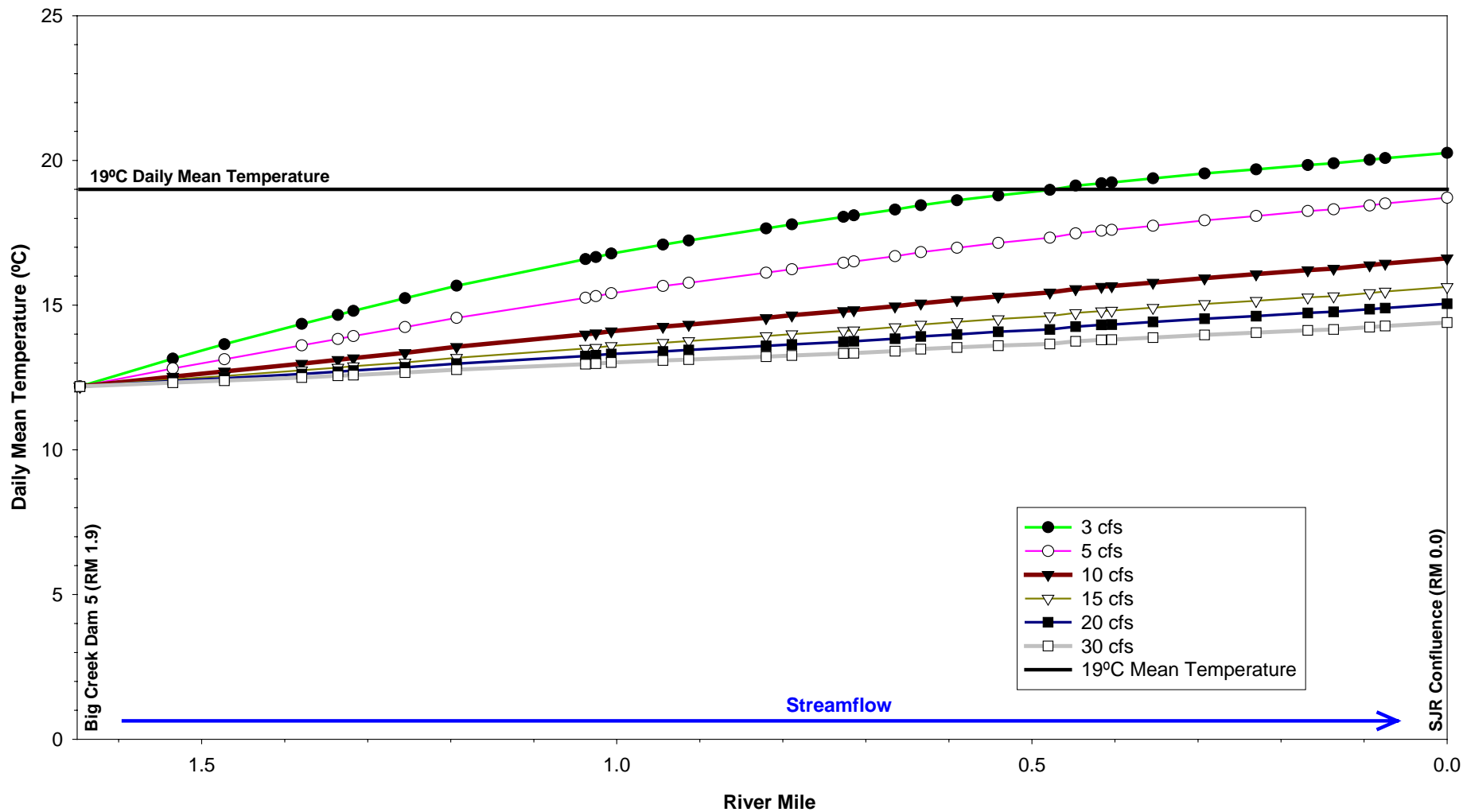


Figure CAWG 5 Appendix D-107. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for July in Above Normal Water Years with Normal Meteorology.

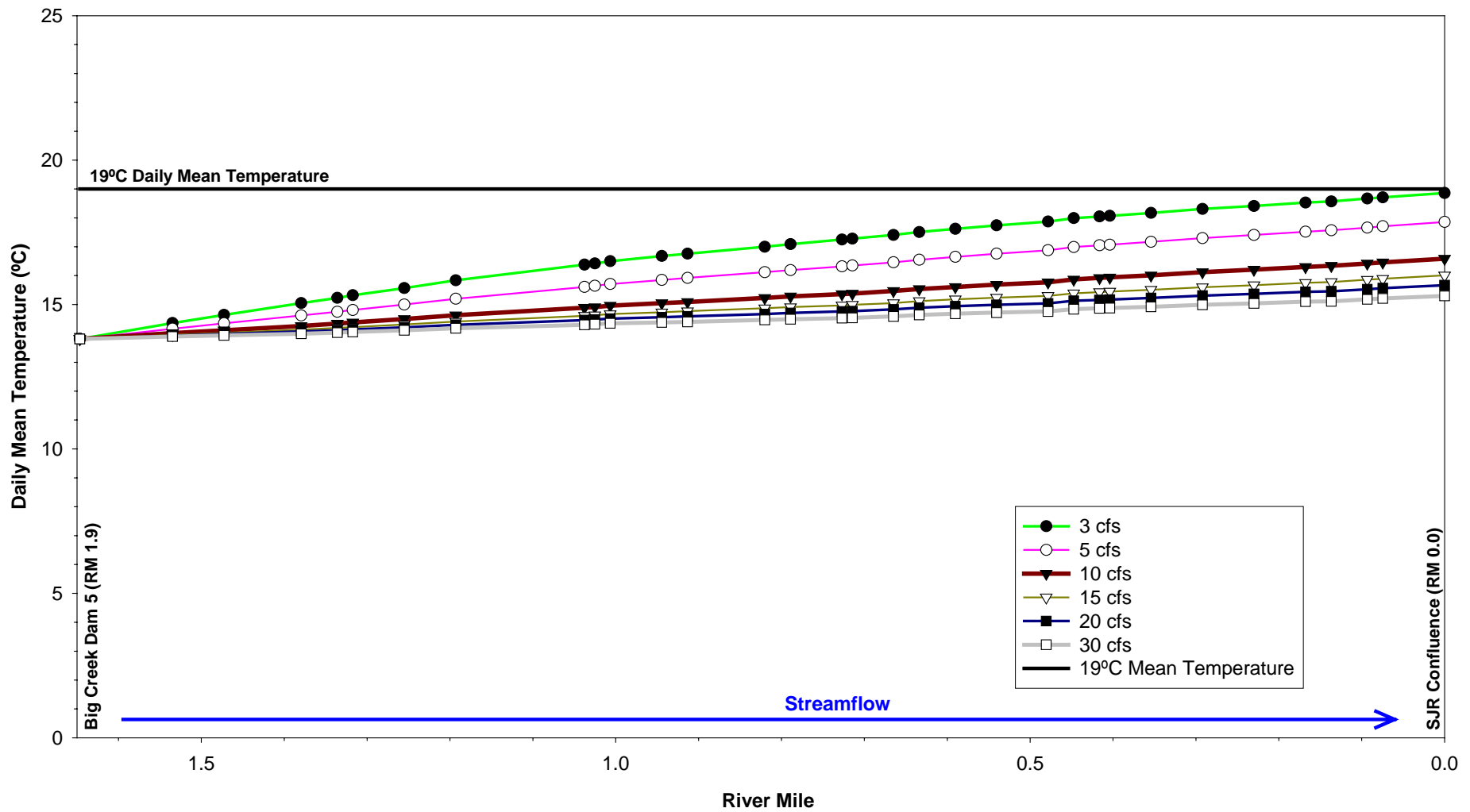


Figure CAWG 5 Appendix D-108. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for August in Above Normal Water Years with Normal Meteorology.

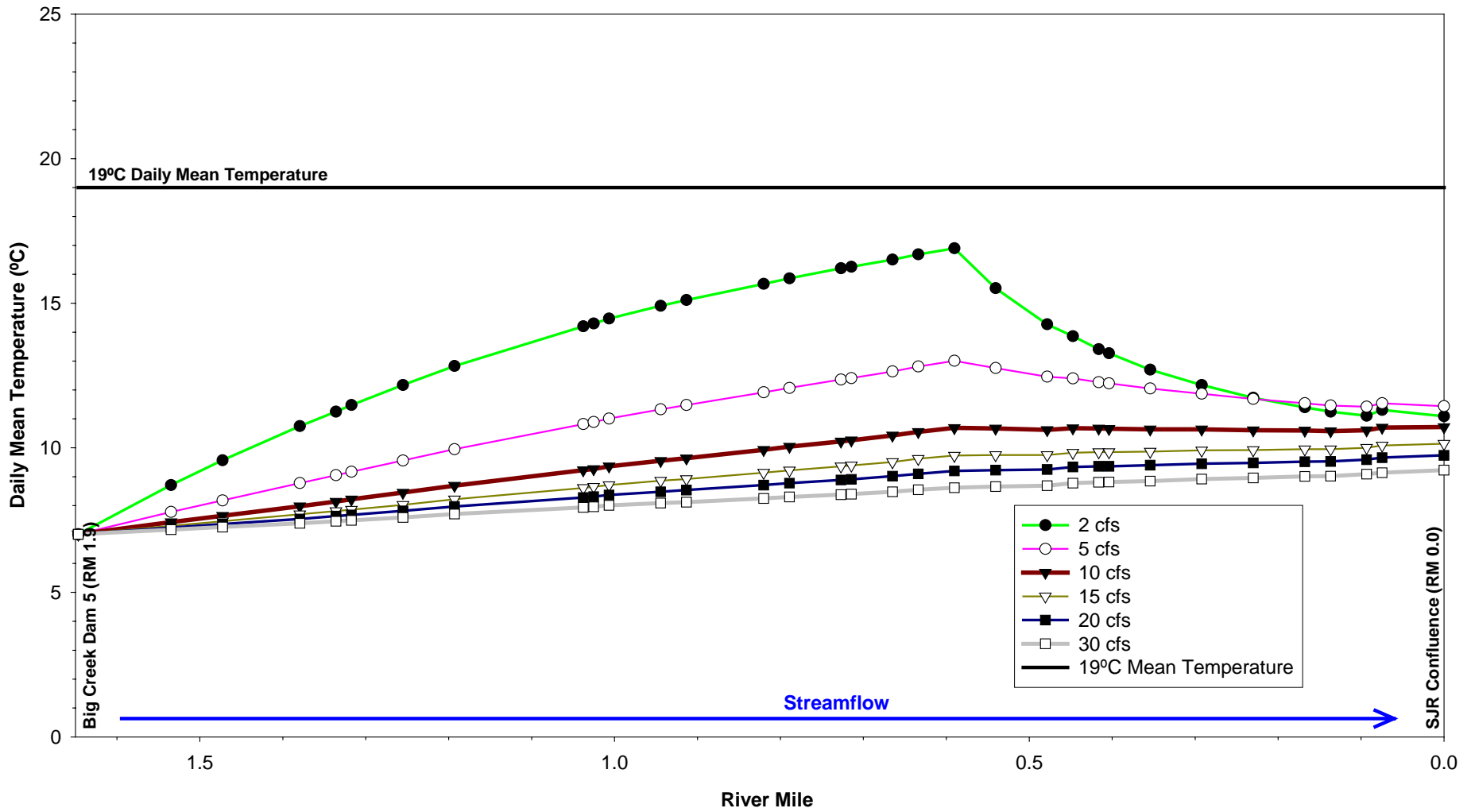


Figure CAWG 5 Appendix D-109. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for May in Dry Water Years with Warm Meteorology.

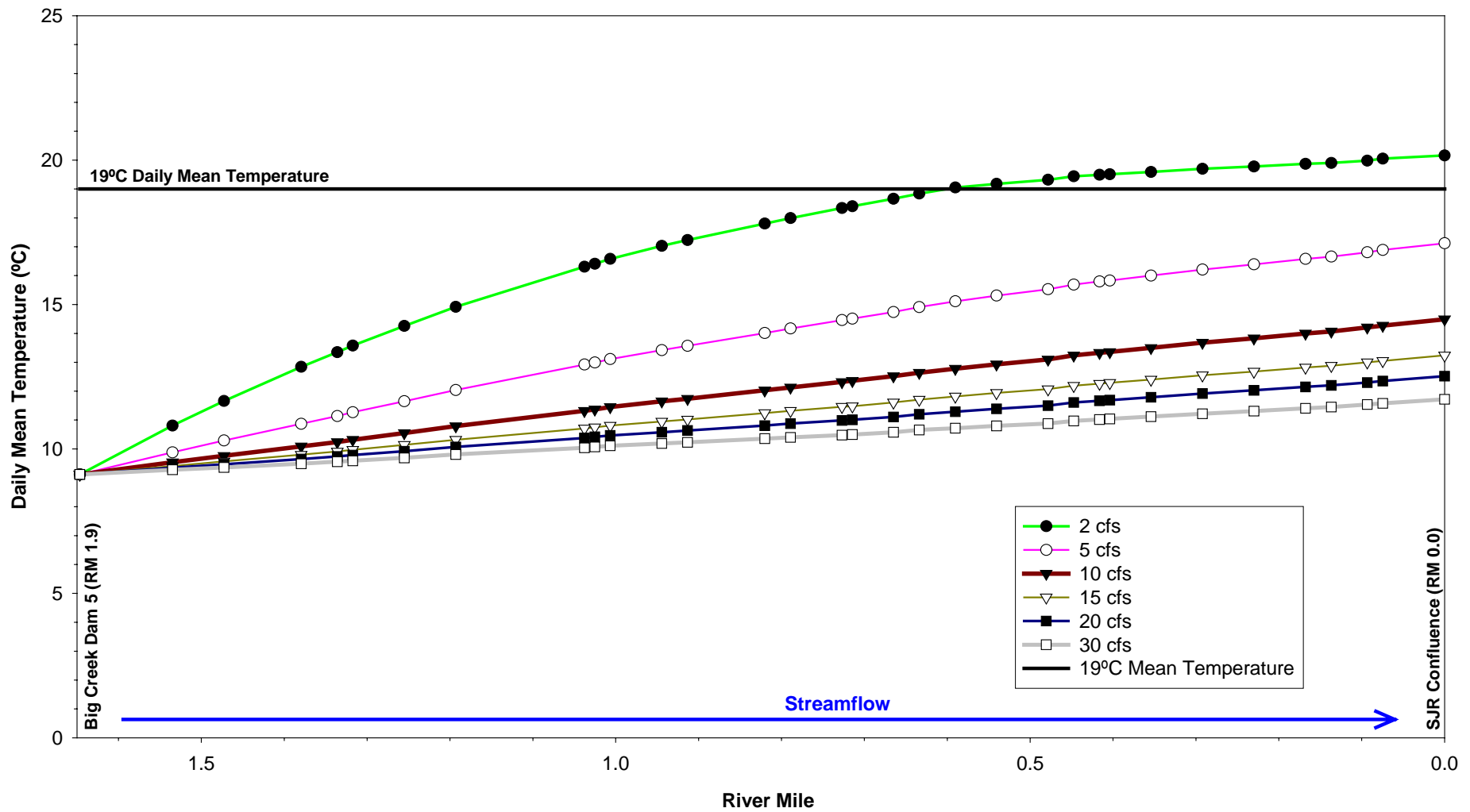


Figure CAWG 5 Appendix D-110. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for June in Dry Water Years with Warm Meteorology.

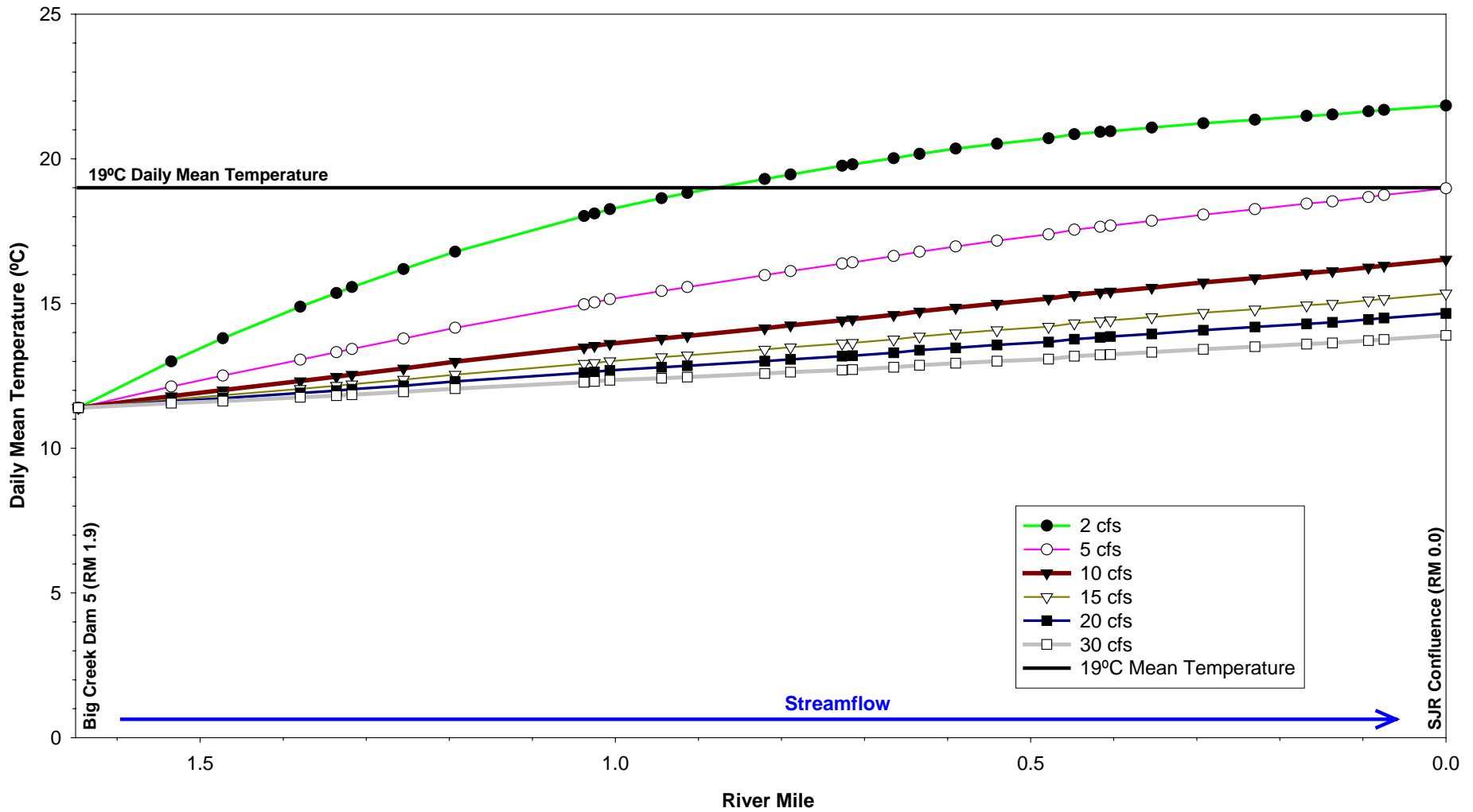


Figure CAWG 5 Appendix D-111. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for July in Dry Water Years with Warm Meteorology.

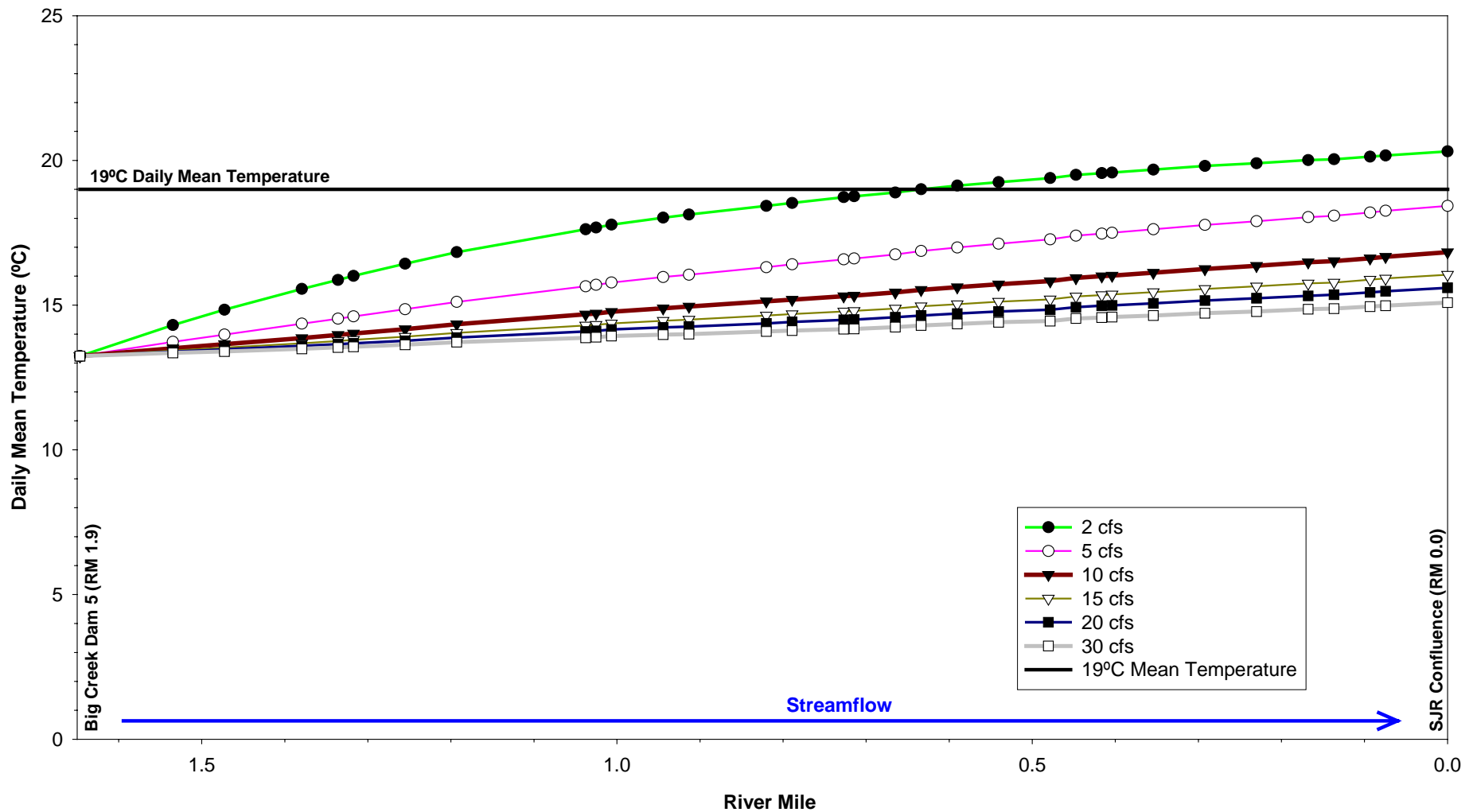


Figure CAWG 5 Appendix D-112. Lower Big Creek Simulated Daily Mean Water Temperatures for Flows Released from Dam 5 for August in Dry Water Years with Warm Meteorology.

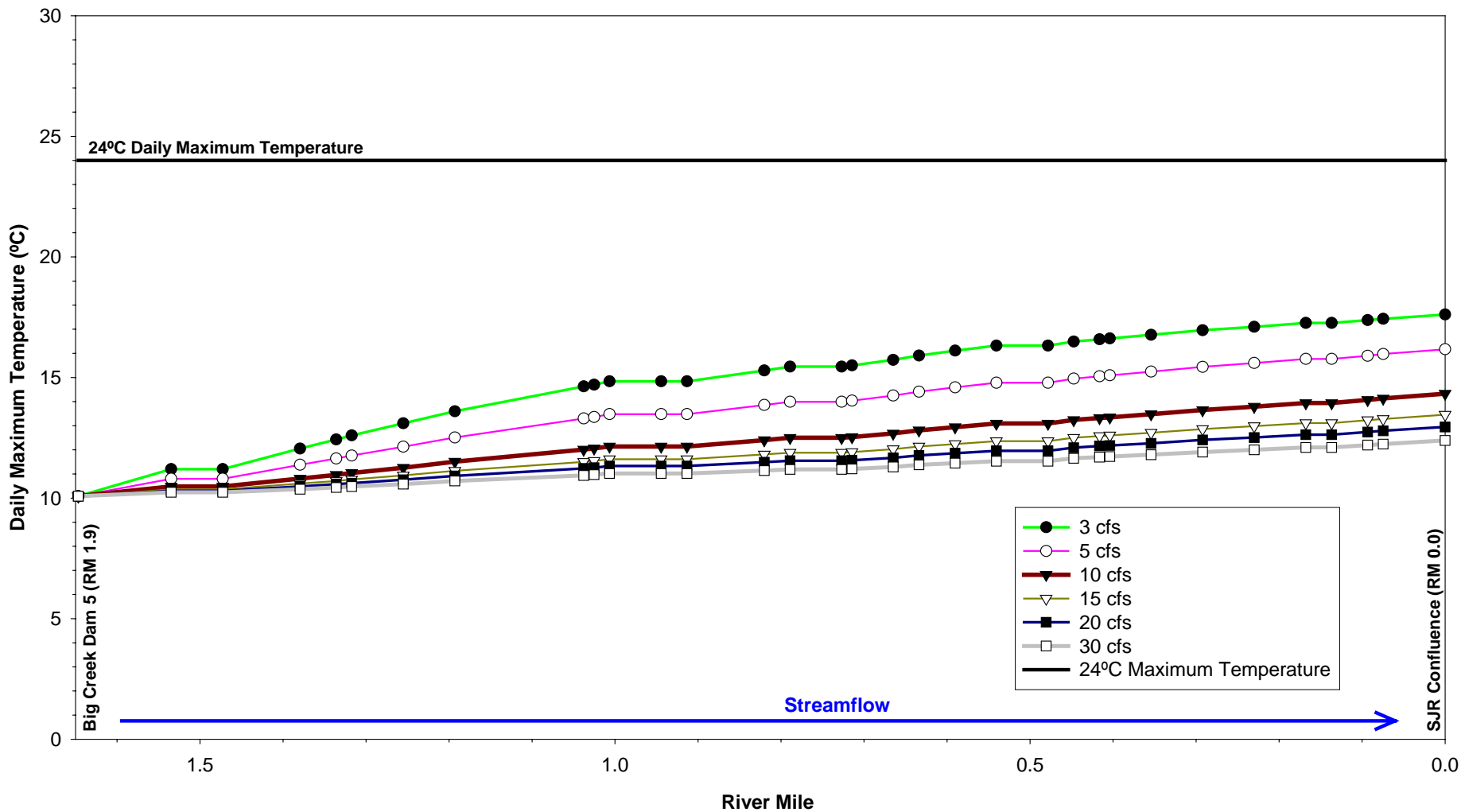


Figure CAWG 5 Appendix D-113. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for May in Above Normal Water Years with Normal Meteorology.

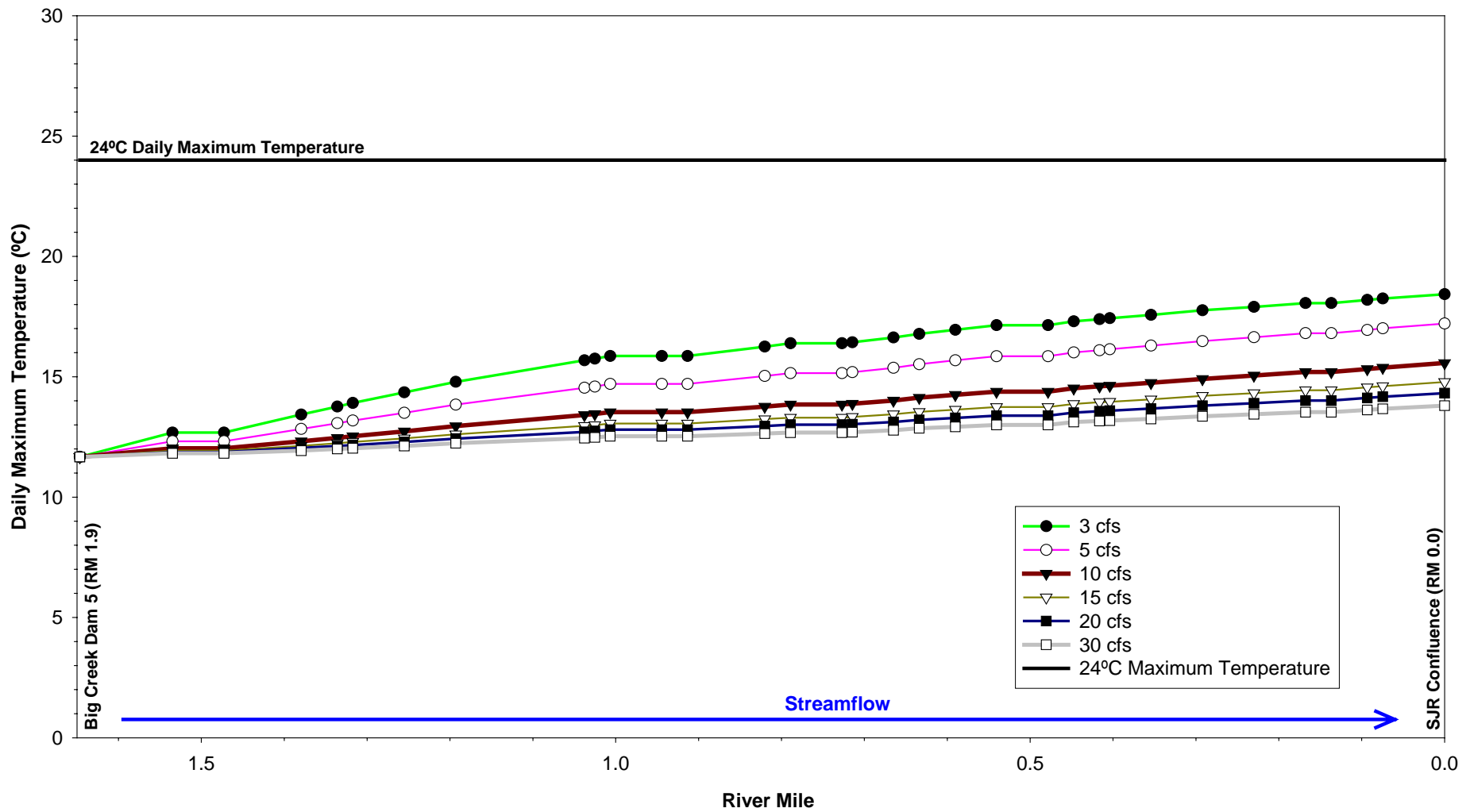


Figure CAWG 5 Appendix D-114. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for June in Above Normal Water Years with Normal Meteorology.

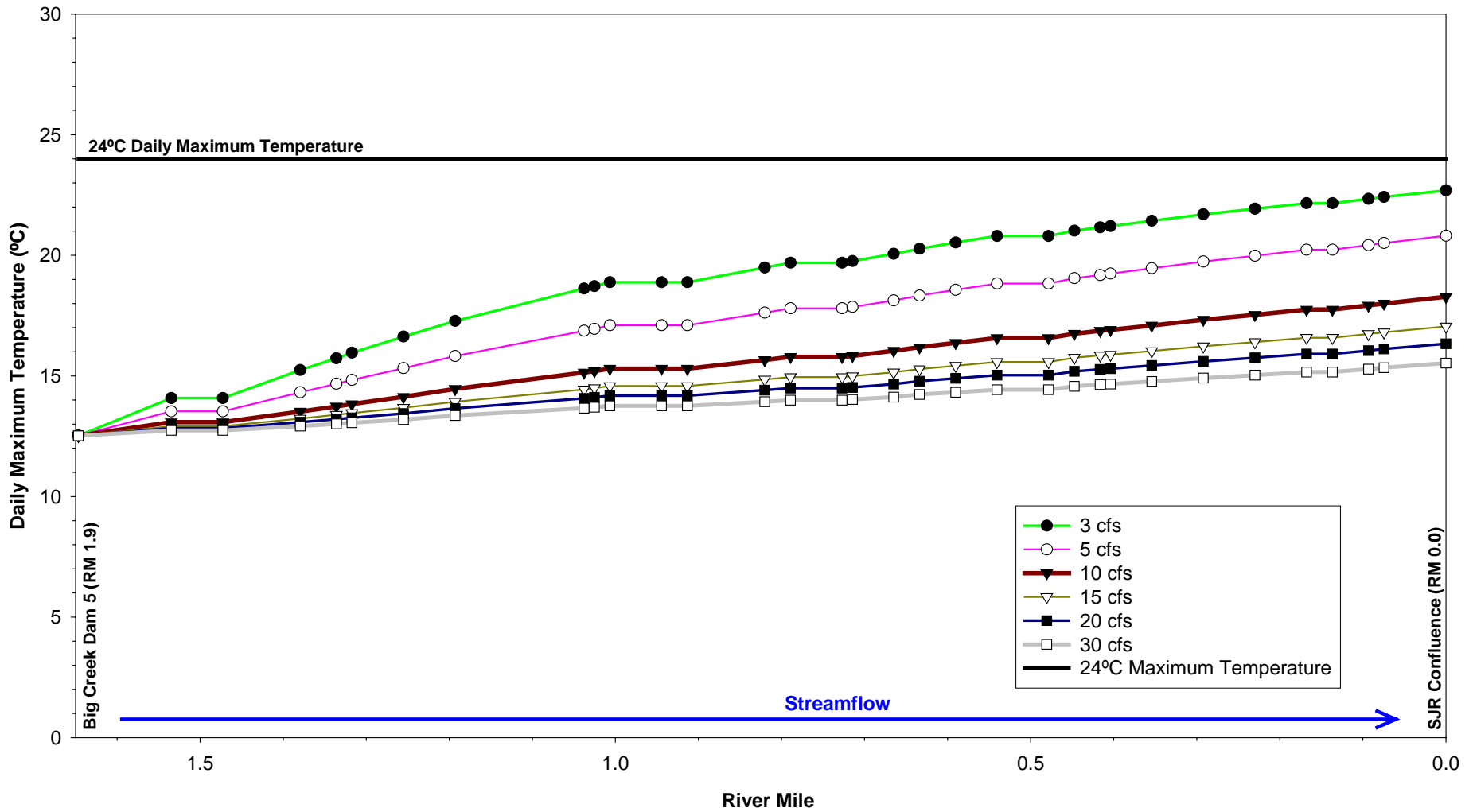


Figure CAWG 5 Appendix D-115. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for July in Above Normal Water Years with Normal Meteorology.

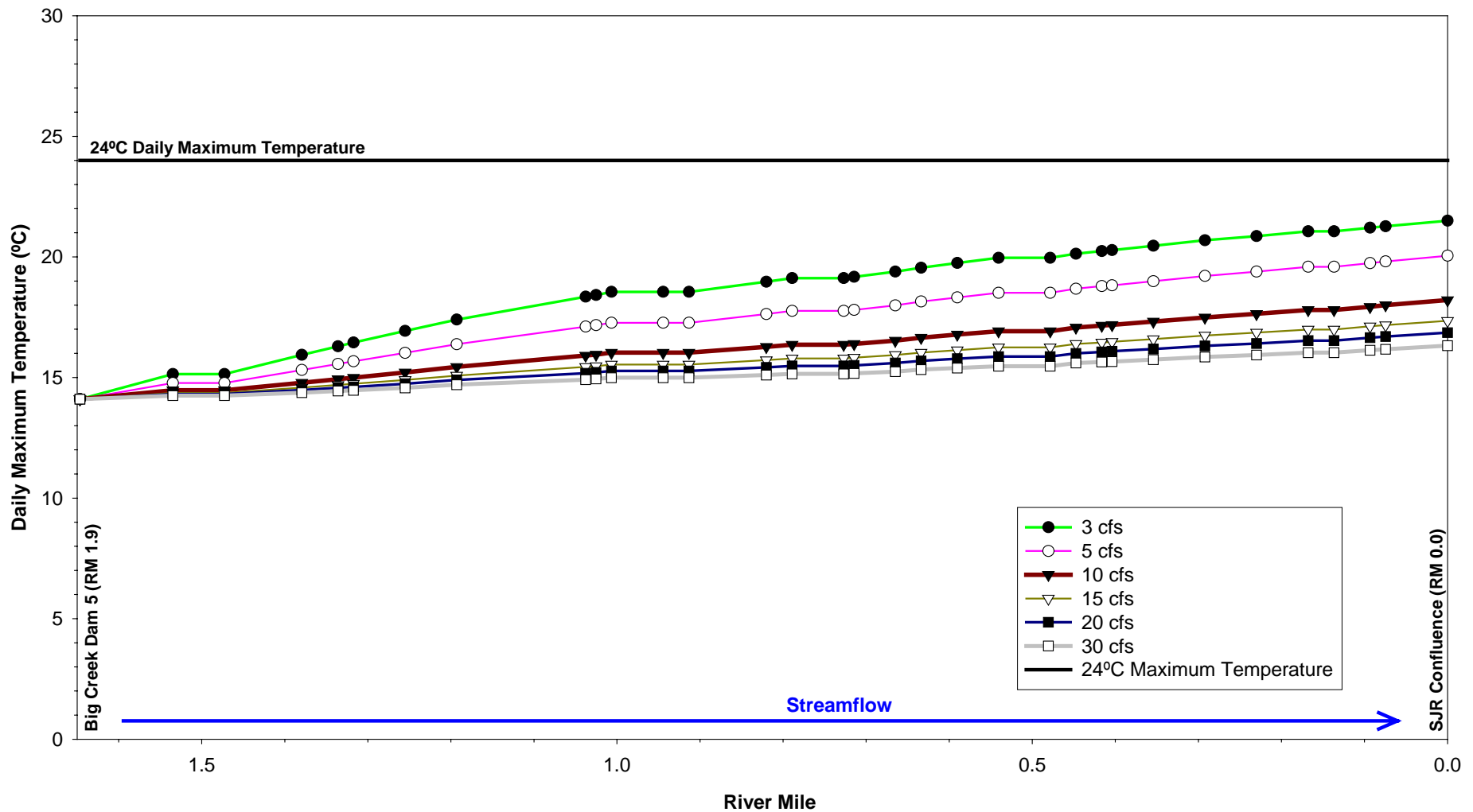


Figure CAWG 5 Appendix D-116. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for August in Above Normal Water Years with Normal Meteorology.

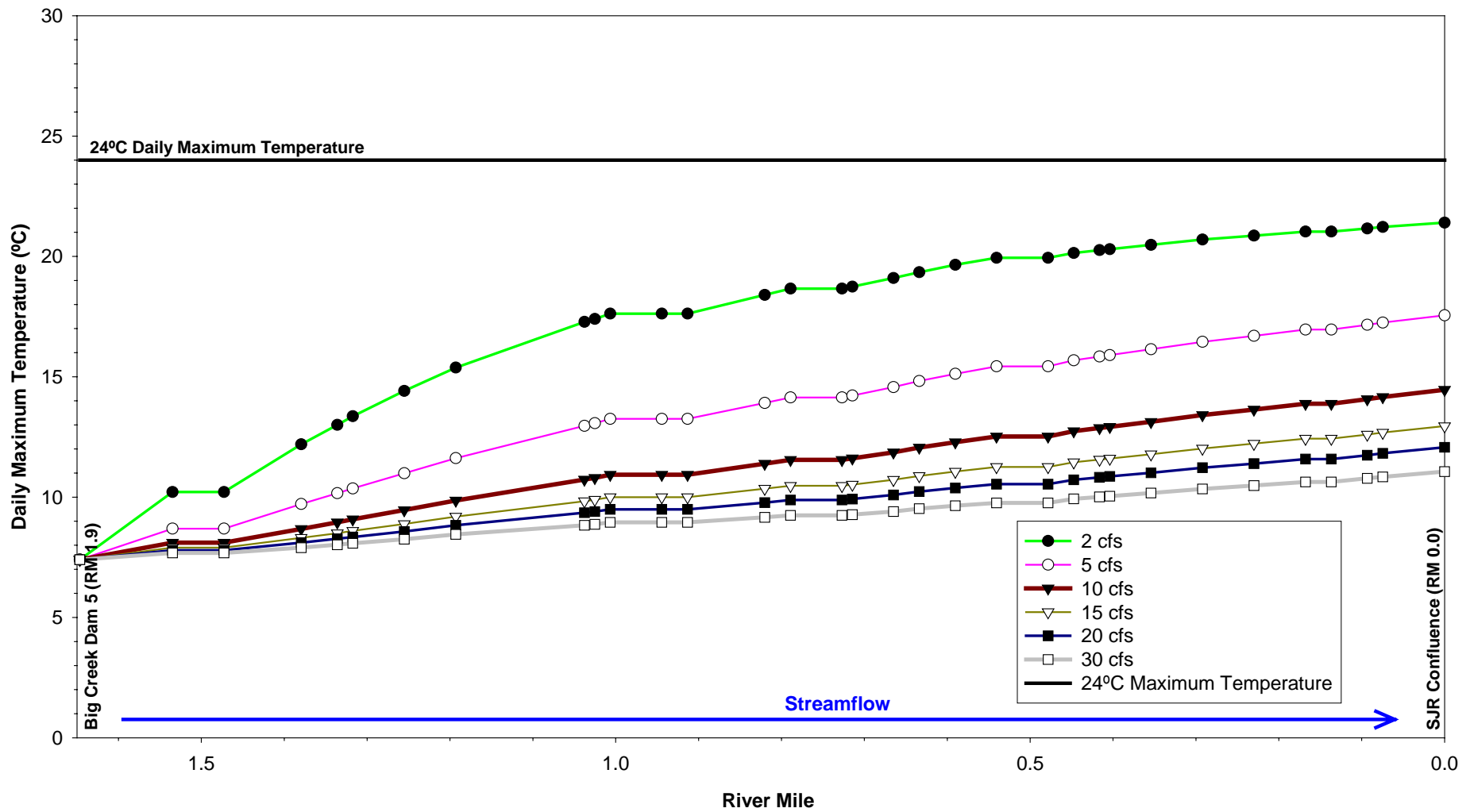


Figure CAWG 5 Appendix D-117. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for May in Dry Water Years with Warm Meteorology.

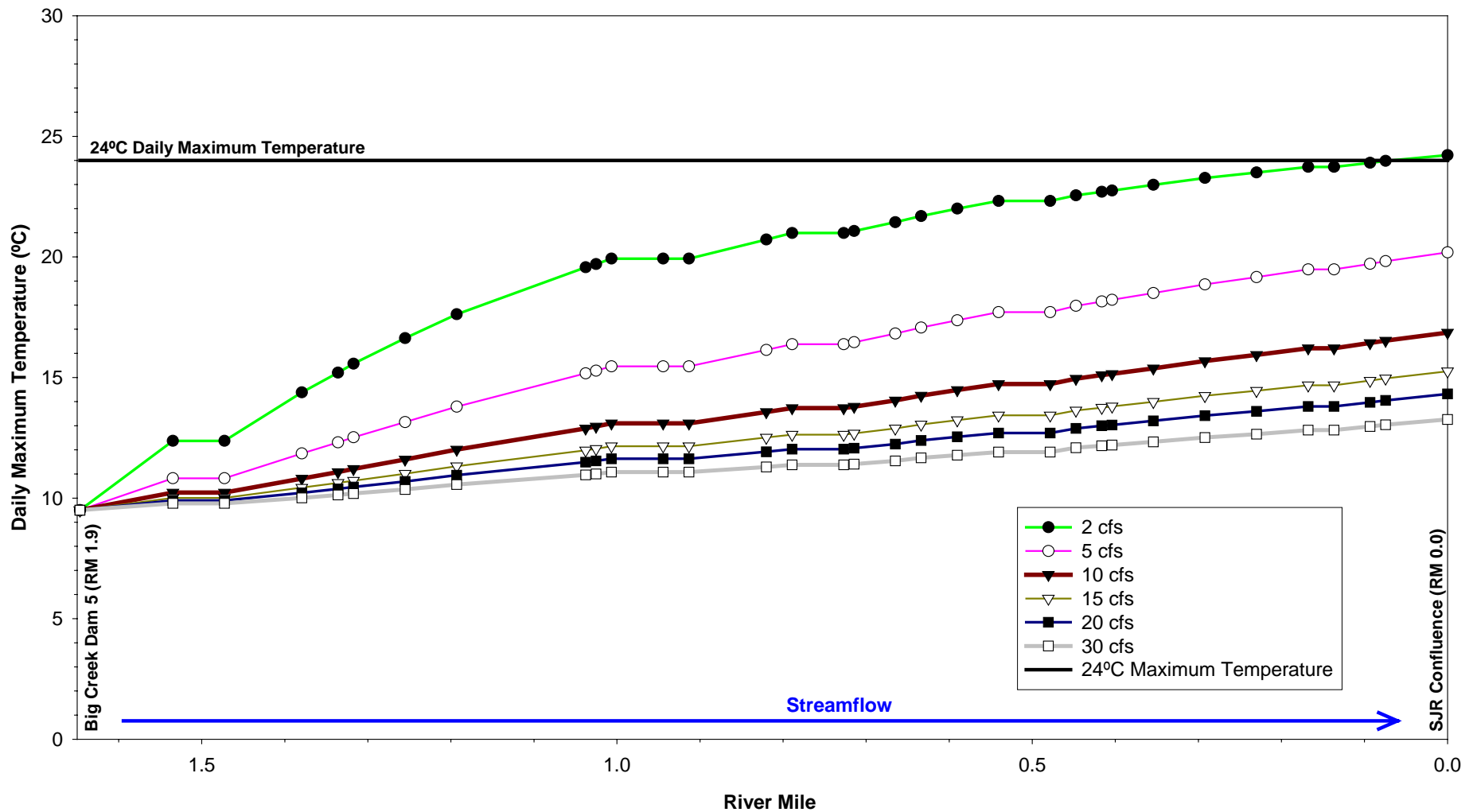


Figure CAWG 5 Appendix D-118. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for June in Dry Water Years with Warm Meteorology.

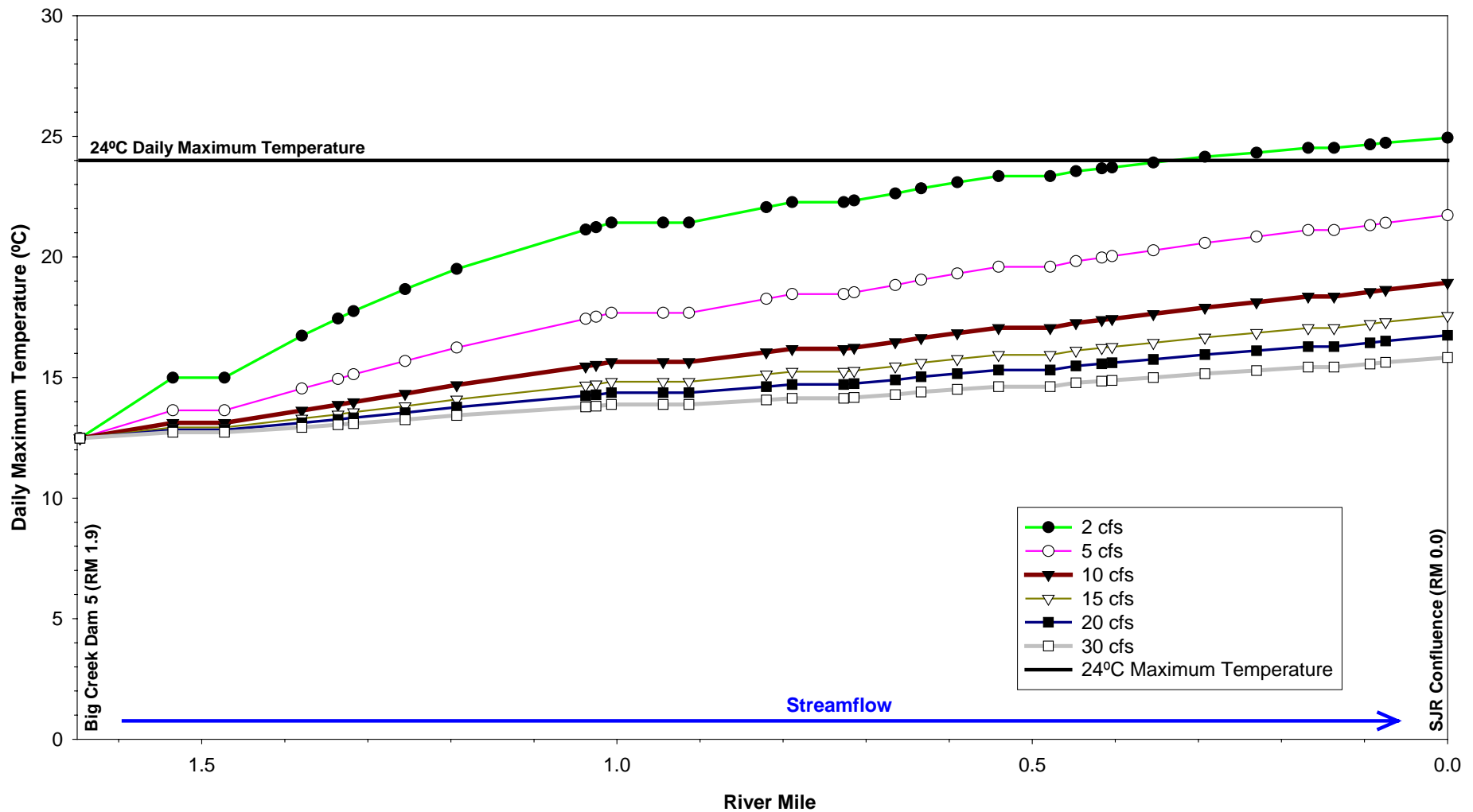


Figure CAWG 5 Appendix D-119. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for July in Dry Water Years with Warm Meteorology.

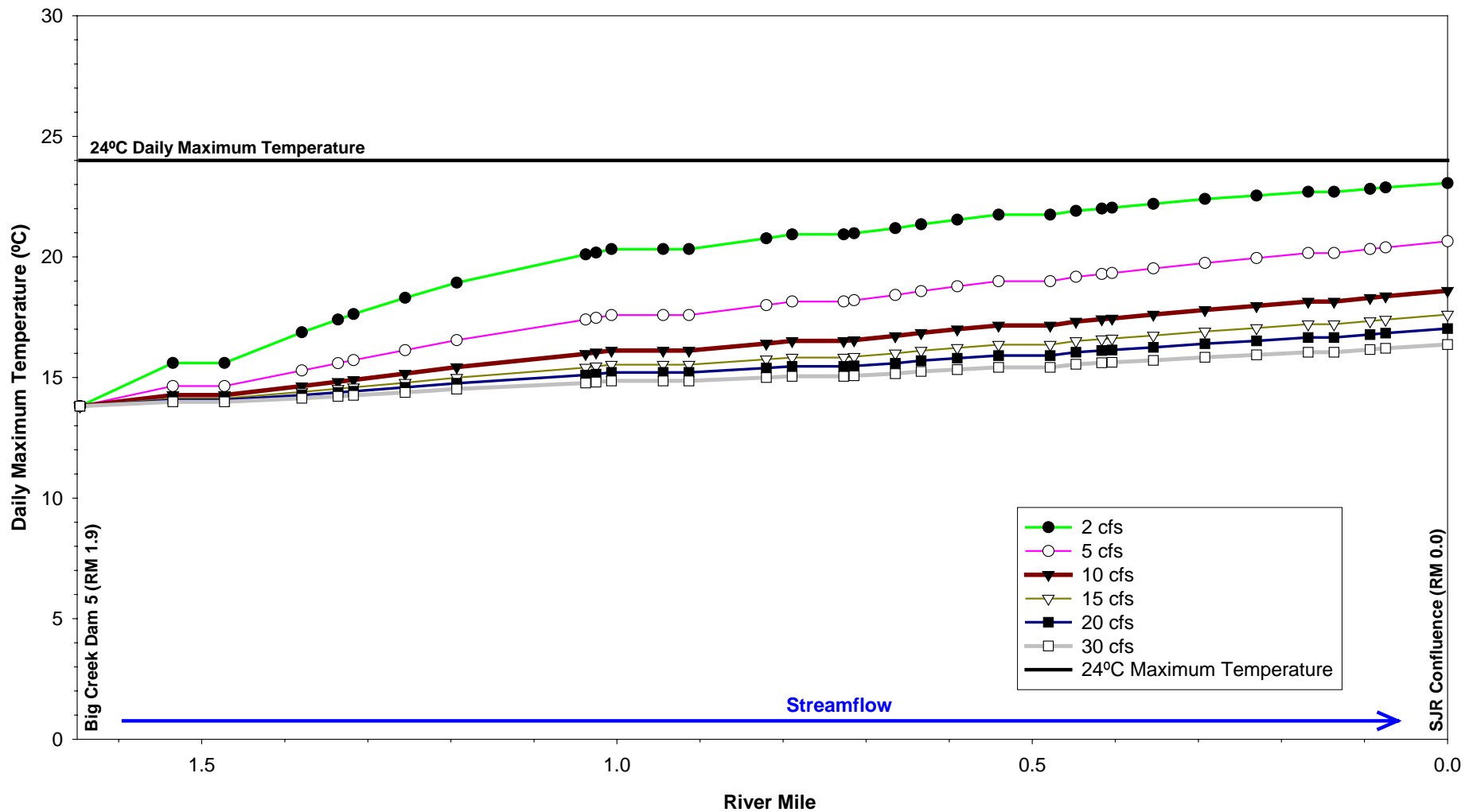


Figure CAWG 5 Appendix D-120. Lower Big Creek Simulated Daily Maximum Water Temperatures for Flows Released from Dam 5 for August in Dry Water Years with Warm Meteorology.

APPENDIX E
TEMPERATURE EXCEEDANCE TABLES

APPENDIX E
BIG CREEK
CAWG 5 WATER TEMPERATURE MODELING
TEMPERATURE EXCEEDANCE TABLES

List of locations in order of appearance:

South Fork San Joaquin River Reach	E-1
San Joaquin River Reach (Upstream of Mammoth Pool).....	E-13
Mammoth Reach	E-25
Rock Creek	E-45
Stevenson Reach.....	E-57
Stevenson Creek.....	E-77
Upper Big Creek.....	E-89
Lower Big Creek.....	E-105

Table CAWG 5 Appendix E-1. South Fork San Joaquin River Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Mean Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	12.0	12.1	11.7	11.7	11.7	11.7	11.2	10.6	10.6	9.9	9.5	9.4	7.2	6.1	0.0
16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-2. South Fork San Joaquin River Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	90.8	83.1	80.8	79.8	79.6	77.5	76.1	74.3	73.7	71.6	69.2	66.0	62.6	61.8	41.7
16.0	77.7	76.5	75.1	74.3	73.1	71.6	70.2	68.7	66.0	62.0	58.2	52.3	49.2	45.0	19.4
17.0	71.5	70.3	68.5	65.2	58.6	54.1	49.6	45.0	40.6	35.7	30.6	27.2	23.9	21.1	3.0
18.0	34.6	31.8	27.6	26.1	25.0	22.5	21.1	20.6	17.6	15.3	11.9	9.9	7.2	5.0	0.0
19.0	11.2	10.6	9.9	9.4	8.3	6.1	5.0	5.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-3. South Fork San Joaquin River Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Mean Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	81.3	79.8	78.7	77.0	76.1	75.1	74.3	73.1	72.3	70.9	68.7	66.0	63.5	62.0	51.7
16.0	73.7	72.7	71.6	70.0	68.7	66.0	63.2	58.5	55.4	50.5	46.1	41.7	38.3	36.0	21.7
17.0	37.5	34.1	31.7	30.4	28.3	28.3	27.2	25.0	23.9	21.7	20.6	18.3	16.1	15.3	3.9
18.0	14.2	13.0	12.8	11.7	11.7	10.6	9.9	8.3	6.4	5.0	3.6	0.3	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-4. South Fork San Joaquin River Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Mean Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	86.4	79.8	78.7	77.5	76.1	74.3	73.1	71.9	70.9	67.6	62.6	60.9	57.1	52.8	22.5
16.0	69.7	69.9	69.7	68.1	65.2	62.1	53.3	46.2	38.3	30.1	25.6	22.8	20.6	18.8	5.0
17.0	20.2	18.4	13.4	9.9	9.9	9.9	9.5	9.4	8.3	6.4	6.1	5.0	2.4	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-5. South Fork San Joaquin River Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	93.8	92.2	90.0	85.3	83.9	82.0	81.4	80.8	79.8	78.7	75.1	73.7	71.9	70.2	59.8
16.0	91.2	85.1	82.2	80.8	79.8	79.6	77.5	76.1	74.3	72.0	69.8	66.5	62.6	61.8	39.4
17.0	81.4	79.9	79.8	77.0	75.1	73.7	72.3	70.9	68.7	63.8	60.6	53.9	50.5	47.2	19.4
18.0	77.0	75.4	74.3	72.3	69.8	65.9	58.5	53.5	49.2	41.7	36.7	31.7	28.3	23.9	3.6
19.0	54.1	52.6	47.9	40.6	32.8	31.7	29.5	27.2	25.0	20.6	16.4	15.0	11.7	8.3	0.0
20.0	23.6	17.4	16.1	16.0	15.0	13.0	11.9	10.6	9.4	6.1	1.7	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-6. South Fork San Joaquin River Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Mean Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	93.6	91.4	89.6	84.3	83.1	82.0	81.4	80.8	79.8	79.6	77.5	75.4	74.3	72.7	61.8
16.0	85.5	81.9	80.8	79.8	79.6	77.5	76.1	74.4	73.7	71.9	69.8	66.5	63.1	61.8	46.1
17.0	78.9	77.5	75.4	74.3	72.7	71.6	69.8	66.9	64.3	57.6	52.3	48.1	42.4	38.3	20.6
18.0	65.2	65.0	60.0	54.2	42.9	38.3	36.0	33.9	32.5	28.3	25.0	21.7	19.4	17.9	1.7
19.0	27.7	20.6	20.6	19.4	18.3	16.4	16.0	15.3	13.4	11.7	8.5	6.1	3.9	0.3	0.0
20.0	7.2	6.1	6.1	5.0	3.9	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-7. South Fork San Joaquin River Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)*															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-8. South Fork San Joaquin River Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	5.6	3.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-9. South Fork San Joaquin River Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-10. South Fork San Joaquin River Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-11. South Fork San Joaquin River Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	29.3	30.6	30.6	28.5	26.3	23.1	19.5	17.8	15.3	15.0	11.7	10.6	8.5	6.1	0.0
22.0	14.1	11.2	7.8	4.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-12. South Fork San Joaquin River Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	12.5	9.6	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-13. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-14. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-15. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-16. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	0.0	0.0	4.0	6.4	11.2	11.2	24.1	31.2	31.2	31.2	31.2	40.1	40.1	40.1	32.1
16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-17. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.1
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-18. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
19.0	88.0	90.3	92.7	99.9	100.0	100.0	100.0	100.0	99.9	88.0	83.9	70.3	64.1	48.1	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-19. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-20. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-21. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-22. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-23. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-24. San Joaquin River Reach (Upstream of Mammoth Pool) Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)															
Daily Maximum Exceedance Temperature (°C)	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-25. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-26. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	76.7	71.4	61.2	57.3	49.5	30.4	14.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	52.9	33.3	18.7	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-27. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	88.4	84.5	81.7	80.6	76.7	76.7	68.9	65.1	57.3	53.4	49.5	0.0	0.0	0.0	0.0	0.0
16.0	81.7	80.6	76.7	71.4	65.1	61.2	53.9	49.1	37.3	26.2	18.5	0.0	0.0	0.0	0.0	0.0
17.0	76.7	68.9	65.1	61.2	53.4	49.1	29.7	18.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	65.1	61.2	53.4	41.8	29.7	22.4	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	57.3	44.3	26.2	14.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	29.7	18.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-28. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	98.9	98.9	98.9	98.9	98.9	98.9	98.9	96.1	96.1	96.1	96.1	96.1	92.2	88.7	84.5	80.6
16.0	92.2	88.4	88.4	84.5	80.6	80.6	76.7	71.4	65.1	61.2	57.3	29.7	6.8	0.0	0.0	0.0
17.0	76.7	68.9	65.1	57.3	53.4	49.1	37.3	26.2	18.5	10.7	3.0	0.0	0.0	0.0	0.0	0.0
18.0	49.1	37.3	26.2	18.5	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-29. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = September, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	41.1	41.8	41.8	45.0	45.0	45.7	49.1	49.1	53.4	57.3	57.3	61.2	65.1	65.1	65.1	65.1
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-30. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	37.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	6.1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-31. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	92.4		84.5	80.6	80.6	76.7	72.8	66.7	61.2	54.5	53.4	45.0	0.0	0.0	0.0	0.0
16.0	92.2		76.7	72.8	68.9	65.1	61.2	53.4	41.8	29.7	18.5	7.8	0.0	0.0	0.0	0.0
17.0	88.4		68.9	61.2	57.3	53.4	41.8	22.4	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	81.7		57.3	48.8	26.2	18.5	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	76.7		22.4	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	68.1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-32. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	98.9	96.1	96.1	93.9	93.2	92.4	92.2	92.2	92.2	88.4	88.4	72.8	61.2	53.4	42.5	
16.0	96.1	92.2	92.2	88.4	88.4	84.5	80.6	76.7	76.7	71.4	66.7	37.3	6.8	0.0	0.0	
17.0	92.2	84.5	80.6	76.7	76.7	71.4	65.1	61.2	53.9	53.4	42.5	0.0	0.0	0.0	0.0	
18.0	92.2	76.7	71.4	65.1	61.2	57.3	49.1	37.3	26.2	14.6	6.2	0.0	0.0	0.0	0.0	
19.0	88.4	65.1	57.3	53.4	45.0	34.0	18.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20.0	80.6	53.4	34.0	26.2	14.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-33. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	98.9	98.9	96.1	96.1	96.1	96.1	96.1	96.1	93.9	93.9	93.2	92.2	88.4	80.6	71.4	68.9
18.0	93.9	88.4	84.5	81.7	80.6	76.7	71.4	66.7	61.2	57.3	53.4	22.4	0.0	0.0	0.0	0.0
19.0	88.4	66.7	61.2	54.5	53.4	45.0	34.0	22.4	14.6	6.2	0.0	0.0	0.0	0.0	0.0	0.0
20.0	72.8	34.0	26.2	14.6	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-34. Mammoth Reach Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = September, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Mean Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
19.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
20.0	6.2	10.7	14.6	14.6	14.6	18.5	22.4	26.2	26.2	29.7	29.7	41.8	45.0	49.1	49.1	

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-35. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-36. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-37. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	49.1	26.2	14.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-38. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-39. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = September, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-40. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-41. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	45.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-42. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	84.5		57.3	49.1	37.3	26.2	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	76.7		34.0	22.4	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	68.9		6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	57.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	14.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-43. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	76.7	34.0	22.4	14.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	49.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	14.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-44. Mammoth Reach Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = September, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																
Daily Maximum Exceedance Temperature (°C)	12.5	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	500.0
21.0	22.4		10.7	6.2	6.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-45. Rock Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
15.0	94.7	88.2	88.2	75.0		55.3		55.3	42.1	42.1
16.0	88.2	61.8	55.3	28.9		0.0		0.0	0.0	0.0
17.0	61.8	28.9	15.8	0.0		0.0		0.0	0.0	0.0
18.0	34.2	0.0	0.0	0.0		0.0		0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-46. Rock Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
15.0	100.0	100.0	100.0	100.0		100.0		100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0		100.0		100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0		94.7		94.7	94.7	94.7
18.0	88.2	75.0	75.0	55.3		28.9		10.5	0.0	0.0
19.0	75.0	55.3	42.1	0.0		0.0		0.0	0.0	0.0
20.0	55.3	28.9	0.0	0.0		0.0		0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-47. Rock Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
15.0	100.0	100.0	100.0	100.0		100.0		100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0		100.0		100.0	100.0	100.0
17.0	88.2	75.0	75.0	75.0		61.8		55.3	55.3	55.3
18.0	34.2	10.5	0.0	0.0		0.0		0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-48. Rock Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
17.0	94.7	88.2	88.2	75.0	55.3	55.3	55.3		42.1	34.2
18.0	88.2	61.8	55.3	28.9	0.0	0.0	0.0		0.0	0.0
19.0	61.8	34.2	28.9	0.0	0.0	0.0	0.0		0.0	0.0
20.0	42.1	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-49. Rock Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
18.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
19.0	88.2	75.0	75.0	55.3	34.2	34.2	28.9		28.9	15.8
20.0	61.8	34.2	28.9	0.0	0.0	0.0	0.0		0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-50. Rock Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
18.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0
19.0	55.3	34.2	28.9	10.5	0.0	0.0	0.0		0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-51. Rock Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
21.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-52. Rock Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
21.0	88.2	61.8	55.3	28.9		0.0		0.0	0.0	0.0
22.0	61.8	28.9	28.9	0.0		0.0		0.0	0.0	0.0
23.0	28.9	0.0	0.0	0.0		0.0		0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-53. Rock Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
21.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-54. Rock Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)										
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
21.0	75.0	55.3	42.1	10.5	0.0	0.0	0.0		0.0	0.0
22.0	55.3	28.9	0.0	0.0	0.0	0.0	0.0		0.0	0.0
23.0	28.9	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-55. Rock Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
21.0	94.7	94.7	88.2	88.2	75.0	75.0	75.0		75.0	75.0
22.0	55.3	28.9	28.9	0.0	0.0	0.0	0.0		0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-56. Rock Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	9.0	10.0	12.5	13.0	15.0	20.0
21.0	42.1	34.2	34.2	28.9	28.9	28.9	28.9		28.9	28.9
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-57. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	59.8	55.9	48.6	26.1	13.7	9.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	17.3	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-58. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	100.0	94.4	90.4	76.4	64.0	49.4	43.8	36.4	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	31.3	0.0	0.0
16.0	87.7	87.7	76.5	49.3	38.1	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	26.9	13.7	9.0	0.0	0.0	0.0
17.0	52.6	47.0	35.8	13.7	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	9.2	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-59. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	100.0	100.0	100.0	94.4	88.8	84.1	83.1	77.5	75.0	70.6	70.6	65.8	64.0	59.2	55.0	48.8	43.8	9.0	0.0	0.0
16.0	100.0	100.0	94.4	88.8	78.2	71.9	65.8	64.0	59.2	55.0	48.8	43.8	31.3	25.0	13.7	9.0	4.4	0.0	0.0	0.0
17.0	100.0	94.4	90.4	77.5	70.6	60.6	55.0	43.8	32.4	26.9	17.1	13.7	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	94.4	94.4	84.1	70.6	59.2	48.8	31.3	15.6	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	90.4	88.8	83.1	60.6	44.8	17.1	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	84.7	79.1	68.8	44.8	13.7	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-60. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	100.0	100.0	100.0	94.4	88.8	83.1	77.5	75.0	70.6	65.8	64.0	64.0	60.6	59.2	55.0	48.8	48.8	17.1	9.0	0.0	0.0
19.0	90.3	91.6	88.8	71.9	64.0	59.2	46.0	39.7	22.4	15.6	13.7	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	74.7	70.1	60.4	48.8	24.1	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-61. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = September, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	91.6	92.9	97.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	78.4	78.4	80.3	81.8	92.9	96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
19.0	28.2	28.2	24.1	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-62. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	58.3	56.6	47.9	26.3	11.9	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	22.9	18.3	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-63. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	
15.0	100.0	100.0	94.4	83.1	75.0	70.6	64.0	59.2	55.0	48.8	43.8	32.5	21.3	13.7	9.0	1.7	0.0	0.0	0.0	0.0	0.0
16.0	100.0	94.4	88.8	77.5	64.0	59.2	48.8	43.8	28.2	17.1	13.7	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	94.4	94.4	83.1	68.8	55.0	40.9	21.3	13.7	9.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	90.4	88.8	76.4	55.0	35.3	13.7	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	78.3	77.3	60.0	25.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	45.1	38.2	25.4	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-64. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.4	94.4	94.4	94.4	90.4	88.8	88.8	84.1	83.1	83.1	70.6	64.0	64.0
16.0	100.0	100.0	100.0	94.4	88.8	83.1	78.2	75.0	71.9	70.6	65.8	64.0	59.2	55.0	48.8	43.8	43.8	9.0	0.0	0.0
17.0	100.0	100.0	94.4	83.1	77.5	70.6	64.0	59.2	55.0	48.8	43.8	36.4	28.2	15.6	9.0	4.4	0.0	0.0	0.0	0.0
18.0	94.4	94.4	88.8	75.0	64.0	59.2	48.8	43.8	28.2	17.1	13.7	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	94.4	90.4	83.1	64.0	55.0	40.9	21.3	11.9	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	88.8	88.8	75.0	59.2	36.7	13.7	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-65. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	100.0	100.0	100.0	94.4	90.4	88.8	83.1	83.1	77.5	75.0	71.9	70.6	65.8	64.0	60.6	59.2	55.0	31.3	13.7	9.0	
19.0	100.0	100.0	94.4	83.1	75.0	70.6	64.0	59.2	55.0	48.8	43.8	34.1	21.3	13.7	9.0	9.0	1.7	0.0	0.0	0.0	
20.0	94.4	94.4	88.8	70.6	60.6	55.0	39.7	21.3	13.7	9.0	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-66. Stevenson Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = September, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Mean Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
15.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
17.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18.0	96.0	97.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
19.0	85.9	89.7	96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
20.0	74.4	76.6	78.4	80.3	89.7	96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-67. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-68. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0	
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-69. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	90.4	88.8	77.5	59.2	48.8	21.3	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	87.0	81.3	64.0	51.0	17.1	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	59.3	55.6	50.7	24.1	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	39.5	39.5	35.3	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	28.7	28.7	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-70. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	88.5	82.9	69.6	59.2	55.0	35.3	17.1	13.7	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	51.4	45.8	46.6	36.8	15.6	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	39.5	39.5	33.4	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	32.8	28.7	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	11.2	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-71. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = September, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	32.8	32.8	28.7	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	19.7	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-72. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-73. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	82.3	78.0	59.2	38.5	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	40.9	40.9	36.8	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	28.7	22.5	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-74. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	90.4	88.8	78.2	60.6	48.8	31.3	15.6	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	87.0	81.3	64.0	55.0	21.3	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	55.6	55.6	52.1	25.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	39.5	39.5	35.3	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	28.7	28.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-75. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	100.0	94.4	90.4	77.5	64.0	59.2	55.0	48.8	43.8	31.3	21.3	17.1	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0
22.0	94.4	90.4	83.1	64.0	55.0	48.8	29.7	15.6	9.0	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	79.9	82.9	64.0	59.2	33.4	15.6	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	50.7	45.8	45.1	30.6	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	39.5	39.5	35.3	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-76. Stevenson Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = September, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																				
Daily Maximum Exceedance Temperature (°C)	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	200.0	300.0	400.0
21.0	75.1	75.1	89.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
22.0	50.5	48.8	39.5	35.3	33.4	33.4	22.5	17.4	9.0	9.0	9.0	9.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	32.8	32.8	28.7	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	18.6	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-77. Stevenson Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Mean Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	54.9	45.4	41.1	22.4	16.7	13.1	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	18.0	12.9	10.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-78. Stevenson Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Mean Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	84.2	78.4	64.1	49.0	41.1	35.3	26.0	16.7	16.7	16.7	13.8	13.1	10.2	10.2	8.8	8.8	6.6
16.0	69.1	61.2	53.3	36.1	19.5	13.8	10.2	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	61.2	49.7	41.1	16.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	38.8	41.1	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	28.7	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-79. Stevenson Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Mean Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	78.4	64.8	61.2	45.4	41.1	35.3	28.2	21.0	16.7	16.7	16.7	16.7	16.7	13.8	13.8	13.1	13.1
16.0	61.2	53.3	42.5	22.4	16.7	13.1	10.2	8.8	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	38.8	41.1	19.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	28.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-80. Stevenson Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	64.1	61.2	42.5	16.7	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	54.9	45.4	35.3	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	42.5	35.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	35.3	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-81. Stevenson Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Mean Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	69.1	61.2	49.0	35.3	16.7	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	61.2	49.7	41.1	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	49.0	41.1	22.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	34.5	21.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-82. Stevenson Creek - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Mean Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	65.5	61.2	49.7	41.1	21.0	16.7	13.1	10.2	10.2	7.3	6.6	0.0	0.0	0.0	0.0	0.0	0.0
16.0	48.7	45.3	41.1	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	34.5	28.7	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	3.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-83. Stevenson Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Maximum Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-84. Stevenson Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Maximum Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	53.3	42.5	35.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	35.9	35.3	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	28.7	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-85. Stevenson Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Maximum Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	55.3	45.4	35.3	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	45.4	41.1	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	29.5	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-86. Stevenson Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Maximum Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	45.4	41.1	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	41.1	22.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	19.5	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-87. Stevenson Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Maximum Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	35.9	36.1	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	28.7	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-88. Stevenson Creek - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																	
Daily Maximum Exceedance Temperature (°C)	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	33.8	28.7	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-89. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	25.1	23.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-90. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	33.7	36.8	34.7	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	25.1	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	25.1	23.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-91. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	100.0	100.0	94.9	92.8	81.8	61.6	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	100.0	100.0	100.0	92.8	85.5	49.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	100.0	100.0	94.9	92.8	76.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	98.3	94.9	94.9	88.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	64.7	94.9	92.8	85.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	40.0	56.2	66.2	30.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-92. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	100.0	100.0	100.0	92.8	88.0	85.5	79.5	67.8	53.6	49.3	39.7	27.7	13.3	3.2	0.0	0.0	0.0
16.0	100.0	100.0	100.0	92.8	86.3	78.3	39.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	100.0	94.9	94.9	92.8	69.2	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	72.1	94.9	92.8	85.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	38.4	56.2	62.7	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	25.1	23.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-93. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	69.7	86.1	84.0	69.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	30.2	28.8	32.7	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	25.1	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	25.1	16.5	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-94. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	100.0	100.0	92.8	81.8	34.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	100.0	100.0	94.9	92.8	57.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	100.0	94.9	94.9	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	83.8	94.9	92.8	76.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	30.2	59.0	63.0	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	25.1	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-95. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	100.0	100.0	94.9	92.8	81.8	67.8	39.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	100.0	100.0	100.0	92.8	85.5	49.3	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	100.0	100.0	94.9	92.8	64.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	83.8	94.9	92.8	85.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	30.2	38.7	52.5	16.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	25.1	23.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-96. Upper Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	100.0	100.0	100.0	92.8	92.8	85.5	79.5	69.8	53.6	49.3	39.7	27.7	13.3	0.0	0.0	0.0	0.0
16.0	100.0	100.0	100.0	94.9	88.0	81.8	49.3	27.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	100.0	100.0	94.9	92.8	81.8	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	83.8	94.9	94.9	88.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	30.2	47.3	58.4	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	25.1	23.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-97. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-98. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-99. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	58.8	94.9	94.9	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	30.2	52.9	68.5	50.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	25.1	23.0	23.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	25.1	23.0	21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	13.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-100. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	30.2	64.9	82.8	69.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	25.1	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	25.1	23.0	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-101. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-102. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	74.9	94.9	92.8	81.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	30.2	49.3	55.2	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	25.1	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	25.1	23.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	23.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-103. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	25.1	23.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-104. Upper Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																		
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	30.2	70.1	74.4	67.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	25.1	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	25.1	21.2	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-105. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-106. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	62.3	61.1	55.5	35.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	39.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-107. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	93.2	89.4	83.8	80.0	72.5	40.4	21.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	89.4	80.0	76.2	72.5	55.5	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	89.4	72.5	72.5	61.1	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	80.0	62.3	55.5	47.9	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	76.2	49.8	40.4	29.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	72.5	35.8	21.5	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-108. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	89.4	89.4	89.4	76.2	61.1	43.4	32.8	24.5	17.7	10.2	5.7	4.5	0.0	0.0	0.0	0.0	0.0	0.0
16.0	89.4	80.0	76.2	72.5	55.5	24.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	81.1	72.5	61.1	49.8	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	72.5	47.9	35.8	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	49.8	21.5	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-109. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	47.2	24.5	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	36.6	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	36.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-110. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
15.0	89.4	72.5	72.5	49.8	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	81.1	72.5	61.1	35.8	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	80.0	61.1	47.9	14.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	72.5	47.9	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	72.5	38.5	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	57.4	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-111. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	93.2	83.8	80.0	72.5	63.0	32.8	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	89.4	80.0	76.2	62.3	49.8	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	89.4	72.5	72.5	49.8	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	80.0	72.5	55.5	35.8	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	76.2	55.5	43.4	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	72.5	43.4	29.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-112. Lower Big Creek Reach - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Mean Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
15.0	100.0	89.4	89.4	80.0	76.2	55.5	38.5	24.5	14.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	89.4	81.1	76.2	63.0	57.4	25.3	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.0	83.8	72.5	72.5	43.4	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.0	80.0	61.1	49.8	14.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	72.5	38.5	29.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	43.4	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distance between calculated temperatures lower than exceedance temperature.

Table CAWG 5 Appendix E-113. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-114. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-115. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
21.0	76.2	55.5	38.5	29.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	72.5	38.5	24.5	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	55.5	21.5	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-116. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	72.5	35.8	21.5	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	49.8	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-117. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = May, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	55.5	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-118. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = June, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
21.0	76.2	44.2	35.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	72.5	35.8	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	63.0	21.5	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	43.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-119. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)																			
Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
21.0	80.0	72.5	55.5	29.1	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	76.2	55.5	38.5	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	72.5	38.5	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	62.3	21.5	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

Table CAWG 5 Appendix E-120. Lower Big Creek Reach - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures by Simulated Release Flow; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent of Stream Length for Indicated Flow Release (cfs)

Daily Maximum Exceedance Temperature (°C)	1.0	2.0	2.5	3.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0	
21.0	76.2	43.4	35.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	72.5	25.3	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	35.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

APPENDIX F

SENSITIVITY ANALYSIS SIMULATION TABLES FOR SOUTH FORK SAN JOAQUIN
RIVER REACH

APPENDIX F
BIG CREEK
CAWG 5 WATER TEMPERATURE MODELING
SENSITIVITY ANALYSIS SIMULATION TABLES
FOR
SOUTH FORK SAN JOAQUIN RIVER REACH

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Table CAWG 5 Appendix F-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	9.0	9.0	9.0	9.0	9.0	9.0	9.0
0.35	27.65	9.6	9.6	9.6	9.6	9.6	9.6	9.6
0.50	27.55	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.65	27.46	9.9	9.9	9.9	9.9	9.9	9.9	9.9
1.00	27.24	10.4	10.4	10.4	10.4	10.4	10.4	10.4
1.15	27.15	10.6	10.6	10.6	10.6	10.6	10.6	10.6
1.15	27.15	10.7	10.7	10.7	10.7	10.7	10.7	10.7
1.30	27.06	10.9	10.9	10.9	10.9	10.9	10.9	10.9
1.50	26.93	11.1	11.1	11.1	11.1	11.1	11.1	11.1
1.65	26.84	11.3	11.3	11.3	11.3	11.3	11.3	11.3
1.85	26.72	11.5	11.5	11.5	11.5	11.5	11.5	11.5
2.00	26.62	11.7	11.7	11.7	11.7	11.7	11.7	11.7
2.05	26.59	11.7	11.7	11.7	11.7	11.7	11.7	11.7
2.20	26.50	11.9	11.9	11.9	11.9	11.9	11.9	11.9
2.50	26.31	12.2	12.2	12.2	12.2	12.2	12.2	12.2
2.70	26.19	12.4	12.4	12.4	12.4	12.4	12.4	12.4
2.90	26.06	12.6	12.6	12.6	12.6	12.6	12.6	12.6
2.92	26.05	12.6	12.6	12.6	12.6	12.6	12.6	12.6
3.00	26.00	12.7	12.7	12.7	12.7	12.7	12.7	12.7
3.43	25.73	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.44	25.73	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.45	25.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.46	25.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.50	25.69	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.65	25.60	13.3	13.3	13.3	13.3	13.3	13.3	13.3
4.00	25.38	13.4	13.4	13.4	13.4	13.4	13.4	13.4
4.20	25.26	13.4	13.4	13.4	13.4	13.4	13.4	13.4
4.50	25.07	13.5	13.5	13.5	13.5	13.5	13.5	13.5
4.75	24.91	13.6	13.6	13.6	13.6	13.6	13.6	13.6
5.00	24.76	13.6	13.6	13.6	13.6	13.6	13.6	13.6
5.28	24.58	13.7	13.7	13.7	13.7	13.7	13.7	13.7
5.38	24.52	13.7	13.7	13.7	13.7	13.7	13.7	13.7
5.39	24.52	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.50	24.45	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.55	24.42	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.65	24.35	13.3	13.3	13.3	13.3	13.3	13.3	13.3
6.00	24.14	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6.65	23.73	14.0	14.0	14.0	14.0	14.0	14.0	14.0
7.00	23.52	14.2	14.2	14.2	14.2	14.2	14.2	14.2
7.07	23.47	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.10	23.45	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.15	23.42	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.16	23.42	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.50	23.20	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.55	23.17	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.80	23.02	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.00	22.89	14.6	14.6	14.6	14.6	14.6	14.6	14.6
8.05	22.86	14.6	14.6	14.6	14.6	14.6	14.6	14.6
8.45	22.61	14.8	14.8	14.8	14.8	14.8	14.8	14.8
8.50	22.58	14.8	14.8	14.8	14.8	14.8	14.8	14.8
8.99	22.28	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.09	22.22	15.1	14.6	14.4	14.4	15.1	15.1	15.1
9.49	21.97	15.2	14.7	14.5	14.5	15.2	15.2	15.2
9.50	21.96	15.3	14.7	14.6	14.5	15.3	15.3	15.3
9.99	21.66	15.4	14.8	14.6	14.5	15.4	15.4	15.4
10.05	21.62	15.4	14.8	14.6	14.5	15.4	15.4	15.4
10.25	21.50	15.5	14.9	14.6	14.5	15.5	15.5	15.5
10.49	21.35	15.6	14.9	14.7	14.6	15.6	15.6	15.6
10.65	21.25	15.6	14.9	14.7	14.6	15.6	15.6	15.6
10.99	21.04	15.7	15.0	14.8	14.6	15.7	15.7	15.7
11.10	20.97	15.8	15.0	14.8	14.6	15.8	15.8	15.8
11.41	20.78	15.9	15.1	14.9	14.7	15.9	15.9	15.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	15.9	15.1	14.9	14.7	15.9	15.9	15.9
11.49	20.73	15.9	15.1	14.9	14.7	15.9	15.9	15.9
11.75	20.56	16.1	15.2	14.9	14.8	16.1	16.1	16.1
11.99	20.42	16.2	15.3	15.0	14.8	16.2	16.2	16.2
12.20	20.28	16.3	15.4	15.0	14.9	16.3	16.3	16.3
12.35	20.19	16.4	15.4	15.1	14.9	16.4	16.4	16.4
12.48	20.11	16.5	15.5	15.1	14.9	16.5	16.5	16.5
12.49	20.10	16.5	15.5	15.1	14.9	16.5	16.5	16.5
12.52	20.08	16.5	15.5	15.1	14.9	16.5	16.5	16.5
12.53	20.08	16.5	15.5	15.1	14.9	16.5	16.5	16.5
12.70	19.97	16.6	15.5	15.2	14.9	16.6	16.6	16.6
12.99	19.79	16.7	15.6	15.2	15.0	16.7	16.7	16.7
13.25	19.63	16.8	15.7	15.3	15.1	16.8	16.8	16.8
13.31	19.59	16.8	15.7	15.3	15.1	16.8	16.8	16.8
13.40	19.54	16.8	15.7	15.3	15.1	16.8	16.8	16.8
13.40	19.54	16.8	15.7	15.3	15.1	16.8	16.8	16.8
13.49	19.48	16.9	15.8	15.4	15.1	16.9	16.9	16.9
13.75	19.32	16.9	15.8	15.4	15.2	16.9	16.9	16.9
13.99	19.17	17.0	15.9	15.5	15.2	17.0	17.0	17.0
14.45	18.89	17.1	15.9	15.5	15.3	17.1	17.1	17.1
14.49	18.86	17.1	16.0	15.5	15.3	17.1	17.1	17.1
14.80	18.67	17.1	16.0	15.6	15.3	17.1	17.1	17.1
14.99	18.55	17.2	16.0	15.6	15.3	17.2	17.2	17.2
15.20	18.42	17.2	16.1	15.6	15.4	17.2	17.2	17.2
15.49	18.24	17.3	16.1	15.7	15.4	17.3	17.3	17.3
15.80	18.05	17.4	16.2	15.7	15.4	17.4	17.4	17.4
15.99	17.93	17.4	16.2	15.8	15.5	17.4	17.4	17.4
16.20	17.80	17.5	16.3	15.8	15.5	17.5	17.5	17.5
16.34	17.72	17.5	16.3	15.8	15.5	17.5	17.5	17.5
16.34	17.71	17.4	16.3	15.8	15.5	17.4	17.4	17.4
16.49	17.62	17.5	16.3	15.8	15.5	17.5	17.5	17.5
16.75	17.46	17.5	16.3	15.9	15.6	17.5	17.5	17.5
16.99	17.31	17.6	16.4	16.0	15.7	17.6	17.6	17.6
17.10	17.24	17.6	16.5	16.0	15.8	17.6	17.6	17.6
17.30	17.12	17.6	16.5	16.1	15.9	17.6	17.6	17.6
17.49	17.00	17.7	16.6	16.2	16.0	17.7	17.7	17.7
17.65	16.90	17.7	16.7	16.3	16.1	17.7	17.7	17.7
17.90	16.74	17.8	16.8	16.4	16.3	17.8	17.8	17.8
17.99	16.69	17.8	16.8	16.5	16.3	17.8	17.8	17.8
18.15	16.59	17.8	16.8	16.5	16.4	17.8	17.8	17.8
18.19	16.56	17.8	16.8	16.5	16.4	17.8	17.8	17.8
18.19	16.56	17.8	16.8	16.5	16.4	17.8	17.8	17.8
18.36	16.45	17.9	16.9	16.5	16.4	17.9	17.9	17.9
18.37	16.45	17.0	16.5	16.4	16.3	13.0	12.2	11.8
18.65	16.28	17.0	16.6	16.4	16.3	13.1	12.2	11.8
18.69	16.25	17.0	16.6	16.4	16.3	13.1	12.3	11.8
18.95	16.09	17.1	16.7	16.5	16.4	13.2	12.3	11.9
19.19	15.94	17.1	16.7	16.5	16.4	13.2	12.3	11.9
19.32	15.86	17.1	16.7	16.5	16.4	13.2	12.3	11.9
19.43	15.80	17.2	16.7	16.5	16.4	13.2	12.4	11.9
19.43	15.79	16.8	16.5	16.4	16.3	13.2	12.3	11.9
19.65	15.66	16.8	16.5	16.4	16.3	13.2	12.4	11.9
19.69	15.63	16.8	16.5	16.4	16.3	13.2	12.4	11.9
20.15	15.34	16.9	16.6	16.4	16.4	13.3	12.4	12.0
20.19	15.32	16.9	16.6	16.5	16.4	13.3	12.4	12.0
20.69	15.01	17.0	16.7	16.5	16.4	13.4	12.5	12.1
20.95	14.85	17.0	16.7	16.5	16.5	13.5	12.6	12.1
21.19	14.70	17.1	16.7	16.6	16.5	13.5	12.6	12.1
21.40	14.57	17.1	16.8	16.6	16.5	13.5	12.6	12.1
21.60	14.44	17.2	16.8	16.6	16.5	13.6	12.6	12.2
21.69	14.39	17.2	16.8	16.6	16.5	13.6	12.6	12.2
21.69	14.39	17.1	16.8	16.6	16.5	13.6	12.6	12.2
22.19	14.08	17.2	16.8	16.6	16.5	13.7	12.7	12.2
22.20	14.07	17.2	16.8	16.6	16.5	13.7	12.7	12.2
22.40	13.95	17.2	16.9	16.7	16.6	13.7	12.7	12.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	17.3	16.9	16.7	16.6	13.7	12.8	12.3
22.80	13.70	17.3	16.9	16.7	16.6	13.8	12.8	12.3
23.19	13.46	17.3	16.9	16.7	16.6	13.8	12.8	12.3
23.30	13.39	17.3	16.9	16.7	16.6	13.8	12.8	12.3
23.69	13.14	17.4	17.0	16.7	16.6	13.9	12.9	12.3
24.05	12.92	17.4	17.0	16.8	16.6	13.9	12.9	12.4
24.19	12.83	17.4	17.0	16.8	16.6	13.9	12.9	12.4
24.50	12.64	17.4	17.0	16.8	16.7	13.9	12.9	12.4
24.69	12.52	17.4	17.0	16.8	16.7	13.9	12.9	12.4
24.70	12.52	17.4	17.0	16.8	16.7	13.9	12.9	12.4
25.05	12.30	17.5	17.0	16.8	16.7	14.0	13.0	12.5
25.19	12.21	17.5	17.1	16.8	16.7	14.0	13.0	12.5
25.69	11.90	17.5	17.1	16.8	16.7	14.0	13.0	12.5
25.85	11.80	17.5	17.1	16.8	16.7	14.0	13.0	12.5
26.19	11.59	17.5	17.1	16.9	16.8	14.1	13.0	12.5
26.69	11.28	17.5	17.1	16.9	16.8	14.1	13.1	12.5
27.19	10.97	17.5	17.1	16.9	16.8	14.2	13.1	12.6
27.20	10.96	17.5	17.1	16.9	16.8	14.2	13.1	12.6
27.45	10.81	17.6	17.2	16.9	16.8	14.2	13.1	12.6
27.69	10.66	17.6	17.2	17.0	16.9	14.2	13.2	12.6
27.90	10.53	17.6	17.2	17.0	16.9	14.3	13.2	12.7
28.19	10.35	17.7	17.3	17.0	16.9	14.3	13.2	12.7
28.69	10.04	17.7	17.3	17.1	17.0	14.4	13.3	12.7
28.75	10.00	17.7	17.3	17.1	17.0	14.4	13.3	12.7
28.98	9.85	17.7	17.3	17.1	17.0	14.4	13.3	12.8
28.99	9.85	17.5	17.2	17.0	16.9	14.3	13.3	12.8
29.19	9.73	17.5	17.2	17.0	16.9	14.4	13.3	12.8
29.25	9.69	17.5	17.2	17.0	17.0	14.4	13.3	12.8
29.69	9.42	17.6	17.3	17.1	17.0	14.4	13.4	12.8
30.00	9.22	17.6	17.3	17.1	17.0	14.5	13.4	12.9
30.19	9.11	17.7	17.4	17.2	17.0	14.5	13.5	12.9
30.30	9.04	17.7	17.4	17.2	17.1	14.6	13.5	12.9
30.69	8.80	17.8	17.4	17.2	17.1	14.6	13.5	12.9
31.19	8.48	17.8	17.4	17.2	17.1	14.7	13.6	13.0
31.24	8.45	17.8	17.4	17.2	17.1	14.7	13.6	13.0
31.30	8.42	17.8	17.5	17.3	17.1	14.7	13.6	13.0
31.74	8.14	17.9	17.5	17.3	17.1	14.7	13.6	13.0
31.95	8.01	17.9	17.5	17.3	17.2	14.8	13.6	13.0
32.24	7.83	17.9	17.5	17.3	17.2	14.8	13.6	13.1
32.25	7.83	17.9	17.5	17.3	17.2	14.8	13.6	13.1
32.74	7.52	18.0	17.6	17.4	17.2	14.8	13.7	13.1
33.24	7.21	18.0	17.6	17.4	17.3	14.9	13.8	13.2
33.30	7.17	18.0	17.6	17.4	17.3	14.9	13.8	13.2
33.45	7.08	18.0	17.6	17.4	17.3	14.9	13.8	13.2
33.74	6.90	18.1	17.7	17.5	17.3	15.0	13.8	13.2
34.20	6.61	18.1	17.7	17.5	17.4	15.0	13.9	13.3
34.24	6.59	18.1	17.7	17.5	17.4	15.0	13.9	13.3
34.55	6.40	18.2	17.8	17.5	17.4	15.1	13.9	13.3
34.69	6.31	18.2	17.8	17.5	17.4	15.1	13.9	13.3
34.69	6.31	18.1	17.7	17.5	17.4	15.1	13.9	13.3
34.74	6.28	18.1	17.8	17.5	17.4	15.1	13.9	13.3
34.85	6.21	18.1	17.8	17.5	17.4	15.1	13.9	13.3
35.24	5.97	18.2	17.8	17.6	17.5	15.1	14.0	13.4
35.50	5.81	18.3	17.9	17.6	17.5	15.2	14.0	13.4
35.74	5.66	18.3	17.9	17.7	17.5	15.2	14.1	13.4
36.24	5.35	18.4	18.0	17.7	17.6	15.3	14.1	13.5
36.50	5.19	18.4	18.0	17.8	17.6	15.3	14.2	13.6
36.74	5.04	18.4	18.0	17.8	17.7	15.4	14.2	13.6
36.93	4.92	18.5	18.1	17.8	17.7	15.4	14.3	13.6
36.93	4.92	18.4	18.0	17.8	17.7	15.4	14.3	13.6
36.95	4.91	18.4	18.0	17.8	17.7	15.4	14.3	13.6
37.24	4.73	18.4	18.0	17.8	17.7	15.4	14.3	13.7
37.60	4.50	18.4	18.1	17.9	17.7	15.5	14.3	13.7
37.74	4.41	18.5	18.1	17.9	17.8	15.5	14.4	13.7
37.80	4.38	18.5	18.1	17.9	17.8	15.5	14.4	13.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	18.6	18.2	18.0	17.8	15.6	14.4	13.8
38.24	4.10	18.6	18.3	18.0	17.9	15.7	14.5	13.9
38.25	4.10	18.6	18.3	18.0	17.9	15.7	14.5	13.9
38.60	3.88	18.7	18.3	18.1	17.9	15.7	14.5	13.9
38.74	3.79	18.7	18.3	18.1	17.9	15.7	14.6	13.9
38.95	3.66	18.7	18.3	18.1	17.9	15.7	14.6	13.9
39.15	3.54	18.7	18.3	18.1	18.0	15.7	14.6	13.9
39.24	3.48	18.7	18.3	18.1	18.0	15.8	14.6	13.9
39.65	3.23	18.8	18.4	18.1	18.0	15.8	14.6	14.0
39.74	3.17	18.8	18.4	18.2	18.0	15.8	14.6	14.0
39.95	3.04	18.9	18.5	18.2	18.1	15.9	14.7	14.1
40.24	2.86	18.9	18.5	18.3	18.1	15.9	14.7	14.1
40.55	2.67	19.0	18.5	18.3	18.1	16.0	14.8	14.1
40.70	2.58	19.0	18.6	18.3	18.2	16.0	14.8	14.1
40.74	2.55	19.0	18.6	18.3	18.2	16.0	14.8	14.1
41.15	2.30	19.0	18.6	18.4	18.2	16.1	14.9	14.2
41.24	2.24	19.1	18.6	18.4	18.2	16.1	14.9	14.2
41.74	1.93	19.1	18.7	18.4	18.3	16.1	14.9	14.2
42.10	1.71	19.1	18.7	18.4	18.3	16.2	14.9	14.3
42.24	1.62	19.2	18.7	18.5	18.3	16.2	15.0	14.3
42.25	1.61	19.2	18.7	18.5	18.3	16.2	15.0	14.3
42.74	1.31	19.3	18.8	18.5	18.4	16.3	15.1	14.4
42.75	1.30	19.3	18.8	18.5	18.4	16.3	15.1	14.4
43.24	1.00	19.4	18.9	18.6	18.5	16.4	15.2	14.5
43.35	0.93	19.4	19.0	18.7	18.5	16.4	15.2	14.5
43.65	0.74	19.5	19.0	18.7	18.5	16.4	15.2	14.5
43.74	0.69	19.5	19.0	18.7	18.5	16.5	15.2	14.5
43.90	0.59	19.5	19.0	18.7	18.5	16.5	15.2	14.5
44.24	0.38	19.5	19.0	18.7	18.5	16.5	15.2	14.5
44.45	0.25	19.5	19.0	18.7	18.5	16.5	15.2	14.5
44.74	0.07	19.6	19.0	18.8	18.6	16.5	15.3	14.6
44.80	0.03	19.6	19.1	18.8	18.6	16.6	15.3	14.6
44.85	0.00	19.6	19.1	18.8	18.6	16.6	15.3	14.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-2. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	11.4	11.4	11.4	11.4	11.4	11.4	11.4
0.35	27.65	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.50	27.55	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.65	27.46	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1.00	27.24	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1.15	27.15	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1.15	27.15	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1.30	27.06	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.50	26.93	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1.65	26.84	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1.85	26.72	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.00	26.62	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.20	26.50	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2.50	26.31	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.70	26.19	13.5	13.5	13.5	13.5	13.5	13.5	13.5
2.90	26.06	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.92	26.05	13.6	13.6	13.6	13.6	13.6	13.6	13.6
3.00	26.00	13.6	13.6	13.6	13.6	13.6	13.6	13.6
3.43	25.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.44	25.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.45	25.72	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.46	25.72	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.50	25.69	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.65	25.60	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.00	25.38	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.20	25.26	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.50	25.07	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.75	24.91	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.00	24.76	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.28	24.58	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.38	24.52	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.39	24.52	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.50	24.45	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.55	24.42	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.65	24.35	13.5	13.5	13.5	13.5	13.5	13.5	13.5
6.00	24.14	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6.65	23.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9
7.00	23.52	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.07	23.47	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.10	23.45	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.15	23.42	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.16	23.42	14.0	14.0	14.0	14.0	14.0	14.0	14.0
7.50	23.20	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.55	23.17	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.80	23.02	14.2	14.2	14.2	14.2	14.2	14.2	14.2
8.00	22.89	14.3	14.3	14.3	14.3	14.3	14.3	14.3
8.05	22.86	14.3	14.3	14.3	14.3	14.3	14.3	14.3
8.45	22.61	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.50	22.58	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.99	22.28	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.09	22.22	14.7	14.4	14.3	14.2	14.7	14.7	14.7
9.49	21.97	14.9	14.5	14.4	14.3	14.9	14.9	14.9
9.50	21.96	14.9	14.5	14.4	14.3	14.9	14.9	14.9
9.99	21.66	15.0	14.6	14.5	14.3	15.0	15.0	15.0
10.05	21.62	15.0	14.6	14.5	14.3	15.0	15.0	15.0
10.25	21.50	15.0	14.6	14.5	14.4	15.0	15.0	15.0
10.49	21.35	15.1	14.7	14.6	14.4	15.1	15.1	15.1
10.65	21.25	15.1	14.7	14.6	14.4	15.1	15.1	15.1
10.99	21.04	15.2	14.8	14.7	14.5	15.2	15.2	15.2
11.10	20.97	15.3	14.8	14.7	14.5	15.3	15.3	15.3
11.41	20.78	15.3	14.9	14.8	14.6	15.3	15.3	15.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-2. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	15.4	14.9	14.8	14.6	15.4	15.4	15.4
11.49	20.73	15.4	14.9	14.8	14.6	15.4	15.4	15.4
11.75	20.56	15.5	15.0	14.9	14.6	15.5	15.5	15.5
11.99	20.42	15.6	15.1	14.9	14.7	15.6	15.6	15.6
12.20	20.28	15.6	15.1	15.0	14.8	15.6	15.6	15.6
12.35	20.19	15.7	15.2	15.0	14.8	15.7	15.7	15.7
12.48	20.11	15.8	15.2	15.1	14.8	15.8	15.8	15.8
12.49	20.10	15.8	15.2	15.1	14.8	15.8	15.8	15.8
12.52	20.08	15.8	15.3	15.1	14.8	15.8	15.8	15.8
12.53	20.08	15.8	15.3	15.1	14.8	15.8	15.8	15.8
12.70	19.97	15.8	15.3	15.1	14.9	15.8	15.8	15.8
12.99	19.79	15.9	15.4	15.2	14.9	15.9	15.9	15.9
13.25	19.63	16.0	15.4	15.3	15.0	16.0	16.0	16.0
13.31	19.59	16.0	15.5	15.3	15.0	16.0	16.0	16.0
13.40	19.54	16.0	15.5	15.3	15.0	16.0	16.0	16.0
13.40	19.54	16.0	15.5	15.3	15.0	16.0	16.0	16.0
13.49	19.48	16.0	15.5	15.3	15.0	16.0	16.0	16.0
13.75	19.32	16.1	15.6	15.4	15.1	16.1	16.1	16.1
13.99	19.17	16.1	15.6	15.4	15.1	16.1	16.1	16.1
14.45	18.89	16.2	15.7	15.5	15.2	16.2	16.2	16.2
14.49	18.86	16.2	15.7	15.5	15.2	16.2	16.2	16.2
14.80	18.67	16.3	15.7	15.5	15.2	16.3	16.3	16.3
14.99	18.55	16.3	15.7	15.5	15.2	16.3	16.3	16.3
15.20	18.42	16.3	15.8	15.6	15.3	16.3	16.3	16.3
15.49	18.24	16.4	15.8	15.6	15.3	16.4	16.4	16.4
15.80	18.05	16.4	15.9	15.6	15.4	16.4	16.4	16.4
15.99	17.93	16.4	15.9	15.7	15.4	16.4	16.4	16.4
16.20	17.80	16.5	15.9	15.7	15.4	16.5	16.5	16.5
16.34	17.72	16.5	15.9	15.7	15.4	16.5	16.5	16.5
16.34	17.71	16.5	15.9	15.7	15.4	16.5	16.5	16.5
16.49	17.62	16.5	15.9	15.7	15.4	16.5	16.5	16.5
16.75	17.46	16.5	16.0	15.8	15.5	16.5	16.5	16.5
16.99	17.31	16.6	16.0	15.8	15.5	16.6	16.6	16.6
17.10	17.24	16.6	16.1	15.9	15.6	16.6	16.6	16.6
17.30	17.12	16.6	16.1	15.9	15.6	16.6	16.6	16.6
17.49	17.00	16.6	16.1	16.0	15.7	16.6	16.6	16.6
17.65	16.90	16.7	16.2	16.0	15.7	16.7	16.7	16.7
17.90	16.74	16.7	16.2	16.0	15.8	16.7	16.7	16.7
17.99	16.69	16.7	16.2	16.1	15.8	16.7	16.7	16.7
18.15	16.59	16.7	16.3	16.1	15.8	16.7	16.7	16.7
18.19	16.56	16.8	16.3	16.1	15.9	16.8	16.8	16.8
18.19	16.56	16.8	16.3	16.1	15.9	16.8	16.8	16.8
18.36	16.45	16.8	16.3	16.1	15.9	16.8	16.8	16.8
18.37	16.45	16.1	15.9	15.8	15.7	13.7	13.1	12.3
18.65	16.28	16.2	15.9	15.9	15.7	13.8	13.1	12.3
18.69	16.25	16.2	15.9	15.9	15.7	13.8	13.1	12.4
18.95	16.09	16.2	16.0	15.9	15.8	13.9	13.2	12.4
19.19	15.94	16.2	16.0	15.9	15.8	13.9	13.2	12.4
19.32	15.86	16.2	16.0	15.9	15.8	13.9	13.2	12.4
19.43	15.80	16.2	16.0	15.9	15.8	13.9	13.3	12.5
19.43	15.79	16.1	15.9	15.8	15.7	13.9	13.2	12.4
19.65	15.66	16.1	15.9	15.9	15.7	13.9	13.3	12.5
19.69	15.63	16.1	15.9	15.9	15.7	13.9	13.3	12.5
20.15	15.34	16.2	16.0	15.9	15.8	14.0	13.3	12.5
20.19	15.32	16.2	16.0	15.9	15.8	14.0	13.3	12.6
20.69	15.01	16.2	16.0	16.0	15.8	14.1	13.4	12.6
20.95	14.85	16.3	16.1	16.0	15.9	14.1	13.5	12.7
21.19	14.70	16.3	16.1	16.0	15.9	14.2	13.5	12.7
21.40	14.57	16.3	16.1	16.0	15.9	14.2	13.5	12.7
21.60	14.44	16.3	16.1	16.0	15.9	14.2	13.6	12.8
21.69	14.39	16.3	16.1	16.0	15.9	14.2	13.6	12.8
21.69	14.39	16.3	16.1	16.0	15.9	14.2	13.6	12.8
22.19	14.08	16.4	16.2	16.1	15.9	14.3	13.7	12.8
22.20	14.07	16.4	16.2	16.1	15.9	14.3	13.7	12.8
22.40	13.95	16.4	16.2	16.1	16.0	14.4	13.7	12.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-2. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	16.4	16.2	16.1	16.0	14.4	13.7	12.9
22.80	13.70	16.4	16.2	16.1	16.0	14.4	13.7	12.9
23.19	13.46	16.4	16.2	16.1	16.0	14.4	13.8	12.9
23.30	13.39	16.5	16.3	16.2	16.0	14.4	13.8	12.9
23.69	13.14	16.5	16.3	16.2	16.0	14.5	13.8	13.0
24.05	12.92	16.5	16.3	16.2	16.0	14.5	13.9	13.0
24.19	12.83	16.5	16.3	16.2	16.0	14.5	13.9	13.0
24.50	12.64	16.5	16.3	16.2	16.1	14.6	13.9	13.0
24.69	12.52	16.5	16.3	16.2	16.1	14.6	13.9	13.0
24.70	12.52	16.5	16.3	16.2	16.1	14.6	13.9	13.0
25.05	12.30	16.5	16.4	16.3	16.1	14.6	14.0	13.1
25.19	12.21	16.5	16.4	16.3	16.1	14.6	14.0	13.1
25.69	11.90	16.5	16.4	16.3	16.1	14.6	14.0	13.1
25.85	11.80	16.5	16.4	16.3	16.1	14.6	14.0	13.1
26.19	11.59	16.5	16.4	16.3	16.1	14.7	14.0	13.1
26.69	11.28	16.6	16.4	16.3	16.2	14.7	14.1	13.2
27.19	10.97	16.6	16.4	16.3	16.2	14.8	14.1	13.2
27.20	10.96	16.6	16.4	16.3	16.2	14.8	14.1	13.2
27.45	10.81	16.6	16.4	16.4	16.2	14.8	14.1	13.3
27.69	10.66	16.6	16.5	16.4	16.2	14.8	14.2	13.3
27.90	10.53	16.7	16.5	16.4	16.3	14.9	14.2	13.3
28.19	10.35	16.7	16.5	16.4	16.3	14.9	14.2	13.4
28.69	10.04	16.7	16.5	16.5	16.3	14.9	14.3	13.4
28.75	10.00	16.7	16.6	16.5	16.3	14.9	14.3	13.4
28.98	9.85	16.8	16.6	16.5	16.4	15.0	14.3	13.4
28.99	9.85	16.7	16.6	16.5	16.3	14.9	14.3	13.4
29.19	9.73	16.8	16.6	16.5	16.4	15.0	14.3	13.5
29.25	9.69	16.8	16.6	16.5	16.4	15.0	14.3	13.5
29.69	9.42	16.8	16.6	16.5	16.4	15.1	14.4	13.5
30.00	9.22	16.8	16.7	16.6	16.4	15.1	14.4	13.6
30.19	9.11	16.9	16.7	16.6	16.5	15.1	14.5	13.6
30.30	9.04	16.9	16.7	16.6	16.5	15.2	14.5	13.6
30.69	8.80	16.9	16.7	16.6	16.5	15.2	14.5	13.7
31.19	8.48	17.0	16.8	16.7	16.5	15.3	14.6	13.7
31.24	8.45	17.0	16.8	16.7	16.5	15.3	14.6	13.7
31.30	8.42	17.0	16.8	16.7	16.5	15.3	14.6	13.7
31.74	8.14	17.0	16.8	16.7	16.6	15.3	14.6	13.8
31.95	8.01	17.0	16.8	16.7	16.6	15.3	14.7	13.8
32.24	7.83	17.0	16.8	16.7	16.6	15.3	14.7	13.8
32.25	7.83	17.0	16.8	16.8	16.6	15.3	14.7	13.8
32.74	7.52	17.1	16.9	16.8	16.6	15.4	14.8	13.9
33.24	7.21	17.1	17.0	16.9	16.7	15.5	14.8	13.9
33.30	7.17	17.2	17.0	16.9	16.7	15.5	14.8	13.9
33.45	7.08	17.2	17.0	16.9	16.7	15.5	14.8	13.9
33.74	6.90	17.2	17.0	16.9	16.7	15.5	14.9	14.0
34.20	6.61	17.2	17.0	16.9	16.8	15.6	14.9	14.0
34.24	6.59	17.2	17.0	16.9	16.8	15.6	14.9	14.0
34.55	6.40	17.3	17.1	17.0	16.8	15.6	15.0	14.1
34.69	6.31	17.3	17.1	17.0	16.8	15.6	15.0	14.1
34.69	6.31	17.3	17.1	17.0	16.8	15.6	15.0	14.1
34.74	6.28	17.3	17.1	17.0	16.8	15.6	15.0	14.1
34.85	6.21	17.3	17.1	17.0	16.8	15.7	15.0	14.1
35.24	5.97	17.3	17.1	17.0	16.9	15.7	15.1	14.1
35.50	5.81	17.4	17.2	17.1	16.9	15.8	15.1	14.2
35.74	5.66	17.4	17.2	17.1	17.0	15.8	15.1	14.2
36.24	5.35	17.5	17.3	17.2	17.0	15.9	15.2	14.3
36.50	5.19	17.5	17.3	17.2	17.1	15.9	15.3	14.3
36.74	5.04	17.5	17.4	17.3	17.1	15.9	15.3	14.4
36.93	4.92	17.6	17.4	17.3	17.1	16.0	15.3	14.4
36.93	4.92	17.6	17.4	17.3	17.1	16.0	15.3	14.4
36.95	4.91	17.6	17.4	17.3	17.1	16.0	15.3	14.4
37.24	4.73	17.6	17.4	17.3	17.1	16.0	15.4	14.4
37.60	4.50	17.6	17.4	17.3	17.2	16.1	15.4	14.5
37.74	4.41	17.7	17.5	17.4	17.2	16.1	15.4	14.5
37.80	4.38	17.7	17.5	17.4	17.2	16.1	15.4	14.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-2. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	17.8	17.6	17.5	17.3	16.2	15.5	14.6
38.24	4.10	17.8	17.6	17.5	17.3	16.2	15.6	14.6
38.25	4.10	17.8	17.6	17.5	17.4	16.2	15.6	14.6
38.60	3.88	17.9	17.6	17.5	17.4	16.3	15.6	14.7
38.74	3.79	17.9	17.7	17.6	17.4	16.3	15.6	14.7
38.95	3.66	17.9	17.7	17.6	17.4	16.3	15.6	14.7
39.15	3.54	17.9	17.7	17.6	17.4	16.3	15.7	14.7
39.24	3.48	17.9	17.7	17.6	17.4	16.3	15.7	14.7
39.65	3.23	17.9	17.7	17.6	17.5	16.4	15.7	14.8
39.74	3.17	18.0	17.8	17.7	17.5	16.4	15.8	14.8
39.95	3.04	18.0	17.8	17.7	17.5	16.5	15.8	14.9
40.24	2.86	18.1	17.9	17.8	17.6	16.5	15.9	14.9
40.55	2.67	18.1	17.9	17.8	17.6	16.5	15.9	14.9
40.70	2.58	18.1	17.9	17.8	17.6	16.6	15.9	15.0
40.74	2.55	18.1	17.9	17.8	17.6	16.6	15.9	15.0
41.15	2.30	18.2	18.0	17.9	17.7	16.6	16.0	15.0
41.24	2.24	18.2	18.0	17.9	17.7	16.7	16.0	15.0
41.74	1.93	18.2	18.0	17.9	17.7	16.7	16.0	15.1
42.10	1.71	18.3	18.0	17.9	17.7	16.7	16.1	15.1
42.24	1.62	18.3	18.1	18.0	17.8	16.8	16.1	15.1
42.25	1.61	18.3	18.1	18.0	17.8	16.8	16.1	15.1
42.74	1.31	18.4	18.2	18.0	17.8	16.9	16.2	15.2
42.75	1.30	18.4	18.2	18.0	17.8	16.9	16.2	15.2
43.24	1.00	18.5	18.3	18.1	17.9	17.0	16.3	15.3
43.35	0.93	18.5	18.3	18.2	18.0	17.0	16.3	15.4
43.65	0.74	18.5	18.3	18.2	18.0	17.0	16.3	15.4
43.74	0.69	18.5	18.3	18.2	18.0	17.0	16.3	15.4
43.90	0.59	18.5	18.3	18.2	18.0	17.0	16.4	15.4
44.24	0.38	18.6	18.3	18.2	18.0	17.1	16.4	15.4
44.45	0.25	18.6	18.4	18.2	18.0	17.1	16.4	15.4
44.74	0.07	18.6	18.4	18.3	18.0	17.1	16.4	15.4
44.80	0.03	18.6	18.4	18.3	18.1	17.1	16.5	15.5
44.85	0.00	18.7	18.4	18.3	18.1	17.1	16.5	15.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	9.4	9.4	9.4	9.4	9.4	9.4	9.4
0.35	27.65	10.1	10.1	10.1	10.1	10.1	10.1	10.1
0.50	27.55	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.65	27.46	10.7	10.7	10.7	10.7	10.7	10.7	10.7
1.00	27.24	11.5	11.5	11.5	11.5	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.15	27.15	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1.30	27.06	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1.50	26.93	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.65	26.84	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1.85	26.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.00	26.62	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.05	26.59	13.4	13.4	13.4	13.4	13.4	13.4	13.4
2.20	26.50	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.50	26.31	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.70	26.19	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.90	26.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6	14.6	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.43	25.73	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.44	25.73	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.45	25.72	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.46	25.72	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.50	25.69	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.65	25.60	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.00	25.38	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.20	25.26	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.50	25.07	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.75	24.91	15.7	15.7	15.7	15.7	15.7	15.7	15.7
5.00	24.76	15.7	15.7	15.7	15.7	15.7	15.7	15.7
5.28	24.58	15.8	15.8	15.8	15.8	15.8	15.8	15.8
5.38	24.52	15.8	15.8	15.8	15.8	15.8	15.8	15.8
5.39	24.52	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.50	24.45	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.55	24.42	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.65	24.35	15.4	15.4	15.4	15.4	15.4	15.4	15.4
6.00	24.14	15.8	15.8	15.8	15.8	15.8	15.8	15.8
6.05	24.11	15.9	15.9	15.9	15.9	15.9	15.9	15.9
6.50	23.83	16.4	16.4	16.4	16.4	16.4	16.4	16.4
6.65	23.73	16.5	16.5	16.5	16.5	16.5	16.5	16.5
7.00	23.52	16.9	16.9	16.9	16.9	16.9	16.9	16.9
7.07	23.47	16.9	16.9	16.9	16.9	16.9	16.9	16.9
7.10	23.45	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.15	23.42	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.16	23.42	16.8	16.8	16.8	16.8	16.8	16.8	16.8
7.50	23.20	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.55	23.17	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.80	23.02	17.2	17.2	17.2	17.2	17.2	17.2	17.2
8.00	22.89	17.3	17.3	17.3	17.3	17.3	17.3	17.3
8.05	22.86	17.4	17.4	17.4	17.4	17.4	17.4	17.4
8.45	22.61	17.6	17.6	17.6	17.6	17.6	17.6	17.6
8.50	22.58	17.6	17.6	17.6	17.6	17.6	17.6	17.6
8.99	22.28	17.8	17.8	17.8	17.8	17.8	17.8	17.8
9.09	22.22	17.9	17.9	17.9	17.9	17.9	17.9	17.9
9.09	22.22	17.7	16.4	16.0	15.8	17.7	17.7	17.7
9.49	21.97	18.0	16.5	16.1	15.9	18.0	18.0	18.0
9.50	21.96	18.0	16.5	16.1	15.9	18.0	18.0	18.0
9.99	21.66	18.0	16.5	16.1	15.9	18.0	18.0	18.0
10.05	21.62	18.0	16.5	16.1	15.9	18.0	18.0	18.0
10.25	21.50	18.1	16.6	16.2	15.9	18.1	18.1	18.1
10.49	21.35	18.2	16.7	16.2	16.0	18.2	18.2	18.2
10.65	21.25	18.2	16.7	16.3	16.0	18.2	18.2	18.2
10.99	21.04	18.4	16.8	16.3	16.1	18.4	18.4	18.4
11.10	20.97	18.5	16.9	16.4	16.1	18.5	18.5	18.5
11.41	20.78	18.6	17.0	16.5	16.2	18.6	18.6	18.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C) *****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	18.6	17.0	16.5	16.2	18.6	18.6	18.6
11.49	20.73	18.7	17.0	16.5	16.2	18.7	18.7	18.7
11.75	20.56	18.9	17.1	16.6	16.3	18.9	18.9	18.9
11.99	20.42	19.0	17.3	16.7	16.4	19.0	19.0	19.0
12.20	20.28	19.2	17.4	16.8	16.4	19.2	19.2	19.2
12.35	20.19	19.3	17.5	16.8	16.5	19.3	19.3	19.3
12.48	20.11	19.3	17.5	16.8	16.5	19.3	19.3	19.3
12.49	20.10	19.3	17.5	16.8	16.5	19.3	19.3	19.3
12.52	20.08	19.3	17.5	16.8	16.5	19.3	19.3	19.3
12.53	20.08	19.3	17.4	16.8	16.5	19.3	19.3	19.3
12.70	19.97	19.3	17.4	16.8	16.5	19.3	19.3	19.3
12.99	19.79	19.4	17.6	16.9	16.6	19.4	19.4	19.4
13.25	19.63	19.5	17.7	17.0	16.7	19.5	19.5	19.5
13.31	19.59	19.6	17.7	17.1	16.7	19.6	19.6	19.6
13.40	19.54	19.6	17.8	17.1	16.7	19.6	19.6	19.6
13.40	19.54	19.6	17.8	17.1	16.7	19.6	19.6	19.6
13.49	19.48	19.6	17.8	17.1	16.7	19.6	19.6	19.6
13.75	19.32	19.8	17.9	17.2	16.8	19.8	19.8	19.8
13.99	19.17	19.8	18.0	17.3	16.9	19.8	19.8	19.8
14.45	18.89	20.0	18.1	17.4	17.0	20.0	20.0	20.0
14.49	18.86	20.0	18.1	17.4	17.0	20.0	20.0	20.0
14.80	18.67	20.0	18.1	17.4	17.0	20.0	20.0	20.0
14.99	18.55	20.0	18.1	17.4	17.0	20.0	20.0	20.0
15.20	18.42	20.1	18.2	17.5	17.0	20.1	20.1	20.1
15.49	18.24	20.1	18.3	17.5	17.1	20.1	20.1	20.1
15.80	18.05	20.3	18.3	17.6	17.2	20.3	20.3	20.3
15.99	17.93	20.3	18.4	17.6	17.2	20.3	20.3	20.3
16.20	17.80	20.4	18.4	17.7	17.3	20.4	20.4	20.4
16.34	17.72	20.4	18.5	17.7	17.3	20.4	20.4	20.4
16.34	17.71	20.4	18.5	17.7	17.3	20.4	20.4	20.4
16.49	17.62	20.4	18.5	17.8	17.3	20.4	20.4	20.4
16.75	17.46	20.5	18.6	17.8	17.4	20.5	20.5	20.5
16.99	17.31	20.5	18.7	18.0	17.6	20.5	20.5	20.5
17.10	17.24	20.6	18.8	18.1	17.7	20.6	20.6	20.6
17.30	17.12	20.6	18.9	18.3	17.9	20.6	20.6	20.6
17.49	17.00	20.7	19.0	18.4	18.1	20.7	20.7	20.7
17.65	16.90	20.7	19.1	18.5	18.2	20.7	20.7	20.7
17.90	16.74	20.8	19.2	18.7	18.5	20.8	20.8	20.8
17.99	16.69	20.8	19.2	18.7	18.5	20.8	20.8	20.8
18.15	16.59	20.9	19.3	18.8	18.6	20.9	20.9	20.9
18.19	16.56	20.9	19.3	18.8	18.6	20.9	20.9	20.9
18.19	16.56	20.9	19.3	18.8	18.6	20.9	20.9	20.9
18.36	16.45	20.9	19.3	18.8	18.6	20.9	20.9	20.9
18.37	16.45	19.6	18.9	18.6	18.5	14.7	13.6	13.1
18.65	16.28	19.6	18.9	18.6	18.5	14.8	13.7	13.2
18.69	16.25	19.6	18.9	18.6	18.5	14.8	13.7	13.2
18.95	16.09	19.6	19.0	18.7	18.5	14.8	13.8	13.2
19.19	15.94	19.6	19.0	18.7	18.5	14.9	13.8	13.3
19.32	15.86	19.6	19.0	18.7	18.5	14.9	13.8	13.3
19.43	15.80	19.6	19.0	18.7	18.5	14.9	13.8	13.3
19.43	15.79	19.1	18.7	18.5	18.4	14.8	13.8	13.3
19.65	15.66	19.1	18.7	18.5	18.4	14.8	13.8	13.3
19.69	15.63	19.1	18.7	18.5	18.5	14.8	13.8	13.3
20.15	15.34	19.1	18.7	18.5	18.5	14.9	13.9	13.3
20.19	15.32	19.1	18.7	18.5	18.5	14.9	13.9	13.3
20.69	15.01	19.1	18.8	18.6	18.5	15.0	13.9	13.4
20.95	14.85	19.1	18.8	18.6	18.5	15.0	14.0	13.4
21.19	14.70	19.2	18.8	18.6	18.5	15.1	14.0	13.5
21.40	14.57	19.2	18.8	18.6	18.5	15.1	14.0	13.5
21.60	14.44	19.2	18.8	18.6	18.5	15.1	14.0	13.5
21.69	14.39	19.2	18.8	18.6	18.5	15.1	14.1	13.5
21.69	14.39	19.1	18.8	18.6	18.5	15.1	14.1	13.5
22.19	14.08	19.1	18.8	18.6	18.6	15.2	14.1	13.6
22.20	14.07	19.1	18.8	18.6	18.6	15.2	14.1	13.6
22.40	13.95	19.1	18.8	18.6	18.6	15.2	14.1	13.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	19.1	18.8	18.6	18.6	15.2	14.1	13.6
22.80	13.70	19.1	18.8	18.6	18.6	15.2	14.1	13.6
23.19	13.46	19.1	18.8	18.7	18.6	15.3	14.2	13.6
23.30	13.39	19.1	18.8	18.7	18.6	15.3	14.2	13.6
23.69	13.14	19.2	18.8	18.7	18.6	15.3	14.2	13.7
24.05	12.92	19.2	18.9	18.7	18.6	15.3	14.2	13.7
24.19	12.83	19.2	18.9	18.7	18.6	15.3	14.2	13.7
24.50	12.64	19.1	18.9	18.7	18.6	15.4	14.3	13.7
24.69	12.52	19.1	18.9	18.7	18.6	15.4	14.3	13.7
24.70	12.52	19.1	18.9	18.7	18.6	15.4	14.3	13.7
25.05	12.30	19.2	18.9	18.8	18.7	15.4	14.3	13.8
25.19	12.21	19.2	18.9	18.8	18.7	15.4	14.3	13.8
25.69	11.90	19.2	18.9	18.8	18.7	15.4	14.3	13.8
25.85	11.80	19.2	18.9	18.8	18.7	15.4	14.3	13.8
26.19	11.59	19.2	18.9	18.8	18.7	15.4	14.4	13.8
26.69	11.28	19.2	18.9	18.8	18.7	15.5	14.4	13.9
27.19	10.97	19.2	19.0	18.8	18.8	15.5	14.4	13.9
27.20	10.96	19.2	19.0	18.8	18.8	15.5	14.5	13.9
27.45	10.81	19.2	19.0	18.8	18.8	15.5	14.5	13.9
27.69	10.66	19.2	19.0	18.9	18.8	15.6	14.5	14.0
27.90	10.53	19.2	19.0	18.9	18.9	15.6	14.6	14.1
28.19	10.35	19.3	19.0	18.9	18.9	15.7	14.6	14.1
28.69	10.04	19.3	19.0	18.9	18.9	15.7	14.6	14.1
28.75	10.00	19.3	19.0	18.9	18.9	15.7	14.7	14.1
28.98	9.85	19.3	19.1	19.0	18.9	15.7	14.7	14.2
28.99	9.85	19.0	18.9	18.9	18.9	15.7	14.7	14.1
29.19	9.73	19.0	19.0	18.9	18.9	15.7	14.7	14.2
29.25	9.69	19.0	19.0	18.9	18.9	15.7	14.7	14.2
29.69	9.42	19.1	19.0	18.9	18.9	15.8	14.8	14.2
30.00	9.22	19.1	19.0	18.9	18.9	15.8	14.8	14.3
30.19	9.11	19.1	19.0	19.0	19.0	15.9	14.8	14.3
30.30	9.04	19.1	19.0	19.0	19.0	15.9	14.9	14.4
30.69	8.80	19.1	19.1	19.0	19.0	15.9	14.9	14.4
31.19	8.48	19.1	19.1	19.0	19.0	16.0	14.9	14.4
31.24	8.45	19.1	19.1	19.0	19.0	16.0	14.9	14.4
31.30	8.42	19.2	19.1	19.0	19.0	16.0	15.0	14.5
31.74	8.14	19.2	19.1	19.1	19.1	16.0	15.0	14.5
31.95	8.01	19.2	19.1	19.1	19.1	16.0	15.0	14.5
32.24	7.83	19.2	19.1	19.1	19.1	16.0	15.0	14.5
32.25	7.83	19.2	19.1	19.1	19.1	16.0	15.0	14.5
32.74	7.52	19.3	19.2	19.1	19.1	16.1	15.1	14.6
33.24	7.21	19.3	19.3	19.2	19.2	16.2	15.2	14.7
33.30	7.17	19.3	19.3	19.2	19.2	16.2	15.2	14.7
33.45	7.08	19.3	19.3	19.2	19.2	16.2	15.2	14.7
33.74	6.90	19.3	19.3	19.2	19.2	16.3	15.2	14.7
34.20	6.61	19.4	19.3	19.3	19.3	16.3	15.3	14.8
34.24	6.59	19.4	19.3	19.3	19.3	16.3	15.3	14.8
34.55	6.40	19.4	19.3	19.3	19.3	16.3	15.3	14.8
34.69	6.31	19.4	19.3	19.3	19.3	16.4	15.4	14.9
34.69	6.31	19.3	19.3	19.3	19.3	16.3	15.4	14.9
34.74	6.28	19.3	19.3	19.3	19.3	16.4	15.4	14.9
34.85	6.21	19.4	19.3	19.3	19.3	16.4	15.4	14.9
35.24	5.97	19.4	19.4	19.4	19.4	16.4	15.5	15.0
35.50	5.81	19.4	19.4	19.4	19.5	16.5	15.5	15.0
35.74	5.66	19.5	19.5	19.4	19.5	16.5	15.6	15.1
36.24	5.35	19.5	19.5	19.5	19.5	16.6	15.6	15.2
36.50	5.19	19.5	19.5	19.5	19.6	16.7	15.7	15.2
36.74	5.04	19.6	19.6	19.6	19.6	16.7	15.8	15.3
36.93	4.92	19.6	19.6	19.6	19.7	16.8	15.8	15.4
36.93	4.92	19.5	19.6	19.6	19.7	16.7	15.8	15.4
36.95	4.91	19.5	19.6	19.6	19.7	16.7	15.8	15.4
37.24	4.73	19.5	19.6	19.6	19.7	16.8	15.9	15.4
37.60	4.50	19.5	19.6	19.6	19.7	16.8	15.9	15.4
37.74	4.41	19.6	19.6	19.7	19.8	16.9	15.9	15.5
37.80	4.38	19.6	19.7	19.7	19.8	16.9	16.0	15.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)*****						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	19.7	19.8	19.8	19.9	17.0	16.1	15.7
38.24	4.10	19.7	19.8	19.9	20.0	17.1	16.2	15.8
38.25	4.10	19.8	19.8	19.9	20.0	17.1	16.2	15.8
38.60	3.88	19.8	19.9	19.9	20.0	17.1	16.3	15.9
38.74	3.79	19.8	19.9	19.9	20.0	17.1	16.3	15.9
38.95	3.66	19.8	19.9	19.9	20.0	17.1	16.3	15.9
39.15	3.54	19.8	19.9	19.9	20.0	17.1	16.3	15.9
39.24	3.48	19.8	19.9	19.9	20.0	17.1	16.3	15.9
39.65	3.23	19.9	19.9	20.0	20.1	17.2	16.3	15.9
39.74	3.17	19.9	20.0	20.0	20.1	17.2	16.4	16.0
39.95	3.04	20.0	20.0	20.1	20.2	17.4	16.5	16.1
40.24	2.86	20.0	20.1	20.1	20.3	17.4	16.5	16.1
40.55	2.67	20.0	20.1	20.1	20.3	17.4	16.5	16.2
40.70	2.58	20.1	20.1	20.2	20.4	17.5	16.6	16.3
40.74	2.55	20.1	20.1	20.2	20.4	17.5	16.6	16.3
41.15	2.30	20.1	20.2	20.3	20.4	17.5	16.7	16.3
41.24	2.24	20.1	20.2	20.3	20.4	17.5	16.7	16.3
41.74	1.93	20.1	20.2	20.3	20.4	17.6	16.7	16.4
42.10	1.71	20.1	20.2	20.3	20.4	17.6	16.7	16.4
42.24	1.62	20.2	20.2	20.3	20.4	17.6	16.8	16.4
42.25	1.61	20.2	20.2	20.3	20.4	17.6	16.8	16.4
42.74	1.31	20.3	20.3	20.4	20.5	17.7	16.9	16.6
42.75	1.30	20.3	20.3	20.4	20.6	17.7	16.9	16.6
43.24	1.00	20.4	20.5	20.5	20.7	17.9	17.1	16.7
43.35	0.93	20.4	20.5	20.6	20.7	17.9	17.1	16.8
43.65	0.74	20.4	20.5	20.6	20.7	17.9	17.1	16.8
43.74	0.69	20.4	20.5	20.6	20.7	17.9	17.1	16.8
43.90	0.59	20.4	20.5	20.6	20.7	17.9	17.1	16.8
44.24	0.38	20.4	20.5	20.6	20.7	17.9	17.1	16.8
44.45	0.25	20.4	20.5	20.6	20.7	17.9	17.1	16.8
44.74	0.07	20.5	20.5	20.6	20.8	18.0	17.2	16.9
44.80	0.03	20.5	20.5	20.6	20.8	18.0	17.2	16.9
44.85	0.00	20.5	20.6	20.6	20.8	18.0	17.2	16.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.35	27.65	12.2	12.2	12.2	12.2	12.2	12.2	12.2
0.50	27.55	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1.00	27.24	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.30	27.06	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1.50	26.93	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1.65	26.84	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1.85	26.72	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.00	26.62	14.2	14.2	14.2	14.2	14.2	14.2	14.2
2.05	26.59	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.20	26.50	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.50	26.31	14.7	14.7	14.7	14.7	14.7	14.7	14.7
2.70	26.19	14.9	14.9	14.9	14.9	14.9	14.9	14.9
2.90	26.06	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.92	26.05	15.1	15.1	15.1	15.1	15.1	15.1	15.1
3.00	26.00	15.1	15.1	15.1	15.1	15.1	15.1	15.1
3.43	25.73	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.44	25.73	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.45	25.72	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.46	25.72	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.50	25.69	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.65	25.60	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.00	25.38	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.20	25.26	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.50	25.07	15.4	15.4	15.4	15.4	15.4	15.4	15.4
4.75	24.91	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.00	24.76	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.28	24.58	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.39	24.52	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.50	24.45	14.9	14.9	14.9	14.9	14.9	14.9	14.9
5.55	24.42	14.9	14.9	14.9	14.9	14.9	14.9	14.9
5.65	24.35	14.9	14.9	14.9	14.9	14.9	14.9	14.9
6.00	24.14	15.2	15.2	15.2	15.2	15.2	15.2	15.2
6.05	24.11	15.2	15.2	15.2	15.2	15.2	15.2	15.2
6.50	23.83	15.6	15.6	15.6	15.6	15.6	15.6	15.6
6.65	23.73	15.7	15.7	15.7	15.7	15.7	15.7	15.7
7.00	23.52	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.07	23.47	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.10	23.45	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.15	23.42	16.1	16.1	16.1	16.1	16.1	16.1	16.1
7.16	23.42	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.50	23.20	16.2	16.2	16.2	16.2	16.2	16.2	16.2
7.55	23.17	16.2	16.2	16.2	16.2	16.2	16.2	16.2
7.80	23.02	16.3	16.3	16.3	16.3	16.3	16.3	16.3
8.00	22.89	16.4	16.4	16.4	16.4	16.4	16.4	16.4
8.05	22.86	16.4	16.4	16.4	16.4	16.4	16.4	16.4
8.45	22.61	16.6	16.6	16.6	16.6	16.6	16.6	16.6
8.50	22.58	16.6	16.6	16.6	16.6	16.6	16.6	16.6
8.99	22.28	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.8	16.0	15.8	15.5	16.8	16.8	16.8
9.49	21.97	17.0	16.2	15.9	15.6	17.0	17.0	17.0
9.50	21.96	17.0	16.2	15.9	15.6	17.0	17.0	17.0
9.99	21.66	17.0	16.2	15.9	15.6	17.0	17.0	17.0
10.05	21.62	17.0	16.2	15.9	15.6	17.0	17.0	17.0
10.25	21.50	17.0	16.3	16.0	15.7	17.0	17.0	17.0
10.49	21.35	17.1	16.3	16.1	15.7	17.1	17.1	17.1
10.65	21.25	17.2	16.4	16.1	15.8	17.2	17.2	17.2
10.99	21.04	17.3	16.5	16.2	15.9	17.3	17.3	17.3
11.10	20.97	17.3	16.5	16.2	15.9	17.3	17.3	17.3
11.41	20.78	17.5	16.6	16.4	16.0	17.5	17.5	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	17.5	16.6	16.4	16.0	17.5	17.5	17.5
11.49	20.73	17.5	16.7	16.4	16.0	17.5	17.5	17.5
11.75	20.56	17.6	16.8	16.5	16.1	17.6	17.6	17.6
11.99	20.42	17.8	16.9	16.6	16.2	17.8	17.8	17.8
12.20	20.28	17.9	17.0	16.7	16.3	17.9	17.9	17.9
12.35	20.19	18.0	17.1	16.8	16.3	18.0	18.0	18.0
12.48	20.11	18.0	17.1	16.8	16.3	18.0	18.0	18.0
12.49	20.10	18.0	17.1	16.8	16.3	18.0	18.0	18.0
12.52	20.08	18.0	17.1	16.8	16.3	18.0	18.0	18.0
12.53	20.08	18.0	17.1	16.8	16.3	18.0	18.0	18.0
12.70	19.97	18.0	17.1	16.8	16.3	18.0	18.0	18.0
12.99	19.79	18.1	17.2	16.9	16.4	18.1	18.1	18.1
13.25	19.63	18.2	17.3	17.0	16.5	18.2	18.2	18.2
13.31	19.59	18.2	17.3	17.0	16.5	18.2	18.2	18.2
13.40	19.54	18.2	17.4	17.0	16.6	18.2	18.2	18.2
13.40	19.54	18.2	17.4	17.0	16.6	18.2	18.2	18.2
13.49	19.48	18.3	17.4	17.1	16.6	18.3	18.3	18.3
13.75	19.32	18.4	17.5	17.1	16.7	18.4	18.4	18.4
13.99	19.17	18.4	17.5	17.2	16.7	18.4	18.4	18.4
14.45	18.89	18.5	17.6	17.3	16.8	18.5	18.5	18.5
14.49	18.86	18.5	17.6	17.3	16.8	18.5	18.5	18.5
14.80	18.67	18.5	17.6	17.3	16.8	18.5	18.5	18.5
14.99	18.55	18.5	17.7	17.3	16.9	18.5	18.5	18.5
15.20	18.42	18.6	17.7	17.4	16.9	18.6	18.6	18.6
15.49	18.24	18.6	17.8	17.4	17.0	18.6	18.6	18.6
15.80	18.05	18.7	17.9	17.5	17.0	18.7	18.7	18.7
15.99	17.93	18.8	17.9	17.5	17.1	18.8	18.8	18.8
16.20	17.80	18.8	17.9	17.6	17.1	18.8	18.8	18.8
16.34	17.72	18.8	18.0	17.6	17.1	18.8	18.8	18.8
16.34	17.71	18.8	18.0	17.6	17.1	18.8	18.8	18.8
16.49	17.62	18.9	18.0	17.6	17.1	18.9	18.9	18.9
16.75	17.46	18.9	18.0	17.7	17.2	18.9	18.9	18.9
16.99	17.31	19.0	18.1	17.8	17.3	19.0	19.0	19.0
17.10	17.24	19.0	18.2	17.8	17.4	19.0	19.0	19.0
17.30	17.12	19.0	18.2	17.9	17.5	19.0	19.0	19.0
17.49	17.00	19.1	18.3	18.0	17.5	19.1	19.1	19.1
17.65	16.90	19.1	18.3	18.0	17.6	19.1	19.1	19.1
17.90	16.74	19.2	18.4	18.1	17.7	19.2	19.2	19.2
17.99	16.69	19.2	18.4	18.1	17.7	19.2	19.2	19.2
18.15	16.59	19.2	18.5	18.2	17.8	19.2	19.2	19.2
18.19	16.56	19.2	18.5	18.2	17.8	19.2	19.2	19.2
18.19	16.56	19.2	18.5	18.2	17.8	19.2	19.2	19.2
18.36	16.45	19.2	18.4	18.2	17.8	19.2	19.2	19.2
18.37	16.45	18.3	17.9	17.8	17.5	15.3	14.4	13.4
18.65	16.28	18.2	17.9	17.8	17.5	15.3	14.4	13.5
18.69	16.25	18.2	17.9	17.8	17.5	15.3	14.4	13.5
18.95	16.09	18.2	17.9	17.8	17.5	15.3	14.5	13.5
19.19	15.94	18.2	17.9	17.7	17.5	15.3	14.5	13.5
19.32	15.86	18.2	17.9	17.7	17.5	15.3	14.5	13.5
19.43	15.80	18.1	17.8	17.7	17.5	15.3	14.5	13.5
19.43	15.79	18.0	17.7	17.6	17.5	15.3	14.5	13.5
19.65	15.66	18.0	17.7	17.6	17.4	15.3	14.5	13.5
19.69	15.63	18.0	17.7	17.6	17.4	15.3	14.5	13.5
20.15	15.34	17.9	17.7	17.6	17.5	15.3	14.5	13.6
20.19	15.32	17.9	17.7	17.6	17.5	15.3	14.5	13.6
20.69	15.01	17.9	17.7	17.6	17.5	15.4	14.6	13.6
20.95	14.85	17.9	17.7	17.6	17.5	15.4	14.6	13.7
21.19	14.70	17.9	17.7	17.6	17.5	15.4	14.6	13.7
21.40	14.57	17.9	17.7	17.6	17.5	15.4	14.6	13.7
21.60	14.44	17.9	17.7	17.6	17.5	15.4	14.7	13.7
21.69	14.39	17.8	17.7	17.6	17.5	15.4	14.7	13.8
21.69	14.39	17.8	17.7	17.6	17.5	15.4	14.7	13.8
22.19	14.08	17.8	17.6	17.6	17.5	15.5	14.7	13.8
22.20	14.07	17.8	17.6	17.6	17.5	15.5	14.7	13.8
22.40	13.95	17.8	17.6	17.6	17.5	15.5	14.7	13.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	17.8	17.6	17.6	17.5	15.5	14.7	13.8
22.80	13.70	17.8	17.6	17.6	17.5	15.5	14.7	13.8
23.19	13.46	17.8	17.6	17.6	17.5	15.5	14.8	13.9
23.30	13.39	17.8	17.6	17.6	17.5	15.5	14.8	13.9
23.69	13.14	17.8	17.6	17.6	17.5	15.5	14.8	13.9
24.05	12.92	17.7	17.6	17.5	17.5	15.5	14.8	13.9
24.19	12.83	17.7	17.6	17.5	17.5	15.5	14.8	13.9
24.50	12.64	17.7	17.6	17.5	17.5	15.5	14.8	13.9
24.69	12.52	17.7	17.6	17.5	17.5	15.5	14.8	13.9
24.70	12.52	17.7	17.6	17.5	17.5	15.5	14.8	13.9
25.05	12.30	17.7	17.6	17.6	17.5	15.6	14.9	14.0
25.19	12.21	17.7	17.6	17.6	17.5	15.6	14.9	14.0
25.69	11.90	17.7	17.6	17.6	17.5	15.6	14.9	14.0
25.85	11.80	17.7	17.6	17.6	17.5	15.6	14.9	14.0
26.19	11.59	17.7	17.6	17.6	17.5	15.6	14.9	14.0
26.69	11.28	17.7	17.6	17.6	17.5	15.6	14.9	14.0
27.19	10.97	17.7	17.6	17.6	17.5	15.6	14.9	14.1
27.20	10.96	17.7	17.6	17.6	17.5	15.6	14.9	14.1
27.45	10.81	17.7	17.6	17.6	17.5	15.6	14.9	14.1
27.69	10.66	17.7	17.6	17.6	17.5	15.7	15.0	14.1
27.90	10.53	17.7	17.6	17.6	17.6	15.7	15.0	14.2
28.19	10.35	17.7	17.6	17.6	17.6	15.7	15.0	14.2
28.69	10.04	17.7	17.6	17.6	17.6	15.7	15.1	14.2
28.75	10.00	17.7	17.6	17.6	17.6	15.7	15.1	14.2
28.98	9.85	17.7	17.6	17.6	17.6	15.7	15.1	14.2
28.99	9.85	17.6	17.6	17.6	17.6	15.7	15.1	14.2
29.19	9.73	17.6	17.6	17.6	17.6	15.7	15.1	14.3
29.25	9.69	17.6	17.6	17.6	17.6	15.8	15.1	14.3
29.69	9.42	17.6	17.6	17.6	17.6	15.8	15.1	14.3
30.00	9.22	17.6	17.6	17.6	17.6	15.8	15.2	14.3
30.19	9.11	17.6	17.6	17.6	17.6	15.8	15.2	14.4
30.30	9.04	17.6	17.6	17.6	17.6	15.9	15.2	14.4
30.69	8.80	17.6	17.6	17.6	17.6	15.9	15.2	14.4
31.19	8.48	17.6	17.6	17.6	17.6	15.9	15.3	14.4
31.24	8.45	17.6	17.6	17.6	17.6	15.9	15.3	14.4
31.30	8.42	17.6	17.6	17.7	17.7	15.9	15.3	14.5
31.74	8.14	17.6	17.6	17.6	17.7	15.9	15.3	14.5
31.95	8.01	17.6	17.6	17.6	17.7	15.9	15.3	14.5
32.24	7.83	17.6	17.6	17.6	17.7	15.9	15.3	14.5
32.25	7.83	17.6	17.6	17.6	17.7	15.9	15.3	14.5
32.74	7.52	17.7	17.7	17.7	17.7	16.0	15.4	14.6
33.24	7.21	17.7	17.7	17.8	17.8	16.1	15.5	14.7
33.30	7.17	17.7	17.7	17.8	17.8	16.1	15.5	14.7
33.45	7.08	17.7	17.7	17.8	17.8	16.1	15.5	14.7
33.74	6.90	17.7	17.7	17.8	17.8	16.1	15.5	14.7
34.20	6.61	17.7	17.8	17.8	17.8	16.1	15.5	14.7
34.24	6.59	17.7	17.8	17.8	17.8	16.1	15.5	14.7
34.55	6.40	17.7	17.8	17.8	17.8	16.1	15.6	14.8
34.69	6.31	17.7	17.8	17.8	17.8	16.1	15.6	14.8
34.69	6.31	17.7	17.8	17.8	17.8	16.1	15.6	14.8
34.74	6.28	17.7	17.8	17.8	17.8	16.2	15.6	14.8
34.85	6.21	17.8	17.8	17.8	17.9	16.2	15.6	14.8
35.24	5.97	17.8	17.8	17.9	17.9	16.2	15.7	14.9
35.50	5.81	17.8	17.9	17.9	17.9	16.3	15.7	14.9
35.74	5.66	17.8	17.9	17.9	18.0	16.3	15.7	15.0
36.24	5.35	17.9	17.9	18.0	18.0	16.4	15.8	15.0
36.50	5.19	17.9	17.9	18.0	18.0	16.4	15.8	15.1
36.74	5.04	17.9	18.0	18.0	18.1	16.4	15.9	15.1
36.93	4.92	17.9	18.0	18.0	18.1	16.5	15.9	15.2
36.93	4.92	17.9	18.0	18.0	18.1	16.5	15.9	15.2
36.95	4.91	17.9	18.0	18.0	18.1	16.5	15.9	15.2
37.24	4.73	17.9	18.0	18.0	18.1	16.5	15.9	15.2
37.60	4.50	17.9	18.0	18.1	18.1	16.5	16.0	15.2
37.74	4.41	18.0	18.0	18.1	18.2	16.5	16.0	15.3
37.80	4.38	18.0	18.1	18.1	18.2	16.5	16.0	15.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	18.0	18.1	18.2	18.3	16.6	16.1	15.4
38.24	4.10	18.1	18.2	18.2	18.3	16.7	16.2	15.5
38.25	4.10	18.1	18.2	18.3	18.3	16.7	16.2	15.5
38.60	3.88	18.1	18.2	18.3	18.4	16.7	16.2	15.5
38.74	3.79	18.1	18.2	18.3	18.4	16.7	16.2	15.5
38.95	3.66	18.1	18.2	18.3	18.4	16.8	16.2	15.5
39.15	3.54	18.1	18.2	18.3	18.4	16.8	16.2	15.5
39.24	3.48	18.1	18.2	18.3	18.4	16.8	16.3	15.5
39.65	3.23	18.2	18.3	18.3	18.4	16.8	16.3	15.6
39.74	3.17	18.2	18.3	18.4	18.4	16.8	16.3	15.6
39.95	3.04	18.3	18.4	18.4	18.5	16.9	16.4	15.7
40.24	2.86	18.3	18.4	18.4	18.5	16.9	16.4	15.8
40.55	2.67	18.3	18.4	18.5	18.5	17.0	16.5	15.8
40.70	2.58	18.4	18.5	18.5	18.6	17.0	16.5	15.8
40.74	2.55	18.4	18.5	18.5	18.6	17.0	16.5	15.9
41.15	2.30	18.4	18.5	18.5	18.6	17.0	16.6	15.9
41.24	2.24	18.4	18.5	18.5	18.6	17.1	16.6	15.9
41.74	1.93	18.4	18.5	18.5	18.6	17.1	16.6	15.9
42.10	1.71	18.4	18.5	18.5	18.6	17.1	16.6	15.9
42.24	1.62	18.4	18.5	18.5	18.6	17.1	16.6	15.9
42.25	1.61	18.4	18.5	18.5	18.6	17.1	16.6	15.9
42.74	1.31	18.5	18.6	18.6	18.7	17.2	16.7	16.1
42.75	1.30	18.5	18.6	18.6	18.7	17.2	16.7	16.1
43.24	1.00	18.6	18.7	18.7	18.9	17.3	16.9	16.2
43.35	0.93	18.6	18.7	18.8	18.9	17.4	16.9	16.2
43.65	0.74	18.6	18.7	18.8	18.9	17.4	16.9	16.2
43.74	0.69	18.6	18.7	18.8	18.9	17.4	16.9	16.2
43.90	0.59	18.6	18.7	18.8	18.9	17.4	16.9	16.2
44.24	0.38	18.6	18.7	18.8	18.9	17.4	16.9	16.2
44.45	0.25	18.6	18.7	18.8	18.9	17.4	16.9	16.2
44.74	0.07	18.6	18.7	18.8	18.9	17.4	16.9	16.3
44.80	0.03	18.7	18.8	18.8	18.9	17.4	17.0	16.3
44.85	0.00	18.7	18.8	18.8	18.9	17.4	17.0	16.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.35	27.65	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.50	27.55	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0.65	27.46	10.9	10.9	10.9	10.9	10.9	10.9	10.9
1.00	27.24	11.5	11.5	11.5	11.5	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.30	27.06	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1.50	26.93	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1.65	26.84	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.85	26.72	12.8	12.8	12.8	12.8	12.8	12.8	12.8
2.00	26.62	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.20	26.50	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.50	26.31	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.70	26.19	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.90	26.06	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.92	26.05	14.1	14.1	14.1	14.1	14.1	14.1	14.1
3.00	26.00	14.2	14.2	14.2	14.2	14.2	14.2	14.2
3.43	25.73	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.44	25.73	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.45	25.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.46	25.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.50	25.69	14.8	14.8	14.8	14.8	14.8	14.8	14.8
3.65	25.60	14.9	14.9	14.9	14.9	14.9	14.9	14.9
4.00	25.38	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.20	25.26	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.50	25.07	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.75	24.91	15.2	15.2	15.2	15.2	15.2	15.2	15.2
5.00	24.76	15.2	15.2	15.2	15.2	15.2	15.2	15.2
5.28	24.58	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.39	24.52	14.7	14.7	14.7	14.7	14.7	14.7	14.7
5.50	24.45	14.8	14.8	14.8	14.8	14.8	14.8	14.8
5.55	24.42	14.8	14.8	14.8	14.8	14.8	14.8	14.8
5.65	24.35	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.00	24.14	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.05	24.11	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.50	23.83	15.5	15.5	15.5	15.5	15.5	15.5	15.5
6.65	23.73	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.00	23.52	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.07	23.47	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.10	23.45	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.15	23.42	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.16	23.42	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.50	23.20	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.55	23.17	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.80	23.02	16.0	16.0	16.0	16.0	16.0	16.0	16.0
8.00	22.89	16.2	16.2	16.2	16.2	16.2	16.2	16.2
8.05	22.86	16.2	16.2	16.2	16.2	16.2	16.2	16.2
8.45	22.61	16.5	16.5	16.5	16.5	16.5	16.5	16.5
8.50	22.58	16.5	16.5	16.5	16.5	16.5	16.5	16.5
8.99	22.28	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.9	16.9	16.9	16.9	16.9	16.9	16.9
9.09	22.22	16.8	15.6	15.2	15.1	16.8	16.8	16.8
9.49	21.97	17.0	15.8	15.4	15.2	17.0	17.0	17.0
9.50	21.96	17.0	15.8	15.4	15.2	17.0	17.0	17.0
9.99	21.66	17.1	15.9	15.5	15.3	17.1	17.1	17.1
10.05	21.62	17.2	15.9	15.5	15.3	17.2	17.2	17.2
10.25	21.50	17.3	16.0	15.5	15.3	17.3	17.3	17.3
10.49	21.35	17.4	16.0	15.6	15.4	17.4	17.4	17.4
10.65	21.25	17.4	16.1	15.6	15.4	17.4	17.4	17.4
10.99	21.04	17.5	16.2	15.7	15.5	17.5	17.5	17.5
11.10	20.97	17.6	16.2	15.7	15.5	17.6	17.6	17.6
11.41	20.78	17.7	16.3	15.8	15.6	17.7	17.7	17.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	17.7	16.4	15.8	15.6	17.7	17.7	17.7
11.49	20.73	17.8	16.4	15.9	15.6	17.8	17.8	17.8
11.75	20.56	17.9	16.5	16.0	15.7	17.9	17.9	17.9
11.99	20.42	18.1	16.6	16.0	15.8	18.1	18.1	18.1
12.20	20.28	18.2	16.7	16.1	15.9	18.2	18.2	18.2
12.35	20.19	18.3	16.8	16.2	15.9	18.3	18.3	18.3
12.48	20.11	18.4	16.9	16.2	16.0	18.4	18.4	18.4
12.49	20.10	18.4	16.9	16.3	16.0	18.4	18.4	18.4
12.52	20.08	18.4	16.9	16.3	16.0	18.4	18.4	18.4
12.53	20.08	18.3	16.9	16.3	16.0	18.3	18.3	18.3
12.70	19.97	18.4	16.9	16.3	16.0	18.4	18.4	18.4
12.99	19.79	18.5	17.0	16.4	16.1	18.5	18.5	18.5
13.25	19.63	18.6	17.1	16.5	16.2	18.6	18.6	18.6
13.31	19.59	18.7	17.1	16.5	16.2	18.7	18.7	18.7
13.40	19.54	18.7	17.2	16.5	16.3	18.7	18.7	18.7
13.40	19.54	18.7	17.2	16.5	16.2	18.7	18.7	18.7
13.49	19.48	18.7	17.2	16.6	16.3	18.7	18.7	18.7
13.75	19.32	18.8	17.3	16.7	16.4	18.8	18.8	18.8
13.99	19.17	18.9	17.4	16.7	16.4	18.9	18.9	18.9
14.45	18.89	19.0	17.4	16.8	16.5	19.0	19.0	19.0
14.49	18.86	19.0	17.5	16.8	16.5	19.0	19.0	19.0
14.80	18.67	19.0	17.5	16.9	16.5	19.0	19.0	19.0
14.99	18.55	19.0	17.5	16.9	16.6	19.0	19.0	19.0
15.20	18.42	19.1	17.6	16.9	16.6	19.1	19.1	19.1
15.49	18.24	19.2	17.6	17.0	16.6	19.2	19.2	19.2
15.80	18.05	19.2	17.7	17.0	16.7	19.2	19.2	19.2
15.99	17.93	19.3	17.8	17.1	16.8	19.3	19.3	19.3
16.20	17.80	19.3	17.8	17.1	16.8	19.3	19.3	19.3
16.34	17.72	19.3	17.8	17.1	16.8	19.3	19.3	19.3
16.34	17.71	19.1	17.7	17.1	16.8	19.1	19.1	19.1
16.49	17.62	19.2	17.8	17.1	16.8	19.2	19.2	19.2
16.75	17.46	19.2	17.8	17.2	16.8	19.2	19.2	19.2
16.99	17.31	19.3	17.9	17.3	17.0	19.3	19.3	19.3
17.10	17.24	19.3	17.9	17.3	17.0	19.3	19.3	19.3
17.30	17.12	19.3	18.0	17.4	17.1	19.3	19.3	19.3
17.49	17.00	19.4	18.0	17.5	17.2	19.4	19.4	19.4
17.65	16.90	19.4	18.1	17.5	17.2	19.4	19.4	19.4
17.90	16.74	19.4	18.1	17.6	17.3	19.4	19.4	19.4
17.99	16.69	19.4	18.2	17.6	17.4	19.4	19.4	19.4
18.15	16.59	19.5	18.2	17.6	17.4	19.5	19.5	19.5
18.19	16.56	19.5	18.2	17.7	17.4	19.5	19.5	19.5
18.19	16.56	19.5	18.2	17.7	17.4	19.5	19.5	19.5
18.36	16.45	19.5	18.3	17.7	17.4	19.5	19.5	19.5
18.37	16.45	18.3	17.7	17.4	17.2	14.1	12.9	12.5
18.65	16.28	18.4	17.8	17.5	17.3	14.2	13.0	12.6
18.69	16.25	18.4	17.8	17.5	17.3	14.3	13.0	12.6
18.95	16.09	18.5	17.9	17.5	17.3	14.4	13.1	12.6
19.19	15.94	18.5	17.9	17.5	17.4	14.4	13.2	12.7
19.32	15.86	18.5	17.9	17.5	17.4	14.4	13.2	12.7
19.43	15.80	18.5	17.9	17.6	17.4	14.5	13.2	12.7
19.43	15.79	17.8	17.5	17.3	17.1	14.3	13.2	12.7
19.65	15.66	17.9	17.5	17.3	17.2	14.4	13.2	12.7
19.69	15.63	17.9	17.5	17.3	17.2	14.4	13.2	12.8
20.15	15.34	18.0	17.6	17.4	17.2	14.5	13.3	12.8
20.19	15.32	18.0	17.6	17.4	17.3	14.5	13.4	12.9
20.69	15.01	18.1	17.7	17.5	17.3	14.7	13.5	12.9
20.95	14.85	18.2	17.8	17.5	17.4	14.8	13.5	13.0
21.19	14.70	18.2	17.8	17.5	17.4	14.8	13.6	13.1
21.40	14.57	18.3	17.9	17.6	17.4	14.9	13.6	13.1
21.60	14.44	18.3	17.9	17.6	17.5	14.9	13.7	13.1
21.69	14.39	18.3	17.9	17.6	17.5	14.9	13.7	13.1
21.69	14.39	18.3	17.9	17.6	17.5	14.9	13.7	13.1
22.19	14.08	18.4	18.0	17.7	17.5	15.1	13.8	13.2
22.20	14.07	18.4	18.0	17.7	17.5	15.1	13.8	13.2
22.40	13.95	18.4	18.0	17.7	17.5	15.1	13.8	13.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	18.5	18.0	17.7	17.6	15.2	13.9	13.3
22.80	13.70	18.5	18.0	17.7	17.6	15.2	13.9	13.3
23.19	13.46	18.5	18.1	17.8	17.6	15.3	14.0	13.4
23.30	13.39	18.5	18.1	17.8	17.6	15.3	14.0	13.4
23.69	13.14	18.6	18.1	17.8	17.6	15.3	14.0	13.4
24.05	12.92	18.6	18.2	17.9	17.7	15.4	14.1	13.5
24.19	12.83	18.6	18.2	17.9	17.7	15.4	14.1	13.5
24.50	12.64	18.6	18.2	17.9	17.7	15.4	14.1	13.5
24.69	12.52	18.6	18.2	17.9	17.7	15.5	14.1	13.5
24.70	12.52	18.6	18.2	17.9	17.7	15.5	14.1	13.5
25.05	12.30	18.7	18.3	18.0	17.8	15.5	14.2	13.6
25.19	12.21	18.7	18.3	18.0	17.8	15.5	14.2	13.6
25.69	11.90	18.7	18.3	18.0	17.8	15.6	14.2	13.6
25.85	11.80	18.7	18.3	18.0	17.8	15.6	14.3	13.6
26.19	11.59	18.7	18.3	18.0	17.8	15.6	14.3	13.7
26.69	11.28	18.8	18.3	18.0	17.8	15.7	14.3	13.7
27.19	10.97	18.8	18.4	18.0	17.9	15.7	14.4	13.8
27.20	10.96	18.8	18.4	18.0	17.9	15.7	14.4	13.8
27.45	10.81	18.8	18.4	18.1	17.9	15.8	14.4	13.8
27.69	10.66	18.9	18.4	18.1	17.9	15.8	14.5	13.9
27.90	10.53	18.9	18.5	18.1	18.0	15.9	14.5	13.9
28.19	10.35	18.9	18.5	18.2	18.0	15.9	14.6	13.9
28.69	10.04	19.0	18.5	18.2	18.0	16.0	14.6	14.0
28.75	10.00	19.0	18.5	18.2	18.0	16.0	14.6	14.0
28.98	9.85	19.0	18.6	18.3	18.1	16.0	14.7	14.0
28.99	9.85	18.8	18.4	18.1	18.0	15.9	14.6	14.0
29.19	9.73	18.8	18.5	18.2	18.0	16.0	14.7	14.1
29.25	9.69	18.8	18.5	18.2	18.0	16.0	14.7	14.1
29.69	9.42	18.9	18.5	18.2	18.1	16.1	14.8	14.1
30.00	9.22	18.9	18.6	18.3	18.1	16.1	14.8	14.2
30.19	9.11	19.0	18.6	18.3	18.1	16.2	14.9	14.2
30.30	9.04	19.0	18.6	18.4	18.2	16.2	14.9	14.3
30.69	8.80	19.1	18.7	18.4	18.2	16.3	14.9	14.3
31.19	8.48	19.1	18.7	18.4	18.3	16.4	15.0	14.4
31.24	8.45	19.1	18.7	18.4	18.3	16.4	15.0	14.4
31.30	8.42	19.1	18.8	18.5	18.3	16.4	15.0	14.4
31.74	8.14	19.2	18.8	18.5	18.3	16.5	15.1	14.4
31.95	8.01	19.2	18.8	18.5	18.3	16.5	15.1	14.4
32.24	7.83	19.2	18.8	18.5	18.3	16.5	15.1	14.5
32.25	7.83	19.2	18.8	18.5	18.3	16.5	15.1	14.5
32.74	7.52	19.3	18.9	18.6	18.4	16.6	15.2	14.6
33.24	7.21	19.4	19.0	18.6	18.5	16.7	15.3	14.6
33.30	7.17	19.4	19.0	18.7	18.5	16.7	15.3	14.6
33.45	7.08	19.4	19.0	18.7	18.5	16.7	15.3	14.6
33.74	6.90	19.4	19.0	18.7	18.5	16.7	15.3	14.7
34.20	6.61	19.5	19.1	18.7	18.5	16.8	15.4	14.7
34.24	6.59	19.5	19.1	18.8	18.6	16.8	15.4	14.7
34.55	6.40	19.5	19.1	18.8	18.6	16.8	15.4	14.8
34.69	6.31	19.5	19.1	18.8	18.6	16.9	15.5	14.8
34.69	6.31	19.5	19.1	18.8	18.6	16.9	15.4	14.8
34.74	6.28	19.5	19.1	18.8	18.6	16.9	15.5	14.8
34.85	6.21	19.5	19.1	18.8	18.6	16.9	15.5	14.8
35.24	5.97	19.6	19.2	18.9	18.7	17.0	15.6	14.9
35.50	5.81	19.6	19.2	18.9	18.7	17.0	15.6	14.9
35.74	5.66	19.7	19.3	18.9	18.7	17.0	15.6	15.0
36.24	5.35	19.8	19.3	19.0	18.8	17.1	15.7	15.1
36.50	5.19	19.8	19.4	19.0	18.9	17.2	15.8	15.1
36.74	5.04	19.8	19.4	19.1	18.9	17.2	15.8	15.1
36.93	4.92	19.9	19.5	19.1	18.9	17.3	15.9	15.2
36.93	4.92	19.8	19.4	19.1	18.9	17.2	15.8	15.2
36.95	4.91	19.8	19.4	19.1	18.9	17.2	15.8	15.2
37.24	4.73	19.8	19.4	19.1	18.9	17.3	15.9	15.2
37.60	4.50	19.9	19.5	19.2	19.0	17.3	15.9	15.3
37.74	4.41	19.9	19.5	19.2	19.0	17.4	16.0	15.3
37.80	4.38	19.9	19.5	19.2	19.0	17.4	16.0	15.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	20.0	19.6	19.3	19.1	17.5	16.1	15.4
38.24	4.10	20.1	19.7	19.3	19.1	17.5	16.1	15.4
38.25	4.10	20.1	19.7	19.3	19.1	17.5	16.1	15.4
38.60	3.88	20.1	19.7	19.4	19.2	17.6	16.2	15.5
38.74	3.79	20.1	19.7	19.4	19.2	17.6	16.2	15.5
38.95	3.66	20.1	19.7	19.4	19.2	17.6	16.2	15.5
39.15	3.54	20.2	19.7	19.4	19.2	17.6	16.2	15.5
39.24	3.48	20.2	19.8	19.4	19.2	17.6	16.2	15.5
39.65	3.23	20.2	19.8	19.5	19.3	17.7	16.3	15.6
39.74	3.17	20.3	19.8	19.5	19.3	17.7	16.3	15.6
39.95	3.04	20.4	19.9	19.6	19.4	17.8	16.4	15.7
40.24	2.86	20.4	20.0	19.6	19.4	17.9	16.4	15.7
40.55	2.67	20.4	20.0	19.6	19.4	17.9	16.5	15.8
40.70	2.58	20.5	20.0	19.7	19.5	18.0	16.5	15.8
40.74	2.55	20.5	20.0	19.7	19.5	18.0	16.5	15.8
41.15	2.30	20.5	20.1	19.7	19.5	18.0	16.6	15.9
41.24	2.24	20.5	20.1	19.7	19.5	18.0	16.6	15.9
41.74	1.93	20.6	20.1	19.8	19.6	18.1	16.6	15.9
42.10	1.71	20.6	20.2	19.8	19.6	18.1	16.7	16.0
42.24	1.62	20.7	20.2	19.8	19.6	18.2	16.7	16.0
42.25	1.61	20.7	20.2	19.8	19.6	18.2	16.7	16.0
42.74	1.31	20.8	20.3	19.9	19.7	18.3	16.8	16.1
42.75	1.30	20.8	20.3	19.9	19.7	18.3	16.8	16.1
43.24	1.00	20.9	20.4	20.0	19.8	18.4	16.9	16.2
43.35	0.93	20.9	20.5	20.1	19.9	18.4	17.0	16.2
43.65	0.74	21.0	20.5	20.1	19.9	18.5	17.0	16.2
43.74	0.69	21.0	20.5	20.1	19.9	18.5	17.0	16.3
43.90	0.59	21.0	20.5	20.1	19.9	18.5	17.0	16.3
44.24	0.38	21.0	20.5	20.1	19.9	18.5	17.0	16.3
44.45	0.25	21.0	20.5	20.1	19.9	18.5	17.0	16.3
44.74	0.07	21.1	20.6	20.2	20.0	18.6	17.1	16.4
44.80	0.03	21.1	20.6	20.2	20.0	18.6	17.1	16.4
44.85	0.00	21.1	20.6	20.2	20.0	18.6	17.1	16.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-6. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.35	27.65	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.50	27.55	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1.00	27.24	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.15	27.15	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.15	27.15	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.30	27.06	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.50	26.93	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1.65	26.84	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1.85	26.72	13.8	13.8	13.8	13.8	13.8	13.8	13.8
2.00	26.62	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.05	26.59	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.20	26.50	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.50	26.31	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.70	26.19	14.5	14.5	14.5	14.5	14.5	14.5	14.5
2.90	26.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6	14.6	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.43	25.73	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.44	25.73	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.45	25.72	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.46	25.72	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.50	25.69	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.65	25.60	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.00	25.38	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.20	25.26	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.50	25.07	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.75	24.91	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.00	24.76	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.28	24.58	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.38	24.52	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.39	24.52	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.50	24.45	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.55	24.42	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.65	24.35	14.6	14.6	14.6	14.6	14.6	14.6	14.6
6.00	24.14	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.05	24.11	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.50	23.83	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.65	23.73	15.2	15.2	15.2	15.2	15.2	15.2	15.2
7.00	23.52	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.07	23.47	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.10	23.45	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.15	23.42	15.5	15.5	15.5	15.5	15.5	15.5	15.5
7.16	23.42	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.50	23.20	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.55	23.17	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.80	23.02	15.7	15.7	15.7	15.7	15.7	15.7	15.7
8.00	22.89	15.8	15.8	15.8	15.8	15.8	15.8	15.8
8.05	22.86	15.9	15.9	15.9	15.9	15.9	15.9	15.9
8.45	22.61	16.1	16.1	16.1	16.1	16.1	16.1	16.1
8.50	22.58	16.1	16.1	16.1	16.1	16.1	16.1	16.1
8.99	22.28	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.09	22.22	16.4	16.3	16.3	16.2	16.4	16.4	16.4
9.49	21.97	16.6	16.5	16.4	16.4	16.6	16.6	16.6
9.50	21.96	16.6	16.5	16.4	16.4	16.6	16.6	16.6
9.99	21.66	16.8	16.6	16.5	16.5	16.8	16.8	16.8
10.05	21.62	16.8	16.6	16.5	16.5	16.8	16.8	16.8
10.25	21.50	16.8	16.7	16.6	16.5	16.8	16.8	16.8
10.49	21.35	16.9	16.7	16.7	16.6	16.9	16.9	16.9
10.65	21.25	17.0	16.8	16.7	16.6	17.0	17.0	17.0
10.99	21.04	17.1	16.9	16.8	16.7	17.1	17.1	17.1
11.10	20.97	17.1	16.9	16.8	16.7	17.1	17.1	17.1
11.41	20.78	17.2	17.0	16.9	16.8	17.2	17.2	17.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-6. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	17.3	17.0	16.9	16.8	17.3	17.3	17.3
11.49	20.73	17.3	17.0	17.0	16.8	17.3	17.3	17.3
11.75	20.56	17.4	17.2	17.1	16.9	17.4	17.4	17.4
11.99	20.42	17.5	17.3	17.2	17.0	17.5	17.5	17.5
12.20	20.28	17.6	17.4	17.2	17.1	17.6	17.6	17.6
12.35	20.19	17.7	17.4	17.3	17.1	17.7	17.7	17.7
12.48	20.11	17.8	17.5	17.4	17.2	17.8	17.8	17.8
12.49	20.10	17.8	17.5	17.4	17.2	17.8	17.8	17.8
12.52	20.08	17.8	17.5	17.4	17.2	17.8	17.8	17.8
12.53	20.08	17.8	17.5	17.4	17.2	17.8	17.8	17.8
12.70	19.97	17.8	17.6	17.4	17.3	17.8	17.8	17.8
12.99	19.79	17.9	17.6	17.5	17.3	17.9	17.9	17.9
13.25	19.63	18.0	17.7	17.6	17.4	18.0	18.0	18.0
13.31	19.59	18.0	17.7	17.6	17.4	18.0	18.0	18.0
13.40	19.54	18.0	17.8	17.6	17.4	18.0	18.0	18.0
13.40	19.54	18.0	17.8	17.6	17.4	18.0	18.0	18.0
13.49	19.48	18.0	17.8	17.6	17.5	18.0	18.0	18.0
13.75	19.32	18.1	17.8	17.7	17.5	18.1	18.1	18.1
13.99	19.17	18.2	17.9	17.7	17.5	18.2	18.2	18.2
14.45	18.89	18.2	18.0	17.8	17.6	18.2	18.2	18.2
14.49	18.86	18.2	18.0	17.8	17.6	18.2	18.2	18.2
14.80	18.67	18.3	18.0	17.8	17.7	18.3	18.3	18.3
14.99	18.55	18.3	18.0	17.9	17.7	18.3	18.3	18.3
15.20	18.42	18.3	18.0	17.9	17.7	18.3	18.3	18.3
15.49	18.24	18.4	18.1	17.9	17.8	18.4	18.4	18.4
15.80	18.05	18.4	18.1	18.0	17.8	18.4	18.4	18.4
15.99	17.93	18.5	18.2	18.0	17.8	18.5	18.5	18.5
16.20	17.80	18.5	18.2	18.0	17.9	18.5	18.5	18.5
16.34	17.72	18.5	18.2	18.1	17.9	18.5	18.5	18.5
16.34	17.71	18.4	18.2	18.0	17.8	18.4	18.4	18.4
16.49	17.62	18.4	18.2	18.0	17.9	18.4	18.4	18.4
16.75	17.46	18.5	18.2	18.1	17.9	18.5	18.5	18.5
16.99	17.31	18.5	18.3	18.1	17.9	18.5	18.5	18.5
17.10	17.24	18.5	18.3	18.1	18.0	18.5	18.5	18.5
17.30	17.12	18.5	18.3	18.2	18.0	18.5	18.5	18.5
17.49	17.00	18.6	18.3	18.2	18.0	18.6	18.6	18.6
17.65	16.90	18.6	18.3	18.2	18.0	18.6	18.6	18.6
17.90	16.74	18.6	18.4	18.2	18.1	18.6	18.6	18.6
17.99	16.69	18.6	18.4	18.2	18.1	18.6	18.6	18.6
18.15	16.59	18.6	18.4	18.3	18.1	18.6	18.6	18.6
18.19	16.56	18.6	18.4	18.3	18.1	18.6	18.6	18.6
18.19	16.56	18.6	18.4	18.3	18.1	18.6	18.6	18.6
18.36	16.45	18.6	18.4	18.3	18.1	18.6	18.6	18.6
18.37	16.45	17.9	17.8	17.8	17.7	16.3	15.6	14.9
18.65	16.28	17.9	17.9	17.8	17.8	16.3	15.6	15.0
18.69	16.25	17.9	17.9	17.8	17.8	16.4	15.6	15.0
18.95	16.09	18.0	17.9	17.9	17.8	16.4	15.7	15.0
19.19	15.94	18.0	17.9	17.9	17.8	16.5	15.8	15.1
19.32	15.86	18.0	17.9	17.9	17.8	16.5	15.8	15.1
19.43	15.80	18.0	17.9	17.9	17.8	16.5	15.8	15.1
19.43	15.79	17.8	17.8	17.8	17.8	16.4	15.7	15.1
19.65	15.66	17.9	17.8	17.8	17.8	16.4	15.8	15.1
19.69	15.63	17.9	17.8	17.8	17.8	16.4	15.8	15.1
20.15	15.34	17.9	17.9	17.8	17.8	16.5	15.9	15.2
20.19	15.32	17.9	17.9	17.9	17.8	16.5	15.9	15.2
20.69	15.01	18.0	17.9	17.9	17.9	16.6	16.0	15.3
20.95	14.85	18.0	18.0	17.9	17.9	16.7	16.0	15.4
21.19	14.70	18.0	18.0	17.9	17.9	16.7	16.1	15.4
21.40	14.57	18.0	18.0	18.0	17.9	16.8	16.1	15.5
21.60	14.44	18.0	18.0	18.0	17.9	16.8	16.2	15.5
21.69	14.39	18.0	18.0	18.0	17.9	16.8	16.2	15.5
21.69	14.39	18.0	18.0	18.0	17.9	16.8	16.2	15.5
22.19	14.08	18.1	18.0	18.0	18.0	16.9	16.3	15.6
22.20	14.07	18.1	18.0	18.0	18.0	16.9	16.3	15.6
22.40	13.95	18.1	18.0	18.0	18.0	16.9	16.3	15.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-6. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	18.1	18.1	18.0	18.0	17.0	16.3	15.7
22.80	13.70	18.1	18.1	18.0	18.0	17.0	16.4	15.7
23.19	13.46	18.1	18.1	18.1	18.0	17.0	16.4	15.8
23.30	13.39	18.1	18.1	18.1	18.0	17.0	16.4	15.8
23.69	13.14	18.1	18.1	18.1	18.0	17.1	16.5	15.8
24.05	12.92	18.2	18.1	18.1	18.0	17.1	16.5	15.9
24.19	12.83	18.2	18.1	18.1	18.0	17.1	16.5	15.9
24.50	12.64	18.2	18.1	18.1	18.1	17.1	16.5	15.9
24.69	12.52	18.2	18.1	18.1	18.1	17.1	16.5	15.9
24.70	12.52	18.2	18.1	18.1	18.1	17.1	16.5	15.9
25.05	12.30	18.2	18.2	18.1	18.1	17.2	16.6	16.0
25.19	12.21	18.2	18.2	18.1	18.1	17.2	16.6	16.0
25.69	11.90	18.2	18.1	18.1	18.1	17.2	16.6	16.0
25.85	11.80	18.2	18.1	18.1	18.1	17.2	16.6	16.0
26.19	11.59	18.2	18.2	18.1	18.1	17.2	16.6	16.0
26.69	11.28	18.2	18.2	18.2	18.1	17.3	16.7	16.1
27.19	10.97	18.2	18.2	18.2	18.1	17.3	16.7	16.1
27.20	10.96	18.2	18.2	18.2	18.1	17.3	16.7	16.1
27.45	10.81	18.2	18.2	18.2	18.1	17.3	16.8	16.1
27.69	10.66	18.3	18.2	18.2	18.2	17.4	16.8	16.2
27.90	10.53	18.3	18.3	18.3	18.2	17.4	16.8	16.2
28.19	10.35	18.3	18.3	18.3	18.2	17.4	16.9	16.3
28.69	10.04	18.3	18.3	18.3	18.3	17.5	16.9	16.3
28.75	10.00	18.3	18.3	18.3	18.3	17.5	16.9	16.3
28.98	9.85	18.4	18.3	18.3	18.3	17.5	17.0	16.4
28.99	9.85	18.3	18.3	18.3	18.3	17.5	17.0	16.4
29.19	9.73	18.4	18.3	18.3	18.3	17.5	17.0	16.4
29.25	9.69	18.4	18.3	18.3	18.3	17.5	17.0	16.4
29.69	9.42	18.4	18.4	18.4	18.3	17.6	17.0	16.5
30.00	9.22	18.4	18.4	18.4	18.4	17.6	17.1	16.5
30.19	9.11	18.5	18.4	18.4	18.4	17.7	17.1	16.5
30.30	9.04	18.5	18.5	18.4	18.4	17.7	17.2	16.6
30.69	8.80	18.5	18.5	18.5	18.4	17.7	17.2	16.6
31.19	8.48	18.5	18.5	18.5	18.5	17.8	17.3	16.7
31.24	8.45	18.5	18.5	18.5	18.5	17.8	17.3	16.7
31.30	8.42	18.6	18.5	18.5	18.5	17.8	17.3	16.7
31.74	8.14	18.6	18.6	18.5	18.5	17.9	17.4	16.8
31.95	8.01	18.6	18.6	18.5	18.5	17.9	17.4	16.8
32.24	7.83	18.6	18.6	18.6	18.5	17.9	17.4	16.8
32.25	7.83	18.6	18.6	18.6	18.5	17.9	17.4	16.8
32.74	7.52	18.7	18.7	18.6	18.6	18.0	17.5	16.9
33.24	7.21	18.8	18.7	18.7	18.6	18.0	17.5	17.0
33.30	7.17	18.8	18.7	18.7	18.7	18.0	17.6	17.0
33.45	7.08	18.8	18.7	18.7	18.7	18.0	17.6	17.0
33.74	6.90	18.8	18.8	18.7	18.7	18.1	17.6	17.0
34.20	6.61	18.8	18.8	18.8	18.7	18.1	17.6	17.0
34.24	6.59	18.8	18.8	18.8	18.7	18.1	17.6	17.0
34.55	6.40	18.9	18.8	18.8	18.7	18.2	17.7	17.1
34.69	6.31	18.9	18.8	18.8	18.8	18.2	17.7	17.1
34.69	6.31	18.9	18.8	18.8	18.8	18.2	17.7	17.1
34.74	6.28	18.9	18.8	18.8	18.8	18.2	17.7	17.1
34.85	6.21	18.9	18.9	18.8	18.8	18.2	17.7	17.1
35.24	5.97	19.0	18.9	18.9	18.8	18.3	17.8	17.2
35.50	5.81	19.0	18.9	18.9	18.9	18.3	17.8	17.2
35.74	5.66	19.0	19.0	19.0	18.9	18.4	17.9	17.3
36.24	5.35	19.1	19.0	19.0	19.0	18.4	18.0	17.4
36.50	5.19	19.1	19.1	19.0	19.0	18.5	18.0	17.4
36.74	5.04	19.2	19.1	19.1	19.0	18.5	18.0	17.5
36.93	4.92	19.2	19.1	19.1	19.1	18.5	18.1	17.5
36.93	4.92	19.2	19.1	19.1	19.1	18.5	18.1	17.5
36.95	4.91	19.2	19.1	19.1	19.1	18.5	18.1	17.5
37.24	4.73	19.2	19.2	19.1	19.1	18.6	18.1	17.5
37.60	4.50	19.3	19.2	19.2	19.1	18.6	18.1	17.6
37.74	4.41	19.3	19.2	19.2	19.2	18.6	18.2	17.6
37.80	4.38	19.3	19.3	19.2	19.2	18.7	18.2	17.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-6. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	19.4	19.3	19.3	19.2	18.8	18.3	17.7
38.24	4.10	19.4	19.4	19.4	19.3	18.8	18.3	17.7
38.25	4.10	19.4	19.4	19.4	19.3	18.8	18.3	17.8
38.60	3.88	19.5	19.4	19.4	19.3	18.9	18.4	17.8
38.74	3.79	19.5	19.4	19.4	19.4	18.9	18.4	17.8
38.95	3.66	19.5	19.5	19.4	19.4	18.9	18.4	17.8
39.15	3.54	19.5	19.5	19.4	19.4	18.9	18.4	17.8
39.24	3.48	19.5	19.5	19.4	19.4	18.9	18.5	17.9
39.65	3.23	19.6	19.5	19.5	19.4	19.0	18.5	17.9
39.74	3.17	19.6	19.6	19.5	19.5	19.0	18.5	17.9
39.95	3.04	19.7	19.6	19.6	19.5	19.1	18.6	18.0
40.24	2.86	19.7	19.7	19.6	19.5	19.1	18.6	18.0
40.55	2.67	19.8	19.7	19.6	19.6	19.2	18.7	18.1
40.70	2.58	19.8	19.8	19.7	19.6	19.2	18.7	18.1
40.74	2.55	19.8	19.8	19.7	19.6	19.2	18.8	18.1
41.15	2.30	19.9	19.8	19.8	19.7	19.3	18.8	18.2
41.24	2.24	19.9	19.8	19.8	19.7	19.3	18.8	18.2
41.74	1.93	19.9	19.9	19.8	19.7	19.3	18.9	18.3
42.10	1.71	20.0	19.9	19.8	19.8	19.4	18.9	18.3
42.24	1.62	20.0	19.9	19.9	19.8	19.4	18.9	18.3
42.25	1.61	20.0	19.9	19.9	19.8	19.4	18.9	18.3
42.74	1.31	20.1	20.0	19.9	19.9	19.5	19.0	18.4
42.75	1.30	20.1	20.0	20.0	19.9	19.5	19.0	18.4
43.24	1.00	20.2	20.1	20.1	20.0	19.6	19.2	18.5
43.35	0.93	20.2	20.1	20.1	20.0	19.7	19.2	18.6
43.65	0.74	20.3	20.2	20.1	20.0	19.7	19.2	18.6
43.74	0.69	20.3	20.2	20.1	20.0	19.7	19.2	18.6
43.90	0.59	20.3	20.2	20.1	20.0	19.7	19.2	18.6
44.24	0.38	20.3	20.2	20.1	20.1	19.7	19.3	18.6
44.45	0.25	20.3	20.2	20.2	20.1	19.8	19.3	18.7
44.74	0.07	20.4	20.3	20.2	20.1	19.8	19.3	18.7
44.80	0.03	20.4	20.3	20.2	20.1	19.8	19.4	18.7
44.85	0.00	20.4	20.3	20.2	20.1	19.9	19.4	18.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-7. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	10.2	10.2	10.2	10.2	10.2	10.2	10.2
0.35	27.65	11.2	11.2	11.2	11.2	11.2	11.2	11.2
0.50	27.55	11.6	11.6	11.6	11.6	11.6	11.6	11.6
0.65	27.46	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1.00	27.24	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1.15	27.15	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.30	27.06	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1.50	26.93	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1.65	26.84	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1.85	26.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7
2.00	26.62	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.05	26.59	15.1	15.1	15.1	15.1	15.1	15.1	15.1
2.20	26.50	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.50	26.31	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.70	26.19	16.2	16.2	16.2	16.2	16.2	16.2	16.2
2.90	26.06	16.5	16.5	16.5	16.5	16.5	16.5	16.5
2.92	26.05	16.5	16.5	16.5	16.5	16.5	16.5	16.5
3.00	26.00	16.7	16.7	16.7	16.7	16.7	16.7	16.7
3.43	25.73	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.44	25.73	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.45	25.72	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.46	25.72	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.50	25.69	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.65	25.60	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.00	25.38	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.20	25.26	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.50	25.07	17.6	17.6	17.6	17.6	17.6	17.6	17.6
4.75	24.91	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.00	24.76	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.28	24.58	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.38	24.52	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.39	24.52	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.50	24.45	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.55	24.42	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.65	24.35	17.1	17.1	17.1	17.1	17.1	17.1	17.1
6.00	24.14	17.5	17.5	17.5	17.5	17.5	17.5	17.5
6.05	24.11	17.6	17.6	17.6	17.6	17.6	17.6	17.6
6.50	23.83	18.2	18.2	18.2	18.2	18.2	18.2	18.2
6.65	23.73	18.4	18.4	18.4	18.4	18.4	18.4	18.4
7.00	23.52	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.07	23.47	18.8	18.8	18.8	18.8	18.8	18.8	18.8
7.10	23.45	18.8	18.8	18.8	18.8	18.8	18.8	18.8
7.15	23.42	18.9	18.9	18.9	18.9	18.9	18.9	18.9
7.16	23.42	18.5	18.5	18.5	18.5	18.5	18.5	18.5
7.50	23.20	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.55	23.17	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.80	23.02	18.9	18.9	18.9	18.9	18.9	18.9	18.9
8.00	22.89	19.1	19.1	19.1	19.1	19.1	19.1	19.1
8.05	22.86	19.1	19.1	19.1	19.1	19.1	19.1	19.1
8.45	22.61	19.3	19.3	19.3	19.3	19.3	19.3	19.3
8.50	22.58	19.4	19.4	19.4	19.4	19.4	19.4	19.4
8.99	22.28	19.6	19.6	19.6	19.6	19.6	19.6	19.6
9.09	22.22	19.7	19.7	19.7	19.7	19.7	19.7	19.7
9.09	22.22	19.5	17.4	16.7	16.4	19.5	19.5	19.5
9.49	21.97	19.8	17.6	16.9	16.5	19.8	19.8	19.8
9.50	21.96	19.8	17.6	16.9	16.6	19.8	19.8	19.8
9.99	21.66	19.8	17.6	16.9	16.6	19.8	19.8	19.8
10.05	21.62	19.8	17.6	16.9	16.6	19.8	19.8	19.8
10.25	21.50	19.9	17.7	17.0	16.6	19.9	19.9	19.9
10.49	21.35	20.0	17.8	17.0	16.7	20.0	20.0	20.0
10.65	21.25	20.1	17.9	17.1	16.8	20.1	20.1	20.1
10.99	21.04	20.3	18.0	17.2	16.9	20.3	20.3	20.3
11.10	20.97	20.3	18.1	17.3	16.9	20.3	20.3	20.3
11.41	20.78	20.5	18.3	17.4	17.0	20.5	20.5	20.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-7. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	20.5	18.3	17.5	17.1	20.5	20.5	20.5
11.49	20.73	20.6	18.3	17.5	17.1	20.6	20.6	20.6
11.75	20.56	20.8	18.5	17.6	17.2	20.8	20.8	20.8
11.99	20.42	21.0	18.7	17.8	17.4	21.0	21.0	21.0
12.20	20.28	21.2	18.9	17.9	17.5	21.2	21.2	21.2
12.35	20.19	21.3	19.0	18.0	17.6	21.3	21.3	21.3
12.48	20.11	21.3	19.0	18.0	17.6	21.3	21.3	21.3
12.49	20.10	21.3	19.0	18.0	17.6	21.3	21.3	21.3
12.52	20.08	21.3	19.0	18.0	17.6	21.3	21.3	21.3
12.53	20.08	21.2	18.9	18.0	17.6	21.2	21.2	21.2
12.70	19.97	21.2	18.9	18.0	17.6	21.2	21.2	21.2
12.99	19.79	21.4	19.1	18.2	17.7	21.4	21.4	21.4
13.25	19.63	21.5	19.3	18.3	17.9	21.5	21.5	21.5
13.31	19.59	21.5	19.3	18.3	17.9	21.5	21.5	21.5
13.40	19.54	21.6	19.3	18.4	17.9	21.6	21.6	21.6
13.40	19.54	21.5	19.3	18.4	17.9	21.5	21.5	21.5
13.49	19.48	21.6	19.4	18.4	18.0	21.6	21.6	21.6
13.75	19.32	21.7	19.5	18.5	18.1	21.7	21.7	21.7
13.99	19.17	21.8	19.6	18.6	18.1	21.8	21.8	21.8
14.45	18.89	21.9	19.7	18.7	18.3	21.9	21.9	21.9
14.49	18.86	21.9	19.7	18.7	18.3	21.9	21.9	21.9
14.80	18.67	21.9	19.7	18.7	18.3	21.9	21.9	21.9
14.99	18.55	22.0	19.8	18.8	18.3	22.0	22.0	22.0
15.20	18.42	22.0	19.8	18.9	18.4	22.0	22.0	22.0
15.49	18.24	22.1	19.9	19.0	18.5	22.1	22.1	22.1
15.80	18.05	22.2	20.0	19.0	18.6	22.2	22.2	22.2
15.99	17.93	22.3	20.1	19.1	18.6	22.3	22.3	22.3
16.20	17.80	22.3	20.1	19.2	18.7	22.3	22.3	22.3
16.34	17.72	22.4	20.2	19.2	18.7	22.4	22.4	22.4
16.34	17.71	22.1	20.1	19.2	18.7	22.1	22.1	22.1
16.49	17.62	22.2	20.1	19.2	18.7	22.2	22.2	22.2
16.75	17.46	22.3	20.2	19.3	18.8	22.3	22.3	22.3
16.99	17.31	22.3	20.3	19.4	19.0	22.3	22.3	22.3
17.10	17.24	22.4	20.4	19.5	19.0	22.4	22.4	22.4
17.30	17.12	22.4	20.5	19.6	19.2	22.4	22.4	22.4
17.49	17.00	22.4	20.5	19.7	19.3	22.4	22.4	22.4
17.65	16.90	22.5	20.6	19.8	19.4	22.5	22.5	22.5
17.90	16.74	22.5	20.7	19.9	19.5	22.5	22.5	22.5
17.99	16.69	22.5	20.7	20.0	19.6	22.5	22.5	22.5
18.15	16.59	22.6	20.8	20.0	19.6	22.6	22.6	22.6
18.19	16.56	22.6	20.8	20.0	19.7	22.6	22.6	22.6
18.19	16.56	22.6	20.8	20.0	19.7	22.6	22.6	22.6
18.36	16.45	22.5	20.8	20.0	19.7	22.5	22.5	22.5
18.37	16.45	21.0	20.1	19.6	19.4	16.1	14.7	14.1
18.65	16.28	21.0	20.2	19.7	19.4	16.2	14.7	14.2
18.69	16.25	21.0	20.2	19.7	19.4	16.2	14.8	14.2
18.95	16.09	21.0	20.2	19.7	19.5	16.3	14.8	14.3
19.19	15.94	21.0	20.2	19.7	19.5	16.3	14.9	14.3
19.32	15.86	21.0	20.2	19.7	19.5	16.3	14.9	14.3
19.43	15.80	21.0	20.2	19.7	19.5	16.3	14.9	14.3
19.43	15.79	20.1	19.7	19.4	19.2	16.2	14.8	14.3
19.65	15.66	20.1	19.7	19.4	19.2	16.2	14.9	14.3
19.69	15.63	20.1	19.7	19.4	19.2	16.2	14.9	14.3
20.15	15.34	20.1	19.7	19.4	19.2	16.3	15.0	14.4
20.19	15.32	20.1	19.7	19.4	19.2	16.3	15.0	14.4
20.69	15.01	20.2	19.8	19.5	19.3	16.4	15.1	14.5
20.95	14.85	20.2	19.8	19.5	19.3	16.5	15.1	14.6
21.19	14.70	20.2	19.8	19.5	19.3	16.5	15.2	14.6
21.40	14.57	20.2	19.8	19.5	19.4	16.6	15.2	14.6
21.60	14.44	20.2	19.8	19.5	19.4	16.6	15.3	14.7
21.69	14.39	20.2	19.8	19.5	19.4	16.6	15.3	14.7
21.69	14.39	20.2	19.8	19.5	19.4	16.6	15.3	14.7
22.19	14.08	20.2	19.9	19.6	19.4	16.7	15.4	14.8
22.20	14.07	20.2	19.9	19.6	19.4	16.7	15.4	14.8
22.40	13.95	20.2	19.9	19.6	19.4	16.8	15.4	14.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-7. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	20.2	19.9	19.6	19.4	16.8	15.4	14.8
22.80	13.70	20.2	19.9	19.6	19.4	16.8	15.4	14.8
23.19	13.46	20.3	19.9	19.6	19.4	16.8	15.5	14.9
23.30	13.39	20.3	19.9	19.6	19.5	16.8	15.5	14.9
23.69	13.14	20.3	19.9	19.6	19.5	16.9	15.5	14.9
24.05	12.92	20.3	19.9	19.6	19.5	16.9	15.6	15.0
24.19	12.83	20.3	19.9	19.6	19.5	16.9	15.6	15.0
24.50	12.64	20.3	19.9	19.6	19.5	17.0	15.6	15.0
24.69	12.52	20.3	19.9	19.6	19.5	17.0	15.6	15.0
24.70	12.52	20.3	19.9	19.6	19.5	17.0	15.6	15.0
25.05	12.30	20.3	20.0	19.7	19.5	17.0	15.7	15.1
25.19	12.21	20.3	20.0	19.7	19.5	17.0	15.7	15.1
25.69	11.90	20.3	20.0	19.7	19.5	17.0	15.7	15.1
25.85	11.80	20.3	20.0	19.7	19.5	17.0	15.7	15.1
26.19	11.59	20.3	20.0	19.7	19.6	17.1	15.7	15.1
26.69	11.28	20.3	20.0	19.7	19.6	17.1	15.8	15.2
27.19	10.97	20.3	20.0	19.8	19.6	17.1	15.8	15.2
27.20	10.96	20.3	20.0	19.8	19.6	17.1	15.8	15.2
27.45	10.81	20.3	20.0	19.8	19.6	17.2	15.8	15.2
27.69	10.66	20.3	20.0	19.8	19.6	17.2	15.9	15.3
27.90	10.53	20.4	20.1	19.8	19.7	17.3	15.9	15.3
28.19	10.35	20.4	20.1	19.9	19.7	17.3	16.0	15.4
28.69	10.04	20.4	20.1	19.9	19.7	17.3	16.0	15.4
28.75	10.00	20.4	20.1	19.9	19.7	17.4	16.0	15.4
28.98	9.85	20.4	20.1	19.9	19.8	17.4	16.1	15.5
28.99	9.85	20.2	20.0	19.8	19.7	17.3	16.0	15.4
29.19	9.73	20.2	20.0	19.8	19.7	17.3	16.1	15.5
29.25	9.69	20.2	20.0	19.8	19.7	17.4	16.1	15.5
29.69	9.42	20.2	20.0	19.9	19.7	17.4	16.1	15.6
30.00	9.22	20.2	20.1	19.9	19.8	17.5	16.2	15.6
30.19	9.11	20.3	20.1	19.9	19.8	17.5	16.3	15.7
30.30	9.04	20.3	20.1	19.9	19.8	17.5	16.3	15.7
30.69	8.80	20.3	20.1	20.0	19.8	17.6	16.3	15.7
31.19	8.48	20.3	20.2	20.0	19.8	17.6	16.4	15.8
31.24	8.45	20.3	20.2	20.0	19.8	17.7	16.4	15.8
31.30	8.42	20.4	20.2	20.0	19.9	17.7	16.4	15.8
31.74	8.14	20.4	20.2	20.0	19.9	17.7	16.5	15.9
31.95	8.01	20.4	20.2	20.0	19.9	17.8	16.5	15.9
32.24	7.83	20.4	20.2	20.0	19.9	17.8	16.5	15.9
32.25	7.83	20.4	20.2	20.0	19.9	17.8	16.5	15.9
32.74	7.52	20.5	20.3	20.1	20.0	17.9	16.6	16.0
33.24	7.21	20.5	20.4	20.2	20.0	17.9	16.7	16.1
33.30	7.17	20.5	20.4	20.2	20.0	18.0	16.7	16.1
33.45	7.08	20.5	20.4	20.2	20.0	18.0	16.7	16.1
33.74	6.90	20.5	20.4	20.2	20.1	18.0	16.7	16.1
34.20	6.61	20.6	20.4	20.2	20.1	18.0	16.8	16.2
34.24	6.59	20.6	20.4	20.2	20.1	18.0	16.8	16.2
34.55	6.40	20.6	20.4	20.2	20.1	18.1	16.8	16.2
34.69	6.31	20.6	20.4	20.3	20.1	18.1	16.8	16.2
34.69	6.31	20.6	20.4	20.2	20.1	18.1	16.8	16.2
34.74	6.28	20.6	20.4	20.3	20.1	18.1	16.8	16.3
34.85	6.21	20.6	20.4	20.3	20.2	18.1	16.9	16.3
35.24	5.97	20.6	20.5	20.3	20.2	18.2	16.9	16.4
35.50	5.81	20.7	20.5	20.4	20.3	18.2	17.0	16.4
35.74	5.66	20.7	20.5	20.4	20.3	18.3	17.0	16.5
36.24	5.35	20.8	20.6	20.5	20.4	18.4	17.1	16.5
36.50	5.19	20.8	20.6	20.5	20.4	18.4	17.2	16.6
36.74	5.04	20.8	20.7	20.5	20.4	18.4	17.2	16.6
36.93	4.92	20.8	20.7	20.6	20.5	18.5	17.3	16.7
36.93	4.92	20.8	20.7	20.5	20.4	18.5	17.3	16.7
36.95	4.91	20.8	20.7	20.5	20.4	18.5	17.3	16.7
37.24	4.73	20.8	20.7	20.6	20.5	18.5	17.3	16.7
37.60	4.50	20.8	20.7	20.6	20.5	18.5	17.3	16.8
37.74	4.41	20.8	20.8	20.6	20.5	18.6	17.4	16.8
37.80	4.38	20.9	20.8	20.6	20.5	18.6	17.4	16.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-7. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)*****						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	21.0	20.9	20.7	20.6	18.7	17.5	17.0
38.24	4.10	21.0	20.9	20.8	20.7	18.8	17.6	17.1
38.25	4.10	21.0	20.9	20.8	20.7	18.8	17.6	17.1
38.60	3.88	21.1	21.0	20.8	20.8	18.8	17.7	17.1
38.74	3.79	21.1	21.0	20.9	20.8	18.8	17.7	17.1
38.95	3.66	21.1	21.0	20.9	20.8	18.9	17.7	17.1
39.15	3.54	21.1	21.0	20.9	20.8	18.9	17.7	17.1
39.24	3.48	21.1	21.0	20.9	20.8	18.9	17.7	17.1
39.65	3.23	21.1	21.0	20.9	20.8	18.9	17.8	17.2
39.74	3.17	21.2	21.1	21.0	20.9	19.0	17.8	17.3
39.95	3.04	21.3	21.1	21.0	21.0	19.1	17.9	17.4
40.24	2.86	21.3	21.2	21.0	21.0	19.1	17.9	17.4
40.55	2.67	21.3	21.2	21.1	21.0	19.1	18.0	17.4
40.70	2.58	21.4	21.3	21.1	21.1	19.2	18.0	17.5
40.74	2.55	21.4	21.3	21.1	21.1	19.2	18.1	17.5
41.15	2.30	21.4	21.3	21.2	21.1	19.3	18.1	17.6
41.24	2.24	21.4	21.3	21.2	21.1	19.3	18.1	17.6
41.74	1.93	21.4	21.3	21.2	21.1	19.3	18.2	17.6
42.10	1.71	21.4	21.3	21.2	21.1	19.3	18.2	17.6
42.24	1.62	21.5	21.4	21.2	21.2	19.4	18.2	17.7
42.25	1.61	21.5	21.4	21.2	21.2	19.4	18.2	17.7
42.74	1.31	21.6	21.5	21.3	21.3	19.5	18.3	17.8
42.75	1.30	21.6	21.5	21.4	21.3	19.5	18.3	17.8
43.24	1.00	21.7	21.6	21.5	21.4	19.6	18.5	18.0
43.35	0.93	21.7	21.6	21.5	21.4	19.7	18.5	18.0
43.65	0.74	21.7	21.6	21.5	21.4	19.7	18.5	18.0
43.74	0.69	21.7	21.6	21.5	21.4	19.7	18.5	18.0
43.90	0.59	21.7	21.6	21.5	21.4	19.7	18.5	18.0
44.24	0.38	21.7	21.6	21.5	21.4	19.7	18.5	18.0
44.45	0.25	21.7	21.6	21.5	21.4	19.7	18.5	18.0
44.74	0.07	21.8	21.7	21.5	21.5	19.7	18.6	18.1
44.80	0.03	21.8	21.7	21.6	21.5	19.7	18.6	18.1
44.85	0.00	21.8	21.7	21.6	21.5	19.8	18.6	18.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)*****						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.35	27.65	12.9	12.9	12.9	12.9	12.9	12.9	12.9
0.50	27.55	13.2	13.2	13.2	13.2	13.2	13.2	13.2
0.65	27.46	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1.00	27.24	14.1	14.1	14.1	14.1	14.1	14.1	14.1
1.15	27.15	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1.15	27.15	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1.30	27.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6
1.50	26.93	14.9	14.9	14.9	14.9	14.9	14.9	14.9
1.65	26.84	15.1	15.1	15.1	15.1	15.1	15.1	15.1
1.85	26.72	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.00	26.62	15.6	15.6	15.6	15.6	15.6	15.6	15.6
2.05	26.59	15.7	15.7	15.7	15.7	15.7	15.7	15.7
2.20	26.50	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.50	26.31	16.3	16.3	16.3	16.3	16.3	16.3	16.3
2.70	26.19	16.5	16.5	16.5	16.5	16.5	16.5	16.5
2.90	26.06	16.7	16.7	16.7	16.7	16.7	16.7	16.7
2.92	26.05	16.7	16.7	16.7	16.7	16.7	16.7	16.7
3.00	26.00	16.8	16.8	16.8	16.8	16.8	16.8	16.8
3.43	25.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.44	25.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.45	25.72	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.46	25.72	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.50	25.69	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.65	25.60	17.4	17.4	17.4	17.4	17.4	17.4	17.4
4.00	25.38	17.2	17.2	17.2	17.2	17.2	17.2	17.2
4.20	25.26	17.2	17.2	17.2	17.2	17.2	17.2	17.2
4.50	25.07	17.0	17.0	17.0	17.0	17.0	17.0	17.0
4.75	24.91	17.0	17.0	17.0	17.0	17.0	17.0	17.0
5.00	24.76	16.9	16.9	16.9	16.9	16.9	16.9	16.9
5.28	24.58	16.8	16.8	16.8	16.8	16.8	16.8	16.8
5.38	24.52	16.8	16.8	16.8	16.8	16.8	16.8	16.8
5.39	24.52	16.4	16.4	16.4	16.4	16.4	16.4	16.4
5.50	24.45	16.3	16.3	16.3	16.3	16.3	16.3	16.3
5.55	24.42	16.3	16.3	16.3	16.3	16.3	16.3	16.3
5.65	24.35	16.3	16.3	16.3	16.3	16.3	16.3	16.3
6.00	24.14	16.7	16.7	16.7	16.7	16.7	16.7	16.7
6.05	24.11	16.8	16.8	16.8	16.8	16.8	16.8	16.8
6.50	23.83	17.3	17.3	17.3	17.3	17.3	17.3	17.3
6.65	23.73	17.4	17.4	17.4	17.4	17.4	17.4	17.4
7.00	23.52	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.07	23.47	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.10	23.45	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.15	23.42	17.9	17.9	17.9	17.9	17.9	17.9	17.9
7.16	23.42	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.50	23.20	18.0	18.0	18.0	18.0	18.0	18.0	18.0
7.55	23.17	18.0	18.0	18.0	18.0	18.0	18.0	18.0
7.80	23.02	18.2	18.2	18.2	18.2	18.2	18.2	18.2
8.00	22.89	18.3	18.3	18.3	18.3	18.3	18.3	18.3
8.05	22.86	18.3	18.3	18.3	18.3	18.3	18.3	18.3
8.45	22.61	18.5	18.5	18.5	18.5	18.5	18.5	18.5
8.50	22.58	18.5	18.5	18.5	18.5	18.5	18.5	18.5
8.99	22.28	18.7	18.7	18.7	18.7	18.7	18.7	18.7
9.09	22.22	18.8	18.8	18.8	18.8	18.8	18.8	18.8
9.09	22.22	18.7	18.2	18.0	17.7	18.7	18.7	18.7
9.49	21.97	19.0	18.4	18.2	17.9	19.0	19.0	19.0
9.50	21.96	19.0	18.4	18.2	18.0	19.0	19.0	19.0
9.99	21.66	19.0	18.4	18.2	18.0	19.0	19.0	19.0
10.05	21.62	19.0	18.4	18.2	18.0	19.0	19.0	19.0
10.25	21.50	19.1	18.5	18.3	18.0	19.1	19.1	19.1
10.49	21.35	19.2	18.6	18.4	18.1	19.2	19.2	19.2
10.65	21.25	19.2	18.7	18.4	18.2	19.2	19.2	19.2
10.99	21.04	19.4	18.8	18.6	18.3	19.4	19.4	19.4
11.10	20.97	19.4	18.9	18.6	18.3	19.4	19.4	19.4
11.41	20.78	19.6	19.0	18.8	18.5	19.6	19.6	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)*****						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	19.6	19.0	18.8	18.5	19.6	19.6	19.6
11.49	20.73	19.7	19.1	18.8	18.5	19.7	19.7	19.7
11.75	20.56	19.9	19.3	19.0	18.7	19.9	19.9	19.9
11.99	20.42	20.0	19.4	19.1	18.8	20.0	20.0	20.0
12.20	20.28	20.1	19.5	19.3	18.9	20.1	20.1	20.1
12.35	20.19	20.3	19.6	19.3	19.0	20.3	20.3	20.3
12.48	20.11	20.3	19.6	19.3	19.0	20.3	20.3	20.3
12.49	20.10	20.3	19.6	19.3	19.0	20.3	20.3	20.3
12.52	20.08	20.3	19.6	19.3	19.0	20.3	20.3	20.3
12.53	20.08	20.2	19.6	19.3	19.0	20.2	20.2	20.2
12.70	19.97	20.2	19.6	19.3	19.0	20.2	20.2	20.2
12.99	19.79	20.3	19.8	19.5	19.1	20.3	20.3	20.3
13.25	19.63	20.4	19.9	19.6	19.2	20.4	20.4	20.4
13.31	19.59	20.5	19.9	19.6	19.3	20.5	20.5	20.5
13.40	19.54	20.5	19.9	19.6	19.3	20.5	20.5	20.5
13.40	19.54	20.5	19.9	19.6	19.3	20.5	20.5	20.5
13.49	19.48	20.5	19.9	19.6	19.3	20.5	20.5	20.5
13.75	19.32	20.6	20.0	19.7	19.4	20.6	20.6	20.6
13.99	19.17	20.7	20.1	19.8	19.5	20.7	20.7	20.7
14.45	18.89	20.8	20.2	19.9	19.6	20.8	20.8	20.8
14.49	18.86	20.8	20.2	19.9	19.6	20.8	20.8	20.8
14.80	18.67	20.8	20.2	19.9	19.6	20.8	20.8	20.8
14.99	18.55	20.8	20.2	19.9	19.6	20.8	20.8	20.8
15.20	18.42	20.8	20.3	20.0	19.6	20.8	20.8	20.8
15.49	18.24	20.9	20.4	20.1	19.7	20.9	20.9	20.9
15.80	18.05	21.0	20.4	20.1	19.8	21.0	21.0	21.0
15.99	17.93	21.0	20.5	20.2	19.8	21.0	21.0	21.0
16.20	17.80	21.1	20.5	20.2	19.9	21.1	21.1	21.1
16.34	17.72	21.1	20.5	20.3	19.9	21.1	21.1	21.1
16.34	17.71	21.0	20.5	20.2	19.9	21.0	21.0	21.0
16.49	17.62	21.0	20.5	20.2	19.9	21.0	21.0	21.0
16.75	17.46	21.1	20.6	20.3	20.0	21.1	21.1	21.1
16.99	17.31	21.1	20.6	20.3	20.0	21.1	21.1	21.1
17.10	17.24	21.1	20.6	20.4	20.0	21.1	21.1	21.1
17.30	17.12	21.2	20.7	20.4	20.1	21.2	21.2	21.2
17.49	17.00	21.2	20.7	20.5	20.1	21.2	21.2	21.2
17.65	16.90	21.2	20.7	20.5	20.2	21.2	21.2	21.2
17.90	16.74	21.3	20.8	20.5	20.2	21.3	21.3	21.3
17.99	16.69	21.3	20.8	20.5	20.3	21.3	21.3	21.3
18.15	16.59	21.3	20.8	20.6	20.3	21.3	21.3	21.3
18.19	16.56	21.3	20.8	20.6	20.3	21.3	21.3	21.3
18.19	16.56	21.3	20.8	20.6	20.3	21.3	21.3	21.3
18.36	16.45	21.2	20.8	20.5	20.3	21.2	21.2	21.2
18.37	16.45	20.2	20.0	19.9	19.8	18.1	17.2	16.4
18.65	16.28	20.1	20.0	19.9	19.8	18.1	17.3	16.4
18.69	16.25	20.1	20.0	19.9	19.8	18.1	17.3	16.4
18.95	16.09	20.1	19.9	19.9	19.7	18.1	17.3	16.5
19.19	15.94	20.0	19.9	19.8	19.7	18.1	17.3	16.5
19.32	15.86	20.0	19.8	19.8	19.7	18.1	17.3	16.5
19.43	15.80	19.9	19.8	19.7	19.6	18.1	17.3	16.5
19.43	15.79	19.7	19.7	19.6	19.5	18.0	17.2	16.4
19.65	15.66	19.7	19.6	19.6	19.5	18.0	17.2	16.4
19.69	15.63	19.7	19.6	19.6	19.5	18.0	17.2	16.4
20.15	15.34	19.6	19.5	19.5	19.5	17.9	17.2	16.5
20.19	15.32	19.6	19.5	19.5	19.5	17.9	17.2	16.5
20.69	15.01	19.5	19.5	19.5	19.4	18.0	17.2	16.5
20.95	14.85	19.5	19.5	19.4	19.4	18.0	17.2	16.5
21.19	14.70	19.4	19.4	19.4	19.4	17.9	17.3	16.5
21.40	14.57	19.4	19.4	19.4	19.4	17.9	17.3	16.5
21.60	14.44	19.4	19.4	19.4	19.3	17.9	17.3	16.6
21.69	14.39	19.4	19.4	19.4	19.3	17.9	17.3	16.6
21.69	14.39	19.4	19.4	19.4	19.3	17.9	17.3	16.6
22.19	14.08	19.3	19.3	19.3	19.3	17.9	17.3	16.6
22.20	14.07	19.3	19.3	19.3	19.3	17.9	17.3	16.6
22.40	13.95	19.3	19.3	19.3	19.3	17.9	17.3	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	19.3	19.3	19.3	19.3	17.9	17.3	16.6
22.80	13.70	19.3	19.3	19.3	19.3	17.9	17.3	16.6
23.19	13.46	19.2	19.2	19.3	19.3	17.9	17.3	16.6
23.30	13.39	19.2	19.2	19.2	19.2	17.9	17.3	16.7
23.69	13.14	19.2	19.2	19.2	19.2	17.9	17.3	16.7
24.05	12.92	19.1	19.2	19.2	19.2	17.9	17.3	16.7
24.19	12.83	19.1	19.1	19.2	19.2	17.9	17.3	16.7
24.50	12.64	19.1	19.1	19.1	19.2	17.9	17.3	16.7
24.69	12.52	19.1	19.1	19.1	19.2	17.9	17.3	16.7
24.70	12.52	19.1	19.1	19.1	19.2	17.9	17.3	16.7
25.05	12.30	19.0	19.1	19.1	19.2	17.9	17.3	16.7
25.19	12.21	19.0	19.1	19.1	19.2	17.9	17.3	16.7
25.69	11.90	19.0	19.1	19.1	19.2	17.9	17.3	16.7
25.85	11.80	19.0	19.1	19.1	19.2	17.9	17.3	16.7
26.19	11.59	19.0	19.1	19.1	19.1	17.9	17.3	16.7
26.69	11.28	19.0	19.0	19.1	19.1	17.9	17.3	16.8
27.19	10.97	18.9	19.0	19.1	19.1	17.9	17.3	16.8
27.20	10.96	18.9	19.0	19.1	19.1	17.9	17.3	16.8
27.45	10.81	18.9	19.0	19.0	19.1	17.8	17.3	16.8
27.69	10.66	18.9	19.0	19.0	19.1	17.9	17.4	16.8
27.90	10.53	18.9	19.0	19.1	19.1	17.9	17.4	16.8
28.19	10.35	18.9	19.0	19.0	19.1	17.9	17.4	16.8
28.69	10.04	18.9	19.0	19.0	19.1	17.9	17.4	16.9
28.75	10.00	18.9	19.0	19.0	19.1	17.9	17.4	16.9
28.98	9.85	18.8	19.0	19.0	19.1	17.9	17.4	16.9
28.99	9.85	18.8	18.9	19.0	19.1	17.9	17.4	16.9
29.19	9.73	18.8	18.9	19.0	19.1	17.9	17.4	16.9
29.25	9.69	18.8	18.9	19.0	19.1	17.9	17.4	16.9
29.69	9.42	18.7	18.9	19.0	19.0	17.8	17.4	16.9
30.00	9.22	18.7	18.9	18.9	19.0	17.8	17.4	16.9
30.19	9.11	18.7	18.9	19.0	19.0	17.9	17.5	17.0
30.30	9.04	18.7	18.9	19.0	19.0	17.9	17.5	17.0
30.69	8.80	18.7	18.9	19.0	19.0	17.9	17.5	17.0
31.19	8.48	18.7	18.8	18.9	19.0	17.9	17.5	17.0
31.24	8.45	18.7	18.8	18.9	19.0	17.9	17.5	17.0
31.30	8.42	18.7	18.9	18.9	19.0	17.9	17.5	17.1
31.74	8.14	18.7	18.8	18.9	19.0	17.9	17.5	17.1
31.95	8.01	18.7	18.8	18.9	19.0	17.9	17.5	17.1
32.24	7.83	18.7	18.8	18.9	19.0	17.9	17.5	17.1
32.25	7.83	18.7	18.8	18.9	19.0	17.9	17.5	17.1
32.74	7.52	18.7	18.9	19.0	19.0	18.0	17.6	17.2
33.24	7.21	18.8	18.9	19.0	19.1	18.0	17.7	17.2
33.30	7.17	18.8	18.9	19.0	19.1	18.0	17.7	17.2
33.45	7.08	18.8	18.9	19.0	19.1	18.0	17.7	17.2
33.74	6.90	18.8	18.9	19.0	19.1	18.1	17.7	17.2
34.20	6.61	18.8	18.9	19.0	19.1	18.1	17.7	17.3
34.24	6.59	18.8	18.9	19.0	19.1	18.1	17.7	17.3
34.55	6.40	18.9	18.9	19.0	19.1	18.2	17.7	17.3
34.69	6.31	18.9	18.9	19.0	19.1	18.2	17.7	17.3
34.69	6.31	18.9	18.9	19.0	19.1	18.2	17.7	17.3
34.74	6.28	18.9	18.9	19.0	19.1	18.2	17.7	17.3
34.85	6.21	18.9	18.9	19.0	19.1	18.2	17.8	17.3
35.24	5.97	19.0	19.0	19.0	19.2	18.3	17.8	17.4
35.50	5.81	19.0	19.0	19.1	19.2	18.3	17.8	17.4
35.74	5.66	19.0	19.0	19.1	19.2	18.4	17.9	17.4
36.24	5.35	19.1	19.0	19.1	19.2	18.4	18.0	17.5
36.50	5.19	19.1	19.1	19.1	19.3	18.5	18.0	17.5
36.74	5.04	19.2	19.1	19.2	19.3	18.5	18.0	17.6
36.93	4.92	19.2	19.1	19.2	19.3	18.5	18.1	17.6
36.93	4.92	19.2	19.1	19.2	19.3	18.5	18.1	17.6
36.95	4.91	19.2	19.1	19.2	19.3	18.5	18.1	17.6
37.24	4.73	19.2	19.2	19.2	19.3	18.6	18.1	17.6
37.60	4.50	19.3	19.2	19.2	19.3	18.6	18.1	17.6
37.74	4.41	19.3	19.2	19.2	19.3	18.6	18.2	17.7
37.80	4.38	19.3	19.3	19.2	19.3	18.7	18.2	17.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 1, the temperatures at the diversion were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 **** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 ***** On Average, maximum temperatures are overpredicted by 0.4°C.
 For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)*****						
Dist (km)**	Dist (RM)***	Baseline****	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	19.4	19.3	19.3	19.4	18.8	18.3	17.8
38.24	4.10	19.4	19.4	19.4	19.5	18.8	18.3	17.8
38.25	4.10	19.4	19.4	19.4	19.5	18.8	18.3	17.8
38.60	3.88	19.5	19.4	19.4	19.5	18.9	18.4	17.9
38.74	3.79	19.5	19.4	19.4	19.5	18.9	18.4	17.9
38.95	3.66	19.5	19.5	19.4	19.5	18.9	18.4	17.9
39.15	3.54	19.5	19.5	19.4	19.5	18.9	18.4	17.9
39.24	3.48	19.5	19.5	19.4	19.5	18.9	18.5	17.9
39.65	3.23	19.6	19.5	19.5	19.5	19.0	18.5	18.0
39.74	3.17	19.6	19.6	19.5	19.6	19.0	18.5	18.0
39.95	3.04	19.7	19.6	19.6	19.6	19.1	18.6	18.1
40.24	2.86	19.7	19.7	19.6	19.6	19.1	18.6	18.1
40.55	2.67	19.8	19.7	19.6	19.7	19.2	18.7	18.1
40.70	2.58	19.8	19.8	19.7	19.7	19.2	18.7	18.2
40.74	2.55	19.8	19.8	19.7	19.7	19.2	18.8	18.2
41.15	2.30	19.9	19.8	19.8	19.7	19.3	18.8	18.2
41.24	2.24	19.9	19.8	19.8	19.7	19.3	18.8	18.2
41.74	1.93	19.9	19.9	19.8	19.7	19.3	18.9	18.3
42.10	1.71	20.0	19.9	19.8	19.8	19.4	18.9	18.3
42.24	1.62	20.0	19.9	19.9	19.8	19.4	18.9	18.3
42.25	1.61	20.0	19.9	19.9	19.8	19.4	18.9	18.3
42.74	1.31	20.1	20.0	19.9	19.9	19.5	19.0	18.4
42.75	1.30	20.1	20.0	20.0	19.9	19.5	19.0	18.4
43.24	1.00	20.2	20.1	20.1	20.0	19.6	19.2	18.5
43.35	0.93	20.2	20.1	20.1	20.0	19.7	19.2	18.6
43.65	0.74	20.2	20.1	20.1	20.0	19.7	19.2	18.6
43.74	0.69	20.2	20.1	20.1	20.0	19.7	19.2	18.6
43.90	0.59	20.2	20.1	20.1	20.0	19.7	19.2	18.6
44.24	0.38	20.2	20.1	20.1	20.0	19.7	19.2	18.6
44.45	0.25	20.2	20.1	20.1	20.0	19.7	19.2	18.6
44.74	0.07	20.4	20.3	20.2	20.1	19.8	19.3	18.7
44.80	0.03	20.4	20.3	20.2	20.1	19.8	19.4	18.7
44.85	0.00	20.4	20.3	20.2	20.1	19.9	19.4	18.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-9. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	79.8	75.6	73.4	71.8	45.8	26.8	20.8
16.0	74.3	67.6	62.0	61.3	25.1	15.2	15.2
17.0	65.9	45.0	38.3	33.9	9.6	9.6	9.6
18.0	27.2	18.9	15.3	11.9	0.0	0.0	0.0
19.0	9.4	1.2	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-10. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	77.5	73.7	72.7	70.2	53.3	40.9	27.9
16.0	70.2	59.1	54.3	48.3	29.0	19.5	11.2
17.0	29.5	25.0	22.5	20.6	3.6	0.0	0.0
18.0	11.7	8.3	6.1	1.7	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-11. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-12. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-13. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	89.2	89.2	89.2	89.2	85.6	61.9	50.7
16.0	81.9	80.6	79.0	74.3	70.1	38.9	29.0
17.0	78.7	72.9	68.7	61.8	57.7	22.0	19.6
18.0	72.0	58.8	49.2	37.2	35.7	14.6	14.6
19.0	41.3	27.5	23.1	16.1	16.5	8.5	8.5
20.0	16.0	10.9	7.2	0.0	0.6	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-14. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	88.0	88.0	88.0	88.0	88.0	88.0	87.3
16.0	80.8	80.8	80.8	80.8	80.8	75.7	64.2
17.0	76.1	75.2	74.7	73.7	71.2	51.9	42.1
18.0	64.1	61.3	59.0	51.5	47.2	30.2	23.0
19.0	21.1	20.6	20.6	18.9	15.4	6.1	0.0
20.0	6.1	5.5	5.0	3.9	2.5	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-15. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	30.6	16.1	14.7	9.9	17.1	14.6	14.6
22.0	7.4	0.0	0.0	0.0	7.4	7.4	7.4
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-16. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	80% Exceedance Bear Release	50% Exceedance Bear Release	20% Exceedance Bear Release	80% Exceedance Mono Release	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	5.6	0.2	0.0	0.0	5.6	5.6	5.6
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	9.0	9.0	9.0
0.35	27.65	9.6	9.6	9.6
0.50	27.55	9.8	9.8	9.8
0.65	27.46	9.9	9.9	9.9
1.00	27.24	10.4	10.4	10.4
1.15	27.15	10.6	10.6	10.6
1.15	27.15	10.7	10.7	10.7
1.30	27.06	10.9	10.9	10.9
1.50	26.93	11.1	11.1	11.1
1.65	26.84	11.3	11.3	11.3
1.85	26.72	11.5	11.5	11.5
2.00	26.62	11.7	11.7	11.7
2.05	26.59	11.7	11.7	11.7
2.20	26.50	11.9	11.9	11.9
2.50	26.31	12.2	12.2	12.2
2.70	26.19	12.4	12.4	12.4
2.90	26.06	12.6	12.6	12.6
2.92	26.05	12.6	12.6	12.6
3.00	26.00	12.7	12.7	12.7
3.43	25.73	13.1	13.1	13.1
3.44	25.73	13.1	13.1	13.1
3.45	25.72	13.1	13.1	13.1
3.46	25.72	13.1	13.1	13.1
3.50	25.69	13.1	13.1	13.1
3.65	25.60	13.3	13.3	13.3
4.00	25.38	13.4	13.4	13.4
4.20	25.26	13.4	13.4	13.4
4.50	25.07	13.5	13.5	13.5
4.75	24.91	13.6	13.6	13.6
5.00	24.76	13.6	13.6	13.6
5.28	24.58	13.7	13.7	13.7
5.38	24.52	13.7	13.7	13.7
5.39	24.52	13.3	13.3	13.3
5.50	24.45	13.3	13.3	13.3
5.55	24.42	13.3	13.3	13.3
5.65	24.35	13.3	13.3	13.3
6.00	24.14	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9
6.65	23.73	14.0	14.0	14.0
7.00	23.52	14.2	14.2	14.2
7.07	23.47	14.3	14.3	14.3
7.10	23.45	14.3	14.3	14.3
7.15	23.42	14.3	14.3	14.3
7.16	23.42	14.1	14.1	14.1
7.50	23.20	14.3	14.3	14.3
7.55	23.17	14.3	14.3	14.3
7.80	23.02	14.5	14.5	14.5
8.00	22.89	14.6	14.6	14.6
8.05	22.86	14.6	14.6	14.6
8.45	22.61	14.8	14.8	14.8
8.50	22.58	14.8	14.8	14.8
8.99	22.28	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1
9.49	21.97	15.2	15.2	15.2
9.50	21.96	15.3	15.3	15.3
9.99	21.66	15.4	15.4	15.4
10.05	21.62	15.4	15.4	15.4
10.25	21.50	15.5	15.5	15.5
10.49	21.35	15.6	15.6	15.6
10.65	21.25	15.6	15.6	15.6
10.99	21.04	15.7	15.7	15.7
11.10	20.97	15.8	15.8	15.8
11.41	20.78	15.9	15.9	15.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	15.9	15.9	15.9
11.49	20.73	15.9	15.9	15.9
11.75	20.56	16.1	16.1	16.1
11.99	20.42	16.2	16.2	16.2
12.20	20.28	16.3	16.3	16.3
12.35	20.19	16.4	16.4	16.4
12.48	20.11	16.5	16.5	16.5
12.49	20.10	16.5	16.5	16.5
12.52	20.08	16.5	16.5	16.5
12.53	20.08	16.5	16.5	16.5
12.70	19.97	16.6	16.6	16.6
12.99	19.79	16.7	16.7	16.7
13.25	19.63	16.8	16.8	16.8
13.31	19.59	16.8	16.8	16.8
13.40	19.54	16.8	16.8	16.8
13.40	19.54	16.8	16.8	16.8
13.49	19.48	16.9	16.9	16.9
13.75	19.32	16.9	16.9	16.9
13.99	19.17	17.0	17.0	17.0
14.45	18.89	17.1	17.1	17.1
14.49	18.86	17.1	17.1	17.1
14.80	18.67	17.1	17.1	17.1
14.99	18.55	17.2	17.2	17.2
15.20	18.42	17.2	17.2	17.2
15.49	18.24	17.3	17.3	17.3
15.80	18.05	17.4	17.4	17.4
15.99	17.93	17.4	17.4	17.4
16.20	17.80	17.5	17.5	17.5
16.34	17.72	17.5	17.5	17.5
16.34	17.71	17.4	17.4	17.4
16.49	17.62	17.5	17.5	17.5
16.75	17.46	17.5	17.5	17.5
16.99	17.31	17.6	17.6	17.6
17.10	17.24	17.6	17.6	17.6
17.30	17.12	17.6	17.6	17.6
17.49	17.00	17.7	17.7	17.7
17.65	16.90	17.7	17.7	17.7
17.90	16.74	17.8	17.8	17.8
17.99	16.69	17.8	17.8	17.8
18.15	16.59	17.8	17.8	17.8
18.19	16.56	17.8	17.8	17.8
18.19	16.56	17.8	17.8	17.8
18.36	16.45	17.9	17.9	17.9
18.37	16.45	17.0	15.4	15.2
18.65	16.28	17.0	15.4	15.2
18.69	16.25	17.0	15.4	15.2
18.95	16.09	17.1	15.4	15.3
19.19	15.94	17.1	15.5	15.3
19.32	15.86	17.1	15.5	15.3
19.43	15.80	17.2	15.5	15.3
19.43	15.79	16.8	15.4	15.2
19.65	15.66	16.8	15.4	15.3
19.69	15.63	16.8	15.4	15.3
20.15	15.34	16.9	15.5	15.3
20.19	15.32	16.9	15.5	15.3
20.69	15.01	17.0	15.5	15.3
20.95	14.85	17.0	15.6	15.4
21.19	14.70	17.1	15.6	15.4
21.40	14.57	17.1	15.6	15.4
21.60	14.44	17.2	15.6	15.4
21.69	14.39	17.2	15.6	15.4
21.69	14.39	17.1	15.6	15.4
22.19	14.08	17.2	15.7	15.5
22.20	14.07	17.2	15.7	15.5
22.40	13.95	17.2	15.7	15.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	17.3	15.7	15.5
22.80	13.70	17.3	15.7	15.5
23.19	13.46	17.3	15.7	15.5
23.30	13.39	17.3	15.8	15.5
23.69	13.14	17.4	15.8	15.5
24.05	12.92	17.4	15.8	15.6
24.19	12.83	17.4	15.8	15.6
24.50	12.64	17.4	15.8	15.6
24.69	12.52	17.4	15.8	15.6
24.70	12.52	17.4	15.8	15.6
25.05	12.30	17.5	15.9	15.6
25.19	12.21	17.5	15.9	15.6
25.69	11.90	17.5	15.9	15.6
25.85	11.80	17.5	15.9	15.6
26.19	11.59	17.5	15.9	15.7
26.69	11.28	17.5	15.9	15.7
27.19	10.97	17.5	16.0	15.7
27.20	10.96	17.5	16.0	15.7
27.45	10.81	17.6	16.0	15.7
27.69	10.66	17.6	16.0	15.8
27.90	10.53	17.6	16.0	15.8
28.19	10.35	17.7	16.1	15.8
28.69	10.04	17.7	16.1	15.9
28.75	10.00	17.7	16.1	15.9
28.98	9.85	17.7	16.1	15.9
28.99	9.85	17.5	16.1	15.9
29.19	9.73	17.5	16.1	15.9
29.25	9.69	17.5	16.1	15.9
29.69	9.42	17.6	16.2	15.9
30.00	9.22	17.6	16.2	16.0
30.19	9.11	17.7	16.2	16.0
30.30	9.04	17.7	16.3	16.0
30.69	8.80	17.8	16.3	16.0
31.19	8.48	17.8	16.3	16.0
31.24	8.45	17.8	16.3	16.0
31.30	8.42	17.8	16.3	16.1
31.74	8.14	17.9	16.3	16.1
31.95	8.01	17.9	16.4	16.1
32.24	7.83	17.9	16.4	16.1
32.25	7.83	17.9	16.4	16.1
32.74	7.52	18.0	16.4	16.2
33.24	7.21	18.0	16.5	16.2
33.30	7.17	18.0	16.5	16.2
33.45	7.08	18.0	16.5	16.2
33.74	6.90	18.1	16.5	16.3
34.20	6.61	18.1	16.6	16.3
34.24	6.59	18.1	16.6	16.3
34.55	6.40	18.2	16.6	16.3
34.69	6.31	18.2	16.6	16.3
34.69	6.31	18.1	16.6	16.3
34.74	6.28	18.1	16.6	16.3
34.85	6.21	18.1	16.6	16.4
35.24	5.97	18.2	16.7	16.4
35.50	5.81	18.3	16.7	16.4
35.74	5.66	18.3	16.7	16.5
36.24	5.35	18.4	16.8	16.5
36.50	5.19	18.4	16.8	16.6
36.74	5.04	18.4	16.9	16.6
36.93	4.92	18.5	16.9	16.6
36.93	4.92	18.4	16.9	16.6
36.95	4.91	18.4	16.9	16.6
37.24	4.73	18.4	16.9	16.6
37.60	4.50	18.4	17.0	16.7
37.74	4.41	18.5	17.0	16.7
37.80	4.38	18.5	17.0	16.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	18.6	17.1	16.8
38.24	4.10	18.6	17.1	16.8
38.25	4.10	18.6	17.1	16.9
38.60	3.88	18.7	17.1	16.9
38.74	3.79	18.7	17.2	16.9
38.95	3.66	18.7	17.2	16.9
39.15	3.54	18.7	17.2	16.9
39.24	3.48	18.7	17.2	16.9
39.65	3.23	18.8	17.2	16.9
39.74	3.17	18.8	17.3	17.0
39.95	3.04	18.9	17.3	17.0
40.24	2.86	18.9	17.3	17.0
40.55	2.67	19.0	17.4	17.1
40.70	2.58	19.0	17.4	17.1
40.74	2.55	19.0	17.4	17.1
41.15	2.30	19.0	17.5	17.1
41.24	2.24	19.1	17.5	17.2
41.74	1.93	19.1	17.5	17.2
42.10	1.71	19.1	17.5	17.2
42.24	1.62	19.2	17.5	17.2
42.25	1.61	19.2	17.5	17.2
42.74	1.31	19.3	17.6	17.3
42.75	1.30	19.3	17.6	17.3
43.24	1.00	19.4	17.7	17.4
43.35	0.93	19.4	17.7	17.4
43.65	0.74	19.5	17.7	17.4
43.74	0.69	19.5	17.8	17.4
43.90	0.59	19.5	17.8	17.4
44.24	0.38	19.5	17.8	17.4
44.45	0.25	19.5	17.8	17.5
44.74	0.07	19.6	17.8	17.5
44.80	0.03	19.6	17.8	17.5
44.85	0.00	19.6	17.8	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	11.4	11.4	11.4
0.35	27.65	11.7	11.7	11.7
0.50	27.55	11.9	11.9	11.9
0.65	27.46	12.0	12.0	12.0
1.00	27.24	12.3	12.3	12.3
1.15	27.15	12.4	12.4	12.4
1.15	27.15	12.4	12.4	12.4
1.30	27.06	12.5	12.5	12.5
1.50	26.93	12.7	12.7	12.7
1.65	26.84	12.8	12.8	12.8
1.85	26.72	12.9	12.9	12.9
2.00	26.62	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1
2.20	26.50	13.2	13.2	13.2
2.50	26.31	13.3	13.3	13.3
2.70	26.19	13.5	13.5	13.5
2.90	26.06	13.6	13.6	13.6
2.92	26.05	13.6	13.6	13.6
3.00	26.00	13.6	13.6	13.6
3.43	25.73	13.9	13.9	13.9
3.44	25.73	13.9	13.9	13.9
3.45	25.72	13.9	13.9	13.9
3.46	25.72	13.9	13.9	13.9
3.50	25.69	13.9	13.9	13.9
3.65	25.60	13.9	13.9	13.9
4.00	25.38	13.9	13.9	13.9
4.20	25.26	13.9	13.9	13.9
4.50	25.07	13.9	13.9	13.9
4.75	24.91	13.9	13.9	13.9
5.00	24.76	13.9	13.9	13.9
5.28	24.58	13.9	13.9	13.9
5.38	24.52	13.9	13.9	13.9
5.39	24.52	13.5	13.5	13.5
5.50	24.45	13.5	13.5	13.5
5.55	24.42	13.5	13.5	13.5
5.65	24.35	13.5	13.5	13.5
6.00	24.14	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9
6.65	23.73	13.9	13.9	13.9
7.00	23.52	14.1	14.1	14.1
7.07	23.47	14.1	14.1	14.1
7.10	23.45	14.1	14.1	14.1
7.15	23.42	14.1	14.1	14.1
7.16	23.42	14.0	14.0	14.0
7.50	23.20	14.1	14.1	14.1
7.55	23.17	14.1	14.1	14.1
7.80	23.02	14.2	14.2	14.2
8.00	22.89	14.3	14.3	14.3
8.05	22.86	14.3	14.3	14.3
8.45	22.61	14.5	14.5	14.5
8.50	22.58	14.5	14.5	14.5
8.99	22.28	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7
9.49	21.97	14.9	14.9	14.9
9.50	21.96	14.9	14.9	14.9
9.99	21.66	15.0	15.0	15.0
10.05	21.62	15.0	15.0	15.0
10.25	21.50	15.0	15.0	15.0
10.49	21.35	15.1	15.1	15.1
10.65	21.25	15.1	15.1	15.1
10.99	21.04	15.2	15.2	15.2
11.10	20.97	15.3	15.3	15.3
11.41	20.78	15.3	15.3	15.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	15.4	15.4	15.4
11.49	20.73	15.4	15.4	15.4
11.75	20.56	15.5	15.5	15.5
11.99	20.42	15.6	15.6	15.6
12.20	20.28	15.6	15.6	15.6
12.35	20.19	15.7	15.7	15.7
12.48	20.11	15.8	15.8	15.8
12.49	20.10	15.8	15.8	15.8
12.52	20.08	15.8	15.8	15.8
12.53	20.08	15.8	15.8	15.8
12.70	19.97	15.8	15.8	15.8
12.99	19.79	15.9	15.9	15.9
13.25	19.63	16.0	16.0	16.0
13.31	19.59	16.0	16.0	16.0
13.40	19.54	16.0	16.0	16.0
13.40	19.54	16.0	16.0	16.0
13.49	19.48	16.0	16.0	16.0
13.75	19.32	16.1	16.1	16.1
13.99	19.17	16.1	16.1	16.1
14.45	18.89	16.2	16.2	16.2
14.49	18.86	16.2	16.2	16.2
14.80	18.67	16.3	16.3	16.3
14.99	18.55	16.3	16.3	16.3
15.20	18.42	16.3	16.3	16.3
15.49	18.24	16.4	16.4	16.4
15.80	18.05	16.4	16.4	16.4
15.99	17.93	16.4	16.4	16.4
16.20	17.80	16.5	16.5	16.5
16.34	17.72	16.5	16.5	16.5
16.34	17.71	16.5	16.5	16.5
16.49	17.62	16.5	16.5	16.5
16.75	17.46	16.5	16.5	16.5
16.99	17.31	16.6	16.6	16.6
17.10	17.24	16.6	16.6	16.6
17.30	17.12	16.6	16.6	16.6
17.49	17.00	16.6	16.6	16.6
17.65	16.90	16.7	16.7	16.7
17.90	16.74	16.7	16.7	16.7
17.99	16.69	16.7	16.7	16.7
18.15	16.59	16.7	16.7	16.7
18.19	16.56	16.8	16.8	16.8
18.19	16.56	16.8	16.8	16.8
18.36	16.45	16.8	16.8	16.8
18.37	16.45	16.1	15.2	14.9
18.65	16.28	16.2	15.3	14.9
18.69	16.25	16.2	15.3	14.9
18.95	16.09	16.2	15.3	15.0
19.19	15.94	16.2	15.3	15.0
19.32	15.86	16.2	15.3	15.0
19.43	15.80	16.2	15.3	15.0
19.43	15.79	16.1	15.3	15.0
19.65	15.66	16.1	15.3	15.0
19.69	15.63	16.1	15.3	15.0
20.15	15.34	16.2	15.4	15.0
20.19	15.32	16.2	15.4	15.0
20.69	15.01	16.2	15.4	15.1
20.95	14.85	16.3	15.4	15.1
21.19	14.70	16.3	15.5	15.1
21.40	14.57	16.3	15.5	15.1
21.60	14.44	16.3	15.5	15.2
21.69	14.39	16.3	15.5	15.2
21.69	14.39	16.3	15.5	15.2
22.19	14.08	16.4	15.6	15.2
22.20	14.07	16.4	15.6	15.2
22.40	13.95	16.4	15.6	15.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	16.4	15.6	15.3
22.80	13.70	16.4	15.6	15.3
23.19	13.46	16.4	15.6	15.3
23.30	13.39	16.5	15.6	15.3
23.69	13.14	16.5	15.7	15.3
24.05	12.92	16.5	15.7	15.3
24.19	12.83	16.5	15.7	15.3
24.50	12.64	16.5	15.7	15.4
24.69	12.52	16.5	15.7	15.4
24.70	12.52	16.5	15.7	15.4
25.05	12.30	16.5	15.8	15.4
25.19	12.21	16.5	15.8	15.4
25.69	11.90	16.5	15.8	15.4
25.85	11.80	16.5	15.8	15.4
26.19	11.59	16.5	15.8	15.4
26.69	11.28	16.6	15.8	15.5
27.19	10.97	16.6	15.8	15.5
27.20	10.96	16.6	15.8	15.5
27.45	10.81	16.6	15.9	15.5
27.69	10.66	16.6	15.9	15.5
27.90	10.53	16.7	15.9	15.6
28.19	10.35	16.7	15.9	15.6
28.69	10.04	16.7	16.0	15.6
28.75	10.00	16.7	16.0	15.6
28.98	9.85	16.8	16.0	15.7
28.99	9.85	16.7	16.0	15.6
29.19	9.73	16.8	16.0	15.7
29.25	9.69	16.8	16.0	15.7
29.69	9.42	16.8	16.1	15.7
30.00	9.22	16.8	16.1	15.8
30.19	9.11	16.9	16.1	15.8
30.30	9.04	16.9	16.1	15.8
30.69	8.80	16.9	16.2	15.8
31.19	8.48	17.0	16.2	15.9
31.24	8.45	17.0	16.2	15.9
31.30	8.42	17.0	16.2	15.9
31.74	8.14	17.0	16.3	15.9
31.95	8.01	17.0	16.3	15.9
32.24	7.83	17.0	16.3	15.9
32.25	7.83	17.0	16.3	15.9
32.74	7.52	17.1	16.3	16.0
33.24	7.21	17.1	16.4	16.0
33.30	7.17	17.2	16.4	16.0
33.45	7.08	17.2	16.4	16.0
33.74	6.90	17.2	16.4	16.1
34.20	6.61	17.2	16.5	16.1
34.24	6.59	17.2	16.5	16.1
34.55	6.40	17.3	16.5	16.1
34.69	6.31	17.3	16.5	16.1
34.69	6.31	17.3	16.5	16.1
34.74	6.28	17.3	16.5	16.1
34.85	6.21	17.3	16.5	16.2
35.24	5.97	17.3	16.6	16.2
35.50	5.81	17.4	16.6	16.3
35.74	5.66	17.4	16.7	16.3
36.24	5.35	17.5	16.7	16.4
36.50	5.19	17.5	16.8	16.4
36.74	5.04	17.5	16.8	16.4
36.93	4.92	17.6	16.8	16.5
36.93	4.92	17.6	16.8	16.5
36.95	4.91	17.6	16.8	16.5
37.24	4.73	17.6	16.9	16.5
37.60	4.50	17.6	16.9	16.5
37.74	4.41	17.7	16.9	16.5
37.80	4.38	17.7	16.9	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	17.8	17.0	16.6
38.24	4.10	17.8	17.0	16.7
38.25	4.10	17.8	17.1	16.7
38.60	3.88	17.9	17.1	16.7
38.74	3.79	17.9	17.1	16.7
38.95	3.66	17.9	17.1	16.7
39.15	3.54	17.9	17.1	16.7
39.24	3.48	17.9	17.1	16.7
39.65	3.23	17.9	17.2	16.8
39.74	3.17	18.0	17.2	16.8
39.95	3.04	18.0	17.3	16.9
40.24	2.86	18.1	17.3	16.9
40.55	2.67	18.1	17.3	16.9
40.70	2.58	18.1	17.4	17.0
40.74	2.55	18.1	17.4	17.0
41.15	2.30	18.2	17.4	17.0
41.24	2.24	18.2	17.4	17.0
41.74	1.93	18.2	17.5	17.0
42.10	1.71	18.3	17.5	17.1
42.24	1.62	18.3	17.5	17.1
42.25	1.61	18.3	17.5	17.1
42.74	1.31	18.4	17.6	17.2
42.75	1.30	18.4	17.6	17.2
43.24	1.00	18.5	17.7	17.3
43.35	0.93	18.5	17.7	17.3
43.65	0.74	18.5	17.7	17.3
43.74	0.69	18.5	17.7	17.3
43.90	0.59	18.5	17.7	17.3
44.24	0.38	18.6	17.8	17.3
44.45	0.25	18.6	17.8	17.3
44.74	0.07	18.6	17.8	17.4
44.80	0.03	18.6	17.8	17.4
44.85	0.00	18.7	17.8	17.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	9.4	9.4	9.4
0.35	27.65	10.1	10.1	10.1
0.50	27.55	10.4	10.4	10.4
0.65	27.46	10.7	10.7	10.7
1.00	27.24	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8
1.15	27.15	11.9	11.9	11.9
1.30	27.06	12.2	12.2	12.2
1.50	26.93	12.5	12.5	12.5
1.65	26.84	12.7	12.7	12.7
1.85	26.72	13.1	13.1	13.1
2.00	26.62	13.3	13.3	13.3
2.05	26.59	13.4	13.4	13.4
2.20	26.50	13.6	13.6	13.6
2.50	26.31	14.1	14.1	14.1
2.70	26.19	14.3	14.3	14.3
2.90	26.06	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7
3.43	25.73	15.3	15.3	15.3
3.44	25.73	15.3	15.3	15.3
3.45	25.72	15.3	15.3	15.3
3.46	25.72	15.3	15.3	15.3
3.50	25.69	15.3	15.3	15.3
3.65	25.60	15.5	15.5	15.5
4.00	25.38	15.6	15.6	15.6
4.20	25.26	15.6	15.6	15.6
4.50	25.07	15.6	15.6	15.6
4.75	24.91	15.7	15.7	15.7
5.00	24.76	15.7	15.7	15.7
5.28	24.58	15.8	15.8	15.8
5.38	24.52	15.8	15.8	15.8
5.39	24.52	15.4	15.4	15.4
5.50	24.45	15.4	15.4	15.4
5.55	24.42	15.4	15.4	15.4
5.65	24.35	15.4	15.4	15.4
6.00	24.14	15.8	15.8	15.8
6.05	24.11	15.9	15.9	15.9
6.50	23.83	16.4	16.4	16.4
6.65	23.73	16.5	16.5	16.5
7.00	23.52	16.9	16.9	16.9
7.07	23.47	16.9	16.9	16.9
7.10	23.45	17.0	17.0	17.0
7.15	23.42	17.0	17.0	17.0
7.16	23.42	16.8	16.8	16.8
7.50	23.20	17.0	17.0	17.0
7.55	23.17	17.0	17.0	17.0
7.80	23.02	17.2	17.2	17.2
8.00	22.89	17.3	17.3	17.3
8.05	22.86	17.4	17.4	17.4
8.45	22.61	17.6	17.6	17.6
8.50	22.58	17.6	17.6	17.6
8.99	22.28	17.8	17.8	17.8
9.09	22.22	17.9	17.9	17.9
9.09	22.22	17.7	17.7	17.7
9.49	21.97	18.0	18.0	18.0
9.50	21.96	18.0	18.0	18.0
9.99	21.66	18.0	18.0	18.0
10.05	21.62	18.0	18.0	18.0
10.25	21.50	18.1	18.1	18.1
10.49	21.35	18.2	18.2	18.2
10.65	21.25	18.2	18.2	18.2
10.99	21.04	18.4	18.4	18.4
11.10	20.97	18.5	18.5	18.5
11.41	20.78	18.6	18.6	18.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	18.6	18.6	18.6
11.49	20.73	18.7	18.7	18.7
11.75	20.56	18.9	18.9	18.9
11.99	20.42	19.0	19.0	19.0
12.20	20.28	19.2	19.2	19.2
12.35	20.19	19.3	19.3	19.3
12.48	20.11	19.3	19.3	19.3
12.49	20.10	19.3	19.3	19.3
12.52	20.08	19.3	19.3	19.3
12.53	20.08	19.3	19.3	19.3
12.70	19.97	19.3	19.3	19.3
12.99	19.79	19.4	19.4	19.4
13.25	19.63	19.5	19.5	19.5
13.31	19.59	19.6	19.6	19.6
13.40	19.54	19.6	19.6	19.6
13.40	19.54	19.6	19.6	19.6
13.49	19.48	19.6	19.6	19.6
13.75	19.32	19.8	19.8	19.8
13.99	19.17	19.8	19.8	19.8
14.45	18.89	20.0	20.0	20.0
14.49	18.86	20.0	20.0	20.0
14.80	18.67	20.0	20.0	20.0
14.99	18.55	20.0	20.0	20.0
15.20	18.42	20.1	20.1	20.1
15.49	18.24	20.1	20.1	20.1
15.80	18.05	20.3	20.3	20.3
15.99	17.93	20.3	20.3	20.3
16.20	17.80	20.4	20.4	20.4
16.34	17.72	20.4	20.4	20.4
16.34	17.71	20.4	20.4	20.4
16.49	17.62	20.4	20.4	20.4
16.75	17.46	20.5	20.5	20.5
16.99	17.31	20.5	20.5	20.5
17.10	17.24	20.6	20.6	20.6
17.30	17.12	20.6	20.6	20.6
17.49	17.00	20.7	20.7	20.7
17.65	16.90	20.7	20.7	20.7
17.90	16.74	20.8	20.8	20.8
17.99	16.69	20.8	20.8	20.8
18.15	16.59	20.9	20.9	20.9
18.19	16.56	20.9	20.9	20.9
18.19	16.56	20.9	20.9	20.9
18.36	16.45	20.9	20.9	20.9
18.37	16.45	19.6	17.4	17.1
18.65	16.28	19.6	17.4	17.1
18.69	16.25	19.6	17.4	17.1
18.95	16.09	19.6	17.4	17.2
19.19	15.94	19.6	17.4	17.2
19.32	15.86	19.6	17.4	17.2
19.43	15.80	19.6	17.4	17.2
19.43	15.79	19.1	17.4	17.1
19.65	15.66	19.1	17.4	17.1
19.69	15.63	19.1	17.4	17.1
20.15	15.34	19.1	17.4	17.2
20.19	15.32	19.1	17.4	17.2
20.69	15.01	19.1	17.4	17.2
20.95	14.85	19.1	17.5	17.3
21.19	14.70	19.2	17.5	17.3
21.40	14.57	19.2	17.5	17.3
21.60	14.44	19.2	17.5	17.3
21.69	14.39	19.2	17.5	17.3
21.69	14.39	19.1	17.5	17.3
22.19	14.08	19.1	17.5	17.3
22.20	14.07	19.1	17.5	17.3
22.40	13.95	19.1	17.5	17.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	19.1	17.5	17.3
22.80	13.70	19.1	17.5	17.3
23.19	13.46	19.1	17.6	17.4
23.30	13.39	19.1	17.6	17.4
23.69	13.14	19.2	17.6	17.4
24.05	12.92	19.2	17.6	17.4
24.19	12.83	19.2	17.6	17.4
24.50	12.64	19.1	17.6	17.4
24.69	12.52	19.1	17.6	17.4
24.70	12.52	19.1	17.6	17.4
25.05	12.30	19.2	17.7	17.5
25.19	12.21	19.2	17.7	17.5
25.69	11.90	19.2	17.7	17.5
25.85	11.80	19.2	17.7	17.5
26.19	11.59	19.2	17.7	17.5
26.69	11.28	19.2	17.7	17.5
27.19	10.97	19.2	17.8	17.6
27.20	10.96	19.2	17.8	17.6
27.45	10.81	19.2	17.8	17.6
27.69	10.66	19.2	17.8	17.6
27.90	10.53	19.2	17.9	17.7
28.19	10.35	19.3	17.9	17.7
28.69	10.04	19.3	17.9	17.7
28.75	10.00	19.3	17.9	17.8
28.98	9.85	19.3	17.9	17.8
28.99	9.85	19.0	17.9	17.7
29.19	9.73	19.0	17.9	17.8
29.25	9.69	19.0	17.9	17.8
29.69	9.42	19.1	18.0	17.8
30.00	9.22	19.1	18.0	17.8
30.19	9.11	19.1	18.0	17.9
30.30	9.04	19.1	18.0	17.9
30.69	8.80	19.1	18.0	17.9
31.19	8.48	19.1	18.1	17.9
31.24	8.45	19.1	18.1	17.9
31.30	8.42	19.2	18.1	18.0
31.74	8.14	19.2	18.1	18.0
31.95	8.01	19.2	18.1	18.0
32.24	7.83	19.2	18.1	18.0
32.25	7.83	19.2	18.1	18.0
32.74	7.52	19.3	18.2	18.1
33.24	7.21	19.3	18.3	18.2
33.30	7.17	19.3	18.3	18.2
33.45	7.08	19.3	18.3	18.2
33.74	6.90	19.3	18.3	18.2
34.20	6.61	19.4	18.4	18.3
34.24	6.59	19.4	18.4	18.3
34.55	6.40	19.4	18.4	18.3
34.69	6.31	19.4	18.4	18.3
34.69	6.31	19.3	18.4	18.3
34.74	6.28	19.3	18.4	18.3
34.85	6.21	19.4	18.4	18.3
35.24	5.97	19.4	18.5	18.4
35.50	5.81	19.4	18.5	18.5
35.74	5.66	19.5	18.6	18.5
36.24	5.35	19.5	18.6	18.6
36.50	5.19	19.5	18.7	18.6
36.74	5.04	19.6	18.7	18.7
36.93	4.92	19.6	18.8	18.8
36.93	4.92	19.5	18.8	18.7
36.95	4.91	19.5	18.8	18.7
37.24	4.73	19.5	18.8	18.8
37.60	4.50	19.5	18.8	18.8
37.74	4.41	19.6	18.9	18.9
37.80	4.38	19.6	18.9	18.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	19.7	19.0	19.0
38.24	4.10	19.7	19.1	19.1
38.25	4.10	19.8	19.1	19.1
38.60	3.88	19.8	19.2	19.2
38.74	3.79	19.8	19.2	19.2
38.95	3.66	19.8	19.2	19.2
39.15	3.54	19.8	19.2	19.2
39.24	3.48	19.8	19.2	19.2
39.65	3.23	19.9	19.2	19.2
39.74	3.17	19.9	19.3	19.3
39.95	3.04	20.0	19.4	19.4
40.24	2.86	20.0	19.4	19.4
40.55	2.67	20.0	19.4	19.4
40.70	2.58	20.1	19.5	19.5
40.74	2.55	20.1	19.5	19.5
41.15	2.30	20.1	19.5	19.6
41.24	2.24	20.1	19.5	19.6
41.74	1.93	20.1	19.5	19.6
42.10	1.71	20.1	19.6	19.6
42.24	1.62	20.2	19.6	19.6
42.25	1.61	20.2	19.6	19.6
42.74	1.31	20.3	19.7	19.8
42.75	1.30	20.3	19.7	19.8
43.24	1.00	20.4	19.9	19.9
43.35	0.93	20.4	19.9	20.0
43.65	0.74	20.4	19.9	20.0
43.74	0.69	20.4	19.9	20.0
43.90	0.59	20.4	19.9	20.0
44.24	0.38	20.4	19.9	20.0
44.45	0.25	20.4	19.9	20.0
44.74	0.07	20.5	19.9	20.0
44.80	0.03	20.5	20.0	20.0
44.85	0.00	20.5	20.0	20.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	11.7	11.7	11.7
0.35	27.65	12.2	12.2	12.2
0.50	27.55	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6
1.00	27.24	13.1	13.1	13.1
1.15	27.15	13.3	13.3	13.3
1.15	27.15	13.3	13.3	13.3
1.30	27.06	13.5	13.5	13.5
1.50	26.93	13.7	13.7	13.7
1.65	26.84	13.8	13.8	13.8
1.85	26.72	14.1	14.1	14.1
2.00	26.62	14.2	14.2	14.2
2.05	26.59	14.3	14.3	14.3
2.20	26.50	14.4	14.4	14.4
2.50	26.31	14.7	14.7	14.7
2.70	26.19	14.9	14.9	14.9
2.90	26.06	15.0	15.0	15.0
2.92	26.05	15.1	15.1	15.1
3.00	26.00	15.1	15.1	15.1
3.43	25.73	15.5	15.5	15.5
3.44	25.73	15.5	15.5	15.5
3.45	25.72	15.5	15.5	15.5
3.46	25.72	15.5	15.5	15.5
3.50	25.69	15.5	15.5	15.5
3.65	25.60	15.6	15.6	15.6
4.00	25.38	15.5	15.5	15.5
4.20	25.26	15.5	15.5	15.5
4.50	25.07	15.4	15.4	15.4
4.75	24.91	15.4	15.4	15.4
5.00	24.76	15.3	15.3	15.3
5.28	24.58	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3
5.39	24.52	15.0	15.0	15.0
5.50	24.45	14.9	14.9	14.9
5.55	24.42	14.9	14.9	14.9
5.65	24.35	14.9	14.9	14.9
6.00	24.14	15.2	15.2	15.2
6.05	24.11	15.2	15.2	15.2
6.50	23.83	15.6	15.6	15.6
6.65	23.73	15.7	15.7	15.7
7.00	23.52	16.0	16.0	16.0
7.07	23.47	16.0	16.0	16.0
7.10	23.45	16.0	16.0	16.0
7.15	23.42	16.1	16.1	16.1
7.16	23.42	16.0	16.0	16.0
7.50	23.20	16.2	16.2	16.2
7.55	23.17	16.2	16.2	16.2
7.80	23.02	16.3	16.3	16.3
8.00	22.89	16.4	16.4	16.4
8.05	22.86	16.4	16.4	16.4
8.45	22.61	16.6	16.6	16.6
8.50	22.58	16.6	16.6	16.6
8.99	22.28	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8
9.49	21.97	17.0	17.0	17.0
9.50	21.96	17.0	17.0	17.0
9.99	21.66	17.0	17.0	17.0
10.05	21.62	17.0	17.0	17.0
10.25	21.50	17.0	17.0	17.0
10.49	21.35	17.1	17.1	17.1
10.65	21.25	17.2	17.2	17.2
10.99	21.04	17.3	17.3	17.3
11.10	20.97	17.3	17.3	17.3
11.41	20.78	17.5	17.5	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	17.5	17.5	17.5
11.49	20.73	17.5	17.5	17.5
11.75	20.56	17.6	17.6	17.6
11.99	20.42	17.8	17.8	17.8
12.20	20.28	17.9	17.9	17.9
12.35	20.19	18.0	18.0	18.0
12.48	20.11	18.0	18.0	18.0
12.49	20.10	18.0	18.0	18.0
12.52	20.08	18.0	18.0	18.0
12.53	20.08	18.0	18.0	18.0
12.70	19.97	18.0	18.0	18.0
12.99	19.79	18.1	18.1	18.1
13.25	19.63	18.2	18.2	18.2
13.31	19.59	18.2	18.2	18.2
13.40	19.54	18.2	18.2	18.2
13.40	19.54	18.2	18.2	18.2
13.49	19.48	18.3	18.3	18.3
13.75	19.32	18.4	18.4	18.4
13.99	19.17	18.4	18.4	18.4
14.45	18.89	18.5	18.5	18.5
14.49	18.86	18.5	18.5	18.5
14.80	18.67	18.5	18.5	18.5
14.99	18.55	18.5	18.5	18.5
15.20	18.42	18.6	18.6	18.6
15.49	18.24	18.6	18.6	18.6
15.80	18.05	18.7	18.7	18.7
15.99	17.93	18.8	18.8	18.8
16.20	17.80	18.8	18.8	18.8
16.34	17.72	18.8	18.8	18.8
16.34	17.71	18.8	18.8	18.8
16.49	17.62	18.9	18.9	18.9
16.75	17.46	18.9	18.9	18.9
16.99	17.31	19.0	19.0	19.0
17.10	17.24	19.0	19.0	19.0
17.30	17.12	19.0	19.0	19.0
17.49	17.00	19.1	19.1	19.1
17.65	16.90	19.1	19.1	19.1
17.90	16.74	19.2	19.2	19.2
17.99	16.69	19.2	19.2	19.2
18.15	16.59	19.2	19.2	19.2
18.19	16.56	19.2	19.2	19.2
18.19	16.56	19.2	19.2	19.2
18.36	16.45	19.2	19.2	19.2
18.37	16.45	18.3	17.0	16.5
18.65	16.28	18.2	17.0	16.6
18.69	16.25	18.2	17.0	16.6
18.95	16.09	18.2	17.0	16.6
19.19	15.94	18.2	17.0	16.6
19.32	15.86	18.2	17.0	16.6
19.43	15.80	18.1	17.0	16.6
19.43	15.79	18.0	16.9	16.5
19.65	15.66	18.0	16.9	16.5
19.69	15.63	18.0	16.9	16.5
20.15	15.34	17.9	16.9	16.6
20.19	15.32	17.9	16.9	16.6
20.69	15.01	17.9	17.0	16.6
20.95	14.85	17.9	17.0	16.6
21.19	14.70	17.9	17.0	16.6
21.40	14.57	17.9	17.0	16.6
21.60	14.44	17.9	17.0	16.6
21.69	14.39	17.8	17.0	16.6
21.69	14.39	17.8	17.0	16.6
22.19	14.08	17.8	17.0	16.6
22.20	14.07	17.8	17.0	16.6
22.40	13.95	17.8	17.0	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	17.8	17.0	16.6
22.80	13.70	17.8	17.0	16.6
23.19	13.46	17.8	17.0	16.6
23.30	13.39	17.8	17.0	16.6
23.69	13.14	17.8	17.0	16.6
24.05	12.92	17.7	17.0	16.7
24.19	12.83	17.7	17.0	16.7
24.50	12.64	17.7	17.0	16.7
24.69	12.52	17.7	17.0	16.7
24.70	12.52	17.7	17.0	16.7
25.05	12.30	17.7	17.0	16.7
25.19	12.21	17.7	17.0	16.7
25.69	11.90	17.7	17.0	16.7
25.85	11.80	17.7	17.0	16.7
26.19	11.59	17.7	17.0	16.7
26.69	11.28	17.7	17.0	16.7
27.19	10.97	17.7	17.0	16.8
27.20	10.96	17.7	17.0	16.8
27.45	10.81	17.7	17.0	16.8
27.69	10.66	17.7	17.1	16.8
27.90	10.53	17.7	17.1	16.8
28.19	10.35	17.7	17.1	16.8
28.69	10.04	17.7	17.1	16.9
28.75	10.00	17.7	17.1	16.9
28.98	9.85	17.7	17.1	16.9
28.99	9.85	17.6	17.1	16.9
29.19	9.73	17.6	17.1	16.9
29.25	9.69	17.6	17.1	16.9
29.69	9.42	17.6	17.1	16.9
30.00	9.22	17.6	17.1	16.9
30.19	9.11	17.6	17.2	17.0
30.30	9.04	17.6	17.2	17.0
30.69	8.80	17.6	17.2	17.0
31.19	8.48	17.6	17.2	17.0
31.24	8.45	17.6	17.2	17.0
31.30	8.42	17.6	17.2	17.0
31.74	8.14	17.6	17.2	17.0
31.95	8.01	17.6	17.2	17.0
32.24	7.83	17.6	17.2	17.0
32.25	7.83	17.6	17.2	17.0
32.74	7.52	17.7	17.3	17.1
33.24	7.21	17.7	17.3	17.1
33.30	7.17	17.7	17.3	17.1
33.45	7.08	17.7	17.3	17.1
33.74	6.90	17.7	17.4	17.2
34.20	6.61	17.7	17.4	17.2
34.24	6.59	17.7	17.4	17.2
34.55	6.40	17.7	17.4	17.2
34.69	6.31	17.7	17.4	17.2
34.69	6.31	17.7	17.4	17.2
34.74	6.28	17.7	17.4	17.2
34.85	6.21	17.8	17.4	17.3
35.24	5.97	17.8	17.5	17.3
35.50	5.81	17.8	17.5	17.3
35.74	5.66	17.8	17.5	17.4
36.24	5.35	17.9	17.6	17.4
36.50	5.19	17.9	17.6	17.5
36.74	5.04	17.9	17.6	17.5
36.93	4.92	17.9	17.7	17.5
36.93	4.92	17.9	17.7	17.5
36.95	4.91	17.9	17.7	17.5
37.24	4.73	17.9	17.7	17.5
37.60	4.50	17.9	17.7	17.6
37.74	4.41	18.0	17.7	17.6
37.80	4.38	18.0	17.8	17.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	18.0	17.8	17.7
38.24	4.10	18.1	17.9	17.8
38.25	4.10	18.1	17.9	17.8
38.60	3.88	18.1	17.9	17.8
38.74	3.79	18.1	17.9	17.8
38.95	3.66	18.1	18.0	17.9
39.15	3.54	18.1	18.0	17.9
39.24	3.48	18.1	18.0	17.9
39.65	3.23	18.2	18.0	17.9
39.74	3.17	18.2	18.0	17.9
39.95	3.04	18.3	18.1	18.0
40.24	2.86	18.3	18.1	18.0
40.55	2.67	18.3	18.1	18.0
40.70	2.58	18.4	18.2	18.1
40.74	2.55	18.4	18.2	18.1
41.15	2.30	18.4	18.2	18.1
41.24	2.24	18.4	18.2	18.1
41.74	1.93	18.4	18.2	18.1
42.10	1.71	18.4	18.2	18.2
42.24	1.62	18.4	18.2	18.2
42.25	1.61	18.4	18.3	18.2
42.74	1.31	18.5	18.3	18.3
42.75	1.30	18.5	18.3	18.3
43.24	1.00	18.6	18.5	18.4
43.35	0.93	18.6	18.5	18.4
43.65	0.74	18.6	18.5	18.4
43.74	0.69	18.6	18.5	18.4
43.90	0.59	18.6	18.5	18.4
44.24	0.38	18.6	18.5	18.4
44.45	0.25	18.6	18.5	18.4
44.74	0.07	18.6	18.5	18.5
44.80	0.03	18.7	18.5	18.5
44.85	0.00	18.7	18.5	18.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	9.8	9.8	9.8
0.35	27.65	10.4	10.4	10.4
0.50	27.55	10.7	10.7	10.7
0.65	27.46	10.9	10.9	10.9
1.00	27.24	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8
1.15	27.15	11.8	11.8	11.8
1.30	27.06	12.0	12.0	12.0
1.50	26.93	12.3	12.3	12.3
1.65	26.84	12.5	12.5	12.5
1.85	26.72	12.8	12.8	12.8
2.00	26.62	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1
2.20	26.50	13.3	13.3	13.3
2.50	26.31	13.6	13.6	13.6
2.70	26.19	13.9	13.9	13.9
2.90	26.06	14.1	14.1	14.1
2.92	26.05	14.1	14.1	14.1
3.00	26.00	14.2	14.2	14.2
3.43	25.73	14.7	14.7	14.7
3.44	25.73	14.7	14.7	14.7
3.45	25.72	14.7	14.7	14.7
3.46	25.72	14.7	14.7	14.7
3.50	25.69	14.8	14.8	14.8
3.65	25.60	14.9	14.9	14.9
4.00	25.38	15.0	15.0	15.0
4.20	25.26	15.0	15.0	15.0
4.50	25.07	15.1	15.1	15.1
4.75	24.91	15.2	15.2	15.2
5.00	24.76	15.2	15.2	15.2
5.28	24.58	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3
5.39	24.52	14.7	14.7	14.7
5.50	24.45	14.8	14.8	14.8
5.55	24.42	14.8	14.8	14.8
5.65	24.35	14.8	14.8	14.8
6.00	24.14	15.1	15.1	15.1
6.05	24.11	15.1	15.1	15.1
6.50	23.83	15.5	15.5	15.5
6.65	23.73	15.6	15.6	15.6
7.00	23.52	15.9	15.9	15.9
7.07	23.47	15.9	15.9	15.9
7.10	23.45	15.9	15.9	15.9
7.15	23.42	16.0	16.0	16.0
7.16	23.42	15.6	15.6	15.6
7.50	23.20	15.9	15.9	15.9
7.55	23.17	15.9	15.9	15.9
7.80	23.02	16.0	16.0	16.0
8.00	22.89	16.2	16.2	16.2
8.05	22.86	16.2	16.2	16.2
8.45	22.61	16.5	16.5	16.5
8.50	22.58	16.5	16.5	16.5
8.99	22.28	16.8	16.8	16.8
9.09	22.22	16.9	16.9	16.9
9.09	22.22	16.8	16.8	16.8
9.49	21.97	17.0	17.0	17.0
9.50	21.96	17.0	17.0	17.0
9.99	21.66	17.1	17.1	17.1
10.05	21.62	17.2	17.2	17.2
10.25	21.50	17.3	17.3	17.3
10.49	21.35	17.4	17.4	17.4
10.65	21.25	17.4	17.4	17.4
10.99	21.04	17.5	17.5	17.5
11.10	20.97	17.6	17.6	17.6
11.41	20.78	17.7	17.7	17.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	17.7	17.7	17.7
11.49	20.73	17.8	17.8	17.8
11.75	20.56	17.9	17.9	17.9
11.99	20.42	18.1	18.1	18.1
12.20	20.28	18.2	18.2	18.2
12.35	20.19	18.3	18.3	18.3
12.48	20.11	18.4	18.4	18.4
12.49	20.10	18.4	18.4	18.4
12.52	20.08	18.4	18.4	18.4
12.53	20.08	18.3	18.3	18.3
12.70	19.97	18.4	18.4	18.4
12.99	19.79	18.5	18.5	18.5
13.25	19.63	18.6	18.6	18.6
13.31	19.59	18.7	18.7	18.7
13.40	19.54	18.7	18.7	18.7
13.40	19.54	18.7	18.7	18.7
13.49	19.48	18.7	18.7	18.7
13.75	19.32	18.8	18.8	18.8
13.99	19.17	18.9	18.9	18.9
14.45	18.89	19.0	19.0	19.0
14.49	18.86	19.0	19.0	19.0
14.80	18.67	19.0	19.0	19.0
14.99	18.55	19.0	19.0	19.0
15.20	18.42	19.1	19.1	19.1
15.49	18.24	19.2	19.2	19.2
15.80	18.05	19.2	19.2	19.2
15.99	17.93	19.3	19.3	19.3
16.20	17.80	19.3	19.3	19.3
16.34	17.72	19.3	19.3	19.3
16.34	17.71	19.1	19.1	19.1
16.49	17.62	19.2	19.2	19.2
16.75	17.46	19.2	19.2	19.2
16.99	17.31	19.3	19.3	19.3
17.10	17.24	19.3	19.3	19.3
17.30	17.12	19.3	19.3	19.3
17.49	17.00	19.4	19.4	19.4
17.65	16.90	19.4	19.4	19.4
17.90	16.74	19.4	19.4	19.4
17.99	16.69	19.4	19.4	19.4
18.15	16.59	19.5	19.5	19.5
18.19	16.56	19.5	19.5	19.5
18.19	16.56	19.5	19.5	19.5
18.36	16.45	19.5	19.5	19.5
18.37	16.45	18.3	16.3	16.0
18.65	16.28	18.4	16.3	16.1
18.69	16.25	18.4	16.3	16.1
18.95	16.09	18.5	16.4	16.1
19.19	15.94	18.5	16.4	16.2
19.32	15.86	18.5	16.4	16.2
19.43	15.80	18.5	16.4	16.2
19.43	15.79	17.8	16.3	16.1
19.65	15.66	17.9	16.3	16.1
19.69	15.63	17.9	16.3	16.1
20.15	15.34	18.0	16.4	16.1
20.19	15.32	18.0	16.4	16.2
20.69	15.01	18.1	16.5	16.2
20.95	14.85	18.2	16.5	16.3
21.19	14.70	18.2	16.5	16.3
21.40	14.57	18.3	16.6	16.3
21.60	14.44	18.3	16.6	16.4
21.69	14.39	18.3	16.6	16.4
21.69	14.39	18.3	16.6	16.4
22.19	14.08	18.4	16.7	16.4
22.20	14.07	18.4	16.7	16.4
22.40	13.95	18.4	16.7	16.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	18.5	16.7	16.5
22.80	13.70	18.5	16.7	16.5
23.19	13.46	18.5	16.8	16.5
23.30	13.39	18.5	16.8	16.5
23.69	13.14	18.6	16.8	16.6
24.05	12.92	18.6	16.9	16.6
24.19	12.83	18.6	16.9	16.6
24.50	12.64	18.6	16.9	16.6
24.69	12.52	18.6	16.9	16.6
24.70	12.52	18.6	16.9	16.6
25.05	12.30	18.7	17.0	16.7
25.19	12.21	18.7	17.0	16.7
25.69	11.90	18.7	17.0	16.7
25.85	11.80	18.7	17.0	16.7
26.19	11.59	18.7	17.0	16.7
26.69	11.28	18.8	17.0	16.8
27.19	10.97	18.8	17.1	16.8
27.20	10.96	18.8	17.1	16.8
27.45	10.81	18.8	17.1	16.8
27.69	10.66	18.9	17.1	16.9
27.90	10.53	18.9	17.2	16.9
28.19	10.35	18.9	17.2	16.9
28.69	10.04	19.0	17.3	17.0
28.75	10.00	19.0	17.3	17.0
28.98	9.85	19.0	17.3	17.0
28.99	9.85	18.8	17.2	17.0
29.19	9.73	18.8	17.3	17.0
29.25	9.69	18.8	17.3	17.0
29.69	9.42	18.9	17.3	17.0
30.00	9.22	18.9	17.4	17.1
30.19	9.11	19.0	17.4	17.1
30.30	9.04	19.0	17.4	17.1
30.69	8.80	19.1	17.5	17.2
31.19	8.48	19.1	17.5	17.2
31.24	8.45	19.1	17.5	17.2
31.30	8.42	19.1	17.5	17.2
31.74	8.14	19.2	17.6	17.3
31.95	8.01	19.2	17.6	17.3
32.24	7.83	19.2	17.6	17.3
32.25	7.83	19.2	17.6	17.3
32.74	7.52	19.3	17.7	17.4
33.24	7.21	19.4	17.7	17.4
33.30	7.17	19.4	17.7	17.4
33.45	7.08	19.4	17.7	17.4
33.74	6.90	19.4	17.8	17.5
34.20	6.61	19.5	17.8	17.5
34.24	6.59	19.5	17.8	17.5
34.55	6.40	19.5	17.9	17.5
34.69	6.31	19.5	17.9	17.6
34.69	6.31	19.5	17.9	17.5
34.74	6.28	19.5	17.9	17.6
34.85	6.21	19.5	17.9	17.6
35.24	5.97	19.6	18.0	17.6
35.50	5.81	19.6	18.0	17.7
35.74	5.66	19.7	18.0	17.7
36.24	5.35	19.8	18.1	17.8
36.50	5.19	19.8	18.1	17.8
36.74	5.04	19.8	18.2	17.9
36.93	4.92	19.9	18.2	17.9
36.93	4.92	19.8	18.2	17.9
36.95	4.91	19.8	18.2	17.9
37.24	4.73	19.8	18.2	17.9
37.60	4.50	19.9	18.3	17.9
37.74	4.41	19.9	18.3	18.0
37.80	4.38	19.9	18.3	18.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	20.0	18.4	18.1
38.24	4.10	20.1	18.4	18.1
38.25	4.10	20.1	18.4	18.1
38.60	3.88	20.1	18.5	18.2
38.74	3.79	20.1	18.5	18.2
38.95	3.66	20.1	18.5	18.2
39.15	3.54	20.2	18.5	18.2
39.24	3.48	20.2	18.5	18.2
39.65	3.23	20.2	18.6	18.2
39.74	3.17	20.3	18.6	18.3
39.95	3.04	20.4	18.7	18.3
40.24	2.86	20.4	18.7	18.4
40.55	2.67	20.4	18.7	18.4
40.70	2.58	20.5	18.8	18.4
40.74	2.55	20.5	18.8	18.4
41.15	2.30	20.5	18.8	18.5
41.24	2.24	20.5	18.8	18.5
41.74	1.93	20.6	18.9	18.5
42.10	1.71	20.6	18.9	18.6
42.24	1.62	20.7	18.9	18.6
42.25	1.61	20.7	18.9	18.6
42.74	1.31	20.8	19.0	18.7
42.75	1.30	20.8	19.0	18.7
43.24	1.00	20.9	19.1	18.8
43.35	0.93	20.9	19.2	18.8
43.65	0.74	21.0	19.2	18.8
43.74	0.69	21.0	19.2	18.8
43.90	0.59	21.0	19.2	18.8
44.24	0.38	21.0	19.2	18.8
44.45	0.25	21.0	19.2	18.9
44.74	0.07	21.1	19.3	18.9
44.80	0.03	21.1	19.3	18.9
44.85	0.00	21.1	19.3	18.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	11.9	11.9	11.9
0.35	27.65	12.3	12.3	12.3
0.50	27.55	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6
1.00	27.24	13.0	13.0	13.0
1.15	27.15	13.1	13.1	13.1
1.15	27.15	13.1	13.1	13.1
1.30	27.06	13.3	13.3	13.3
1.50	26.93	13.4	13.4	13.4
1.65	26.84	13.6	13.6	13.6
1.85	26.72	13.8	13.8	13.8
2.00	26.62	13.9	13.9	13.9
2.05	26.59	13.9	13.9	13.9
2.20	26.50	14.1	14.1	14.1
2.50	26.31	14.3	14.3	14.3
2.70	26.19	14.5	14.5	14.5
2.90	26.06	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7
3.43	25.73	15.0	15.0	15.0
3.44	25.73	15.0	15.0	15.0
3.45	25.72	15.0	15.0	15.0
3.46	25.72	15.0	15.0	15.0
3.50	25.69	15.0	15.0	15.0
3.65	25.60	15.1	15.1	15.1
4.00	25.38	15.1	15.1	15.1
4.20	25.26	15.1	15.1	15.1
4.50	25.07	15.0	15.0	15.0
4.75	24.91	15.0	15.0	15.0
5.00	24.76	15.0	15.0	15.0
5.28	24.58	15.0	15.0	15.0
5.38	24.52	15.0	15.0	15.0
5.39	24.52	14.6	14.6	14.6
5.50	24.45	14.6	14.6	14.6
5.55	24.42	14.6	14.6	14.6
5.65	24.35	14.6	14.6	14.6
6.00	24.14	14.8	14.8	14.8
6.05	24.11	14.8	14.8	14.8
6.50	23.83	15.1	15.1	15.1
6.65	23.73	15.2	15.2	15.2
7.00	23.52	15.4	15.4	15.4
7.07	23.47	15.4	15.4	15.4
7.10	23.45	15.4	15.4	15.4
7.15	23.42	15.5	15.5	15.5
7.16	23.42	15.4	15.4	15.4
7.50	23.20	15.6	15.6	15.6
7.55	23.17	15.6	15.6	15.6
7.80	23.02	15.7	15.7	15.7
8.00	22.89	15.8	15.8	15.8
8.05	22.86	15.9	15.9	15.9
8.45	22.61	16.1	16.1	16.1
8.50	22.58	16.1	16.1	16.1
8.99	22.28	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4
9.49	21.97	16.6	16.6	16.6
9.50	21.96	16.6	16.6	16.6
9.99	21.66	16.8	16.8	16.8
10.05	21.62	16.8	16.8	16.8
10.25	21.50	16.8	16.8	16.8
10.49	21.35	16.9	16.9	16.9
10.65	21.25	17.0	17.0	17.0
10.99	21.04	17.1	17.1	17.1
11.10	20.97	17.1	17.1	17.1
11.41	20.78	17.2	17.2	17.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	17.3	17.3	17.3
11.49	20.73	17.3	17.3	17.3
11.75	20.56	17.4	17.4	17.4
11.99	20.42	17.5	17.5	17.5
12.20	20.28	17.6	17.6	17.6
12.35	20.19	17.7	17.7	17.7
12.48	20.11	17.8	17.8	17.8
12.49	20.10	17.8	17.8	17.8
12.52	20.08	17.8	17.8	17.8
12.53	20.08	17.8	17.8	17.8
12.70	19.97	17.8	17.8	17.8
12.99	19.79	17.9	17.9	17.9
13.25	19.63	18.0	18.0	18.0
13.31	19.59	18.0	18.0	18.0
13.40	19.54	18.0	18.0	18.0
13.40	19.54	18.0	18.0	18.0
13.49	19.48	18.0	18.0	18.0
13.75	19.32	18.1	18.1	18.1
13.99	19.17	18.2	18.2	18.2
14.45	18.89	18.2	18.2	18.2
14.49	18.86	18.2	18.2	18.2
14.80	18.67	18.3	18.3	18.3
14.99	18.55	18.3	18.3	18.3
15.20	18.42	18.3	18.3	18.3
15.49	18.24	18.4	18.4	18.4
15.80	18.05	18.4	18.4	18.4
15.99	17.93	18.5	18.5	18.5
16.20	17.80	18.5	18.5	18.5
16.34	17.72	18.5	18.5	18.5
16.34	17.71	18.4	18.4	18.4
16.49	17.62	18.4	18.4	18.4
16.75	17.46	18.5	18.5	18.5
16.99	17.31	18.5	18.5	18.5
17.10	17.24	18.5	18.5	18.5
17.30	17.12	18.5	18.5	18.5
17.49	17.00	18.6	18.6	18.6
17.65	16.90	18.6	18.6	18.6
17.90	16.74	18.6	18.6	18.6
17.99	16.69	18.6	18.6	18.6
18.15	16.59	18.6	18.6	18.6
18.19	16.56	18.6	18.6	18.6
18.19	16.56	18.6	18.6	18.6
18.36	16.45	18.6	18.6	18.6
18.37	16.45	17.9	17.3	17.0
18.65	16.28	17.9	17.3	17.0
18.69	16.25	17.9	17.3	17.0
18.95	16.09	18.0	17.4	17.1
19.19	15.94	18.0	17.4	17.1
19.32	15.86	18.0	17.4	17.1
19.43	15.80	18.0	17.4	17.1
19.43	15.79	17.8	17.3	17.0
19.65	15.66	17.9	17.3	17.1
19.69	15.63	17.9	17.3	17.1
20.15	15.34	17.9	17.4	17.1
20.19	15.32	17.9	17.4	17.1
20.69	15.01	18.0	17.5	17.2
20.95	14.85	18.0	17.5	17.2
21.19	14.70	18.0	17.5	17.3
21.40	14.57	18.0	17.5	17.3
21.60	14.44	18.0	17.6	17.3
21.69	14.39	18.0	17.6	17.3
21.69	14.39	18.0	17.6	17.3
22.19	14.08	18.1	17.6	17.4
22.20	14.07	18.1	17.6	17.4
22.40	13.95	18.1	17.6	17.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	18.1	17.6	17.4
22.80	13.70	18.1	17.6	17.4
23.19	13.46	18.1	17.7	17.4
23.30	13.39	18.1	17.7	17.4
23.69	13.14	18.1	17.7	17.5
24.05	12.92	18.2	17.7	17.5
24.19	12.83	18.2	17.7	17.5
24.50	12.64	18.2	17.8	17.5
24.69	12.52	18.2	17.8	17.5
24.70	12.52	18.2	17.8	17.5
25.05	12.30	18.2	17.8	17.5
25.19	12.21	18.2	17.8	17.5
25.69	11.90	18.2	17.8	17.5
25.85	11.80	18.2	17.8	17.5
26.19	11.59	18.2	17.8	17.6
26.69	11.28	18.2	17.8	17.6
27.19	10.97	18.2	17.9	17.6
27.20	10.96	18.2	17.9	17.6
27.45	10.81	18.2	17.9	17.6
27.69	10.66	18.3	17.9	17.7
27.90	10.53	18.3	17.9	17.7
28.19	10.35	18.3	18.0	17.7
28.69	10.04	18.3	18.0	17.8
28.75	10.00	18.3	18.0	17.8
28.98	9.85	18.4	18.0	17.8
28.99	9.85	18.3	18.0	17.8
29.19	9.73	18.4	18.0	17.8
29.25	9.69	18.4	18.0	17.8
29.69	9.42	18.4	18.1	17.8
30.00	9.22	18.4	18.1	17.9
30.19	9.11	18.5	18.1	17.9
30.30	9.04	18.5	18.1	17.9
30.69	8.80	18.5	18.2	18.0
31.19	8.48	18.5	18.2	18.0
31.24	8.45	18.5	18.2	18.0
31.30	8.42	18.6	18.2	18.0
31.74	8.14	18.6	18.3	18.0
31.95	8.01	18.6	18.3	18.0
32.24	7.83	18.6	18.3	18.1
32.25	7.83	18.6	18.3	18.1
32.74	7.52	18.7	18.4	18.1
33.24	7.21	18.8	18.4	18.2
33.30	7.17	18.8	18.4	18.2
33.45	7.08	18.8	18.4	18.2
33.74	6.90	18.8	18.5	18.2
34.20	6.61	18.8	18.5	18.3
34.24	6.59	18.8	18.5	18.3
34.55	6.40	18.9	18.5	18.3
34.69	6.31	18.9	18.5	18.3
34.69	6.31	18.9	18.5	18.3
34.74	6.28	18.9	18.5	18.3
34.85	6.21	18.9	18.6	18.3
35.24	5.97	19.0	18.6	18.4
35.50	5.81	19.0	18.7	18.4
35.74	5.66	19.0	18.7	18.5
36.24	5.35	19.1	18.8	18.5
36.50	5.19	19.1	18.8	18.6
36.74	5.04	19.2	18.8	18.6
36.93	4.92	19.2	18.9	18.6
36.93	4.92	19.2	18.9	18.6
36.95	4.91	19.2	18.9	18.6
37.24	4.73	19.2	18.9	18.7
37.60	4.50	19.3	18.9	18.7
37.74	4.41	19.3	19.0	18.7
37.80	4.38	19.3	19.0	18.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	19.4	19.0	18.8
38.24	4.10	19.4	19.1	18.9
38.25	4.10	19.4	19.1	18.9
38.60	3.88	19.5	19.2	18.9
38.74	3.79	19.5	19.2	18.9
38.95	3.66	19.5	19.2	18.9
39.15	3.54	19.5	19.2	19.0
39.24	3.48	19.5	19.2	19.0
39.65	3.23	19.6	19.3	19.0
39.74	3.17	19.6	19.3	19.0
39.95	3.04	19.7	19.4	19.1
40.24	2.86	19.7	19.4	19.1
40.55	2.67	19.8	19.4	19.2
40.70	2.58	19.8	19.5	19.2
40.74	2.55	19.8	19.5	19.2
41.15	2.30	19.9	19.5	19.3
41.24	2.24	19.9	19.5	19.3
41.74	1.93	19.9	19.6	19.3
42.10	1.71	20.0	19.6	19.3
42.24	1.62	20.0	19.6	19.4
42.25	1.61	20.0	19.6	19.4
42.74	1.31	20.1	19.7	19.5
42.75	1.30	20.1	19.7	19.5
43.24	1.00	20.2	19.8	19.6
43.35	0.93	20.2	19.9	19.6
43.65	0.74	20.3	19.9	19.6
43.74	0.69	20.3	19.9	19.6
43.90	0.59	20.3	19.9	19.6
44.24	0.38	20.3	19.9	19.6
44.45	0.25	20.3	19.9	19.7
44.74	0.07	20.4	20.0	19.7
44.80	0.03	20.4	20.0	19.7
44.85	0.00	20.4	20.0	19.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	10.2	10.2	10.2
0.35	27.65	11.2	11.2	11.2
0.50	27.55	11.6	11.6	11.6
0.65	27.46	11.9	11.9	11.9
1.00	27.24	12.9	12.9	12.9
1.15	27.15	13.2	13.2	13.2
1.15	27.15	13.3	13.3	13.3
1.30	27.06	13.6	13.6	13.6
1.50	26.93	14.0	14.0	14.0
1.65	26.84	14.3	14.3	14.3
1.85	26.72	14.7	14.7	14.7
2.00	26.62	15.0	15.0	15.0
2.05	26.59	15.1	15.1	15.1
2.20	26.50	15.4	15.4	15.4
2.50	26.31	15.9	15.9	15.9
2.70	26.19	16.2	16.2	16.2
2.90	26.06	16.5	16.5	16.5
2.92	26.05	16.5	16.5	16.5
3.00	26.00	16.7	16.7	16.7
3.43	25.73	17.3	17.3	17.3
3.44	25.73	17.3	17.3	17.3
3.45	25.72	17.3	17.3	17.3
3.46	25.72	17.3	17.3	17.3
3.50	25.69	17.3	17.3	17.3
3.65	25.60	17.5	17.5	17.5
4.00	25.38	17.5	17.5	17.5
4.20	25.26	17.5	17.5	17.5
4.50	25.07	17.6	17.6	17.6
4.75	24.91	17.6	17.6	17.6
5.00	24.76	17.6	17.6	17.6
5.28	24.58	17.6	17.6	17.6
5.38	24.52	17.6	17.6	17.6
5.39	24.52	17.1	17.1	17.1
5.50	24.45	17.1	17.1	17.1
5.55	24.42	17.1	17.1	17.1
5.65	24.35	17.1	17.1	17.1
6.00	24.14	17.5	17.5	17.5
6.05	24.11	17.6	17.6	17.6
6.50	23.83	18.2	18.2	18.2
6.65	23.73	18.4	18.4	18.4
7.00	23.52	18.7	18.7	18.7
7.07	23.47	18.8	18.8	18.8
7.10	23.45	18.8	18.8	18.8
7.15	23.42	18.9	18.9	18.9
7.16	23.42	18.5	18.5	18.5
7.50	23.20	18.7	18.7	18.7
7.55	23.17	18.7	18.7	18.7
7.80	23.02	18.9	18.9	18.9
8.00	22.89	19.1	19.1	19.1
8.05	22.86	19.1	19.1	19.1
8.45	22.61	19.3	19.3	19.3
8.50	22.58	19.4	19.4	19.4
8.99	22.28	19.6	19.6	19.6
9.09	22.22	19.7	19.7	19.7
9.09	22.22	19.5	19.5	19.5
9.49	21.97	19.8	19.8	19.8
9.50	21.96	19.8	19.8	19.8
9.99	21.66	19.8	19.8	19.8
10.05	21.62	19.8	19.8	19.8
10.25	21.50	19.9	19.9	19.9
10.49	21.35	20.0	20.0	20.0
10.65	21.25	20.1	20.1	20.1
10.99	21.04	20.3	20.3	20.3
11.10	20.97	20.3	20.3	20.3
11.41	20.78	20.5	20.5	20.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	20.5	20.5	20.5
11.49	20.73	20.6	20.6	20.6
11.75	20.56	20.8	20.8	20.8
11.99	20.42	21.0	21.0	21.0
12.20	20.28	21.2	21.2	21.2
12.35	20.19	21.3	21.3	21.3
12.48	20.11	21.3	21.3	21.3
12.49	20.10	21.3	21.3	21.3
12.52	20.08	21.3	21.3	21.3
12.53	20.08	21.2	21.2	21.2
12.70	19.97	21.2	21.2	21.2
12.99	19.79	21.4	21.4	21.4
13.25	19.63	21.5	21.5	21.5
13.31	19.59	21.5	21.5	21.5
13.40	19.54	21.6	21.6	21.6
13.40	19.54	21.5	21.5	21.5
13.49	19.48	21.6	21.6	21.6
13.75	19.32	21.7	21.7	21.7
13.99	19.17	21.8	21.8	21.8
14.45	18.89	21.9	21.9	21.9
14.49	18.86	21.9	21.9	21.9
14.80	18.67	21.9	21.9	21.9
14.99	18.55	22.0	22.0	22.0
15.20	18.42	22.0	22.0	22.0
15.49	18.24	22.1	22.1	22.1
15.80	18.05	22.2	22.2	22.2
15.99	17.93	22.3	22.3	22.3
16.20	17.80	22.3	22.3	22.3
16.34	17.72	22.4	22.4	22.4
16.34	17.71	22.1	22.1	22.1
16.49	17.62	22.2	22.2	22.2
16.75	17.46	22.3	22.3	22.3
16.99	17.31	22.3	22.3	22.3
17.10	17.24	22.4	22.4	22.4
17.30	17.12	22.4	22.4	22.4
17.49	17.00	22.4	22.4	22.4
17.65	16.90	22.5	22.5	22.5
17.90	16.74	22.5	22.5	22.5
17.99	16.69	22.5	22.5	22.5
18.15	16.59	22.6	22.6	22.6
18.19	16.56	22.6	22.6	22.6
18.19	16.56	22.6	22.6	22.6
18.36	16.45	22.5	22.5	22.5
18.37	16.45	21.0	18.3	17.9
18.65	16.28	21.0	18.3	18.0
18.69	16.25	21.0	18.3	18.0
18.95	16.09	21.0	18.3	18.0
19.19	15.94	21.0	18.4	18.0
19.32	15.86	21.0	18.4	18.0
19.43	15.80	21.0	18.4	18.1
19.43	15.79	20.1	18.2	17.9
19.65	15.66	20.1	18.2	17.9
19.69	15.63	20.1	18.2	17.9
20.15	15.34	20.1	18.2	18.0
20.19	15.32	20.1	18.2	18.0
20.69	15.01	20.2	18.3	18.0
20.95	14.85	20.2	18.3	18.1
21.19	14.70	20.2	18.3	18.1
21.40	14.57	20.2	18.4	18.1
21.60	14.44	20.2	18.4	18.1
21.69	14.39	20.2	18.4	18.1
21.69	14.39	20.2	18.4	18.1
22.19	14.08	20.2	18.4	18.2
22.20	14.07	20.2	18.4	18.2
22.40	13.95	20.2	18.5	18.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	20.2	18.5	18.2
22.80	13.70	20.2	18.5	18.2
23.19	13.46	20.3	18.5	18.2
23.30	13.39	20.3	18.5	18.2
23.69	13.14	20.3	18.5	18.3
24.05	12.92	20.3	18.5	18.3
24.19	12.83	20.3	18.5	18.3
24.50	12.64	20.3	18.6	18.3
24.69	12.52	20.3	18.6	18.3
24.70	12.52	20.3	18.6	18.3
25.05	12.30	20.3	18.6	18.4
25.19	12.21	20.3	18.6	18.4
25.69	11.90	20.3	18.6	18.4
25.85	11.80	20.3	18.6	18.4
26.19	11.59	20.3	18.6	18.4
26.69	11.28	20.3	18.7	18.4
27.19	10.97	20.3	18.7	18.4
27.20	10.96	20.3	18.7	18.4
27.45	10.81	20.3	18.7	18.5
27.69	10.66	20.3	18.8	18.5
27.90	10.53	20.4	18.8	18.5
28.19	10.35	20.4	18.8	18.6
28.69	10.04	20.4	18.9	18.6
28.75	10.00	20.4	18.9	18.6
28.98	9.85	20.4	18.9	18.6
28.99	9.85	20.2	18.8	18.6
29.19	9.73	20.2	18.8	18.6
29.25	9.69	20.2	18.8	18.6
29.69	9.42	20.2	18.9	18.6
30.00	9.22	20.2	18.9	18.7
30.19	9.11	20.3	19.0	18.7
30.30	9.04	20.3	19.0	18.7
30.69	8.80	20.3	19.0	18.8
31.19	8.48	20.3	19.0	18.8
31.24	8.45	20.3	19.0	18.8
31.30	8.42	20.4	19.1	18.8
31.74	8.14	20.4	19.1	18.9
31.95	8.01	20.4	19.1	18.9
32.24	7.83	20.4	19.1	18.9
32.25	7.83	20.4	19.1	18.9
32.74	7.52	20.5	19.2	18.9
33.24	7.21	20.5	19.2	19.0
33.30	7.17	20.5	19.3	19.0
33.45	7.08	20.5	19.3	19.0
33.74	6.90	20.5	19.3	19.0
34.20	6.61	20.6	19.3	19.1
34.24	6.59	20.6	19.3	19.1
34.55	6.40	20.6	19.3	19.1
34.69	6.31	20.6	19.4	19.1
34.69	6.31	20.6	19.4	19.1
34.74	6.28	20.6	19.4	19.1
34.85	6.21	20.6	19.4	19.2
35.24	5.97	20.6	19.4	19.2
35.50	5.81	20.7	19.5	19.3
35.74	5.66	20.7	19.5	19.3
36.24	5.35	20.8	19.6	19.4
36.50	5.19	20.8	19.6	19.4
36.74	5.04	20.8	19.7	19.5
36.93	4.92	20.8	19.7	19.5
36.93	4.92	20.8	19.7	19.5
36.95	4.91	20.8	19.7	19.5
37.24	4.73	20.8	19.7	19.5
37.60	4.50	20.8	19.8	19.6
37.74	4.41	20.8	19.8	19.6
37.80	4.38	20.9	19.8	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	21.0	19.9	19.7
38.24	4.10	21.0	20.0	19.8
38.25	4.10	21.0	20.0	19.8
38.60	3.88	21.1	20.0	19.9
38.74	3.79	21.1	20.0	19.9
38.95	3.66	21.1	20.0	19.9
39.15	3.54	21.1	20.0	19.9
39.24	3.48	21.1	20.1	19.9
39.65	3.23	21.1	20.1	19.9
39.74	3.17	21.2	20.1	20.0
39.95	3.04	21.3	20.2	20.1
40.24	2.86	21.3	20.3	20.1
40.55	2.67	21.3	20.3	20.1
40.70	2.58	21.4	20.4	20.2
40.74	2.55	21.4	20.4	20.2
41.15	2.30	21.4	20.4	20.2
41.24	2.24	21.4	20.4	20.2
41.74	1.93	21.4	20.4	20.3
42.10	1.71	21.4	20.5	20.3
42.24	1.62	21.5	20.5	20.3
42.25	1.61	21.5	20.5	20.3
42.74	1.31	21.6	20.6	20.4
42.75	1.30	21.6	20.6	20.4
43.24	1.00	21.7	20.7	20.6
43.35	0.93	21.7	20.8	20.6
43.65	0.74	21.7	20.8	20.6
43.74	0.69	21.7	20.8	20.6
43.90	0.59	21.7	20.8	20.6
44.24	0.38	21.7	20.8	20.6
44.45	0.25	21.7	20.8	20.6
44.74	0.07	21.8	20.8	20.6
44.80	0.03	21.8	20.8	20.7
44.85	0.00	21.8	20.8	20.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
0.00	27.87	12.3	12.3	12.3
0.35	27.65	12.9	12.9	12.9
0.50	27.55	13.2	13.2	13.2
0.65	27.46	13.5	13.5	13.5
1.00	27.24	14.1	14.1	14.1
1.15	27.15	14.4	14.4	14.4
1.15	27.15	14.4	14.4	14.4
1.30	27.06	14.6	14.6	14.6
1.50	26.93	14.9	14.9	14.9
1.65	26.84	15.1	15.1	15.1
1.85	26.72	15.4	15.4	15.4
2.00	26.62	15.6	15.6	15.6
2.05	26.59	15.7	15.7	15.7
2.20	26.50	15.9	15.9	15.9
2.50	26.31	16.3	16.3	16.3
2.70	26.19	16.5	16.5	16.5
2.90	26.06	16.7	16.7	16.7
2.92	26.05	16.7	16.7	16.7
3.00	26.00	16.8	16.8	16.8
3.43	25.73	17.2	17.2	17.2
3.44	25.73	17.2	17.2	17.2
3.45	25.72	17.2	17.2	17.2
3.46	25.72	17.2	17.2	17.2
3.50	25.69	17.2	17.2	17.2
3.65	25.60	17.4	17.4	17.4
4.00	25.38	17.2	17.2	17.2
4.20	25.26	17.2	17.2	17.2
4.50	25.07	17.0	17.0	17.0
4.75	24.91	17.0	17.0	17.0
5.00	24.76	16.9	16.9	16.9
5.28	24.58	16.8	16.8	16.8
5.38	24.52	16.8	16.8	16.8
5.39	24.52	16.4	16.4	16.4
5.50	24.45	16.3	16.3	16.3
5.55	24.42	16.3	16.3	16.3
5.65	24.35	16.3	16.3	16.3
6.00	24.14	16.7	16.7	16.7
6.05	24.11	16.8	16.8	16.8
6.50	23.83	17.3	17.3	17.3
6.65	23.73	17.4	17.4	17.4
7.00	23.52	17.8	17.8	17.8
7.07	23.47	17.8	17.8	17.8
7.10	23.45	17.8	17.8	17.8
7.15	23.42	17.9	17.9	17.9
7.16	23.42	17.8	17.8	17.8
7.50	23.20	18.0	18.0	18.0
7.55	23.17	18.0	18.0	18.0
7.80	23.02	18.2	18.2	18.2
8.00	22.89	18.3	18.3	18.3
8.05	22.86	18.3	18.3	18.3
8.45	22.61	18.5	18.5	18.5
8.50	22.58	18.5	18.5	18.5
8.99	22.28	18.7	18.7	18.7
9.09	22.22	18.8	18.8	18.8
9.09	22.22	18.7	18.7	18.7
9.49	21.97	19.0	19.0	19.0
9.50	21.96	19.0	19.0	19.0
9.99	21.66	19.0	19.0	19.0
10.05	21.62	19.0	19.0	19.0
10.25	21.50	19.1	19.1	19.1
10.49	21.35	19.2	19.2	19.2
10.65	21.25	19.2	19.2	19.2
10.99	21.04	19.4	19.4	19.4
11.10	20.97	19.4	19.4	19.4
11.41	20.78	19.6	19.6	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)*****		
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
11.45	20.75	19.6	19.6	19.6
11.49	20.73	19.7	19.7	19.7
11.75	20.56	19.9	19.9	19.9
11.99	20.42	20.0	20.0	20.0
12.20	20.28	20.1	20.1	20.1
12.35	20.19	20.3	20.3	20.3
12.48	20.11	20.3	20.3	20.3
12.49	20.10	20.3	20.3	20.3
12.52	20.08	20.3	20.3	20.3
12.53	20.08	20.2	20.2	20.2
12.70	19.97	20.2	20.2	20.2
12.99	19.79	20.3	20.3	20.3
13.25	19.63	20.4	20.4	20.4
13.31	19.59	20.5	20.5	20.5
13.40	19.54	20.5	20.5	20.5
13.40	19.54	20.5	20.5	20.5
13.49	19.48	20.5	20.5	20.5
13.75	19.32	20.6	20.6	20.6
13.99	19.17	20.7	20.7	20.7
14.45	18.89	20.8	20.8	20.8
14.49	18.86	20.8	20.8	20.8
14.80	18.67	20.8	20.8	20.8
14.99	18.55	20.8	20.8	20.8
15.20	18.42	20.8	20.8	20.8
15.49	18.24	20.9	20.9	20.9
15.80	18.05	21.0	21.0	21.0
15.99	17.93	21.0	21.0	21.0
16.20	17.80	21.1	21.1	21.1
16.34	17.72	21.1	21.1	21.1
16.34	17.71	21.0	21.0	21.0
16.49	17.62	21.0	21.0	21.0
16.75	17.46	21.1	21.1	21.1
16.99	17.31	21.1	21.1	21.1
17.10	17.24	21.1	21.1	21.1
17.30	17.12	21.2	21.2	21.2
17.49	17.00	21.2	21.2	21.2
17.65	16.90	21.2	21.2	21.2
17.90	16.74	21.3	21.3	21.3
17.99	16.69	21.3	21.3	21.3
18.15	16.59	21.3	21.3	21.3
18.19	16.56	21.3	21.3	21.3
18.19	16.56	21.3	21.3	21.3
18.36	16.45	21.2	21.2	21.2
18.37	16.45	20.2	19.4	19.0
18.65	16.28	20.1	19.3	19.0
18.69	16.25	20.1	19.3	19.0
18.95	16.09	20.1	19.3	19.0
19.19	15.94	20.0	19.3	18.9
19.32	15.86	20.0	19.3	18.9
19.43	15.80	19.9	19.2	18.9
19.43	15.79	19.7	19.1	18.8
19.65	15.66	19.7	19.1	18.8
19.69	15.63	19.7	19.1	18.8
20.15	15.34	19.6	19.1	18.8
20.19	15.32	19.6	19.1	18.8
20.69	15.01	19.5	19.0	18.8
20.95	14.85	19.5	19.0	18.8
21.19	14.70	19.4	19.0	18.8
21.40	14.57	19.4	19.0	18.7
21.60	14.44	19.4	19.0	18.7
21.69	14.39	19.4	19.0	18.7
21.69	14.39	19.4	19.0	18.7
22.19	14.08	19.3	18.9	18.7
22.20	14.07	19.3	18.9	18.7
22.40	13.95	19.3	18.9	18.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
22.69	13.77	19.3	18.9	18.7
22.80	13.70	19.3	18.9	18.7
23.19	13.46	19.2	18.9	18.7
23.30	13.39	19.2	18.9	18.7
23.69	13.14	19.2	18.9	18.7
24.05	12.92	19.1	18.8	18.7
24.19	12.83	19.1	18.8	18.7
24.50	12.64	19.1	18.8	18.6
24.69	12.52	19.1	18.8	18.6
24.70	12.52	19.1	18.8	18.6
25.05	12.30	19.0	18.8	18.7
25.19	12.21	19.0	18.8	18.7
25.69	11.90	19.0	18.8	18.7
25.85	11.80	19.0	18.8	18.7
26.19	11.59	19.0	18.8	18.7
26.69	11.28	19.0	18.8	18.7
27.19	10.97	18.9	18.8	18.6
27.20	10.96	18.9	18.8	18.6
27.45	10.81	18.9	18.7	18.6
27.69	10.66	18.9	18.8	18.6
27.90	10.53	18.9	18.8	18.7
28.19	10.35	18.9	18.8	18.7
28.69	10.04	18.9	18.8	18.7
28.75	10.00	18.9	18.8	18.7
28.98	9.85	18.8	18.8	18.7
28.99	9.85	18.8	18.7	18.6
29.19	9.73	18.8	18.7	18.6
29.25	9.69	18.8	18.7	18.6
29.69	9.42	18.7	18.7	18.6
30.00	9.22	18.7	18.7	18.6
30.19	9.11	18.7	18.7	18.7
30.30	9.04	18.7	18.7	18.7
30.69	8.80	18.7	18.7	18.7
31.19	8.48	18.7	18.7	18.7
31.24	8.45	18.7	18.7	18.7
31.30	8.42	18.7	18.7	18.7
31.74	8.14	18.7	18.7	18.7
31.95	8.01	18.7	18.7	18.7
32.24	7.83	18.7	18.7	18.7
32.25	7.83	18.7	18.7	18.7
32.74	7.52	18.7	18.7	18.7
33.24	7.21	18.8	18.8	18.8
33.30	7.17	18.8	18.8	18.8
33.45	7.08	18.8	18.8	18.8
33.74	6.90	18.8	18.8	18.8
34.20	6.61	18.8	18.8	18.8
34.24	6.59	18.8	18.8	18.8
34.55	6.40	18.9	18.8	18.8
34.69	6.31	18.9	18.8	18.8
34.69	6.31	18.9	18.8	18.8
34.74	6.28	18.9	18.8	18.8
34.85	6.21	18.9	18.8	18.8
35.24	5.97	19.0	18.9	18.9
35.50	5.81	19.0	18.9	18.9
35.74	5.66	19.0	18.9	18.9
36.24	5.35	19.1	18.9	19.0
36.50	5.19	19.1	19.0	19.0
36.74	5.04	19.2	19.0	19.0
36.93	4.92	19.2	19.0	19.0
36.93	4.92	19.2	19.0	19.0
36.95	4.91	19.2	19.0	19.0
37.24	4.73	19.2	19.0	19.0
37.60	4.50	19.3	19.0	19.0
37.74	4.41	19.3	19.0	19.1
37.80	4.38	19.3	19.0	19.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	50% Exceedance Mono Release	20% Exceedance Mono Release
38.10	4.19	19.4	19.1	19.2
38.24	4.10	19.4	19.2	19.2
38.25	4.10	19.4	19.2	19.2
38.60	3.88	19.5	19.2	19.3
38.74	3.79	19.5	19.2	19.3
38.95	3.66	19.5	19.2	19.3
39.15	3.54	19.5	19.2	19.3
39.24	3.48	19.5	19.2	19.3
39.65	3.23	19.6	19.3	19.3
39.74	3.17	19.6	19.3	19.3
39.95	3.04	19.7	19.4	19.4
40.24	2.86	19.7	19.4	19.4
40.55	2.67	19.8	19.4	19.4
40.70	2.58	19.8	19.5	19.5
40.74	2.55	19.8	19.5	19.5
41.15	2.30	19.9	19.5	19.5
41.24	2.24	19.9	19.5	19.5
41.74	1.93	19.9	19.6	19.5
42.10	1.71	20.0	19.6	19.5
42.24	1.62	20.0	19.6	19.5
42.25	1.61	20.0	19.6	19.5
42.74	1.31	20.1	19.7	19.6
42.75	1.30	20.1	19.7	19.6
43.24	1.00	20.2	19.8	19.7
43.35	0.93	20.2	19.9	19.7
43.65	0.74	20.2	19.9	19.7
43.74	0.69	20.2	19.9	19.7
43.90	0.59	20.2	19.9	19.7
44.24	0.38	20.2	19.9	19.7
44.45	0.25	20.2	19.9	19.7
44.74	0.07	20.4	20.0	19.8
44.80	0.03	20.4	20.0	19.8
44.85	0.00	20.4	20.0	19.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-25. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	79.8	79.8	79.8
16.0	74.3	54.1	48.0
17.0	65.9	25.6	21.3
18.0	27.2	0.0	0.0
19.0	9.4	0.0	0.0
20.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-26. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	77.5	77.5	75.1
16.0	70.2	47.1	38.4
17.0	29.5	16.0	8.5
18.0	11.7	0.0	0.0
19.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-27. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-28. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-29. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	89.2	89.2	89.2
16.0	81.9	81.9	81.9
17.0	78.7	61.3	54.5
18.0	72.0	35.7	30.6
19.0	41.3	14.6	8.5
20.0	16.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-30. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
15.0	88.0	88.0	88.0
16.0	80.8	80.8	80.8
17.0	76.1	76.1	76.1
18.0	64.1	47.3	41.9
19.0	21.1	16.0	12.8
20.0	6.1	0.6	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-31. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	30.6	14.6	14.6
22.0	7.4	7.4	7.4
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-32. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	50% Exceedance Mono Release	20% Exceedance Mono Release
21.0	5.6	5.6	5.6
22.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix F-33. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
0.35	27.65	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
0.50	27.55	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.65	27.46	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
1.00	27.24	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
1.15	27.15	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
1.15	27.15	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
1.30	27.06	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
1.50	26.93	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
1.65	26.84	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
1.85	26.72	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
2.00	26.62	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
2.05	26.59	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
2.20	26.50	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
2.50	26.31	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
2.70	26.19	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
2.90	26.06	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
2.92	26.05	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
3.00	26.00	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
3.43	25.73	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.44	25.73	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.45	25.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.46	25.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.50	25.69	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.65	25.60	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
4.00	25.38	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
4.20	25.26	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
4.50	25.07	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
4.75	24.91	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
5.00	24.76	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
5.28	24.58	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
5.38	24.52	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
5.39	24.52	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.50	24.45	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.55	24.42	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.65	24.35	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
6.00	24.14	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6.65	23.73	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
7.00	23.52	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
7.07	23.47	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.10	23.45	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.15	23.42	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.16	23.42	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.50	23.20	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.55	23.17	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.80	23.02	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.00	22.89	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
8.05	22.86	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
8.45	22.61	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
8.50	22.58	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
8.99	22.28	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.49	21.97	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
9.50	21.96	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
9.99	21.66	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
10.05	21.62	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
10.25	21.50	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
10.49	21.35	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
10.65	21.25	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
10.99	21.04	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
11.10	20.97	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
11.41	20.78	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
11.45	20.75	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-33. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
11.75	20.56	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
11.99	20.42	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
12.20	20.28	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
12.35	20.19	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
12.48	20.11	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
12.49	20.10	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
12.52	20.08	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
12.53	20.08	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
12.70	19.97	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
12.99	19.79	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
13.25	19.63	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
13.31	19.59	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
13.40	19.54	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
13.40	19.54	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
13.49	19.48	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
13.75	19.32	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
13.99	19.17	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
14.45	18.89	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
14.49	18.86	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
14.80	18.67	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
14.99	18.55	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
15.20	18.42	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
15.49	18.24	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
15.80	18.05	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
15.99	17.93	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
16.20	17.80	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
16.34	17.72	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
16.34	17.71	16.3	15.5	14.9	14.4	14.0	13.7	13.5	13.3	13.1	12.9
16.49	17.62	16.3	15.5	14.9	14.4	14.1	13.8	13.5	13.3	13.1	12.9
16.75	17.46	16.4	15.6	15.0	14.5	14.1	13.8	13.6	13.3	13.1	13.0
16.99	17.31	16.5	15.7	15.1	14.6	14.2	13.9	13.7	13.5	13.3	13.1
17.10	17.24	16.5	15.7	15.1	14.7	14.3	14.0	13.8	13.6	13.4	13.2
17.30	17.12	16.6	15.8	15.2	14.8	14.4	14.1	13.9	13.7	13.5	13.4
17.49	17.00	16.6	15.8	15.3	14.8	14.5	14.2	14.0	13.8	13.6	13.5
17.65	16.90	16.7	15.9	15.3	14.9	14.6	14.3	14.1	13.9	13.7	13.6
17.90	16.74	16.7	16.0	15.4	15.0	14.7	14.4	14.2	14.0	13.9	13.7
17.99	16.69	16.8	16.0	15.4	15.0	14.7	14.4	14.2	14.0	13.9	13.8
18.15	16.59	16.8	16.0	15.5	15.1	14.8	14.5	14.3	14.1	13.9	13.8
18.19	16.56	16.8	16.0	15.5	15.1	14.8	14.5	14.3	14.1	14.0	13.8
18.19	16.56	16.8	16.0	15.5	15.1	14.8	14.5	14.3	14.1	14.0	13.8
18.36	16.45	16.8	16.1	15.6	15.1	14.8	14.6	14.3	14.1	14.0	13.9
18.37	16.45	16.5	15.9	15.4	15.1	14.8	14.6	14.4	14.2	14.1	14.0
18.65	16.28	16.5	16.0	15.5	15.2	14.9	14.6	14.4	14.3	14.1	14.0
18.69	16.25	16.5	16.0	15.5	15.2	14.9	14.6	14.4	14.3	14.1	14.0
18.95	16.09	16.6	16.0	15.6	15.2	14.9	14.7	14.5	14.4	14.2	14.1
19.19	15.94	16.6	16.1	15.6	15.3	15.0	14.8	14.6	14.4	14.2	14.1
19.32	15.86	16.7	16.1	15.6	15.3	15.0	14.8	14.6	14.4	14.3	14.1
19.43	15.80	16.7	16.1	15.7	15.3	15.0	14.8	14.6	14.4	14.3	14.1
19.43	15.79	16.3	15.9	15.4	15.1	14.9	14.7	14.5	14.3	14.2	14.1
19.65	15.66	16.4	15.9	15.5	15.2	14.9	14.7	14.5	14.4	14.2	14.1
19.69	15.63	16.4	15.9	15.5	15.2	14.9	14.7	14.5	14.4	14.2	14.1
20.15	15.34	16.5	16.0	15.6	15.3	15.0	14.8	14.6	14.4	14.3	14.2
20.19	15.32	16.5	16.0	15.6	15.3	15.0	14.8	14.6	14.4	14.3	14.2
20.69	15.01	16.6	16.1	15.7	15.4	15.1	14.9	14.7	14.5	14.4	14.3
20.95	14.85	16.6	16.1	15.8	15.4	15.2	14.9	14.8	14.6	14.4	14.3
21.19	14.70	16.7	16.2	15.8	15.5	15.2	15.0	14.8	14.6	14.5	14.4
21.40	14.57	16.7	16.2	15.8	15.5	15.3	15.0	14.8	14.7	14.5	14.4
21.60	14.44	16.8	16.3	15.9	15.6	15.3	15.1	14.9	14.7	14.6	14.4
21.69	14.39	16.8	16.3	15.9	15.6	15.3	15.1	14.9	14.7	14.6	14.4
21.69	14.39	16.7	16.3	15.9	15.5	15.3	15.1	14.9	14.7	14.6	14.4
22.19	14.08	16.8	16.4	16.0	15.6	15.4	15.1	14.9	14.8	14.6	14.5
22.20	14.07	16.8	16.4	16.0	15.6	15.4	15.1	14.9	14.8	14.6	14.5
22.40	13.95	16.9	16.4	16.0	15.7	15.4	15.2	15.0	14.8	14.7	14.5
22.69	13.77	16.9	16.4	16.0	15.7	15.4	15.2	15.0	14.9	14.7	14.6
22.80	13.70	16.9	16.4	16.0	15.7	15.4	15.2	15.0	14.9	14.7	14.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-33. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	16.9	16.5	16.1	15.8	15.5	15.3	15.1	14.9	14.8	14.6
23.30	13.39	17.0	16.5	16.1	15.8	15.5	15.3	15.1	14.9	14.8	14.6
23.69	13.14	17.0	16.5	16.1	15.8	15.6	15.3	15.1	15.0	14.8	14.7
24.05	12.92	17.0	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.8	14.7
24.19	12.83	17.0	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.9	14.7
24.50	12.64	17.1	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.9	14.8
24.69	12.52	17.1	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.9	14.8
24.70	12.52	17.1	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.9	14.8
25.05	12.30	17.1	16.7	16.3	16.0	15.7	15.5	15.3	15.1	14.9	14.8
25.19	12.21	17.1	16.7	16.3	16.0	15.7	15.5	15.3	15.1	14.9	14.8
25.69	11.90	17.1	16.7	16.3	16.0	15.7	15.5	15.3	15.1	15.0	14.8
25.85	11.80	17.1	16.7	16.3	16.0	15.7	15.5	15.3	15.1	15.0	14.8
26.19	11.59	17.1	16.7	16.3	16.0	15.8	15.5	15.3	15.1	15.0	14.9
26.69	11.28	17.2	16.7	16.4	16.0	15.8	15.6	15.4	15.2	15.0	14.9
27.19	10.97	17.2	16.8	16.4	16.1	15.8	15.6	15.4	15.2	15.1	14.9
27.20	10.96	17.2	16.8	16.4	16.1	15.8	15.6	15.4	15.2	15.1	14.9
27.45	10.81	17.2	16.8	16.4	16.1	15.9	15.6	15.4	15.3	15.1	15.0
27.69	10.66	17.3	16.9	16.5	16.2	15.9	15.7	15.5	15.3	15.1	15.0
27.90	10.53	17.3	16.9	16.5	16.2	15.9	15.7	15.5	15.3	15.2	15.1
28.19	10.35	17.3	16.9	16.5	16.2	16.0	15.7	15.5	15.4	15.2	15.1
28.69	10.04	17.4	17.0	16.6	16.3	16.0	15.8	15.6	15.4	15.3	15.1
28.75	10.00	17.4	17.0	16.6	16.3	16.0	15.8	15.6	15.4	15.3	15.1
28.98	9.85	17.4	17.0	16.6	16.3	16.1	15.8	15.6	15.5	15.3	15.2
28.99	9.85	17.2	16.8	16.5	16.2	15.9	15.7	15.5	15.4	15.2	15.1
29.19	9.73	17.2	16.8	16.5	16.2	16.0	15.8	15.6	15.4	15.3	15.1
29.25	9.69	17.2	16.9	16.5	16.2	16.0	15.8	15.6	15.4	15.3	15.1
29.69	9.42	17.3	16.9	16.6	16.3	16.0	15.8	15.6	15.5	15.3	15.2
30.00	9.22	17.4	17.0	16.6	16.3	16.1	15.9	15.7	15.5	15.4	15.3
30.19	9.11	17.4	17.0	16.7	16.4	16.1	15.9	15.7	15.6	15.4	15.3
30.30	9.04	17.4	17.0	16.7	16.4	16.2	15.9	15.8	15.6	15.4	15.3
30.69	8.80	17.5	17.1	16.8	16.5	16.2	16.0	15.8	15.6	15.5	15.4
31.19	8.48	17.5	17.1	16.8	16.5	16.3	16.0	15.9	15.7	15.5	15.4
31.24	8.45	17.5	17.1	16.8	16.5	16.3	16.0	15.9	15.7	15.5	15.4
31.30	8.42	17.5	17.2	16.8	16.5	16.3	16.1	15.9	15.7	15.6	15.4
31.74	8.14	17.6	17.2	16.9	16.6	16.3	16.1	15.9	15.8	15.6	15.5
31.95	8.01	17.6	17.2	16.9	16.6	16.4	16.1	15.9	15.8	15.6	15.5
32.24	7.83	17.6	17.2	16.9	16.6	16.4	16.1	16.0	15.8	15.6	15.5
32.25	7.83	17.6	17.2	16.9	16.6	16.4	16.1	16.0	15.8	15.6	15.5
32.74	7.52	17.7	17.3	17.0	16.7	16.4	16.2	16.0	15.9	15.7	15.6
33.24	7.21	17.8	17.4	17.1	16.8	16.5	16.3	16.1	15.9	15.8	15.6
33.30	7.17	17.8	17.4	17.1	16.8	16.5	16.3	16.1	15.9	15.8	15.6
33.45	7.08	17.8	17.4	17.1	16.8	16.5	16.3	16.1	15.9	15.8	15.6
33.74	6.90	17.8	17.4	17.1	16.8	16.6	16.3	16.1	16.0	15.8	15.7
34.20	6.61	17.9	17.5	17.2	16.9	16.6	16.4	16.2	16.0	15.9	15.7
34.24	6.59	17.9	17.5	17.2	16.9	16.6	16.4	16.2	16.0	15.9	15.7
34.55	6.40	17.9	17.5	17.2	16.9	16.6	16.4	16.2	16.1	15.9	15.8
34.69	6.31	17.9	17.5	17.2	16.9	16.7	16.5	16.3	16.1	15.9	15.8
34.69	6.31	17.9	17.5	17.2	16.9	16.6	16.4	16.2	16.1	15.9	15.8
34.74	6.28	17.9	17.5	17.2	16.9	16.6	16.4	16.2	16.1	15.9	15.8
34.85	6.21	17.9	17.5	17.2	16.9	16.7	16.5	16.3	16.1	15.9	15.8
35.24	5.97	18.0	17.6	17.3	17.0	16.7	16.5	16.3	16.1	16.0	15.9
35.50	5.81	18.0	17.6	17.3	17.0	16.8	16.5	16.4	16.2	16.0	15.9
35.74	5.66	18.0	17.7	17.3	17.1	16.8	16.6	16.4	16.2	16.1	15.9
36.24	5.35	18.1	17.7	17.4	17.1	16.9	16.7	16.5	16.3	16.1	16.0
36.50	5.19	18.1	17.8	17.5	17.2	16.9	16.7	16.5	16.3	16.2	16.0
36.74	5.04	18.2	17.8	17.5	17.2	17.0	16.8	16.6	16.4	16.2	16.1
36.93	4.92	18.2	17.9	17.5	17.3	17.0	16.8	16.6	16.4	16.3	16.1
36.93	4.92	18.1	17.8	17.5	17.2	17.0	16.7	16.5	16.4	16.2	16.1
36.95	4.91	18.1	17.8	17.5	17.2	17.0	16.7	16.6	16.4	16.2	16.1
37.24	4.73	18.1	17.8	17.5	17.2	17.0	16.8	16.6	16.4	16.3	16.1
37.60	4.50	18.2	17.9	17.5	17.3	17.0	16.8	16.6	16.5	16.3	16.2
37.74	4.41	18.2	17.9	17.6	17.3	17.1	16.9	16.7	16.5	16.3	16.2
37.80	4.38	18.2	17.9	17.6	17.3	17.1	16.9	16.7	16.5	16.4	16.2
38.10	4.19	18.3	18.0	17.7	17.4	17.2	16.9	16.8	16.6	16.4	16.3
38.24	4.10	18.4	18.0	17.7	17.5	17.2	17.0	16.8	16.6	16.5	16.4
38.25	4.10	18.4	18.0	17.7	17.5	17.2	17.0	16.8	16.6	16.5	16.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-33. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	18.4	18.1	17.8	17.5	17.3	17.0	16.9	16.7	16.5	16.4
38.74	3.79	18.4	18.1	17.8	17.5	17.3	17.1	16.9	16.7	16.5	16.4
38.95	3.66	18.5	18.1	17.8	17.5	17.3	17.1	16.9	16.7	16.5	16.4
39.15	3.54	18.5	18.1	17.8	17.5	17.3	17.1	16.9	16.7	16.6	16.4
39.24	3.48	18.5	18.1	17.8	17.5	17.3	17.1	16.9	16.7	16.6	16.4
39.65	3.23	18.5	18.2	17.9	17.6	17.4	17.1	17.0	16.8	16.6	16.5
39.74	3.17	18.6	18.2	17.9	17.6	17.4	17.2	17.0	16.8	16.7	16.5
39.95	3.04	18.6	18.3	18.0	17.7	17.5	17.3	17.1	16.9	16.7	16.6
40.24	2.86	18.7	18.3	18.0	17.8	17.5	17.3	17.1	16.9	16.8	16.6
40.55	2.67	18.7	18.4	18.1	17.8	17.5	17.3	17.1	17.0	16.8	16.6
40.70	2.58	18.8	18.4	18.1	17.8	17.6	17.4	17.2	17.0	16.8	16.7
40.74	2.55	18.8	18.4	18.1	17.8	17.6	17.4	17.2	17.0	16.9	16.7
41.15	2.30	18.8	18.5	18.2	17.9	17.6	17.4	17.2	17.0	16.9	16.8
41.24	2.24	18.8	18.5	18.2	17.9	17.6	17.4	17.2	17.1	16.9	16.8
41.74	1.93	18.9	18.5	18.2	18.0	17.7	17.5	17.3	17.1	17.0	16.8
42.10	1.71	18.9	18.6	18.3	18.0	17.7	17.5	17.3	17.1	17.0	16.8
42.24	1.62	19.0	18.6	18.3	18.0	17.8	17.5	17.3	17.2	17.0	16.9
42.25	1.61	19.0	18.6	18.3	18.0	17.8	17.5	17.3	17.2	17.0	16.9
42.74	1.31	19.0	18.7	18.4	18.1	17.9	17.6	17.4	17.3	17.1	17.0
42.75	1.30	19.0	18.7	18.4	18.1	17.9	17.6	17.4	17.3	17.1	17.0
43.24	1.00	19.2	18.8	18.5	18.2	18.0	17.8	17.5	17.4	17.2	17.1
43.35	0.93	19.2	18.9	18.5	18.3	18.0	17.8	17.6	17.4	17.2	17.1
43.65	0.74	19.2	18.9	18.6	18.3	18.0	17.8	17.6	17.4	17.3	17.1
43.74	0.69	19.2	18.9	18.6	18.3	18.0	17.8	17.6	17.4	17.3	17.1
43.90	0.59	19.2	18.9	18.6	18.3	18.0	17.8	17.6	17.4	17.3	17.1
44.24	0.38	19.3	18.9	18.6	18.3	18.1	17.8	17.6	17.5	17.3	17.1
44.45	0.25	19.3	18.9	18.6	18.3	18.1	17.9	17.6	17.5	17.3	17.2
44.74	0.07	19.3	19.0	18.7	18.4	18.1	17.9	17.7	17.5	17.4	17.2
44.80	0.03	19.4	19.0	18.7	18.4	18.1	17.9	17.7	17.5	17.4	17.2
44.85	0.00	19.4	19.0	18.7	18.4	18.2	17.9	17.7	17.5	17.4	17.2
44.98	-0.09	19.4	19.0	18.7	18.4	18.2	17.9	17.7	17.6	17.4	17.3
44.99	-0.09	16.5	16.5	16.5	16.5	16.5	16.5	16.4	16.4	16.4	16.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-34. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
0.35	27.65	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.50	27.55	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.65	27.46	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1.00	27.24	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1.15	27.15	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1.15	27.15	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1.30	27.06	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.50	26.93	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1.65	26.84	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1.85	26.72	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.00	26.62	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.20	26.50	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2.50	26.31	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.70	26.19	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
2.90	26.06	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.92	26.05	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
3.00	26.00	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
3.43	25.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.44	25.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.45	25.72	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.46	25.72	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.50	25.69	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.65	25.60	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.00	25.38	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.20	25.26	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.50	25.07	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.75	24.91	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.00	24.76	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.28	24.58	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.38	24.52	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.39	24.52	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.50	24.45	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.55	24.42	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.65	24.35	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
6.00	24.14	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6.65	23.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
7.00	23.52	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.07	23.47	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.10	23.45	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.15	23.42	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.16	23.42	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
7.50	23.20	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.55	23.17	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.80	23.02	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
8.00	22.89	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
8.05	22.86	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
8.45	22.61	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.50	22.58	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.99	22.28	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.49	21.97	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
9.50	21.96	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
9.99	21.66	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
10.05	21.62	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
10.25	21.50	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
10.49	21.35	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
10.65	21.25	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
10.99	21.04	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
11.10	20.97	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
11.41	20.78	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
11.45	20.75	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-34. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
11.75	20.56	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
11.99	20.42	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
12.20	20.28	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
12.35	20.19	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
12.48	20.11	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
12.49	20.10	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
12.52	20.08	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
12.53	20.08	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
12.70	19.97	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
12.99	19.79	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
13.25	19.63	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
13.31	19.59	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
13.40	19.54	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
13.40	19.54	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
13.49	19.48	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
13.75	19.32	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
13.99	19.17	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
14.45	18.89	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
14.49	18.86	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
14.80	18.67	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
14.99	18.55	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
15.20	18.42	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
15.49	18.24	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
15.80	18.05	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
15.99	17.93	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
16.20	17.80	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
16.34	17.72	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
16.34	17.71	15.8	15.2	14.9	14.6	14.3	14.1	14.0	13.9	13.8	13.6
16.49	17.62	15.8	15.3	14.9	14.6	14.4	14.2	14.0	13.9	13.8	13.7
16.75	17.46	15.8	15.3	14.9	14.6	14.4	14.2	14.1	13.9	13.8	13.7
16.99	17.31	15.9	15.4	15.0	14.7	14.5	14.3	14.1	14.0	13.9	13.8
17.10	17.24	15.9	15.4	15.0	14.8	14.5	14.3	14.2	14.1	14.0	13.9
17.30	17.12	15.9	15.4	15.1	14.8	14.6	14.4	14.3	14.1	14.1	14.0
17.49	17.00	16.0	15.5	15.1	14.9	14.6	14.5	14.3	14.2	14.1	14.0
17.65	16.90	16.0	15.5	15.2	14.9	14.7	14.5	14.4	14.3	14.2	14.1
17.90	16.74	16.0	15.6	15.2	15.0	14.8	14.6	14.5	14.4	14.3	14.2
17.99	16.69	16.1	15.6	15.3	15.0	14.8	14.6	14.5	14.4	14.3	14.2
18.15	16.59	16.1	15.6	15.3	15.0	14.8	14.7	14.6	14.4	14.4	14.3
18.19	16.56	16.1	15.6	15.3	15.0	14.8	14.7	14.6	14.4	14.4	14.3
18.19	16.56	16.1	15.6	15.3	15.0	14.8	14.7	14.6	14.4	14.4	14.3
18.36	16.45	16.1	15.7	15.3	15.1	14.9	14.7	14.6	14.5	14.4	14.3
18.37	16.45	15.8	15.4	15.2	15.0	14.8	14.7	14.6	14.5	14.4	14.3
18.65	16.28	15.8	15.5	15.2	15.0	14.9	14.7	14.6	14.5	14.4	14.4
18.69	16.25	15.8	15.5	15.2	15.0	14.9	14.7	14.6	14.5	14.4	14.4
18.95	16.09	15.9	15.5	15.3	15.1	14.9	14.8	14.6	14.6	14.5	14.4
19.19	15.94	15.9	15.6	15.3	15.1	14.9	14.8	14.7	14.6	14.5	14.4
19.32	15.86	15.9	15.6	15.3	15.1	14.9	14.8	14.7	14.6	14.5	14.4
19.43	15.80	15.9	15.6	15.3	15.1	14.9	14.8	14.7	14.6	14.5	14.4
19.43	15.79	15.8	15.5	15.2	15.0	14.9	14.8	14.6	14.6	14.5	14.4
19.65	15.66	15.8	15.5	15.3	15.1	14.9	14.8	14.7	14.6	14.5	14.4
19.69	15.63	15.8	15.5	15.3	15.1	14.9	14.8	14.7	14.6	14.5	14.4
20.15	15.34	15.9	15.6	15.3	15.1	15.0	14.8	14.7	14.6	14.6	14.5
20.19	15.32	15.9	15.6	15.3	15.1	15.0	14.8	14.7	14.6	14.6	14.5
20.69	15.01	15.9	15.6	15.4	15.2	15.0	14.9	14.8	14.7	14.6	14.6
20.95	14.85	16.0	15.7	15.4	15.2	15.1	14.9	14.8	14.7	14.6	14.6
21.19	14.70	16.0	15.7	15.4	15.3	15.1	15.0	14.8	14.8	14.7	14.6
21.40	14.57	16.0	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7	14.6
21.60	14.44	16.0	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7	14.6
21.69	14.39	16.0	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7	14.6
21.69	14.39	16.0	15.7	15.5	15.3	15.1	15.0	14.9	14.8	14.7	14.6
22.19	14.08	16.1	15.8	15.6	15.4	15.2	15.1	14.9	14.9	14.8	14.7
22.20	14.07	16.1	15.8	15.6	15.4	15.2	15.1	15.0	14.9	14.8	14.7
22.40	13.95	16.1	15.8	15.6	15.4	15.2	15.1	15.0	14.9	14.8	14.7
22.69	13.77	16.1	15.8	15.6	15.4	15.2	15.1	15.0	14.9	14.8	14.7
22.80	13.70	16.1	15.8	15.6	15.4	15.3	15.1	15.0	14.9	14.8	14.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-34. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	16.2	15.9	15.6	15.4	15.3	15.1	15.0	14.9	14.9	14.8
23.30	13.39	16.2	15.9	15.6	15.5	15.3	15.2	15.0	14.9	14.9	14.8
23.69	13.14	16.2	15.9	15.7	15.5	15.3	15.2	15.1	15.0	14.9	14.8
24.05	12.92	16.2	15.9	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.8
24.19	12.83	16.2	15.9	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.8
24.50	12.64	16.2	15.9	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.9
24.69	12.52	16.2	15.9	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.9
24.70	12.52	16.2	15.9	15.7	15.5	15.4	15.2	15.1	15.0	14.9	14.9
25.05	12.30	16.3	16.0	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9
25.19	12.21	16.3	16.0	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9
25.69	11.90	16.3	16.0	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9
25.85	11.80	16.3	16.0	15.8	15.6	15.4	15.3	15.2	15.1	15.0	14.9
26.19	11.59	16.3	16.0	15.8	15.6	15.5	15.3	15.2	15.1	15.0	14.9
26.69	11.28	16.3	16.1	15.8	15.6	15.5	15.4	15.2	15.1	15.1	15.0
27.19	10.97	16.4	16.1	15.9	15.7	15.5	15.4	15.3	15.2	15.1	15.0
27.20	10.96	16.4	16.1	15.9	15.7	15.5	15.4	15.3	15.2	15.1	15.0
27.45	10.81	16.4	16.1	15.9	15.7	15.5	15.4	15.3	15.2	15.1	15.0
27.69	10.66	16.4	16.1	15.9	15.7	15.6	15.4	15.3	15.2	15.1	15.1
27.90	10.53	16.4	16.2	15.9	15.8	15.6	15.5	15.4	15.3	15.2	15.1
28.19	10.35	16.5	16.2	16.0	15.8	15.6	15.5	15.4	15.3	15.2	15.1
28.69	10.04	16.5	16.2	16.0	15.8	15.7	15.5	15.4	15.3	15.2	15.2
28.75	10.00	16.5	16.2	16.0	15.8	15.7	15.6	15.4	15.3	15.3	15.2
28.98	9.85	16.5	16.3	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.2
28.99	9.85	16.5	16.2	16.0	15.9	15.7	15.6	15.4	15.4	15.3	15.2
29.19	9.73	16.5	16.3	16.0	15.9	15.7	15.6	15.5	15.4	15.3	15.2
29.25	9.69	16.5	16.3	16.1	15.9	15.7	15.6	15.5	15.4	15.3	15.2
29.69	9.42	16.6	16.3	16.1	15.9	15.8	15.6	15.5	15.4	15.3	15.3
30.00	9.22	16.6	16.4	16.1	16.0	15.8	15.7	15.6	15.5	15.4	15.3
30.19	9.11	16.6	16.4	16.2	16.0	15.8	15.7	15.6	15.5	15.4	15.3
30.30	9.04	16.7	16.4	16.2	16.0	15.9	15.7	15.6	15.5	15.4	15.4
30.69	8.80	16.7	16.4	16.2	16.0	15.9	15.8	15.6	15.6	15.4	15.4
31.19	8.48	16.7	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.5	15.4
31.24	8.45	16.7	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.5	15.4
31.30	8.42	16.8	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.5	15.4
31.74	8.14	16.8	16.5	16.3	16.1	16.0	15.9	15.7	15.6	15.5	15.4
31.95	8.01	16.8	16.5	16.3	16.1	16.0	15.9	15.7	15.6	15.5	15.5
32.24	7.83	16.8	16.6	16.4	16.2	16.0	15.9	15.8	15.6	15.6	15.5
32.25	7.83	16.8	16.6	16.4	16.2	16.0	15.9	15.8	15.6	15.6	15.5
32.74	7.52	16.9	16.6	16.4	16.2	16.1	15.9	15.8	15.7	15.6	15.5
33.24	7.21	16.9	16.7	16.5	16.3	16.1	16.0	15.9	15.8	15.7	15.6
33.30	7.17	16.9	16.7	16.5	16.3	16.1	16.0	15.9	15.8	15.7	15.6
33.45	7.08	16.9	16.7	16.5	16.3	16.1	16.0	15.9	15.8	15.7	15.6
33.74	6.90	17.0	16.7	16.5	16.3	16.2	16.0	15.9	15.8	15.7	15.6
34.20	6.61	17.0	16.8	16.6	16.4	16.2	16.1	16.0	15.9	15.8	15.7
34.24	6.59	17.0	16.8	16.6	16.4	16.2	16.1	16.0	15.9	15.8	15.7
34.55	6.40	17.0	16.8	16.6	16.4	16.2	16.1	16.0	15.9	15.8	15.7
34.69	6.31	17.1	16.8	16.6	16.4	16.3	16.1	16.0	15.9	15.8	15.7
34.69	6.31	17.0	16.8	16.6	16.4	16.3	16.1	16.0	15.9	15.8	15.7
34.74	6.28	17.1	16.8	16.6	16.4	16.3	16.1	16.0	15.9	15.8	15.7
34.85	6.21	17.1	16.8	16.6	16.4	16.3	16.1	16.0	15.9	15.8	15.8
35.24	5.97	17.1	16.9	16.7	16.5	16.3	16.2	16.1	16.0	15.9	15.8
35.50	5.81	17.2	16.9	16.7	16.5	16.4	16.3	16.1	16.0	15.9	15.8
35.74	5.66	17.2	17.0	16.8	16.6	16.4	16.3	16.1	16.0	16.0	15.9
36.24	5.35	17.3	17.0	16.8	16.6	16.5	16.4	16.2	16.1	16.0	15.9
36.50	5.19	17.3	17.1	16.9	16.7	16.5	16.4	16.3	16.1	16.1	16.0
36.74	5.04	17.4	17.1	16.9	16.7	16.6	16.4	16.3	16.2	16.1	16.0
36.93	4.92	17.4	17.1	16.9	16.8	16.6	16.5	16.3	16.2	16.1	16.0
36.93	4.92	17.4	17.1	16.9	16.7	16.6	16.5	16.3	16.2	16.1	16.0
36.95	4.91	17.4	17.1	16.9	16.8	16.6	16.5	16.3	16.2	16.1	16.0
37.24	4.73	17.4	17.2	17.0	16.8	16.6	16.5	16.4	16.3	16.2	16.1
37.60	4.50	17.4	17.2	17.0	16.8	16.6	16.5	16.4	16.3	16.2	16.1
37.74	4.41	17.5	17.2	17.0	16.8	16.7	16.5	16.4	16.3	16.2	16.1
37.80	4.38	17.5	17.2	17.0	16.9	16.7	16.6	16.4	16.3	16.2	16.1
38.10	4.19	17.5	17.3	17.1	16.9	16.8	16.6	16.5	16.4	16.3	16.2
38.24	4.10	17.6	17.4	17.1	17.0	16.8	16.7	16.6	16.5	16.4	16.3
38.25	4.10	17.6	17.4	17.2	17.0	16.8	16.7	16.6	16.5	16.4	16.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-34. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	17.6	17.4	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.3
38.74	3.79	17.6	17.4	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.3
38.95	3.66	17.7	17.4	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.3
39.15	3.54	17.7	17.4	17.2	17.0	16.9	16.8	16.6	16.5	16.4	16.3
39.24	3.48	17.7	17.5	17.2	17.1	16.9	16.8	16.6	16.5	16.4	16.4
39.65	3.23	17.7	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.4
39.74	3.17	17.8	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.4
39.95	3.04	17.8	17.6	17.4	17.2	17.0	16.9	16.8	16.7	16.6	16.5
40.24	2.86	17.9	17.6	17.4	17.2	17.1	16.9	16.8	16.7	16.6	16.5
40.55	2.67	17.9	17.6	17.4	17.3	17.1	17.0	16.8	16.7	16.6	16.5
40.70	2.58	17.9	17.7	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6
40.74	2.55	18.0	17.7	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6
41.15	2.30	18.0	17.8	17.5	17.4	17.2	17.0	16.9	16.8	16.7	16.6
41.24	2.24	18.0	17.8	17.5	17.4	17.2	17.1	16.9	16.8	16.7	16.6
41.74	1.93	18.0	17.8	17.6	17.4	17.2	17.1	17.0	16.9	16.8	16.7
42.10	1.71	18.1	17.8	17.6	17.4	17.3	17.1	17.0	16.9	16.8	16.7
42.24	1.62	18.1	17.9	17.6	17.5	17.3	17.1	17.0	16.9	16.8	16.7
42.25	1.61	18.1	17.9	17.6	17.5	17.3	17.1	17.0	16.9	16.8	16.7
42.74	1.31	18.2	17.9	17.7	17.5	17.4	17.2	17.1	17.0	16.9	16.8
42.75	1.30	18.2	17.9	17.7	17.5	17.4	17.2	17.1	17.0	16.9	16.8
43.24	1.00	18.3	18.0	17.8	17.6	17.5	17.3	17.2	17.1	17.0	16.9
43.35	0.93	18.3	18.1	17.9	17.7	17.5	17.4	17.2	17.1	17.0	16.9
43.65	0.74	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.1	17.0	16.9
43.74	0.69	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.1	17.0	16.9
43.90	0.59	18.4	18.1	17.9	17.7	17.5	17.4	17.3	17.1	17.0	16.9
44.24	0.38	18.4	18.1	17.9	17.7	17.5	17.4	17.3	17.2	17.0	17.0
44.45	0.25	18.4	18.1	17.9	17.7	17.6	17.4	17.3	17.2	17.1	17.0
44.74	0.07	18.4	18.2	18.0	17.8	17.6	17.5	17.3	17.2	17.1	17.0
44.80	0.03	18.5	18.2	18.0	17.8	17.6	17.5	17.3	17.2	17.1	17.0
44.85	0.00	18.5	18.2	18.0	17.8	17.6	17.5	17.4	17.2	17.1	17.0
44.98	-0.09	18.5	18.2	18.0	17.8	17.6	17.5	17.4	17.3	17.1	17.0
44.99	-0.09	17.4	17.3	17.3	17.3	17.2	17.2	17.1	17.1	17.0	17.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-35. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
0.35	27.65	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
0.50	27.55	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.65	27.46	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
1.00	27.24	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.15	27.15	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1.30	27.06	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1.50	26.93	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.65	26.84	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1.85	26.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.00	26.62	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.05	26.59	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
2.20	26.50	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.50	26.31	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.70	26.19	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.90	26.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.43	25.73	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.44	25.73	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.45	25.72	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.46	25.72	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.50	25.69	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.65	25.60	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.00	25.38	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.20	25.26	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.50	25.07	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.75	24.91	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
5.00	24.76	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
5.28	24.58	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
5.38	24.52	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
5.39	24.52	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.50	24.45	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.55	24.42	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.65	24.35	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
6.00	24.14	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
6.05	24.11	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
6.50	23.83	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
6.65	23.73	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
7.00	23.52	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
7.07	23.47	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
7.10	23.45	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.15	23.42	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.16	23.42	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
7.50	23.20	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.55	23.17	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.80	23.02	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
8.00	22.89	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
8.05	22.86	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
8.45	22.61	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
8.50	22.58	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
8.99	22.28	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
9.09	22.22	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
9.09	22.22	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
9.49	21.97	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
9.50	21.96	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
9.99	21.66	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10.05	21.62	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10.25	21.50	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
10.49	21.35	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
10.65	21.25	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
10.99	21.04	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
11.10	20.97	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
11.41	20.78	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
11.45	20.75	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-35. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
11.75	20.56	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
11.99	20.42	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
12.20	20.28	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
12.35	20.19	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
12.48	20.11	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
12.49	20.10	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
12.52	20.08	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
12.53	20.08	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
12.70	19.97	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
12.99	19.79	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
13.25	19.63	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
13.31	19.59	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
13.40	19.54	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
13.40	19.54	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
13.49	19.48	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
13.75	19.32	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
13.99	19.17	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
14.45	18.89	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
14.49	18.86	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
14.80	18.67	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
14.99	18.55	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
15.20	18.42	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
15.49	18.24	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
15.80	18.05	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
15.99	17.93	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
16.20	17.80	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
16.34	17.72	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
16.34	17.71	19.0	18.0	17.2	16.6	16.2	15.8	15.5	15.2	15.0	14.8
16.49	17.62	19.0	18.0	17.3	16.7	16.2	15.9	15.6	15.3	15.1	14.9
16.75	17.46	19.1	18.1	17.4	16.8	16.3	15.9	15.6	15.4	15.1	14.9
16.99	17.31	19.2	18.2	17.5	17.0	16.5	16.1	15.8	15.6	15.4	15.2
17.10	17.24	19.3	18.3	17.6	17.0	16.6	16.2	15.9	15.7	15.5	15.3
17.30	17.12	19.3	18.4	17.7	17.2	16.7	16.4	16.1	15.9	15.7	15.5
17.49	17.00	19.4	18.5	17.8	17.3	16.9	16.5	16.3	16.0	15.8	15.7
17.65	16.90	19.5	18.5	17.9	17.4	17.0	16.6	16.4	16.1	16.0	15.8
17.90	16.74	19.6	18.7	18.0	17.5	17.1	16.8	16.6	16.4	16.2	16.0
17.99	16.69	19.6	18.7	18.0	17.5	17.2	16.9	16.6	16.4	16.2	16.1
18.15	16.59	19.6	18.7	18.1	17.6	17.2	16.9	16.7	16.5	16.3	16.2
18.19	16.56	19.6	18.8	18.1	17.6	17.3	17.0	16.7	16.5	16.3	16.2
18.19	16.56	19.6	18.8	18.1	17.6	17.3	17.0	16.7	16.5	16.3	16.2
18.36	16.45	19.6	18.8	18.1	17.6	17.3	17.0	16.7	16.5	16.4	16.2
18.37	16.45	19.1	18.4	17.9	17.5	17.2	16.9	16.7	16.5	16.4	16.3
18.65	16.28	19.1	18.5	18.0	17.6	17.2	17.0	16.8	16.6	16.4	16.3
18.69	16.25	19.1	18.5	18.0	17.6	17.3	17.0	16.8	16.6	16.4	16.3
18.95	16.09	19.1	18.5	18.0	17.6	17.3	17.0	16.8	16.6	16.5	16.4
19.19	15.94	19.1	18.5	18.0	17.6	17.3	17.0	16.8	16.6	16.5	16.4
19.32	15.86	19.1	18.5	18.0	17.6	17.3	17.0	16.8	16.6	16.5	16.4
19.43	15.80	19.1	18.5	18.0	17.6	17.3	17.0	16.8	16.7	16.5	16.4
19.43	15.79	18.7	18.1	17.7	17.4	17.1	16.9	16.7	16.5	16.4	16.3
19.65	15.66	18.7	18.1	17.7	17.4	17.1	16.9	16.7	16.5	16.4	16.3
19.69	15.63	18.7	18.1	17.7	17.4	17.1	16.9	16.7	16.5	16.4	16.3
20.15	15.34	18.7	18.2	17.8	17.4	17.2	16.9	16.7	16.6	16.5	16.3
20.19	15.32	18.7	18.2	17.8	17.4	17.2	16.9	16.8	16.6	16.5	16.3
20.69	15.01	18.7	18.2	17.8	17.5	17.2	17.0	16.8	16.6	16.5	16.4
20.95	14.85	18.8	18.3	17.8	17.5	17.3	17.0	16.8	16.7	16.5	16.4
21.19	14.70	18.8	18.3	17.9	17.5	17.3	17.0	16.9	16.7	16.6	16.5
21.40	14.57	18.8	18.3	17.9	17.6	17.3	17.1	16.9	16.7	16.6	16.5
21.60	14.44	18.8	18.3	17.9	17.6	17.3	17.1	16.9	16.7	16.6	16.5
21.69	14.39	18.8	18.3	17.9	17.6	17.3	17.1	16.9	16.8	16.6	16.5
21.69	14.39	18.7	18.3	17.9	17.6	17.3	17.1	16.9	16.7	16.6	16.5
22.19	14.08	18.8	18.3	17.9	17.6	17.4	17.1	17.0	16.8	16.7	16.5
22.20	14.07	18.8	18.3	17.9	17.6	17.4	17.1	17.0	16.8	16.7	16.5
22.40	13.95	18.8	18.3	17.9	17.6	17.4	17.1	17.0	16.8	16.7	16.6
22.69	13.77	18.8	18.3	17.9	17.6	17.4	17.1	17.0	16.8	16.7	16.6
22.80	13.70	18.8	18.3	17.9	17.6	17.4	17.1	17.0	16.8	16.7	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.
 * Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-35. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	18.8	18.3	18.0	17.6	17.4	17.2	17.0	16.8	16.7	16.6
23.30	13.39	18.8	18.3	18.0	17.7	17.4	17.2	17.0	16.9	16.7	16.6
23.69	13.14	18.8	18.4	18.0	17.7	17.4	17.2	17.0	16.9	16.8	16.6
24.05	12.92	18.8	18.4	18.0	17.7	17.5	17.2	17.0	16.9	16.8	16.6
24.19	12.83	18.8	18.4	18.0	17.7	17.5	17.2	17.1	16.9	16.8	16.7
24.50	12.64	18.8	18.4	18.0	17.7	17.5	17.3	17.1	16.9	16.8	16.7
24.69	12.52	18.8	18.4	18.0	17.7	17.5	17.3	17.1	16.9	16.8	16.7
24.70	12.52	18.8	18.4	18.0	17.7	17.5	17.3	17.1	16.9	16.8	16.7
25.05	12.30	18.8	18.4	18.0	17.8	17.5	17.3	17.1	17.0	16.9	16.7
25.19	12.21	18.8	18.4	18.0	17.8	17.5	17.3	17.1	17.0	16.9	16.7
25.69	11.90	18.8	18.4	18.0	17.8	17.5	17.3	17.1	17.0	16.9	16.7
25.85	11.80	18.8	18.4	18.0	17.8	17.5	17.3	17.1	17.0	16.9	16.7
26.19	11.59	18.9	18.4	18.1	17.8	17.5	17.3	17.1	17.0	16.9	16.8
26.69	11.28	18.9	18.4	18.1	17.8	17.6	17.4	17.2	17.0	16.9	16.8
27.19	10.97	18.9	18.5	18.1	17.8	17.6	17.4	17.2	17.0	16.9	16.8
27.20	10.96	18.9	18.5	18.1	17.8	17.6	17.4	17.2	17.0	16.9	16.8
27.45	10.81	18.9	18.5	18.1	17.8	17.6	17.4	17.2	17.1	16.9	16.8
27.69	10.66	18.9	18.5	18.1	17.9	17.6	17.4	17.3	17.1	17.0	16.9
27.90	10.53	18.9	18.5	18.2	17.9	17.7	17.5	17.3	17.1	17.0	16.9
28.19	10.35	18.9	18.5	18.2	17.9	17.7	17.5	17.3	17.2	17.0	16.9
28.69	10.04	19.0	18.5	18.2	18.0	17.7	17.5	17.4	17.2	17.1	17.0
28.75	10.00	19.0	18.5	18.2	18.0	17.7	17.5	17.4	17.2	17.1	17.0
28.98	9.85	19.0	18.6	18.2	18.0	17.7	17.5	17.4	17.2	17.1	17.0
28.99	9.85	18.7	18.4	18.1	17.8	17.6	17.4	17.3	17.1	17.0	16.9
29.19	9.73	18.8	18.4	18.1	17.9	17.6	17.5	17.3	17.2	17.0	17.0
29.25	9.69	18.8	18.4	18.1	17.9	17.6	17.5	17.3	17.2	17.1	17.0
29.69	9.42	18.8	18.4	18.1	17.9	17.7	17.5	17.4	17.2	17.1	17.0
30.00	9.22	18.8	18.5	18.2	17.9	17.7	17.5	17.4	17.2	17.1	17.0
30.19	9.11	18.8	18.5	18.2	18.0	17.8	17.6	17.4	17.3	17.2	17.1
30.30	9.04	18.9	18.5	18.2	18.0	17.8	17.6	17.4	17.3	17.2	17.1
30.69	8.80	18.9	18.5	18.2	18.0	17.8	17.6	17.5	17.3	17.2	17.1
31.19	8.48	18.9	18.5	18.3	18.0	17.8	17.6	17.5	17.4	17.2	17.1
31.24	8.45	18.9	18.5	18.3	18.0	17.8	17.6	17.5	17.4	17.3	17.1
31.30	8.42	18.9	18.6	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.2
31.74	8.14	18.9	18.6	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.2
31.95	8.01	18.9	18.6	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.2
32.24	7.83	18.9	18.6	18.3	18.1	17.9	17.7	17.6	17.4	17.3	17.2
32.25	7.83	18.9	18.6	18.3	18.1	17.9	17.7	17.6	17.4	17.3	17.2
32.74	7.52	19.0	18.7	18.4	18.2	18.0	17.8	17.6	17.5	17.4	17.3
33.24	7.21	19.1	18.7	18.5	18.2	18.0	17.9	17.7	17.6	17.5	17.4
33.30	7.17	19.1	18.8	18.5	18.3	18.0	17.9	17.7	17.6	17.5	17.4
33.45	7.08	19.1	18.8	18.5	18.3	18.0	17.9	17.7	17.6	17.5	17.4
33.74	6.90	19.1	18.8	18.5	18.3	18.1	17.9	17.7	17.6	17.5	17.4
34.20	6.61	19.1	18.8	18.5	18.3	18.1	17.9	17.8	17.7	17.5	17.4
34.24	6.59	19.1	18.8	18.5	18.3	18.1	17.9	17.8	17.7	17.5	17.5
34.55	6.40	19.1	18.8	18.5	18.3	18.1	18.0	17.8	17.7	17.6	17.5
34.69	6.31	19.1	18.8	18.6	18.3	18.1	18.0	17.8	17.7	17.6	17.5
34.69	6.31	19.1	18.8	18.5	18.3	18.1	18.0	17.8	17.7	17.6	17.5
34.74	6.28	19.1	18.8	18.5	18.3	18.1	18.0	17.8	17.7	17.6	17.5
34.85	6.21	19.1	18.8	18.6	18.3	18.1	18.0	17.8	17.7	17.6	17.5
35.24	5.97	19.2	18.9	18.6	18.4	18.2	18.0	17.9	17.8	17.7	17.6
35.50	5.81	19.2	18.9	18.6	18.4	18.3	18.1	17.9	17.8	17.7	17.6
35.74	5.66	19.2	18.9	18.7	18.5	18.3	18.1	18.0	17.9	17.8	17.6
36.24	5.35	19.3	19.0	18.7	18.5	18.4	18.2	18.0	17.9	17.8	17.7
36.50	5.19	19.3	19.0	18.8	18.6	18.4	18.2	18.1	18.0	17.9	17.8
36.74	5.04	19.3	19.1	18.8	18.6	18.4	18.3	18.1	18.0	17.9	17.8
36.93	4.92	19.4	19.1	18.9	18.6	18.5	18.3	18.2	18.0	18.0	17.9
36.93	4.92	19.3	19.0	18.8	18.6	18.4	18.3	18.1	18.0	17.9	17.8
36.95	4.91	19.3	19.0	18.8	18.6	18.4	18.3	18.1	18.0	17.9	17.8
37.24	4.73	19.3	19.0	18.8	18.6	18.4	18.3	18.1	18.0	18.0	17.9
37.60	4.50	19.3	19.1	18.8	18.6	18.5	18.3	18.2	18.1	18.0	17.9
37.74	4.41	19.4	19.1	18.9	18.7	18.5	18.4	18.2	18.1	18.0	17.9
37.80	4.38	19.4	19.1	18.9	18.7	18.5	18.4	18.3	18.1	18.0	18.0
38.10	4.19	19.5	19.2	19.0	18.8	18.6	18.5	18.3	18.2	18.1	18.0
38.24	4.10	19.5	19.3	19.0	18.9	18.7	18.5	18.4	18.3	18.2	18.1
38.25	4.10	19.5	19.3	19.1	18.9	18.7	18.6	18.4	18.3	18.2	18.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-35. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	19.6	19.3	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.2
38.74	3.79	19.6	19.3	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.2
38.95	3.66	19.6	19.3	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.2
39.15	3.54	19.6	19.3	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.2
39.24	3.48	19.6	19.3	19.1	18.9	18.8	18.6	18.5	18.4	18.3	18.2
39.65	3.23	19.6	19.4	19.2	19.0	18.8	18.7	18.5	18.4	18.4	18.3
39.74	3.17	19.7	19.4	19.2	19.0	18.9	18.7	18.6	18.5	18.4	18.3
39.95	3.04	19.8	19.5	19.3	19.1	18.9	18.8	18.7	18.6	18.5	18.4
40.24	2.86	19.8	19.5	19.3	19.1	19.0	18.8	18.7	18.6	18.5	18.4
40.55	2.67	19.8	19.5	19.3	19.1	19.0	18.9	18.7	18.6	18.5	18.4
40.70	2.58	19.9	19.6	19.4	19.2	19.1	18.9	18.8	18.7	18.6	18.5
40.74	2.55	19.9	19.6	19.4	19.2	19.1	18.9	18.8	18.7	18.6	18.5
41.15	2.30	19.9	19.6	19.4	19.3	19.1	19.0	18.8	18.7	18.6	18.5
41.24	2.24	19.9	19.7	19.4	19.3	19.1	19.0	18.8	18.7	18.6	18.6
41.74	1.93	19.9	19.7	19.5	19.3	19.1	19.0	18.9	18.8	18.7	18.6
42.10	1.71	19.9	19.7	19.5	19.3	19.1	19.0	18.9	18.8	18.7	18.6
42.24	1.62	20.0	19.7	19.5	19.3	19.2	19.0	18.9	18.8	18.7	18.6
42.25	1.61	20.0	19.7	19.5	19.3	19.2	19.0	18.9	18.8	18.7	18.6
42.74	1.31	20.1	19.8	19.6	19.4	19.3	19.1	19.0	18.9	18.8	18.7
42.75	1.30	20.1	19.8	19.6	19.4	19.3	19.1	19.0	18.9	18.8	18.8
43.24	1.00	20.2	20.0	19.7	19.6	19.4	19.3	19.1	19.0	19.0	18.9
43.35	0.93	20.2	20.0	19.8	19.6	19.4	19.3	19.2	19.1	19.0	18.9
43.65	0.74	20.2	20.0	19.8	19.6	19.4	19.3	19.2	19.1	19.0	18.9
43.74	0.69	20.2	20.0	19.8	19.6	19.4	19.3	19.2	19.1	19.0	18.9
43.90	0.59	20.2	20.0	19.8	19.6	19.4	19.3	19.2	19.1	19.0	18.9
44.24	0.38	20.2	20.0	19.8	19.6	19.4	19.3	19.2	19.1	19.0	18.9
44.45	0.25	20.2	20.0	19.8	19.6	19.4	19.3	19.2	19.1	19.0	18.9
44.74	0.07	20.3	20.0	19.8	19.6	19.5	19.4	19.2	19.1	19.0	19.0
44.80	0.03	20.3	20.0	19.8	19.7	19.5	19.4	19.3	19.1	19.1	19.0
44.85	0.00	20.3	20.0	19.9	19.7	19.5	19.4	19.3	19.2	19.1	19.0
44.98	-0.09	20.3	20.1	19.9	19.7	19.5	19.4	19.3	19.2	19.1	19.0
44.99	-0.09	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.
 * Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-36. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.35	27.65	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
0.50	27.55	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1.00	27.24	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.30	27.06	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1.50	26.93	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1.65	26.84	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1.85	26.72	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.00	26.62	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
2.05	26.59	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.20	26.50	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.50	26.31	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
2.70	26.19	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
2.90	26.06	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.92	26.05	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
3.00	26.00	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
3.43	25.73	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.44	25.73	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.45	25.72	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.46	25.72	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.50	25.69	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.65	25.60	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.00	25.38	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.20	25.26	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.50	25.07	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
4.75	24.91	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.00	24.76	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.28	24.58	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.39	24.52	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.50	24.45	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
5.55	24.42	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
5.65	24.35	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
6.00	24.14	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
6.05	24.11	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
6.50	23.83	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
6.65	23.73	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
7.00	23.52	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.07	23.47	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.10	23.45	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.15	23.42	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
7.16	23.42	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.50	23.20	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
7.55	23.17	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
7.80	23.02	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
8.00	22.89	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
8.05	22.86	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
8.45	22.61	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
8.50	22.58	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
8.99	22.28	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.49	21.97	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
9.50	21.96	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
9.99	21.66	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
10.05	21.62	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
10.25	21.50	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
10.49	21.35	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
10.65	21.25	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
10.99	21.04	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
11.10	20.97	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
11.41	20.78	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
11.45	20.75	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-36. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
11.75	20.56	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
11.99	20.42	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
12.20	20.28	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
12.35	20.19	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.48	20.11	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.49	20.10	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.52	20.08	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.53	20.08	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.70	19.97	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.99	19.79	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
13.25	19.63	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
13.31	19.59	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
13.40	19.54	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
13.40	19.54	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
13.49	19.48	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
13.75	19.32	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
13.99	19.17	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
14.45	18.89	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
14.49	18.86	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
14.80	18.67	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
14.99	18.55	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
15.20	18.42	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
15.49	18.24	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
15.80	18.05	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
15.99	17.93	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
16.20	17.80	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
16.34	17.72	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
16.34	17.71	18.0	17.3	16.9	16.5	16.3	16.0	15.8	15.7	15.5	15.4
16.49	17.62	18.0	17.4	16.9	16.6	16.3	16.1	15.9	15.7	15.6	15.4
16.75	17.46	18.0	17.4	17.0	16.6	16.4	16.1	15.9	15.8	15.6	15.5
16.99	17.31	18.1	17.5	17.1	16.7	16.5	16.3	16.1	15.9	15.8	15.7
17.10	17.24	18.1	17.6	17.1	16.8	16.5	16.3	16.1	16.0	15.9	15.8
17.30	17.12	18.2	17.6	17.2	16.9	16.6	16.4	16.3	16.1	16.0	15.9
17.49	17.00	18.3	17.7	17.3	17.0	16.7	16.5	16.4	16.2	16.1	16.0
17.65	16.90	18.3	17.7	17.3	17.0	16.8	16.6	16.4	16.3	16.2	16.1
17.90	16.74	18.4	17.8	17.4	17.1	16.9	16.7	16.6	16.4	16.3	16.3
17.99	16.69	18.4	17.9	17.5	17.1	16.9	16.7	16.6	16.5	16.4	16.3
18.15	16.59	18.4	17.9	17.5	17.2	17.0	16.8	16.6	16.5	16.4	16.3
18.19	16.56	18.4	17.9	17.5	17.2	17.0	16.8	16.6	16.5	16.4	16.4
18.19	16.56	18.4	17.9	17.5	17.2	17.0	16.8	16.6	16.5	16.4	16.4
18.36	16.45	18.4	17.9	17.5	17.2	17.0	16.8	16.7	16.5	16.5	16.4
18.37	16.45	17.9	17.5	17.2	17.0	16.8	16.7	16.6	16.5	16.4	16.3
18.65	16.28	17.9	17.5	17.2	17.0	16.8	16.7	16.6	16.5	16.4	16.3
18.69	16.25	17.9	17.5	17.2	17.0	16.8	16.7	16.6	16.5	16.4	16.3
18.95	16.09	17.9	17.5	17.3	17.0	16.9	16.7	16.6	16.5	16.4	16.4
19.19	15.94	17.9	17.5	17.2	17.0	16.9	16.7	16.6	16.5	16.4	16.4
19.32	15.86	17.8	17.5	17.2	17.0	16.8	16.7	16.6	16.5	16.4	16.4
19.43	15.80	17.8	17.5	17.2	17.0	16.8	16.7	16.6	16.5	16.4	16.4
19.43	15.79	17.7	17.4	17.1	16.9	16.8	16.6	16.5	16.4	16.4	16.3
19.65	15.66	17.7	17.4	17.1	16.9	16.8	16.6	16.5	16.4	16.4	16.3
19.69	15.63	17.7	17.4	17.1	16.9	16.8	16.6	16.5	16.4	16.4	16.3
20.15	15.34	17.6	17.3	17.1	16.9	16.8	16.6	16.5	16.5	16.4	16.3
20.19	15.32	17.6	17.3	17.1	16.9	16.8	16.6	16.5	16.5	16.4	16.3
20.69	15.01	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
20.95	14.85	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
21.19	14.70	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
21.40	14.57	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
21.60	14.44	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
21.69	14.39	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
21.69	14.39	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.4	16.4
22.19	14.08	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4
22.20	14.07	17.6	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.5	16.4
22.40	13.95	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4
22.69	13.77	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4
22.80	13.70	17.6	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-36. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.5	16.4
23.30	13.39	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.5	16.4
23.69	13.14	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.5	16.4
24.05	12.92	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.5	16.4
24.19	12.83	17.5	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.5	16.4
24.50	12.64	17.5	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4
24.69	12.52	17.5	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4
24.70	12.52	17.5	17.3	17.1	16.9	16.8	16.7	16.6	16.5	16.5	16.4
25.05	12.30	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5
25.19	12.21	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5
25.69	11.90	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5
25.85	11.80	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5
26.19	11.59	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.5
26.69	11.28	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.5
27.19	10.97	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.5
27.20	10.96	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.5
27.45	10.81	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.6	16.6	16.5
27.69	10.66	17.5	17.3	17.1	17.0	16.9	16.8	16.7	16.7	16.6	16.6
27.90	10.53	17.5	17.3	17.2	17.0	16.9	16.8	16.8	16.7	16.6	16.6
28.19	10.35	17.5	17.3	17.2	17.0	16.9	16.9	16.8	16.7	16.7	16.6
28.69	10.04	17.5	17.3	17.2	17.0	17.0	16.9	16.8	16.7	16.7	16.6
28.75	10.00	17.5	17.3	17.2	17.0	17.0	16.9	16.8	16.7	16.7	16.6
28.98	9.85	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.7	16.6
28.99	9.85	17.5	17.3	17.2	17.0	17.0	16.9	16.8	16.7	16.7	16.6
29.19	9.73	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.7	16.7
29.25	9.69	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.7	16.7
29.69	9.42	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.8	16.7	16.7
30.00	9.22	17.5	17.3	17.2	17.1	17.0	16.9	16.8	16.8	16.7	16.7
30.19	9.11	17.5	17.3	17.2	17.1	17.0	16.9	16.9	16.8	16.8	16.7
30.30	9.04	17.5	17.4	17.2	17.1	17.0	16.9	16.9	16.8	16.8	16.7
30.69	8.80	17.5	17.4	17.2	17.1	17.0	17.0	16.9	16.8	16.8	16.8
31.19	8.48	17.5	17.3	17.2	17.1	17.0	17.0	16.9	16.8	16.8	16.8
31.24	8.45	17.5	17.3	17.2	17.1	17.0	17.0	16.9	16.8	16.8	16.8
31.30	8.42	17.5	17.4	17.2	17.1	17.0	17.0	16.9	16.9	16.8	16.8
31.74	8.14	17.5	17.4	17.2	17.1	17.0	17.0	16.9	16.9	16.8	16.8
31.95	8.01	17.5	17.4	17.2	17.1	17.0	17.0	16.9	16.9	16.8	16.8
32.24	7.83	17.5	17.4	17.2	17.1	17.1	17.0	16.9	16.9	16.8	16.8
32.25	7.83	17.5	17.4	17.2	17.1	17.1	17.0	16.9	16.9	16.8	16.8
32.74	7.52	17.5	17.4	17.3	17.2	17.1	17.0	17.0	16.9	16.9	16.9
33.24	7.21	17.6	17.5	17.3	17.3	17.2	17.1	17.0	17.0	17.0	16.9
33.30	7.17	17.6	17.5	17.4	17.3	17.2	17.1	17.0	17.0	17.0	16.9
33.45	7.08	17.6	17.5	17.4	17.3	17.2	17.1	17.0	17.0	17.0	16.9
33.74	6.90	17.6	17.5	17.4	17.3	17.2	17.1	17.1	17.0	17.0	16.9
34.20	6.61	17.6	17.5	17.4	17.3	17.2	17.1	17.1	17.0	17.0	17.0
34.24	6.59	17.6	17.5	17.4	17.3	17.2	17.1	17.1	17.0	17.0	17.0
34.55	6.40	17.6	17.5	17.4	17.3	17.2	17.1	17.1	17.0	17.0	17.0
34.69	6.31	17.6	17.5	17.4	17.3	17.2	17.2	17.1	17.1	17.0	17.0
34.69	6.31	17.6	17.5	17.4	17.3	17.2	17.2	17.1	17.1	17.0	17.0
34.74	6.28	17.6	17.5	17.4	17.3	17.2	17.2	17.1	17.1	17.0	17.0
34.85	6.21	17.6	17.5	17.4	17.3	17.3	17.2	17.1	17.1	17.1	17.0
35.24	5.97	17.7	17.6	17.5	17.4	17.3	17.2	17.2	17.1	17.1	17.1
35.50	5.81	17.7	17.6	17.5	17.4	17.3	17.3	17.2	17.2	17.1	17.1
35.74	5.66	17.7	17.6	17.5	17.4	17.4	17.3	17.2	17.2	17.2	17.1
36.24	5.35	17.8	17.7	17.6	17.5	17.4	17.4	17.3	17.3	17.2	17.2
36.50	5.19	17.8	17.7	17.6	17.5	17.4	17.4	17.3	17.3	17.3	17.2
36.74	5.04	17.8	17.7	17.6	17.5	17.5	17.4	17.4	17.3	17.3	17.3
36.93	4.92	17.8	17.7	17.6	17.6	17.5	17.5	17.4	17.4	17.3	17.3
36.93	4.92	17.8	17.7	17.6	17.6	17.5	17.5	17.4	17.4	17.3	17.3
36.95	4.91	17.8	17.7	17.6	17.6	17.5	17.5	17.4	17.4	17.3	17.3
37.24	4.73	17.8	17.7	17.6	17.6	17.5	17.5	17.4	17.4	17.4	17.3
37.60	4.50	17.9	17.8	17.7	17.6	17.5	17.5	17.4	17.4	17.4	17.4
37.74	4.41	17.9	17.8	17.7	17.6	17.6	17.5	17.5	17.4	17.4	17.4
37.80	4.38	17.9	17.8	17.7	17.6	17.6	17.5	17.5	17.5	17.4	17.4
38.10	4.19	18.0	17.9	17.8	17.7	17.7	17.6	17.6	17.5	17.5	17.5
38.24	4.10	18.0	17.9	17.9	17.8	17.7	17.7	17.6	17.6	17.6	17.6
38.25	4.10	18.0	17.9	17.9	17.8	17.7	17.7	17.6	17.6	17.6	17.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-36. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	18.1	18.0	17.9	17.8	17.8	17.7	17.7	17.6	17.6	17.6
38.74	3.79	18.1	18.0	17.9	17.8	17.8	17.7	17.7	17.6	17.6	17.6
38.95	3.66	18.1	18.0	17.9	17.8	17.8	17.7	17.7	17.7	17.6	17.6
39.15	3.54	18.1	18.0	17.9	17.8	17.8	17.7	17.7	17.7	17.6	17.6
39.24	3.48	18.1	18.0	17.9	17.8	17.8	17.7	17.7	17.7	17.6	17.6
39.65	3.23	18.1	18.0	17.9	17.9	17.8	17.8	17.7	17.7	17.7	17.7
39.74	3.17	18.1	18.0	18.0	17.9	17.8	17.8	17.8	17.7	17.7	17.7
39.95	3.04	18.2	18.1	18.0	18.0	17.9	17.9	17.8	17.8	17.8	17.8
40.24	2.86	18.2	18.1	18.0	18.0	17.9	17.9	17.9	17.8	17.8	17.8
40.55	2.67	18.2	18.1	18.1	18.0	18.0	17.9	17.9	17.9	17.8	17.8
40.70	2.58	18.3	18.2	18.1	18.1	18.0	18.0	17.9	17.9	17.9	17.9
40.74	2.55	18.3	18.2	18.1	18.1	18.0	18.0	17.9	17.9	17.9	17.9
41.15	2.30	18.3	18.2	18.1	18.1	18.0	18.0	18.0	17.9	17.9	17.9
41.24	2.24	18.3	18.2	18.1	18.1	18.0	18.0	18.0	17.9	17.9	17.9
41.74	1.93	18.3	18.2	18.1	18.1	18.0	18.0	18.0	18.0	17.9	17.9
42.10	1.71	18.3	18.2	18.2	18.1	18.0	18.0	18.0	18.0	17.9	17.9
42.24	1.62	18.3	18.3	18.2	18.1	18.1	18.0	18.0	18.0	18.0	17.9
42.25	1.61	18.3	18.3	18.2	18.1	18.1	18.0	18.0	18.0	18.0	18.0
42.74	1.31	18.4	18.3	18.3	18.2	18.2	18.1	18.1	18.1	18.1	18.0
42.75	1.30	18.4	18.3	18.3	18.2	18.2	18.1	18.1	18.1	18.1	18.0
43.24	1.00	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2	18.2
43.35	0.93	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
43.65	0.74	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
43.74	0.69	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
43.90	0.59	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
44.24	0.38	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
44.45	0.25	18.5	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
44.74	0.07	18.6	18.5	18.4	18.4	18.4	18.3	18.3	18.3	18.3	18.2
44.80	0.03	18.6	18.5	18.5	18.4	18.4	18.3	18.3	18.3	18.3	18.3
44.85	0.00	18.6	18.5	18.5	18.4	18.4	18.3	18.3	18.3	18.3	18.3
44.98	-0.09	18.6	18.5	18.5	18.4	18.4	18.4	18.3	18.3	18.3	18.3
44.99	-0.09	18.2	18.2	18.2	18.1	18.1	18.1	18.1	18.1	18.1	18.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-37. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)									
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.35	27.65	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.50	27.55	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0.65	27.46	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
1.00	27.24	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.30	27.06	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1.50	26.93	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1.65	26.84	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.85	26.72	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
2.00	26.62	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.20	26.50	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.50	26.31	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.70	26.19	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.90	26.06	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.92	26.05	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
3.00	26.00	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
3.43	25.73	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.44	25.73	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.45	25.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.46	25.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.50	25.69	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
3.65	25.60	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
4.00	25.38	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.20	25.26	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.50	25.07	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.75	24.91	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
5.00	24.76	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
5.28	24.58	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.39	24.52	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
5.50	24.45	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
5.55	24.42	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
5.65	24.35	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.00	24.14	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.05	24.11	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.50	23.83	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
6.65	23.73	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.00	23.52	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.07	23.47	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.10	23.45	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.15	23.42	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.16	23.42	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.50	23.20	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.55	23.17	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.80	23.02	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
8.00	22.89	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
8.05	22.86	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
8.45	22.61	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
8.50	22.58	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
8.99	22.28	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
9.09	22.22	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
9.49	21.97	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
9.50	21.96	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
9.99	21.66	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
10.05	21.62	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
10.25	21.50	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
10.49	21.35	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
10.65	21.25	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
10.99	21.04	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
11.10	20.97	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
11.41	20.78	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
11.45	20.75	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-37. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)									
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
11.75	20.56	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
11.99	20.42	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
12.20	20.28	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
12.35	20.19	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.48	20.11	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.49	20.10	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.52	20.08	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.53	20.08	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
12.70	19.97	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
12.99	19.79	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
13.25	19.63	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
13.31	19.59	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
13.40	19.54	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
13.40	19.54	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
13.49	19.48	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
13.75	19.32	18.5	18.4	18.4	18.5	18.5	18.4	18.5	18.4	18.5	18.5
13.99	19.17	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
14.45	18.89	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
14.49	18.86	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
14.80	18.67	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
14.99	18.55	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
15.20	18.42	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
15.49	18.24	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
15.80	18.05	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
15.99	17.93	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
16.20	17.80	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
16.34	17.72	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
16.34	17.71	17.5	16.5	15.8	15.3	14.9	14.6	14.3	14.1	13.9	13.7
16.49	17.62	17.5	16.6	15.9	15.3	14.9	14.6	14.3	14.1	13.9	13.7
16.75	17.46	17.6	16.6	15.9	15.4	15.0	14.6	14.4	14.1	13.9	13.8
16.99	17.31	17.7	16.7	16.0	15.5	15.1	14.8	14.5	14.3	14.1	13.9
17.10	17.24	17.7	16.8	16.1	15.6	15.2	14.8	14.6	14.4	14.2	14.0
17.30	17.12	17.8	16.8	16.2	15.6	15.3	14.9	14.7	14.5	14.3	14.1
17.49	17.00	17.8	16.9	16.2	15.7	15.3	15.0	14.8	14.6	14.4	14.3
17.65	16.90	17.9	16.9	16.3	15.8	15.4	15.1	14.9	14.7	14.5	14.4
17.90	16.74	17.9	17.0	16.4	15.9	15.5	15.2	15.0	14.8	14.6	14.5
17.99	16.69	17.9	17.0	16.4	15.9	15.6	15.3	15.0	14.9	14.7	14.6
18.15	16.59	18.0	17.1	16.4	16.0	15.6	15.3	15.1	14.9	14.8	14.6
18.19	16.56	18.0	17.1	16.5	16.0	15.6	15.3	15.1	14.9	14.8	14.6
18.19	16.56	18.0	17.1	16.5	16.0	15.6	15.3	15.1	14.9	14.8	14.6
18.36	16.45	18.0	17.1	16.5	16.0	15.7	15.4	15.2	15.0	14.8	14.7
18.37	16.45	17.6	16.9	16.4	15.9	15.6	15.4	15.2	15.0	14.8	14.7
18.65	16.28	17.7	17.0	16.4	16.0	15.7	15.4	15.2	15.1	14.9	14.8
18.69	16.25	17.7	17.0	16.5	16.0	15.7	15.4	15.2	15.1	14.9	14.8
18.95	16.09	17.8	17.0	16.5	16.1	15.8	15.5	15.3	15.1	15.0	14.9
19.19	15.94	17.8	17.1	16.6	16.2	15.8	15.6	15.4	15.2	15.0	14.9
19.32	15.86	17.8	17.1	16.6	16.2	15.9	15.6	15.4	15.2	15.0	14.9
19.43	15.80	17.8	17.1	16.6	16.2	15.9	15.6	15.4	15.2	15.1	14.9
19.43	15.79	17.3	16.8	16.3	16.0	15.7	15.4	15.3	15.1	14.9	14.8
19.65	15.66	17.4	16.8	16.4	16.0	15.7	15.5	15.3	15.1	15.0	14.9
19.69	15.63	17.4	16.8	16.4	16.0	15.7	15.5	15.3	15.1	15.0	14.9
20.15	15.34	17.5	16.9	16.5	16.1	15.8	15.6	15.4	15.2	15.1	14.9
20.19	15.32	17.5	16.9	16.5	16.1	15.8	15.6	15.4	15.2	15.1	15.0
20.69	15.01	17.6	17.0	16.6	16.2	15.9	15.7	15.5	15.3	15.2	15.1
20.95	14.85	17.6	17.1	16.6	16.3	16.0	15.8	15.6	15.4	15.2	15.1
21.19	14.70	17.7	17.1	16.7	16.3	16.0	15.8	15.6	15.4	15.3	15.1
21.40	14.57	17.7	17.2	16.7	16.4	16.1	15.8	15.6	15.5	15.3	15.2
21.60	14.44	17.8	17.2	16.8	16.4	16.1	15.9	15.7	15.5	15.4	15.2
21.69	14.39	17.8	17.2	16.8	16.4	16.1	15.9	15.7	15.5	15.4	15.2
21.69	14.39	17.8	17.2	16.8	16.4	16.1	15.9	15.7	15.5	15.4	15.2
22.19	14.08	17.9	17.3	16.9	16.5	16.2	16.0	15.8	15.6	15.4	15.3
22.20	14.07	17.9	17.3	16.9	16.5	16.2	16.0	15.8	15.6	15.4	15.3
22.40	13.95	17.9	17.4	16.9	16.6	16.3	16.0	15.8	15.6	15.5	15.4
22.69	13.77	18.0	17.4	17.0	16.6	16.3	16.1	15.9	15.7	15.5	15.4
22.80	13.70	18.0	17.4	17.0	16.6	16.3	16.1	15.9	15.7	15.5	15.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-37. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	18.0	17.5	17.0	16.7	16.4	16.1	15.9	15.7	15.6	15.4
23.30	13.39	18.0	17.5	17.1	16.7	16.4	16.1	15.9	15.8	15.6	15.5
23.69	13.14	18.1	17.5	17.1	16.7	16.5	16.2	16.0	15.8	15.6	15.5
24.05	12.92	18.1	17.6	17.1	16.8	16.5	16.2	16.0	15.8	15.7	15.5
24.19	12.83	18.1	17.6	17.2	16.8	16.5	16.3	16.0	15.9	15.7	15.6
24.50	12.64	18.1	17.6	17.2	16.8	16.5	16.3	16.1	15.9	15.7	15.6
24.69	12.52	18.1	17.6	17.2	16.8	16.5	16.3	16.1	15.9	15.7	15.6
24.70	12.52	18.1	17.6	17.2	16.8	16.5	16.3	16.1	15.9	15.7	15.6
25.05	12.30	18.2	17.7	17.3	16.9	16.6	16.4	16.1	15.9	15.8	15.6
25.19	12.21	18.2	17.7	17.3	16.9	16.6	16.4	16.1	16.0	15.8	15.7
25.69	11.90	18.2	17.7	17.3	16.9	16.6	16.4	16.2	16.0	15.8	15.7
25.85	11.80	18.2	17.7	17.3	16.9	16.6	16.4	16.2	16.0	15.8	15.7
26.19	11.59	18.3	17.7	17.3	17.0	16.7	16.4	16.2	16.0	15.9	15.7
26.69	11.28	18.3	17.8	17.4	17.0	16.7	16.5	16.2	16.1	15.9	15.8
27.19	10.97	18.3	17.8	17.4	17.0	16.8	16.5	16.3	16.1	15.9	15.8
27.20	10.96	18.3	17.8	17.4	17.0	16.8	16.5	16.3	16.1	15.9	15.8
27.45	10.81	18.4	17.9	17.4	17.1	16.8	16.5	16.3	16.1	16.0	15.8
27.69	10.66	18.4	17.9	17.5	17.1	16.8	16.6	16.4	16.2	16.0	15.9
27.90	10.53	18.4	17.9	17.5	17.2	16.9	16.6	16.4	16.2	16.0	15.9
28.19	10.35	18.5	18.0	17.5	17.2	16.9	16.6	16.4	16.3	16.1	15.9
28.69	10.04	18.5	18.0	17.6	17.3	17.0	16.7	16.5	16.3	16.1	16.0
28.75	10.00	18.5	18.0	17.6	17.3	17.0	16.7	16.5	16.3	16.1	16.0
28.98	9.85	18.5	18.1	17.6	17.3	17.0	16.7	16.5	16.3	16.2	16.0
28.99	9.85	18.4	17.9	17.5	17.2	16.9	16.7	16.5	16.3	16.1	16.0
29.19	9.73	18.4	18.0	17.6	17.2	17.0	16.7	16.5	16.3	16.2	16.0
29.25	9.69	18.4	18.0	17.6	17.2	17.0	16.7	16.5	16.3	16.2	16.0
29.69	9.42	18.5	18.0	17.6	17.3	17.0	16.8	16.6	16.4	16.2	16.1
30.00	9.22	18.5	18.1	17.7	17.4	17.1	16.8	16.6	16.5	16.3	16.1
30.19	9.11	18.6	18.1	17.8	17.4	17.1	16.9	16.7	16.5	16.3	16.2
30.30	9.04	18.6	18.2	17.8	17.4	17.2	16.9	16.7	16.5	16.4	16.2
30.69	8.80	18.7	18.2	17.8	17.5	17.2	17.0	16.8	16.6	16.4	16.3
31.19	8.48	18.7	18.3	17.9	17.6	17.3	17.0	16.8	16.6	16.5	16.3
31.24	8.45	18.7	18.3	17.9	17.6	17.3	17.0	16.8	16.6	16.5	16.3
31.30	8.42	18.8	18.3	17.9	17.6	17.3	17.0	16.8	16.6	16.5	16.3
31.74	8.14	18.8	18.4	18.0	17.6	17.3	17.1	16.9	16.7	16.5	16.4
31.95	8.01	18.8	18.4	18.0	17.6	17.4	17.1	16.9	16.7	16.5	16.4
32.24	7.83	18.8	18.4	18.0	17.7	17.4	17.1	16.9	16.7	16.6	16.4
32.25	7.83	18.8	18.4	18.0	17.7	17.4	17.1	16.9	16.7	16.6	16.4
32.74	7.52	18.9	18.5	18.1	17.8	17.5	17.2	17.0	16.8	16.6	16.5
33.24	7.21	19.0	18.5	18.1	17.8	17.5	17.3	17.1	16.9	16.7	16.5
33.30	7.17	19.0	18.5	18.2	17.8	17.5	17.3	17.1	16.9	16.7	16.6
33.45	7.08	19.0	18.6	18.2	17.8	17.5	17.3	17.1	16.9	16.7	16.6
33.74	6.90	19.0	18.6	18.2	17.9	17.6	17.3	17.1	16.9	16.8	16.6
34.20	6.61	19.1	18.6	18.3	17.9	17.6	17.4	17.2	17.0	16.8	16.7
34.24	6.59	19.1	18.6	18.3	17.9	17.6	17.4	17.2	17.0	16.8	16.7
34.55	6.40	19.1	18.7	18.3	18.0	17.7	17.4	17.2	17.0	16.8	16.7
34.69	6.31	19.1	18.7	18.3	18.0	17.7	17.4	17.2	17.0	16.9	16.7
34.69	6.31	19.1	18.7	18.3	18.0	17.7	17.4	17.2	17.0	16.9	16.7
34.74	6.28	19.1	18.7	18.3	18.0	17.7	17.4	17.2	17.0	16.9	16.7
34.85	6.21	19.1	18.7	18.3	18.0	17.7	17.5	17.2	17.0	16.9	16.7
35.24	5.97	19.2	18.8	18.4	18.1	17.8	17.5	17.3	17.1	17.0	16.8
35.50	5.81	19.3	18.8	18.4	18.1	17.8	17.6	17.4	17.1	17.0	16.8
35.74	5.66	19.3	18.9	18.5	18.1	17.9	17.6	17.4	17.2	17.0	16.9
36.24	5.35	19.4	18.9	18.6	18.2	18.0	17.7	17.5	17.3	17.1	17.0
36.50	5.19	19.4	19.0	18.6	18.3	18.0	17.7	17.5	17.3	17.1	17.0
36.74	5.04	19.5	19.0	18.6	18.3	18.0	17.8	17.6	17.4	17.2	17.0
36.93	4.92	19.5	19.1	18.7	18.4	18.1	17.8	17.6	17.4	17.2	17.1
36.93	4.92	19.4	19.0	18.6	18.3	18.0	17.8	17.6	17.4	17.2	17.0
36.95	4.91	19.4	19.0	18.6	18.3	18.0	17.8	17.6	17.4	17.2	17.1
37.24	4.73	19.5	19.0	18.7	18.4	18.1	17.8	17.6	17.4	17.3	17.1
37.60	4.50	19.5	19.1	18.7	18.4	18.1	17.9	17.6	17.5	17.3	17.1
37.74	4.41	19.5	19.1	18.8	18.4	18.2	17.9	17.7	17.5	17.3	17.2
37.80	4.38	19.6	19.1	18.8	18.5	18.2	17.9	17.7	17.5	17.3	17.2
38.10	4.19	19.6	19.2	18.9	18.5	18.3	18.0	17.8	17.6	17.4	17.3
38.24	4.10	19.7	19.3	18.9	18.6	18.3	18.0	17.8	17.6	17.5	17.3
38.25	4.10	19.7	19.3	18.9	18.6	18.3	18.0	17.8	17.6	17.5	17.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-37. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	19.8	19.3	19.0	18.6	18.4	18.1	17.9	17.7	17.5	17.4
38.74	3.79	19.8	19.3	19.0	18.6	18.4	18.1	17.9	17.7	17.5	17.4
38.95	3.66	19.8	19.4	19.0	18.7	18.4	18.1	17.9	17.7	17.5	17.4
39.15	3.54	19.8	19.4	19.0	18.7	18.4	18.1	17.9	17.7	17.5	17.4
39.24	3.48	19.8	19.4	19.0	18.7	18.4	18.1	17.9	17.7	17.6	17.4
39.65	3.23	19.9	19.5	19.1	18.8	18.5	18.2	18.0	17.8	17.6	17.5
39.74	3.17	19.9	19.5	19.1	18.8	18.5	18.2	18.0	17.8	17.6	17.5
39.95	3.04	20.0	19.6	19.2	18.9	18.6	18.3	18.1	17.9	17.7	17.6
40.24	2.86	20.0	19.6	19.2	18.9	18.6	18.3	18.1	17.9	17.8	17.6
40.55	2.67	20.0	19.6	19.3	18.9	18.6	18.4	18.2	18.0	17.8	17.6
40.70	2.58	20.1	19.7	19.3	19.0	18.7	18.4	18.2	18.0	17.8	17.7
40.74	2.55	20.1	19.7	19.3	19.0	18.7	18.4	18.2	18.0	17.8	17.7
41.15	2.30	20.2	19.7	19.4	19.0	18.8	18.5	18.3	18.1	17.9	17.7
41.24	2.24	20.2	19.8	19.4	19.0	18.8	18.5	18.3	18.1	17.9	17.7
41.74	1.93	20.2	19.8	19.4	19.1	18.8	18.5	18.3	18.1	18.0	17.8
42.10	1.71	20.3	19.9	19.5	19.1	18.9	18.6	18.4	18.2	18.0	17.8
42.24	1.62	20.3	19.9	19.5	19.2	18.9	18.6	18.4	18.2	18.0	17.8
42.25	1.61	20.3	19.9	19.5	19.2	18.9	18.6	18.4	18.2	18.0	17.8
42.74	1.31	20.4	20.0	19.6	19.3	19.0	18.7	18.5	18.3	18.1	17.9
42.75	1.30	20.4	20.0	19.6	19.3	19.0	18.7	18.5	18.3	18.1	17.9
43.24	1.00	20.5	20.1	19.7	19.4	19.1	18.8	18.6	18.4	18.2	18.0
43.35	0.93	20.5	20.1	19.8	19.4	19.1	18.9	18.6	18.4	18.3	18.1
43.65	0.74	20.6	20.1	19.8	19.4	19.1	18.9	18.6	18.5	18.3	18.1
43.74	0.69	20.6	20.2	19.8	19.5	19.2	18.9	18.7	18.5	18.3	18.1
43.90	0.59	20.6	20.2	19.8	19.5	19.2	18.9	18.7	18.5	18.3	18.1
44.24	0.38	20.6	20.2	19.8	19.5	19.2	18.9	18.7	18.5	18.3	18.1
44.45	0.25	20.6	20.2	19.8	19.5	19.2	18.9	18.7	18.5	18.3	18.1
44.74	0.07	20.7	20.3	19.9	19.6	19.3	19.0	18.8	18.6	18.4	18.2
44.80	0.03	20.7	20.3	19.9	19.6	19.3	19.0	18.8	18.6	18.4	18.2
44.85	0.00	20.7	20.3	19.9	19.6	19.3	19.0	18.8	18.6	18.4	18.2
44.98	-0.09	20.7	20.3	19.9	19.6	19.3	19.0	18.8	18.6	18.4	18.2
44.99	-0.09	18.5	18.5	18.4	18.4	18.3	18.2	18.2	18.1	18.0	18.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-38. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.35	27.65	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.50	27.55	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1.00	27.24	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.15	27.15	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.15	27.15	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.30	27.06	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.50	26.93	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1.65	26.84	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1.85	26.72	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
2.00	26.62	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.05	26.59	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.20	26.50	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.50	26.31	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.70	26.19	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
2.90	26.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.43	25.73	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.44	25.73	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.45	25.72	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.46	25.72	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.50	25.69	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.65	25.60	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.00	25.38	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.20	25.26	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.50	25.07	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.75	24.91	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.00	24.76	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.28	24.58	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.38	24.52	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.39	24.52	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.50	24.45	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.55	24.42	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.65	24.35	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
6.00	24.14	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.05	24.11	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.50	23.83	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.65	23.73	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
7.00	23.52	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.07	23.47	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.10	23.45	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.15	23.42	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
7.16	23.42	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.50	23.20	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.55	23.17	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.80	23.02	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
8.00	22.89	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
8.05	22.86	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
8.45	22.61	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
8.50	22.58	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
8.99	22.28	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.49	21.97	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
9.50	21.96	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
9.99	21.66	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
10.05	21.62	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
10.25	21.50	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
10.49	21.35	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
10.65	21.25	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
10.99	21.04	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
11.10	20.97	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
11.41	20.78	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
11.45	20.75	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-38. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)									
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
11.75	20.56	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
11.99	20.42	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
12.20	20.28	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
12.35	20.19	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
12.48	20.11	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
12.49	20.10	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
12.52	20.08	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
12.53	20.08	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
12.70	19.97	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
12.99	19.79	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
13.25	19.63	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
13.31	19.59	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
13.40	19.54	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
13.40	19.54	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
13.49	19.48	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
13.75	19.32	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
13.99	19.17	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
14.45	18.89	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
14.49	18.86	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
14.80	18.67	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
14.99	18.55	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
15.20	18.42	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
15.49	18.24	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
15.80	18.05	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
15.99	17.93	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
16.20	17.80	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
16.34	17.72	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
16.34	17.71	17.2	16.4	15.9	15.6	15.3	15.1	14.9	14.8	14.6	14.6
16.49	17.62	17.2	16.4	15.9	15.6	15.3	15.1	14.9	14.8	14.7	14.6
16.75	17.46	17.2	16.5	16.0	15.6	15.4	15.1	15.0	14.8	14.7	14.6
16.99	17.31	17.3	16.5	16.0	15.7	15.4	15.2	15.1	14.9	14.8	14.7
17.10	17.24	17.3	16.6	16.1	15.7	15.5	15.3	15.1	15.0	14.9	14.8
17.30	17.12	17.4	16.6	16.1	15.8	15.5	15.3	15.2	15.1	15.0	14.9
17.49	17.00	17.4	16.6	16.2	15.8	15.6	15.4	15.3	15.1	15.0	14.9
17.65	16.90	17.4	16.7	16.2	15.9	15.6	15.4	15.3	15.2	15.1	15.0
17.90	16.74	17.4	16.7	16.3	15.9	15.7	15.5	15.4	15.3	15.2	15.1
17.99	16.69	17.5	16.8	16.3	16.0	15.7	15.6	15.4	15.3	15.2	15.1
18.15	16.59	17.5	16.8	16.3	16.0	15.8	15.6	15.4	15.4	15.3	15.2
18.19	16.56	17.5	16.8	16.3	16.0	15.8	15.6	15.5	15.4	15.3	15.2
18.19	16.56	17.5	16.8	16.3	16.0	15.8	15.6	15.5	15.4	15.3	15.2
18.36	16.45	17.5	16.8	16.4	16.0	15.8	15.6	15.5	15.4	15.3	15.2
18.37	16.45	17.2	16.7	16.3	16.0	15.8	15.7	15.5	15.4	15.4	15.3
18.65	16.28	17.3	16.7	16.4	16.1	15.9	15.7	15.6	15.5	15.4	15.3
18.69	16.25	17.3	16.8	16.4	16.1	15.9	15.7	15.6	15.5	15.4	15.3
18.95	16.09	17.3	16.8	16.4	16.2	15.9	15.8	15.6	15.6	15.4	15.4
19.19	15.94	17.4	16.8	16.5	16.2	16.0	15.8	15.7	15.6	15.5	15.4
19.32	15.86	17.4	16.8	16.5	16.2	16.0	15.8	15.7	15.6	15.5	15.4
19.43	15.80	17.4	16.9	16.5	16.2	16.0	15.8	15.7	15.6	15.5	15.4
19.43	15.79	17.3	16.8	16.4	16.2	16.0	15.8	15.7	15.6	15.5	15.4
19.65	15.66	17.3	16.8	16.5	16.2	16.0	15.8	15.7	15.6	15.5	15.4
19.69	15.63	17.3	16.8	16.5	16.2	16.0	15.8	15.7	15.6	15.5	15.4
20.15	15.34	17.3	16.9	16.5	16.3	16.0	15.9	15.8	15.7	15.6	15.5
20.19	15.32	17.4	16.9	16.5	16.3	16.1	15.9	15.8	15.7	15.6	15.5
20.69	15.01	17.4	17.0	16.6	16.3	16.1	16.0	15.8	15.7	15.6	15.6
20.95	14.85	17.5	17.0	16.6	16.4	16.2	16.0	15.9	15.8	15.7	15.6
21.19	14.70	17.5	17.0	16.7	16.4	16.2	16.0	15.9	15.8	15.7	15.6
21.40	14.57	17.5	17.0	16.7	16.4	16.2	16.1	15.9	15.8	15.7	15.6
21.60	14.44	17.5	17.1	16.7	16.5	16.3	16.1	15.9	15.9	15.8	15.7
21.69	14.39	17.5	17.1	16.7	16.5	16.3	16.1	16.0	15.9	15.8	15.7
21.69	14.39	17.5	17.1	16.7	16.5	16.3	16.1	16.0	15.9	15.8	15.7
22.19	14.08	17.6	17.1	16.8	16.5	16.3	16.2	16.0	15.9	15.8	15.7
22.20	14.07	17.6	17.1	16.8	16.5	16.3	16.2	16.0	15.9	15.8	15.7
22.40	13.95	17.6	17.2	16.8	16.6	16.4	16.2	16.0	15.9	15.8	15.8
22.69	13.77	17.6	17.2	16.9	16.6	16.4	16.2	16.1	16.0	15.9	15.8
22.80	13.70	17.6	17.2	16.9	16.6	16.4	16.2	16.1	16.0	15.9	15.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-38. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	17.7	17.2	16.9	16.6	16.4	16.3	16.1	16.0	15.9	15.8
23.30	13.39	17.7	17.2	16.9	16.7	16.5	16.3	16.1	16.0	15.9	15.8
23.69	13.14	17.7	17.3	17.0	16.7	16.5	16.3	16.2	16.0	15.9	15.9
24.05	12.92	17.7	17.3	17.0	16.7	16.5	16.3	16.2	16.1	16.0	15.9
24.19	12.83	17.7	17.3	17.0	16.7	16.5	16.4	16.2	16.1	16.0	15.9
24.50	12.64	17.7	17.3	17.0	16.7	16.5	16.4	16.2	16.1	16.0	15.9
24.69	12.52	17.7	17.3	17.0	16.8	16.5	16.4	16.2	16.1	16.0	15.9
24.70	12.52	17.7	17.3	17.0	16.8	16.5	16.4	16.2	16.1	16.0	15.9
25.05	12.30	17.8	17.4	17.1	16.8	16.6	16.4	16.3	16.2	16.1	16.0
25.19	12.21	17.8	17.4	17.1	16.8	16.6	16.4	16.3	16.2	16.1	16.0
25.69	11.90	17.8	17.4	17.1	16.8	16.6	16.4	16.3	16.2	16.1	16.0
25.85	11.80	17.8	17.4	17.1	16.8	16.6	16.4	16.3	16.2	16.1	16.0
26.19	11.59	17.8	17.4	17.1	16.8	16.6	16.5	16.3	16.2	16.1	16.0
26.69	11.28	17.8	17.4	17.1	16.9	16.7	16.5	16.4	16.2	16.1	16.1
27.19	10.97	17.8	17.5	17.1	16.9	16.7	16.5	16.4	16.3	16.2	16.1
27.20	10.96	17.8	17.5	17.2	16.9	16.7	16.5	16.4	16.3	16.2	16.1
27.45	10.81	17.9	17.5	17.2	16.9	16.7	16.6	16.4	16.3	16.2	16.1
27.69	10.66	17.9	17.5	17.2	17.0	16.8	16.6	16.5	16.3	16.2	16.1
27.90	10.53	17.9	17.5	17.3	17.0	16.8	16.6	16.5	16.4	16.3	16.2
28.19	10.35	17.9	17.6	17.3	17.0	16.8	16.6	16.5	16.4	16.3	16.2
28.69	10.04	18.0	17.6	17.3	17.1	16.9	16.7	16.5	16.4	16.3	16.3
28.75	10.00	18.0	17.6	17.3	17.1	16.9	16.7	16.6	16.5	16.3	16.3
28.98	9.85	18.0	17.6	17.4	17.1	16.9	16.7	16.6	16.5	16.4	16.3
28.99	9.85	18.0	17.6	17.3	17.1	16.9	16.7	16.6	16.5	16.4	16.3
29.19	9.73	18.0	17.6	17.4	17.1	16.9	16.8	16.6	16.5	16.4	16.3
29.25	9.69	18.0	17.6	17.4	17.1	16.9	16.8	16.6	16.5	16.4	16.3
29.69	9.42	18.0	17.7	17.4	17.2	17.0	16.8	16.7	16.5	16.4	16.4
30.00	9.22	18.1	17.7	17.5	17.2	17.0	16.9	16.7	16.6	16.5	16.4
30.19	9.11	18.1	17.8	17.5	17.3	17.0	16.9	16.7	16.6	16.5	16.4
30.30	9.04	18.1	17.8	17.5	17.3	17.1	16.9	16.8	16.6	16.5	16.5
30.69	8.80	18.2	17.8	17.5	17.3	17.1	16.9	16.8	16.7	16.6	16.5
31.19	8.48	18.2	17.9	17.6	17.4	17.2	17.0	16.8	16.7	16.6	16.5
31.24	8.45	18.2	17.9	17.6	17.4	17.2	17.0	16.8	16.7	16.6	16.5
31.30	8.42	18.2	17.9	17.6	17.4	17.2	17.0	16.9	16.7	16.6	16.5
31.74	8.14	18.3	17.9	17.6	17.4	17.2	17.0	16.9	16.8	16.7	16.6
31.95	8.01	18.3	18.0	17.7	17.4	17.2	17.0	16.9	16.8	16.7	16.6
32.24	7.83	18.3	18.0	17.7	17.5	17.2	17.1	16.9	16.8	16.7	16.6
32.25	7.83	18.3	18.0	17.7	17.5	17.3	17.1	16.9	16.8	16.7	16.6
32.74	7.52	18.4	18.0	17.8	17.5	17.3	17.1	17.0	16.9	16.8	16.7
33.24	7.21	18.4	18.1	17.8	17.6	17.4	17.2	17.0	16.9	16.8	16.7
33.30	7.17	18.5	18.1	17.8	17.6	17.4	17.2	17.1	16.9	16.8	16.7
33.45	7.08	18.5	18.1	17.8	17.6	17.4	17.2	17.1	16.9	16.8	16.7
33.74	6.90	18.5	18.1	17.9	17.6	17.4	17.3	17.1	17.0	16.9	16.8
34.20	6.61	18.5	18.2	17.9	17.7	17.5	17.3	17.1	17.0	16.9	16.8
34.24	6.59	18.5	18.2	17.9	17.7	17.5	17.3	17.1	17.0	16.9	16.8
34.55	6.40	18.5	18.2	17.9	17.7	17.5	17.3	17.2	17.0	16.9	16.8
34.69	6.31	18.6	18.2	18.0	17.7	17.5	17.4	17.2	17.1	17.0	16.9
34.69	6.31	18.6	18.2	18.0	17.7	17.5	17.3	17.2	17.1	17.0	16.9
34.74	6.28	18.6	18.2	18.0	17.7	17.5	17.4	17.2	17.1	17.0	16.9
34.85	6.21	18.6	18.3	18.0	17.7	17.5	17.4	17.2	17.1	17.0	16.9
35.24	5.97	18.6	18.3	18.0	17.8	17.6	17.4	17.3	17.1	17.0	16.9
35.50	5.81	18.7	18.4	18.1	17.8	17.6	17.5	17.3	17.2	17.1	17.0
35.74	5.66	18.7	18.4	18.1	17.9	17.7	17.5	17.4	17.2	17.1	17.0
36.24	5.35	18.8	18.5	18.2	18.0	17.8	17.6	17.4	17.3	17.2	17.1
36.50	5.19	18.8	18.5	18.2	18.0	17.8	17.6	17.5	17.3	17.2	17.1
36.74	5.04	18.9	18.5	18.3	18.0	17.8	17.6	17.5	17.4	17.3	17.2
36.93	4.92	18.9	18.6	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.2
36.93	4.92	18.9	18.6	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.2
36.95	4.91	18.9	18.6	18.3	18.1	17.9	17.7	17.5	17.4	17.3	17.2
37.24	4.73	18.9	18.6	18.3	18.1	17.9	17.7	17.6	17.4	17.3	17.2
37.60	4.50	19.0	18.6	18.4	18.1	17.9	17.8	17.6	17.5	17.4	17.3
37.74	4.41	19.0	18.7	18.4	18.2	18.0	17.8	17.6	17.5	17.4	17.3
37.80	4.38	19.0	18.7	18.4	18.2	18.0	17.8	17.6	17.5	17.4	17.3
38.10	4.19	19.1	18.8	18.5	18.3	18.0	17.9	17.7	17.6	17.5	17.4
38.24	4.10	19.1	18.8	18.5	18.3	18.1	17.9	17.8	17.6	17.5	17.4
38.25	4.10	19.1	18.8	18.5	18.3	18.1	17.9	17.8	17.6	17.5	17.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.
 * Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-38. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)									
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	19.2	18.9	18.6	18.4	18.1	18.0	17.8	17.7	17.6	17.5
38.74	3.79	19.2	18.9	18.6	18.4	18.2	18.0	17.8	17.7	17.6	17.5
38.95	3.66	19.2	18.9	18.6	18.4	18.2	18.0	17.8	17.7	17.6	17.5
39.15	3.54	19.2	18.9	18.6	18.4	18.2	18.0	17.8	17.7	17.6	17.5
39.24	3.48	19.2	18.9	18.6	18.4	18.2	18.0	17.9	17.7	17.6	17.5
39.65	3.23	19.3	19.0	18.7	18.5	18.2	18.1	17.9	17.8	17.6	17.5
39.74	3.17	19.3	19.0	18.7	18.5	18.3	18.1	17.9	17.8	17.7	17.6
39.95	3.04	19.4	19.1	18.8	18.5	18.3	18.2	18.0	17.9	17.8	17.6
40.24	2.86	19.4	19.1	18.8	18.6	18.4	18.2	18.0	17.9	17.8	17.7
40.55	2.67	19.5	19.1	18.9	18.6	18.4	18.2	18.1	17.9	17.8	17.7
40.70	2.58	19.5	19.2	18.9	18.7	18.5	18.3	18.1	18.0	17.9	17.8
40.74	2.55	19.5	19.2	18.9	18.7	18.5	18.3	18.1	18.0	17.9	17.8
41.15	2.30	19.6	19.2	19.0	18.7	18.5	18.3	18.2	18.0	17.9	17.8
41.24	2.24	19.6	19.3	19.0	18.7	18.5	18.3	18.2	18.0	17.9	17.8
41.74	1.93	19.6	19.3	19.0	18.8	18.6	18.4	18.2	18.1	17.9	17.8
42.10	1.71	19.6	19.3	19.0	18.8	18.6	18.4	18.2	18.1	18.0	17.9
42.24	1.62	19.7	19.4	19.1	18.8	18.6	18.4	18.3	18.1	18.0	17.9
42.25	1.61	19.7	19.4	19.1	18.8	18.6	18.4	18.3	18.1	18.0	17.9
42.74	1.31	19.8	19.5	19.2	18.9	18.7	18.5	18.4	18.2	18.1	18.0
42.75	1.30	19.8	19.5	19.2	18.9	18.7	18.5	18.4	18.2	18.1	18.0
43.24	1.00	19.9	19.6	19.3	19.0	18.8	18.6	18.5	18.3	18.2	18.1
43.35	0.93	19.9	19.6	19.3	19.1	18.8	18.6	18.5	18.4	18.2	18.1
43.65	0.74	20.0	19.6	19.3	19.1	18.9	18.7	18.5	18.4	18.2	18.1
43.74	0.69	20.0	19.6	19.3	19.1	18.9	18.7	18.5	18.4	18.2	18.1
43.90	0.59	20.0	19.6	19.3	19.1	18.9	18.7	18.5	18.4	18.2	18.1
44.24	0.38	20.0	19.7	19.4	19.1	18.9	18.7	18.5	18.4	18.3	18.1
44.45	0.25	20.0	19.7	19.4	19.1	18.9	18.7	18.5	18.4	18.3	18.2
44.74	0.07	20.1	19.7	19.4	19.2	19.0	18.8	18.6	18.5	18.3	18.2
44.80	0.03	20.1	19.7	19.5	19.2	19.0	18.8	18.6	18.5	18.3	18.2
44.85	0.00	20.1	19.8	19.5	19.2	19.0	18.8	18.6	18.5	18.4	18.2
44.98	-0.09	20.1	19.8	19.5	19.2	19.0	18.8	18.6	18.5	18.4	18.3
44.99	-0.09	19.0	19.0	18.9	18.8	18.8	18.7	18.6	18.5	18.5	18.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-39. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
0.35	27.65	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
0.50	27.55	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
0.65	27.46	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1.00	27.24	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1.15	27.15	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.30	27.06	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1.50	26.93	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1.65	26.84	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1.85	26.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
2.00	26.62	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.05	26.59	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
2.20	26.50	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.50	26.31	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.70	26.19	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
2.90	26.06	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
2.92	26.05	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
3.00	26.00	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
3.43	25.73	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.44	25.73	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.45	25.72	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.46	25.72	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.50	25.69	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.65	25.60	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.00	25.38	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.20	25.26	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.50	25.07	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
4.75	24.91	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.00	24.76	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.28	24.58	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.38	24.52	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.39	24.52	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.50	24.45	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.55	24.42	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.65	24.35	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
6.00	24.14	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
6.05	24.11	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
6.50	23.83	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
6.65	23.73	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
7.00	23.52	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.07	23.47	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
7.10	23.45	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
7.15	23.42	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
7.16	23.42	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
7.50	23.20	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.55	23.17	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.80	23.02	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
8.00	22.89	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
8.05	22.86	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
8.45	22.61	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
8.50	22.58	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
8.99	22.28	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
9.09	22.22	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
9.09	22.22	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
9.49	21.97	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
9.50	21.96	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
9.99	21.66	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
10.05	21.62	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
10.25	21.50	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
10.49	21.35	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
10.65	21.25	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
10.99	21.04	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
11.10	20.97	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
11.41	20.78	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
11.45	20.75	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-39. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)									
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
11.75	20.56	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
11.99	20.42	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
12.20	20.28	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
12.35	20.19	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
12.48	20.11	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
12.49	20.10	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
12.52	20.08	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
12.53	20.08	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
12.70	19.97	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
12.99	19.79	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9
13.25	19.63	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
13.31	19.59	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
13.40	19.54	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
13.40	19.54	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
13.49	19.48	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
13.75	19.32	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
13.99	19.17	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
14.45	18.89	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
14.49	18.86	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
14.80	18.67	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
14.99	18.55	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
15.20	18.42	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
15.49	18.24	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
15.80	18.05	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
15.99	17.93	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
16.20	17.80	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
16.34	17.72	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9
16.34	17.71	20.2	19.1	18.4	17.8	17.3	16.9	16.6	16.4	16.1	15.9
16.49	17.62	20.3	19.2	18.4	17.8	17.3	17.0	16.7	16.4	16.2	16.0
16.75	17.46	20.4	19.3	18.5	17.9	17.4	17.1	16.8	16.5	16.3	16.1
16.99	17.31	20.5	19.4	18.6	18.1	17.6	17.3	17.0	16.7	16.5	16.3
17.10	17.24	20.5	19.5	18.7	18.1	17.7	17.3	17.0	16.8	16.6	16.4
17.30	17.12	20.6	19.6	18.8	18.3	17.8	17.5	17.2	17.0	16.8	16.6
17.49	17.00	20.6	19.6	18.9	18.4	18.0	17.6	17.4	17.1	17.0	16.8
17.65	16.90	20.7	19.7	19.0	18.5	18.1	17.7	17.5	17.3	17.1	17.0
17.90	16.74	20.8	19.8	19.1	18.6	18.2	17.9	17.7	17.5	17.3	17.2
17.99	16.69	20.8	19.9	19.2	18.6	18.3	18.0	17.7	17.5	17.4	17.2
18.15	16.59	20.9	19.9	19.2	18.7	18.3	18.0	17.8	17.6	17.4	17.3
18.19	16.56	20.9	19.9	19.2	18.7	18.4	18.0	17.8	17.6	17.5	17.3
18.19	16.56	20.9	19.9	19.2	18.7	18.4	18.0	17.8	17.6	17.5	17.3
18.36	16.45	20.9	19.9	19.3	18.8	18.4	18.1	17.8	17.6	17.5	17.4
18.37	16.45	20.3	19.5	19.0	18.6	18.2	18.0	17.8	17.6	17.5	17.3
18.65	16.28	20.3	19.6	19.0	18.6	18.3	18.0	17.8	17.6	17.5	17.4
18.69	16.25	20.3	19.6	19.0	18.6	18.3	18.0	17.8	17.7	17.5	17.4
18.95	16.09	20.3	19.6	19.1	18.7	18.4	18.1	17.9	17.7	17.6	17.5
19.19	15.94	20.3	19.6	19.1	18.7	18.4	18.1	17.9	17.7	17.6	17.5
19.32	15.86	20.3	19.6	19.1	18.7	18.4	18.1	17.9	17.7	17.6	17.5
19.43	15.80	20.3	19.6	19.1	18.7	18.4	18.1	17.9	17.7	17.6	17.5
19.43	15.79	19.7	19.1	18.7	18.4	18.1	17.9	17.7	17.5	17.4	17.3
19.65	15.66	19.7	19.1	18.7	18.4	18.1	17.9	17.7	17.6	17.4	17.3
19.69	15.63	19.7	19.1	18.7	18.4	18.1	17.9	17.7	17.6	17.5	17.3
20.15	15.34	19.7	19.2	18.8	18.4	18.2	18.0	17.8	17.6	17.5	17.4
20.19	15.32	19.7	19.2	18.8	18.4	18.2	18.0	17.8	17.6	17.5	17.4
20.69	15.01	19.8	19.2	18.8	18.5	18.2	18.0	17.9	17.7	17.6	17.5
20.95	14.85	19.8	19.3	18.9	18.5	18.3	18.1	17.9	17.7	17.6	17.5
21.19	14.70	19.8	19.3	18.9	18.6	18.3	18.1	17.9	17.8	17.6	17.5
21.40	14.57	19.8	19.3	18.9	18.6	18.3	18.1	17.9	17.8	17.7	17.6
21.60	14.44	19.8	19.3	18.9	18.6	18.4	18.1	18.0	17.8	17.7	17.6
21.69	14.39	19.8	19.3	18.9	18.6	18.4	18.1	18.0	17.8	17.7	17.6
21.69	14.39	19.8	19.3	18.9	18.6	18.4	18.1	18.0	17.8	17.7	17.6
22.19	14.08	19.9	19.4	19.0	18.7	18.4	18.2	18.0	17.9	17.8	17.7
22.20	14.07	19.9	19.4	19.0	18.7	18.4	18.2	18.0	17.9	17.8	17.7
22.40	13.95	19.9	19.4	19.0	18.7	18.4	18.2	18.0	17.9	17.8	17.7
22.69	13.77	19.9	19.4	19.0	18.7	18.4	18.2	18.0	17.9	17.8	17.7
22.80	13.70	19.9	19.4	19.0	18.7	18.4	18.2	18.0	17.9	17.8	17.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-39. Camp 61 Flow* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	19.9	19.4	19.0	18.7	18.5	18.3	18.1	17.9	17.8	17.7
23.30	13.39	19.9	19.4	19.0	18.7	18.5	18.3	18.1	18.0	17.8	17.7
23.69	13.14	19.9	19.5	19.1	18.8	18.5	18.3	18.1	18.0	17.9	17.8
24.05	12.92	19.9	19.5	19.1	18.8	18.5	18.3	18.2	18.0	17.9	17.8
24.19	12.83	19.9	19.5	19.1	18.8	18.5	18.3	18.2	18.0	17.9	17.8
24.50	12.64	19.9	19.5	19.1	18.8	18.6	18.4	18.2	18.0	17.9	17.8
24.69	12.52	19.9	19.5	19.1	18.8	18.6	18.4	18.2	18.0	17.9	17.8
24.70	12.52	19.9	19.5	19.1	18.8	18.6	18.4	18.2	18.0	17.9	17.8
25.05	12.30	20.0	19.5	19.2	18.9	18.6	18.4	18.2	18.1	18.0	17.9
25.19	12.21	20.0	19.5	19.2	18.9	18.6	18.4	18.2	18.1	18.0	17.9
25.69	11.90	20.0	19.5	19.2	18.9	18.6	18.4	18.2	18.1	18.0	17.9
25.85	11.80	20.0	19.5	19.2	18.9	18.6	18.4	18.2	18.1	18.0	17.9
26.19	11.59	20.0	19.5	19.2	18.9	18.6	18.4	18.3	18.1	18.0	17.9
26.69	11.28	20.0	19.5	19.2	18.9	18.7	18.5	18.3	18.1	18.0	17.9
27.19	10.97	20.0	19.6	19.2	18.9	18.7	18.5	18.3	18.2	18.1	18.0
27.20	10.96	20.0	19.6	19.2	18.9	18.7	18.5	18.3	18.2	18.1	18.0
27.45	10.81	20.0	19.6	19.2	18.9	18.7	18.5	18.3	18.2	18.1	18.0
27.69	10.66	20.0	19.6	19.3	19.0	18.8	18.5	18.4	18.2	18.1	18.0
27.90	10.53	20.1	19.6	19.3	19.0	18.8	18.6	18.4	18.3	18.2	18.1
28.19	10.35	20.1	19.7	19.3	19.0	18.8	18.6	18.4	18.3	18.2	18.1
28.69	10.04	20.1	19.7	19.4	19.1	18.8	18.6	18.5	18.3	18.2	18.1
28.75	10.00	20.1	19.7	19.4	19.1	18.8	18.6	18.5	18.3	18.2	18.1
28.98	9.85	20.1	19.7	19.4	19.1	18.9	18.7	18.5	18.4	18.3	18.1
28.99	9.85	19.9	19.6	19.3	19.0	18.8	18.6	18.4	18.3	18.2	18.1
29.19	9.73	20.0	19.6	19.3	19.0	18.8	18.6	18.5	18.3	18.2	18.1
29.25	9.69	20.0	19.6	19.3	19.0	18.8	18.6	18.5	18.3	18.2	18.1
29.69	9.42	20.0	19.6	19.3	19.1	18.9	18.7	18.5	18.4	18.3	18.2
30.00	9.22	20.0	19.6	19.4	19.1	18.9	18.7	18.5	18.4	18.3	18.2
30.19	9.11	20.0	19.7	19.4	19.1	18.9	18.7	18.6	18.5	18.4	18.3
30.30	9.04	20.1	19.7	19.4	19.2	19.0	18.8	18.6	18.5	18.4	18.3
30.69	8.80	20.1	19.7	19.4	19.2	19.0	18.8	18.6	18.5	18.4	18.3
31.19	8.48	20.1	19.8	19.5	19.2	19.0	18.8	18.7	18.5	18.4	18.3
31.24	8.45	20.1	19.8	19.5	19.2	19.0	18.8	18.7	18.5	18.4	18.3
31.30	8.42	20.1	19.8	19.5	19.3	19.0	18.9	18.7	18.6	18.5	18.4
31.74	8.14	20.2	19.8	19.5	19.3	19.1	18.9	18.7	18.6	18.5	18.4
31.95	8.01	20.2	19.8	19.5	19.3	19.1	18.9	18.8	18.6	18.5	18.4
32.24	7.83	20.2	19.8	19.5	19.3	19.1	18.9	18.8	18.6	18.5	18.4
32.25	7.83	20.2	19.8	19.5	19.3	19.1	18.9	18.8	18.6	18.5	18.4
32.74	7.52	20.3	19.9	19.6	19.4	19.2	19.0	18.8	18.7	18.6	18.5
33.24	7.21	20.3	20.0	19.7	19.5	19.2	19.1	18.9	18.8	18.7	18.6
33.30	7.17	20.3	20.0	19.7	19.5	19.3	19.1	18.9	18.8	18.7	18.6
33.45	7.08	20.3	20.0	19.7	19.5	19.3	19.1	18.9	18.8	18.7	18.6
33.74	6.90	20.3	20.0	19.7	19.5	19.3	19.1	19.0	18.8	18.7	18.6
34.20	6.61	20.4	20.0	19.8	19.5	19.3	19.1	19.0	18.9	18.8	18.7
34.24	6.59	20.4	20.0	19.8	19.5	19.3	19.1	19.0	18.9	18.8	18.7
34.55	6.40	20.4	20.0	19.8	19.5	19.3	19.2	19.0	18.9	18.8	18.7
34.69	6.31	20.4	20.1	19.8	19.6	19.4	19.2	19.0	18.9	18.8	18.7
34.69	6.31	20.4	20.0	19.8	19.5	19.3	19.2	19.0	18.9	18.8	18.7
34.74	6.28	20.4	20.1	19.8	19.5	19.4	19.2	19.0	18.9	18.8	18.7
34.85	6.21	20.4	20.1	19.8	19.6	19.4	19.2	19.0	18.9	18.8	18.7
35.24	5.97	20.4	20.1	19.9	19.6	19.4	19.3	19.1	19.0	18.9	18.8
35.50	5.81	20.5	20.2	19.9	19.7	19.5	19.3	19.2	19.0	18.9	18.8
35.74	5.66	20.5	20.2	19.9	19.7	19.5	19.3	19.2	19.1	19.0	18.9
36.24	5.35	20.6	20.3	20.0	19.8	19.6	19.4	19.3	19.1	19.0	19.0
36.50	5.19	20.6	20.3	20.0	19.8	19.6	19.5	19.3	19.2	19.1	19.0
36.74	5.04	20.6	20.3	20.1	19.9	19.7	19.5	19.4	19.2	19.1	19.0
36.93	4.92	20.7	20.4	20.1	19.9	19.7	19.5	19.4	19.3	19.2	19.1
36.93	4.92	20.6	20.3	20.1	19.9	19.7	19.5	19.4	19.3	19.2	19.1
36.95	4.91	20.6	20.3	20.1	19.9	19.7	19.5	19.4	19.3	19.2	19.1
37.24	4.73	20.6	20.3	20.1	19.9	19.7	19.5	19.4	19.3	19.2	19.1
37.60	4.50	20.6	20.4	20.1	19.9	19.7	19.6	19.4	19.3	19.2	19.1
37.74	4.41	20.7	20.4	20.1	20.0	19.8	19.6	19.5	19.4	19.3	19.2
37.80	4.38	20.7	20.4	20.2	20.0	19.8	19.6	19.5	19.4	19.3	19.2
38.10	4.19	20.8	20.5	20.3	20.1	19.9	19.7	19.6	19.5	19.4	19.3
38.24	4.10	20.9	20.6	20.3	20.1	20.0	19.8	19.7	19.5	19.5	19.4
38.25	4.10	20.9	20.6	20.3	20.1	20.0	19.8	19.7	19.6	19.5	19.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-39. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = July, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	20.9	20.6	20.4	20.2	20.0	19.9	19.7	19.6	19.5	19.4
38.74	3.79	20.9	20.6	20.4	20.2	20.0	19.9	19.7	19.6	19.5	19.4
38.95	3.66	20.9	20.6	20.4	20.2	20.0	19.9	19.7	19.6	19.5	19.5
39.15	3.54	20.9	20.6	20.4	20.2	20.0	19.9	19.7	19.6	19.5	19.5
39.24	3.48	20.9	20.7	20.4	20.2	20.0	19.9	19.8	19.6	19.5	19.5
39.65	3.23	21.0	20.7	20.5	20.3	20.1	19.9	19.8	19.7	19.6	19.5
39.74	3.17	21.0	20.7	20.5	20.3	20.1	20.0	19.8	19.7	19.6	19.5
39.95	3.04	21.1	20.8	20.6	20.4	20.2	20.0	19.9	19.8	19.7	19.6
40.24	2.86	21.1	20.9	20.6	20.4	20.2	20.1	20.0	19.8	19.8	19.7
40.55	2.67	21.1	20.9	20.6	20.4	20.3	20.1	20.0	19.9	19.8	19.7
40.70	2.58	21.2	20.9	20.7	20.5	20.3	20.2	20.0	19.9	19.9	19.8
40.74	2.55	21.2	20.9	20.7	20.5	20.3	20.2	20.0	19.9	19.9	19.8
41.15	2.30	21.2	21.0	20.7	20.5	20.4	20.2	20.1	20.0	19.9	19.8
41.24	2.24	21.3	21.0	20.7	20.5	20.4	20.2	20.1	20.0	19.9	19.8
41.74	1.93	21.3	21.0	20.8	20.6	20.4	20.3	20.1	20.0	19.9	19.8
42.10	1.71	21.3	21.0	20.8	20.6	20.4	20.3	20.1	20.0	20.0	19.9
42.24	1.62	21.3	21.0	20.8	20.6	20.4	20.3	20.2	20.1	20.0	19.9
42.25	1.61	21.3	21.0	20.8	20.6	20.5	20.3	20.2	20.1	20.0	19.9
42.74	1.31	21.4	21.1	20.9	20.7	20.5	20.4	20.3	20.2	20.1	20.0
42.75	1.30	21.4	21.2	20.9	20.7	20.6	20.4	20.3	20.2	20.1	20.0
43.24	1.00	21.5	21.3	21.0	20.9	20.7	20.5	20.4	20.3	20.2	20.1
43.35	0.93	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.3	20.3	20.2
43.65	0.74	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.3	20.3	20.2
43.74	0.69	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.3	20.3	20.2
43.90	0.59	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.3	20.3	20.2
44.24	0.38	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.3	20.3	20.2
44.45	0.25	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.3	20.3	20.2
44.74	0.07	21.6	21.4	21.1	21.0	20.8	20.6	20.5	20.4	20.3	20.2
44.80	0.03	21.6	21.4	21.1	21.0	20.8	20.6	20.5	20.4	20.3	20.3
44.85	0.00	21.6	21.4	21.2	21.0	20.8	20.6	20.5	20.4	20.3	20.3
44.98	-0.09	21.7	21.4	21.2	21.0	20.8	20.7	20.5	20.4	20.4	20.3
44.99	-0.09	19.4	19.4	19.4	19.4	19.4	19.4	19.3	19.3	19.3	19.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-40. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
0.00	27.87	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.35	27.65	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
0.50	27.55	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
0.65	27.46	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1.00	27.24	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
1.15	27.15	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1.15	27.15	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1.30	27.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
1.50	26.93	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
1.65	26.84	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
1.85	26.72	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.00	26.62	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
2.05	26.59	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
2.20	26.50	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.50	26.31	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
2.70	26.19	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
2.90	26.06	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
2.92	26.05	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
3.00	26.00	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
3.43	25.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.44	25.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.45	25.72	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.46	25.72	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.50	25.69	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.65	25.60	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
4.00	25.38	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
4.20	25.26	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
4.50	25.07	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
4.75	24.91	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
5.00	24.76	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
5.28	24.58	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
5.38	24.52	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
5.39	24.52	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
5.50	24.45	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
5.55	24.42	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
5.65	24.35	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
6.00	24.14	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
6.05	24.11	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
6.50	23.83	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
6.65	23.73	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
7.00	23.52	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.07	23.47	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.10	23.45	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.15	23.42	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
7.16	23.42	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.50	23.20	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
7.55	23.17	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
7.80	23.02	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
8.00	22.89	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
8.05	22.86	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
8.45	22.61	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
8.50	22.58	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
8.99	22.28	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
9.09	22.22	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
9.09	22.22	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
9.49	21.97	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
9.50	21.96	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
9.99	21.66	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
10.05	21.62	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
10.25	21.50	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
10.49	21.35	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
10.65	21.25	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
10.99	21.04	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
11.10	20.97	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
11.41	20.78	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
11.45	20.75	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-40. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
11.49	20.73	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
11.75	20.56	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
11.99	20.42	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
12.20	20.28	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
12.35	20.19	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
12.48	20.11	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
12.49	20.10	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
12.52	20.08	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
12.53	20.08	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
12.70	19.97	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
12.99	19.79	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
13.25	19.63	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
13.31	19.59	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
13.40	19.54	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
13.40	19.54	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
13.49	19.48	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
13.75	19.32	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
13.99	19.17	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
14.45	18.89	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
14.49	18.86	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
14.80	18.67	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
14.99	18.55	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
15.20	18.42	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
15.49	18.24	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
15.80	18.05	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9
15.99	17.93	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9
16.20	17.80	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
16.34	17.72	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
16.34	17.71	19.9	19.2	18.7	18.4	18.2	18.0	17.8	17.7	17.6	17.5
16.49	17.62	19.9	19.2	18.8	18.4	18.2	18.0	17.9	17.7	17.6	17.6
16.75	17.46	20.0	19.3	18.8	18.5	18.3	18.1	17.9	17.8	17.7	17.6
16.99	17.31	20.0	19.4	18.9	18.6	18.4	18.2	18.0	17.9	17.8	17.8
17.10	17.24	20.0	19.4	19.0	18.6	18.4	18.2	18.1	18.0	17.9	17.8
17.30	17.12	20.1	19.5	19.0	18.7	18.5	18.3	18.2	18.1	18.0	17.9
17.49	17.00	20.1	19.5	19.1	18.8	18.6	18.4	18.3	18.2	18.1	18.0
17.65	16.90	20.1	19.5	19.1	18.8	18.6	18.5	18.4	18.3	18.2	18.1
17.90	16.74	20.2	19.6	19.2	18.9	18.7	18.6	18.5	18.4	18.3	18.2
17.99	16.69	20.2	19.6	19.2	19.0	18.8	18.6	18.5	18.4	18.3	18.3
18.15	16.59	20.3	19.6	19.3	19.0	18.8	18.6	18.5	18.4	18.4	18.3
18.19	16.56	20.3	19.6	19.3	19.0	18.8	18.6	18.5	18.5	18.4	18.3
18.19	16.56	20.3	19.6	19.3	19.0	18.8	18.6	18.5	18.5	18.4	18.3
18.36	16.45	20.2	19.6	19.3	19.0	18.8	18.6	18.5	18.5	18.4	18.3
18.37	16.45	19.7	19.3	19.0	18.8	18.7	18.5	18.5	18.4	18.3	18.3
18.65	16.28	19.7	19.3	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.3
18.69	16.25	19.7	19.3	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.3
18.95	16.09	19.7	19.3	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.3
19.19	15.94	19.6	19.2	19.0	18.8	18.7	18.5	18.5	18.4	18.4	18.3
19.32	15.86	19.6	19.2	19.0	18.8	18.6	18.5	18.5	18.4	18.4	18.3
19.43	15.80	19.5	19.2	19.0	18.8	18.6	18.5	18.5	18.4	18.4	18.3
19.43	15.79	19.4	19.1	18.9	18.7	18.6	18.5	18.4	18.4	18.3	18.3
19.65	15.66	19.4	19.1	18.8	18.7	18.6	18.5	18.4	18.3	18.3	18.3
19.69	15.63	19.4	19.1	18.8	18.7	18.6	18.5	18.4	18.3	18.3	18.3
20.15	15.34	19.3	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.3	18.3
20.19	15.32	19.3	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.3	18.3
20.69	15.01	19.3	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.3	18.3
20.95	14.85	19.2	19.0	18.8	18.7	18.5	18.5	18.4	18.4	18.3	18.3
21.19	14.70	19.2	19.0	18.8	18.6	18.5	18.5	18.4	18.4	18.3	18.3
21.40	14.57	19.2	19.0	18.8	18.6	18.5	18.5	18.4	18.4	18.3	18.3
21.60	14.44	19.2	18.9	18.8	18.6	18.5	18.5	18.4	18.4	18.3	18.3
21.69	14.39	19.2	18.9	18.8	18.6	18.5	18.5	18.4	18.4	18.3	18.3
21.69	14.39	19.2	18.9	18.8	18.6	18.5	18.5	18.4	18.4	18.3	18.3
22.19	14.08	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
22.20	14.07	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
22.40	13.95	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
22.69	13.77	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
22.80	13.70	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam
 ** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-40. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
23.19	13.46	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
23.30	13.39	19.1	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
23.69	13.14	19.0	18.9	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
24.05	12.92	19.0	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.3	18.3
24.19	12.83	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.4	18.3	18.3
24.50	12.64	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.4	18.3	18.3
24.69	12.52	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.4	18.3	18.3
24.70	12.52	19.0	18.8	18.7	18.6	18.5	18.4	18.4	18.4	18.3	18.3
25.05	12.30	19.0	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.3
25.19	12.21	19.0	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.3
25.69	11.90	19.0	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.3
25.85	11.80	19.0	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.3
26.19	11.59	18.9	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.4
26.69	11.28	18.9	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.4
27.19	10.97	18.9	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.4
27.20	10.96	18.9	18.8	18.7	18.6	18.5	18.5	18.4	18.4	18.4	18.4
27.45	10.81	18.9	18.7	18.6	18.6	18.5	18.5	18.4	18.4	18.4	18.4
27.69	10.66	18.9	18.8	18.7	18.6	18.5	18.5	18.5	18.4	18.4	18.4
27.90	10.53	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.4	18.4
28.19	10.35	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.4
28.69	10.04	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.4
28.75	10.00	18.9	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.5
28.98	9.85	18.8	18.8	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.5
28.99	9.85	18.8	18.7	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.5
29.19	9.73	18.8	18.7	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.5
29.25	9.69	18.8	18.7	18.7	18.6	18.6	18.5	18.5	18.5	18.5	18.5
29.69	9.42	18.8	18.7	18.6	18.6	18.6	18.5	18.5	18.5	18.5	18.5
30.00	9.22	18.8	18.7	18.6	18.6	18.6	18.5	18.5	18.5	18.5	18.5
30.19	9.11	18.8	18.7	18.7	18.6	18.6	18.6	18.5	18.5	18.5	18.5
30.30	9.04	18.8	18.7	18.7	18.6	18.6	18.6	18.6	18.5	18.5	18.5
30.69	8.80	18.8	18.7	18.7	18.6	18.6	18.6	18.5	18.5	18.5	18.5
31.19	8.48	18.8	18.7	18.6	18.6	18.6	18.6	18.5	18.5	18.5	18.5
31.24	8.45	18.7	18.7	18.6	18.6	18.6	18.6	18.5	18.5	18.5	18.5
31.30	8.42	18.8	18.7	18.7	18.6	18.6	18.6	18.6	18.6	18.5	18.5
31.74	8.14	18.8	18.7	18.7	18.6	18.6	18.6	18.6	18.6	18.5	18.5
31.95	8.01	18.7	18.7	18.7	18.6	18.6	18.6	18.6	18.6	18.5	18.5
32.24	7.83	18.7	18.7	18.7	18.6	18.6	18.6	18.6	18.6	18.5	18.5
32.25	7.83	18.7	18.7	18.7	18.6	18.6	18.6	18.6	18.6	18.5	18.6
32.74	7.52	18.8	18.8	18.7	18.7	18.7	18.6	18.6	18.6	18.6	18.6
33.24	7.21	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
33.30	7.17	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
33.45	7.08	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
33.74	6.90	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
34.20	6.61	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
34.24	6.59	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7	18.7	18.7
34.55	6.40	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.7
34.69	6.31	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7	18.7
34.69	6.31	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7	18.7
34.74	6.28	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7	18.7
34.85	6.21	18.9	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
35.24	5.97	18.9	18.9	18.9	18.8	18.8	18.8	18.8	18.8	18.8	18.8
35.50	5.81	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.8	18.8
35.74	5.66	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
36.24	5.35	19.0	19.0	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
36.50	5.19	19.0	19.0	19.0	18.9	18.9	18.9	18.9	18.9	18.9	18.9
36.74	5.04	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
36.93	4.92	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
36.93	4.92	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
36.95	4.91	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
37.24	4.73	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
37.60	4.50	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
37.74	4.41	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.1	19.1	19.1
37.80	4.38	19.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
38.10	4.19	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.2	19.2
38.24	4.10	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.3
38.25	4.10	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-40. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Camp 61 Creek; Month = August, Meteorology = 20 Percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)											
Dist (km)*	Dist (RM)**	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
38.60	3.88	19.2	19.2	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.3
38.74	3.79	19.2	19.2	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.3
38.95	3.66	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.3	19.3	19.3
39.15	3.54	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.3	19.3	19.3
39.24	3.48	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.3	19.3	19.3
39.65	3.23	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
39.74	3.17	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.4	19.4
39.95	3.04	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
40.24	2.86	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.5
40.55	2.67	19.5	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.5	19.5
40.70	2.58	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
40.74	2.55	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
41.15	2.30	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.6
41.24	2.24	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.6
41.74	1.93	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.6
42.10	1.71	19.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.6
42.24	1.62	19.7	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.6	19.6
42.25	1.61	19.7	19.5	19.5	19.5	19.5	19.5	19.5	19.6	19.6	19.6
42.74	1.31	19.8	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.7	19.7
42.75	1.30	19.8	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.7	19.7
43.24	1.00	19.9	19.7	19.7	19.7	19.7	19.7	19.7	19.8	19.8	19.8
43.35	0.93	19.9	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
43.65	0.74	19.9	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
43.74	0.69	19.9	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
43.90	0.59	19.9	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
44.24	0.38	19.9	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
44.45	0.25	19.9	19.7	19.7	19.7	19.7	19.8	19.8	19.8	19.8	19.8
44.74	0.07	20.1	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.9
44.80	0.03	20.1	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.9	19.9
44.85	0.00	20.1	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.9	19.9
44.98	-0.09	20.1	19.8	19.8	19.8	19.8	19.8	19.8	19.9	19.9	19.9
44.99	-0.09	19.5	19.5	19.5	19.5	19.5	19.5	19.6	19.6	19.6	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

* Downstream distances relative to Florence Dam

** SFSJR RM relative to confluence with San Joaquin River

Table CAWG 5 Appendix F-41. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Mean Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
15.0	79.8	79.8	78.9	76.3	73.0	69.1	66.4	62.5	58.0	55.2
16.0	74.3	68.2	60.9	53.2	47.4	42.5	39.1	35.8	32.5	31.3
17.0	52.5	38.4	32.5	26.9	22.9	20.2	16.9	14.7	11.3	10.2
18.0	21.1	15.3	11.2	6.4	3.6	0.0	0.0	0.0	0.0	0.0
19.0	6.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-42. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Mean Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
15.0	77.5	77.5	76.0	73.8	69.0	65.9	63.2	60.1	56.4	54.5
16.0	61.0	51.7	44.0	39.5	35.1	32.9	29.9	28.4	27.3	25.6
17.0	25.0	20.6	16.4	15.0	11.7	9.9	6.4	5.0	3.9	1.2
18.0	8.3	5.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-43. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Maximum Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-44. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Maximum Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-45. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Mean Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
15.0	89.2	89.2	89.2	89.2	88.3	87.1	85.8	84.8	82.9	80.8
16.0	81.9	81.9	81.0	77.3	71.8	69.0	65.7	60.9	57.3	54.4
17.0	77.0	71.7	62.7	54.1	48.4	45.2	40.8	37.4	34.6	32.4
18.0	58.5	45.5	37.2	31.4	27.7	24.2	20.7	18.7	15.3	13.8
19.0	25.6	18.9	13.0	9.4	5.0	0.6	0.0	0.0	0.0	0.0
20.0	11.2	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-46. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Mean Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
15.0	88.0	88.0	88.0	88.0	88.0	88.0	87.1	86.4	85.9	85.5
16.0	80.8	80.8	79.9	76.8	73.5	71.2	69.0	66.5	62.8	59.8
17.0	76.1	66.0	57.6	50.5	46.5	43.2	39.9	37.7	35.2	33.7
18.0	41.2	34.7	28.9	25.2	22.3	19.3	17.5	15.8	12.4	11.3
19.0	16.0	11.7	8.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-47. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Maximum Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
21.0	18.7	15.2	11.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

Table CAWG 5 Appendix F-48. Camp 61 Flow Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures										
Daily Maximum Exceedance Temperature (°C)	10 cfs Release	20 cfs Release	30 cfs Release	40 cfs Release	50 cfs Release	60 cfs Release	70 cfs Release	80 cfs Release	90 cfs Release	100 cfs Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures. Normal Bear flows were the flows observed during 2000 (Above Normal simulation). Dry Bear flows were 10 cfs for July and 5 cfs for August. Mono Creek flows were 13 cfs for Normal conditions and 9 cfs for Dry conditions.

APPENDIX G
INFLOWS TO REDINGER LAKE

Table CAWG 5 Appendix G-1. Redinger Lake Daily Mean Inflow Temperatures (°C); Meteorology = Average, and Hydrology = Average (Above Normal).

June		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																			
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																			
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400
20	3250	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
50	2680	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
80	1550	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.3	12.3	12.3	12.3	12.3	12.3

July		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																			
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																			
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400
20	3240	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
50	1910	13.6	13.6	13.6	13.6	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.8
80	1420	13.6	13.6	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.8	13.8	13.8	13.8

August		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																			
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																			
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400
20	2370	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
50	1720	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.4	17.4
80	1180	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.4	17.4	17.4

Table CAWG 5 Appendix G-1. Redinger Lake Daily Mean Inflow Temperatures (°C); Meteorology = Average, and Hydrology = Average (Above Normal) (continued).

September		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																			
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																			
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400
20	2140	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1
50	1310	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1
80	880	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.1	18.1	18.1	18.2

¹ Based on Big Creek Powerhouse No 3 Near Shaver Lake gage (USGS gage 11241800)

Table CAWG 5 Appendix G-2. Redinger Lake Daily Mean Inflow Temperatures (°C); Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

May		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																			
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																			
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400
20	3320	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
50	2930	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.5
80	1860	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5

June		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																				
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																				
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400	
20	3250	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	12.0	12.0
50	2680	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
80	1550	12.0	11.9	11.9	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.1	12.1	12.1

July		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																			
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																			
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400
20	3240	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8
50	1910	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
80	1420	14.8	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.9	14.9	14.9

Table CAWG 5 Appendix G-2. Redinger Lake Daily Mean Inflow Temperatures (°C); Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year (continued).

August		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																				
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																				
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400	
20	2370	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
50	1720	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
80	1180	17.3	17.2	17.2	17.2	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.4	17.4	17.4	17.4

September		Temperature (°C) Resulting from Indicated Flow Release at Dam 6																				
Big Creek Powerhouse 3 Flow Exceedance ¹		Flow (cfs)																				
Percent Exceedance	Flow (cfs)	2.5	3.0	5.0	10	15	20	25	30	35	40	45	50	60	70	80	90	100	200	300	400	
20	2140	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.3	20.3	20.3	20.3	20.3	20.3	20.3
50	1310	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
80	880	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.4

¹ Based on Big Creek Powerhouse No 3 Near Shaver Lake gage (USGS gage 11241800)

APPENDIX H
RECALIBRATION MEMOS

ENTRIX

Excellence in Environmental Consulting Since 1984

MEMORANDUM

590 Ygnacio Valley Rd., Suite 200
Walnut Creek, CA 94596
(925) 935-9920

To: CAWG
From: Ken Voos
Date: November 8, 2004
Re: Analysis of validation statistics in the SFSJR and Mammoth reach of the SJR

At the October 12, 2004 CAWG meeting, I responded to comments on the CAWG 5 Stream Temperature Modeling Draft Technical Report. Some of those comments expressed concern for the validation statistics presented for locations within the SFSJR reaches and the Mammoth reach of SJR. In response to that issue, I discussed the relative meaning of the validation statistics. It was decided that I should investigate the potential causes of the higher temperature prediction biases.

At the October 28, 2004 CAWG meeting I presented preliminary results of that investigation. I had looked into the data used in the model validation. I looked specifically for potential violations of three of the assumptions of the model. These potential violations are:

1. Rainfall is not simulated.
2. Air temperature varies sinusoidally throughout the day; in other words, the air temperature starts from a low early in the morning and reaches a peak value early in the afternoon.
3. Flows are relatively steady throughout the day.

Days used in the validation that violated these assumptions were identified (Table 1). This table demonstrates that some days were rejected for more than one model assumption violation (model assumption violations are identified as "Precipitation", "Atypical Tair Pattern", and "Large Flow Variation" in this table; these designations correspond to the list of model assumption violations Nos. 1 through 3 above). The "Precipitation" days were identified as any day with more than a trace of rainfall as measured at the Florence meteorological data recorder (some of the Florence data were filled by developing a correlation with the Huntington precipitation data).

The days of "Atypical Tair Pattern" were determined with the following procedure: 1) hourly average air temperatures were calculated for June, July, August, and September (at the Florence site and at the Huntington site) – this demonstrated

that, on average the air temperature varies approximately sinusoidally from a minimum value at about 6AM to a maximum value near 3PM; 2) the monthly curves were normalized to the mean, minimum, and maximum for each month to arrive at a single curve varying from -1 to 1; 3) the mean, minimum, and maximum air temperatures were calculated for each day in the validation period; 4) a “typical” air temperature pattern was calculated for each day using the statistics of (3) and the normal curve of (2); 5) the standard deviation between the actual day’s pattern and the “typical” pattern was calculated from hourly data and calculated “typical” air temperatures; and finally 6) those days with standard deviations greater than 0.075°C were rejected.

The days of “Large Flow Variation” were determined by analyzing the flows observed within the reach and, in the case of the SFSJR reaches, by analyzing the flows recorded at Bear Creek upstream of the diversion. The Bear Creek flows were used as an indicator of high flow variation in the tributaries contributing to the SFSJR reaches downstream of the USGS gage below Hooper Creek. Days of “Large Flow Variation” became evident by plotting the flows over time with the validation temperature bias over time. The coefficient of variation (CV) over each day was used as a measure of the days flow variation (CV is equal to the sample standard deviation divided by the sample mean). Days that had flow CVs greater than approximately 0.25 were rejected. Generally the day after these large CV days also were rejected. This was because a large mean daily stream temperature bias was generally observed on the day of large flow CV and a large maximum daily stream temperature bias was often observed on the day after the large flow CV.

At the October 28, 2004 CAWG meeting, I demonstrated how the statistics improved as days that violated these assumptions were removed from the validation data set. I also indicated that, after further consideration, it appeared that the flow variation analysis that was performed should have been done on an hourly rather than a 15-minute interval basis. It was agreed that I look at the flow variation on an hourly basis and that I write up the results of this validation statistics analysis in this memo. Note that the rejection of these suspect days was done for each of the reaches identified by stakeholders as having issues of concern. The rejection of these days (referred to as “filtering”, below) changes the validation statistics, but does not change the model itself or its calibration.

Filtering out of the days that tend to violate the model’s assumptions generally improve the model validation statistics. There is, of course, a loss in the number of data points included in the validation set. Table 2, below, shows that the mean bias (both for the mean daily simulation and maximum daily simulation) did not change much for each reach, sometimes improving (tending toward zero) and sometimes becoming slightly worse but always within our original specifications. The mean bias is the average of the individual bias values over the days in the validation data set and the locations (validation sites) included in the reach. Measures of dispersion (probable difference and largest under- and over-predictions) improved or remained the same for all cases.

cc:

Table 1. List of Rejected Validation Days with Reason(s) Identified.

Reach	Validation Date	Precipitation	Atypical Tair Pattern	Large Flow Variation
Mammoth Pool	08-Jun-01		X	
Mammoth Pool	24-Jun-01		X	
Mammoth Pool	28-Jun-01			X
Mammoth Pool	04-Jul-01		X	
Mammoth Pool	06-Jul-01		X	
Mammoth Pool	03-Sep-01		X	
Mammoth Pool	11-Sep-01		X	
Mammoth Pool	25-Sep-01		X	X
Mammoth Pool	27-Sep-01		X	X
SFSJR Florence to ds Bear Creek	27-Jun-01		X	
SFSJR Florence to ds Bear Creek	03-Jul-01	X	X	
SFSJR Florence to ds Bear Creek	05-Jul-01	X		
SFSJR Florence to ds Bear Creek	07-Jul-01	X	X	X
SFSJR Florence to ds Bear Creek	09-Jul-01		X	X
SFSJR Florence to ds Bear Creek	02-Aug-01			X
SFSJR Florence to ds Bear Creek	04-Aug-01			X
SFSJR Florence to ds Bear Creek	06-Aug-01			X
SFSJR Florence to ds Bear Creek	08-Aug-01			X
SFSJR Florence to ds Bear Creek	10-Aug-01			X
SFSJR Florence to ds Bear Creek	20-Aug-01		X	
SFSJR Florence to ds Bear Creek	03-Sep-01		X	
SFSJR Florence to ds Bear Creek	11-Sep-01		X	
SFSJR Florence to ds Bear Creek	25-Sep-01		X	
SFSJR Florence to ds Bear Creek	27-Sep-01		X	
SFSJR ds Bear Creek to ds Mono Creek	27-Jun-01		X	
SFSJR ds Bear Creek to ds Mono Creek	29-Jun-01			X
SFSJR ds Bear Creek to ds Mono Creek	01-Jul-01			X
SFSJR ds Bear Creek to ds Mono Creek	03-Jul-01	X	X	
SFSJR ds Bear Creek to ds Mono Creek	05-Jul-01	X		
SFSJR ds Bear Creek to ds Mono Creek	07-Jul-01	X	X	X
SFSJR ds Bear Creek to ds Mono Creek	09-Jul-01		X	
SFSJR ds Bear Creek to ds Mono Creek	06-Aug-01			X
SFSJR ds Bear Creek to ds Mono Creek	08-Aug-01			X
SFSJR ds Bear Creek to ds Mono Creek	10-Aug-01			X
SFSJR ds Bear Creek to ds Mono Creek	20-Aug-01		X	
SFSJR ds Bear Creek to ds Mono Creek	03-Sep-01		X	
SFSJR ds Bear Creek to ds Mono Creek	11-Sep-01		X	
SFSJR ds Bear Creek to ds Mono Creek	25-Sep-01		X	
SFSJR ds Bear Creek to ds Mono Creek	27-Sep-01		X	

Table 2. Validation Statistics for Daily Mean and Maximum Temperatures by Reach Showing the Effects of Filtering of Conditions that Violate Model Assumptions.

Reach	Simulation	Data Points	Mean Bias (°C)	Probable Difference (°C)	Largest Under-prediction (°C)	Largest Over-prediction (°C)
SFSJR Reach 1	Mean Daily Before Filtering	245	0.09	0.59	-3.02	3.36
	Mean Daily After Filtering	170	0.02	0.33	-2.13	2.01
	Maximum Daily Before Filtering	245	0.48	0.94	-1.75	4.53
	Maximum Daily After Filtering	170	0.29	0.84	-1.75	3.69
SFSJR Reach 2	Mean Daily Before Filtering	294	-0.03	0.35	-1.62	1.59
	Mean Daily After Filtering	204	-0.03	0.33	-1.23	1.24
	Maximum Daily Before Filtering	294	0.05	0.46	-2.08	1.86
	Maximum Daily After Filtering	204	0.04	0.39	-1.83	1.30
SJR Mammoth Reach	Mean Daily Before Filtering	150	-0.05	0.48	-2.67	1.57
	Mean Daily After Filtering	123	0.08	0.33	-1.59	1.57
	Maximum Daily Before Filtering	150	0.00	0.66	-2.51	2.06
	Maximum Daily After Filtering	123	0.04	0.63	-2.07	2.06

Review of Filtering of Model Assumption Violations

Presented to

CAWG

November 10, 2004

Rejected Validation Days - SFSJR1

Reach	Validation Date	Precipitation	Atypical Tair Pattern	Large Flow Variation
SFSJR Florence to ds Bear Creek	27-Jun-01		X	
	03-Jul-01	X	X	
	05-Jul-01	X		
	07-Jul-01	X	X	X
	09-Jul-01		X	X
	02-Aug-01			X
	04-Aug-01			X
	06-Aug-01			X
	08-Aug-01			X
	10-Aug-01			X
	20-Aug-01			X
	03-Sep-01			X
	11-Sep-01			X
	25-Sep-01			X
	27-Sep-01			X

Rejected Validation Days - SFSJR2

Reach	Validation Date	Precipitation	Atypical Tair Pattern	Large Flow Variation
SFSJR ds Bear Creek to ds Mono Creek	27-Jun-01		X	
	29-Jun-01			X
	01-Jul-01			X
	03-Jul-01	X	X	
	05-Jul-01	X		
	07-Jul-01	X	X	X
	09-Jul-01		X	
	06-Aug-01			X
	08-Aug-01			X
	10-Aug-01			X
	20-Aug-01			X
	03-Sep-01			X
	11-Sep-01			X
	25-Sep-01			X
27-Sep-01			X	

Rejected Validation Days - Mammoth Pool

Reach	Validation Date	Precipitation	Atypical Tair Pattern	Large Flow Variation
Mammoth Pool	08-Jun-01		X	
	24-Jun-01		X	
	28-Jun-01			X
	04-Jul-01		X	
	06-Jul-01		X	
	03-Sep-01		X	
	11-Sep-01		X	
	25-Sep-01		X	X
	27-Sep-01		X	X

Comparison of Original Statistics to Filtered Validation Statistics

Reach	Simulation	Data points	Mean Bias (°C)	Probable Difference (°C)	Largest Under-prediction (°C)	Largest Over-prediction (°C)
SFSJR reach 1						
	Mean Daily Before Filtering	245	0.09	0.59	-3.02	3.36
	Mean Daily After Filtering	170	0.02	0.33	-2.13	2.01
	Maximum Daily Before Filtering	245	0.48	0.94	-1.75	4.53
	Maximum Daily After Filtering	170	0.29	0.84	-1.75	3.69
SFSJR reach 2						
	Mean Daily Before Filtering	294	-0.03	0.35	-1.62	1.59
	Mean Daily After Filtering	204	-0.03	0.33	-1.23	1.24
	Maximum Daily Before Filtering	294	0.05	0.46	-2.08	1.86
	Maximum Daily After Filtering	204	0.04	0.39	-1.83	1.30
SJR Mammoth reach						
	Mean Daily Before Filtering	150	-0.05	0.48	-2.67	1.57
	Mean Daily After Filtering	123	0.08	0.33	-1.59	1.57
	Maximum Daily Before Filtering	150	0.00	0.66	-2.51	2.06
	Maximum Daily After Filtering	123	0.04	0.63	-2.07	2.06

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MEMORANDUM

590 Ygnacio Valley Rd., Suite 200
Walnut Creek, CA 94596
(925) 935-9920

To: Wayne Lifton
From: Ken Voos
Date: December 14, 2004
Re: Temperature Model Calibration Status Update

We have recalibrated the SFSJR Reach 1, SFSJR Reach 2, and SJR Mammoth Pool models. We have more to do for the SFSJR Reach 2 model, but statistics for this model are included in this memo.

We note the following from our recalibration efforts:

- 1 The basic reason for recalibration was to remove days in the calibration/validation data set that had either a) rainfall, or b) unsteady flows. These types of events are not simulated by the SNTMP model. By removing these from calibration/validation we would improve the fit of the overall model by concentrating on working with days that can be accurately simulated by SNTMP.
 - A total of seven days were removed from the initial SFSJR 1 Reach model validation set. These included days with rainfall (near 7/4/2001) and days with unsteady flows.
 - A total of seven days were removed from the initial SFSJR 2 Reach model validation set. These included days with rainfall (near 7/4/2001) and days with unsteady flows.
 - Ten days were removed from the initial Mammoth Pool Reach model validation set. These included days with rainfall (near 7/4/2001) and days with unsteady flows.
- 2 Removing these days improved our ability to spot trends in the simulation bias. The models have been improved with respect to the amount of dispersion. The amount of dispersion is indicated by the probable difference, maximum over prediction, and maximum under prediction statistics (see attached table).

3 SFSJR Reach 1

- The mean daily temperature bias ranged from -3.0°C to 3.4°C before recalibration. This range was reduced to -1.9°C to 1.5°C after recalibration.
- The maximum daily temperature bias ranged from -2.0°C to 4.1°C before recalibration. This range was reduced to -1.3°C to 1.9°C after recalibration.

4 SFSJR Reach 2

- The mean daily temperature bias ranged from -1.6°C to 1.6°C before recalibration. This range was reduced to -0.9°C to 1.0°C after recalibration.
- The maximum daily temperature bias ranged from -2.1°C to 1.9°C before recalibration. This range was -2.2°C to 1.8°C after recalibration.
- Additional work needs to be completed on the maximum daily temperature model.

5 Mammoth Pool Reach

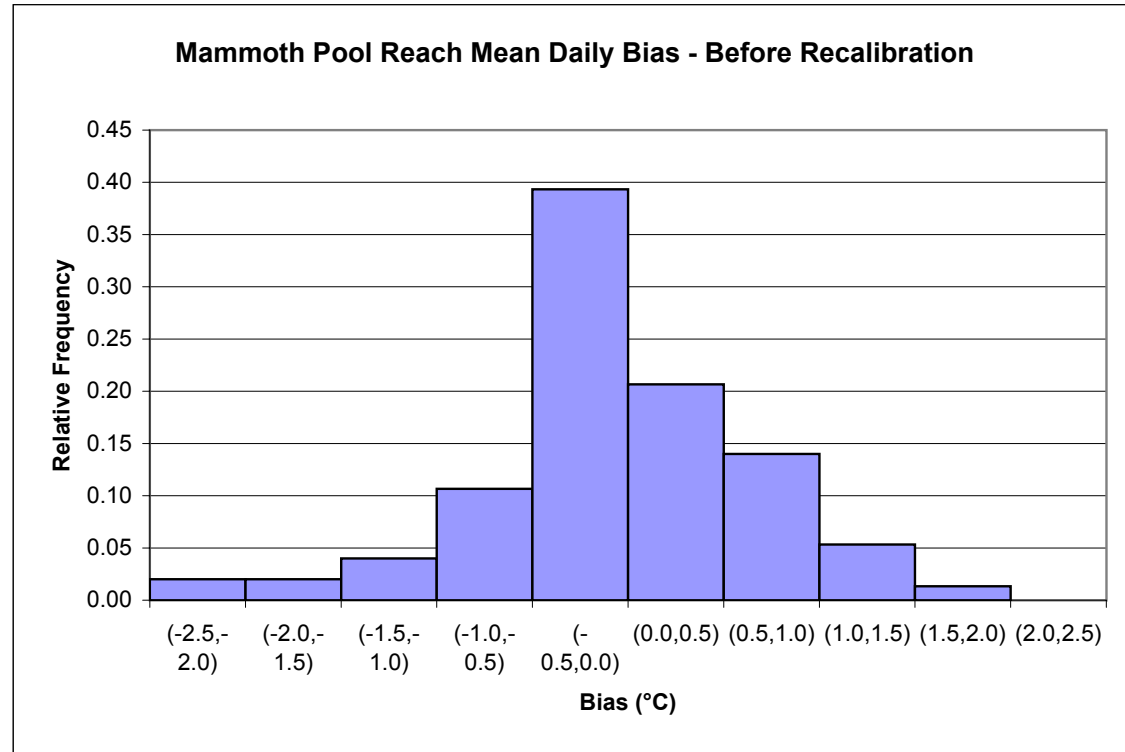
- The mean daily temperature bias ranged from -2.7°C to 1.6°C before recalibration. This range was reduced to -1.8°C to 1.3°C after recalibration.
- The maximum daily temperature bias ranged from -2.5°C to 2.1°C before recalibration. This range was reduced to -1.7°C to 1.9°C after recalibration.

- 6 We feel that the sections of SFSJR Reach 2: upstream of Camp 61 Creek and upstream of Mono Creek could benefit from additional effort. We believe that further improvement in prediction errors can be obtained with this effort.

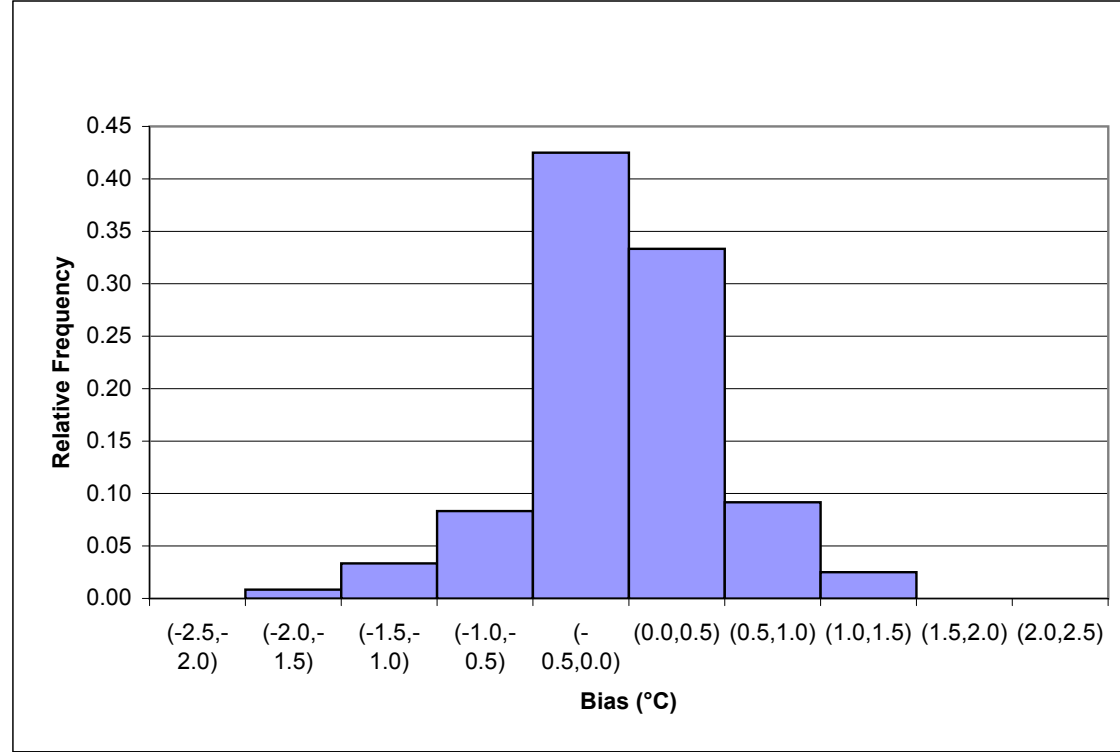
New Validation after removing rainfall events and days with unsteady flow

	Temperature Statistics Before					Temperature Statistics After				
	Count	Bias (°C)	Probable Difference (°C)	Maximum Over-prediction (°C)	Maximum Under-prediction (°C)	Count	Bias (°C)	Probable Difference (°C)	Maximum Over-prediction (°C)	Maximum Under-prediction (°C)
Mammoth Pool										
Mean Daily	150	-0.05	0.48	1.57	2.67	120	-0.02	0.34	1.34	1.85
Maximum Daily	150	0.00	0.66	2.06	2.52	120	0.00	0.47	1.92	1.66
SFSJR Reach 1										
Mean Daily	245	0.09	0.60	3.36	3.02	200	0.05	0.34	1.48	1.94
Maximum Daily	245	0.07	0.91	4.06	1.99	200	-0.06	0.44	1.87	1.30
SFSJR Reach 2										
Mean Daily	294	-0.04	0.36	1.59	1.62	282	0.02	0.24	1.02	0.89
Maximum Daily	294	0.06	0.49	1.88	2.06	282	-0.01	0.44	1.77	2.16

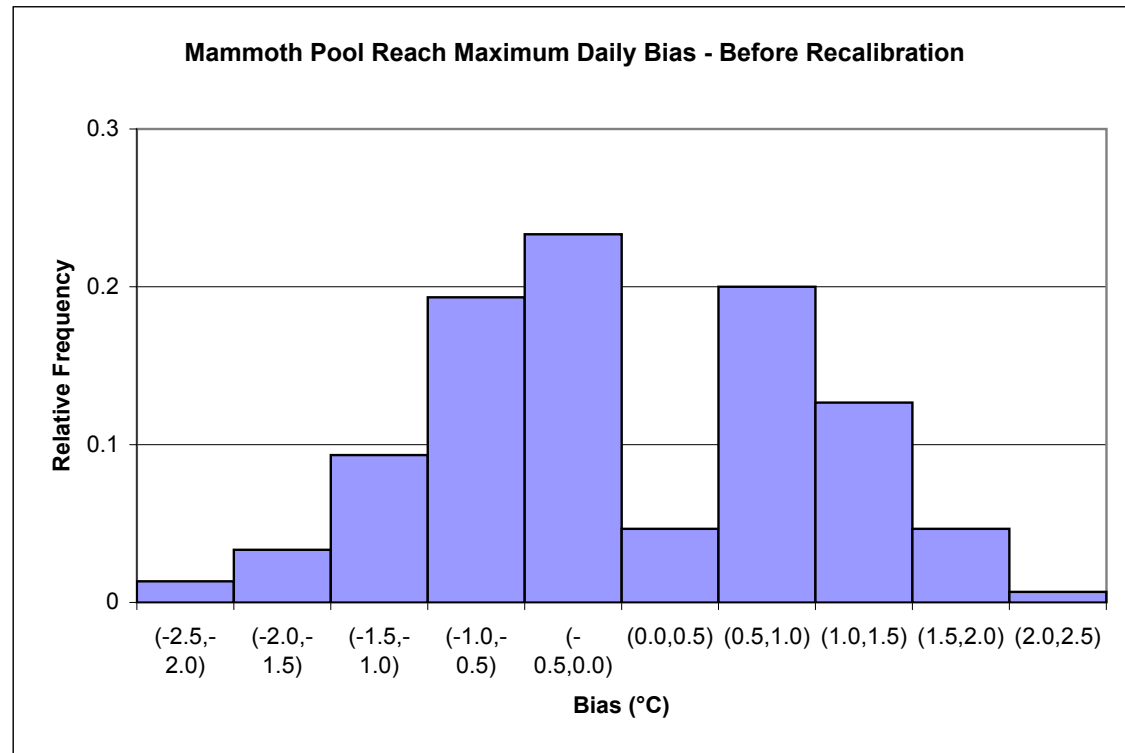
Mammoth Pool
Mean Daily Before



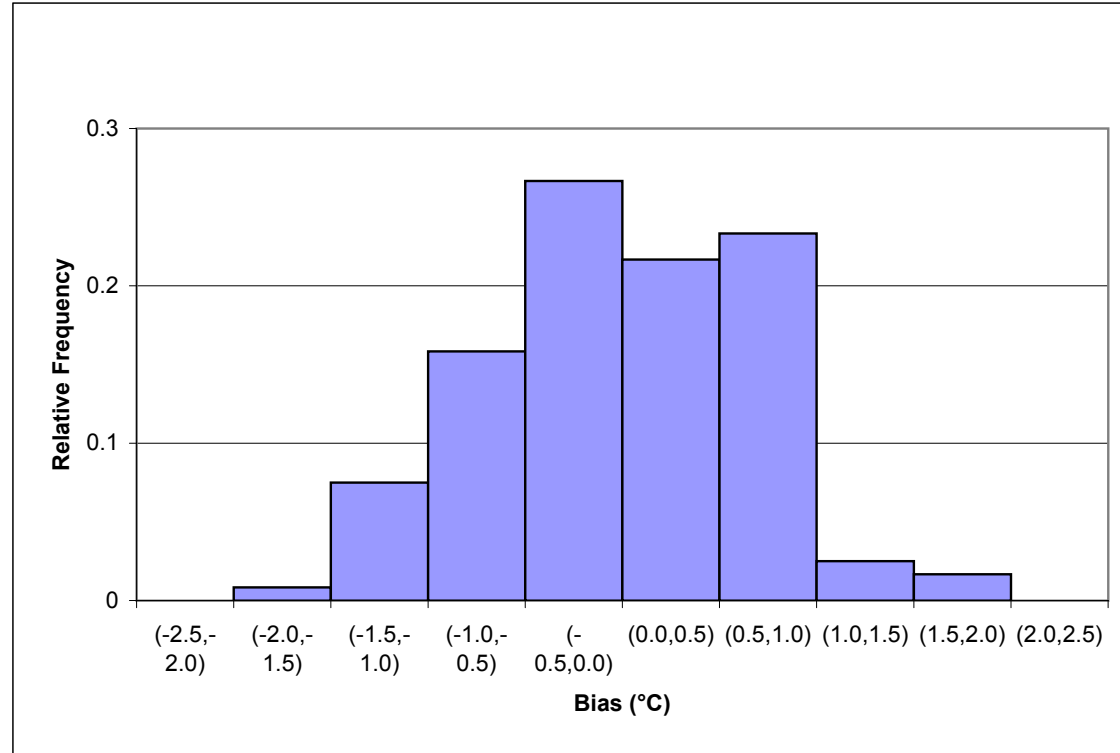
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Mammoth Pool
Maximum Daily Before

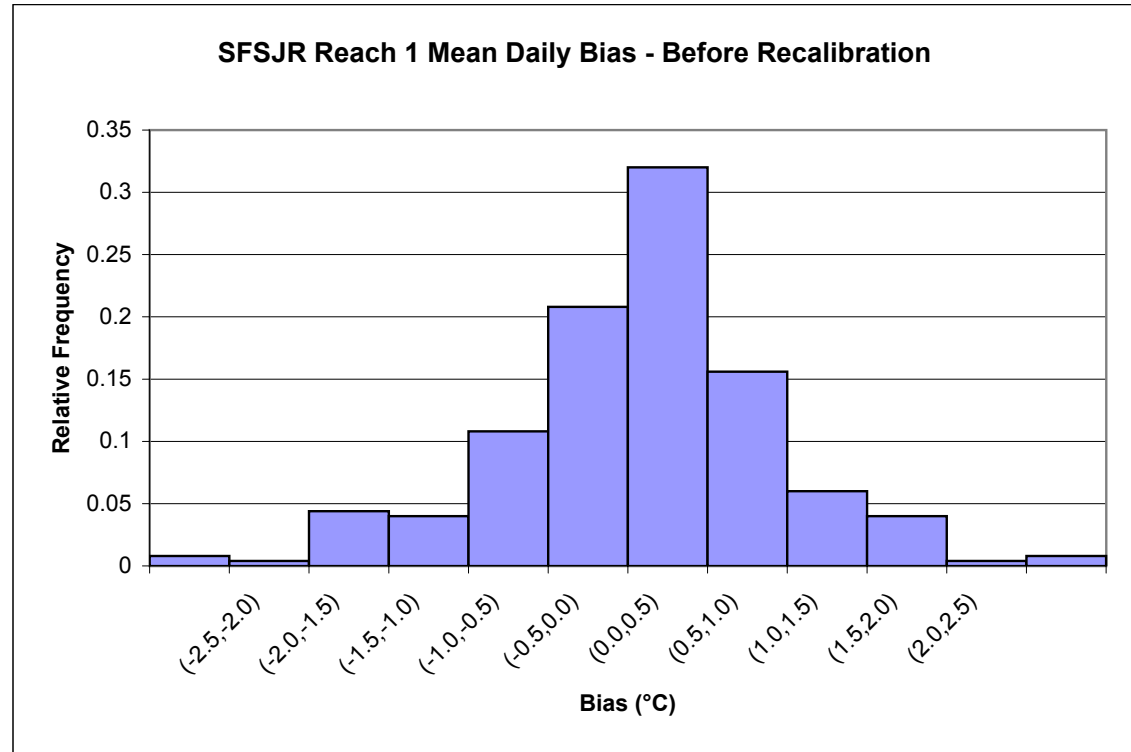


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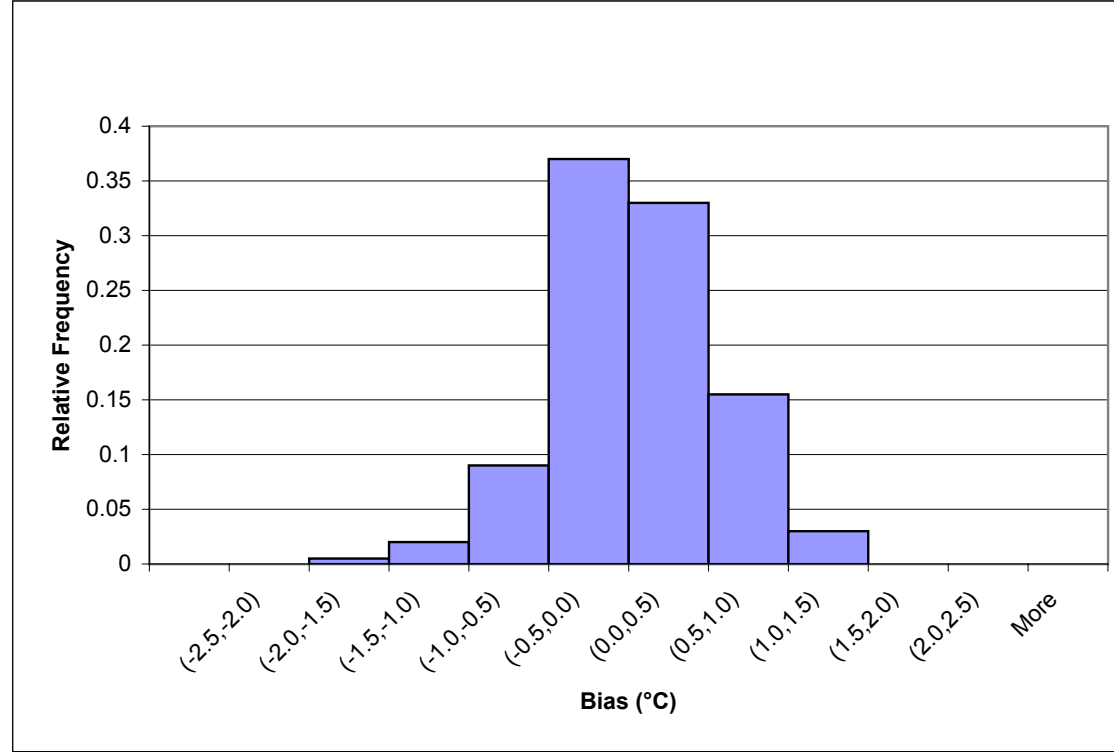


SFSJR1

Mean Daily Before

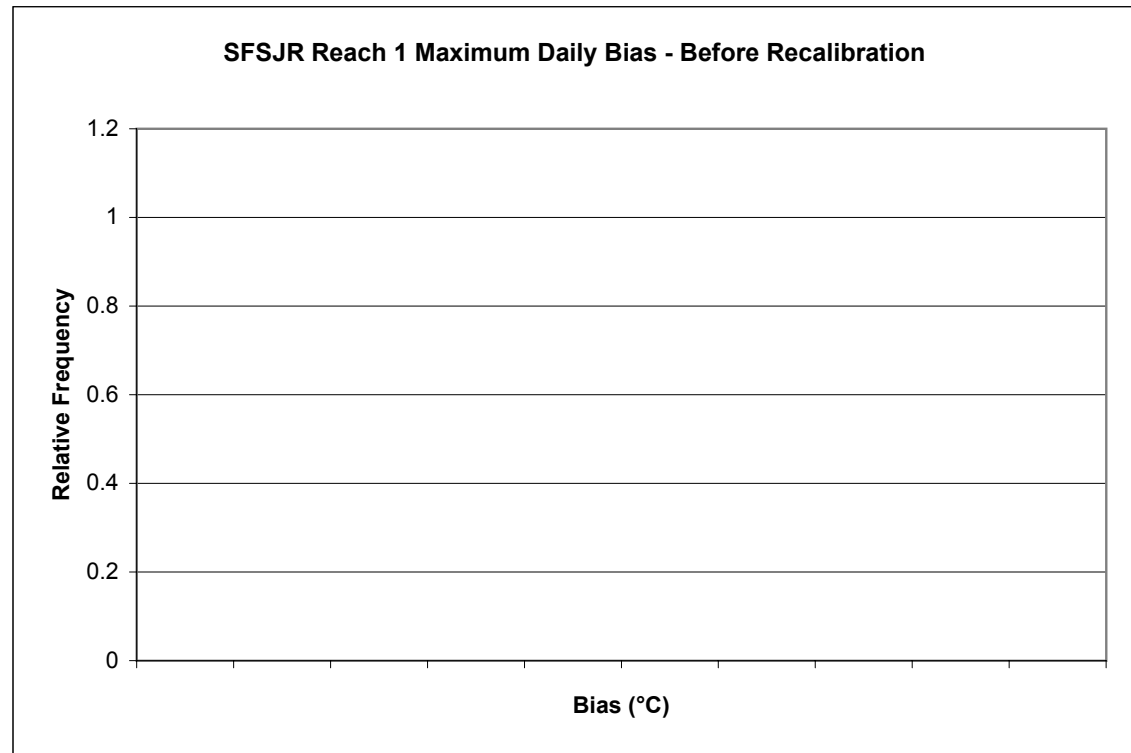


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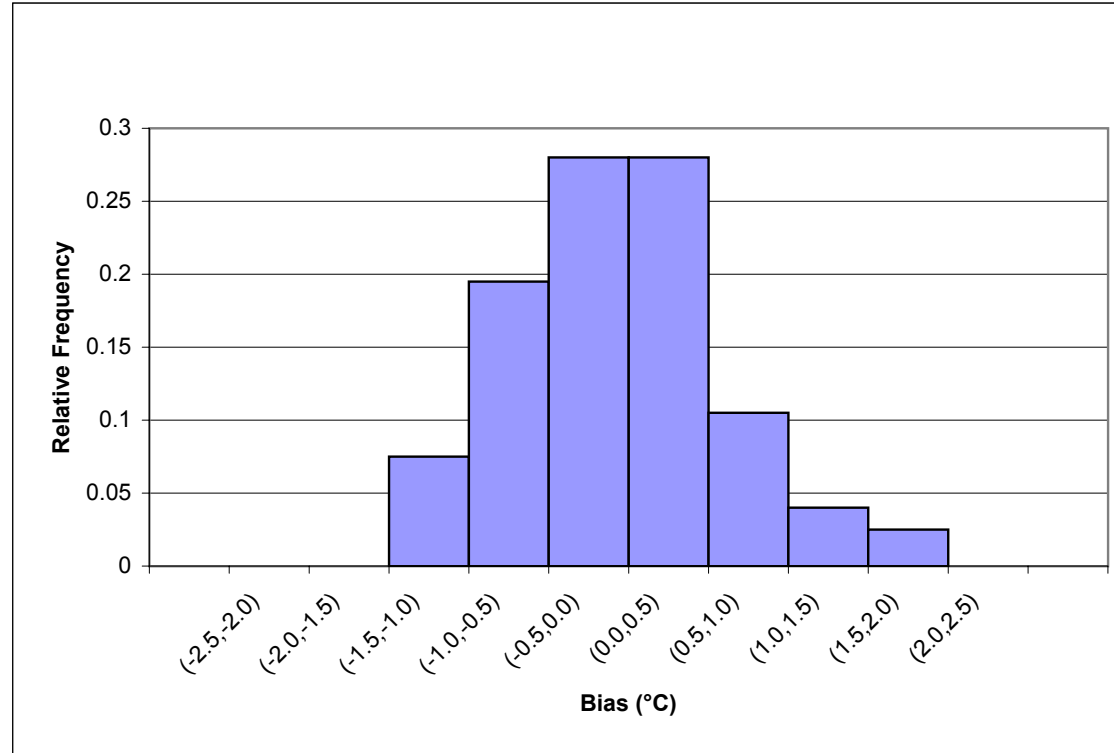


SFSJR1

Maximum Daily Before

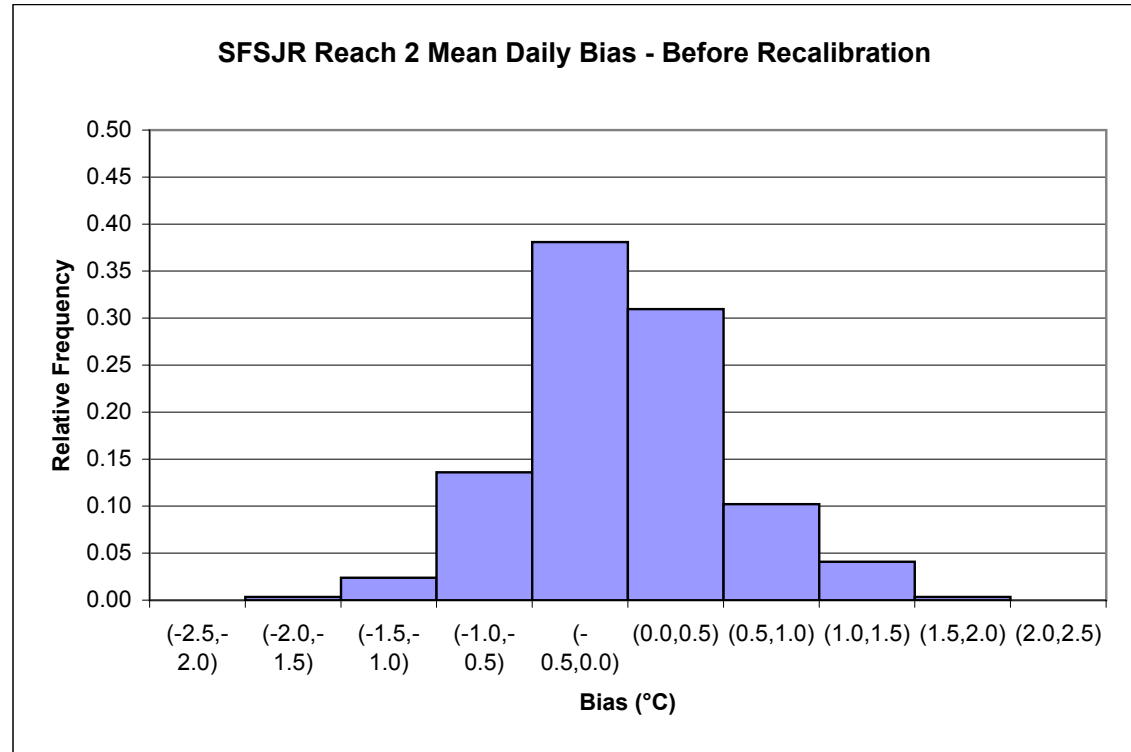


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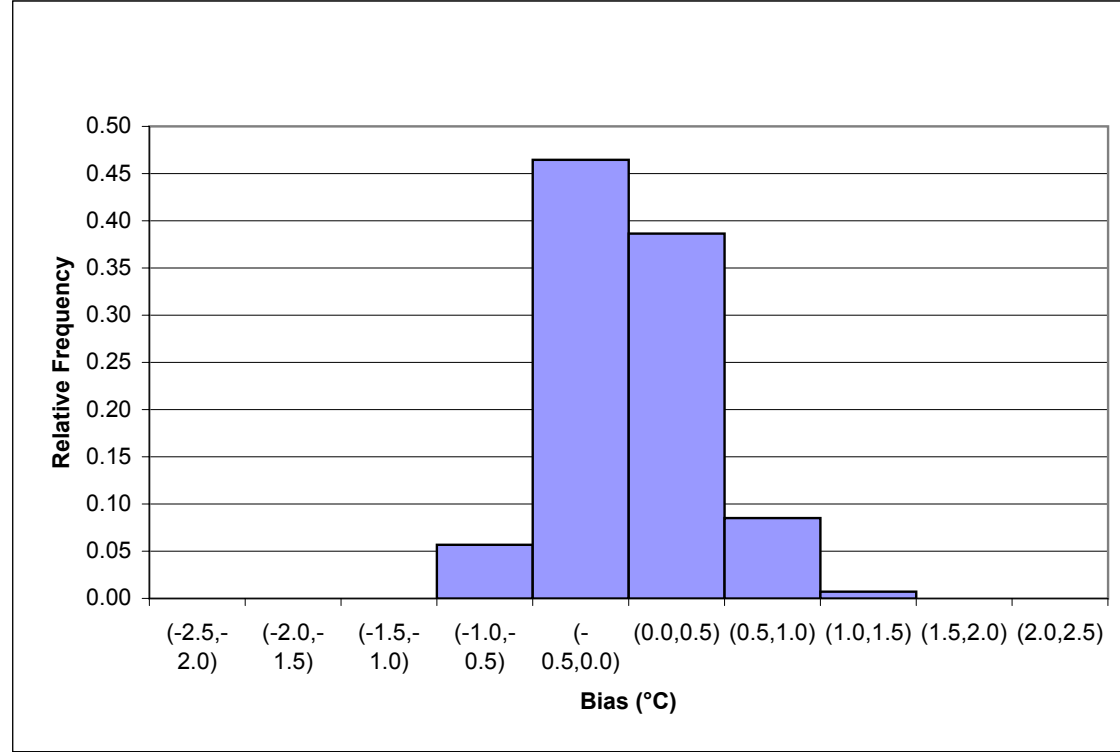


SFSJR2

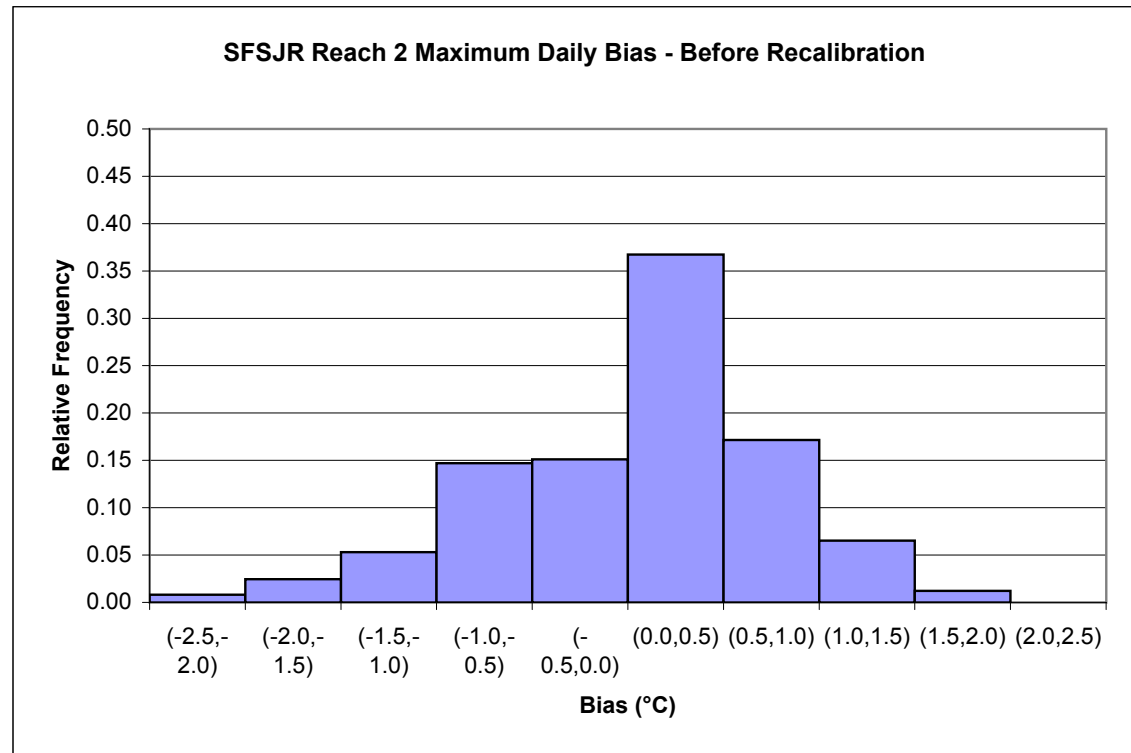
Mean Daily Before



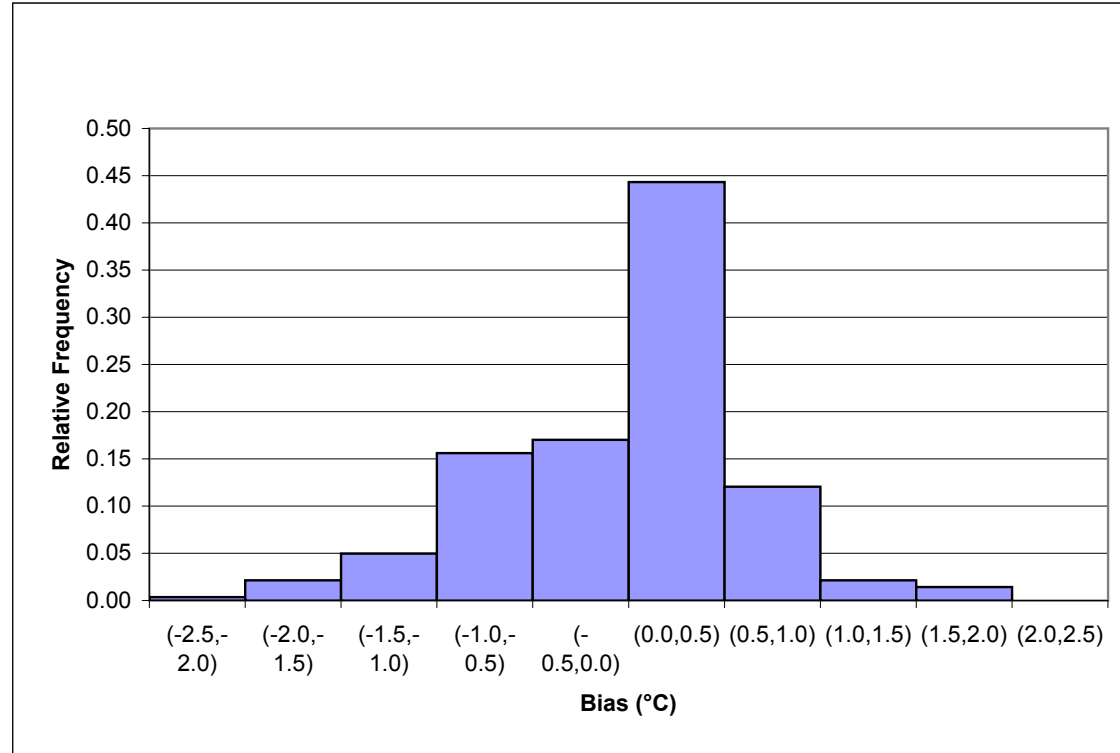
After



Maximum Daily Before



After



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MEMORANDUM

590 Ygnacio Valley Rd., Suite 200
Walnut Creek, CA 94596
(925) 935-9920

To: Wayne Lifton
From: Ken Voos
Date: January 12, 2005
Re: Temperature Model Calibration Status Update

We have recalibrated the SFSJR Reach 2 model in an effort to improve the temperature model's fit, especially for maximum daily temperatures predicted for the reaches including Camp 61 and Mono Creeks. This effort was in response to the December 14, 2004 CAWG conference call during which we indicated that it might be possible to improve the fit of the model. This work should be considered an addendum to the material presented during the December 14, 2004 conference call. The statistics for this recalibrated model are included in this memo.

The following results were obtained from our recalibration of SFSJR Reach 2:

- The mean daily temperature bias ranged from -1.6°C to 1.6°C before recalibration. This range was reduced to -0.9°C to 1.0°C after recalibration (this is the same as discussed in the CAWG conference call of December 14, 2004). Table 1 compares the recalibration statistics to the original statistics.
- The maximum daily temperature bias ranged from -2.1°C to 1.9°C before recalibration. This range was -1.6°C to 2.2°C after recalibration. Histograms of the daily maximum temperature bias values, before and after recalibration, are provided in Figure 1. The after-recalibration histogram indicates that the bias values are approximately normally distributed with a skew toward over-prediction.
- We tried several approaches to recalibration including adjustment of flow estimates and using meteorological data collected at alternate sites (in the hope that these alternate data might be more representative for this reach). With some of these approaches we attained better overall statistics, but we ended up with a model that still under-predicted maximum daily temperatures near the Camp 61 and Mono Creek inflows. In the end, we realized that the mean daily calibration presented at the December 14, 2004 conference call was the best we could reasonably attain. We then worked on the maximum daily temperature model to remove the under-predictions present in

previous versions. We sought to have a near-zero bias or over-prediction in the biases to avoid under-predictions of daily maximum temperatures. The resulting calibration would have an approximately zero bias at the upstream of Camp 61 and Mono Creek sites and a positive bias (over-prediction) elsewhere. This results in a conservative model (for sites other than upstream of Camp 61 and Mono Creeks). A maximum daily temperature simulated by this model should be viewed as being warmer than what would actually occur under the simulated conditions. Plots of the observed and simulated maximum daily temperatures over the validation period are presented in Figure 2 for this recalibration. These plots indicate the tendency of the revised maximum temperature model for this reach to over-predict maximum daily temperatures except upstream of Camp 61 and Mono Creeks.

Table 1. South Fork San Joaquin River Reach 2 Maximum Daily Statistics.

Simulation	Count	Mean Bias (°C)	Probable Difference (°C)	Largest Under-Prediction (°C)	Largest Over-Prediction (°C)
Before Recalibration					
Mean Daily	294	-0.04	0.36	-1.62	1.59
Maximum Daily	294	0.06	0.49	-2.06	1.88
After Recalibration					
Mean Daily*	282	0.02	0.24	-0.89	1.02
Maximum Daily	282	0.40	0.48	-1.58	2.22

* as presented, December 14, 2004.

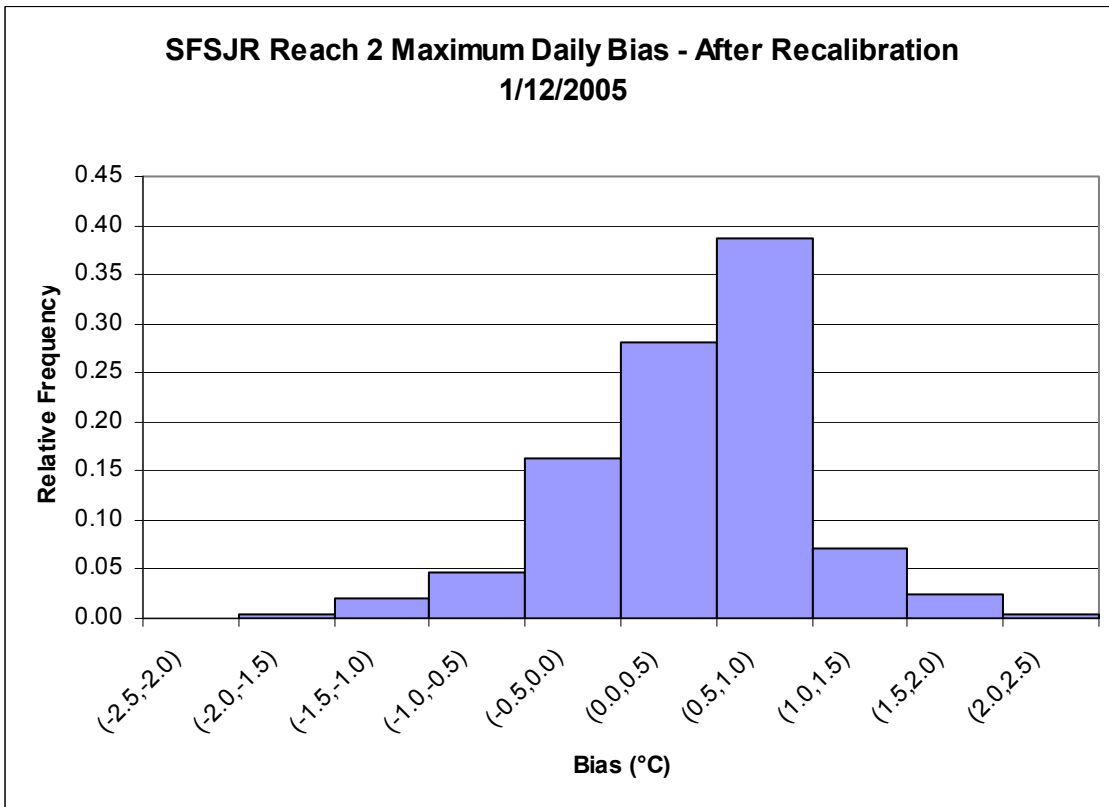
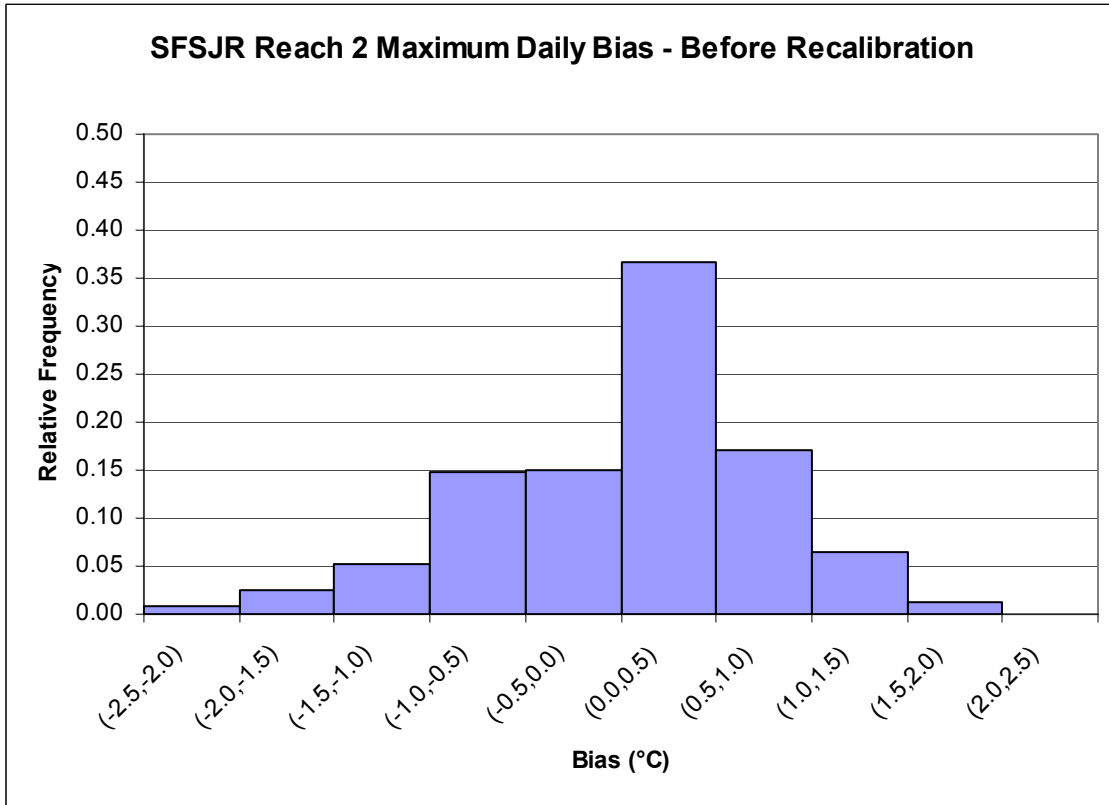


Figure 1. Histograms of the Daily Bias Values – Before and After Recalibration.

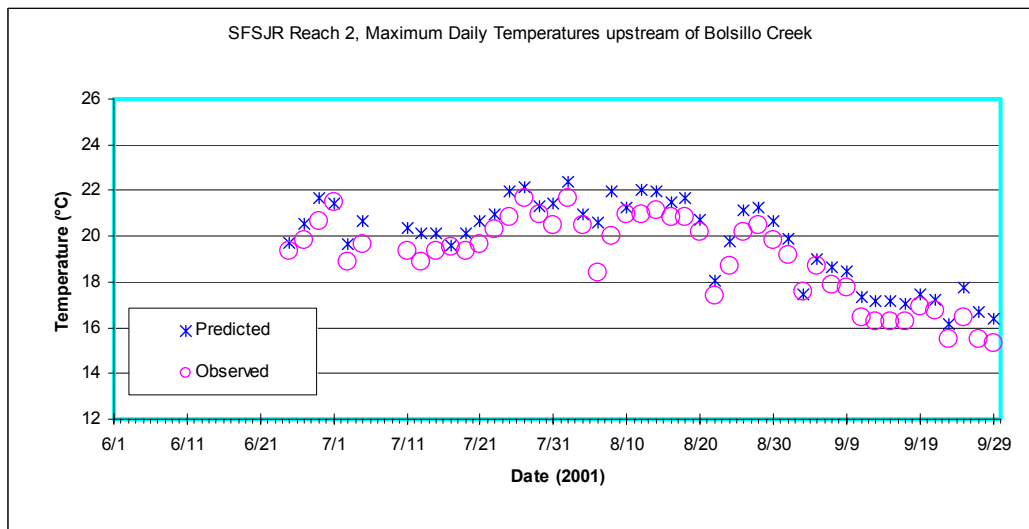
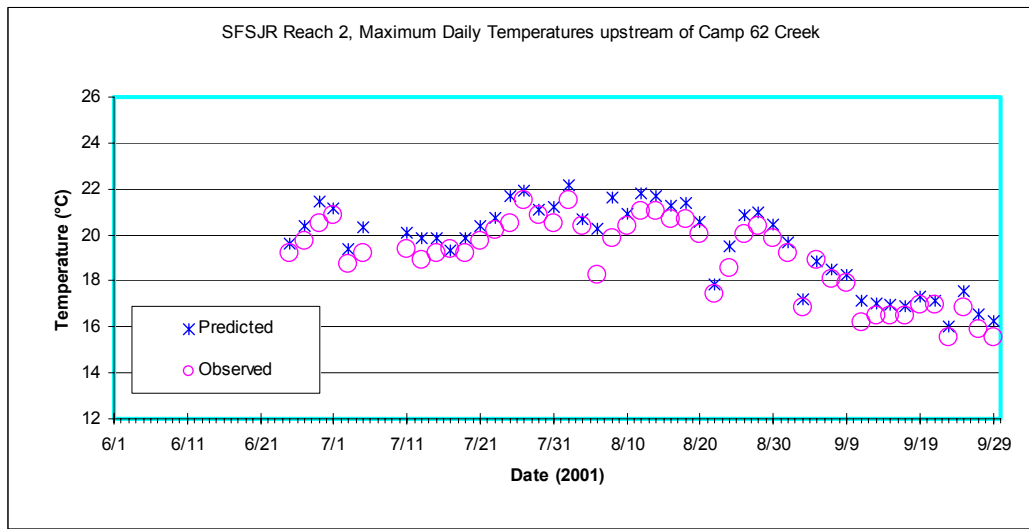
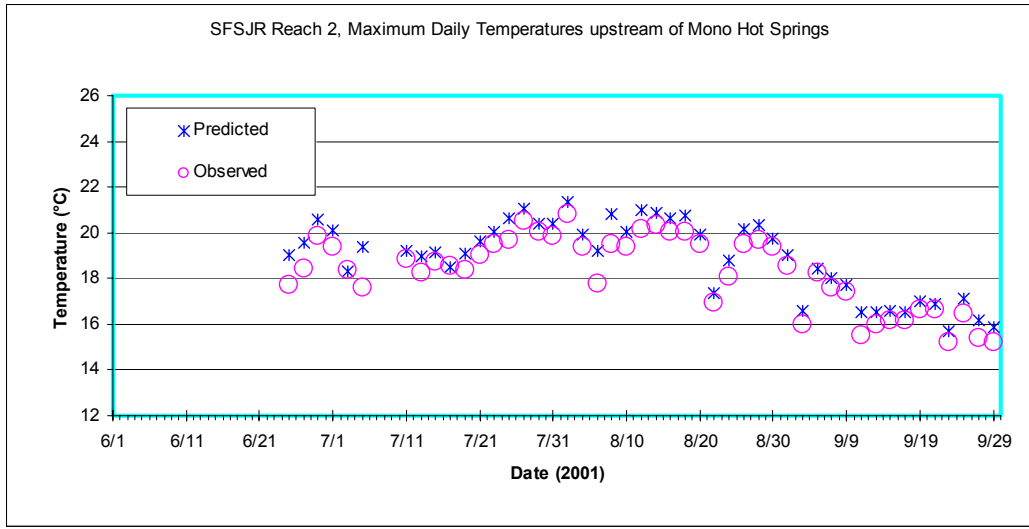


Figure 2. Observed and Simulated Maximum Daily Temperatures over the Validation Period in SFSJR Reach 2 using the Recalibrated Maximum Temperature Model.

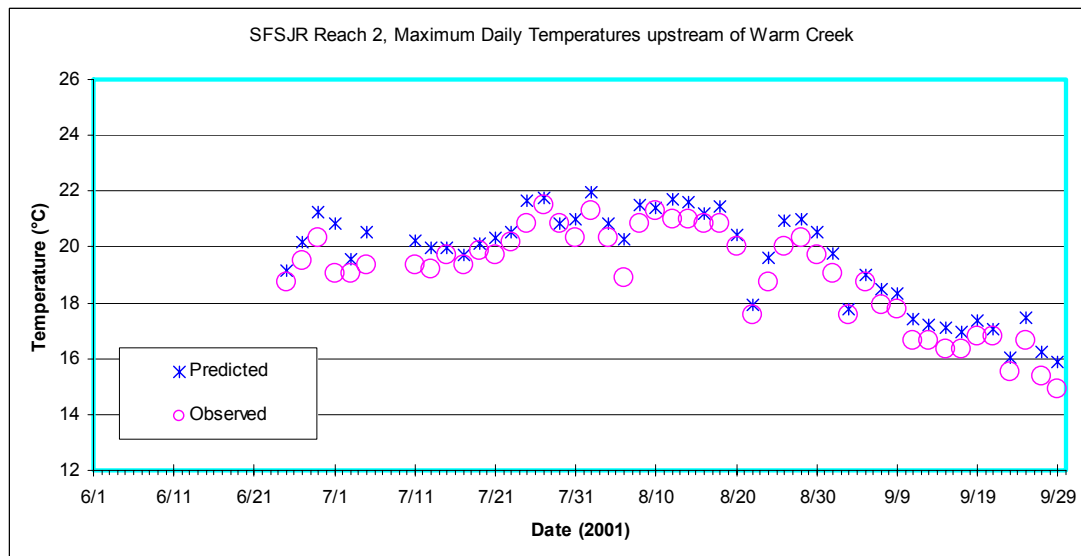
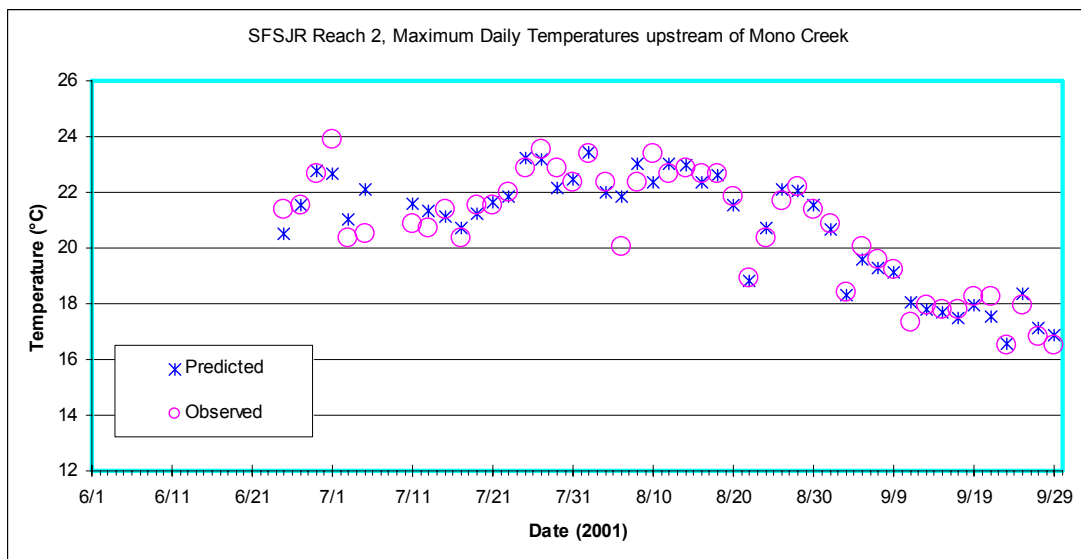
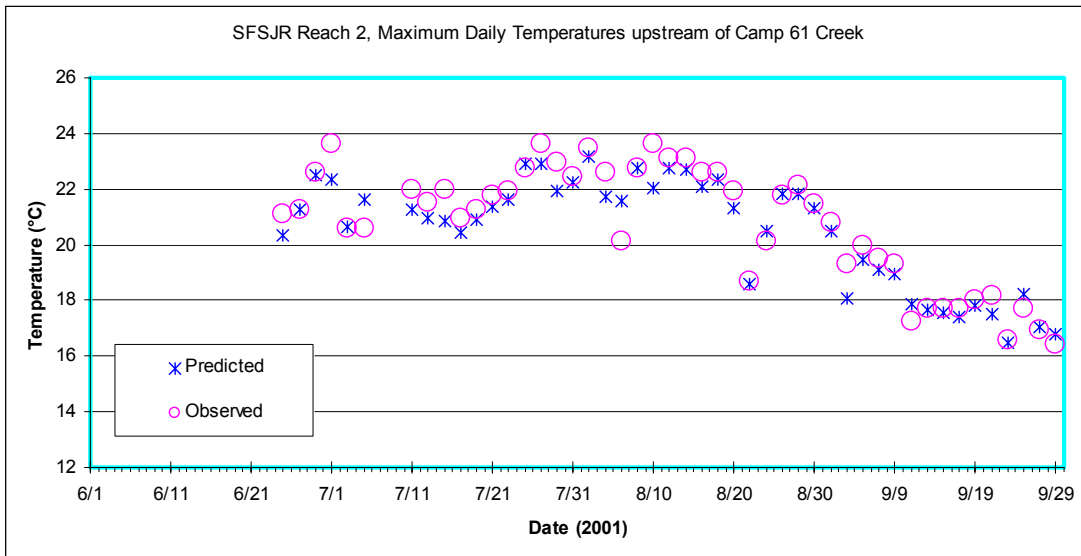


Figure 2. Observed and Simulated Maximum Daily Temperatures over the Validation Period in SFSJR Reach 2 using the Recalibrated Maximum Temperature Model (continued).

South Fork San Joaquin River Reach 2,
Stream Temperature Model
Re-Calibration

Presented to CAWG

January 12, 2005

Objectives

- Complete any additional work on daily mean temperature recalibration
- Improve the fit of the daily maximum temperature predictions, especially upstream of Camp 61 and Mono Creeks
- Reduce or remove systematic maximum temperature under-predictions at those two locations

Mean Daily Temperature Model

- Additional factors potentially affecting mean daily temperature predictions were examined
- Mean daily model calibration was not changed from what was presented
12/14/2004
- Average mean daily bias: 0.02°C
- Probable difference of bias: 0.24°C
- Mean daily bias range: -0.9°C to 1.0°C

Maximum Daily Temperature Model

- Evaluated additional factors that might affect both the mean daily and maximum daily model predictions
- Evaluated limited number of factors that may influence the maximum daily temperature predictions, but not mean daily predictions.
- Focus on reducing systematic under-predictions at two sites of concern

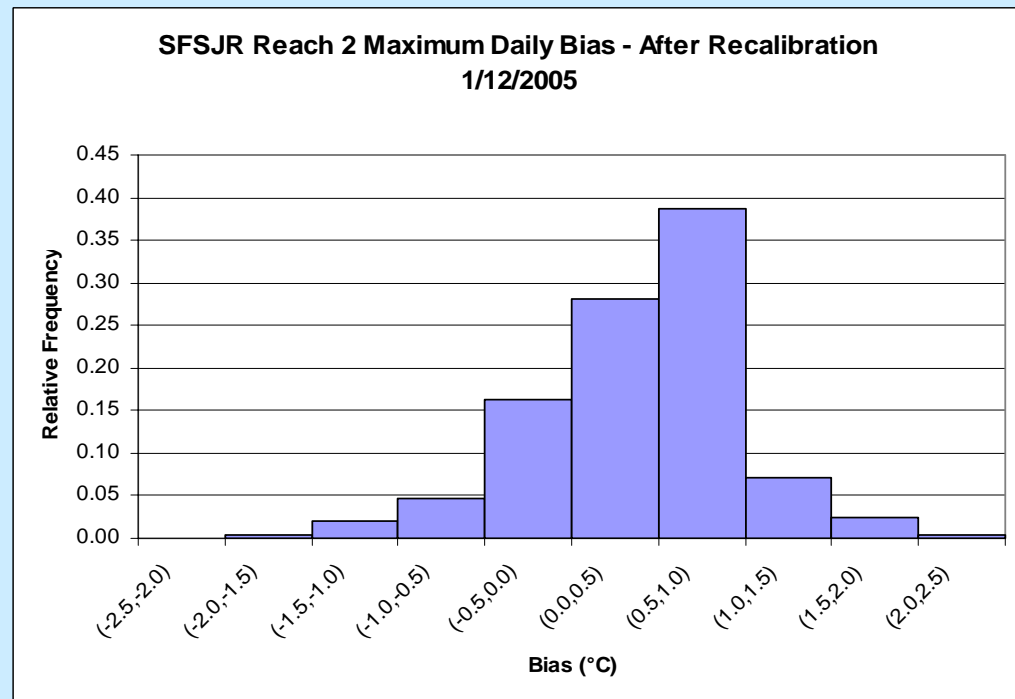
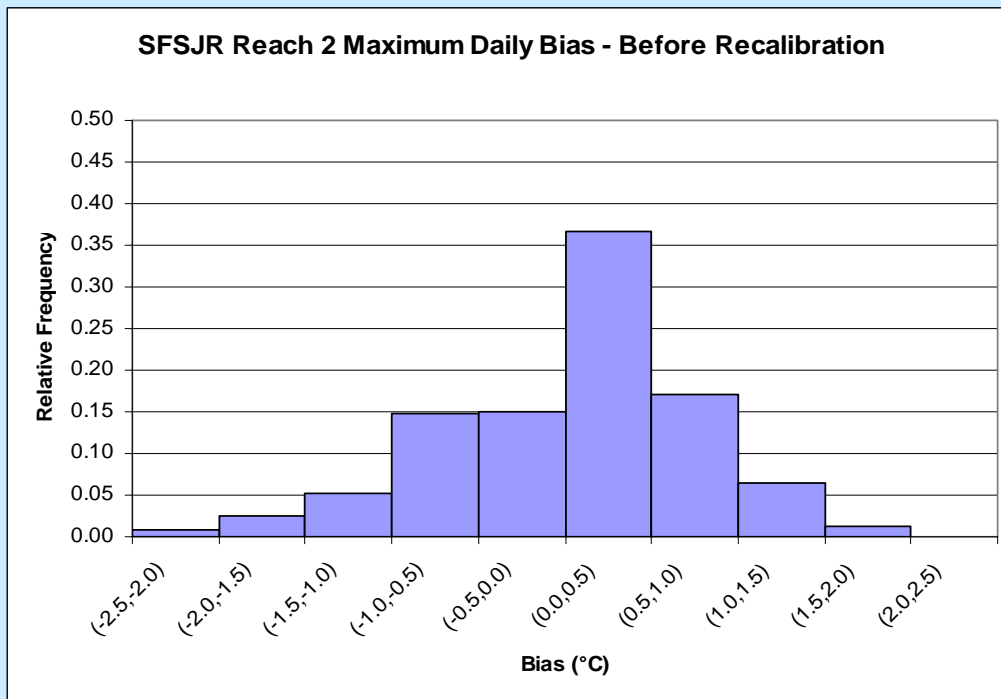
Recalibrated Maximum Daily Temperature Model

- Average maximum daily bias: 0.40°C
- Probable difference of bias: 0.48°C
- Maximum daily bias range: -1.6°C to 2.2°C

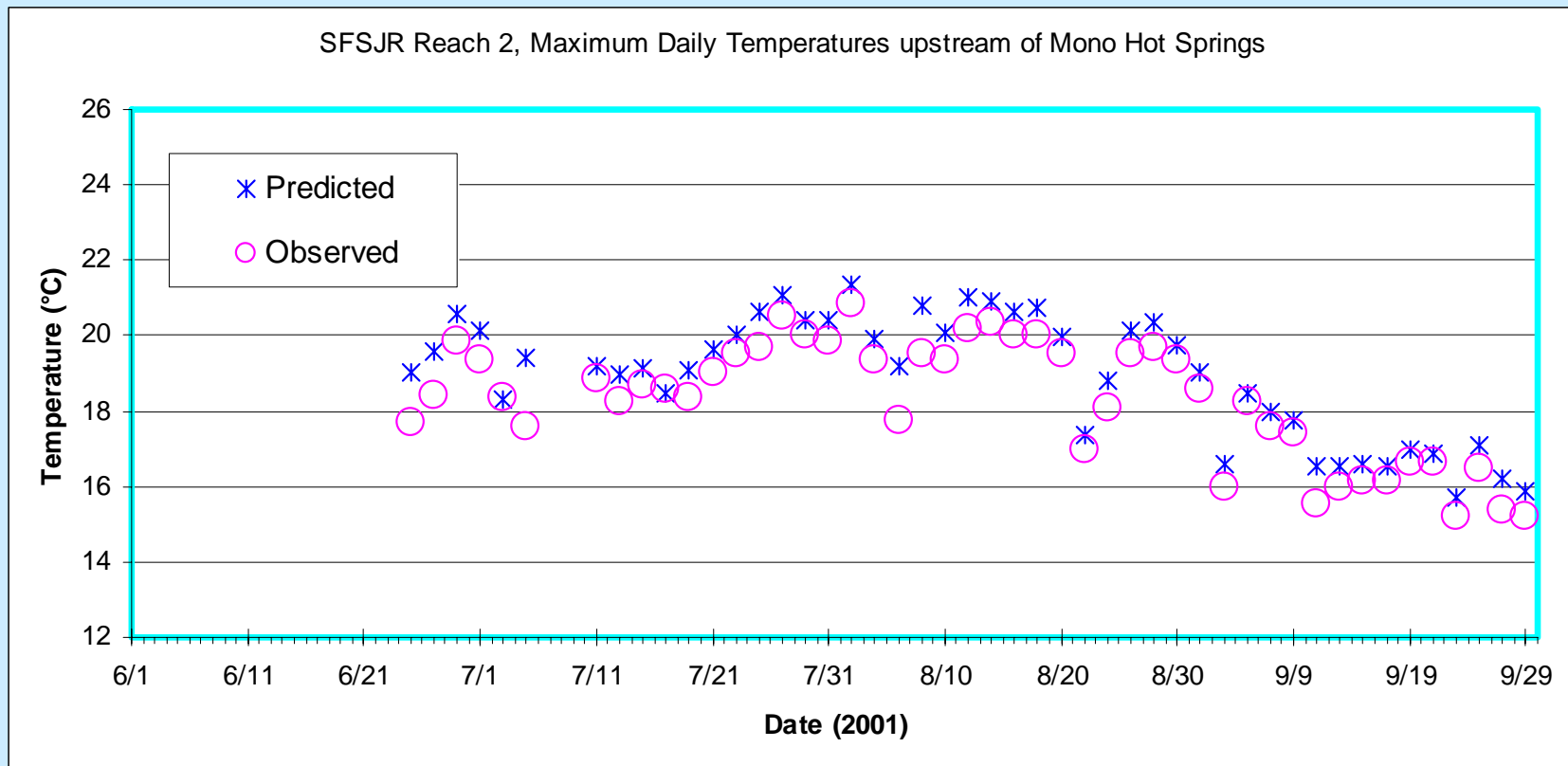
Comparison of Re-Calibrated Model to Original Model

Simulation	Count	Mean Bias (°C)	Probable Difference (°C)	Largest Underprediction (°C)	Largest Overprediction (°C)
Before recalibration					
Mean Daily	294	-0.04	0.36	-1.62	1.59
Maximum Daily	294	0.06	0.49	-2.06	1.88
After Recalibration					
Mean Daily*	282	0.02	0.24	-0.89	1.02
Maximum Daily	282	0.40	0.48	-1.58	2.22
* as presented, 12/14/2004					

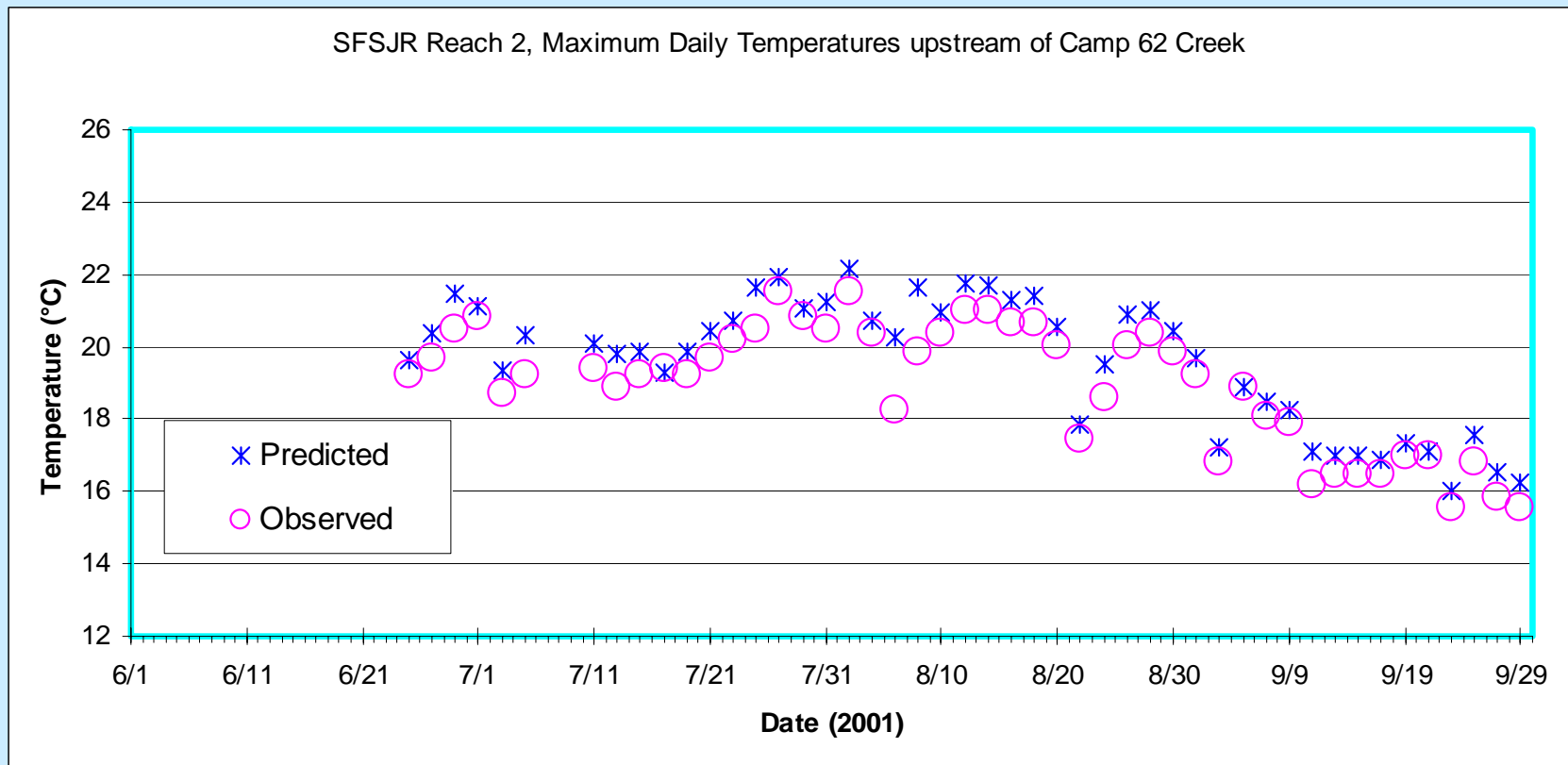
Histograms of Maximum Daily Temperature Bias SFSJR Reach 2 Before and After Recalibration



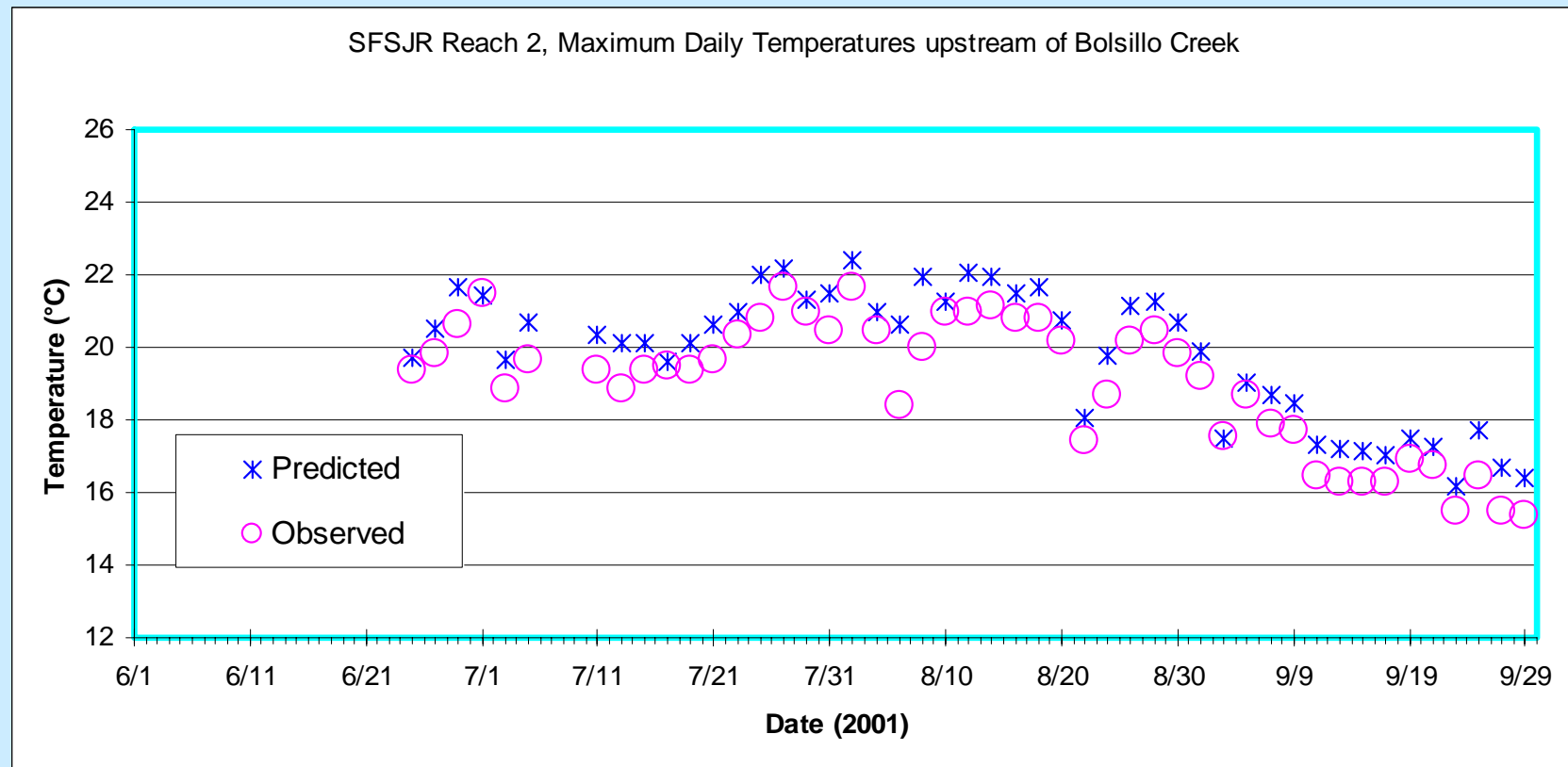
Recalibrated Validation Time Series upstream of Mono Hot Springs



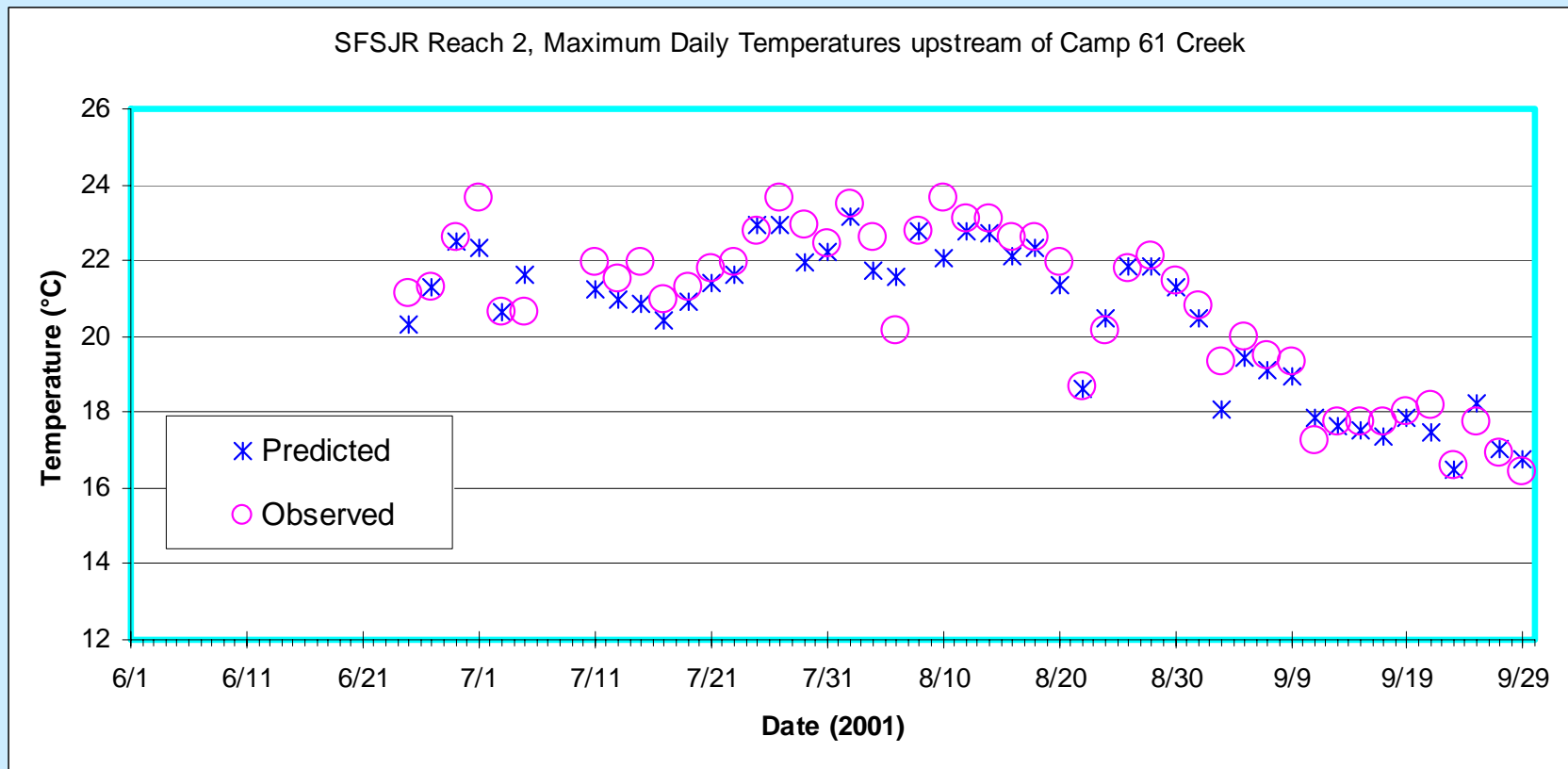
Recalibrated Validation Time Series upstream of Camp 62 Creek



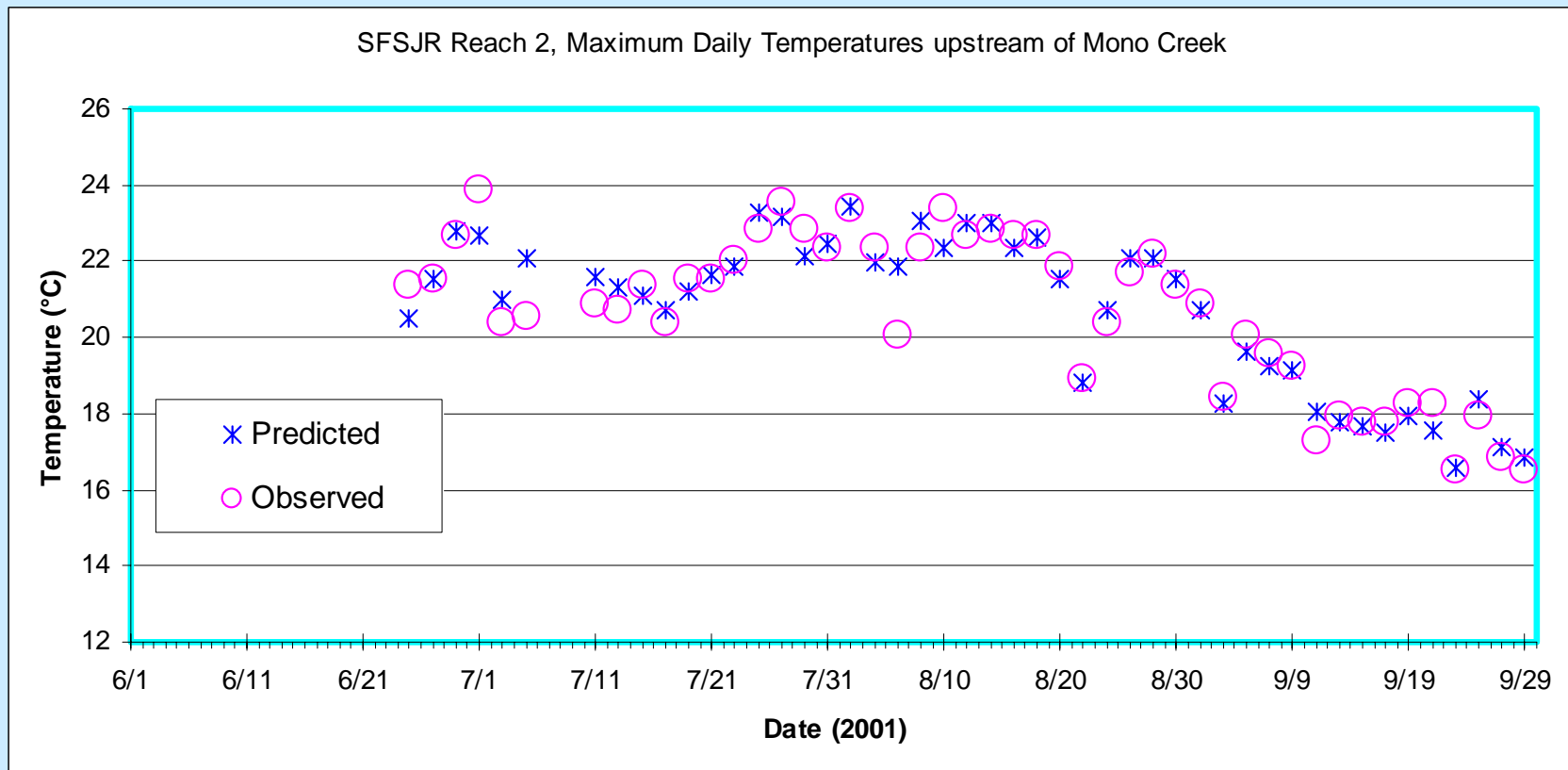
Recalibrated Validation Time Series upstream of Bolsillo Creek



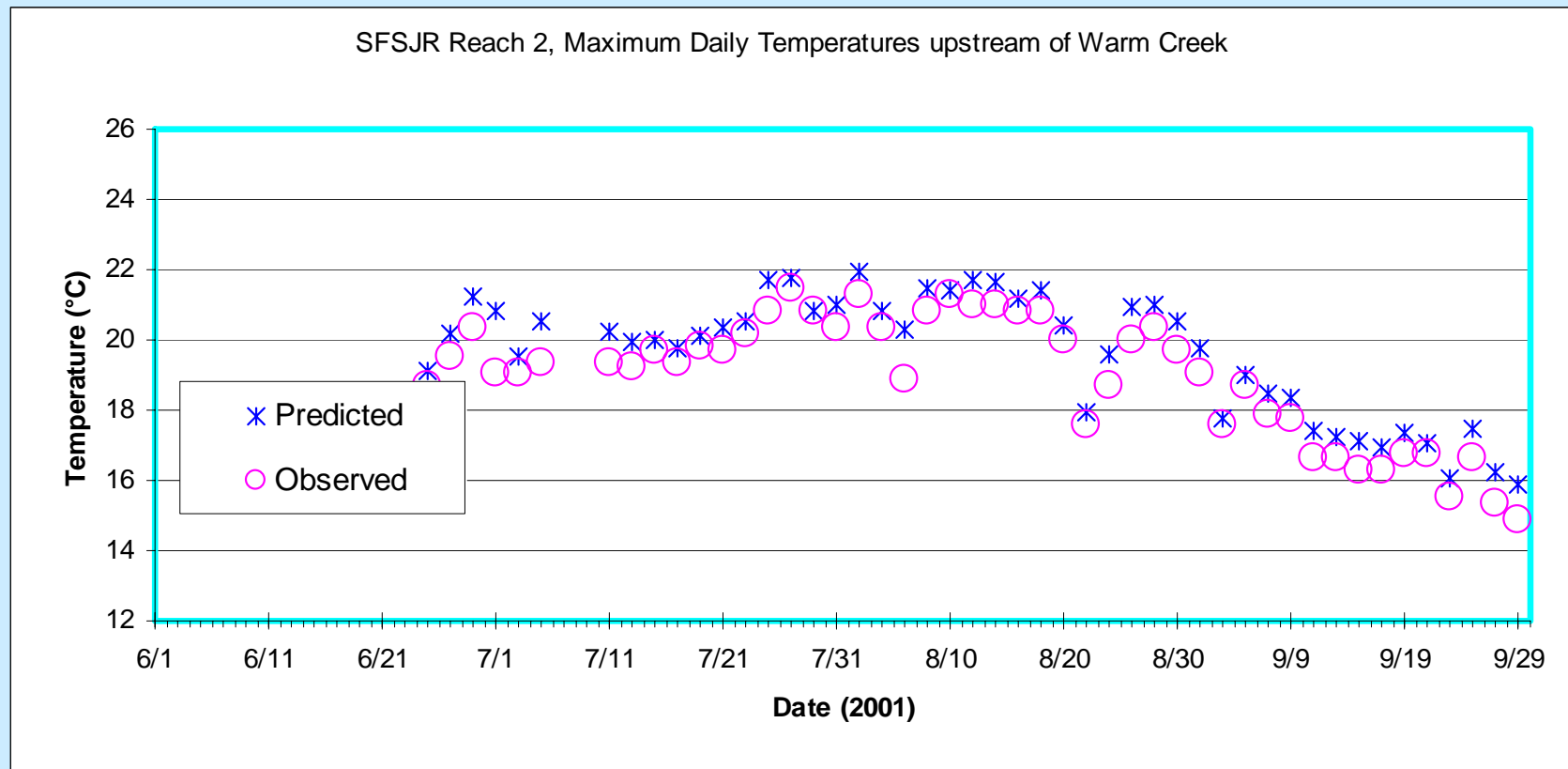
Recalibrated Validation Time Series upstream of Camp 61 Creek



Recalibrated Validation Time Series upstream of Mono Creek



Recalibrated Validation Time Series upstream of Warm Creek



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MEMORANDUM

590 Ygnacio Valley Rd., Suite 200
Walnut Creek, CA 94596
(925) 935-9920

To: Wayne Lifton
From: Ken Voos
Date: January 20, 2005
Re: Temperature Model Calibration Status Update

We have recalibrated the SFSJR Reach 2 model in an effort to improve the temperature model's fit, especially for maximum daily temperatures predicted for the reaches including the confluences of Camp 61 and Mono Creeks. This effort was in response to the December 14, 2004 CAWG conference call during which we indicated that it might be possible to improve the fit of the model. This work should be considered an addendum to the material presented during the December 14, 2004 conference call. The statistics for this recalibrated model are included in this memo.

The following results were obtained from our recalibration of SFSJR Reach 2:

- The mean daily temperature bias ranged from -1.6°C to 1.6°C before recalibration. This range was reduced to -0.9°C to 1.0°C after recalibration (this is the same as discussed in the CAWG conference call of December 14, 2004). Table 1 compares the recalibration statistics to the original statistics.
- The maximum daily temperature bias ranged from -2.1°C to 1.9°C before recalibration. This range was -1.6°C to 2.2°C after recalibration. Histograms of the daily maximum temperature bias values, before and after recalibration, are provided in Figure 1. The after-recalibration histogram indicates that the bias values are approximately normally distributed with a skew toward over-prediction.
- We tried several approaches to recalibration including adjustment of flow estimates and using meteorological data collected at alternate sites (in the hope that these alternate data might be more representative for this reach). With some of these approaches we attained better overall statistics, but we ended up with a model that still under-predicted maximum daily temperatures near the Camp 61 and Mono Creek inflows. In the end, we realized that the mean daily calibration presented at the December 14, 2004 conference call was the best we could reasonably attain. We then worked on the maximum daily temperature model to remove the under-predictions present in

previous versions. We sought to have a near-zero bias or over-prediction in the biases to avoid under-predictions of daily maximum temperatures. The resulting calibration would have an approximately zero bias at the upstream of Camp 61 and Mono Creek sites and a positive bias (over-prediction) elsewhere. This results in a conservative model (for sites other than upstream of Camp 61 and Mono Creeks). A maximum daily temperature simulated by this model should be viewed as being warmer than what would actually occur under the simulated conditions. Plots of the observed and simulated maximum daily temperatures over the validation period are presented in Figure 2 for this recalibration. These plots indicate the tendency of the revised maximum temperature model for this reach to over-predict maximum daily temperatures except upstream of Camp 61 and Mono Creeks. This over-prediction should be in the order of 0.4°C.

A quick review of the calibration and validation data sets indicated that the flows within this reach varied between approximately 21 cfs (at the top of the reach) to 74 cfs (at the bottom of the reach) during the calibration set. This range was slightly smaller for the validation set (21 cfs to 58 cfs).

Having calibrated the model to flows in the lower range to be simulated, we are very confident in the model's ability to simulate temperatures at flows within this range. At the higher flows to be simulated, the expected stream temperatures will be more a function of the mass of water and will not be as sensitive to other environmental factors. We will, therefore, have a high degree of confidence in temperature predictions at high flows.

Requested information on the validation flows, along with the validation stream temperatures (observed and predicted values) and corresponding air temperatures is provided in Table 2 (mean daily stream temperatures) and in Table 3 (maximum daily stream temperatures).

Table 1. South Fork San Joaquin River Reach 2 Maximum Daily Statistics.

Simulation	Count	Mean Bias (°C)	Probable Difference (°C)	Largest Under-Prediction (°C)	Largest Over-Prediction (°C)
Before Recalibration					
Mean Daily	294	-0.04	0.36	-1.62	1.59
Maximum Daily	294	0.06	0.49	-2.06	1.88
After Recalibration					
Mean Daily*	282	0.02	0.24	-0.89	1.02
Maximum Daily	282	0.40	0.48	-1.58	2.22

* as presented, December 14, 2004.

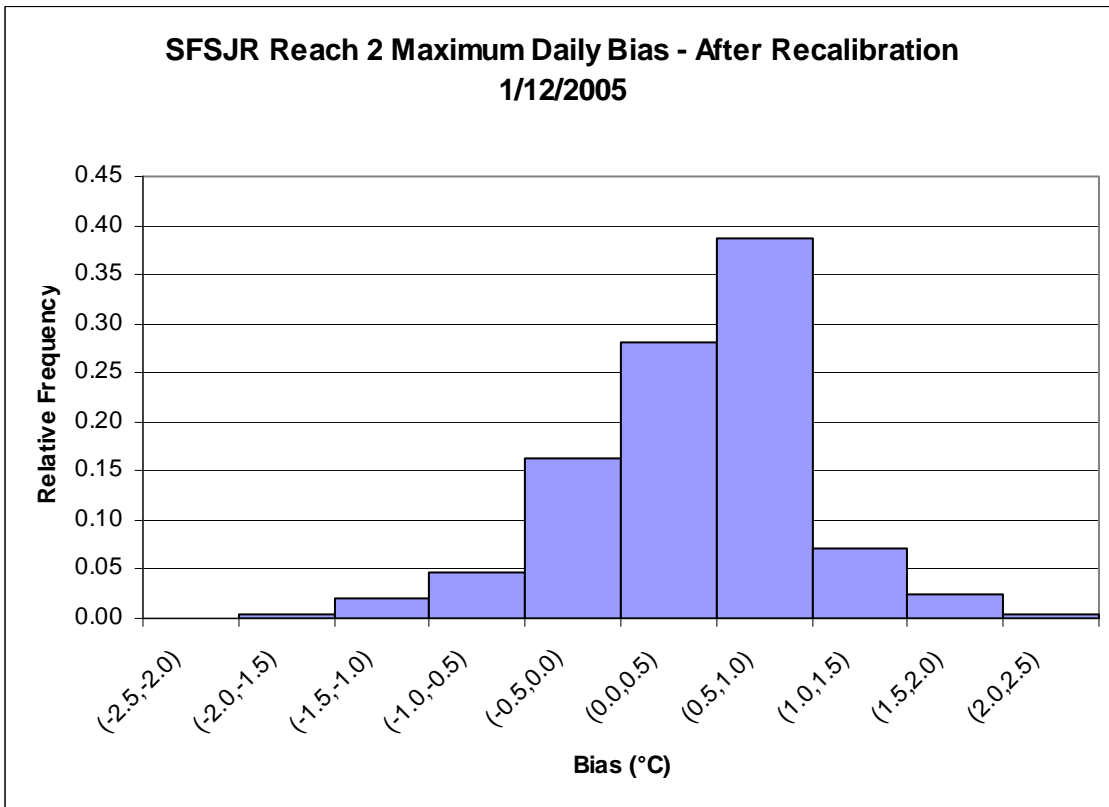
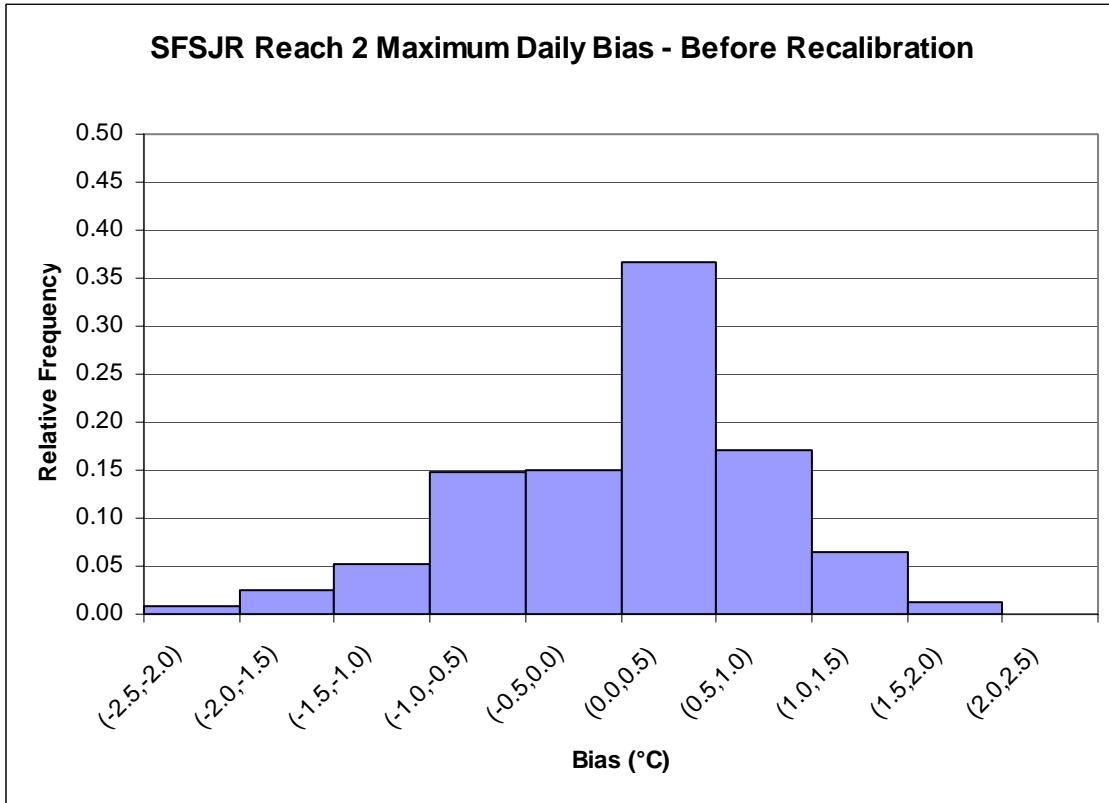


Figure 1. Histograms of the Daily Bias Values – Before and After Recalibration.

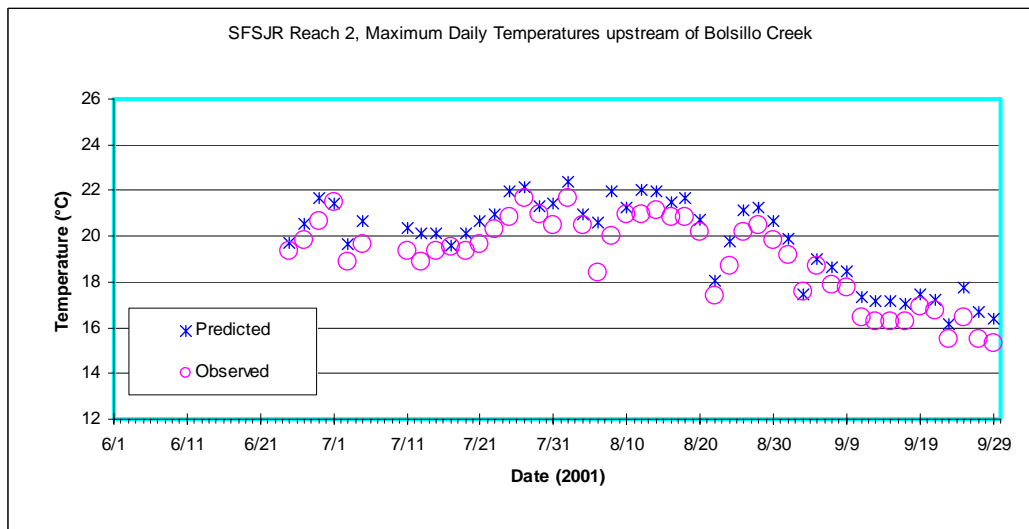
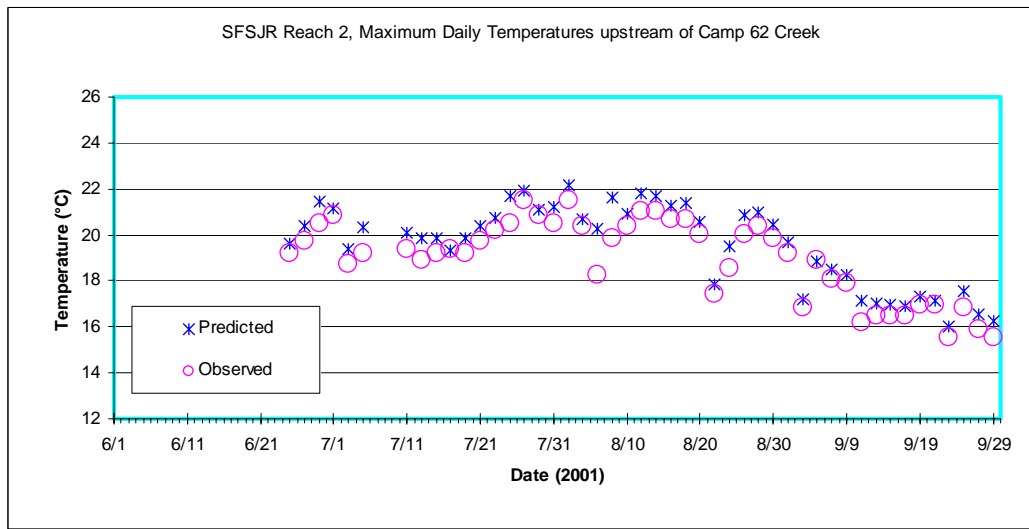
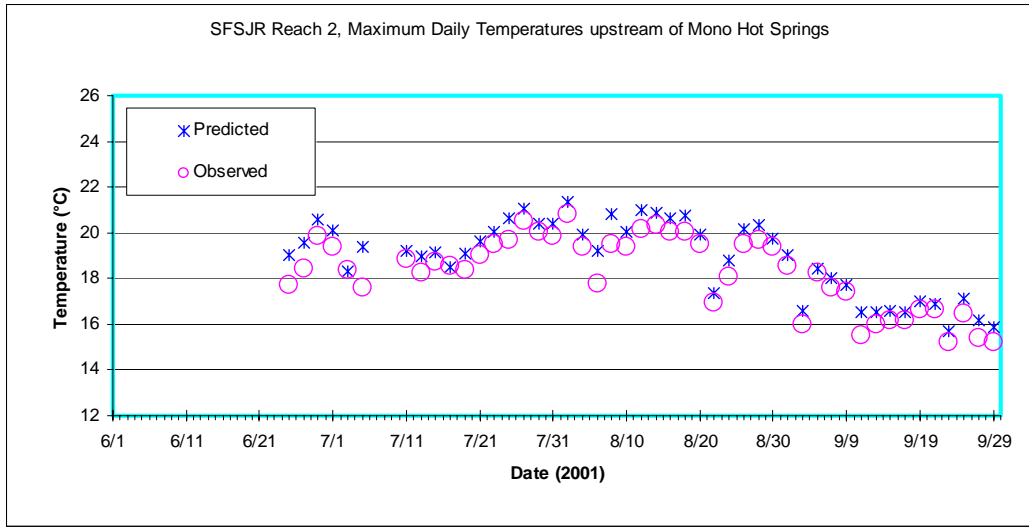


Figure 2. Observed and Simulated Maximum Daily Temperatures over the Validation Period in SFSJR Reach 2 using the Recalibrated Maximum Temperature Model.

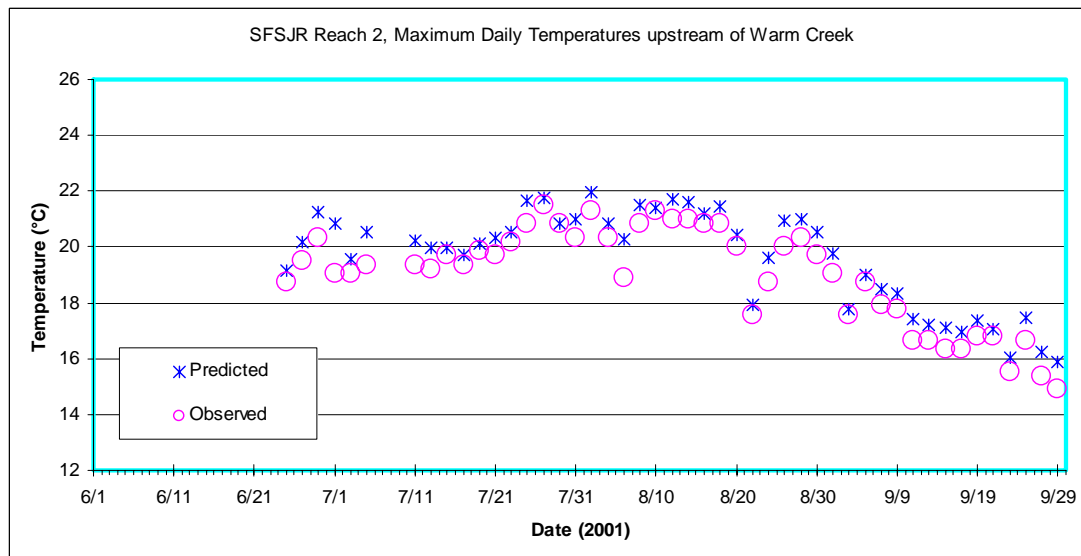
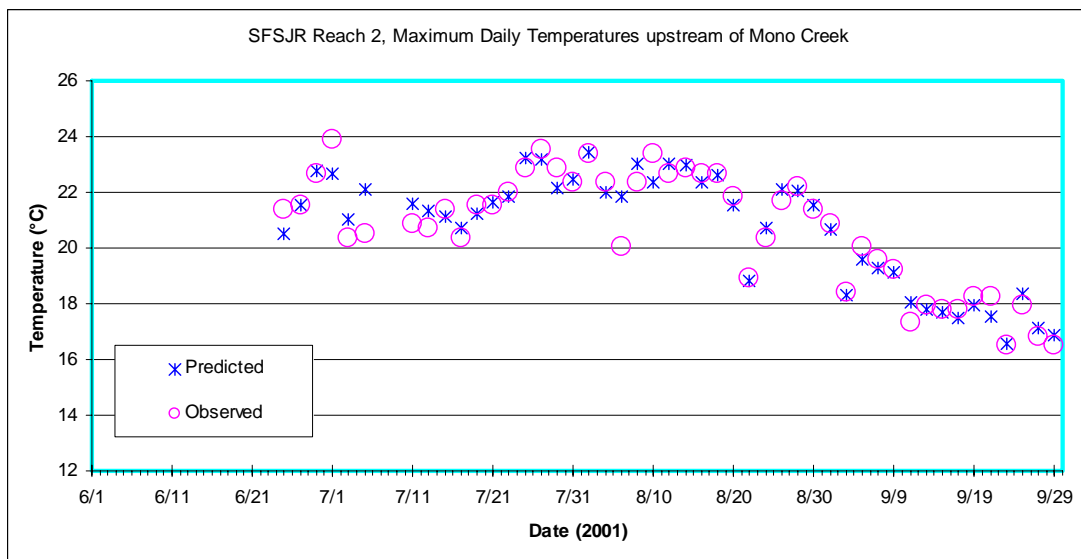
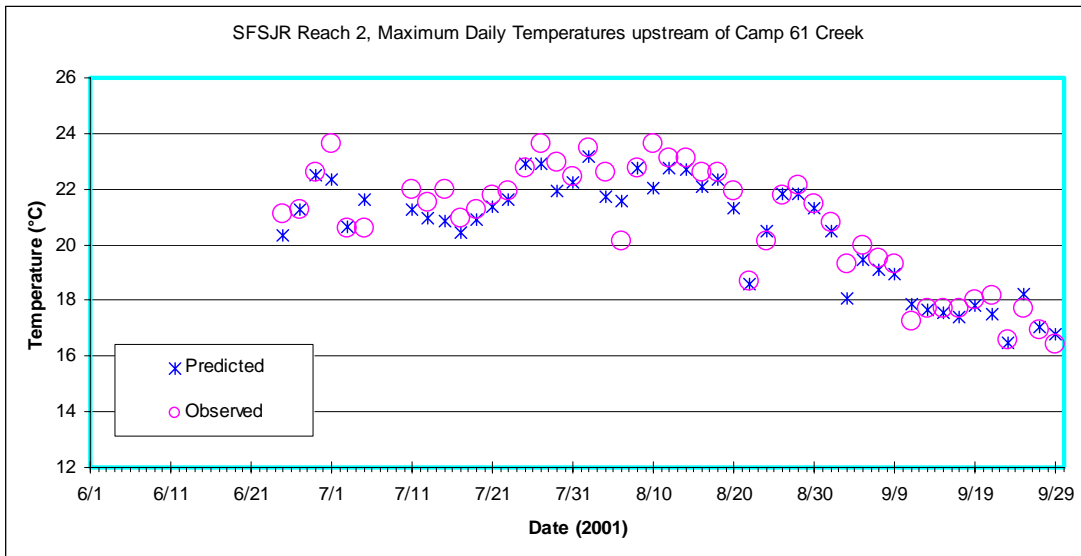


Figure 2. Observed and Simulated Maximum Daily Temperatures over the Validation Period in SFSJR Reach 2 using the Recalibrated Maximum Temperature Model (continued).

Table 2. South Fork San Joaquin River Reach 2 Mean Daily Validation Temperatures with Associated Air Temperature and Flow.

Date	South Fork San Joaquin River us Mono Hot Springs		South Fork San Joaquin River us Camp 62 Creek		South Fork San Joaquin River us Bolsillo Creek		South Fork San Joaquin River us Camp 61 Creek		South Fork San Joaquin River us Mono Creek		South Fork San Joaquin River us Warm Creek		Florence Lake Mean Air Temperature (°C)	Flow at Top of Reach (cfs)	Flow South Fork San Joaquin River ds of Hooper gage (cfs)
	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)			
25-Jun-01	15.83	15.75	16.33	16.97	16.51	17.10	16.98	17.87	17.08	17.82	16.20	16.56	14.40	27.78	22
27-Jun-01	16.25	16.07	16.96	16.68	17.24	16.89	17.89	17.76	18.06	18.07	17.01	16.91	15.52	26.43	22
29-Jun-01	17.35	17.27	18.16	18.01	18.47	18.22	19.20	19.06	19.38	19.12	18.16	17.80	18.51	26.68	23
01-Jul-01	17.58	17.59	18.39	18.59	18.72	18.94	19.44	19.98	19.65	20.04	18.22	17.90	20.87	26.30	23
03-Jul-01	17.02	17.02	17.79	17.69	18.12	17.98	18.80	18.82	19.02	19.01	17.93	18.15	21.34	26.45	23
05-Jul-01	16.87	16.51	17.61	17.25	17.96	17.56	18.69	18.25	18.99	18.42	17.94	17.88	18.99	30.53	24
11-Jul-01	15.99	15.64	16.73	16.25	17.08	16.42	17.83	17.12	18.08	17.07	17.05	16.50	16.36	30.56	25
13-Jul-01	16.26	16.23	16.99	16.93	17.32	17.15	18.03	17.49	18.25	17.91	17.35	17.24	17.13	27.90	24
15-Jul-01	15.97	16.15	16.57	16.87	16.85	17.08	17.44	17.29	17.62	17.92	16.92	17.28	14.86	27.08	24
17-Jul-01	15.71	15.98	16.40	16.81	16.73	17.04	17.40	17.68	17.61	17.58	16.90	17.04	13.61	26.63	24
19-Jul-01	15.69	15.87	16.37	16.79	16.70	17.11	17.35	17.96	17.55	18.07	16.99	17.46	14.13	25.33	23
21-Jul-01	16.34	16.40	17.01	17.16	17.30	17.38	17.91	18.15	18.08	18.17	17.26	17.38	14.97	24.10	22
23-Jul-01	16.75	16.88	17.36	17.63	17.64	17.83	18.20	18.49	18.35	18.55	17.49	17.71	16.25	23.88	22
25-Jul-01	17.58	17.36	18.44	18.13	18.83	18.43	19.60	19.33	19.82	19.48	18.71	18.56	19.23	23.65	22
27-Jul-01	18.08	18.31	18.73	19.13	19.02	19.39	19.60	20.17	19.75	20.13	18.86	19.20	19.93	22.50	21
29-Jul-01	17.29	17.52	17.85	18.33	18.11	18.53	18.60	19.35	18.73	19.36	17.89	18.39	18.91	22.43	21
31-Jul-01	17.31	17.17	18.05	17.90	18.39	18.12	19.05	18.84	19.23	18.83	18.13	17.89	17.29	22.35	21
02-Aug-01	18.23	18.26	18.92	18.99	19.24	19.22	19.86	19.95	20.04	19.97	19.01	19.02	19.14	23.28	22
04-Aug-01	17.21	17.47	17.79	18.28	18.07	18.52	18.60	19.18	18.75	19.12	18.08	18.43	17.17	24.20	23
06-Aug-01	17.01	16.68	17.81	17.24	18.18	17.44	18.88	18.04	19.07	18.13	18.04	17.56	20.26	22.05	21
08-Aug-01	18.01	17.67	18.74	18.29	19.09	18.53	19.75	19.43	19.95	19.59	18.99	18.82	21.52	22.58	21
10-Aug-01	17.59	17.56	18.31	18.40	18.66	18.73	19.31	19.90	19.51	20.11	18.83	19.32	20.68	22.20	21
12-Aug-01	18.03	17.94	18.69	18.63	19.01	18.85	19.59	19.54	19.75	19.51	18.87	18.77	20.85	22.13	21
14-Aug-01	17.92	17.91	18.58	18.66	18.90	18.91	19.50	19.59	19.66	19.55	18.75	18.69	20.38	22.05	21
16-Aug-01	17.58	17.62	18.12	18.31	18.39	18.57	18.89	19.29	19.04	19.33	18.30	18.50	21.01	23.98	23
18-Aug-01	17.78	17.73	18.36	18.41	18.66	18.64	19.20	19.35	19.36	19.41	18.59	18.67	21.33	23.90	23
20-Aug-01	17.05	17.25	17.48	17.92	17.71	18.12	18.12	18.69	18.24	18.77	17.62	18.09	18.32	23.83	23
22-Aug-01	15.26	15.29	15.68	15.88	15.90	16.09	16.30	16.58	16.42	16.57	15.89	16.05	15.36	23.74	23
24-Aug-01	16.00	15.69	16.63	16.28	16.95	16.47	17.52	16.99	17.68	16.97	16.90	16.40	17.58	22.68	22
26-Aug-01	17.23	17.05	17.84	17.70	18.15	17.92	18.70	18.46	18.86	18.42	18.09	17.80	20.91	22.62	22
28-Aug-01	17.58	17.51	18.16	18.19	18.44	18.42	18.96	18.97	19.10	18.95	18.41	18.33	21.73	22.58	22
30-Aug-01	17.16	17.17	17.71	17.83	18.00	18.05	18.50	18.54	18.64	18.50	18.01	17.94	18.03	22.53	22
01-Sep-01	16.37	16.34	16.86	17.00	17.12	17.23	17.57	17.78	17.69	17.75	17.16	17.21	17.91	22.50	22
03-Sep-01	15.11	15.19	15.56	15.71	15.79	16.02	16.22	16.65	16.36	16.81	16.13	16.62	15.86	22.48	22
05-Sep-01	15.80	15.88	16.13	16.50	16.31	16.67	16.62	17.03	16.71	17.03	16.55	16.77	16.17	22.57	22
07-Sep-01	15.33	15.27	15.73	15.85	15.93	16.00	16.29	16.39	16.38	16.35	15.99	15.99	17.64	21.50	21
09-Sep-01	15.13	15.10	15.52	15.71	15.72	15.88	16.08	16.28	16.16	16.23	15.80	15.86	17.40	21.42	21
11-Sep-01	15.14	14.84	15.62	15.27	15.86	15.46	16.31	15.78	16.42	15.79	16.06	15.71	16.43	21.40	21
13-Sep-01	14.09	13.96	14.45	14.52	14.64	14.67	14.98	15.06	15.07	15.03	14.89	14.91	14.23	23.38	23
15-Sep-01	14.07	13.98	14.34	14.53	14.49	14.64	14.75	14.91	14.81	14.80	14.63	14.61	15.45	23.35	23
17-Sep-01	14.13	14.00	14.42	14.51	14.57	14.61	14.84	14.88	14.90	14.79	14.65	14.57	14.94	23.35	23
19-Sep-01	14.67	14.57	14.96	15.09	15.11	15.19	15.38	15.44	15.44	15.34	15.16	15.10	16.51	22.33	22

Table 2. South Fork San Joaquin River Reach 2 Mean Daily Validation Temperatures with Associated Air Temperature and Flow (continued).

Date	South Fork San Joaquin River us Mono Hot Springs		South Fork San Joaquin River us Camp 62 Creek		South Fork San Joaquin River us Bolsillo Creek		South Fork San Joaquin River us Camp 61 Creek		South Fork San Joaquin River us Mono Creek		South Fork San Joaquin River us Warm Creek		Florence Lake Mean Air Temperature (°C)	Flow at Top of Reach (cfs)	Flow South Fork San Joaquin River us Hooper gage (cfs)
	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)			
21-Sep-01	14.65	14.55	14.89	15.10	15.02	15.20	15.23	15.53	15.28	15.47	15.02	15.20	17.10	22.32	22
23-Sep-01	14.04	13.91	14.27	14.33	14.39	14.41	14.62	14.63	14.66	14.55	14.39	14.36	16.45	22.32	22
25-Sep-01	15.00	14.33	15.47	14.76	15.71	14.83	16.15	15.19	16.29	15.26	15.68	15.08	16.02	22.30	22
27-Sep-01	14.02	13.61	14.36	14.04	14.53	14.08	14.83	14.29	14.88	14.18	14.35	13.92	17.31	21.30	21
29-Sep-01	13.69	13.22	14.01	13.65	14.17	13.67	14.46	13.78	14.51	13.64	13.92	13.33	16.15	21.28	21

Table 3. South Fork San Joaquin River Reach 2 Maximum Daily Validation Temperatures with Associated Air Temperature and Flow.

Date	South Fork San Joaquin River us Mono Hot Springs		South Fork San Joaquin River us Camp 62 Creek		South Fork San Joaquin River us Bolsillo Creek		South Fork San Joaquin River us Camp 61 Creek		South Fork San Joaquin River us Mono Creek		South Fork San Joaquin River us Warm Creek		Florence Lake Mean Air Temperature (°C)	Flow at Top of Reach (cfs)	Flow South Fork San Joaquin River ds of Hooper gage (cfs)
	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)			
25-Jun-01	19.03	17.69	19.62	19.23	19.73	19.35	20.32	21.12	20.50	21.36	19.14	18.72	14.40	27.78	22
27-Jun-01	19.56	18.42	20.36	19.71	20.53	19.83	21.29	21.28	21.53	21.52	20.15	19.53	15.52	26.43	22
29-Jun-01	20.57	19.86	21.47	20.52	21.68	20.64	22.52	22.62	22.79	22.69	21.25	20.33	18.51	26.68	23
01-Jul-01	20.13	19.37	21.13	20.84	21.41	21.47	22.34	23.63	22.68	23.88	20.84	19.04	20.87	26.30	23
03-Jul-01	18.31	18.39	19.36	18.74	19.67	18.87	20.63	20.62	21.01	20.37	19.54	19.04	21.34	26.45	23
05-Jul-01	19.39	17.59	20.34	19.23	20.66	19.67	21.62	20.62	22.08	20.53	20.51	19.37	18.99	30.53	24
11-Jul-01	19.21	18.88	20.07	19.39	20.36	19.35	21.25	21.96	21.61	20.86	20.25	19.37	16.36	30.56	25
13-Jul-01	18.96	18.23	19.83	18.91	20.10	18.87	20.97	21.50	21.31	20.70	19.95	19.21	17.13	27.90	24
15-Jul-01	19.13	18.72	19.87	19.23	20.10	19.35	20.85	21.96	21.12	21.36	19.98	19.69	14.86	27.08	24
17-Jul-01	18.47	18.56	19.31	19.39	19.58	19.51	20.42	20.95	20.74	20.37	19.74	19.37	13.61	26.63	24
19-Jul-01	19.09	18.39	19.88	19.23	20.14	19.35	20.93	21.28	21.21	21.52	20.13	19.85	14.13	25.33	23
21-Jul-01	19.65	19.04	20.41	19.71	20.65	19.67	21.39	21.78	21.63	21.52	20.33	19.69	14.97	24.10	22
23-Jul-01	20.05	19.53	20.75	20.19	20.96	20.32	21.64	21.95	21.86	22.02	20.54	20.17	16.25	23.88	22
25-Jul-01	20.64	19.69	21.66	20.52	21.98	20.81	22.93	22.78	23.25	22.86	21.68	20.82	19.23	23.65	22
27-Jul-01	21.07	20.50	21.90	21.51	22.15	21.64	22.92	23.63	23.17	23.54	21.78	21.48	19.93	22.50	21
29-Jul-01	20.40	20.02	21.08	20.84	21.29	20.97	21.94	22.95	22.15	22.86	20.85	20.82	18.91	22.43	21
31-Jul-01	20.40	19.86	21.21	20.52	21.46	20.48	22.22	22.45	22.46	22.36	20.98	20.33	17.29	22.35	21
02-Aug-01	21.34	20.83	22.15	21.51	22.40	21.64	23.18	23.46	23.44	23.37	21.95	21.32	19.14	23.28	22
04-Aug-01	19.93	19.37	20.71	20.36	20.96	20.48	21.72	22.62	21.99	22.36	20.83	20.33	17.17	24.20	23
06-Aug-01	19.20	17.75	20.25	18.26	20.60	18.38	21.55	20.13	21.87	20.05	20.30	18.88	20.26	22.05	21
08-Aug-01	20.79	19.53	21.65	19.87	21.94	19.99	22.76	22.78	23.05	22.36	21.50	20.82	21.52	22.58	21
10-Aug-01	20.06	19.37	20.93	20.36	21.24	20.97	22.05	23.63	22.36	23.37	21.39	21.32	20.68	22.20	21
12-Aug-01	21.01	20.18	21.78	21.01	22.04	20.97	22.76	23.12	23.02	22.69	21.69	20.99	20.85	22.13	21
14-Aug-01	20.89	20.34	21.69	21.01	21.96	21.14	22.72	23.12	22.99	22.86	21.63	20.99	20.38	22.05	21
16-Aug-01	20.65	20.02	21.27	20.68	21.49	20.81	22.10	22.62	22.34	22.69	21.19	20.82	21.01	23.98	23
18-Aug-01	20.74	20.02	21.42	20.68	21.68	20.81	22.35	22.62	22.61	22.69	21.44	20.82	21.33	23.90	23
20-Aug-01	19.95	19.53	20.54	20.03	20.75	20.16	21.33	21.95	21.54	21.86	20.41	20.01	18.32	23.83	23
22-Aug-01	17.35	16.96	17.87	17.46	18.08	17.41	18.61	18.68	18.80	18.92	17.94	17.59	15.36	23.74	23
24-Aug-01	18.81	18.07	19.53	18.58	19.79	18.70	20.48	20.13	20.71	20.37	19.61	18.72	17.58	22.68	22
26-Aug-01	20.14	19.53	20.88	20.03	21.14	20.16	21.85	21.78	22.10	21.69	20.92	20.01	20.91	22.62	22
28-Aug-01	20.34	19.69	20.99	20.36	21.23	20.48	21.85	22.12	22.07	22.19	20.99	20.33	21.73	22.58	22
30-Aug-01	19.77	19.37	20.43	19.87	20.68	19.83	21.31	21.45	21.53	21.36	20.51	19.69	18.03	22.53	22
01-Sep-01	19.04	18.56	19.66	19.23	19.89	19.19	20.48	20.78	20.69	20.86	19.77	19.04	17.91	22.50	22
03-Sep-01	16.59	16.00	17.22	16.82	17.46	17.57	18.07	19.33	18.29	18.43	17.75	17.59	15.86	22.48	22
05-Sep-01	18.45	18.23	18.86	18.91	19.02	18.70	19.45	19.97	19.60	20.05	19.02	18.72	16.17	22.57	22
07-Sep-01	18.00	17.59	18.48	18.09	18.66	17.89	19.12	19.49	19.27	19.57	18.48	17.91	17.64	21.50	21

Table 3. South Fork San Joaquin River Reach 2 Maximum Daily Validation Temperatures with Associated Air Temperature and Flow (continued).

Date	South Fork San Joaquin River us Mono Hot Springs		South Fork San Joaquin River us Camp 62 Creek		South Fork San Joaquin River us Bolsillo Creek		South Fork San Joaquin River us Camp 61 Creek		South Fork San Joaquin River us Mono Creek		South Fork San Joaquin River us Warm Creek		Florence Lake Mean Air Temperature (°C)	Flow at Top of Reach (cfs)	Flow South Fork San Joaquin River ds of Hooper gage (cfs)
	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)	Predicted Temperature (°C)	Observed Temperature (°C)			
09-Sep-01	17.74	17.43	18.26	17.93	18.45	17.73	18.95	19.33	19.12	19.24	18.34	17.75	17.40	21.42	21
11-Sep-01	16.55	15.53	17.12	16.18	17.33	16.46	17.87	17.23	18.06	17.31	17.42	16.63	16.43	21.40	21
13-Sep-01	16.54	16.00	17.00	16.50	17.18	16.30	17.64	17.72	17.80	17.94	17.22	16.63	14.23	23.38	23
15-Sep-01	16.60	16.16	16.99	16.50	17.15	16.30	17.55	17.72	17.69	17.78	17.13	16.32	15.45	23.35	23
17-Sep-01	16.54	16.16	16.88	16.50	17.02	16.30	17.38	17.72	17.49	17.78	16.94	16.32	14.94	23.35	23
19-Sep-01	16.99	16.64	17.34	16.98	17.48	16.93	17.83	18.04	17.95	18.27	17.38	16.79	16.51	22.33	22
21-Sep-01	16.87	16.64	17.12	16.98	17.23	16.77	17.49	18.20	17.56	18.27	17.05	16.79	17.10	22.32	22
23-Sep-01	15.70	15.21	16.02	15.55	16.15	15.51	16.47	16.60	16.58	16.51	16.03	15.53	16.45	22.32	22
25-Sep-01	17.11	16.48	17.57	16.82	17.74	16.46	18.21	17.72	18.38	17.94	17.47	16.63	16.02	22.30	22
27-Sep-01	16.18	15.37	16.54	15.87	16.68	15.51	17.03	16.92	17.12	16.83	16.22	15.37	17.31	21.30	21
29-Sep-01	15.88	15.21	16.26	15.55	16.40	15.35	16.77	16.44	16.87	16.51	15.90	14.89	16.15	21.28	21

APPENDIX I

PRELIMINARY SENSITIVITY ANALYSIS SIMULATION TABLES FOR SOUTH FORK
SAN JOAQUIN RIVER REACH

APPENDIX I
BIG CREEK
CAWG 5 WATER TEMPERATURE MODELING
PRELIMINARY SENSITIVITY ANALYSIS SIMULATION TABLES
FOR
SOUTH FORK SAN JOAQUIN RIVER REACH

List in order of appearance:

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Table CAWG 5 Appendix I-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	9.0	9.0	9.0	9.0	9.0	9.0	9.0
0.35	27.65	9.6	9.6	9.6	9.6	9.6	9.6	9.6
0.50	27.55	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.65	27.46	9.9	9.9	9.9	9.9	9.9	9.9	9.9
1.00	27.24	10.4	10.4	10.4	10.4	10.4	10.4	10.4
1.15	27.15	10.6	10.6	10.6	10.6	10.6	10.6	10.6
1.15	27.15	10.7	10.7	10.7	10.7	10.7	10.7	10.7
1.30	27.06	10.9	10.9	10.9	10.9	10.9	10.9	10.9
1.50	26.93	11.1	11.1	11.1	11.1	11.1	11.1	11.1
1.65	26.84	11.3	11.3	11.3	11.3	11.3	11.3	11.3
1.85	26.72	11.5	11.5	11.5	11.5	11.5	11.5	11.5
2.00	26.62	11.7	11.7	11.7	11.7	11.7	11.7	11.7
2.05	26.59	11.7	11.7	11.7	11.7	11.7	11.7	11.7
2.20	26.50	11.9	11.9	11.9	11.9	11.9	11.9	11.9
2.50	26.31	12.2	12.2	12.2	12.2	12.2	12.2	12.2
2.70	26.19	12.4	12.4	12.4	12.4	12.4	12.4	12.4
2.90	26.06	12.6	12.6	12.6	12.6	12.6	12.6	12.6
2.92	26.05	12.6	12.6	12.6	12.6	12.6	12.6	12.6
3.00	26.00	12.7	12.7	12.7	12.7	12.7	12.7	12.7
3.43	25.73	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.44	25.73	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.45	25.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.46	25.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.50	25.69	13.1	13.1	13.1	13.1	13.1	13.1	13.1
3.65	25.60	13.3	13.3	13.3	13.3	13.3	13.3	13.3
4.00	25.38	13.4	13.4	13.4	13.4	13.4	13.4	13.4
4.20	25.26	13.4	13.4	13.4	13.4	13.4	13.4	13.4
4.50	25.07	13.5	13.5	13.5	13.5	13.5	13.5	13.5
4.75	24.91	13.6	13.6	13.6	13.6	13.6	13.6	13.6
5.00	24.76	13.6	13.6	13.6	13.6	13.6	13.6	13.6
5.28	24.58	13.7	13.7	13.7	13.7	13.7	13.7	13.7
5.38	24.52	13.7	13.7	13.7	13.7	13.7	13.7	13.7
5.39	24.52	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.50	24.45	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.55	24.42	13.3	13.3	13.3	13.3	13.3	13.3	13.3
5.65	24.35	13.3	13.3	13.3	13.3	13.3	13.3	13.3
6.00	24.14	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6.65	23.73	14.0	14.0	14.0	14.0	14.0	14.0	14.0
7.00	23.52	14.2	14.2	14.2	14.2	14.2	14.2	14.2
7.07	23.47	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.10	23.45	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.15	23.42	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.16	23.42	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.50	23.20	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.55	23.17	14.3	14.3	14.3	14.3	14.3	14.3	14.3
7.80	23.02	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.00	22.89	14.6	14.6	14.6	14.6	14.6	14.6	14.6
8.05	22.86	14.6	14.6	14.6	14.6	14.6	14.6	14.6
8.45	22.61	14.8	14.8	14.8	14.8	14.8	14.8	14.8
8.50	22.58	14.8	14.8	14.8	14.8	14.8	14.8	14.8
8.99	22.28	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1	15.1	15.1	15.1	15.1
9.09	22.22	15.1	15.0	13.8	13.5	15.1	15.1	15.1
9.49	21.97	15.3	15.2	14.0	13.6	15.3	15.3	15.3
9.50	21.96	15.3	15.2	14.0	13.6	15.3	15.3	15.3
9.99	21.66	15.4	15.4	14.1	13.7	15.4	15.4	15.4
10.05	21.62	15.4	15.4	14.1	13.7	15.4	15.4	15.4
10.25	21.50	15.5	15.5	14.1	13.8	15.5	15.5	15.5
10.49	21.35	15.6	15.5	14.2	13.8	15.6	15.6	15.6
10.65	21.25	15.7	15.6	14.2	13.8	15.7	15.7	15.7
10.99	21.04	15.8	15.7	14.3	13.9	15.8	15.8	15.8
11.10	20.97	15.8	15.8	14.4	13.9	15.8	15.8	15.8
11.41	20.78	16.0	15.9	14.4	14.0	16.0	16.0	16.0
11.45	20.75	16.0	15.9	14.4	14.0	16.0	16.0	16.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	16.0	15.9	14.5	14.0	16.0	16.0	16.0
11.75	20.56	16.1	16.1	14.6	14.1	16.1	16.1	16.1
11.99	20.42	16.3	16.2	14.7	14.2	16.3	16.3	16.3
12.20	20.28	16.4	16.4	14.7	14.2	16.4	16.4	16.4
12.35	20.19	16.5	16.4	14.8	14.3	16.5	16.5	16.5
12.48	20.11	16.5	16.5	14.8	14.3	16.5	16.5	16.5
12.49	20.10	16.5	16.5	14.9	14.3	16.5	16.5	16.5
12.52	20.08	16.6	16.5	14.9	14.3	16.6	16.6	16.6
12.53	20.08	16.5	16.5	14.9	14.3	16.5	16.5	16.5
12.70	19.97	16.6	16.6	14.9	14.4	16.6	16.6	16.6
12.99	19.79	16.7	16.7	15.0	14.4	16.7	16.7	16.7
13.25	19.63	16.8	16.8	15.1	14.5	16.8	16.8	16.8
13.31	19.59	16.9	16.8	15.1	14.5	16.9	16.9	16.9
13.40	19.54	16.9	16.9	15.2	14.6	16.9	16.9	16.9
13.40	19.54	16.9	16.9	15.1	14.6	16.9	16.9	16.9
13.49	19.48	16.9	16.9	15.2	14.6	16.9	16.9	16.9
13.75	19.32	17.0	17.0	15.3	14.7	17.0	17.0	17.0
13.99	19.17	17.1	17.0	15.3	14.7	17.1	17.1	17.1
14.45	18.89	17.2	17.1	15.4	14.8	17.2	17.2	17.2
14.49	18.86	17.2	17.1	15.4	14.8	17.2	17.2	17.2
14.80	18.67	17.2	17.2	15.5	14.8	17.2	17.2	17.2
14.99	18.55	17.3	17.3	15.5	14.9	17.3	17.3	17.3
15.20	18.42	17.3	17.3	15.5	14.9	17.3	17.3	17.3
15.49	18.24	17.4	17.4	15.6	15.0	17.4	17.4	17.4
15.80	18.05	17.5	17.4	15.7	15.0	17.5	17.5	17.5
15.99	17.93	17.5	17.5	15.7	15.1	17.5	17.5	17.5
16.20	17.80	17.5	17.5	15.8	15.1	17.5	17.5	17.5
16.34	17.72	17.5	17.5	15.8	15.1	17.5	17.5	17.5
16.34	17.71	17.5	17.5	15.8	15.1	17.5	17.5	17.5
16.49	17.62	17.5	17.5	15.8	15.1	17.5	17.5	17.5
16.75	17.46	17.5	17.5	15.8	15.1	17.5	17.5	17.5
16.99	17.31	17.6	17.6	15.9	15.3	17.6	17.6	17.6
17.10	17.24	17.6	17.6	16.0	15.4	17.6	17.6	17.6
17.30	17.12	17.7	17.7	16.1	15.5	17.7	17.7	17.7
17.49	17.00	17.7	17.7	16.1	15.6	17.7	17.7	17.7
17.65	16.90	17.8	17.8	16.2	15.7	17.8	17.8	17.8
17.90	16.74	17.8	17.8	16.3	15.8	17.8	17.8	17.8
17.99	16.69	17.8	17.8	16.3	15.8	17.8	17.8	17.8
18.15	16.59	17.9	17.9	16.4	15.9	17.9	17.9	17.9
18.19	16.56	17.9	17.9	16.4	15.9	17.9	17.9	17.9
18.19	16.56	17.9	17.9	16.4	15.9	17.9	17.9	17.9
18.36	16.45	17.9	17.9	16.4	15.9	17.9	17.9	17.9
18.37	16.45	17.0	17.0	16.2	15.8	16.5	13.7	12.8
18.65	16.28	17.1	17.1	16.2	15.9	16.6	13.8	12.9
18.69	16.25	17.1	17.1	16.2	15.9	16.6	13.8	12.9
18.95	16.09	17.2	17.1	16.3	15.9	16.7	13.9	12.9
19.19	15.94	17.2	17.2	16.3	15.9	16.7	13.9	13.0
19.32	15.86	17.2	17.2	16.3	15.9	16.8	13.9	13.0
19.43	15.80	17.2	17.2	16.3	15.9	16.8	14.0	13.0
19.43	15.79	16.9	16.8	16.1	15.8	16.4	13.9	13.0
19.65	15.66	16.9	16.9	16.2	15.9	16.4	13.9	13.0
19.69	15.63	16.9	16.9	16.2	15.9	16.4	13.9	13.0
20.15	15.34	17.0	17.0	16.3	15.9	16.5	14.0	13.1
20.19	15.32	17.0	17.0	16.3	15.9	16.5	14.0	13.1
20.69	15.01	17.1	17.0	16.3	16.0	16.7	14.1	13.2
20.95	14.85	17.1	17.1	16.4	16.0	16.7	14.2	13.2
21.19	14.70	17.2	17.1	16.4	16.0	16.8	14.2	13.3
21.40	14.57	17.2	17.2	16.4	16.1	16.8	14.3	13.3
21.60	14.44	17.2	17.2	16.5	16.1	16.8	14.3	13.3
21.69	14.39	17.2	17.2	16.5	16.1	16.8	14.3	13.3
21.69	14.39	17.2	17.2	16.4	16.1	16.8	14.3	13.3
22.19	14.08	17.2	17.2	16.5	16.1	16.8	14.4	13.4
22.20	14.07	17.2	17.2	16.5	16.1	16.8	14.4	13.4
22.40	13.95	17.2	17.2	16.5	16.1	16.9	14.4	13.4
22.69	13.77	17.2	17.2	16.5	16.1	16.9	14.4	13.4
22.80	13.70	17.2	17.2	16.5	16.1	16.9	14.4	13.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-1. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	17.2	17.2	16.5	16.2	16.9	14.5	13.5
23.30	13.39	17.2	17.2	16.5	16.2	16.9	14.5	13.5
23.69	13.14	17.2	17.2	16.5	16.2	16.9	14.5	13.5
24.05	12.92	17.2	17.2	16.5	16.2	16.9	14.5	13.6
24.19	12.83	17.2	17.2	16.5	16.2	16.9	14.6	13.6
24.50	12.64	17.2	17.2	16.5	16.2	16.9	14.6	13.6
24.69	12.52	17.2	17.2	16.5	16.2	16.8	14.6	13.6
24.70	12.52	17.2	17.2	16.5	16.2	16.8	14.6	13.6
25.05	12.30	17.2	17.2	16.6	16.3	16.9	14.6	13.7
25.19	12.21	17.2	17.2	16.6	16.3	16.9	14.6	13.7
25.69	11.90	17.1	17.1	16.6	16.2	16.8	14.6	13.7
25.85	11.80	17.1	17.1	16.5	16.2	16.8	14.6	13.7
26.19	11.59	17.1	17.1	16.6	16.3	16.8	14.6	13.7
26.69	11.28	17.1	17.1	16.6	16.3	16.8	14.7	13.7
27.19	10.97	17.1	17.1	16.6	16.3	16.8	14.7	13.8
27.20	10.96	17.1	17.1	16.6	16.3	16.8	14.7	13.8
27.45	10.81	17.1	17.1	16.6	16.3	16.8	14.7	13.8
27.69	10.66	17.1	17.1	16.6	16.3	16.8	14.8	13.8
27.90	10.53	17.2	17.1	16.7	16.4	16.8	14.8	13.9
28.19	10.35	17.2	17.1	16.7	16.4	16.8	14.8	13.9
28.69	10.04	17.2	17.1	16.7	16.4	16.8	14.9	13.9
28.75	10.00	17.2	17.1	16.7	16.4	16.8	14.9	13.9
28.98	9.85	17.2	17.1	16.7	16.4	16.9	14.9	14.0
28.99	9.85	17.0	17.0	16.6	16.4	16.7	14.8	13.9
29.19	9.73	17.0	17.0	16.6	16.4	16.7	14.9	14.0
29.25	9.69	17.0	17.0	16.6	16.4	16.7	14.9	14.0
29.69	9.42	17.0	17.0	16.7	16.4	16.7	14.9	14.0
30.00	9.22	17.0	17.0	16.7	16.5	16.7	15.0	14.1
30.19	9.11	17.1	17.1	16.7	16.5	16.8	15.0	14.1
30.30	9.04	17.1	17.1	16.7	16.5	16.8	15.0	14.1
30.69	8.80	17.1	17.1	16.8	16.5	16.8	15.1	14.2
31.19	8.48	17.1	17.1	16.8	16.5	16.8	15.1	14.2
31.24	8.45	17.1	17.1	16.8	16.5	16.8	15.1	14.2
31.30	8.42	17.1	17.1	16.8	16.6	16.9	15.1	14.2
31.74	8.14	17.2	17.2	16.8	16.6	16.9	15.2	14.3
31.95	8.01	17.2	17.2	16.8	16.6	16.9	15.2	14.3
32.24	7.83	17.2	17.2	16.9	16.6	17.0	15.2	14.3
32.25	7.83	17.2	17.2	16.9	16.6	17.0	15.2	14.3
32.74	7.52	17.3	17.3	16.9	16.7	17.0	15.3	14.4
33.24	7.21	17.4	17.4	17.0	16.7	17.1	15.4	14.4
33.30	7.17	17.4	17.4	17.0	16.7	17.1	15.4	14.4
33.45	7.08	17.4	17.4	17.0	16.8	17.1	15.4	14.4
33.74	6.90	17.4	17.4	17.0	16.8	17.2	15.4	14.5
34.20	6.61	17.5	17.5	17.1	16.8	17.2	15.5	14.5
34.24	6.59	17.5	17.5	17.1	16.8	17.2	15.5	14.5
34.55	6.40	17.5	17.5	17.1	16.9	17.3	15.5	14.6
34.69	6.31	17.5	17.5	17.1	16.9	17.3	15.5	14.6
34.69	6.31	17.5	17.5	17.1	16.9	17.2	15.5	14.6
34.74	6.28	17.5	17.5	17.1	16.9	17.2	15.5	14.6
34.85	6.21	17.5	17.5	17.1	16.9	17.3	15.5	14.6
35.24	5.97	17.6	17.6	17.2	16.9	17.3	15.6	14.7
35.50	5.81	17.6	17.6	17.2	17.0	17.4	15.6	14.7
35.74	5.66	17.6	17.6	17.3	17.0	17.4	15.7	14.7
36.24	5.35	17.7	17.7	17.3	17.1	17.5	15.7	14.8
36.50	5.19	17.8	17.8	17.4	17.1	17.5	15.8	14.9
36.74	5.04	17.8	17.8	17.4	17.1	17.6	15.8	14.9
36.93	4.92	17.9	17.8	17.5	17.2	17.6	15.9	14.9
36.93	4.92	17.8	17.8	17.4	17.1	17.5	15.8	14.9
36.95	4.91	17.8	17.8	17.4	17.1	17.5	15.8	14.9
37.24	4.73	17.8	17.8	17.4	17.2	17.6	15.9	14.9
37.60	4.50	17.8	17.8	17.5	17.2	17.6	15.9	15.0
37.74	4.41	17.9	17.9	17.5	17.2	17.6	15.9	15.0
37.80	4.38	17.9	17.9	17.5	17.3	17.6	16.0	15.0
38.10	4.19	18.0	18.0	17.6	17.3	17.7	16.0	15.1
38.24	4.10	18.0	18.0	17.6	17.4	17.8	16.1	15.2
38.25	4.10	18.0	18.0	17.6	17.4	17.8	16.1	15.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

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		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	18.1	18.1	17.7	17.4	17.9	16.1	15.2
38.74	3.79	18.1	18.1	17.7	17.4	17.9	16.1	15.2
38.95	3.66	18.1	18.1	17.7	17.4	17.9	16.2	15.2
39.15	3.54	18.1	18.1	17.7	17.4	17.9	16.2	15.2
39.24	3.48	18.1	18.1	17.7	17.5	17.9	16.2	15.3
39.65	3.23	18.2	18.2	17.8	17.5	18.0	16.2	15.3
39.74	3.17	18.2	18.2	17.8	17.5	18.0	16.3	15.3
39.95	3.04	18.3	18.3	17.9	17.6	18.1	16.4	15.4
40.24	2.86	18.3	18.3	17.9	17.6	18.1	16.4	15.4
40.55	2.67	18.4	18.4	17.9	17.6	18.1	16.4	15.5
40.70	2.58	18.4	18.4	18.0	17.7	18.2	16.5	15.5
40.74	2.55	18.4	18.4	18.0	17.7	18.2	16.5	15.5
41.15	2.30	18.5	18.5	18.0	17.7	18.3	16.5	15.6
41.24	2.24	18.5	18.5	18.0	17.7	18.3	16.5	15.6
41.74	1.93	18.5	18.5	18.1	17.8	18.3	16.6	15.6
42.10	1.71	18.6	18.6	18.1	17.8	18.4	16.6	15.6
42.24	1.62	18.6	18.6	18.1	17.8	18.4	16.6	15.7
42.25	1.61	18.6	18.6	18.1	17.8	18.4	16.6	15.7
42.74	1.31	18.7	18.7	18.2	17.9	18.5	16.7	15.8
42.75	1.30	18.7	18.7	18.2	17.9	18.5	16.7	15.8
43.24	1.00	18.8	18.8	18.3	18.0	18.6	16.9	15.9
43.35	0.93	18.8	18.8	18.4	18.0	18.6	16.9	15.9
43.65	0.74	18.9	18.9	18.4	18.0	18.7	16.9	15.9
43.74	0.69	18.9	18.9	18.4	18.0	18.7	16.9	15.9
43.90	0.59	18.9	18.9	18.4	18.1	18.7	16.9	15.9
44.24	0.38	18.9	18.9	18.4	18.1	18.7	16.9	15.9
44.45	0.25	18.9	18.9	18.4	18.1	18.8	17.0	15.9
44.74	0.07	19.0	19.0	18.5	18.1	18.8	17.0	16.0
44.80	0.03	19.0	19.0	18.5	18.1	18.8	17.0	16.0
44.85	0.00	19.0	19.0	18.5	18.1	18.8	17.0	16.0
44.98	-0.09	19.0	19.0	18.5	18.2	18.9	17.0	16.0
44.99	-0.09	16.5	16.5	16.6	16.7	16.5	16.3	16.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-2. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	11.4	11.4	11.4	11.4	11.4	11.4	11.4
0.35	27.65	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.50	27.55	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.65	27.46	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1.00	27.24	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1.15	27.15	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1.15	27.15	12.4	12.4	12.4	12.4	12.4	12.4	12.4
1.30	27.06	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.50	26.93	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1.65	26.84	12.8	12.8	12.8	12.8	12.8	12.8	12.8
1.85	26.72	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.00	26.62	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.20	26.50	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2.50	26.31	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.70	26.19	13.5	13.5	13.5	13.5	13.5	13.5	13.5
2.90	26.06	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.92	26.05	13.6	13.6	13.6	13.6	13.6	13.6	13.6
3.00	26.00	13.6	13.6	13.6	13.6	13.6	13.6	13.6
3.43	25.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.44	25.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.45	25.72	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.46	25.72	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.50	25.69	13.9	13.9	13.9	13.9	13.9	13.9	13.9
3.65	25.60	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.00	25.38	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.20	25.26	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.50	25.07	13.9	13.9	13.9	13.9	13.9	13.9	13.9
4.75	24.91	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.00	24.76	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.28	24.58	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.38	24.52	13.9	13.9	13.9	13.9	13.9	13.9	13.9
5.39	24.52	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.50	24.45	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.55	24.42	13.5	13.5	13.5	13.5	13.5	13.5	13.5
5.65	24.35	13.5	13.5	13.5	13.5	13.5	13.5	13.5
6.00	24.14	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6	13.6	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9	13.9	13.9	13.9	13.9
6.65	23.73	13.9	13.9	13.9	13.9	13.9	13.9	13.9
7.00	23.52	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.07	23.47	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.10	23.45	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.15	23.42	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.16	23.42	14.0	14.0	14.0	14.0	14.0	14.0	14.0
7.50	23.20	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.55	23.17	14.1	14.1	14.1	14.1	14.1	14.1	14.1
7.80	23.02	14.2	14.2	14.2	14.2	14.2	14.2	14.2
8.00	22.89	14.3	14.3	14.3	14.3	14.3	14.3	14.3
8.05	22.86	14.3	14.3	14.3	14.3	14.3	14.3	14.3
8.45	22.61	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.50	22.58	14.5	14.5	14.5	14.5	14.5	14.5	14.5
8.99	22.28	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7	14.7	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.4	14.3	14.7	14.7	14.7
9.49	21.97	14.9	14.8	14.5	14.4	14.9	14.9	14.9
9.50	21.96	14.9	14.8	14.5	14.4	14.9	14.9	14.9
9.99	21.66	15.0	14.9	14.6	14.5	15.0	15.0	15.0
10.05	21.62	15.0	15.0	14.6	14.5	15.0	15.0	15.0
10.25	21.50	15.1	15.0	14.6	14.5	15.1	15.1	15.1
10.49	21.35	15.1	15.1	14.6	14.5	15.1	15.1	15.1
10.65	21.25	15.1	15.1	14.7	14.5	15.1	15.1	15.1
10.99	21.04	15.2	15.2	14.7	14.6	15.2	15.2	15.2
11.10	20.97	15.3	15.2	14.8	14.6	15.3	15.3	15.3
11.41	20.78	15.4	15.3	14.8	14.7	15.4	15.4	15.4
11.45	20.75	15.4	15.4	14.8	14.7	15.4	15.4	15.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

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		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	15.4	15.4	14.8	14.7	15.4	15.4	15.4
11.75	20.56	15.5	15.5	14.9	14.7	15.5	15.5	15.5
11.99	20.42	15.6	15.6	15.0	14.8	15.6	15.6	15.6
12.20	20.28	15.7	15.7	15.0	14.8	15.7	15.7	15.7
12.35	20.19	15.7	15.7	15.1	14.8	15.7	15.7	15.7
12.48	20.11	15.8	15.8	15.1	14.9	15.8	15.8	15.8
12.49	20.10	15.8	15.8	15.1	14.9	15.8	15.8	15.8
12.52	20.08	15.8	15.8	15.1	14.9	15.8	15.8	15.8
12.53	20.08	15.8	15.8	15.1	14.9	15.8	15.8	15.8
12.70	19.97	15.9	15.9	15.1	14.9	15.9	15.9	15.9
12.99	19.79	15.9	15.9	15.2	14.9	15.9	15.9	15.9
13.25	19.63	16.0	16.0	15.3	15.0	16.0	16.0	16.0
13.31	19.59	16.0	16.0	15.3	15.0	16.0	16.0	16.0
13.40	19.54	16.0	16.0	15.3	15.0	16.0	16.0	16.0
13.40	19.54	16.0	16.0	15.3	15.0	16.0	16.0	16.0
13.49	19.48	16.1	16.1	15.3	15.1	16.1	16.1	16.1
13.75	19.32	16.1	16.1	15.4	15.1	16.1	16.1	16.1
13.99	19.17	16.2	16.2	15.4	15.1	16.2	16.2	16.2
14.45	18.89	16.2	16.3	15.5	15.2	16.2	16.2	16.2
14.49	18.86	16.3	16.3	15.5	15.2	16.3	16.3	16.3
14.80	18.67	16.3	16.3	15.5	15.2	16.3	16.3	16.3
14.99	18.55	16.3	16.3	15.5	15.2	16.3	16.3	16.3
15.20	18.42	16.3	16.4	15.5	15.3	16.3	16.3	16.3
15.49	18.24	16.4	16.4	15.6	15.3	16.4	16.4	16.4
15.80	18.05	16.4	16.5	15.6	15.3	16.4	16.4	16.4
15.99	17.93	16.5	16.5	15.6	15.4	16.5	16.5	16.5
16.20	17.80	16.5	16.5	15.7	15.4	16.5	16.5	16.5
16.34	17.72	16.5	16.5	15.7	15.4	16.5	16.5	16.5
16.34	17.71	16.5	16.5	15.7	15.4	16.5	16.5	16.5
16.49	17.62	16.5	16.5	15.7	15.4	16.5	16.5	16.5
16.75	17.46	16.5	16.6	15.7	15.4	16.5	16.5	16.5
16.99	17.31	16.6	16.6	15.8	15.5	16.6	16.6	16.6
17.10	17.24	16.6	16.6	15.8	15.6	16.6	16.6	16.6
17.30	17.12	16.7	16.7	15.9	15.6	16.7	16.7	16.7
17.49	17.00	16.7	16.7	15.9	15.7	16.7	16.7	16.7
17.65	16.90	16.7	16.7	16.0	15.7	16.7	16.7	16.7
17.90	16.74	16.7	16.8	16.0	15.8	16.7	16.7	16.7
17.99	16.69	16.8	16.8	16.1	15.8	16.8	16.8	16.8
18.15	16.59	16.8	16.8	16.1	15.9	16.8	16.8	16.8
18.19	16.56	16.8	16.8	16.1	15.9	16.8	16.8	16.8
18.19	16.56	16.8	16.8	16.1	15.9	16.8	16.8	16.8
18.36	16.45	16.8	16.8	16.1	15.9	16.8	16.8	16.8
18.37	16.45	16.2	16.1	15.9	15.8	15.5	13.0	12.2
18.65	16.28	16.2	16.2	15.9	15.8	15.6	13.0	12.3
18.69	16.25	16.2	16.2	15.9	15.8	15.6	13.1	12.3
18.95	16.09	16.3	16.2	15.9	15.8	15.6	13.1	12.3
19.19	15.94	16.3	16.2	15.9	15.8	15.6	13.1	12.3
19.32	15.86	16.3	16.3	16.0	15.8	15.7	13.1	12.3
19.43	15.80	16.3	16.3	16.0	15.9	15.7	13.2	12.4
19.43	15.79	16.1	16.1	15.9	15.8	15.6	13.1	12.3
19.65	15.66	16.2	16.1	15.9	15.8	15.6	13.2	12.4
19.69	15.63	16.2	16.1	15.9	15.8	15.6	13.2	12.4
20.15	15.34	16.2	16.2	15.9	15.9	15.6	13.3	12.4
20.19	15.32	16.2	16.2	16.0	15.9	15.6	13.3	12.4
20.69	15.01	16.3	16.3	16.0	15.9	15.7	13.3	12.5
20.95	14.85	16.3	16.3	16.0	15.9	15.8	13.4	12.6
21.19	14.70	16.3	16.3	16.0	15.9	15.8	13.4	12.6
21.40	14.57	16.3	16.3	16.1	15.9	15.8	13.4	12.6
21.60	14.44	16.4	16.3	16.1	16.0	15.8	13.5	12.6
21.69	14.39	16.4	16.4	16.1	16.0	15.9	13.5	12.6
21.69	14.39	16.4	16.4	16.1	16.0	15.9	13.5	12.6
22.19	14.08	16.4	16.4	16.1	16.0	15.9	13.6	12.7
22.20	14.07	16.4	16.4	16.1	16.0	15.9	13.6	12.7
22.40	13.95	16.4	16.4	16.1	16.0	15.9	13.6	12.7
22.69	13.77	16.4	16.4	16.1	16.0	16.0	13.6	12.8
22.80	13.70	16.4	16.4	16.1	16.0	16.0	13.6	12.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

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Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	16.5	16.5	16.2	16.0	16.0	13.7	12.8
23.30	13.39	16.5	16.5	16.2	16.1	16.0	13.7	12.8
23.69	13.14	16.5	16.5	16.2	16.1	16.0	13.7	12.9
24.05	12.92	16.5	16.5	16.2	16.1	16.1	13.8	12.9
24.19	12.83	16.5	16.5	16.2	16.1	16.1	13.8	12.9
24.50	12.64	16.5	16.5	16.2	16.1	16.1	13.8	12.9
24.69	12.52	16.5	16.5	16.2	16.1	16.1	13.8	12.9
24.70	12.52	16.5	16.5	16.2	16.1	16.1	13.8	12.9
25.05	12.30	16.6	16.6	16.3	16.2	16.1	13.9	13.0
25.19	12.21	16.6	16.6	16.3	16.2	16.1	13.9	13.0
25.69	11.90	16.6	16.6	16.3	16.2	16.1	13.9	13.0
25.85	11.80	16.6	16.6	16.3	16.2	16.1	13.9	13.0
26.19	11.59	16.6	16.6	16.3	16.2	16.2	13.9	13.0
26.69	11.28	16.6	16.6	16.3	16.2	16.2	14.0	13.1
27.19	10.97	16.6	16.6	16.4	16.2	16.2	14.0	13.1
27.20	10.96	16.6	16.6	16.4	16.2	16.2	14.0	13.1
27.45	10.81	16.7	16.6	16.4	16.2	16.3	14.0	13.1
27.69	10.66	16.7	16.7	16.4	16.3	16.3	14.1	13.2
27.90	10.53	16.7	16.7	16.4	16.3	16.3	14.1	13.2
28.19	10.35	16.7	16.7	16.5	16.3	16.3	14.1	13.2
28.69	10.04	16.8	16.8	16.5	16.4	16.4	14.2	13.3
28.75	10.00	16.8	16.8	16.5	16.4	16.4	14.2	13.3
28.98	9.85	16.8	16.8	16.5	16.4	16.4	14.2	13.3
28.99	9.85	16.8	16.8	16.5	16.4	16.4	14.2	13.3
29.19	9.73	16.8	16.8	16.5	16.4	16.4	14.2	13.3
29.25	9.69	16.8	16.8	16.5	16.4	16.4	14.2	13.3
29.69	9.42	16.8	16.8	16.6	16.4	16.5	14.3	13.4
30.00	9.22	16.9	16.9	16.6	16.5	16.5	14.4	13.4
30.19	9.11	16.9	16.9	16.6	16.5	16.5	14.4	13.5
30.30	9.04	16.9	16.9	16.6	16.5	16.6	14.4	13.5
30.69	8.80	17.0	17.0	16.7	16.5	16.6	14.4	13.5
31.19	8.48	17.0	17.0	16.7	16.5	16.6	14.5	13.6
31.24	8.45	17.0	17.0	16.7	16.5	16.6	14.5	13.6
31.30	8.42	17.0	17.0	16.7	16.6	16.7	14.5	13.6
31.74	8.14	17.0	17.0	16.7	16.6	16.7	14.6	13.6
31.95	8.01	17.0	17.0	16.7	16.6	16.7	14.6	13.6
32.24	7.83	17.1	17.1	16.8	16.6	16.7	14.6	13.6
32.25	7.83	17.1	17.1	16.8	16.6	16.7	14.6	13.6
32.74	7.52	17.1	17.1	16.8	16.7	16.8	14.7	13.7
33.24	7.21	17.2	17.2	16.9	16.7	16.9	14.7	13.8
33.30	7.17	17.2	17.2	16.9	16.7	16.9	14.7	13.8
33.45	7.08	17.2	17.2	16.9	16.7	16.9	14.7	13.8
33.74	6.90	17.2	17.2	16.9	16.8	16.9	14.8	13.8
34.20	6.61	17.3	17.3	16.9	16.8	17.0	14.8	13.9
34.24	6.59	17.3	17.3	16.9	16.8	17.0	14.8	13.9
34.55	6.40	17.3	17.3	17.0	16.8	17.0	14.9	13.9
34.69	6.31	17.3	17.3	17.0	16.8	17.0	14.9	13.9
34.69	6.31	17.3	17.3	17.0	16.8	17.0	14.9	13.9
34.74	6.28	17.3	17.3	17.0	16.8	17.0	14.9	13.9
34.85	6.21	17.3	17.3	17.0	16.9	17.0	14.9	13.9
35.24	5.97	17.4	17.4	17.0	16.9	17.1	15.0	14.0
35.50	5.81	17.4	17.4	17.1	16.9	17.1	15.0	14.0
35.74	5.66	17.4	17.5	17.1	17.0	17.1	15.0	14.1
36.24	5.35	17.5	17.5	17.2	17.0	17.2	15.1	14.1
36.50	5.19	17.5	17.5	17.2	17.0	17.3	15.1	14.2
36.74	5.04	17.6	17.6	17.3	17.1	17.3	15.2	14.2
36.93	4.92	17.6	17.6	17.3	17.1	17.3	15.2	14.3
36.93	4.92	17.6	17.6	17.3	17.1	17.3	15.2	14.3
36.95	4.91	17.6	17.6	17.3	17.1	17.3	15.2	14.3
37.24	4.73	17.6	17.6	17.3	17.1	17.4	15.3	14.3
37.60	4.50	17.7	17.7	17.3	17.2	17.4	15.3	14.3
37.74	4.41	17.7	17.7	17.4	17.2	17.4	15.3	14.4
37.80	4.38	17.7	17.7	17.4	17.2	17.4	15.4	14.4
38.10	4.19	17.8	17.8	17.5	17.3	17.5	15.4	14.4
38.24	4.10	17.8	17.8	17.5	17.3	17.6	15.5	14.5
38.25	4.10	17.8	17.9	17.5	17.3	17.6	15.5	14.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-2. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	17.9	17.9	17.5	17.4	17.6	15.5	14.5
38.74	3.79	17.9	17.9	17.5	17.4	17.6	15.5	14.6
38.95	3.66	17.9	17.9	17.5	17.4	17.6	15.5	14.6
39.15	3.54	17.9	17.9	17.6	17.4	17.6	15.6	14.6
39.24	3.48	17.9	17.9	17.6	17.4	17.7	15.6	14.6
39.65	3.23	18.0	18.0	17.6	17.4	17.7	15.6	14.6
39.74	3.17	18.0	18.0	17.6	17.5	17.7	15.6	14.6
39.95	3.04	18.1	18.1	17.7	17.5	17.8	15.7	14.7
40.24	2.86	18.1	18.1	17.7	17.5	17.8	15.7	14.7
40.55	2.67	18.1	18.1	17.8	17.6	17.9	15.8	14.8
40.70	2.58	18.2	18.2	17.8	17.6	17.9	15.8	14.8
40.74	2.55	18.2	18.2	17.8	17.6	17.9	15.8	14.8
41.15	2.30	18.2	18.2	17.8	17.6	18.0	15.9	14.9
41.24	2.24	18.2	18.3	17.8	17.6	18.0	15.9	14.9
41.74	1.93	18.3	18.3	17.9	17.7	18.0	15.9	14.9
42.10	1.71	18.3	18.3	17.9	17.7	18.1	16.0	14.9
42.24	1.62	18.3	18.3	17.9	17.7	18.1	16.0	15.0
42.25	1.61	18.3	18.3	17.9	17.7	18.1	16.0	15.0
42.74	1.31	18.4	18.4	18.0	17.8	18.2	16.1	15.1
42.75	1.30	18.4	18.4	18.0	17.8	18.2	16.1	15.1
43.24	1.00	18.5	18.5	18.1	17.9	18.3	16.2	15.2
43.35	0.93	18.6	18.6	18.1	17.9	18.3	16.2	15.2
43.65	0.74	18.6	18.6	18.1	17.9	18.4	16.2	15.2
43.74	0.69	18.6	18.6	18.1	17.9	18.4	16.2	15.2
43.90	0.59	18.6	18.6	18.1	17.9	18.4	16.2	15.2
44.24	0.38	18.6	18.6	18.2	17.9	18.4	16.3	15.2
44.45	0.25	18.6	18.6	18.2	18.0	18.4	16.3	15.2
44.74	0.07	18.7	18.7	18.2	18.0	18.5	16.3	15.3
44.80	0.03	18.7	18.7	18.2	18.0	18.5	16.3	15.3
44.85	0.00	18.7	18.7	18.2	18.0	18.5	16.4	15.3
44.98	-0.09	18.7	18.7	18.3	18.0	18.5	16.4	15.3
44.99	-0.09	17.4	17.4	17.4	17.5	17.3	16.8	16.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	9.4	9.4	9.4	9.4	9.4	9.4	9.4
0.35	27.65	10.1	10.1	10.1	10.1	10.1	10.1	10.1
0.50	27.55	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.65	27.46	10.7	10.7	10.7	10.7	10.7	10.7	10.7
1.00	27.24	11.5	11.5	11.5	11.5	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.15	27.15	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1.30	27.06	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1.50	26.93	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.65	26.84	12.7	12.7	12.7	12.7	12.7	12.7	12.7
1.85	26.72	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.00	26.62	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.05	26.59	13.4	13.4	13.4	13.4	13.4	13.4	13.4
2.20	26.50	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.50	26.31	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.70	26.19	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.90	26.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6	14.6	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.43	25.73	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.44	25.73	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.45	25.72	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.46	25.72	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.50	25.69	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3.65	25.60	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.00	25.38	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.20	25.26	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.50	25.07	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.75	24.91	15.7	15.7	15.7	15.7	15.7	15.7	15.7
5.00	24.76	15.7	15.7	15.7	15.7	15.7	15.7	15.7
5.28	24.58	15.8	15.8	15.8	15.8	15.8	15.8	15.8
5.38	24.52	15.8	15.8	15.8	15.8	15.8	15.8	15.8
5.39	24.52	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.50	24.45	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.55	24.42	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.65	24.35	15.4	15.4	15.4	15.4	15.4	15.4	15.4
6.00	24.14	15.8	15.8	15.8	15.8	15.8	15.8	15.8
6.05	24.11	15.9	15.9	15.9	15.9	15.9	15.9	15.9
6.50	23.83	16.4	16.4	16.4	16.4	16.4	16.4	16.4
6.65	23.73	16.5	16.5	16.5	16.5	16.5	16.5	16.5
7.00	23.52	16.9	16.9	16.9	16.9	16.9	16.9	16.9
7.07	23.47	16.9	16.9	16.9	16.9	16.9	16.9	16.9
7.10	23.45	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.15	23.42	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.16	23.42	16.8	16.8	16.8	16.8	16.8	16.8	16.8
7.50	23.20	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.55	23.17	17.0	17.0	17.0	17.0	17.0	17.0	17.0
7.80	23.02	17.2	17.2	17.2	17.2	17.2	17.2	17.2
8.00	22.89	17.3	17.3	17.3	17.3	17.3	17.3	17.3
8.05	22.86	17.4	17.4	17.4	17.4	17.4	17.4	17.4
8.45	22.61	17.6	17.6	17.6	17.6	17.6	17.6	17.6
8.50	22.58	17.6	17.6	17.6	17.6	17.6	17.6	17.6
8.99	22.28	17.8	17.8	17.8	17.8	17.8	17.8	17.8
9.09	22.22	17.9	17.9	17.9	17.9	17.9	17.9	17.9
9.09	22.22	17.7	17.7	15.8	15.3	17.7	17.7	17.7
9.49	21.97	18.0	17.9	16.0	15.5	18.0	18.0	18.0
9.50	21.96	18.0	17.9	16.0	15.5	18.0	18.0	18.0
9.99	21.66	18.0	17.9	16.0	15.5	18.0	18.0	18.0
10.05	21.62	18.0	17.9	16.0	15.5	18.0	18.0	18.0
10.25	21.50	18.1	18.0	16.1	15.5	18.1	18.1	18.1
10.49	21.35	18.2	18.1	16.1	15.6	18.2	18.2	18.2
10.65	21.25	18.2	18.2	16.2	15.6	18.2	18.2	18.2
10.99	21.04	18.4	18.4	16.3	15.7	18.4	18.4	18.4
11.10	20.97	18.5	18.4	16.3	15.7	18.5	18.5	18.5
11.41	20.78	18.6	18.6	16.5	15.8	18.6	18.6	18.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****									
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release	
11.45	20.75	18.6	18.6	16.5	15.9	18.6	18.6	18.6	
11.49	20.73	18.7	18.6	16.5	15.9	18.7	18.7	18.7	
11.75	20.56	18.9	18.8	16.6	16.0	18.9	18.9	18.9	
11.99	20.42	19.0	19.0	16.8	16.1	19.0	19.0	19.0	
12.20	20.28	19.2	19.1	16.9	16.2	19.2	19.2	19.2	
12.35	20.19	19.3	19.3	17.0	16.2	19.3	19.3	19.3	
12.48	20.11	19.3	19.3	17.0	16.2	19.3	19.3	19.3	
12.49	20.10	19.3	19.3	17.0	16.2	19.3	19.3	19.3	
12.52	20.08	19.3	19.3	17.0	16.2	19.3	19.3	19.3	
12.53	20.08	19.2	19.2	17.0	16.2	19.2	19.2	19.2	
12.70	19.97	19.2	19.2	17.0	16.2	19.2	19.2	19.2	
12.99	19.79	19.4	19.4	17.1	16.4	19.4	19.4	19.4	
13.25	19.63	19.5	19.5	17.2	16.5	19.5	19.5	19.5	
13.31	19.59	19.5	19.5	17.3	16.5	19.5	19.5	19.5	
13.40	19.54	19.6	19.6	17.3	16.5	19.6	19.6	19.6	
13.40	19.54	19.6	19.6	17.3	16.5	19.6	19.6	19.6	
13.49	19.48	19.6	19.6	17.3	16.6	19.6	19.6	19.6	
13.75	19.32	19.7	19.7	17.5	16.7	19.7	19.7	19.7	
13.99	19.17	19.8	19.8	17.5	16.7	19.8	19.8	19.8	
14.45	18.89	19.9	19.9	17.6	16.8	19.9	19.9	19.9	
14.49	18.86	19.9	19.9	17.6	16.8	19.9	19.9	19.9	
14.80	18.67	19.9	19.9	17.6	16.8	19.9	19.9	19.9	
14.99	18.55	20.0	20.0	17.7	16.9	20.0	20.0	20.0	
15.20	18.42	20.0	20.0	17.7	16.9	20.0	20.0	20.0	
15.49	18.24	20.1	20.1	17.8	17.0	20.1	20.1	20.1	
15.80	18.05	20.2	20.2	17.9	17.1	20.2	20.2	20.2	
15.99	17.93	20.3	20.3	18.0	17.1	20.3	20.3	20.3	
16.20	17.80	20.3	20.3	18.0	17.2	20.3	20.3	20.3	
16.34	17.72	20.4	20.4	18.0	17.2	20.4	20.4	20.4	
16.34	17.71	20.3	20.3	18.0	17.2	20.3	20.3	20.3	
16.49	17.62	20.4	20.4	18.1	17.2	20.4	20.4	20.4	
16.75	17.46	20.4	20.4	18.1	17.3	20.4	20.4	20.4	
16.99	17.31	20.5	20.5	18.3	17.5	20.5	20.5	20.5	
17.10	17.24	20.5	20.5	18.4	17.6	20.5	20.5	20.5	
17.30	17.12	20.6	20.6	18.5	17.8	20.6	20.6	20.6	
17.49	17.00	20.7	20.7	18.6	17.9	20.7	20.7	20.7	
17.65	16.90	20.7	20.7	18.7	18.0	20.7	20.7	20.7	
17.90	16.74	20.8	20.8	18.8	18.2	20.8	20.8	20.8	
17.99	16.69	20.8	20.8	18.9	18.3	20.8	20.8	20.8	
18.15	16.59	20.8	20.8	18.9	18.3	20.8	20.8	20.8	
18.19	16.56	20.9	20.8	18.9	18.4	20.9	20.9	20.9	
18.19	16.56	20.9	20.8	18.9	18.4	20.9	20.9	20.9	
18.36	16.45	20.8	20.8	19.0	18.4	20.8	20.8	20.8	
18.37	16.45	19.7	19.6	18.6	18.2	19.1	15.6	14.4	
18.65	16.28	19.7	19.6	18.6	18.2	19.1	15.6	14.5	
18.69	16.25	19.7	19.6	18.6	18.2	19.1	15.6	14.5	
18.95	16.09	19.7	19.7	18.6	18.3	19.2	15.7	14.5	
19.19	15.94	19.7	19.6	18.6	18.3	19.2	15.7	14.6	
19.32	15.86	19.7	19.6	18.6	18.3	19.2	15.7	14.6	
19.43	15.80	19.7	19.6	18.6	18.3	19.1	15.7	14.6	
19.43	15.79	19.2	19.2	18.4	18.1	18.7	15.6	14.5	
19.65	15.66	19.2	19.1	18.4	18.1	18.7	15.6	14.6	
19.69	15.63	19.2	19.1	18.4	18.1	18.7	15.6	14.6	
20.15	15.34	19.2	19.2	18.5	18.1	18.7	15.7	14.6	
20.19	15.32	19.2	19.2	18.5	18.1	18.7	15.7	14.6	
20.69	15.01	19.2	19.2	18.5	18.2	18.7	15.8	14.7	
20.95	14.85	19.2	19.2	18.5	18.2	18.8	15.8	14.7	
21.19	14.70	19.2	19.2	18.5	18.2	18.8	15.9	14.8	
21.40	14.57	19.2	19.2	18.5	18.2	18.8	15.9	14.8	
21.60	14.44	19.3	19.2	18.5	18.2	18.8	15.9	14.8	
21.69	14.39	19.3	19.2	18.5	18.3	18.8	15.9	14.8	
21.69	14.39	19.2	19.2	18.5	18.2	18.7	15.9	14.8	
22.19	14.08	19.2	19.2	18.5	18.3	18.8	16.0	14.9	
22.20	14.07	19.2	19.2	18.5	18.3	18.8	16.0	14.9	
22.40	13.95	19.2	19.2	18.6	18.3	18.8	16.0	14.9	

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

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Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	19.2	19.2	18.6	18.3	18.8	16.0	14.9
22.80	13.70	19.2	19.2	18.6	18.3	18.8	16.0	14.9
23.19	13.46	19.2	19.2	18.6	18.3	18.8	16.0	14.9
23.30	13.39	19.2	19.2	18.6	18.3	18.8	16.0	15.0
23.69	13.14	19.2	19.2	18.6	18.3	18.8	16.1	15.0
24.05	12.92	19.2	19.2	18.6	18.3	18.8	16.1	15.0
24.19	12.83	19.2	19.2	18.6	18.3	18.8	16.1	15.0
24.50	12.64	19.2	19.2	18.6	18.3	18.8	16.1	15.1
24.69	12.52	19.2	19.2	18.6	18.3	18.8	16.1	15.1
24.70	12.52	19.2	19.2	18.6	18.3	18.8	16.1	15.1
25.05	12.30	19.3	19.2	18.7	18.4	18.8	16.2	15.1
25.19	12.21	19.3	19.2	18.7	18.4	18.8	16.2	15.1
25.69	11.90	19.3	19.2	18.7	18.4	18.8	16.2	15.1
25.85	11.80	19.3	19.2	18.7	18.4	18.8	16.2	15.1
26.19	11.59	19.3	19.2	18.7	18.4	18.8	16.2	15.1
26.69	11.28	19.3	19.2	18.7	18.4	18.9	16.3	15.2
27.19	10.97	19.3	19.2	18.7	18.5	18.9	16.3	15.2
27.20	10.96	19.3	19.2	18.7	18.5	18.9	16.3	15.2
27.45	10.81	19.3	19.2	18.7	18.5	18.9	16.3	15.2
27.69	10.66	19.3	19.3	18.8	18.5	18.9	16.4	15.3
27.90	10.53	19.3	19.3	18.8	18.5	18.9	16.4	15.3
28.19	10.35	19.3	19.3	18.8	18.5	18.9	16.4	15.4
28.69	10.04	19.4	19.3	18.8	18.6	18.9	16.5	15.4
28.75	10.00	19.4	19.3	18.8	18.6	18.9	16.5	15.4
28.98	9.85	19.4	19.3	18.8	18.6	19.0	16.5	15.4
28.99	9.85	19.1	19.1	18.7	18.5	18.7	16.4	15.4
29.19	9.73	19.2	19.1	18.7	18.5	18.7	16.4	15.4
29.25	9.69	19.2	19.1	18.7	18.5	18.8	16.5	15.4
29.69	9.42	19.2	19.1	18.8	18.6	18.8	16.5	15.5
30.00	9.22	19.2	19.1	18.8	18.6	18.8	16.5	15.5
30.19	9.11	19.2	19.2	18.8	18.6	18.8	16.6	15.6
30.30	9.04	19.2	19.2	18.8	18.6	18.8	16.6	15.6
30.69	8.80	19.3	19.2	18.9	18.7	18.9	16.6	15.6
31.19	8.48	19.3	19.2	18.9	18.7	18.9	16.7	15.7
31.24	8.45	19.3	19.2	18.9	18.7	18.9	16.7	15.7
31.30	8.42	19.3	19.2	18.9	18.7	18.9	16.7	15.7
31.74	8.14	19.3	19.2	18.9	18.7	18.9	16.7	15.7
31.95	8.01	19.3	19.3	18.9	18.7	18.9	16.7	15.8
32.24	7.83	19.3	19.3	18.9	18.7	18.9	16.8	15.8
32.25	7.83	19.3	19.3	18.9	18.7	18.9	16.8	15.8
32.74	7.52	19.4	19.3	19.0	18.8	19.0	16.8	15.8
33.24	7.21	19.4	19.4	19.0	18.9	19.0	16.9	15.9
33.30	7.17	19.4	19.4	19.0	18.9	19.1	16.9	15.9
33.45	7.08	19.4	19.4	19.0	18.9	19.1	16.9	15.9
33.74	6.90	19.4	19.4	19.1	18.9	19.1	16.9	16.0
34.20	6.61	19.5	19.4	19.1	18.9	19.1	17.0	16.0
34.24	6.59	19.5	19.4	19.1	18.9	19.1	17.0	16.0
34.55	6.40	19.5	19.4	19.1	19.0	19.1	17.0	16.0
34.69	6.31	19.5	19.5	19.1	19.0	19.1	17.0	16.1
34.69	6.31	19.4	19.4	19.1	19.0	19.1	17.0	16.1
34.74	6.28	19.4	19.4	19.1	19.0	19.1	17.0	16.1
34.85	6.21	19.5	19.4	19.1	19.0	19.1	17.0	16.1
35.24	5.97	19.5	19.5	19.2	19.0	19.1	17.1	16.2
35.50	5.81	19.5	19.5	19.2	19.1	19.2	17.1	16.2
35.74	5.66	19.6	19.5	19.3	19.1	19.2	17.2	16.3
36.24	5.35	19.6	19.6	19.3	19.2	19.3	17.3	16.3
36.50	5.19	19.6	19.6	19.4	19.2	19.3	17.3	16.4
36.74	5.04	19.7	19.6	19.4	19.3	19.3	17.4	16.5
36.93	4.92	19.7	19.7	19.4	19.3	19.4	17.4	16.5
36.93	4.92	19.6	19.6	19.4	19.3	19.3	17.4	16.5
36.95	4.91	19.6	19.6	19.4	19.3	19.3	17.4	16.5
37.24	4.73	19.6	19.6	19.4	19.3	19.3	17.4	16.5
37.60	4.50	19.7	19.6	19.4	19.3	19.3	17.4	16.5
37.74	4.41	19.7	19.7	19.5	19.4	19.4	17.5	16.6
37.80	4.38	19.7	19.7	19.5	19.4	19.4	17.5	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-3. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****									
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release	
38.10	4.19	19.8	19.8	19.6	19.5	19.5	17.6	16.7	
38.24	4.10	19.9	19.8	19.6	19.6	19.5	17.7	16.8	
38.25	4.10	19.9	19.8	19.7	19.6	19.5	17.7	16.8	
38.60	3.88	19.9	19.9	19.7	19.6	19.6	17.7	16.9	
38.74	3.79	19.9	19.9	19.7	19.6	19.6	17.7	16.9	
38.95	3.66	19.9	19.9	19.7	19.6	19.6	17.8	16.9	
39.15	3.54	19.9	19.9	19.7	19.6	19.6	17.8	16.9	
39.24	3.48	19.9	19.9	19.7	19.6	19.6	17.8	16.9	
39.65	3.23	20.0	19.9	19.8	19.7	19.6	17.8	17.0	
39.74	3.17	20.0	20.0	19.8	19.7	19.7	17.9	17.0	
39.95	3.04	20.1	20.0	19.9	19.8	19.8	18.0	17.1	
40.24	2.86	20.1	20.1	19.9	19.8	19.8	18.0	17.1	
40.55	2.67	20.1	20.1	19.9	19.9	19.8	18.0	17.2	
40.70	2.58	20.2	20.1	20.0	19.9	19.9	18.1	17.3	
40.74	2.55	20.2	20.1	20.0	19.9	19.9	18.1	17.3	
41.15	2.30	20.2	20.2	20.0	20.0	19.9	18.1	17.3	
41.24	2.24	20.2	20.2	20.0	20.0	19.9	18.1	17.3	
41.74	1.93	20.2	20.2	20.0	20.0	19.9	18.2	17.3	
42.10	1.71	20.2	20.2	20.0	20.0	19.9	18.2	17.4	
42.24	1.62	20.3	20.2	20.1	20.0	20.0	18.2	17.4	
42.25	1.61	20.3	20.2	20.1	20.0	20.0	18.2	17.4	
42.74	1.31	20.4	20.3	20.2	20.1	20.0	18.3	17.5	
42.75	1.30	20.4	20.3	20.2	20.1	20.0	18.3	17.5	
43.24	1.00	20.5	20.4	20.3	20.3	20.2	18.5	17.7	
43.35	0.93	20.5	20.5	20.3	20.3	20.2	18.5	17.7	
43.65	0.74	20.5	20.5	20.3	20.3	20.2	18.5	17.7	
43.74	0.69	20.5	20.5	20.3	20.3	20.2	18.5	17.7	
43.90	0.59	20.5	20.5	20.3	20.3	20.2	18.5	17.7	
44.24	0.38	20.5	20.5	20.3	20.3	20.2	18.5	17.7	
44.45	0.25	20.5	20.5	20.3	20.3	20.2	18.5	17.7	
44.74	0.07	20.6	20.5	20.4	20.3	20.3	18.5	17.8	
44.80	0.03	20.6	20.5	20.4	20.4	20.3	18.6	17.8	
44.85	0.00	20.6	20.5	20.4	20.4	20.3	18.6	17.8	
44.98	-0.09	20.6	20.6	20.4	20.4	20.3	18.6	17.8	
44.99	-0.09	17.9	17.9	18.1	18.2	17.8	17.7	17.6	

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0.35	27.65	12.2	12.2	12.2	12.2	12.2	12.2	12.2
0.50	27.55	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1.00	27.24	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.30	27.06	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1.50	26.93	13.7	13.7	13.7	13.7	13.7	13.7	13.7
1.65	26.84	13.8	13.8	13.8	13.8	13.8	13.8	13.8
1.85	26.72	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.00	26.62	14.2	14.2	14.2	14.2	14.2	14.2	14.2
2.05	26.59	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.20	26.50	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.50	26.31	14.7	14.7	14.7	14.7	14.7	14.7	14.7
2.70	26.19	14.9	14.9	14.9	14.9	14.9	14.9	14.9
2.90	26.06	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.92	26.05	15.1	15.1	15.1	15.1	15.1	15.1	15.1
3.00	26.00	15.1	15.1	15.1	15.1	15.1	15.1	15.1
3.43	25.73	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.44	25.73	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.45	25.72	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.46	25.72	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.50	25.69	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3.65	25.60	15.6	15.6	15.6	15.6	15.6	15.6	15.6
4.00	25.38	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.20	25.26	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4.50	25.07	15.4	15.4	15.4	15.4	15.4	15.4	15.4
4.75	24.91	15.4	15.4	15.4	15.4	15.4	15.4	15.4
5.00	24.76	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.28	24.58	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.39	24.52	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.50	24.45	14.9	14.9	14.9	14.9	14.9	14.9	14.9
5.55	24.42	14.9	14.9	14.9	14.9	14.9	14.9	14.9
5.65	24.35	14.9	14.9	14.9	14.9	14.9	14.9	14.9
6.00	24.14	15.2	15.2	15.2	15.2	15.2	15.2	15.2
6.05	24.11	15.2	15.2	15.2	15.2	15.2	15.2	15.2
6.50	23.83	15.6	15.6	15.6	15.6	15.6	15.6	15.6
6.65	23.73	15.7	15.7	15.7	15.7	15.7	15.7	15.7
7.00	23.52	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.07	23.47	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.10	23.45	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.15	23.42	16.1	16.1	16.1	16.1	16.1	16.1	16.1
7.16	23.42	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.50	23.20	16.2	16.2	16.2	16.2	16.2	16.2	16.2
7.55	23.17	16.2	16.2	16.2	16.2	16.2	16.2	16.2
7.80	23.02	16.3	16.3	16.3	16.3	16.3	16.3	16.3
8.00	22.89	16.4	16.4	16.4	16.4	16.4	16.4	16.4
8.05	22.86	16.4	16.4	16.4	16.4	16.4	16.4	16.4
8.45	22.61	16.6	16.6	16.6	16.6	16.6	16.6	16.6
8.50	22.58	16.6	16.6	16.6	16.6	16.6	16.6	16.6
8.99	22.28	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.1	15.9	16.8	16.8	16.8
9.49	21.97	17.0	17.0	16.2	16.0	17.0	17.0	17.0
9.50	21.96	17.0	17.0	16.2	16.0	17.0	17.0	17.0
9.99	21.66	17.0	17.0	16.2	16.0	17.0	17.0	17.0
10.05	21.62	17.0	17.0	16.2	16.0	17.0	17.0	17.0
10.25	21.50	17.0	17.0	16.3	16.1	17.0	17.0	17.0
10.49	21.35	17.1	17.1	16.3	16.1	17.1	17.1	17.1
10.65	21.25	17.2	17.2	16.4	16.1	17.2	17.2	17.2
10.99	21.04	17.3	17.3	16.4	16.2	17.3	17.3	17.3
11.10	20.97	17.3	17.3	16.5	16.2	17.3	17.3	17.3
11.41	20.78	17.5	17.5	16.6	16.3	17.5	17.5	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
11.45	20.75	17.5	17.5	16.6	16.3	17.5	17.5	17.5
11.49	20.73	17.5	17.5	16.6	16.3	17.5	17.5	17.5
11.75	20.56	17.6	17.7	16.7	16.4	17.6	17.6	17.6
11.99	20.42	17.8	17.8	16.8	16.5	17.8	17.8	17.8
12.20	20.28	17.9	17.9	16.9	16.5	17.9	17.9	17.9
12.35	20.19	18.0	18.0	16.9	16.5	18.0	18.0	18.0
12.48	20.11	18.0	18.0	16.9	16.5	18.0	18.0	18.0
12.49	20.10	18.0	18.0	16.9	16.5	18.0	18.0	18.0
12.52	20.08	18.0	18.0	16.9	16.5	18.0	18.0	18.0
12.53	20.08	18.0	18.0	16.9	16.5	18.0	18.0	18.0
12.70	19.97	18.0	18.0	16.9	16.5	18.0	18.0	18.0
12.99	19.79	18.1	18.1	17.0	16.6	18.1	18.1	18.1
13.25	19.63	18.2	18.2	17.1	16.7	18.2	18.2	18.2
13.31	19.59	18.2	18.2	17.1	16.7	18.2	18.2	18.2
13.40	19.54	18.2	18.3	17.1	16.8	18.2	18.2	18.2
13.40	19.54	18.2	18.3	17.1	16.8	18.2	18.2	18.2
13.49	19.48	18.3	18.3	17.2	16.8	18.3	18.3	18.3
13.75	19.32	18.3	18.4	17.2	16.9	18.3	18.3	18.3
13.99	19.17	18.4	18.4	17.3	16.9	18.4	18.4	18.4
14.45	18.89	18.5	18.5	17.4	17.0	18.5	18.5	18.5
14.49	18.86	18.5	18.5	17.4	17.0	18.5	18.5	18.5
14.80	18.67	18.5	18.5	17.4	17.0	18.5	18.5	18.5
14.99	18.55	18.5	18.6	17.4	17.0	18.5	18.5	18.5
15.20	18.42	18.6	18.6	17.4	17.0	18.6	18.6	18.6
15.49	18.24	18.6	18.7	17.5	17.1	18.6	18.6	18.6
15.80	18.05	18.7	18.8	17.6	17.1	18.7	18.7	18.7
15.99	17.93	18.7	18.8	17.6	17.2	18.7	18.7	18.7
16.20	17.80	18.8	18.8	17.6	17.2	18.8	18.8	18.8
16.34	17.72	18.8	18.9	17.7	17.2	18.8	18.8	18.8
16.34	17.71	18.8	18.9	17.7	17.2	18.8	18.8	18.8
16.49	17.62	18.8	18.9	17.7	17.2	18.8	18.8	18.8
16.75	17.46	18.9	18.9	17.7	17.3	18.9	18.9	18.9
16.99	17.31	19.0	19.0	17.8	17.4	19.0	19.0	19.0
17.10	17.24	19.0	19.0	17.9	17.5	19.0	19.0	19.0
17.30	17.12	19.0	19.1	18.0	17.6	19.0	19.0	19.0
17.49	17.00	19.1	19.1	18.0	17.7	19.1	19.1	19.1
17.65	16.90	19.1	19.1	18.1	17.8	19.1	19.1	19.1
17.90	16.74	19.1	19.2	18.2	17.9	19.1	19.1	19.1
17.99	16.69	19.2	19.2	18.2	17.9	19.2	19.2	19.2
18.15	16.59	19.2	19.2	18.2	18.0	19.2	19.2	19.2
18.19	16.56	19.2	19.2	18.3	18.0	19.2	19.2	19.2
18.19	16.56	19.2	19.2	18.3	18.0	19.2	19.2	19.2
18.36	16.45	19.2	19.2	18.3	18.0	19.2	19.2	19.2
18.37	16.45	18.3	18.3	17.9	17.8	17.5	14.3	13.3
18.65	16.28	18.3	18.2	17.9	17.8	17.5	14.3	13.3
18.69	16.25	18.3	18.2	17.9	17.8	17.5	14.3	13.3
18.95	16.09	18.3	18.2	17.9	17.8	17.5	14.4	13.4
19.19	15.94	18.2	18.2	17.9	17.8	17.5	14.4	13.4
19.32	15.86	18.2	18.2	17.9	17.8	17.5	14.4	13.4
19.43	15.80	18.2	18.1	17.9	17.8	17.5	14.4	13.4
19.43	15.79	18.0	18.0	17.8	17.7	17.3	14.4	13.4
19.65	15.66	18.0	18.0	17.8	17.7	17.3	14.4	13.4
19.69	15.63	18.0	18.0	17.8	17.7	17.3	14.4	13.4
20.15	15.34	18.0	17.9	17.8	17.7	17.3	14.4	13.5
20.19	15.32	18.0	17.9	17.8	17.7	17.3	14.4	13.5
20.69	15.01	17.9	17.9	17.8	17.7	17.3	14.5	13.5
20.95	14.85	17.9	17.9	17.8	17.7	17.3	14.5	13.5
21.19	14.70	17.9	17.9	17.8	17.7	17.3	14.5	13.6
21.40	14.57	17.9	17.9	17.8	17.7	17.3	14.6	13.6
21.60	14.44	17.9	17.8	17.8	17.7	17.3	14.6	13.6
21.69	14.39	17.9	17.8	17.8	17.7	17.3	14.6	13.6
21.69	14.39	17.9	17.8	17.8	17.7	17.2	14.6	13.6
22.19	14.08	17.8	17.8	17.8	17.7	17.2	14.6	13.7
22.20	14.07	17.8	17.8	17.8	17.7	17.2	14.6	13.7
22.40	13.95	17.8	17.8	17.8	17.7	17.2	14.6	13.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	17.8	17.8	17.8	17.7	17.2	14.6	13.7
22.80	13.70	17.8	17.8	17.8	17.7	17.2	14.6	13.7
23.19	13.46	17.8	17.8	17.8	17.7	17.2	14.7	13.7
23.30	13.39	17.8	17.8	17.8	17.7	17.2	14.7	13.7
23.69	13.14	17.8	17.8	17.8	17.7	17.2	14.7	13.7
24.05	12.92	17.8	17.7	17.8	17.7	17.2	14.7	13.8
24.19	12.83	17.8	17.7	17.8	17.7	17.2	14.7	13.8
24.50	12.64	17.7	17.7	17.7	17.7	17.2	14.7	13.8
24.69	12.52	17.7	17.7	17.7	17.7	17.2	14.7	13.8
24.70	12.52	17.7	17.7	17.7	17.7	17.2	14.7	13.8
25.05	12.30	17.8	17.7	17.8	17.8	17.2	14.8	13.8
25.19	12.21	17.8	17.7	17.8	17.8	17.2	14.8	13.8
25.69	11.90	17.8	17.7	17.8	17.8	17.2	14.8	13.8
25.85	11.80	17.8	17.7	17.8	17.8	17.2	14.8	13.8
26.19	11.59	17.7	17.7	17.8	17.8	17.2	14.8	13.9
26.69	11.28	17.7	17.7	17.8	17.8	17.2	14.8	13.9
27.19	10.97	17.7	17.7	17.8	17.8	17.2	14.8	13.9
27.20	10.96	17.7	17.7	17.8	17.8	17.2	14.8	13.9
27.45	10.81	17.7	17.6	17.8	17.8	17.1	14.9	13.9
27.69	10.66	17.7	17.7	17.8	17.8	17.2	14.9	14.0
27.90	10.53	17.7	17.7	17.8	17.9	17.2	14.9	14.0
28.19	10.35	17.7	17.7	17.8	17.9	17.2	14.9	14.1
28.69	10.04	17.7	17.7	17.8	17.9	17.2	15.0	14.1
28.75	10.00	17.7	17.6	17.8	17.9	17.2	15.0	14.1
28.98	9.85	17.7	17.6	17.9	17.9	17.2	15.0	14.1
28.99	9.85	17.7	17.6	17.8	17.9	17.1	15.0	14.1
29.19	9.73	17.7	17.6	17.8	17.9	17.1	15.0	14.1
29.25	9.69	17.7	17.6	17.8	17.9	17.1	15.0	14.1
29.69	9.42	17.6	17.6	17.8	17.9	17.1	15.1	14.2
30.00	9.22	17.6	17.6	17.8	17.9	17.1	15.1	14.2
30.19	9.11	17.7	17.6	17.9	18.0	17.2	15.1	14.3
30.30	9.04	17.7	17.6	17.9	18.0	17.2	15.1	14.3
30.69	8.80	17.7	17.6	17.9	18.0	17.2	15.1	14.3
31.19	8.48	17.6	17.6	17.9	18.0	17.2	15.2	14.3
31.24	8.45	17.6	17.6	17.9	18.0	17.2	15.2	14.3
31.30	8.42	17.7	17.6	17.9	18.0	17.2	15.2	14.4
31.74	8.14	17.6	17.6	17.9	18.0	17.2	15.2	14.4
31.95	8.01	17.6	17.6	17.9	18.0	17.2	15.2	14.4
32.24	7.83	17.6	17.6	17.9	18.0	17.2	15.3	14.4
32.25	7.83	17.6	17.6	17.9	18.0	17.2	15.3	14.4
32.74	7.52	17.7	17.6	17.9	18.0	17.2	15.3	14.5
33.24	7.21	17.7	17.7	18.0	18.1	17.3	15.4	14.6
33.30	7.17	17.7	17.7	18.0	18.1	17.3	15.4	14.6
33.45	7.08	17.7	17.7	18.0	18.1	17.3	15.4	14.6
33.74	6.90	17.7	17.7	18.0	18.1	17.3	15.4	14.6
34.20	6.61	17.7	17.7	18.0	18.1	17.3	15.4	14.6
34.24	6.59	17.7	17.7	18.0	18.1	17.3	15.4	14.6
34.55	6.40	17.7	17.7	18.0	18.2	17.3	15.5	14.6
34.69	6.31	17.8	17.7	18.0	18.2	17.3	15.5	14.7
34.69	6.31	17.8	17.7	18.0	18.2	17.3	15.5	14.7
34.74	6.28	17.8	17.7	18.0	18.2	17.3	15.5	14.7
34.85	6.21	17.8	17.7	18.1	18.2	17.3	15.5	14.7
35.24	5.97	17.8	17.8	18.1	18.3	17.4	15.6	14.8
35.50	5.81	17.8	17.8	18.1	18.3	17.4	15.6	14.8
35.74	5.66	17.8	17.8	18.1	18.3	17.4	15.6	14.9
36.24	5.35	17.9	17.8	18.2	18.4	17.5	15.7	14.9
36.50	5.19	17.9	17.9	18.2	18.4	17.5	15.8	15.0
36.74	5.04	17.9	17.9	18.3	18.4	17.5	15.8	15.0
36.93	4.92	18.0	17.9	18.3	18.5	17.5	15.8	15.1
36.93	4.92	17.9	17.9	18.3	18.5	17.5	15.8	15.1
36.95	4.91	17.9	17.9	18.3	18.5	17.5	15.8	15.1
37.24	4.73	18.0	17.9	18.3	18.5	17.5	15.9	15.1
37.60	4.50	18.0	17.9	18.3	18.5	17.5	15.9	15.1
37.74	4.41	18.0	17.9	18.3	18.5	17.6	15.9	15.2
37.80	4.38	18.0	17.9	18.4	18.5	17.6	15.9	15.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-4. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	18.1	18.0	18.4	18.6	17.6	16.0	15.3
38.24	4.10	18.1	18.1	18.5	18.7	17.7	16.1	15.4
38.25	4.10	18.1	18.1	18.5	18.7	17.7	16.1	15.4
38.60	3.88	18.1	18.1	18.5	18.8	17.8	16.1	15.4
38.74	3.79	18.2	18.1	18.5	18.8	17.8	16.2	15.4
38.95	3.66	18.2	18.1	18.5	18.8	17.8	16.2	15.4
39.15	3.54	18.2	18.1	18.5	18.8	17.8	16.2	15.4
39.24	3.48	18.2	18.1	18.5	18.8	17.8	16.2	15.4
39.65	3.23	18.2	18.1	18.6	18.8	17.8	16.2	15.5
39.74	3.17	18.2	18.2	18.6	18.8	17.8	16.3	15.5
39.95	3.04	18.3	18.2	18.7	18.9	17.9	16.3	15.6
40.24	2.86	18.3	18.3	18.7	18.9	17.9	16.4	15.6
40.55	2.67	18.3	18.3	18.7	18.9	17.9	16.4	15.7
40.70	2.58	18.4	18.3	18.8	19.0	18.0	16.5	15.8
40.74	2.55	18.4	18.3	18.8	19.0	18.0	16.5	15.8
41.15	2.30	18.4	18.3	18.8	19.0	18.0	16.5	15.8
41.24	2.24	18.4	18.3	18.8	19.0	18.0	16.5	15.8
41.74	1.93	18.4	18.3	18.8	19.0	18.0	16.5	15.8
42.10	1.71	18.4	18.3	18.8	19.0	18.1	16.5	15.8
42.24	1.62	18.4	18.4	18.8	19.0	18.1	16.5	15.9
42.25	1.61	18.4	18.4	18.8	19.0	18.1	16.5	15.9
42.74	1.31	18.5	18.4	18.9	19.1	18.2	16.7	16.0
42.75	1.30	18.5	18.4	18.9	19.1	18.2	16.7	16.0
43.24	1.00	18.6	18.5	19.0	19.3	18.3	16.8	16.1
43.35	0.93	18.6	18.6	19.0	19.3	18.3	16.8	16.1
43.65	0.74	18.6	18.6	19.0	19.3	18.3	16.8	16.1
43.74	0.69	18.6	18.6	19.0	19.3	18.3	16.8	16.1
43.90	0.59	18.6	18.6	19.0	19.3	18.3	16.8	16.1
44.24	0.38	18.6	18.6	19.0	19.3	18.3	16.8	16.1
44.45	0.25	18.6	18.6	19.0	19.3	18.3	16.8	16.1
44.74	0.07	18.7	18.7	19.1	19.3	18.5	16.9	16.2
44.80	0.03	18.7	18.7	19.1	19.3	18.5	16.9	16.2
44.85	0.00	18.7	18.7	19.1	19.3	18.5	16.9	16.2
44.98	-0.09	18.7	18.7	19.1	19.4	18.5	16.9	16.2
44.99	-0.09	18.2	18.2	18.4	18.6	18.1	17.6	17.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	9.8	9.8	9.8	9.8	9.8	9.8	9.8
0.35	27.65	10.4	10.4	10.4	10.4	10.4	10.4	10.4
0.50	27.55	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0.65	27.46	10.9	10.9	10.9	10.9	10.9	10.9	10.9
1.00	27.24	11.5	11.5	11.5	11.5	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.15	27.15	11.8	11.8	11.8	11.8	11.8	11.8	11.8
1.30	27.06	12.0	12.0	12.0	12.0	12.0	12.0	12.0
1.50	26.93	12.3	12.3	12.3	12.3	12.3	12.3	12.3
1.65	26.84	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1.85	26.72	12.8	12.8	12.8	12.8	12.8	12.8	12.8
2.00	26.62	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.20	26.50	13.3	13.3	13.3	13.3	13.3	13.3	13.3
2.50	26.31	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.70	26.19	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.90	26.06	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.92	26.05	14.1	14.1	14.1	14.1	14.1	14.1	14.1
3.00	26.00	14.2	14.2	14.2	14.2	14.2	14.2	14.2
3.43	25.73	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.44	25.73	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.45	25.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.46	25.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.50	25.69	14.8	14.8	14.8	14.8	14.8	14.8	14.8
3.65	25.60	14.9	14.9	14.9	14.9	14.9	14.9	14.9
4.00	25.38	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.20	25.26	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.50	25.07	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.75	24.91	15.2	15.2	15.2	15.2	15.2	15.2	15.2
5.00	24.76	15.2	15.2	15.2	15.2	15.2	15.2	15.2
5.28	24.58	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3	15.3	15.3	15.3	15.3
5.39	24.52	14.7	14.7	14.7	14.7	14.7	14.7	14.7
5.50	24.45	14.8	14.8	14.8	14.8	14.8	14.8	14.8
5.55	24.42	14.8	14.8	14.8	14.8	14.8	14.8	14.8
5.65	24.35	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.00	24.14	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.05	24.11	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.50	23.83	15.5	15.5	15.5	15.5	15.5	15.5	15.5
6.65	23.73	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.00	23.52	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.07	23.47	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.10	23.45	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.15	23.42	16.0	16.0	16.0	16.0	16.0	16.0	16.0
7.16	23.42	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.50	23.20	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.55	23.17	15.9	15.9	15.9	15.9	15.9	15.9	15.9
7.80	23.02	16.0	16.0	16.0	16.0	16.0	16.0	16.0
8.00	22.89	16.2	16.2	16.2	16.2	16.2	16.2	16.2
8.05	22.86	16.2	16.2	16.2	16.2	16.2	16.2	16.2
8.45	22.61	16.5	16.5	16.5	16.5	16.5	16.5	16.5
8.50	22.58	16.5	16.5	16.5	16.5	16.5	16.5	16.5
8.99	22.28	16.8	16.8	16.8	16.8	16.8	16.8	16.8
9.09	22.22	16.9	16.9	16.9	16.9	16.9	16.9	16.9
9.09	22.22	16.8	16.8	15.8	15.6	16.8	16.8	16.8
9.49	21.97	17.0	17.0	15.9	15.7	17.0	17.0	17.0
9.50	21.96	17.0	17.0	15.9	15.7	17.0	17.0	17.0
9.99	21.66	17.1	17.1	16.0	15.8	17.1	17.1	17.1
10.05	21.62	17.2	17.2	16.0	15.8	17.2	17.2	17.2
10.25	21.50	17.3	17.3	16.1	15.8	17.3	17.3	17.3
10.49	21.35	17.4	17.4	16.1	15.9	17.4	17.4	17.4
10.65	21.25	17.4	17.4	16.2	15.9	17.4	17.4	17.4
10.99	21.04	17.5	17.5	16.3	15.9	17.5	17.5	17.5
11.10	20.97	17.6	17.6	16.3	16.0	17.6	17.6	17.6
11.41	20.78	17.7	17.7	16.4	16.0	17.7	17.7	17.7
11.45	20.75	17.7	17.8	16.4	16.0	17.7	17.7	17.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	17.8	17.8	16.4	16.0	17.8	17.8	17.8
11.75	20.56	17.9	18.0	16.5	16.1	17.9	17.9	17.9
11.99	20.42	18.1	18.1	16.6	16.2	18.1	18.1	18.1
12.20	20.28	18.2	18.2	16.6	16.2	18.2	18.2	18.2
12.35	20.19	18.3	18.3	16.7	16.3	18.3	18.3	18.3
12.48	20.11	18.4	18.4	16.8	16.3	18.4	18.4	18.4
12.49	20.10	18.4	18.4	16.8	16.3	18.4	18.4	18.4
12.52	20.08	18.4	18.4	16.8	16.3	18.4	18.4	18.4
12.53	20.08	18.3	18.4	16.8	16.3	18.3	18.3	18.3
12.70	19.97	18.4	18.5	16.8	16.4	18.4	18.4	18.4
12.99	19.79	18.5	18.6	16.9	16.4	18.5	18.5	18.5
13.25	19.63	18.6	18.7	17.0	16.5	18.6	18.6	18.6
13.31	19.59	18.7	18.7	17.0	16.5	18.7	18.7	18.7
13.40	19.54	18.7	18.7	17.0	16.5	18.7	18.7	18.7
13.40	19.54	18.7	18.7	17.0	16.5	18.7	18.7	18.7
13.49	19.48	18.7	18.7	17.0	16.6	18.7	18.7	18.7
13.75	19.32	18.8	18.8	17.1	16.6	18.8	18.8	18.8
13.99	19.17	18.9	18.9	17.2	16.7	18.9	18.9	18.9
14.45	18.89	19.0	19.0	17.3	16.7	19.0	19.0	19.0
14.49	18.86	19.0	19.0	17.3	16.7	19.0	19.0	19.0
14.80	18.67	19.0	19.0	17.3	16.8	19.0	19.0	19.0
14.99	18.55	19.0	19.1	17.3	16.8	19.0	19.0	19.0
15.20	18.42	19.1	19.1	17.4	16.8	19.1	19.1	19.1
15.49	18.24	19.2	19.2	17.4	16.9	19.2	19.2	19.2
15.80	18.05	19.2	19.2	17.5	16.9	19.2	19.2	19.2
15.99	17.93	19.3	19.3	17.5	17.0	19.3	19.3	19.3
16.20	17.80	19.3	19.3	17.5	17.0	19.3	19.3	19.3
16.34	17.72	19.3	19.4	17.6	17.0	19.3	19.3	19.3
16.34	17.71	19.1	19.2	17.5	17.0	19.1	19.1	19.1
16.49	17.62	19.2	19.2	17.5	17.0	19.2	19.2	19.2
16.75	17.46	19.2	19.2	17.6	17.0	19.2	19.2	19.2
16.99	17.31	19.3	19.3	17.7	17.2	19.3	19.3	19.3
17.10	17.24	19.3	19.3	17.7	17.2	19.3	19.3	19.3
17.30	17.12	19.3	19.3	17.8	17.3	19.3	19.3	19.3
17.49	17.00	19.4	19.4	17.9	17.4	19.4	19.4	19.4
17.65	16.90	19.4	19.4	17.9	17.5	19.4	19.4	19.4
17.90	16.74	19.4	19.4	18.0	17.6	19.4	19.4	19.4
17.99	16.69	19.4	19.4	18.0	17.6	19.4	19.4	19.4
18.15	16.59	19.5	19.5	18.0	17.7	19.5	19.5	19.5
18.19	16.56	19.5	19.5	18.1	17.7	19.5	19.5	19.5
18.19	16.56	19.5	19.5	18.1	17.7	19.5	19.5	19.5
18.36	16.45	19.5	19.5	18.1	17.7	19.5	19.5	19.5
18.37	16.45	18.3	18.3	17.8	17.5	17.7	13.5	12.5
18.65	16.28	18.4	18.4	17.8	17.6	17.8	13.6	12.5
18.69	16.25	18.4	18.4	17.8	17.6	17.8	13.6	12.6
18.95	16.09	18.5	18.5	17.9	17.6	17.9	13.7	12.6
19.19	15.94	18.5	18.5	17.9	17.6	18.0	13.7	12.7
19.32	15.86	18.5	18.5	17.9	17.6	18.0	13.8	12.7
19.43	15.80	18.5	18.5	17.9	17.6	18.0	13.8	12.7
19.43	15.79	17.8	17.8	17.6	17.5	17.3	13.7	12.7
19.65	15.66	17.9	17.9	17.6	17.5	17.4	13.8	12.7
19.69	15.63	17.9	17.9	17.6	17.5	17.4	13.8	12.7
20.15	15.34	18.0	18.0	17.7	17.5	17.5	13.9	12.8
20.19	15.32	18.0	18.0	17.7	17.5	17.5	13.9	12.8
20.69	15.01	18.1	18.1	17.8	17.6	17.6	14.0	12.9
20.95	14.85	18.2	18.2	17.8	17.6	17.7	14.1	13.0
21.19	14.70	18.2	18.2	17.9	17.7	17.8	14.1	13.0
21.40	14.57	18.3	18.3	17.9	17.7	17.8	14.2	13.1
21.60	14.44	18.3	18.3	17.9	17.7	17.9	14.2	13.1
21.69	14.39	18.3	18.3	17.9	17.7	17.9	14.3	13.1
21.69	14.39	18.3	18.3	17.9	17.7	17.9	14.3	13.1
22.19	14.08	18.4	18.4	18.0	17.8	18.0	14.4	13.2
22.20	14.07	18.4	18.4	18.0	17.8	18.0	14.4	13.2
22.40	13.95	18.4	18.4	18.0	17.8	18.0	14.4	13.3
22.69	13.77	18.5	18.5	18.0	17.8	18.1	14.5	13.3
22.80	13.70	18.5	18.5	18.0	17.8	18.1	14.5	13.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	18.5	18.5	18.1	17.8	18.1	14.6	13.4
23.30	13.39	18.5	18.5	18.1	17.9	18.2	14.6	13.4
23.69	13.14	18.6	18.6	18.1	17.9	18.2	14.6	13.4
24.05	12.92	18.6	18.6	18.1	17.9	18.3	14.7	13.5
24.19	12.83	18.6	18.6	18.1	17.9	18.3	14.7	13.5
24.50	12.64	18.6	18.6	18.2	17.9	18.3	14.7	13.5
24.69	12.52	18.6	18.6	18.2	17.9	18.3	14.8	13.5
24.70	12.52	18.6	18.6	18.2	17.9	18.3	14.8	13.5
25.05	12.30	18.7	18.7	18.2	18.0	18.4	14.8	13.6
25.19	12.21	18.7	18.7	18.2	18.0	18.4	14.8	13.6
25.69	11.90	18.7	18.7	18.2	18.0	18.4	14.9	13.6
25.85	11.80	18.7	18.7	18.2	18.0	18.4	14.9	13.6
26.19	11.59	18.7	18.7	18.3	18.0	18.4	14.9	13.7
26.69	11.28	18.8	18.8	18.3	18.0	18.4	15.0	13.7
27.19	10.97	18.8	18.8	18.3	18.1	18.5	15.0	13.8
27.20	10.96	18.8	18.8	18.3	18.1	18.5	15.0	13.8
27.45	10.81	18.8	18.8	18.3	18.1	18.5	15.1	13.8
27.69	10.66	18.9	18.9	18.4	18.1	18.6	15.1	13.9
27.90	10.53	18.9	18.9	18.4	18.2	18.6	15.1	13.9
28.19	10.35	18.9	18.9	18.4	18.2	18.6	15.2	13.9
28.69	10.04	19.0	19.0	18.5	18.2	18.7	15.3	14.0
28.75	10.00	19.0	19.0	18.5	18.2	18.7	15.3	14.0
28.98	9.85	19.0	19.0	18.5	18.3	18.7	15.3	14.0
28.99	9.85	18.8	18.8	18.4	18.2	18.5	15.3	14.0
29.19	9.73	18.8	18.8	18.4	18.2	18.5	15.3	14.0
29.25	9.69	18.8	18.8	18.4	18.2	18.5	15.3	14.1
29.69	9.42	18.9	18.9	18.5	18.3	18.6	15.4	14.1
30.00	9.22	18.9	18.9	18.5	18.3	18.7	15.4	14.2
30.19	9.11	19.0	19.0	18.6	18.3	18.7	15.5	14.2
30.30	9.04	19.0	19.0	18.6	18.4	18.8	15.5	14.3
30.69	8.80	19.1	19.1	18.6	18.4	18.8	15.6	14.3
31.19	8.48	19.1	19.1	18.7	18.4	18.9	15.7	14.4
31.24	8.45	19.1	19.1	18.7	18.4	18.9	15.7	14.4
31.30	8.42	19.1	19.1	18.7	18.4	18.9	15.7	14.4
31.74	8.14	19.2	19.2	18.7	18.5	19.0	15.7	14.4
31.95	8.01	19.2	19.2	18.7	18.5	19.0	15.8	14.4
32.24	7.83	19.2	19.2	18.8	18.5	19.0	15.8	14.5
32.25	7.83	19.2	19.2	18.8	18.5	19.0	15.8	14.5
32.74	7.52	19.3	19.3	18.8	18.5	19.1	15.9	14.5
33.24	7.21	19.4	19.4	18.9	18.6	19.2	15.9	14.6
33.30	7.17	19.4	19.4	18.9	18.6	19.2	16.0	14.6
33.45	7.08	19.4	19.4	18.9	18.6	19.2	16.0	14.6
33.74	6.90	19.4	19.4	18.9	18.6	19.2	16.0	14.7
34.20	6.61	19.5	19.5	19.0	18.7	19.3	16.1	14.7
34.24	6.59	19.5	19.5	19.0	18.7	19.3	16.1	14.7
34.55	6.40	19.5	19.5	19.0	18.7	19.3	16.1	14.8
34.69	6.31	19.5	19.5	19.0	18.7	19.3	16.1	14.8
34.69	6.31	19.5	19.5	19.0	18.7	19.3	16.1	14.8
34.74	6.28	19.5	19.5	19.0	18.7	19.3	16.1	14.8
34.85	6.21	19.5	19.5	19.0	18.7	19.3	16.2	14.8
35.24	5.97	19.6	19.6	19.1	18.8	19.4	16.2	14.9
35.50	5.81	19.6	19.6	19.1	18.8	19.4	16.3	14.9
35.74	5.66	19.7	19.7	19.2	18.9	19.5	16.3	14.9
36.24	5.35	19.8	19.8	19.2	18.9	19.6	16.4	15.0
36.50	5.19	19.8	19.8	19.3	19.0	19.6	16.5	15.1
36.74	5.04	19.8	19.8	19.3	19.0	19.7	16.5	15.1
36.93	4.92	19.9	19.9	19.3	19.0	19.7	16.5	15.2
36.93	4.92	19.8	19.8	19.3	19.0	19.6	16.5	15.1
36.95	4.91	19.8	19.8	19.3	19.0	19.6	16.5	15.2
37.24	4.73	19.8	19.8	19.3	19.0	19.6	16.6	15.2
37.60	4.50	19.9	19.9	19.4	19.1	19.7	16.6	15.2
37.74	4.41	19.9	19.9	19.4	19.1	19.7	16.6	15.3
37.80	4.38	19.9	19.9	19.4	19.1	19.7	16.7	15.3
38.10	4.19	20.0	20.0	19.5	19.2	19.8	16.8	15.4
38.24	4.10	20.1	20.1	19.5	19.3	19.9	16.8	15.4
38.25	4.10	20.1	20.1	19.5	19.3	19.9	16.8	15.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-5. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	20.1	20.1	19.6	19.3	19.9	16.9	15.5
38.74	3.79	20.1	20.1	19.6	19.3	20.0	16.9	15.5
38.95	3.66	20.1	20.1	19.6	19.3	20.0	16.9	15.5
39.15	3.54	20.2	20.2	19.6	19.3	20.0	16.9	15.5
39.24	3.48	20.2	20.2	19.6	19.3	20.0	16.9	15.5
39.65	3.23	20.2	20.2	19.7	19.4	20.1	17.0	15.6
39.74	3.17	20.3	20.3	19.7	19.4	20.1	17.0	15.6
39.95	3.04	20.4	20.4	19.8	19.5	20.2	17.1	15.7
40.24	2.86	20.4	20.4	19.8	19.5	20.2	17.1	15.7
40.55	2.67	20.4	20.4	19.8	19.5	20.3	17.2	15.7
40.70	2.58	20.5	20.5	19.9	19.6	20.3	17.2	15.8
40.74	2.55	20.5	20.5	19.9	19.6	20.3	17.2	15.8
41.15	2.30	20.5	20.5	19.9	19.6	20.4	17.3	15.9
41.24	2.24	20.5	20.5	19.9	19.6	20.4	17.3	15.9
41.74	1.93	20.6	20.6	20.0	19.6	20.5	17.4	15.9
42.10	1.71	20.6	20.6	20.0	19.7	20.5	17.4	15.9
42.24	1.62	20.7	20.7	20.0	19.7	20.5	17.4	16.0
42.25	1.61	20.7	20.7	20.0	19.7	20.5	17.4	16.0
42.74	1.31	20.8	20.8	20.1	19.8	20.6	17.5	16.1
42.75	1.30	20.8	20.8	20.1	19.8	20.6	17.5	16.1
43.24	1.00	20.9	20.9	20.2	19.9	20.8	17.6	16.2
43.35	0.93	20.9	20.9	20.3	19.9	20.8	17.7	16.2
43.65	0.74	21.0	21.0	20.3	19.9	20.8	17.7	16.2
43.74	0.69	21.0	21.0	20.3	19.9	20.9	17.7	16.2
43.90	0.59	21.0	21.0	20.3	19.9	20.9	17.7	16.2
44.24	0.38	21.0	21.0	20.3	19.9	20.9	17.8	16.3
44.45	0.25	21.0	21.0	20.3	20.0	20.9	17.8	16.3
44.74	0.07	21.1	21.1	20.4	20.0	21.0	17.8	16.3
44.80	0.03	21.1	21.1	20.4	20.0	21.0	17.9	16.4
44.85	0.00	21.1	21.1	20.4	20.0	21.0	17.9	16.4
44.98	-0.09	21.1	21.1	20.4	20.0	21.0	17.9	16.4
44.99	-0.09	18.5	18.5	18.7	18.8	18.5	17.8	17.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-6. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	11.9	11.9	11.9	11.9	11.9	11.9	11.9
0.35	27.65	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.50	27.55	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6	12.6	12.6	12.6	12.6
1.00	27.24	13.0	13.0	13.0	13.0	13.0	13.0	13.0
1.15	27.15	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.15	27.15	13.1	13.1	13.1	13.1	13.1	13.1	13.1
1.30	27.06	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.50	26.93	13.4	13.4	13.4	13.4	13.4	13.4	13.4
1.65	26.84	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1.85	26.72	13.8	13.8	13.8	13.8	13.8	13.8	13.8
2.00	26.62	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.05	26.59	13.9	13.9	13.9	13.9	13.9	13.9	13.9
2.20	26.50	14.1	14.1	14.1	14.1	14.1	14.1	14.1
2.50	26.31	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.70	26.19	14.5	14.5	14.5	14.5	14.5	14.5	14.5
2.90	26.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6	14.6	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7	14.7	14.7	14.7	14.7
3.43	25.73	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.44	25.73	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.45	25.72	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.46	25.72	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.50	25.69	15.0	15.0	15.0	15.0	15.0	15.0	15.0
3.65	25.60	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.00	25.38	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.20	25.26	15.1	15.1	15.1	15.1	15.1	15.1	15.1
4.50	25.07	15.0	15.0	15.0	15.0	15.0	15.0	15.0
4.75	24.91	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.00	24.76	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.28	24.58	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.38	24.52	15.0	15.0	15.0	15.0	15.0	15.0	15.0
5.39	24.52	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.50	24.45	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.55	24.42	14.6	14.6	14.6	14.6	14.6	14.6	14.6
5.65	24.35	14.6	14.6	14.6	14.6	14.6	14.6	14.6
6.00	24.14	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.05	24.11	14.8	14.8	14.8	14.8	14.8	14.8	14.8
6.50	23.83	15.1	15.1	15.1	15.1	15.1	15.1	15.1
6.65	23.73	15.2	15.2	15.2	15.2	15.2	15.2	15.2
7.00	23.52	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.07	23.47	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.10	23.45	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.15	23.42	15.5	15.5	15.5	15.5	15.5	15.5	15.5
7.16	23.42	15.4	15.4	15.4	15.4	15.4	15.4	15.4
7.50	23.20	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.55	23.17	15.6	15.6	15.6	15.6	15.6	15.6	15.6
7.80	23.02	15.7	15.7	15.7	15.7	15.7	15.7	15.7
8.00	22.89	15.8	15.8	15.8	15.8	15.8	15.8	15.8
8.05	22.86	15.9	15.9	15.9	15.9	15.9	15.9	15.9
8.45	22.61	16.1	16.1	16.1	16.1	16.1	16.1	16.1
8.50	22.58	16.1	16.1	16.1	16.1	16.1	16.1	16.1
8.99	22.28	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4	16.4	16.4	16.4	16.4
9.09	22.22	16.4	16.5	17.7	17.9	16.4	16.4	16.4
9.49	21.97	16.6	16.7	17.8	18.0	16.6	16.6	16.6
9.50	21.96	16.6	16.7	17.8	18.0	16.6	16.6	16.6
9.99	21.66	16.8	16.9	17.8	18.0	16.8	16.8	16.8
10.05	21.62	16.8	16.9	17.9	18.0	16.8	16.8	16.8
10.25	21.50	16.8	17.0	17.9	18.0	16.8	16.8	16.8
10.49	21.35	16.9	17.0	17.9	18.0	16.9	16.9	16.9
10.65	21.25	17.0	17.1	17.9	18.1	17.0	17.0	17.0
10.99	21.04	17.1	17.2	18.0	18.1	17.1	17.1	17.1
11.10	20.97	17.1	17.2	18.0	18.1	17.1	17.1	17.1
11.41	20.78	17.2	17.4	18.0	18.1	17.2	17.2	17.2
11.45	20.75	17.3	17.4	18.0	18.2	17.3	17.3	17.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-6. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	17.3	17.4	18.0	18.2	17.3	17.3	17.3
11.75	20.56	17.4	17.5	18.1	18.2	17.4	17.4	17.4
11.99	20.42	17.5	17.6	18.1	18.2	17.5	17.5	17.5
12.20	20.28	17.6	17.7	18.2	18.3	17.6	17.6	17.6
12.35	20.19	17.7	17.8	18.2	18.3	17.7	17.7	17.7
12.48	20.11	17.8	17.9	18.2	18.3	17.8	17.8	17.8
12.49	20.10	17.8	17.9	18.2	18.3	17.8	17.8	17.8
12.52	20.08	17.8	17.9	18.2	18.3	17.8	17.8	17.8
12.53	20.08	17.8	17.9	18.2	18.3	17.8	17.8	17.8
12.70	19.97	17.8	17.9	18.3	18.3	17.8	17.8	17.8
12.99	19.79	17.9	18.0	18.3	18.3	17.9	17.9	17.9
13.25	19.63	18.0	18.1	18.3	18.4	18.0	18.0	18.0
13.31	19.59	18.0	18.1	18.4	18.4	18.0	18.0	18.0
13.40	19.54	18.0	18.1	18.4	18.4	18.0	18.0	18.0
13.40	19.54	18.0	18.1	18.4	18.4	18.0	18.0	18.0
13.49	19.48	18.0	18.1	18.4	18.4	18.0	18.0	18.0
13.75	19.32	18.1	18.2	18.4	18.4	18.1	18.1	18.1
13.99	19.17	18.2	18.3	18.4	18.5	18.2	18.2	18.2
14.45	18.89	18.2	18.3	18.5	18.5	18.2	18.2	18.2
14.49	18.86	18.2	18.3	18.5	18.5	18.2	18.2	18.2
14.80	18.67	18.3	18.4	18.5	18.5	18.3	18.3	18.3
14.99	18.55	18.3	18.4	18.5	18.5	18.3	18.3	18.3
15.20	18.42	18.3	18.4	18.5	18.5	18.3	18.3	18.3
15.49	18.24	18.4	18.5	18.6	18.6	18.4	18.4	18.4
15.80	18.05	18.4	18.5	18.6	18.6	18.4	18.4	18.4
15.99	17.93	18.5	18.6	18.6	18.6	18.5	18.5	18.5
16.20	17.80	18.5	18.6	18.6	18.6	18.5	18.5	18.5
16.34	17.72	18.5	18.6	18.6	18.6	18.5	18.5	18.5
16.34	17.71	18.4	18.5	18.6	18.6	18.4	18.4	18.4
16.49	17.62	18.4	18.5	18.6	18.6	18.4	18.4	18.4
16.75	17.46	18.5	18.6	18.6	18.6	18.5	18.5	18.5
16.99	17.31	18.5	18.6	18.7	18.7	18.5	18.5	18.5
17.10	17.24	18.5	18.6	18.7	18.7	18.5	18.5	18.5
17.30	17.12	18.5	18.6	18.7	18.8	18.5	18.5	18.5
17.49	17.00	18.6	18.6	18.8	18.8	18.6	18.6	18.6
17.65	16.90	18.6	18.7	18.8	18.8	18.6	18.6	18.6
17.90	16.74	18.6	18.7	18.8	18.9	18.6	18.6	18.6
17.99	16.69	18.6	18.7	18.8	18.9	18.6	18.6	18.6
18.15	16.59	18.6	18.7	18.9	18.9	18.6	18.6	18.6
18.19	16.56	18.6	18.7	18.9	18.9	18.6	18.6	18.6
18.19	16.56	18.6	18.7	18.9	18.9	18.6	18.6	18.6
18.36	16.45	18.6	18.7	18.9	18.9	18.6	18.6	18.6
18.37	16.45	17.9	17.9	18.6	18.7	17.1	14.1	13.5
18.65	16.28	17.9	18.0	18.6	18.7	17.2	14.2	13.6
18.69	16.25	17.9	18.0	18.6	18.7	17.2	14.2	13.6
18.95	16.09	18.0	18.0	18.6	18.8	17.3	14.3	13.6
19.19	15.94	18.0	18.0	18.6	18.8	17.3	14.3	13.6
19.32	15.86	18.0	18.0	18.6	18.8	17.3	14.3	13.6
19.43	15.80	18.0	18.0	18.6	18.8	17.3	14.3	13.7
19.43	15.79	17.8	17.9	18.5	18.7	17.2	14.3	13.6
19.65	15.66	17.9	17.9	18.5	18.7	17.2	14.3	13.7
19.69	15.63	17.9	17.9	18.5	18.7	17.2	14.4	13.7
20.15	15.34	17.9	17.9	18.6	18.8	17.3	14.4	13.8
20.19	15.32	17.9	17.9	18.6	18.8	17.3	14.4	13.8
20.69	15.01	18.0	18.0	18.6	18.8	17.4	14.5	13.8
20.95	14.85	18.0	18.0	18.6	18.8	17.4	14.6	13.9
21.19	14.70	18.0	18.0	18.6	18.8	17.5	14.6	13.9
21.40	14.57	18.0	18.0	18.6	18.8	17.5	14.7	13.9
21.60	14.44	18.0	18.1	18.6	18.8	17.5	14.7	14.0
21.69	14.39	18.0	18.1	18.6	18.8	17.5	14.7	14.0
21.69	14.39	18.0	18.1	18.6	18.8	17.5	14.7	14.0
22.19	14.08	18.1	18.1	18.6	18.8	17.6	14.8	14.0
22.20	14.07	18.1	18.1	18.6	18.8	17.6	14.8	14.0
22.40	13.95	18.1	18.1	18.6	18.8	17.6	14.8	14.1
22.69	13.77	18.1	18.1	18.6	18.8	17.6	14.9	14.1
22.80	13.70	18.1	18.1	18.6	18.8	17.6	14.9	14.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	18.1	18.2	18.7	18.8	17.7	14.9	14.1
23.30	13.39	18.1	18.2	18.7	18.8	17.7	14.9	14.2
23.69	13.14	18.1	18.2	18.7	18.9	17.7	15.0	14.2
24.05	12.92	18.2	18.2	18.7	18.9	17.7	15.0	14.2
24.19	12.83	18.2	18.2	18.7	18.9	17.7	15.0	14.2
24.50	12.64	18.2	18.2	18.7	18.9	17.8	15.1	14.3
24.69	12.52	18.2	18.2	18.7	18.9	17.8	15.1	14.3
24.70	12.52	18.2	18.2	18.7	18.9	17.8	15.1	14.3
25.05	12.30	18.2	18.2	18.7	18.9	17.8	15.1	14.3
25.19	12.21	18.2	18.2	18.7	18.9	17.8	15.1	14.3
25.69	11.90	18.2	18.2	18.7	18.9	17.8	15.1	14.3
25.85	11.80	18.2	18.2	18.7	18.9	17.8	15.1	14.3
26.19	11.59	18.2	18.2	18.7	18.9	17.8	15.2	14.4
26.69	11.28	18.2	18.2	18.7	18.9	17.8	15.2	14.4
27.19	10.97	18.2	18.3	18.8	19.0	17.8	15.3	14.4
27.20	10.96	18.2	18.3	18.8	19.0	17.8	15.3	14.4
27.45	10.81	18.2	18.3	18.8	19.0	17.9	15.3	14.5
27.69	10.66	18.3	18.3	18.8	19.0	17.9	15.3	14.5
27.90	10.53	18.3	18.3	18.8	19.0	17.9	15.4	14.6
28.19	10.35	18.3	18.3	18.8	19.0	18.0	15.4	14.6
28.69	10.04	18.3	18.4	18.9	19.0	18.0	15.5	14.6
28.75	10.00	18.3	18.4	18.9	19.1	18.0	15.5	14.6
28.98	9.85	18.4	18.4	18.9	19.1	18.0	15.5	14.7
28.99	9.85	18.3	18.4	18.9	19.1	18.0	15.5	14.7
29.19	9.73	18.4	18.4	18.9	19.1	18.0	15.5	14.7
29.25	9.69	18.4	18.4	18.9	19.1	18.0	15.5	14.7
29.69	9.42	18.4	18.4	18.9	19.1	18.1	15.6	14.8
30.00	9.22	18.4	18.4	18.9	19.1	18.1	15.6	14.8
30.19	9.11	18.5	18.5	19.0	19.1	18.1	15.7	14.8
30.30	9.04	18.5	18.5	19.0	19.2	18.2	15.7	14.9
30.69	8.80	18.5	18.5	19.0	19.2	18.2	15.8	14.9
31.19	8.48	18.5	18.6	19.0	19.2	18.3	15.8	14.9
31.24	8.45	18.5	18.6	19.0	19.2	18.3	15.8	14.9
31.30	8.42	18.6	18.6	19.0	19.2	18.3	15.8	14.9
31.74	8.14	18.6	18.6	19.0	19.2	18.3	15.9	15.0
31.95	8.01	18.6	18.6	19.0	19.2	18.3	15.9	15.0
32.24	7.83	18.6	18.6	19.0	19.2	18.4	15.9	15.0
32.25	7.83	18.6	18.6	19.0	19.2	18.4	15.9	15.0
32.74	7.52	18.7	18.7	19.1	19.3	18.4	16.0	15.1
33.24	7.21	18.8	18.8	19.1	19.3	18.5	16.1	15.1
33.30	7.17	18.8	18.8	19.1	19.3	18.5	16.1	15.1
33.45	7.08	18.8	18.8	19.1	19.3	18.5	16.1	15.2
33.74	6.90	18.8	18.8	19.2	19.4	18.5	16.1	15.2
34.20	6.61	18.8	18.8	19.2	19.4	18.6	16.2	15.2
34.24	6.59	18.8	18.9	19.2	19.4	18.6	16.2	15.2
34.55	6.40	18.9	18.9	19.2	19.4	18.6	16.2	15.3
34.69	6.31	18.9	18.9	19.2	19.4	18.6	16.2	15.3
34.69	6.31	18.9	18.9	19.2	19.4	18.6	16.2	15.3
34.74	6.28	18.9	18.9	19.2	19.4	18.6	16.2	15.3
34.85	6.21	18.9	18.9	19.3	19.5	18.6	16.3	15.3
35.24	5.97	19.0	19.0	19.3	19.5	18.7	16.3	15.4
35.50	5.81	19.0	19.0	19.3	19.5	18.8	16.4	15.4
35.74	5.66	19.0	19.0	19.4	19.5	18.8	16.4	15.4
36.24	5.35	19.1	19.1	19.4	19.6	18.9	16.5	15.5
36.50	5.19	19.1	19.1	19.5	19.6	18.9	16.5	15.6
36.74	5.04	19.2	19.2	19.5	19.7	18.9	16.5	15.6
36.93	4.92	19.2	19.2	19.5	19.7	19.0	16.6	15.6
36.93	4.92	19.2	19.2	19.5	19.7	19.0	16.6	15.6
36.95	4.91	19.2	19.2	19.5	19.7	19.0	16.6	15.6
37.24	4.73	19.2	19.2	19.5	19.7	19.0	16.6	15.7
37.60	4.50	19.3	19.3	19.6	19.8	19.0	16.7	15.7
37.74	4.41	19.3	19.3	19.6	19.8	19.1	16.7	15.7
37.80	4.38	19.3	19.3	19.6	19.8	19.1	16.7	15.8
38.10	4.19	19.4	19.4	19.7	19.9	19.2	16.8	15.8
38.24	4.10	19.4	19.5	19.7	19.9	19.2	16.8	15.9
38.25	4.10	19.4	19.5	19.7	19.9	19.2	16.9	15.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

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		Simulated Temperature (°C)						
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	19.5	19.5	19.8	19.9	19.3	16.9	15.9
38.74	3.79	19.5	19.5	19.8	19.9	19.3	16.9	15.9
38.95	3.66	19.5	19.5	19.8	19.9	19.3	16.9	15.9
39.15	3.54	19.5	19.5	19.8	19.9	19.3	16.9	15.9
39.24	3.48	19.5	19.5	19.8	20.0	19.3	16.9	16.0
39.65	3.23	19.6	19.6	19.8	20.0	19.4	17.0	16.0
39.74	3.17	19.6	19.6	19.9	20.0	19.4	17.0	16.0
39.95	3.04	19.7	19.7	19.9	20.1	19.5	17.1	16.1
40.24	2.86	19.7	19.8	19.9	20.1	19.5	17.1	16.1
40.55	2.67	19.8	19.8	20.0	20.1	19.6	17.2	16.2
40.70	2.58	19.8	19.8	20.0	20.1	19.6	17.2	16.2
40.74	2.55	19.8	19.8	20.0	20.2	19.6	17.2	16.2
41.15	2.30	19.9	19.9	20.0	20.2	19.7	17.3	16.3
41.24	2.24	19.9	19.9	20.0	20.2	19.7	17.3	16.3
41.74	1.93	19.9	19.9	20.1	20.2	19.8	17.3	16.3
42.10	1.71	20.0	20.0	20.1	20.2	19.8	17.4	16.3
42.24	1.62	20.0	20.0	20.1	20.3	19.8	17.4	16.4
42.25	1.61	20.0	20.0	20.1	20.3	19.8	17.4	16.4
42.74	1.31	20.1	20.1	20.2	20.3	19.9	17.5	16.4
42.75	1.30	20.1	20.1	20.2	20.3	19.9	17.5	16.5
43.24	1.00	20.2	20.2	20.3	20.4	20.0	17.6	16.5
43.35	0.93	20.2	20.3	20.3	20.4	20.1	17.6	16.6
43.65	0.74	20.3	20.3	20.3	20.5	20.1	17.6	16.6
43.74	0.69	20.3	20.3	20.3	20.5	20.1	17.6	16.6
43.90	0.59	20.3	20.3	20.3	20.5	20.1	17.7	16.6
44.24	0.38	20.3	20.3	20.3	20.5	20.2	17.7	16.6
44.45	0.25	20.3	20.3	20.4	20.5	20.2	17.7	16.6
44.74	0.07	20.4	20.4	20.4	20.5	20.2	17.8	16.7
44.80	0.03	20.4	20.4	20.4	20.5	20.3	17.8	16.7
44.85	0.00	20.4	20.4	20.4	20.5	20.3	17.8	16.7
44.98	-0.09	20.4	20.5	20.4	20.5	20.3	17.8	16.7
44.99	-0.09	19.0	19.0	19.4	19.6	19.0	18.2	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-7. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	10.2	10.2	10.2	10.2	10.2	10.2	10.2
0.35	27.65	11.2	11.2	11.2	11.2	11.2	11.2	11.2
0.50	27.55	11.6	11.6	11.6	11.6	11.6	11.6	11.6
0.65	27.46	11.9	11.9	11.9	11.9	11.9	11.9	11.9
1.00	27.24	12.9	12.9	12.9	12.9	12.9	12.9	12.9
1.15	27.15	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1.15	27.15	13.3	13.3	13.3	13.3	13.3	13.3	13.3
1.30	27.06	13.6	13.6	13.6	13.6	13.6	13.6	13.6
1.50	26.93	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1.65	26.84	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1.85	26.72	14.7	14.7	14.7	14.7	14.7	14.7	14.7
2.00	26.62	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.05	26.59	15.1	15.1	15.1	15.1	15.1	15.1	15.1
2.20	26.50	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.50	26.31	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.70	26.19	16.2	16.2	16.2	16.2	16.2	16.2	16.2
2.90	26.06	16.5	16.5	16.5	16.5	16.5	16.5	16.5
2.92	26.05	16.5	16.5	16.5	16.5	16.5	16.5	16.5
3.00	26.00	16.7	16.7	16.7	16.7	16.7	16.7	16.7
3.43	25.73	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.44	25.73	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.45	25.72	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.46	25.72	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.50	25.69	17.3	17.3	17.3	17.3	17.3	17.3	17.3
3.65	25.60	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.00	25.38	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.20	25.26	17.5	17.5	17.5	17.5	17.5	17.5	17.5
4.50	25.07	17.6	17.6	17.6	17.6	17.6	17.6	17.6
4.75	24.91	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.00	24.76	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.28	24.58	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.38	24.52	17.6	17.6	17.6	17.6	17.6	17.6	17.6
5.39	24.52	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.50	24.45	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.55	24.42	17.1	17.1	17.1	17.1	17.1	17.1	17.1
5.65	24.35	17.1	17.1	17.1	17.1	17.1	17.1	17.1
6.00	24.14	17.5	17.5	17.5	17.5	17.5	17.5	17.5
6.05	24.11	17.6	17.6	17.6	17.6	17.6	17.6	17.6
6.50	23.83	18.2	18.2	18.2	18.2	18.2	18.2	18.2
6.65	23.73	18.4	18.4	18.4	18.4	18.4	18.4	18.4
7.00	23.52	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.07	23.47	18.8	18.8	18.8	18.8	18.8	18.8	18.8
7.10	23.45	18.8	18.8	18.8	18.8	18.8	18.8	18.8
7.15	23.42	18.9	18.9	18.9	18.9	18.9	18.9	18.9
7.16	23.42	18.5	18.5	18.5	18.5	18.5	18.5	18.5
7.50	23.20	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.55	23.17	18.7	18.7	18.7	18.7	18.7	18.7	18.7
7.80	23.02	18.9	18.9	18.9	18.9	18.9	18.9	18.9
8.00	22.89	19.1	19.1	19.1	19.1	19.1	19.1	19.1
8.05	22.86	19.1	19.1	19.1	19.1	19.1	19.1	19.1
8.45	22.61	19.3	19.3	19.3	19.3	19.3	19.3	19.3
8.50	22.58	19.4	19.4	19.4	19.4	19.4	19.4	19.4
8.99	22.28	19.6	19.6	19.6	19.6	19.6	19.6	19.6
9.09	22.22	19.7	19.7	19.7	19.7	19.7	19.7	19.7
9.09	22.22	19.5	19.5	17.9	17.5	19.5	19.5	19.5
9.49	21.97	19.8	19.8	18.0	17.7	19.8	19.8	19.8
9.50	21.96	19.8	19.8	18.0	17.7	19.8	19.8	19.8
9.99	21.66	19.8	19.8	18.0	17.7	19.8	19.8	19.8
10.05	21.62	19.8	19.8	18.0	17.7	19.8	19.8	19.8
10.25	21.50	19.9	19.9	18.1	17.7	19.9	19.9	19.9
10.49	21.35	20.0	20.0	18.2	17.8	20.0	20.0	20.0
10.65	21.25	20.1	20.1	18.2	17.8	20.1	20.1	20.1
10.99	21.04	20.3	20.3	18.4	17.9	20.3	20.3	20.3
11.10	20.97	20.3	20.4	18.4	17.9	20.3	20.3	20.3
11.41	20.78	20.5	20.6	18.5	18.0	20.5	20.5	20.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

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Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
11.45	20.75	20.5	20.6	18.5	18.0	20.5	20.5	20.5
11.49	20.73	20.6	20.6	18.6	18.0	20.6	20.6	20.6
11.75	20.56	20.8	20.9	18.7	18.2	20.8	20.8	20.8
11.99	20.42	21.0	21.1	18.8	18.3	21.0	21.0	21.0
12.20	20.28	21.2	21.2	18.9	18.3	21.2	21.2	21.2
12.35	20.19	21.3	21.4	19.0	18.4	21.3	21.3	21.3
12.48	20.11	21.3	21.4	19.0	18.4	21.3	21.3	21.3
12.49	20.10	21.3	21.4	19.0	18.4	21.3	21.3	21.3
12.52	20.08	21.3	21.4	19.0	18.4	21.3	21.3	21.3
12.53	20.08	21.2	21.3	19.0	18.4	21.2	21.2	21.2
12.70	19.97	21.2	21.3	19.0	18.4	21.2	21.2	21.2
12.99	19.79	21.4	21.4	19.1	18.5	21.4	21.4	21.4
13.25	19.63	21.5	21.5	19.3	18.6	21.5	21.5	21.5
13.31	19.59	21.5	21.6	19.3	18.6	21.5	21.5	21.5
13.40	19.54	21.6	21.6	19.3	18.7	21.6	21.6	21.6
13.40	19.54	21.5	21.6	19.3	18.7	21.5	21.5	21.5
13.49	19.48	21.6	21.6	19.4	18.7	21.6	21.6	21.6
13.75	19.32	21.7	21.8	19.5	18.8	21.7	21.7	21.7
13.99	19.17	21.8	21.8	19.5	18.9	21.8	21.8	21.8
14.45	18.89	21.9	22.0	19.6	19.0	21.9	21.9	21.9
14.49	18.86	21.9	22.0	19.6	19.0	21.9	21.9	21.9
14.80	18.67	21.9	22.0	19.6	19.0	21.9	21.9	21.9
14.99	18.55	22.0	22.0	19.7	19.0	22.0	22.0	22.0
15.20	18.42	22.0	22.1	19.8	19.0	22.0	22.0	22.0
15.49	18.24	22.1	22.2	19.8	19.1	22.1	22.1	22.1
15.80	18.05	22.2	22.3	19.9	19.2	22.2	22.2	22.2
15.99	17.93	22.3	22.3	20.0	19.2	22.3	22.3	22.3
16.20	17.80	22.3	22.4	20.0	19.3	22.3	22.3	22.3
16.34	17.72	22.4	22.4	20.1	19.3	22.4	22.4	22.4
16.34	17.71	22.1	22.2	20.0	19.3	22.1	22.1	22.1
16.49	17.62	22.2	22.2	20.0	19.3	22.2	22.2	22.2
16.75	17.46	22.3	22.3	20.1	19.4	22.3	22.3	22.3
16.99	17.31	22.3	22.4	20.2	19.6	22.3	22.3	22.3
17.10	17.24	22.4	22.4	20.3	19.6	22.4	22.4	22.4
17.30	17.12	22.4	22.4	20.4	19.8	22.4	22.4	22.4
17.49	17.00	22.4	22.5	20.5	19.9	22.4	22.4	22.4
17.65	16.90	22.5	22.5	20.6	20.0	22.5	22.5	22.5
17.90	16.74	22.5	22.6	20.7	20.2	22.5	22.5	22.5
17.99	16.69	22.5	22.6	20.7	20.2	22.5	22.5	22.5
18.15	16.59	22.6	22.6	20.8	20.3	22.6	22.6	22.6
18.19	16.56	22.6	22.6	20.8	20.3	22.6	22.6	22.6
18.19	16.56	22.6	22.6	20.8	20.3	22.6	22.6	22.6
18.36	16.45	22.5	22.6	20.8	20.3	22.5	22.5	22.5
18.37	16.45	21.0	21.0	20.3	20.0	20.4	15.3	14.1
18.65	16.28	21.0	21.0	20.3	20.1	20.4	15.4	14.2
18.69	16.25	21.0	21.0	20.4	20.1	20.4	15.4	14.2
18.95	16.09	21.0	21.0	20.4	20.1	20.5	15.5	14.2
19.19	15.94	21.0	21.0	20.4	20.1	20.5	15.5	14.3
19.32	15.86	21.0	21.0	20.4	20.1	20.5	15.5	14.3
19.43	15.80	21.0	21.0	20.4	20.1	20.4	15.6	14.3
19.43	15.79	20.1	20.1	20.0	19.9	19.6	15.4	14.3
19.65	15.66	20.1	20.1	20.0	19.9	19.6	15.5	14.3
19.69	15.63	20.1	20.1	20.0	19.9	19.6	15.5	14.3
20.15	15.34	20.1	20.1	20.0	19.9	19.6	15.6	14.4
20.19	15.32	20.1	20.1	20.0	19.9	19.6	15.6	14.4
20.69	15.01	20.2	20.2	20.0	19.9	19.7	15.7	14.5
20.95	14.85	20.2	20.2	20.1	20.0	19.7	15.8	14.6
21.19	14.70	20.2	20.2	20.1	20.0	19.7	15.8	14.6
21.40	14.57	20.2	20.2	20.1	20.0	19.8	15.9	14.6
21.60	14.44	20.2	20.2	20.1	20.0	19.8	15.9	14.7
21.69	14.39	20.2	20.2	20.1	20.0	19.8	15.9	14.7
21.69	14.39	20.2	20.2	20.1	20.0	19.7	15.9	14.7
22.19	14.08	20.2	20.2	20.1	20.0	19.8	16.0	14.8
22.20	14.07	20.2	20.2	20.1	20.0	19.8	16.0	14.8
22.40	13.95	20.2	20.2	20.1	20.0	19.8	16.0	14.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

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Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	20.2	20.2	20.1	20.0	19.8	16.0	14.8
22.80	13.70	20.2	20.2	20.1	20.0	19.8	16.0	14.8
23.19	13.46	20.3	20.3	20.1	20.0	19.8	16.1	14.9
23.30	13.39	20.3	20.3	20.2	20.0	19.8	16.1	14.9
23.69	13.14	20.3	20.3	20.2	20.1	19.9	16.2	14.9
24.05	12.92	20.3	20.3	20.2	20.1	19.9	16.2	15.0
24.19	12.83	20.3	20.3	20.2	20.1	19.9	16.2	15.0
24.50	12.64	20.3	20.3	20.2	20.1	19.9	16.2	15.0
24.69	12.52	20.3	20.3	20.2	20.1	19.9	16.2	15.0
24.70	12.52	20.3	20.3	20.2	20.1	19.9	16.2	15.0
25.05	12.30	20.3	20.3	20.2	20.1	19.9	16.3	15.1
25.19	12.21	20.3	20.3	20.2	20.1	19.9	16.3	15.1
25.69	11.90	20.3	20.3	20.2	20.1	19.9	16.3	15.1
25.85	11.80	20.3	20.3	20.2	20.1	19.9	16.3	15.1
26.19	11.59	20.3	20.3	20.2	20.1	19.9	16.4	15.1
26.69	11.28	20.3	20.3	20.3	20.2	19.9	16.4	15.1
27.19	10.97	20.3	20.3	20.3	20.2	19.9	16.4	15.2
27.20	10.96	20.3	20.3	20.3	20.2	19.9	16.4	15.2
27.45	10.81	20.3	20.3	20.3	20.2	19.9	16.5	15.2
27.69	10.66	20.3	20.3	20.3	20.2	20.0	16.5	15.3
27.90	10.53	20.4	20.4	20.3	20.3	20.0	16.6	15.3
28.19	10.35	20.4	20.4	20.4	20.3	20.0	16.6	15.4
28.69	10.04	20.4	20.4	20.4	20.3	20.0	16.6	15.4
28.75	10.00	20.4	20.4	20.4	20.3	20.0	16.6	15.4
28.98	9.85	20.4	20.4	20.4	20.3	20.0	16.7	15.5
28.99	9.85	20.2	20.2	20.3	20.3	19.8	16.6	15.4
29.19	9.73	20.2	20.2	20.3	20.3	19.8	16.7	15.5
29.25	9.69	20.2	20.2	20.3	20.3	19.8	16.7	15.5
29.69	9.42	20.2	20.2	20.3	20.3	19.9	16.8	15.6
30.00	9.22	20.2	20.2	20.4	20.3	19.9	16.8	15.6
30.19	9.11	20.3	20.3	20.4	20.4	19.9	16.9	15.6
30.30	9.04	20.3	20.3	20.4	20.4	20.0	16.9	15.7
30.69	8.80	20.3	20.3	20.4	20.4	20.0	16.9	15.7
31.19	8.48	20.3	20.3	20.4	20.4	20.0	17.0	15.8
31.24	8.45	20.3	20.3	20.4	20.4	20.0	17.0	15.8
31.30	8.42	20.4	20.4	20.5	20.5	20.0	17.0	15.8
31.74	8.14	20.4	20.4	20.5	20.5	20.1	17.1	15.9
31.95	8.01	20.4	20.4	20.5	20.5	20.1	17.1	15.9
32.24	7.83	20.4	20.4	20.5	20.5	20.1	17.1	15.9
32.25	7.83	20.4	20.4	20.5	20.5	20.1	17.1	15.9
32.74	7.52	20.5	20.5	20.5	20.5	20.2	17.2	16.0
33.24	7.21	20.5	20.5	20.6	20.6	20.2	17.3	16.1
33.30	7.17	20.5	20.5	20.6	20.6	20.2	17.3	16.1
33.45	7.08	20.5	20.5	20.6	20.6	20.2	17.3	16.1
33.74	6.90	20.5	20.5	20.6	20.6	20.3	17.3	16.1
34.20	6.61	20.6	20.5	20.7	20.7	20.3	17.4	16.2
34.24	6.59	20.6	20.5	20.7	20.7	20.3	17.4	16.2
34.55	6.40	20.6	20.6	20.7	20.7	20.3	17.4	16.2
34.69	6.31	20.6	20.6	20.7	20.7	20.3	17.4	16.2
34.69	6.31	20.6	20.5	20.7	20.7	20.3	17.4	16.2
34.74	6.28	20.6	20.6	20.7	20.7	20.3	17.4	16.2
34.85	6.21	20.6	20.6	20.7	20.7	20.3	17.5	16.3
35.24	5.97	20.6	20.6	20.8	20.8	20.4	17.5	16.3
35.50	5.81	20.7	20.6	20.8	20.8	20.4	17.6	16.4
35.74	5.66	20.7	20.7	20.8	20.8	20.4	17.6	16.4
36.24	5.35	20.8	20.7	20.9	20.9	20.5	17.7	16.5
36.50	5.19	20.8	20.8	20.9	20.9	20.5	17.8	16.6
36.74	5.04	20.8	20.8	21.0	21.0	20.5	17.8	16.6
36.93	4.92	20.8	20.8	21.0	21.0	20.6	17.9	16.7
36.93	4.92	20.8	20.8	21.0	21.0	20.5	17.8	16.7
36.95	4.91	20.8	20.8	21.0	21.0	20.5	17.8	16.7
37.24	4.73	20.8	20.8	21.0	21.0	20.5	17.9	16.7
37.60	4.50	20.8	20.8	21.0	21.0	20.5	17.9	16.8
37.74	4.41	20.8	20.8	21.0	21.1	20.6	18.0	16.8
37.80	4.38	20.9	20.9	21.0	21.1	20.6	18.0	16.8

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-7. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	21.0	20.9	21.1	21.2	20.7	18.1	17.0
38.24	4.10	21.0	21.0	21.2	21.3	20.7	18.2	17.0
38.25	4.10	21.0	21.0	21.2	21.3	20.8	18.2	17.1
38.60	3.88	21.1	21.0	21.3	21.3	20.8	18.2	17.1
38.74	3.79	21.1	21.0	21.3	21.3	20.8	18.2	17.1
38.95	3.66	21.1	21.1	21.3	21.3	20.8	18.3	17.1
39.15	3.54	21.1	21.1	21.3	21.3	20.8	18.3	17.1
39.24	3.48	21.1	21.1	21.3	21.3	20.8	18.3	17.1
39.65	3.23	21.1	21.1	21.3	21.4	20.9	18.3	17.2
39.74	3.17	21.2	21.2	21.4	21.4	20.9	18.4	17.3
39.95	3.04	21.3	21.2	21.4	21.5	21.0	18.5	17.4
40.24	2.86	21.3	21.3	21.5	21.5	21.0	18.5	17.4
40.55	2.67	21.3	21.3	21.5	21.5	21.1	18.5	17.4
40.70	2.58	21.4	21.4	21.5	21.6	21.1	18.6	17.5
40.74	2.55	21.4	21.4	21.5	21.6	21.1	18.6	17.5
41.15	2.30	21.4	21.4	21.6	21.6	21.2	18.7	17.6
41.24	2.24	21.4	21.4	21.6	21.6	21.2	18.7	17.6
41.74	1.93	21.4	21.4	21.6	21.7	21.2	18.7	17.6
42.10	1.71	21.4	21.4	21.6	21.7	21.2	18.7	17.6
42.24	1.62	21.5	21.5	21.6	21.7	21.2	18.8	17.7
42.25	1.61	21.5	21.5	21.6	21.7	21.2	18.8	17.7
42.74	1.31	21.6	21.6	21.7	21.8	21.3	18.9	17.8
42.75	1.30	21.6	21.6	21.7	21.8	21.3	18.9	17.8
43.24	1.00	21.7	21.7	21.8	21.9	21.5	19.0	18.0
43.35	0.93	21.7	21.7	21.9	22.0	21.5	19.1	18.0
43.65	0.74	21.7	21.7	21.9	22.0	21.5	19.1	18.0
43.74	0.69	21.7	21.7	21.9	22.0	21.5	19.1	18.0
43.90	0.59	21.7	21.7	21.9	22.0	21.5	19.1	18.0
44.24	0.38	21.7	21.7	21.9	22.0	21.5	19.1	18.0
44.45	0.25	21.7	21.7	21.9	22.0	21.5	19.1	18.0
44.74	0.07	21.8	21.8	21.9	22.0	21.6	19.1	18.1
44.80	0.03	21.8	21.8	21.9	22.0	21.6	19.1	18.1
44.85	0.00	21.8	21.8	21.9	22.0	21.6	19.2	18.1
44.98	-0.09	21.8	21.8	22.0	22.0	21.6	19.2	18.1
44.99	-0.09	19.3	19.3	19.8	20.2	19.2	18.8	18.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	12.3	12.3	12.3	12.3	12.3	12.3	12.3
0.35	27.65	12.9	12.9	12.9	12.9	12.9	12.9	12.9
0.50	27.55	13.2	13.2	13.2	13.2	13.2	13.2	13.2
0.65	27.46	13.5	13.5	13.5	13.5	13.5	13.5	13.5
1.00	27.24	14.1	14.1	14.1	14.1	14.1	14.1	14.1
1.15	27.15	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1.15	27.15	14.4	14.4	14.4	14.4	14.4	14.4	14.4
1.30	27.06	14.6	14.6	14.6	14.6	14.6	14.6	14.6
1.50	26.93	14.9	14.9	14.9	14.9	14.9	14.9	14.9
1.65	26.84	15.1	15.1	15.1	15.1	15.1	15.1	15.1
1.85	26.72	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.00	26.62	15.6	15.6	15.6	15.6	15.6	15.6	15.6
2.05	26.59	15.7	15.7	15.7	15.7	15.7	15.7	15.7
2.20	26.50	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.50	26.31	16.3	16.3	16.3	16.3	16.3	16.3	16.3
2.70	26.19	16.5	16.5	16.5	16.5	16.5	16.5	16.5
2.90	26.06	16.7	16.7	16.7	16.7	16.7	16.7	16.7
2.92	26.05	16.7	16.7	16.7	16.7	16.7	16.7	16.7
3.00	26.00	16.8	16.8	16.8	16.8	16.8	16.8	16.8
3.43	25.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.44	25.73	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.45	25.72	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.46	25.72	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.50	25.69	17.2	17.2	17.2	17.2	17.2	17.2	17.2
3.65	25.60	17.4	17.4	17.4	17.4	17.4	17.4	17.4
4.00	25.38	17.2	17.2	17.2	17.2	17.2	17.2	17.2
4.20	25.26	17.2	17.2	17.2	17.2	17.2	17.2	17.2
4.50	25.07	17.0	17.0	17.0	17.0	17.0	17.0	17.0
4.75	24.91	17.0	17.0	17.0	17.0	17.0	17.0	17.0
5.00	24.76	16.9	16.9	16.9	16.9	16.9	16.9	16.9
5.28	24.58	16.8	16.8	16.8	16.8	16.8	16.8	16.8
5.38	24.52	16.8	16.8	16.8	16.8	16.8	16.8	16.8
5.39	24.52	16.4	16.4	16.4	16.4	16.4	16.4	16.4
5.50	24.45	16.3	16.3	16.3	16.3	16.3	16.3	16.3
5.55	24.42	16.3	16.3	16.3	16.3	16.3	16.3	16.3
5.65	24.35	16.3	16.3	16.3	16.3	16.3	16.3	16.3
6.00	24.14	16.7	16.7	16.7	16.7	16.7	16.7	16.7
6.05	24.11	16.8	16.8	16.8	16.8	16.8	16.8	16.8
6.50	23.83	17.3	17.3	17.3	17.3	17.3	17.3	17.3
6.65	23.73	17.4	17.4	17.4	17.4	17.4	17.4	17.4
7.00	23.52	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.07	23.47	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.10	23.45	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.15	23.42	17.9	17.9	17.9	17.9	17.9	17.9	17.9
7.16	23.42	17.8	17.8	17.8	17.8	17.8	17.8	17.8
7.50	23.20	18.0	18.0	18.0	18.0	18.0	18.0	18.0
7.55	23.17	18.0	18.0	18.0	18.0	18.0	18.0	18.0
7.80	23.02	18.2	18.2	18.2	18.2	18.2	18.2	18.2
8.00	22.89	18.3	18.3	18.3	18.3	18.3	18.3	18.3
8.05	22.86	18.3	18.3	18.3	18.3	18.3	18.3	18.3
8.45	22.61	18.5	18.5	18.5	18.5	18.5	18.5	18.5
8.50	22.58	18.5	18.5	18.5	18.5	18.5	18.5	18.5
8.99	22.28	18.7	18.7	18.7	18.7	18.7	18.7	18.7
9.09	22.22	18.8	18.8	18.8	18.8	18.8	18.8	18.8
9.09	22.22	18.7	18.9	19.6	19.7	18.7	18.7	18.7
9.49	21.97	19.0	19.1	19.7	19.8	19.0	19.0	19.0
9.50	21.96	19.0	19.1	19.7	19.9	19.0	19.0	19.0
9.99	21.66	19.0	19.1	19.7	19.9	19.0	19.0	19.0
10.05	21.62	19.0	19.1	19.7	19.9	19.0	19.0	19.0
10.25	21.50	19.1	19.2	19.8	19.9	19.1	19.1	19.1
10.49	21.35	19.2	19.3	19.8	19.9	19.2	19.2	19.2
10.65	21.25	19.2	19.4	19.8	19.9	19.2	19.2	19.2
10.99	21.04	19.4	19.5	19.9	20.0	19.4	19.4	19.4
11.10	20.97	19.4	19.6	19.9	20.0	19.4	19.4	19.4
11.41	20.78	19.6	19.7	20.0	20.0	19.6	19.6	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****									
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release	
11.45	20.75	19.6	19.8	20.0	20.0	19.6	19.6	19.6	
11.49	20.73	19.7	19.8	20.0	20.0	19.7	19.7	19.7	
11.75	20.56	19.9	20.0	20.1	20.1	19.9	19.9	19.9	
11.99	20.42	20.0	20.1	20.2	20.1	20.0	20.0	20.0	
12.20	20.28	20.1	20.3	20.2	20.2	20.1	20.1	20.1	
12.35	20.19	20.3	20.4	20.3	20.2	20.3	20.3	20.3	
12.48	20.11	20.3	20.4	20.3	20.2	20.3	20.3	20.3	
12.49	20.10	20.3	20.4	20.3	20.2	20.3	20.3	20.3	
12.52	20.08	20.3	20.4	20.3	20.2	20.3	20.3	20.3	
12.53	20.08	20.2	20.3	20.3	20.2	20.2	20.2	20.2	
12.70	19.97	20.2	20.3	20.3	20.2	20.2	20.2	20.2	
12.99	19.79	20.3	20.5	20.3	20.3	20.3	20.3	20.3	
13.25	19.63	20.4	20.6	20.4	20.3	20.4	20.4	20.4	
13.31	19.59	20.5	20.6	20.4	20.3	20.5	20.5	20.5	
13.40	19.54	20.5	20.6	20.4	20.4	20.5	20.5	20.5	
13.40	19.54	20.5	20.6	20.4	20.4	20.5	20.5	20.5	
13.49	19.48	20.5	20.6	20.4	20.4	20.5	20.5	20.5	
13.75	19.32	20.6	20.7	20.5	20.4	20.6	20.6	20.6	
13.99	19.17	20.7	20.8	20.5	20.5	20.7	20.7	20.7	
14.45	18.89	20.8	20.9	20.6	20.5	20.8	20.8	20.8	
14.49	18.86	20.8	20.9	20.6	20.5	20.8	20.8	20.8	
14.80	18.67	20.8	20.9	20.6	20.5	20.8	20.8	20.8	
14.99	18.55	20.8	20.9	20.6	20.5	20.8	20.8	20.8	
15.20	18.42	20.8	21.0	20.6	20.5	20.8	20.8	20.8	
15.49	18.24	20.9	21.0	20.7	20.6	20.9	20.9	20.9	
15.80	18.05	21.0	21.1	20.7	20.6	21.0	21.0	21.0	
15.99	17.93	21.0	21.1	20.8	20.6	21.0	21.0	21.0	
16.20	17.80	21.1	21.2	20.8	20.7	21.1	21.1	21.1	
16.34	17.72	21.1	21.2	20.8	20.7	21.1	21.1	21.1	
16.34	17.71	21.0	21.1	20.8	20.7	21.0	21.0	21.0	
16.49	17.62	21.0	21.1	20.8	20.7	21.0	21.0	21.0	
16.75	17.46	21.1	21.2	20.8	20.7	21.1	21.1	21.1	
16.99	17.31	21.1	21.2	20.9	20.8	21.1	21.1	21.1	
17.10	17.24	21.1	21.2	20.9	20.8	21.1	21.1	21.1	
17.30	17.12	21.2	21.3	21.0	20.9	21.2	21.2	21.2	
17.49	17.00	21.2	21.3	21.0	21.0	21.2	21.2	21.2	
17.65	16.90	21.2	21.3	21.1	21.0	21.2	21.2	21.2	
17.90	16.74	21.3	21.4	21.1	21.1	21.3	21.3	21.3	
17.99	16.69	21.3	21.4	21.1	21.1	21.3	21.3	21.3	
18.15	16.59	21.3	21.4	21.2	21.1	21.3	21.3	21.3	
18.19	16.56	21.3	21.4	21.2	21.1	21.3	21.3	21.3	
18.19	16.56	21.3	21.4	21.2	21.1	21.3	21.3	21.3	
18.36	16.45	21.2	21.3	21.2	21.1	21.2	21.2	21.2	
18.37	16.45	20.2	20.2	20.8	20.9	19.3	15.4	14.6	
18.65	16.28	20.1	20.2	20.8	20.9	19.2	15.4	14.6	
18.69	16.25	20.1	20.2	20.8	20.9	19.2	15.4	14.6	
18.95	16.09	20.1	20.1	20.7	20.9	19.2	15.5	14.7	
19.19	15.94	20.0	20.0	20.7	20.9	19.1	15.5	14.7	
19.32	15.86	20.0	20.0	20.7	20.9	19.1	15.5	14.7	
19.43	15.80	19.9	20.0	20.7	20.9	19.1	15.5	14.7	
19.43	15.79	19.7	19.8	20.6	20.8	18.9	15.5	14.7	
19.65	15.66	19.7	19.7	20.6	20.8	18.9	15.5	14.7	
19.69	15.63	19.7	19.7	20.5	20.8	18.9	15.5	14.7	
20.15	15.34	19.6	19.6	20.5	20.8	18.8	15.5	14.8	
20.19	15.32	19.6	19.6	20.5	20.8	18.8	15.5	14.8	
20.69	15.01	19.5	19.5	20.5	20.7	18.8	15.6	14.8	
20.95	14.85	19.5	19.5	20.5	20.7	18.8	15.6	14.8	
21.19	14.70	19.4	19.5	20.4	20.7	18.7	15.6	14.9	
21.40	14.57	19.4	19.4	20.4	20.7	18.7	15.7	14.9	
21.60	14.44	19.4	19.4	20.4	20.7	18.7	15.7	14.9	
21.69	14.39	19.4	19.4	20.4	20.7	18.7	15.7	14.9	
21.69	14.39	19.4	19.4	20.4	20.7	18.7	15.7	14.9	
22.19	14.08	19.3	19.3	20.4	20.7	18.6	15.8	15.0	
22.20	14.07	19.3	19.3	20.4	20.7	18.6	15.8	15.0	
22.40	13.95	19.3	19.3	20.3	20.7	18.6	15.8	15.0	

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

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Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	19.3	19.3	20.3	20.7	18.6	15.8	15.0
22.80	13.70	19.3	19.3	20.3	20.7	18.6	15.8	15.0
23.19	13.46	19.2	19.2	20.3	20.6	18.6	15.8	15.0
23.30	13.39	19.2	19.2	20.3	20.6	18.6	15.8	15.0
23.69	13.14	19.2	19.2	20.3	20.6	18.5	15.8	15.0
24.05	12.92	19.1	19.1	20.3	20.6	18.5	15.9	15.1
24.19	12.83	19.1	19.1	20.3	20.6	18.5	15.9	15.1
24.50	12.64	19.1	19.1	20.2	20.6	18.5	15.9	15.1
24.69	12.52	19.1	19.1	20.2	20.6	18.5	15.9	15.1
24.70	12.52	19.1	19.1	20.2	20.6	18.5	15.9	15.1
25.05	12.30	19.0	19.1	20.3	20.6	18.5	15.9	15.1
25.19	12.21	19.0	19.1	20.3	20.6	18.5	15.9	15.1
25.69	11.90	19.0	19.1	20.3	20.6	18.5	15.9	15.1
25.85	11.80	19.0	19.1	20.3	20.6	18.5	15.9	15.1
26.19	11.59	19.0	19.0	20.3	20.6	18.4	15.9	15.2
26.69	11.28	19.0	19.0	20.3	20.6	18.4	15.9	15.2
27.19	10.97	18.9	19.0	20.2	20.6	18.4	16.0	15.2
27.20	10.96	18.9	19.0	20.2	20.6	18.4	16.0	15.2
27.45	10.81	18.9	18.9	20.2	20.6	18.3	16.0	15.2
27.69	10.66	18.9	18.9	20.2	20.7	18.4	16.0	15.3
27.90	10.53	18.9	18.9	20.3	20.7	18.4	16.1	15.3
28.19	10.35	18.9	18.9	20.2	20.7	18.4	16.1	15.3
28.69	10.04	18.9	18.9	20.2	20.7	18.3	16.1	15.4
28.75	10.00	18.9	18.9	20.2	20.7	18.3	16.1	15.4
28.98	9.85	18.8	18.9	20.2	20.7	18.3	16.1	15.4
28.99	9.85	18.8	18.8	20.2	20.7	18.3	16.1	15.4
29.19	9.73	18.8	18.8	20.2	20.7	18.3	16.1	15.4
29.25	9.69	18.8	18.8	20.2	20.7	18.3	16.1	15.4
29.69	9.42	18.7	18.8	20.2	20.7	18.3	16.2	15.5
30.00	9.22	18.7	18.7	20.2	20.7	18.2	16.2	15.5
30.19	9.11	18.7	18.7	20.2	20.7	18.3	16.3	15.5
30.30	9.04	18.7	18.8	20.2	20.7	18.3	16.3	15.6
30.69	8.80	18.7	18.7	20.2	20.7	18.3	16.3	15.6
31.19	8.48	18.7	18.7	20.1	20.7	18.3	16.3	15.6
31.24	8.45	18.7	18.7	20.1	20.7	18.3	16.3	15.6
31.30	8.42	18.7	18.7	20.2	20.7	18.3	16.4	15.6
31.74	8.14	18.7	18.7	20.2	20.7	18.3	16.4	15.7
31.95	8.01	18.7	18.7	20.1	20.7	18.3	16.4	15.7
32.24	7.83	18.7	18.7	20.1	20.7	18.4	16.4	15.7
32.25	7.83	18.7	18.7	20.1	20.7	18.4	16.4	15.7
32.74	7.52	18.7	18.8	20.2	20.7	18.4	16.5	15.8
33.24	7.21	18.8	18.8	20.2	20.8	18.5	16.5	15.8
33.30	7.17	18.8	18.8	20.2	20.8	18.5	16.5	15.8
33.45	7.08	18.8	18.8	20.2	20.8	18.5	16.5	15.8
33.74	6.90	18.8	18.8	20.2	20.8	18.5	16.6	15.9
34.20	6.61	18.8	18.8	20.2	20.8	18.6	16.6	15.9
34.24	6.59	18.8	18.9	20.2	20.8	18.6	16.6	15.9
34.55	6.40	18.9	18.9	20.2	20.8	18.6	16.6	15.9
34.69	6.31	18.9	18.9	20.3	20.8	18.6	16.6	16.0
34.69	6.31	18.9	18.9	20.2	20.8	18.6	16.6	16.0
34.74	6.28	18.9	18.9	20.3	20.8	18.6	16.6	16.0
34.85	6.21	18.9	18.9	20.3	20.8	18.6	16.7	16.0
35.24	5.97	19.0	19.0	20.3	20.9	18.7	16.7	16.0
35.50	5.81	19.0	19.0	20.3	20.9	18.8	16.8	16.1
35.74	5.66	19.0	19.0	20.3	20.9	18.8	16.8	16.1
36.24	5.35	19.1	19.1	20.4	21.0	18.9	16.9	16.2
36.50	5.19	19.1	19.1	20.4	21.0	18.9	16.9	16.2
36.74	5.04	19.2	19.2	20.4	21.0	18.9	16.9	16.3
36.93	4.92	19.2	19.2	20.4	21.0	19.0	17.0	16.3
36.93	4.92	19.2	19.2	20.4	21.0	19.0	17.0	16.3
36.95	4.91	19.2	19.2	20.4	21.0	19.0	17.0	16.3
37.24	4.73	19.2	19.2	20.4	21.1	19.0	17.0	16.4
37.60	4.50	19.3	19.3	20.4	21.1	19.0	17.0	16.4
37.74	4.41	19.3	19.3	20.5	21.1	19.1	17.1	16.4
37.80	4.38	19.3	19.3	20.5	21.1	19.1	17.1	16.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-8. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****								
Dist (km)**	Dist (RM)***	Baseline****	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	19.4	19.4	20.5	21.2	19.2	17.2	16.6
38.24	4.10	19.4	19.5	20.6	21.3	19.2	17.2	16.6
38.25	4.10	19.4	19.5	20.6	21.3	19.2	17.3	16.7
38.60	3.88	19.5	19.5	20.6	21.3	19.3	17.3	16.7
38.74	3.79	19.5	19.5	20.6	21.3	19.3	17.3	16.7
38.95	3.66	19.5	19.5	20.6	21.3	19.3	17.3	16.7
39.15	3.54	19.5	19.5	20.6	21.3	19.3	17.3	16.7
39.24	3.48	19.5	19.5	20.6	21.3	19.3	17.3	16.7
39.65	3.23	19.6	19.6	20.7	21.3	19.4	17.4	16.8
39.74	3.17	19.6	19.6	20.7	21.4	19.4	17.4	16.8
39.95	3.04	19.7	19.7	20.8	21.4	19.5	17.5	16.9
40.24	2.86	19.7	19.8	20.8	21.4	19.5	17.5	16.9
40.55	2.67	19.8	19.8	20.8	21.4	19.6	17.5	17.0
40.70	2.58	19.8	19.8	20.8	21.5	19.6	17.6	17.0
40.74	2.55	19.8	19.8	20.8	21.5	19.6	17.6	17.0
41.15	2.30	19.9	19.9	20.8	21.5	19.7	17.6	17.1
41.24	2.24	19.9	19.9	20.8	21.5	19.7	17.6	17.1
41.74	1.93	19.9	19.9	20.8	21.5	19.8	17.7	17.1
42.10	1.71	20.0	20.0	20.8	21.5	19.8	17.7	17.1
42.24	1.62	20.0	20.0	20.8	21.5	19.8	17.7	17.1
42.25	1.61	20.0	20.0	20.8	21.5	19.8	17.7	17.1
42.74	1.31	20.1	20.1	20.9	21.6	19.9	17.8	17.2
42.75	1.30	20.1	20.1	20.9	21.6	19.9	17.8	17.2
43.24	1.00	20.2	20.2	21.0	21.7	20.0	17.9	17.4
43.35	0.93	20.2	20.3	21.0	21.7	20.1	18.0	17.4
43.65	0.74	20.2	20.3	21.0	21.7	20.1	18.0	17.4
43.74	0.69	20.2	20.3	21.0	21.7	20.1	18.0	17.4
43.90	0.59	20.2	20.3	21.0	21.7	20.1	18.0	17.4
44.24	0.38	20.2	20.3	21.0	21.7	20.1	18.0	17.4
44.45	0.25	20.2	20.3	21.0	21.7	20.1	18.0	17.4
44.74	0.07	20.4	20.4	21.1	21.8	20.2	18.0	17.5
44.80	0.03	20.4	20.4	21.1	21.8	20.3	18.0	17.5
44.85	0.00	20.4	20.4	21.1	21.8	20.3	18.0	17.5
44.98	-0.09	20.4	20.5	21.1	21.8	20.3	18.0	17.5
44.99	-0.09	19.6	19.6	20.1	20.7	19.5	18.8	18.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 1, the temperatures at the diversion were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-9. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
15.0	79.8	79.8	71.8	65.6	79.8	53.5	37.2
16.0	74.3	74.3	61.8	53.9	74.3	31.2	16.4
17.0	67.5	66.0	25.6	20.6	39.1	12.0	10.8
18.0	15.3	15.3	9.4	5.0	11.7	0.0	0.0
19.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-10. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
15.0	77.5	77.5	73.1	70.9	77.5	39.5	24.5
16.0	70.9	70.9	56.5	50.5	60.2	18.0	11.9
17.0	30.6	30.6	22.5	20.6	22.8	0.0	0.0
18.0	11.7	11.9	5.0	0.4	8.3	0.0	0.0
19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-11. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-12. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	3 cfs Bear Release	64 cfs Bear Release	125 cfs Bear Release	13 cfs Mono Release	81.5 cfs Mono Release	150 cfs Mono Release
21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-13. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
15.0	89.2	89.2	89.2	89.2	89.2	70.7	50.7
16.0	81.9	81.9	81.5	77.5	81.9	48.5	29.0
17.0	78.7	78.7	70.9	63.8	78.7	31.5	19.6
18.0	72.0	72.0	53.4	41.7	69.5	14.6	14.6
19.0	41.3	41.3	24.4	18.9	42.2	8.5	8.5
20.0	16.0	16.0	8.3	0.6	14.7	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-14. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures							
Daily Mean Exceedance Temperature (°C)	Baseline**	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
15.0	88.0	88.0	88.0	88.0	88.0	76.2	58.0
16.0	80.8	80.8	80.8	80.8	80.8	49.0	34.5
17.0	76.1	76.6	76.6	79.6	76.1	28.9	17.1
18.0	64.1	66.4	62.8	78.7	58.0	11.3	11.3
19.0	21.1	21.1	24.4	38.3	19.4	0.0	0.0
20.0	6.1	6.1	4.8	11.9	5.7	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-15. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
21.0	30.6	30.6	17.0	18.3	29.4	14.6	14.6
22.0	7.4	7.8	0.0	1.2	7.4	7.4	7.4
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-16. Phase 1, Test 1* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***							
Daily Maximum Exceedance Temperature (°C)	Baseline**	2 cfs Bear Release	63.5 cfs Bear Release	125 cfs Bear Release	9 cfs Mono Release	79.5 cfs Mono Release	150 cfs Mono Release
21.0	5.6	6.6	3.6	20.7	5.6	5.6	5.6
22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 1, the temperatures at the diversion were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	9.0	9.0	9.0
0.35	27.65	9.6	9.6	9.6
0.50	27.55	9.8	9.8	9.8
0.65	27.46	9.9	9.9	9.9
1.00	27.24	10.4	10.4	10.4
1.15	27.15	10.6	10.6	10.6
1.15	27.15	10.7	10.7	10.7
1.30	27.06	10.9	10.9	10.9
1.50	26.93	11.1	11.1	11.1
1.65	26.84	11.3	11.3	11.3
1.85	26.72	11.5	11.5	11.5
2.00	26.62	11.7	11.7	11.7
2.05	26.59	11.7	11.7	11.7
2.20	26.50	11.9	11.9	11.9
2.50	26.31	12.2	12.2	12.2
2.70	26.19	12.4	12.4	12.4
2.90	26.06	12.6	12.6	12.6
2.92	26.05	12.6	12.6	12.6
3.00	26.00	12.7	12.7	12.7
3.43	25.73	13.1	13.1	13.1
3.44	25.73	13.1	13.1	13.1
3.45	25.72	13.1	13.1	13.1
3.46	25.72	13.1	13.1	13.1
3.50	25.69	13.1	13.1	13.1
3.65	25.60	13.3	13.3	13.3
4.00	25.38	13.4	13.4	13.4
4.20	25.26	13.4	13.4	13.4
4.50	25.07	13.5	13.5	13.5
4.75	24.91	13.6	13.6	13.6
5.00	24.76	13.6	13.6	13.6
5.28	24.58	13.7	13.7	13.7
5.38	24.52	13.7	13.7	13.7
5.39	24.52	13.3	13.3	13.3
5.50	24.45	13.3	13.3	13.3
5.55	24.42	13.3	13.3	13.3
5.65	24.35	13.3	13.3	13.3
6.00	24.14	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9
6.65	23.73	14.0	14.0	14.0
7.00	23.52	14.2	14.2	14.2
7.07	23.47	14.3	14.3	14.3
7.10	23.45	14.3	14.3	14.3
7.15	23.42	14.3	14.3	14.3
7.16	23.42	14.1	14.1	14.1
7.50	23.20	14.3	14.3	14.3
7.55	23.17	14.3	14.3	14.3
7.80	23.02	14.5	14.5	14.5
8.00	22.89	14.6	14.6	14.6
8.05	22.86	14.6	14.6	14.6
8.45	22.61	14.8	14.8	14.8
8.50	22.58	14.8	14.8	14.8
8.99	22.28	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1
9.09	22.22	15.1	15.1	15.1
9.49	21.97	15.3	15.3	15.3
9.50	21.96	15.3	15.3	15.3
9.99	21.66	15.4	15.4	15.4
10.05	21.62	15.4	15.4	15.4
10.25	21.50	15.5	15.5	15.5
10.49	21.35	15.6	15.6	15.6
10.65	21.25	15.7	15.7	15.7
10.99	21.04	15.8	15.8	15.8
11.10	20.97	15.8	15.8	15.8
11.41	20.78	16.0	16.0	16.0
11.45	20.75	16.0	16.0	16.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.
 * For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.
 ** Downstream distances relative to Florence Dam
 *** SFSJR RM relative to confluence with San Joaquin River
 ****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).
 For Bear Creek release simulations, Mono Creek flows are baseline values.
 For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	16.0	16.0	16.0
11.75	20.56	16.1	16.1	16.1
11.99	20.42	16.3	16.3	16.3
12.20	20.28	16.4	16.4	16.4
12.35	20.19	16.5	16.5	16.5
12.48	20.11	16.5	16.5	16.5
12.49	20.10	16.5	16.5	16.5
12.52	20.08	16.6	16.6	16.6
12.53	20.08	16.5	16.5	16.5
12.70	19.97	16.6	16.6	16.6
12.99	19.79	16.7	16.7	16.7
13.25	19.63	16.8	16.8	16.8
13.31	19.59	16.9	16.9	16.9
13.40	19.54	16.9	16.9	16.9
13.40	19.54	16.9	16.9	16.9
13.49	19.48	16.9	16.9	16.9
13.75	19.32	17.0	17.0	17.0
13.99	19.17	17.1	17.1	17.1
14.45	18.89	17.2	17.2	17.2
14.49	18.86	17.2	17.2	17.2
14.80	18.67	17.2	17.2	17.2
14.99	18.55	17.3	17.3	17.3
15.20	18.42	17.3	17.3	17.3
15.49	18.24	17.4	17.4	17.4
15.80	18.05	17.5	17.5	17.5
15.99	17.93	17.5	17.5	17.5
16.20	17.80	17.5	17.5	17.5
16.34	17.72	17.5	17.5	17.5
16.34	17.71	17.5	17.5	17.5
16.49	17.62	17.5	17.5	17.5
16.75	17.46	17.5	17.5	17.5
16.99	17.31	17.6	17.6	17.6
17.10	17.24	17.6	17.6	17.6
17.30	17.12	17.7	17.7	17.7
17.49	17.00	17.7	17.7	17.7
17.65	16.90	17.8	17.8	17.8
17.90	16.74	17.8	17.8	17.8
17.99	16.69	17.8	17.8	17.8
18.15	16.59	17.9	17.9	17.9
18.19	16.56	17.9	17.9	17.9
18.19	16.56	17.9	17.9	17.9
18.36	16.45	17.9	17.9	17.9
18.37	16.45	17.0	16.0	15.6
18.65	16.28	17.1	16.1	15.7
18.69	16.25	17.1	16.1	15.7
18.95	16.09	17.2	16.2	15.7
19.19	15.94	17.2	16.2	15.8
19.32	15.86	17.2	16.2	15.8
19.43	15.80	17.2	16.2	15.8
19.43	15.79	16.9	16.0	15.7
19.65	15.66	16.9	16.1	15.7
19.69	15.63	16.9	16.1	15.7
20.15	15.34	17.0	16.1	15.8
20.19	15.32	17.0	16.1	15.8
20.69	15.01	17.1	16.2	15.8
20.95	14.85	17.1	16.3	15.9
21.19	14.70	17.2	16.3	15.9
21.40	14.57	17.2	16.3	15.9
21.60	14.44	17.2	16.3	15.9
21.69	14.39	17.2	16.3	15.9
21.69	14.39	17.2	16.3	15.9
22.19	14.08	17.2	16.4	16.0
22.20	14.07	17.2	16.4	16.0
22.40	13.95	17.2	16.4	16.0
22.69	13.77	17.2	16.4	16.0
22.80	13.70	17.2	16.4	16.0

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	17.2	16.4	16.0
23.30	13.39	17.2	16.4	16.0
23.69	13.14	17.2	16.4	16.0
24.05	12.92	17.2	16.4	16.0
24.19	12.83	17.2	16.4	16.0
24.50	12.64	17.2	16.4	16.0
24.69	12.52	17.2	16.4	16.0
24.70	12.52	17.2	16.4	16.0
25.05	12.30	17.2	16.5	16.1
25.19	12.21	17.2	16.5	16.1
25.69	11.90	17.1	16.5	16.1
25.85	11.80	17.1	16.5	16.1
26.19	11.59	17.1	16.5	16.1
26.69	11.28	17.1	16.5	16.1
27.19	10.97	17.1	16.5	16.1
27.20	10.96	17.1	16.5	16.1
27.45	10.81	17.1	16.5	16.2
27.69	10.66	17.1	16.5	16.2
27.90	10.53	17.2	16.6	16.2
28.19	10.35	17.2	16.6	16.3
28.69	10.04	17.2	16.6	16.3
28.75	10.00	17.2	16.6	16.3
28.98	9.85	17.2	16.6	16.3
28.99	9.85	17.0	16.5	16.2
29.19	9.73	17.0	16.5	16.3
29.25	9.69	17.0	16.5	16.3
29.69	9.42	17.0	16.6	16.3
30.00	9.22	17.0	16.6	16.3
30.19	9.11	17.1	16.6	16.4
30.30	9.04	17.1	16.7	16.4
30.69	8.80	17.1	16.7	16.4
31.19	8.48	17.1	16.7	16.4
31.24	8.45	17.1	16.7	16.4
31.30	8.42	17.1	16.7	16.4
31.74	8.14	17.2	16.7	16.5
31.95	8.01	17.2	16.8	16.5
32.24	7.83	17.2	16.8	16.5
32.25	7.83	17.2	16.8	16.5
32.74	7.52	17.3	16.8	16.5
33.24	7.21	17.4	16.9	16.6
33.30	7.17	17.4	16.9	16.6
33.45	7.08	17.4	16.9	16.6
33.74	6.90	17.4	17.0	16.6
34.20	6.61	17.5	17.0	16.7
34.24	6.59	17.5	17.0	16.7
34.55	6.40	17.5	17.0	16.7
34.69	6.31	17.5	17.0	16.7
34.69	6.31	17.5	17.0	16.7
34.74	6.28	17.5	17.0	16.7
34.85	6.21	17.5	17.0	16.7
35.24	5.97	17.6	17.1	16.8
35.50	5.81	17.6	17.1	16.8
35.74	5.66	17.6	17.2	16.9
36.24	5.35	17.7	17.3	16.9
36.50	5.19	17.8	17.3	17.0
36.74	5.04	17.8	17.3	17.0
36.93	4.92	17.9	17.4	17.0
36.93	4.92	17.8	17.3	17.0
36.95	4.91	17.8	17.3	17.0
37.24	4.73	17.8	17.4	17.0
37.60	4.50	17.8	17.4	17.1
37.74	4.41	17.9	17.4	17.1
37.80	4.38	17.9	17.4	17.1
38.10	4.19	18.0	17.5	17.2
38.24	4.10	18.0	17.6	17.3
38.25	4.10	18.0	17.6	17.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-17. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	18.1	17.6	17.3
38.74	3.79	18.1	17.6	17.3
38.95	3.66	18.1	17.6	17.3
39.15	3.54	18.1	17.6	17.3
39.24	3.48	18.1	17.6	17.3
39.65	3.23	18.2	17.7	17.4
39.74	3.17	18.2	17.7	17.4
39.95	3.04	18.3	17.8	17.5
40.24	2.86	18.3	17.8	17.5
40.55	2.67	18.4	17.8	17.5
40.70	2.58	18.4	17.9	17.6
40.74	2.55	18.4	17.9	17.6
41.15	2.30	18.5	17.9	17.6
41.24	2.24	18.5	18.0	17.6
41.74	1.93	18.5	18.0	17.6
42.10	1.71	18.6	18.0	17.7
42.24	1.62	18.6	18.0	17.7
42.25	1.61	18.6	18.0	17.7
42.74	1.31	18.7	18.1	17.8
42.75	1.30	18.7	18.1	17.8
43.24	1.00	18.8	18.2	17.9
43.35	0.93	18.8	18.3	17.9
43.65	0.74	18.9	18.3	17.9
43.74	0.69	18.9	18.3	17.9
43.90	0.59	18.9	18.3	17.9
44.24	0.38	18.9	18.3	17.9
44.45	0.25	18.9	18.3	18.0
44.74	0.07	19.0	18.4	18.0
44.80	0.03	19.0	18.4	18.0
44.85	0.00	19.0	18.4	18.0
44.98	-0.09	19.0	18.4	18.0
44.99	-0.09	16.5	16.6	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	11.4	11.4	11.4
0.35	27.65	11.7	11.7	11.7
0.50	27.55	11.9	11.9	11.9
0.65	27.46	12.0	12.0	12.0
1.00	27.24	12.3	12.3	12.3
1.15	27.15	12.4	12.4	12.4
1.15	27.15	12.4	12.4	12.4
1.30	27.06	12.5	12.5	12.5
1.50	26.93	12.7	12.7	12.7
1.65	26.84	12.8	12.8	12.8
1.85	26.72	12.9	12.9	12.9
2.00	26.62	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1
2.20	26.50	13.2	13.2	13.2
2.50	26.31	13.3	13.3	13.3
2.70	26.19	13.5	13.5	13.5
2.90	26.06	13.6	13.6	13.6
2.92	26.05	13.6	13.6	13.6
3.00	26.00	13.6	13.6	13.6
3.43	25.73	13.9	13.9	13.9
3.44	25.73	13.9	13.9	13.9
3.45	25.72	13.9	13.9	13.9
3.46	25.72	13.9	13.9	13.9
3.50	25.69	13.9	13.9	13.9
3.65	25.60	13.9	13.9	13.9
4.00	25.38	13.9	13.9	13.9
4.20	25.26	13.9	13.9	13.9
4.50	25.07	13.9	13.9	13.9
4.75	24.91	13.9	13.9	13.9
5.00	24.76	13.9	13.9	13.9
5.28	24.58	13.9	13.9	13.9
5.38	24.52	13.9	13.9	13.9
5.39	24.52	13.5	13.5	13.5
5.50	24.45	13.5	13.5	13.5
5.55	24.42	13.5	13.5	13.5
5.65	24.35	13.5	13.5	13.5
6.00	24.14	13.6	13.6	13.6
6.05	24.11	13.6	13.6	13.6
6.50	23.83	13.9	13.9	13.9
6.65	23.73	13.9	13.9	13.9
7.00	23.52	14.1	14.1	14.1
7.07	23.47	14.1	14.1	14.1
7.10	23.45	14.1	14.1	14.1
7.15	23.42	14.1	14.1	14.1
7.16	23.42	14.0	14.0	14.0
7.50	23.20	14.1	14.1	14.1
7.55	23.17	14.1	14.1	14.1
7.80	23.02	14.2	14.2	14.2
8.00	22.89	14.3	14.3	14.3
8.05	22.86	14.3	14.3	14.3
8.45	22.61	14.5	14.5	14.5
8.50	22.58	14.5	14.5	14.5
8.99	22.28	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7
9.09	22.22	14.7	14.7	14.7
9.49	21.97	14.9	14.9	14.9
9.50	21.96	14.9	14.9	14.9
9.99	21.66	15.0	15.0	15.0
10.05	21.62	15.0	15.0	15.0
10.25	21.50	15.1	15.1	15.1
10.49	21.35	15.1	15.1	15.1
10.65	21.25	15.1	15.1	15.1
10.99	21.04	15.2	15.2	15.2
11.10	20.97	15.3	15.3	15.3
11.41	20.78	15.4	15.4	15.4
11.45	20.75	15.4	15.4	15.4

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	15.4	15.4	15.4
11.75	20.56	15.5	15.5	15.5
11.99	20.42	15.6	15.6	15.6
12.20	20.28	15.7	15.7	15.7
12.35	20.19	15.7	15.7	15.7
12.48	20.11	15.8	15.8	15.8
12.49	20.10	15.8	15.8	15.8
12.52	20.08	15.8	15.8	15.8
12.53	20.08	15.8	15.8	15.8
12.70	19.97	15.9	15.9	15.9
12.99	19.79	15.9	15.9	15.9
13.25	19.63	16.0	16.0	16.0
13.31	19.59	16.0	16.0	16.0
13.40	19.54	16.0	16.0	16.0
13.40	19.54	16.0	16.0	16.0
13.49	19.48	16.1	16.1	16.1
13.75	19.32	16.1	16.1	16.1
13.99	19.17	16.2	16.2	16.2
14.45	18.89	16.2	16.2	16.2
14.49	18.86	16.3	16.3	16.3
14.80	18.67	16.3	16.3	16.3
14.99	18.55	16.3	16.3	16.3
15.20	18.42	16.3	16.3	16.3
15.49	18.24	16.4	16.4	16.4
15.80	18.05	16.4	16.4	16.4
15.99	17.93	16.5	16.5	16.5
16.20	17.80	16.5	16.5	16.5
16.34	17.72	16.5	16.5	16.5
16.34	17.71	16.5	16.5	16.5
16.49	17.62	16.5	16.5	16.5
16.75	17.46	16.5	16.5	16.5
16.99	17.31	16.6	16.6	16.6
17.10	17.24	16.6	16.6	16.6
17.30	17.12	16.7	16.7	16.7
17.49	17.00	16.7	16.7	16.7
17.65	16.90	16.7	16.7	16.7
17.90	16.74	16.7	16.7	16.7
17.99	16.69	16.8	16.8	16.8
18.15	16.59	16.8	16.8	16.8
18.19	16.56	16.8	16.8	16.8
18.19	16.56	16.8	16.8	16.8
18.36	16.45	16.8	16.8	16.8
18.37	16.45	16.2	15.2	14.9
18.65	16.28	16.2	15.2	14.9
18.69	16.25	16.2	15.3	14.9
18.95	16.09	16.3	15.3	14.9
19.19	15.94	16.3	15.3	15.0
19.32	15.86	16.3	15.3	15.0
19.43	15.80	16.3	15.3	15.0
19.43	15.79	16.1	15.3	14.9
19.65	15.66	16.2	15.3	15.0
19.69	15.63	16.2	15.3	15.0
20.15	15.34	16.2	15.3	15.0
20.19	15.32	16.2	15.3	15.0
20.69	15.01	16.3	15.4	15.1
20.95	14.85	16.3	15.4	15.1
21.19	14.70	16.3	15.4	15.1
21.40	14.57	16.3	15.5	15.1
21.60	14.44	16.4	15.5	15.1
21.69	14.39	16.4	15.5	15.1
21.69	14.39	16.4	15.5	15.1
22.19	14.08	16.4	15.5	15.2
22.20	14.07	16.4	15.5	15.2
22.40	13.95	16.4	15.6	15.2
22.69	13.77	16.4	15.6	15.2
22.80	13.70	16.4	15.6	15.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	16.5	15.6	15.2
23.30	13.39	16.5	15.6	15.3
23.69	13.14	16.5	15.6	15.3
24.05	12.92	16.5	15.6	15.3
24.19	12.83	16.5	15.7	15.3
24.50	12.64	16.5	15.7	15.3
24.69	12.52	16.5	15.7	15.3
24.70	12.52	16.5	15.7	15.3
25.05	12.30	16.6	15.7	15.4
25.19	12.21	16.6	15.7	15.4
25.69	11.90	16.6	15.7	15.4
25.85	11.80	16.6	15.7	15.4
26.19	11.59	16.6	15.8	15.4
26.69	11.28	16.6	15.8	15.4
27.19	10.97	16.6	15.8	15.4
27.20	10.96	16.6	15.8	15.4
27.45	10.81	16.7	15.8	15.5
27.69	10.66	16.7	15.9	15.5
27.90	10.53	16.7	15.9	15.5
28.19	10.35	16.7	15.9	15.6
28.69	10.04	16.8	16.0	15.6
28.75	10.00	16.8	16.0	15.6
28.98	9.85	16.8	16.0	15.6
28.99	9.85	16.8	16.0	15.6
29.19	9.73	16.8	16.0	15.6
29.25	9.69	16.8	16.0	15.6
29.69	9.42	16.8	16.0	15.7
30.00	9.22	16.9	16.1	15.7
30.19	9.11	16.9	16.1	15.7
30.30	9.04	16.9	16.1	15.8
30.69	8.80	17.0	16.1	15.8
31.19	8.48	17.0	16.2	15.8
31.24	8.45	17.0	16.2	15.8
31.30	8.42	17.0	16.2	15.8
31.74	8.14	17.0	16.2	15.8
31.95	8.01	17.0	16.2	15.9
32.24	7.83	17.1	16.3	15.9
32.25	7.83	17.1	16.3	15.9
32.74	7.52	17.1	16.3	15.9
33.24	7.21	17.2	16.4	16.0
33.30	7.17	17.2	16.4	16.0
33.45	7.08	17.2	16.4	16.0
33.74	6.90	17.2	16.4	16.0
34.20	6.61	17.3	16.5	16.0
34.24	6.59	17.3	16.5	16.1
34.55	6.40	17.3	16.5	16.1
34.69	6.31	17.3	16.5	16.1
34.69	6.31	17.3	16.5	16.1
34.74	6.28	17.3	16.5	16.1
34.85	6.21	17.3	16.5	16.1
35.24	5.97	17.4	16.6	16.2
35.50	5.81	17.4	16.6	16.2
35.74	5.66	17.4	16.6	16.2
36.24	5.35	17.5	16.7	16.3
36.50	5.19	17.5	16.7	16.3
36.74	5.04	17.6	16.8	16.4
36.93	4.92	17.6	16.8	16.4
36.93	4.92	17.6	16.8	16.4
36.95	4.91	17.6	16.8	16.4
37.24	4.73	17.6	16.8	16.4
37.60	4.50	17.7	16.9	16.5
37.74	4.41	17.7	16.9	16.5
37.80	4.38	17.7	16.9	16.5
38.10	4.19	17.8	17.0	16.6
38.24	4.10	17.8	17.0	16.6
38.25	4.10	17.8	17.0	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-18. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	17.9	17.1	16.6
38.74	3.79	17.9	17.1	16.7
38.95	3.66	17.9	17.1	16.7
39.15	3.54	17.9	17.1	16.7
39.24	3.48	17.9	17.1	16.7
39.65	3.23	18.0	17.1	16.7
39.74	3.17	18.0	17.2	16.8
39.95	3.04	18.1	17.2	16.8
40.24	2.86	18.1	17.3	16.8
40.55	2.67	18.1	17.3	16.9
40.70	2.58	18.2	17.3	16.9
40.74	2.55	18.2	17.3	16.9
41.15	2.30	18.2	17.4	16.9
41.24	2.24	18.2	17.4	17.0
41.74	1.93	18.3	17.4	17.0
42.10	1.71	18.3	17.4	17.0
42.24	1.62	18.3	17.5	17.0
42.25	1.61	18.3	17.5	17.0
42.74	1.31	18.4	17.5	17.1
42.75	1.30	18.4	17.5	17.1
43.24	1.00	18.5	17.6	17.2
43.35	0.93	18.6	17.7	17.2
43.65	0.74	18.6	17.7	17.2
43.74	0.69	18.6	17.7	17.2
43.90	0.59	18.6	17.7	17.2
44.24	0.38	18.6	17.7	17.3
44.45	0.25	18.6	17.7	17.3
44.74	0.07	18.7	17.8	17.3
44.80	0.03	18.7	17.8	17.3
44.85	0.00	18.7	17.8	17.3
44.98	-0.09	18.7	17.8	17.3
44.99	-0.09	17.4	17.3	17.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	9.4	9.4	9.4
0.35	27.65	10.1	10.1	10.1
0.50	27.55	10.4	10.4	10.4
0.65	27.46	10.7	10.7	10.7
1.00	27.24	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8
1.15	27.15	11.9	11.9	11.9
1.30	27.06	12.2	12.2	12.2
1.50	26.93	12.5	12.5	12.5
1.65	26.84	12.7	12.7	12.7
1.85	26.72	13.1	13.1	13.1
2.00	26.62	13.3	13.3	13.3
2.05	26.59	13.4	13.4	13.4
2.20	26.50	13.6	13.6	13.6
2.50	26.31	14.1	14.1	14.1
2.70	26.19	14.3	14.3	14.3
2.90	26.06	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7
3.43	25.73	15.3	15.3	15.3
3.44	25.73	15.3	15.3	15.3
3.45	25.72	15.3	15.3	15.3
3.46	25.72	15.3	15.3	15.3
3.50	25.69	15.3	15.3	15.3
3.65	25.60	15.5	15.5	15.5
4.00	25.38	15.6	15.6	15.6
4.20	25.26	15.6	15.6	15.6
4.50	25.07	15.6	15.6	15.6
4.75	24.91	15.7	15.7	15.7
5.00	24.76	15.7	15.7	15.7
5.28	24.58	15.8	15.8	15.8
5.38	24.52	15.8	15.8	15.8
5.39	24.52	15.4	15.4	15.4
5.50	24.45	15.4	15.4	15.4
5.55	24.42	15.4	15.4	15.4
5.65	24.35	15.4	15.4	15.4
6.00	24.14	15.8	15.8	15.8
6.05	24.11	15.9	15.9	15.9
6.50	23.83	16.4	16.4	16.4
6.65	23.73	16.5	16.5	16.5
7.00	23.52	16.9	16.9	16.9
7.07	23.47	16.9	16.9	16.9
7.10	23.45	17.0	17.0	17.0
7.15	23.42	17.0	17.0	17.0
7.16	23.42	16.8	16.8	16.8
7.50	23.20	17.0	17.0	17.0
7.55	23.17	17.0	17.0	17.0
7.80	23.02	17.2	17.2	17.2
8.00	22.89	17.3	17.3	17.3
8.05	22.86	17.4	17.4	17.4
8.45	22.61	17.6	17.6	17.6
8.50	22.58	17.6	17.6	17.6
8.99	22.28	17.8	17.8	17.8
9.09	22.22	17.9	17.9	17.9
9.09	22.22	17.7	17.7	17.7
9.49	21.97	18.0	18.0	18.0
9.50	21.96	18.0	18.0	18.0
9.99	21.66	18.0	18.0	18.0
10.05	21.62	18.0	18.0	18.0
10.25	21.50	18.1	18.1	18.1
10.49	21.35	18.2	18.2	18.2
10.65	21.25	18.2	18.2	18.2
10.99	21.04	18.4	18.4	18.4
11.10	20.97	18.5	18.5	18.5
11.41	20.78	18.6	18.6	18.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
11.45	20.75	18.6	18.6	18.6
11.49	20.73	18.7	18.7	18.7
11.75	20.56	18.9	18.9	18.9
11.99	20.42	19.0	19.0	19.0
12.20	20.28	19.2	19.2	19.2
12.35	20.19	19.3	19.3	19.3
12.48	20.11	19.3	19.3	19.3
12.49	20.10	19.3	19.3	19.3
12.52	20.08	19.3	19.3	19.3
12.53	20.08	19.2	19.2	19.2
12.70	19.97	19.2	19.2	19.2
12.99	19.79	19.4	19.4	19.4
13.25	19.63	19.5	19.5	19.5
13.31	19.59	19.5	19.5	19.5
13.40	19.54	19.6	19.6	19.6
13.40	19.54	19.6	19.6	19.6
13.49	19.48	19.6	19.6	19.6
13.75	19.32	19.7	19.7	19.7
13.99	19.17	19.8	19.8	19.8
14.45	18.89	19.9	19.9	19.9
14.49	18.86	19.9	19.9	19.9
14.80	18.67	19.9	19.9	19.9
14.99	18.55	20.0	20.0	20.0
15.20	18.42	20.0	20.0	20.0
15.49	18.24	20.1	20.1	20.1
15.80	18.05	20.2	20.2	20.2
15.99	17.93	20.3	20.3	20.3
16.20	17.80	20.3	20.3	20.3
16.34	17.72	20.4	20.4	20.4
16.34	17.71	20.3	20.3	20.3
16.49	17.62	20.4	20.4	20.4
16.75	17.46	20.4	20.4	20.4
16.99	17.31	20.5	20.5	20.5
17.10	17.24	20.5	20.5	20.5
17.30	17.12	20.6	20.6	20.6
17.49	17.00	20.7	20.7	20.7
17.65	16.90	20.7	20.7	20.7
17.90	16.74	20.8	20.8	20.8
17.99	16.69	20.8	20.8	20.8
18.15	16.59	20.8	20.8	20.8
18.19	16.56	20.9	20.9	20.9
18.19	16.56	20.9	20.9	20.9
18.36	16.45	20.8	20.8	20.8
18.37	16.45	19.7	18.3	17.7
18.65	16.28	19.7	18.3	17.8
18.69	16.25	19.7	18.3	17.8
18.95	16.09	19.7	18.4	17.8
19.19	15.94	19.7	18.4	17.8
19.32	15.86	19.7	18.4	17.8
19.43	15.80	19.7	18.4	17.8
19.43	15.79	19.2	18.1	17.7
19.65	15.66	19.2	18.1	17.7
19.69	15.63	19.2	18.1	17.7
20.15	15.34	19.2	18.2	17.7
20.19	15.32	19.2	18.2	17.7
20.69	15.01	19.2	18.2	17.8
20.95	14.85	19.2	18.3	17.8
21.19	14.70	19.2	18.3	17.8
21.40	14.57	19.2	18.3	17.8
21.60	14.44	19.3	18.3	17.8
21.69	14.39	19.3	18.3	17.8
21.69	14.39	19.2	18.3	17.8
22.19	14.08	19.2	18.3	17.9
22.20	14.07	19.2	18.3	17.9
22.40	13.95	19.2	18.3	17.9

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-19. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	19.2	18.3	17.9
22.80	13.70	19.2	18.3	17.9
23.19	13.46	19.2	18.3	17.9
23.30	13.39	19.2	18.3	17.9
23.69	13.14	19.2	18.4	17.9
24.05	12.92	19.2	18.4	17.9
24.19	12.83	19.2	18.4	17.9
24.50	12.64	19.2	18.4	17.9
24.69	12.52	19.2	18.4	17.9
24.70	12.52	19.2	18.4	17.9
25.05	12.30	19.3	18.4	18.0
25.19	12.21	19.3	18.4	18.0
25.69	11.90	19.3	18.4	18.0
25.85	11.80	19.3	18.4	18.0
26.19	11.59	19.3	18.4	18.0
26.69	11.28	19.3	18.5	18.0
27.19	10.97	19.3	18.5	18.1
27.20	10.96	19.3	18.5	18.1
27.45	10.81	19.3	18.5	18.1
27.69	10.66	19.3	18.5	18.1
27.90	10.53	19.3	18.5	18.1
28.19	10.35	19.3	18.6	18.2
28.69	10.04	19.4	18.6	18.2
28.75	10.00	19.4	18.6	18.2
28.98	9.85	19.4	18.6	18.2
28.99	9.85	19.1	18.5	18.2
29.19	9.73	19.2	18.5	18.2
29.25	9.69	19.2	18.5	18.2
29.69	9.42	19.2	18.5	18.2
30.00	9.22	19.2	18.6	18.2
30.19	9.11	19.2	18.6	18.3
30.30	9.04	19.2	18.6	18.3
30.69	8.80	19.3	18.6	18.3
31.19	8.48	19.3	18.6	18.3
31.24	8.45	19.3	18.6	18.3
31.30	8.42	19.3	18.7	18.4
31.74	8.14	19.3	18.7	18.4
31.95	8.01	19.3	18.7	18.4
32.24	7.83	19.3	18.7	18.4
32.25	7.83	19.3	18.7	18.4
32.74	7.52	19.4	18.8	18.5
33.24	7.21	19.4	18.8	18.5
33.30	7.17	19.4	18.9	18.5
33.45	7.08	19.4	18.9	18.5
33.74	6.90	19.4	18.9	18.6
34.20	6.61	19.5	18.9	18.6
34.24	6.59	19.5	18.9	18.6
34.55	6.40	19.5	18.9	18.6
34.69	6.31	19.5	18.9	18.6
34.69	6.31	19.4	18.9	18.6
34.74	6.28	19.4	18.9	18.6
34.85	6.21	19.5	18.9	18.6
35.24	5.97	19.5	19.0	18.7
35.50	5.81	19.5	19.0	18.8
35.74	5.66	19.6	19.1	18.8
36.24	5.35	19.6	19.1	18.9
36.50	5.19	19.6	19.2	18.9
36.74	5.04	19.7	19.2	19.0
36.93	4.92	19.7	19.2	19.0
36.93	4.92	19.6	19.2	19.0
36.95	4.91	19.6	19.2	19.0
37.24	4.73	19.6	19.2	19.0
37.60	4.50	19.7	19.2	19.0
37.74	4.41	19.7	19.3	19.1
37.80	4.38	19.7	19.3	19.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

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Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	19.8	19.4	19.2
38.24	4.10	19.9	19.5	19.3
38.25	4.10	19.9	19.5	19.3
38.60	3.88	19.9	19.5	19.3
38.74	3.79	19.9	19.5	19.3
38.95	3.66	19.9	19.5	19.3
39.15	3.54	19.9	19.5	19.3
39.24	3.48	19.9	19.5	19.3
39.65	3.23	20.0	19.6	19.4
39.74	3.17	20.0	19.6	19.4
39.95	3.04	20.1	19.7	19.5
40.24	2.86	20.1	19.7	19.5
40.55	2.67	20.1	19.7	19.5
40.70	2.58	20.2	19.8	19.6
40.74	2.55	20.2	19.8	19.6
41.15	2.30	20.2	19.8	19.7
41.24	2.24	20.2	19.8	19.7
41.74	1.93	20.2	19.9	19.7
42.10	1.71	20.2	19.9	19.7
42.24	1.62	20.3	19.9	19.7
42.25	1.61	20.3	19.9	19.7
42.74	1.31	20.4	20.0	19.8
42.75	1.30	20.4	20.0	19.8
43.24	1.00	20.5	20.1	20.0
43.35	0.93	20.5	20.2	20.0
43.65	0.74	20.5	20.2	20.0
43.74	0.69	20.5	20.2	20.0
43.90	0.59	20.5	20.2	20.0
44.24	0.38	20.5	20.2	20.0
44.45	0.25	20.5	20.2	20.0
44.74	0.07	20.6	20.2	20.0
44.80	0.03	20.6	20.2	20.1
44.85	0.00	20.6	20.2	20.1
44.98	-0.09	20.6	20.3	20.1
44.99	-0.09	17.9	18.0	18.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	11.7	11.7	11.7
0.35	27.65	12.2	12.2	12.2
0.50	27.55	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6
1.00	27.24	13.1	13.1	13.1
1.15	27.15	13.3	13.3	13.3
1.15	27.15	13.3	13.3	13.3
1.30	27.06	13.5	13.5	13.5
1.50	26.93	13.7	13.7	13.7
1.65	26.84	13.8	13.8	13.8
1.85	26.72	14.1	14.1	14.1
2.00	26.62	14.2	14.2	14.2
2.05	26.59	14.3	14.3	14.3
2.20	26.50	14.4	14.4	14.4
2.50	26.31	14.7	14.7	14.7
2.70	26.19	14.9	14.9	14.9
2.90	26.06	15.0	15.0	15.0
2.92	26.05	15.1	15.1	15.1
3.00	26.00	15.1	15.1	15.1
3.43	25.73	15.5	15.5	15.5
3.44	25.73	15.5	15.5	15.5
3.45	25.72	15.5	15.5	15.5
3.46	25.72	15.5	15.5	15.5
3.50	25.69	15.5	15.5	15.5
3.65	25.60	15.6	15.6	15.6
4.00	25.38	15.5	15.5	15.5
4.20	25.26	15.5	15.5	15.5
4.50	25.07	15.4	15.4	15.4
4.75	24.91	15.4	15.4	15.4
5.00	24.76	15.3	15.3	15.3
5.28	24.58	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3
5.39	24.52	15.0	15.0	15.0
5.50	24.45	14.9	14.9	14.9
5.55	24.42	14.9	14.9	14.9
5.65	24.35	14.9	14.9	14.9
6.00	24.14	15.2	15.2	15.2
6.05	24.11	15.2	15.2	15.2
6.50	23.83	15.6	15.6	15.6
6.65	23.73	15.7	15.7	15.7
7.00	23.52	16.0	16.0	16.0
7.07	23.47	16.0	16.0	16.0
7.10	23.45	16.0	16.0	16.0
7.15	23.42	16.1	16.1	16.1
7.16	23.42	16.0	16.0	16.0
7.50	23.20	16.2	16.2	16.2
7.55	23.17	16.2	16.2	16.2
7.80	23.02	16.3	16.3	16.3
8.00	22.89	16.4	16.4	16.4
8.05	22.86	16.4	16.4	16.4
8.45	22.61	16.6	16.6	16.6
8.50	22.58	16.6	16.6	16.6
8.99	22.28	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8
9.09	22.22	16.8	16.8	16.8
9.49	21.97	17.0	17.0	17.0
9.50	21.96	17.0	17.0	17.0
9.99	21.66	17.0	17.0	17.0
10.05	21.62	17.0	17.0	17.0
10.25	21.50	17.0	17.0	17.0
10.49	21.35	17.1	17.1	17.1
10.65	21.25	17.2	17.2	17.2
10.99	21.04	17.3	17.3	17.3
11.10	20.97	17.3	17.3	17.3
11.41	20.78	17.5	17.5	17.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
11.45	20.75	17.5	17.5	17.5
11.49	20.73	17.5	17.5	17.5
11.75	20.56	17.6	17.6	17.6
11.99	20.42	17.8	17.8	17.8
12.20	20.28	17.9	17.9	17.9
12.35	20.19	18.0	18.0	18.0
12.48	20.11	18.0	18.0	18.0
12.49	20.10	18.0	18.0	18.0
12.52	20.08	18.0	18.0	18.0
12.53	20.08	18.0	18.0	18.0
12.70	19.97	18.0	18.0	18.0
12.99	19.79	18.1	18.1	18.1
13.25	19.63	18.2	18.2	18.2
13.31	19.59	18.2	18.2	18.2
13.40	19.54	18.2	18.2	18.2
13.40	19.54	18.2	18.2	18.2
13.49	19.48	18.3	18.3	18.3
13.75	19.32	18.3	18.3	18.3
13.99	19.17	18.4	18.4	18.4
14.45	18.89	18.5	18.5	18.5
14.49	18.86	18.5	18.5	18.5
14.80	18.67	18.5	18.5	18.5
14.99	18.55	18.5	18.5	18.5
15.20	18.42	18.6	18.6	18.6
15.49	18.24	18.6	18.6	18.6
15.80	18.05	18.7	18.7	18.7
15.99	17.93	18.7	18.7	18.7
16.20	17.80	18.8	18.8	18.8
16.34	17.72	18.8	18.8	18.8
16.34	17.71	18.8	18.8	18.8
16.49	17.62	18.8	18.8	18.8
16.75	17.46	18.9	18.9	18.9
16.99	17.31	19.0	19.0	19.0
17.10	17.24	19.0	19.0	19.0
17.30	17.12	19.0	19.0	19.0
17.49	17.00	19.1	19.1	19.1
17.65	16.90	19.1	19.1	19.1
17.90	16.74	19.1	19.1	19.1
17.99	16.69	19.2	19.2	19.2
18.15	16.59	19.2	19.2	19.2
18.19	16.56	19.2	19.2	19.2
18.19	16.56	19.2	19.2	19.2
18.36	16.45	19.2	19.2	19.2
18.37	16.45	18.3	16.9	16.5
18.65	16.28	18.3	17.0	16.5
18.69	16.25	18.3	17.0	16.5
18.95	16.09	18.3	17.0	16.5
19.19	15.94	18.2	17.0	16.5
19.32	15.86	18.2	17.0	16.5
19.43	15.80	18.2	17.0	16.5
19.43	15.79	18.0	16.9	16.5
19.65	15.66	18.0	16.9	16.5
19.69	15.63	18.0	16.9	16.5
20.15	15.34	18.0	16.9	16.5
20.19	15.32	18.0	16.9	16.5
20.69	15.01	17.9	16.9	16.5
20.95	14.85	17.9	16.9	16.5
21.19	14.70	17.9	16.9	16.5
21.40	14.57	17.9	16.9	16.5
21.60	14.44	17.9	16.9	16.6
21.69	14.39	17.9	16.9	16.6
21.69	14.39	17.9	16.9	16.6
22.19	14.08	17.8	16.9	16.6
22.20	14.07	17.8	16.9	16.6
22.40	13.95	17.8	16.9	16.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	17.8	16.9	16.6
22.80	13.70	17.8	16.9	16.6
23.19	13.46	17.8	17.0	16.6
23.30	13.39	17.8	17.0	16.6
23.69	13.14	17.8	17.0	16.6
24.05	12.92	17.8	17.0	16.6
24.19	12.83	17.8	17.0	16.6
24.50	12.64	17.7	17.0	16.6
24.69	12.52	17.7	17.0	16.6
24.70	12.52	17.7	17.0	16.6
25.05	12.30	17.8	17.0	16.7
25.19	12.21	17.8	17.0	16.7
25.69	11.90	17.8	17.0	16.7
25.85	11.80	17.8	17.0	16.7
26.19	11.59	17.7	17.0	16.7
26.69	11.28	17.7	17.0	16.7
27.19	10.97	17.7	17.0	16.7
27.20	10.96	17.7	17.0	16.7
27.45	10.81	17.7	17.0	16.7
27.69	10.66	17.7	17.0	16.8
27.90	10.53	17.7	17.1	16.8
28.19	10.35	17.7	17.1	16.8
28.69	10.04	17.7	17.1	16.8
28.75	10.00	17.7	17.1	16.8
28.98	9.85	17.7	17.1	16.8
28.99	9.85	17.7	17.1	16.8
29.19	9.73	17.7	17.1	16.9
29.25	9.69	17.7	17.1	16.9
29.69	9.42	17.6	17.1	16.9
30.00	9.22	17.6	17.1	16.9
30.19	9.11	17.7	17.2	16.9
30.30	9.04	17.7	17.2	16.9
30.69	8.80	17.7	17.2	16.9
31.19	8.48	17.6	17.2	16.9
31.24	8.45	17.6	17.2	16.9
31.30	8.42	17.7	17.2	17.0
31.74	8.14	17.6	17.2	17.0
31.95	8.01	17.6	17.2	17.0
32.24	7.83	17.6	17.2	17.0
32.25	7.83	17.6	17.2	17.0
32.74	7.52	17.7	17.3	17.0
33.24	7.21	17.7	17.3	17.1
33.30	7.17	17.7	17.3	17.1
33.45	7.08	17.7	17.3	17.1
33.74	6.90	17.7	17.3	17.1
34.20	6.61	17.7	17.4	17.2
34.24	6.59	17.7	17.4	17.2
34.55	6.40	17.7	17.4	17.2
34.69	6.31	17.8	17.4	17.2
34.69	6.31	17.8	17.4	17.2
34.74	6.28	17.8	17.4	17.2
34.85	6.21	17.8	17.4	17.2
35.24	5.97	17.8	17.5	17.3
35.50	5.81	17.8	17.5	17.3
35.74	5.66	17.8	17.5	17.4
36.24	5.35	17.9	17.6	17.4
36.50	5.19	17.9	17.6	17.4
36.74	5.04	17.9	17.6	17.5
36.93	4.92	18.0	17.7	17.5
36.93	4.92	17.9	17.7	17.5
36.95	4.91	17.9	17.7	17.5
37.24	4.73	18.0	17.7	17.5
37.60	4.50	18.0	17.7	17.6
37.74	4.41	18.0	17.7	17.6
37.80	4.38	18.0	17.8	17.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-20. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	81.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	18.1	17.8	17.7
38.24	4.10	18.1	17.9	17.8
38.25	4.10	18.1	17.9	17.8
38.60	3.88	18.1	17.9	17.8
38.74	3.79	18.2	17.9	17.8
38.95	3.66	18.2	17.9	17.8
39.15	3.54	18.2	17.9	17.8
39.24	3.48	18.2	18.0	17.9
39.65	3.23	18.2	18.0	17.9
39.74	3.17	18.2	18.0	17.9
39.95	3.04	18.3	18.1	18.0
40.24	2.86	18.3	18.1	18.0
40.55	2.67	18.3	18.1	18.0
40.70	2.58	18.4	18.2	18.1
40.74	2.55	18.4	18.2	18.1
41.15	2.30	18.4	18.2	18.1
41.24	2.24	18.4	18.2	18.1
41.74	1.93	18.4	18.2	18.1
42.10	1.71	18.4	18.2	18.2
42.24	1.62	18.4	18.2	18.2
42.25	1.61	18.4	18.2	18.2
42.74	1.31	18.5	18.3	18.3
42.75	1.30	18.5	18.3	18.3
43.24	1.00	18.6	18.5	18.4
43.35	0.93	18.6	18.5	18.4
43.65	0.74	18.6	18.5	18.4
43.74	0.69	18.6	18.5	18.4
43.90	0.59	18.6	18.5	18.4
44.24	0.38	18.6	18.5	18.4
44.45	0.25	18.6	18.5	18.4
44.74	0.07	18.7	18.5	18.5
44.80	0.03	18.7	18.5	18.5
44.85	0.00	18.7	18.5	18.5
44.98	-0.09	18.7	18.5	18.5
44.99	-0.09	18.2	18.2	18.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	9.8	9.8	9.8
0.35	27.65	10.4	10.4	10.4
0.50	27.55	10.7	10.7	10.7
0.65	27.46	10.9	10.9	10.9
1.00	27.24	11.5	11.5	11.5
1.15	27.15	11.8	11.8	11.8
1.15	27.15	11.8	11.8	11.8
1.30	27.06	12.0	12.0	12.0
1.50	26.93	12.3	12.3	12.3
1.65	26.84	12.5	12.5	12.5
1.85	26.72	12.8	12.8	12.8
2.00	26.62	13.0	13.0	13.0
2.05	26.59	13.1	13.1	13.1
2.20	26.50	13.3	13.3	13.3
2.50	26.31	13.6	13.6	13.6
2.70	26.19	13.9	13.9	13.9
2.90	26.06	14.1	14.1	14.1
2.92	26.05	14.1	14.1	14.1
3.00	26.00	14.2	14.2	14.2
3.43	25.73	14.7	14.7	14.7
3.44	25.73	14.7	14.7	14.7
3.45	25.72	14.7	14.7	14.7
3.46	25.72	14.7	14.7	14.7
3.50	25.69	14.8	14.8	14.8
3.65	25.60	14.9	14.9	14.9
4.00	25.38	15.0	15.0	15.0
4.20	25.26	15.0	15.0	15.0
4.50	25.07	15.1	15.1	15.1
4.75	24.91	15.2	15.2	15.2
5.00	24.76	15.2	15.2	15.2
5.28	24.58	15.3	15.3	15.3
5.38	24.52	15.3	15.3	15.3
5.39	24.52	14.7	14.7	14.7
5.50	24.45	14.8	14.8	14.8
5.55	24.42	14.8	14.8	14.8
5.65	24.35	14.8	14.8	14.8
6.00	24.14	15.1	15.1	15.1
6.05	24.11	15.1	15.1	15.1
6.50	23.83	15.5	15.5	15.5
6.65	23.73	15.6	15.6	15.6
7.00	23.52	15.9	15.9	15.9
7.07	23.47	15.9	15.9	15.9
7.10	23.45	15.9	15.9	15.9
7.15	23.42	16.0	16.0	16.0
7.16	23.42	15.6	15.6	15.6
7.50	23.20	15.9	15.9	15.9
7.55	23.17	15.9	15.9	15.9
7.80	23.02	16.0	16.0	16.0
8.00	22.89	16.2	16.2	16.2
8.05	22.86	16.2	16.2	16.2
8.45	22.61	16.5	16.5	16.5
8.50	22.58	16.5	16.5	16.5
8.99	22.28	16.8	16.8	16.8
9.09	22.22	16.9	16.9	16.9
9.09	22.22	16.8	16.8	16.8
9.49	21.97	17.0	17.0	17.0
9.50	21.96	17.0	17.0	17.0
9.99	21.66	17.1	17.1	17.1
10.05	21.62	17.2	17.2	17.2
10.25	21.50	17.3	17.3	17.3
10.49	21.35	17.4	17.4	17.4
10.65	21.25	17.4	17.4	17.4
10.99	21.04	17.5	17.5	17.5
11.10	20.97	17.6	17.6	17.6
11.41	20.78	17.7	17.7	17.7
11.45	20.75	17.7	17.7	17.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	17.8	17.8	17.8
11.75	20.56	17.9	17.9	17.9
11.99	20.42	18.1	18.1	18.1
12.20	20.28	18.2	18.2	18.2
12.35	20.19	18.3	18.3	18.3
12.48	20.11	18.4	18.4	18.4
12.49	20.10	18.4	18.4	18.4
12.52	20.08	18.4	18.4	18.4
12.53	20.08	18.3	18.3	18.3
12.70	19.97	18.4	18.4	18.4
12.99	19.79	18.5	18.5	18.5
13.25	19.63	18.6	18.6	18.6
13.31	19.59	18.7	18.7	18.7
13.40	19.54	18.7	18.7	18.7
13.40	19.54	18.7	18.7	18.7
13.49	19.48	18.7	18.7	18.7
13.75	19.32	18.8	18.8	18.8
13.99	19.17	18.9	18.9	18.9
14.45	18.89	19.0	19.0	19.0
14.49	18.86	19.0	19.0	19.0
14.80	18.67	19.0	19.0	19.0
14.99	18.55	19.0	19.0	19.0
15.20	18.42	19.1	19.1	19.1
15.49	18.24	19.2	19.2	19.2
15.80	18.05	19.2	19.2	19.2
15.99	17.93	19.3	19.3	19.3
16.20	17.80	19.3	19.3	19.3
16.34	17.72	19.3	19.3	19.3
16.34	17.71	19.1	19.1	19.1
16.49	17.62	19.2	19.2	19.2
16.75	17.46	19.2	19.2	19.2
16.99	17.31	19.3	19.3	19.3
17.10	17.24	19.3	19.3	19.3
17.30	17.12	19.3	19.3	19.3
17.49	17.00	19.4	19.4	19.4
17.65	16.90	19.4	19.4	19.4
17.90	16.74	19.4	19.4	19.4
17.99	16.69	19.4	19.4	19.4
18.15	16.59	19.5	19.5	19.5
18.19	16.56	19.5	19.5	19.5
18.19	16.56	19.5	19.5	19.5
18.36	16.45	19.5	19.5	19.5
18.37	16.45	18.3	16.5	16.0
18.65	16.28	18.4	16.6	16.1
18.69	16.25	18.4	16.6	16.1
18.95	16.09	18.5	16.6	16.1
19.19	15.94	18.5	16.7	16.1
19.32	15.86	18.5	16.7	16.2
19.43	15.80	18.5	16.7	16.2
19.43	15.79	17.8	16.5	16.0
19.65	15.66	17.9	16.5	16.1
19.69	15.63	17.9	16.5	16.1
20.15	15.34	18.0	16.6	16.1
20.19	15.32	18.0	16.6	16.1
20.69	15.01	18.1	16.7	16.2
20.95	14.85	18.2	16.8	16.3
21.19	14.70	18.2	16.8	16.3
21.40	14.57	18.3	16.8	16.3
21.60	14.44	18.3	16.9	16.4
21.69	14.39	18.3	16.9	16.4
21.69	14.39	18.3	16.9	16.4
22.19	14.08	18.4	16.9	16.4
22.20	14.07	18.4	16.9	16.4
22.40	13.95	18.4	17.0	16.4
22.69	13.77	18.5	17.0	16.5
22.80	13.70	18.5	17.0	16.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	18.5	17.1	16.5
23.30	13.39	18.5	17.1	16.5
23.69	13.14	18.6	17.1	16.6
24.05	12.92	18.6	17.1	16.6
24.19	12.83	18.6	17.2	16.6
24.50	12.64	18.6	17.2	16.6
24.69	12.52	18.6	17.2	16.6
24.70	12.52	18.6	17.2	16.6
25.05	12.30	18.7	17.3	16.7
25.19	12.21	18.7	17.3	16.7
25.69	11.90	18.7	17.3	16.7
25.85	11.80	18.7	17.3	16.7
26.19	11.59	18.7	17.3	16.7
26.69	11.28	18.8	17.3	16.8
27.19	10.97	18.8	17.4	16.8
27.20	10.96	18.8	17.4	16.8
27.45	10.81	18.8	17.4	16.8
27.69	10.66	18.9	17.4	16.9
27.90	10.53	18.9	17.5	16.9
28.19	10.35	18.9	17.5	16.9
28.69	10.04	19.0	17.5	17.0
28.75	10.00	19.0	17.5	17.0
28.98	9.85	19.0	17.6	17.0
28.99	9.85	18.8	17.5	17.0
29.19	9.73	18.8	17.5	17.0
29.25	9.69	18.8	17.5	17.0
29.69	9.42	18.9	17.6	17.0
30.00	9.22	18.9	17.6	17.1
30.19	9.11	19.0	17.7	17.1
30.30	9.04	19.0	17.7	17.1
30.69	8.80	19.1	17.8	17.2
31.19	8.48	19.1	17.8	17.2
31.24	8.45	19.1	17.8	17.2
31.30	8.42	19.1	17.8	17.2
31.74	8.14	19.2	17.9	17.3
31.95	8.01	19.2	17.9	17.3
32.24	7.83	19.2	17.9	17.3
32.25	7.83	19.2	17.9	17.3
32.74	7.52	19.3	18.0	17.4
33.24	7.21	19.4	18.0	17.4
33.30	7.17	19.4	18.0	17.4
33.45	7.08	19.4	18.0	17.4
33.74	6.90	19.4	18.1	17.5
34.20	6.61	19.5	18.1	17.5
34.24	6.59	19.5	18.1	17.5
34.55	6.40	19.5	18.2	17.5
34.69	6.31	19.5	18.2	17.6
34.69	6.31	19.5	18.2	17.5
34.74	6.28	19.5	18.2	17.6
34.85	6.21	19.5	18.2	17.6
35.24	5.97	19.6	18.3	17.6
35.50	5.81	19.6	18.3	17.7
35.74	5.66	19.7	18.3	17.7
36.24	5.35	19.8	18.4	17.8
36.50	5.19	19.8	18.5	17.8
36.74	5.04	19.8	18.5	17.9
36.93	4.92	19.9	18.5	17.9
36.93	4.92	19.8	18.5	17.9
36.95	4.91	19.8	18.5	17.9
37.24	4.73	19.8	18.5	17.9
37.60	4.50	19.9	18.6	17.9
37.74	4.41	19.9	18.6	18.0
37.80	4.38	19.9	18.6	18.0
38.10	4.19	20.0	18.7	18.1
38.24	4.10	20.1	18.8	18.1
38.25	4.10	20.1	18.8	18.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-21. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	20.1	18.8	18.2
38.74	3.79	20.1	18.8	18.2
38.95	3.66	20.1	18.8	18.2
39.15	3.54	20.2	18.8	18.2
39.24	3.48	20.2	18.9	18.2
39.65	3.23	20.2	18.9	18.2
39.74	3.17	20.3	18.9	18.3
39.95	3.04	20.4	19.0	18.3
40.24	2.86	20.4	19.0	18.4
40.55	2.67	20.4	19.1	18.4
40.70	2.58	20.5	19.1	18.4
40.74	2.55	20.5	19.1	18.4
41.15	2.30	20.5	19.2	18.5
41.24	2.24	20.5	19.2	18.5
41.74	1.93	20.6	19.2	18.5
42.10	1.71	20.6	19.3	18.6
42.24	1.62	20.7	19.3	18.6
42.25	1.61	20.7	19.3	18.6
42.74	1.31	20.8	19.4	18.7
42.75	1.30	20.8	19.4	18.7
43.24	1.00	20.9	19.5	18.8
43.35	0.93	20.9	19.5	18.8
43.65	0.74	21.0	19.5	18.8
43.74	0.69	21.0	19.5	18.8
43.90	0.59	21.0	19.5	18.8
44.24	0.38	21.0	19.6	18.8
44.45	0.25	21.0	19.6	18.9
44.74	0.07	21.1	19.6	18.9
44.80	0.03	21.1	19.6	18.9
44.85	0.00	21.1	19.7	18.9
44.98	-0.09	21.1	19.7	18.9
44.99	-0.09	18.5	18.5	18.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	11.9	11.9	11.9
0.35	27.65	12.3	12.3	12.3
0.50	27.55	12.4	12.4	12.4
0.65	27.46	12.6	12.6	12.6
1.00	27.24	13.0	13.0	13.0
1.15	27.15	13.1	13.1	13.1
1.15	27.15	13.1	13.1	13.1
1.30	27.06	13.3	13.3	13.3
1.50	26.93	13.4	13.4	13.4
1.65	26.84	13.6	13.6	13.6
1.85	26.72	13.8	13.8	13.8
2.00	26.62	13.9	13.9	13.9
2.05	26.59	13.9	13.9	13.9
2.20	26.50	14.1	14.1	14.1
2.50	26.31	14.3	14.3	14.3
2.70	26.19	14.5	14.5	14.5
2.90	26.06	14.6	14.6	14.6
2.92	26.05	14.6	14.6	14.6
3.00	26.00	14.7	14.7	14.7
3.43	25.73	15.0	15.0	15.0
3.44	25.73	15.0	15.0	15.0
3.45	25.72	15.0	15.0	15.0
3.46	25.72	15.0	15.0	15.0
3.50	25.69	15.0	15.0	15.0
3.65	25.60	15.1	15.1	15.1
4.00	25.38	15.1	15.1	15.1
4.20	25.26	15.1	15.1	15.1
4.50	25.07	15.0	15.0	15.0
4.75	24.91	15.0	15.0	15.0
5.00	24.76	15.0	15.0	15.0
5.28	24.58	15.0	15.0	15.0
5.38	24.52	15.0	15.0	15.0
5.39	24.52	14.6	14.6	14.6
5.50	24.45	14.6	14.6	14.6
5.55	24.42	14.6	14.6	14.6
5.65	24.35	14.6	14.6	14.6
6.00	24.14	14.8	14.8	14.8
6.05	24.11	14.8	14.8	14.8
6.50	23.83	15.1	15.1	15.1
6.65	23.73	15.2	15.2	15.2
7.00	23.52	15.4	15.4	15.4
7.07	23.47	15.4	15.4	15.4
7.10	23.45	15.4	15.4	15.4
7.15	23.42	15.5	15.5	15.5
7.16	23.42	15.4	15.4	15.4
7.50	23.20	15.6	15.6	15.6
7.55	23.17	15.6	15.6	15.6
7.80	23.02	15.7	15.7	15.7
8.00	22.89	15.8	15.8	15.8
8.05	22.86	15.9	15.9	15.9
8.45	22.61	16.1	16.1	16.1
8.50	22.58	16.1	16.1	16.1
8.99	22.28	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4
9.09	22.22	16.4	16.4	16.4
9.49	21.97	16.6	16.6	16.6
9.50	21.96	16.6	16.6	16.6
9.99	21.66	16.8	16.8	16.8
10.05	21.62	16.8	16.8	16.8
10.25	21.50	16.8	16.8	16.8
10.49	21.35	16.9	16.9	16.9
10.65	21.25	17.0	17.0	17.0
10.99	21.04	17.1	17.1	17.1
11.10	20.97	17.1	17.1	17.1
11.41	20.78	17.2	17.2	17.2
11.45	20.75	17.3	17.3	17.3

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Table CAWG 5 Appendix I-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
11.49	20.73	17.3	17.3	17.3
11.75	20.56	17.4	17.4	17.4
11.99	20.42	17.5	17.5	17.5
12.20	20.28	17.6	17.6	17.6
12.35	20.19	17.7	17.7	17.7
12.48	20.11	17.8	17.8	17.8
12.49	20.10	17.8	17.8	17.8
12.52	20.08	17.8	17.8	17.8
12.53	20.08	17.8	17.8	17.8
12.70	19.97	17.8	17.8	17.8
12.99	19.79	17.9	17.9	17.9
13.25	19.63	18.0	18.0	18.0
13.31	19.59	18.0	18.0	18.0
13.40	19.54	18.0	18.0	18.0
13.40	19.54	18.0	18.0	18.0
13.49	19.48	18.0	18.0	18.0
13.75	19.32	18.1	18.1	18.1
13.99	19.17	18.2	18.2	18.2
14.45	18.89	18.2	18.2	18.2
14.49	18.86	18.2	18.2	18.2
14.80	18.67	18.3	18.3	18.3
14.99	18.55	18.3	18.3	18.3
15.20	18.42	18.3	18.3	18.3
15.49	18.24	18.4	18.4	18.4
15.80	18.05	18.4	18.4	18.4
15.99	17.93	18.5	18.5	18.5
16.20	17.80	18.5	18.5	18.5
16.34	17.72	18.5	18.5	18.5
16.34	17.71	18.4	18.4	18.4
16.49	17.62	18.4	18.4	18.4
16.75	17.46	18.5	18.5	18.5
16.99	17.31	18.5	18.5	18.5
17.10	17.24	18.5	18.5	18.5
17.30	17.12	18.5	18.5	18.5
17.49	17.00	18.6	18.6	18.6
17.65	16.90	18.6	18.6	18.6
17.90	16.74	18.6	18.6	18.6
17.99	16.69	18.6	18.6	18.6
18.15	16.59	18.6	18.6	18.6
18.19	16.56	18.6	18.6	18.6
18.19	16.56	18.6	18.6	18.6
18.36	16.45	18.6	18.6	18.6
18.37	16.45	17.9	16.6	16.4
18.65	16.28	17.9	16.7	16.4
18.69	16.25	17.9	16.7	16.4
18.95	16.09	18.0	16.7	16.5
19.19	15.94	18.0	16.8	16.5
19.32	15.86	18.0	16.8	16.5
19.43	15.80	18.0	16.8	16.5
19.43	15.79	17.8	16.7	16.5
19.65	15.66	17.9	16.8	16.5
19.69	15.63	17.9	16.8	16.5
20.15	15.34	17.9	16.8	16.5
20.19	15.32	17.9	16.8	16.5
20.69	15.01	18.0	16.9	16.6
20.95	14.85	18.0	16.9	16.6
21.19	14.70	18.0	16.9	16.6
21.40	14.57	18.0	16.9	16.6
21.60	14.44	18.0	17.0	16.6
21.69	14.39	18.0	17.0	16.6
21.69	14.39	18.0	17.0	16.6
22.19	14.08	18.1	17.0	16.7
22.20	14.07	18.1	17.0	16.7
22.40	13.95	18.1	17.0	16.7
22.69	13.77	18.1	17.0	16.7
22.80	13.70	18.1	17.0	16.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

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Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
23.19	13.46	18.1	17.1	16.8
23.30	13.39	18.1	17.1	16.8
23.69	13.14	18.1	17.1	16.8
24.05	12.92	18.2	17.1	16.8
24.19	12.83	18.2	17.1	16.8
24.50	12.64	18.2	17.1	16.8
24.69	12.52	18.2	17.1	16.8
24.70	12.52	18.2	17.1	16.8
25.05	12.30	18.2	17.2	16.9
25.19	12.21	18.2	17.2	16.9
25.69	11.90	18.2	17.2	16.9
25.85	11.80	18.2	17.2	16.9
26.19	11.59	18.2	17.2	16.9
26.69	11.28	18.2	17.3	16.9
27.19	10.97	18.2	17.3	17.0
27.20	10.96	18.2	17.3	17.0
27.45	10.81	18.2	17.3	17.0
27.69	10.66	18.3	17.3	17.0
27.90	10.53	18.3	17.4	17.0
28.19	10.35	18.3	17.4	17.1
28.69	10.04	18.3	17.4	17.1
28.75	10.00	18.3	17.4	17.1
28.98	9.85	18.4	17.5	17.1
28.99	9.85	18.3	17.4	17.1
29.19	9.73	18.4	17.5	17.1
29.25	9.69	18.4	17.5	17.1
29.69	9.42	18.4	17.5	17.2
30.00	9.22	18.4	17.5	17.2
30.19	9.11	18.5	17.6	17.2
30.30	9.04	18.5	17.6	17.3
30.69	8.80	18.5	17.6	17.3
31.19	8.48	18.5	17.6	17.3
31.24	8.45	18.5	17.6	17.3
31.30	8.42	18.6	17.7	17.3
31.74	8.14	18.6	17.7	17.3
31.95	8.01	18.6	17.7	17.4
32.24	7.83	18.6	17.7	17.4
32.25	7.83	18.6	17.7	17.4
32.74	7.52	18.7	17.8	17.4
33.24	7.21	18.8	17.8	17.5
33.30	7.17	18.8	17.9	17.5
33.45	7.08	18.8	17.9	17.5
33.74	6.90	18.8	17.9	17.5
34.20	6.61	18.8	17.9	17.5
34.24	6.59	18.8	17.9	17.6
34.55	6.40	18.9	17.9	17.6
34.69	6.31	18.9	18.0	17.6
34.69	6.31	18.9	18.0	17.6
34.74	6.28	18.9	18.0	17.6
34.85	6.21	18.9	18.0	17.6
35.24	5.97	19.0	18.0	17.7
35.50	5.81	19.0	18.1	17.7
35.74	5.66	19.0	18.1	17.7
36.24	5.35	19.1	18.2	17.8
36.50	5.19	19.1	18.2	17.8
36.74	5.04	19.2	18.3	17.9
36.93	4.92	19.2	18.3	17.9
36.93	4.92	19.2	18.3	17.9
36.95	4.91	19.2	18.3	17.9
37.24	4.73	19.2	18.3	17.9
37.60	4.50	19.3	18.3	18.0
37.74	4.41	19.3	18.4	18.0
37.80	4.38	19.3	18.4	18.0
38.10	4.19	19.4	18.5	18.1
38.24	4.10	19.4	18.5	18.1
38.25	4.10	19.4	18.5	18.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-22. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Mean Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
38.60	3.88	19.5	18.5	18.2
38.74	3.79	19.5	18.6	18.2
38.95	3.66	19.5	18.6	18.2
39.15	3.54	19.5	18.6	18.2
39.24	3.48	19.5	18.6	18.2
39.65	3.23	19.6	18.6	18.2
39.74	3.17	19.6	18.7	18.3
39.95	3.04	19.7	18.7	18.3
40.24	2.86	19.7	18.8	18.3
40.55	2.67	19.8	18.8	18.4
40.70	2.58	19.8	18.8	18.4
40.74	2.55	19.8	18.8	18.4
41.15	2.30	19.9	18.9	18.5
41.24	2.24	19.9	18.9	18.5
41.74	1.93	19.9	18.9	18.5
42.10	1.71	20.0	18.9	18.5
42.24	1.62	20.0	19.0	18.5
42.25	1.61	20.0	19.0	18.5
42.74	1.31	20.1	19.0	18.6
42.75	1.30	20.1	19.0	18.6
43.24	1.00	20.2	19.1	18.7
43.35	0.93	20.2	19.2	18.7
43.65	0.74	20.3	19.2	18.7
43.74	0.69	20.3	19.2	18.7
43.90	0.59	20.3	19.2	18.7
44.24	0.38	20.3	19.2	18.8
44.45	0.25	20.3	19.2	18.8
44.74	0.07	20.4	19.3	18.8
44.80	0.03	20.4	19.3	18.8
44.85	0.00	20.4	19.3	18.8
44.98	-0.09	20.4	19.3	18.8
44.99	-0.09	19.0	18.9	18.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	10.2	10.2	10.2
0.35	27.65	11.2	11.2	11.2
0.50	27.55	11.6	11.6	11.6
0.65	27.46	11.9	11.9	11.9
1.00	27.24	12.9	12.9	12.9
1.15	27.15	13.2	13.2	13.2
1.15	27.15	13.3	13.3	13.3
1.30	27.06	13.6	13.6	13.6
1.50	26.93	14.0	14.0	14.0
1.65	26.84	14.3	14.3	14.3
1.85	26.72	14.7	14.7	14.7
2.00	26.62	15.0	15.0	15.0
2.05	26.59	15.1	15.1	15.1
2.20	26.50	15.4	15.4	15.4
2.50	26.31	15.9	15.9	15.9
2.70	26.19	16.2	16.2	16.2
2.90	26.06	16.5	16.5	16.5
2.92	26.05	16.5	16.5	16.5
3.00	26.00	16.7	16.7	16.7
3.43	25.73	17.3	17.3	17.3
3.44	25.73	17.3	17.3	17.3
3.45	25.72	17.3	17.3	17.3
3.46	25.72	17.3	17.3	17.3
3.50	25.69	17.3	17.3	17.3
3.65	25.60	17.5	17.5	17.5
4.00	25.38	17.5	17.5	17.5
4.20	25.26	17.5	17.5	17.5
4.50	25.07	17.6	17.6	17.6
4.75	24.91	17.6	17.6	17.6
5.00	24.76	17.6	17.6	17.6
5.28	24.58	17.6	17.6	17.6
5.38	24.52	17.6	17.6	17.6
5.39	24.52	17.1	17.1	17.1
5.50	24.45	17.1	17.1	17.1
5.55	24.42	17.1	17.1	17.1
5.65	24.35	17.1	17.1	17.1
6.00	24.14	17.5	17.5	17.5
6.05	24.11	17.6	17.6	17.6
6.50	23.83	18.2	18.2	18.2
6.65	23.73	18.4	18.4	18.4
7.00	23.52	18.7	18.7	18.7
7.07	23.47	18.8	18.8	18.8
7.10	23.45	18.8	18.8	18.8
7.15	23.42	18.9	18.9	18.9
7.16	23.42	18.5	18.5	18.5
7.50	23.20	18.7	18.7	18.7
7.55	23.17	18.7	18.7	18.7
7.80	23.02	18.9	18.9	18.9
8.00	22.89	19.1	19.1	19.1
8.05	22.86	19.1	19.1	19.1
8.45	22.61	19.3	19.3	19.3
8.50	22.58	19.4	19.4	19.4
8.99	22.28	19.6	19.6	19.6
9.09	22.22	19.7	19.7	19.7
9.09	22.22	19.5	19.5	19.5
9.49	21.97	19.8	19.8	19.8
9.50	21.96	19.8	19.8	19.8
9.99	21.66	19.8	19.8	19.8
10.05	21.62	19.8	19.8	19.8
10.25	21.50	19.9	19.9	19.9
10.49	21.35	20.0	20.0	20.0
10.65	21.25	20.1	20.1	20.1
10.99	21.04	20.3	20.3	20.3
11.10	20.97	20.3	20.3	20.3
11.41	20.78	20.5	20.5	20.5

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

****Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

*****On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
11.45	20.75	20.5	20.5	20.5
11.49	20.73	20.6	20.6	20.6
11.75	20.56	20.8	20.8	20.8
11.99	20.42	21.0	21.0	21.0
12.20	20.28	21.2	21.2	21.2
12.35	20.19	21.3	21.3	21.3
12.48	20.11	21.3	21.3	21.3
12.49	20.10	21.3	21.3	21.3
12.52	20.08	21.3	21.3	21.3
12.53	20.08	21.2	21.2	21.2
12.70	19.97	21.2	21.2	21.2
12.99	19.79	21.4	21.4	21.4
13.25	19.63	21.5	21.5	21.5
13.31	19.59	21.5	21.5	21.5
13.40	19.54	21.6	21.6	21.6
13.40	19.54	21.5	21.5	21.5
13.49	19.48	21.6	21.6	21.6
13.75	19.32	21.7	21.7	21.7
13.99	19.17	21.8	21.8	21.8
14.45	18.89	21.9	21.9	21.9
14.49	18.86	21.9	21.9	21.9
14.80	18.67	21.9	21.9	21.9
14.99	18.55	22.0	22.0	22.0
15.20	18.42	22.0	22.0	22.0
15.49	18.24	22.1	22.1	22.1
15.80	18.05	22.2	22.2	22.2
15.99	17.93	22.3	22.3	22.3
16.20	17.80	22.3	22.3	22.3
16.34	17.72	22.4	22.4	22.4
16.34	17.71	22.1	22.1	22.1
16.49	17.62	22.2	22.2	22.2
16.75	17.46	22.3	22.3	22.3
16.99	17.31	22.3	22.3	22.3
17.10	17.24	22.4	22.4	22.4
17.30	17.12	22.4	22.4	22.4
17.49	17.00	22.4	22.4	22.4
17.65	16.90	22.5	22.5	22.5
17.90	16.74	22.5	22.5	22.5
17.99	16.69	22.5	22.5	22.5
18.15	16.59	22.6	22.6	22.6
18.19	16.56	22.6	22.6	22.6
18.19	16.56	22.6	22.6	22.6
18.36	16.45	22.5	22.5	22.5
18.37	16.45	21.0	18.6	17.9
18.65	16.28	21.0	18.6	18.0
18.69	16.25	21.0	18.6	18.0
18.95	16.09	21.0	18.7	18.0
19.19	15.94	21.0	18.7	18.0
19.32	15.86	21.0	18.7	18.0
19.43	15.80	21.0	18.7	18.0
19.43	15.79	20.1	18.4	17.9
19.65	15.66	20.1	18.5	17.9
19.69	15.63	20.1	18.5	17.9
20.15	15.34	20.1	18.5	18.0
20.19	15.32	20.1	18.5	18.0
20.69	15.01	20.2	18.6	18.0
20.95	14.85	20.2	18.6	18.0
21.19	14.70	20.2	18.6	18.1
21.40	14.57	20.2	18.6	18.1
21.60	14.44	20.2	18.7	18.1
21.69	14.39	20.2	18.7	18.1
21.69	14.39	20.2	18.7	18.1
22.19	14.08	20.2	18.7	18.2
22.20	14.07	20.2	18.7	18.2
22.40	13.95	20.2	18.7	18.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	20.2	18.7	18.2
22.80	13.70	20.2	18.7	18.2
23.19	13.46	20.3	18.8	18.2
23.30	13.39	20.3	18.8	18.2
23.69	13.14	20.3	18.8	18.3
24.05	12.92	20.3	18.8	18.3
24.19	12.83	20.3	18.8	18.3
24.50	12.64	20.3	18.8	18.3
24.69	12.52	20.3	18.8	18.3
24.70	12.52	20.3	18.8	18.3
25.05	12.30	20.3	18.9	18.4
25.19	12.21	20.3	18.9	18.4
25.69	11.90	20.3	18.9	18.4
25.85	11.80	20.3	18.9	18.4
26.19	11.59	20.3	18.9	18.4
26.69	11.28	20.3	18.9	18.4
27.19	10.97	20.3	19.0	18.4
27.20	10.96	20.3	19.0	18.4
27.45	10.81	20.3	19.0	18.5
27.69	10.66	20.3	19.0	18.5
27.90	10.53	20.4	19.1	18.5
28.19	10.35	20.4	19.1	18.5
28.69	10.04	20.4	19.1	18.6
28.75	10.00	20.4	19.1	18.6
28.98	9.85	20.4	19.1	18.6
28.99	9.85	20.2	19.1	18.6
29.19	9.73	20.2	19.1	18.6
29.25	9.69	20.2	19.1	18.6
29.69	9.42	20.2	19.1	18.6
30.00	9.22	20.2	19.1	18.7
30.19	9.11	20.3	19.2	18.7
30.30	9.04	20.3	19.2	18.7
30.69	8.80	20.3	19.2	18.8
31.19	8.48	20.3	19.3	18.8
31.24	8.45	20.3	19.3	18.8
31.30	8.42	20.4	19.3	18.8
31.74	8.14	20.4	19.3	18.8
31.95	8.01	20.4	19.3	18.8
32.24	7.83	20.4	19.4	18.9
32.25	7.83	20.4	19.4	18.9
32.74	7.52	20.5	19.4	18.9
33.24	7.21	20.5	19.5	19.0
33.30	7.17	20.5	19.5	19.0
33.45	7.08	20.5	19.5	19.0
33.74	6.90	20.5	19.5	19.0
34.20	6.61	20.6	19.5	19.1
34.24	6.59	20.6	19.6	19.1
34.55	6.40	20.6	19.6	19.1
34.69	6.31	20.6	19.6	19.1
34.69	6.31	20.6	19.6	19.1
34.74	6.28	20.6	19.6	19.1
34.85	6.21	20.6	19.6	19.1
35.24	5.97	20.6	19.7	19.2
35.50	5.81	20.7	19.7	19.3
35.74	5.66	20.7	19.7	19.3
36.24	5.35	20.8	19.8	19.4
36.50	5.19	20.8	19.9	19.4
36.74	5.04	20.8	19.9	19.5
36.93	4.92	20.8	19.9	19.5
36.93	4.92	20.8	19.9	19.5
36.95	4.91	20.8	19.9	19.5
37.24	4.73	20.8	19.9	19.5
37.60	4.50	20.8	20.0	19.5
37.74	4.41	20.8	20.0	19.6
37.80	4.38	20.9	20.0	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-23. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	21.0	20.1	19.7
38.24	4.10	21.0	20.2	19.8
38.25	4.10	21.0	20.2	19.8
38.60	3.88	21.1	20.2	19.9
38.74	3.79	21.1	20.2	19.9
38.95	3.66	21.1	20.3	19.9
39.15	3.54	21.1	20.3	19.9
39.24	3.48	21.1	20.3	19.9
39.65	3.23	21.1	20.3	19.9
39.74	3.17	21.2	20.4	20.0
39.95	3.04	21.3	20.4	20.1
40.24	2.86	21.3	20.5	20.1
40.55	2.67	21.3	20.5	20.1
40.70	2.58	21.4	20.5	20.2
40.74	2.55	21.4	20.6	20.2
41.15	2.30	21.4	20.6	20.2
41.24	2.24	21.4	20.6	20.2
41.74	1.93	21.4	20.6	20.3
42.10	1.71	21.4	20.6	20.3
42.24	1.62	21.5	20.7	20.3
42.25	1.61	21.5	20.7	20.3
42.74	1.31	21.6	20.8	20.4
42.75	1.30	21.6	20.8	20.4
43.24	1.00	21.7	20.9	20.5
43.35	0.93	21.7	20.9	20.6
43.65	0.74	21.7	20.9	20.6
43.74	0.69	21.7	20.9	20.6
43.90	0.59	21.7	20.9	20.6
44.24	0.38	21.7	20.9	20.6
44.45	0.25	21.7	20.9	20.6
44.74	0.07	21.8	21.0	20.6
44.80	0.03	21.8	21.0	20.7
44.85	0.00	21.8	21.0	20.7
44.98	-0.09	21.8	21.0	20.7
44.99	-0.09	19.3	19.5	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
0.00	27.87	12.3	12.3	12.3
0.35	27.65	12.9	12.9	12.9
0.50	27.55	13.2	13.2	13.2
0.65	27.46	13.5	13.5	13.5
1.00	27.24	14.1	14.1	14.1
1.15	27.15	14.4	14.4	14.4
1.15	27.15	14.4	14.4	14.4
1.30	27.06	14.6	14.6	14.6
1.50	26.93	14.9	14.9	14.9
1.65	26.84	15.1	15.1	15.1
1.85	26.72	15.4	15.4	15.4
2.00	26.62	15.6	15.6	15.6
2.05	26.59	15.7	15.7	15.7
2.20	26.50	15.9	15.9	15.9
2.50	26.31	16.3	16.3	16.3
2.70	26.19	16.5	16.5	16.5
2.90	26.06	16.7	16.7	16.7
2.92	26.05	16.7	16.7	16.7
3.00	26.00	16.8	16.8	16.8
3.43	25.73	17.2	17.2	17.2
3.44	25.73	17.2	17.2	17.2
3.45	25.72	17.2	17.2	17.2
3.46	25.72	17.2	17.2	17.2
3.50	25.69	17.2	17.2	17.2
3.65	25.60	17.4	17.4	17.4
4.00	25.38	17.2	17.2	17.2
4.20	25.26	17.2	17.2	17.2
4.50	25.07	17.0	17.0	17.0
4.75	24.91	17.0	17.0	17.0
5.00	24.76	16.9	16.9	16.9
5.28	24.58	16.8	16.8	16.8
5.38	24.52	16.8	16.8	16.8
5.39	24.52	16.4	16.4	16.4
5.50	24.45	16.3	16.3	16.3
5.55	24.42	16.3	16.3	16.3
5.65	24.35	16.3	16.3	16.3
6.00	24.14	16.7	16.7	16.7
6.05	24.11	16.8	16.8	16.8
6.50	23.83	17.3	17.3	17.3
6.65	23.73	17.4	17.4	17.4
7.00	23.52	17.8	17.8	17.8
7.07	23.47	17.8	17.8	17.8
7.10	23.45	17.8	17.8	17.8
7.15	23.42	17.9	17.9	17.9
7.16	23.42	17.8	17.8	17.8
7.50	23.20	18.0	18.0	18.0
7.55	23.17	18.0	18.0	18.0
7.80	23.02	18.2	18.2	18.2
8.00	22.89	18.3	18.3	18.3
8.05	22.86	18.3	18.3	18.3
8.45	22.61	18.5	18.5	18.5
8.50	22.58	18.5	18.5	18.5
8.99	22.28	18.7	18.7	18.7
9.09	22.22	18.8	18.8	18.8
9.09	22.22	18.7	18.7	18.7
9.49	21.97	19.0	19.0	19.0
9.50	21.96	19.0	19.0	19.0
9.99	21.66	19.0	19.0	19.0
10.05	21.62	19.0	19.0	19.0
10.25	21.50	19.1	19.1	19.1
10.49	21.35	19.2	19.2	19.2
10.65	21.25	19.2	19.2	19.2
10.99	21.04	19.4	19.4	19.4
11.10	20.97	19.4	19.4	19.4
11.41	20.78	19.6	19.6	19.6

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
11.45	20.75	19.6	19.6	19.6
11.49	20.73	19.7	19.7	19.7
11.75	20.56	19.9	19.9	19.9
11.99	20.42	20.0	20.0	20.0
12.20	20.28	20.1	20.1	20.1
12.35	20.19	20.3	20.3	20.3
12.48	20.11	20.3	20.3	20.3
12.49	20.10	20.3	20.3	20.3
12.52	20.08	20.3	20.3	20.3
12.53	20.08	20.2	20.2	20.2
12.70	19.97	20.2	20.2	20.2
12.99	19.79	20.3	20.3	20.3
13.25	19.63	20.4	20.4	20.4
13.31	19.59	20.5	20.5	20.5
13.40	19.54	20.5	20.5	20.5
13.40	19.54	20.5	20.5	20.5
13.49	19.48	20.5	20.5	20.5
13.75	19.32	20.6	20.6	20.6
13.99	19.17	20.7	20.7	20.7
14.45	18.89	20.8	20.8	20.8
14.49	18.86	20.8	20.8	20.8
14.80	18.67	20.8	20.8	20.8
14.99	18.55	20.8	20.8	20.8
15.20	18.42	20.8	20.8	20.8
15.49	18.24	20.9	20.9	20.9
15.80	18.05	21.0	21.0	21.0
15.99	17.93	21.0	21.0	21.0
16.20	17.80	21.1	21.1	21.1
16.34	17.72	21.1	21.1	21.1
16.34	17.71	21.0	21.0	21.0
16.49	17.62	21.0	21.0	21.0
16.75	17.46	21.1	21.1	21.1
16.99	17.31	21.1	21.1	21.1
17.10	17.24	21.1	21.1	21.1
17.30	17.12	21.2	21.2	21.2
17.49	17.00	21.2	21.2	21.2
17.65	16.90	21.2	21.2	21.2
17.90	16.74	21.3	21.3	21.3
17.99	16.69	21.3	21.3	21.3
18.15	16.59	21.3	21.3	21.3
18.19	16.56	21.3	21.3	21.3
18.19	16.56	21.3	21.3	21.3
18.36	16.45	21.2	21.2	21.2
18.37	16.45	20.2	18.5	18.1
18.65	16.28	20.1	18.5	18.1
18.69	16.25	20.1	18.5	18.1
18.95	16.09	20.1	18.5	18.2
19.19	15.94	20.0	18.5	18.2
19.32	15.86	20.0	18.5	18.2
19.43	15.80	19.9	18.5	18.2
19.43	15.79	19.7	18.4	18.1
19.65	15.66	19.7	18.4	18.1
19.69	15.63	19.7	18.4	18.1
20.15	15.34	19.6	18.4	18.1
20.19	15.32	19.6	18.4	18.1
20.69	15.01	19.5	18.4	18.1
20.95	14.85	19.5	18.4	18.2
21.19	14.70	19.4	18.4	18.2
21.40	14.57	19.4	18.4	18.2
21.60	14.44	19.4	18.4	18.2
21.69	14.39	19.4	18.4	18.2
21.69	14.39	19.4	18.4	18.2
22.19	14.08	19.3	18.4	18.2
22.20	14.07	19.3	18.4	18.2
22.40	13.95	19.3	18.4	18.2

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
22.69	13.77	19.3	18.4	18.2
22.80	13.70	19.3	18.4	18.2
23.19	13.46	19.2	18.4	18.2
23.30	13.39	19.2	18.4	18.2
23.69	13.14	19.2	18.4	18.2
24.05	12.92	19.1	18.4	18.2
24.19	12.83	19.1	18.4	18.2
24.50	12.64	19.1	18.4	18.2
24.69	12.52	19.1	18.4	18.2
24.70	12.52	19.1	18.4	18.2
25.05	12.30	19.0	18.5	18.3
25.19	12.21	19.0	18.5	18.3
25.69	11.90	19.0	18.5	18.3
25.85	11.80	19.0	18.5	18.3
26.19	11.59	19.0	18.5	18.3
26.69	11.28	19.0	18.5	18.3
27.19	10.97	18.9	18.5	18.3
27.20	10.96	18.9	18.5	18.3
27.45	10.81	18.9	18.5	18.3
27.69	10.66	18.9	18.5	18.3
27.90	10.53	18.9	18.5	18.4
28.19	10.35	18.9	18.5	18.4
28.69	10.04	18.9	18.5	18.4
28.75	10.00	18.9	18.5	18.4
28.98	9.85	18.8	18.5	18.4
28.99	9.85	18.8	18.5	18.4
29.19	9.73	18.8	18.5	18.4
29.25	9.69	18.8	18.5	18.4
29.69	9.42	18.7	18.5	18.4
30.00	9.22	18.7	18.5	18.4
30.19	9.11	18.7	18.6	18.5
30.30	9.04	18.7	18.6	18.5
30.69	8.80	18.7	18.6	18.5
31.19	8.48	18.7	18.6	18.5
31.24	8.45	18.7	18.6	18.5
31.30	8.42	18.7	18.6	18.5
31.74	8.14	18.7	18.6	18.5
31.95	8.01	18.7	18.6	18.5
32.24	7.83	18.7	18.6	18.5
32.25	7.83	18.7	18.6	18.5
32.74	7.52	18.7	18.7	18.6
33.24	7.21	18.8	18.7	18.6
33.30	7.17	18.8	18.7	18.6
33.45	7.08	18.8	18.7	18.6
33.74	6.90	18.8	18.7	18.7
34.20	6.61	18.8	18.7	18.7
34.24	6.59	18.8	18.8	18.7
34.55	6.40	18.9	18.8	18.7
34.69	6.31	18.9	18.8	18.7
34.69	6.31	18.9	18.8	18.7
34.74	6.28	18.9	18.8	18.7
34.85	6.21	18.9	18.8	18.8
35.24	5.97	19.0	18.8	18.8
35.50	5.81	19.0	18.9	18.8
35.74	5.66	19.0	18.9	18.9
36.24	5.35	19.1	18.9	18.9
36.50	5.19	19.1	19.0	19.0
36.74	5.04	19.2	19.0	19.0
36.93	4.92	19.2	19.0	19.0
36.93	4.92	19.2	19.0	19.0
36.95	4.91	19.2	19.0	19.0
37.24	4.73	19.2	19.0	19.0
37.60	4.50	19.3	19.0	19.1
37.74	4.41	19.3	19.1	19.1
37.80	4.38	19.3	19.1	19.1

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-24. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Simulated Daily Maximum Temperatures (°C) at Distances Downstream as a Function of Simulated Flow Releases From Mono or Bear Creeks; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Simulated Temperature (°C)*****				
Dist (km)**	Dist (RM)***	Baseline****	79.5 cfs Mono Release	150 cfs Mono Release
38.10	4.19	19.4	19.2	19.2
38.24	4.10	19.4	19.2	19.3
38.25	4.10	19.4	19.3	19.3
38.60	3.88	19.5	19.3	19.3
38.74	3.79	19.5	19.3	19.3
38.95	3.66	19.5	19.3	19.3
39.15	3.54	19.5	19.3	19.3
39.24	3.48	19.5	19.3	19.4
39.65	3.23	19.6	19.3	19.4
39.74	3.17	19.6	19.4	19.4
39.95	3.04	19.7	19.4	19.5
40.24	2.86	19.7	19.5	19.5
40.55	2.67	19.8	19.5	19.5
40.70	2.58	19.8	19.5	19.6
40.74	2.55	19.8	19.5	19.6
41.15	2.30	19.9	19.5	19.6
41.24	2.24	19.9	19.5	19.6
41.74	1.93	19.9	19.5	19.6
42.10	1.71	20.0	19.6	19.6
42.24	1.62	20.0	19.6	19.7
42.25	1.61	20.0	19.6	19.7
42.74	1.31	20.1	19.7	19.8
42.75	1.30	20.1	19.7	19.8
43.24	1.00	20.2	19.8	19.9
43.35	0.93	20.2	19.8	19.9
43.65	0.74	20.2	19.8	19.9
43.74	0.69	20.2	19.8	19.9
43.90	0.59	20.2	19.8	19.9
44.24	0.38	20.2	19.8	19.9
44.45	0.25	20.2	19.8	19.9
44.74	0.07	20.4	19.8	20.0
44.80	0.03	20.4	19.9	20.0
44.85	0.00	20.4	19.9	20.0
44.98	-0.09	20.4	19.9	20.0
44.99	-0.09	19.6	19.6	19.7

Note: Rows with identical distances but different temperatures represent before and after tributaries mix with the simulated stream.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

** Downstream distances relative to Florence Dam

*** SFSJR RM relative to confluence with San Joaquin River

**** Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***** On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-25. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	81.5 cfs Mono Release	150 cfs Mono Release
15.0	79.8	79.8	79.8
16.0	74.3	74.3	64.4
17.0	67.5	34.7	29.6
18.0	15.3	7.2	0.6
19.0	0.3	0.0	0.0
20.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-26. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	81.5 cfs Mono Release	150 cfs Mono Release
15.0	77.5	77.5	73.4
16.0	70.9	46.7	37.5
17.0	30.6	15.3	6.4
18.0	11.7	0.0	0.0
19.0	0.0	0.0	0.0
20.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-27. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	81.5 cfs Mono Release	150 cfs Mono Release
21.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-28. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = Average, and Hydrology = Average (Above Normal).

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	81.5 cfs Mono Release	150 cfs Mono Release
21.0	0.0	0.0	0.0
22.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-29. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	79.5 cfs Mono Release	150 cfs Mono Release
15.0	89.2	89.2	89.2
16.0	81.9	81.9	81.9
17.0	78.7	69.1	54.5
18.0	72.0	41.9	30.6
19.0	41.3	19.7	8.5
20.0	16.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-30. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Mean Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures			
Daily Mean Exceedance Temperature (°C)	Baseline**	79.5 cfs Mono Release	150 cfs Mono Release
15.0	88.0	88.0	88.0
16.0	80.8	80.8	80.8
17.0	76.1	68.7	55.4
18.0	64.1	33.8	27.3
19.0	21.1	6.1	0.0
20.0	6.1	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

For Bear Creek release simulations, Mono Creek flows are baseline values.

For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-31. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = July, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	79.5 cfs Mono Release	150 cfs Mono Release
21.0	30.6	15.0	14.6
22.0	7.4	7.4	7.4
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

Table CAWG 5 Appendix I-32. Phase 1, Test 2* Sensitivity Simulations. South Fork San Joaquin River - Percent of Stream Length with Simulated Maximum Daily Temperatures Exceeding Selected Temperatures; Month = August, Meteorology = 20 percent Exceedance Air Temperatures, and Hydrology = Dry Water Year.

Percent SFSJR Length Exceeding Selected Temperatures***			
Daily Maximum Exceedance Temperature (°C)	Baseline**	79.5 cfs Mono Release	150 cfs Mono Release
21.0	5.6	5.6	5.6
22.0	0.0	0.0	0.0
23.0	0.0	0.0	0.0
24.0	0.0	0.0	0.0
25.0	0.0	0.0	0.0

Note: The percentage distance is based on the sum of distances between calculated temperatures lower than exceedance temperatures.

* For Test 2, the temperatures above the confluence with SFSJR were used for simulated releases.

**Baseline flows for Bear and Mono Creeks were the flows observed during 2000 (Above Normal simulation) and 2001 (Dry simulation).

***On Average, maximum temperatures are overpredicted by 0.4°C.

For Bear Creek release simulations, Mono Creek flows are baseline values. For Mono Creek release simulations, Bear Creek flows are baseline values.

APPENDIX J
CONSULTATION DOCUMENTATION

Big Creek Collaborative Combined Aquatics Working Group

August 19, 2003

Final Meeting Notes

Time:	10:00 AM to 4:00 PM	Moderator:	Wayne Lifton
Location:	CDFG Office Fresno, CA	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Bryan Harland
Name:	Combined Aquatics Working Group		
Attended By:	Britt Fecko Geoff Rabone Wayne Allen Wayne Lifton Ed Bianchi Phil Strand Rick Hopson Wayne Thompson Julie Tupper Cindy Whelan Larry Wise Julie Means	SWRCB SCE SCE ENTRIX ENTRIX USFS USFS Federation of Fly Fishers USFS-RHAT USFS ENTRIX CDFG	
Phone Participants:	Mitchel Katzel	ENTRIX	

Introductions

Stakeholders introduced themselves and the organization they represent. Bill Pistor (Facilitator, Kearns & West) proposed approving the REVISED meeting agenda distributed to the group last week. The group agreed to the revised agenda.

The CAWG reviewed the June 12 and July 9 CAWG meeting summaries. The group changed the July 9 summary to include the SWRCB's support of the USFS's request for hydrology information.

Agreement: The June 12 and July 9 meeting summaries were approved with that edit.

Review previous meeting action items (Incomplete Actions Listed Below):

- **Action Item:** Timeline for outstanding study elements to be developed by ENTRIX and distributed to the CAWG.
- Fieldwork participation email notifications will no longer be an outstanding action item as it is ongoing.
- **Action Item:** Per the USFS's request, ENTRIX will get the Hydrology information to the group soon.

Ed Bianchi (ENTRIX) explained that there has been a change in how the hydrology information is being developed for the group. Since Wayne Allen (SCE) has been dealing with the fieldwork, he has had little time to complete the compilation of the information. ENTRIX has taken over the responsibility for compiling the information and will be presenting a strategy for dealing with the unimpaired hydrology information to the Hydrology subgroup at the next subgroup meeting.

The group discussed the period of record for the data. The SWRCB and CDFG agreed that 25 years is a sufficient period of record, but more would be useful.

The SWRCB stated that the raw hydrology data may be helpful. Geoff Rabone (SCE) stated that providing the raw data would take manpower away from compiling the information from the hydrology subgroup. Wayne Allen (SCE) stated that the raw information can be accessed from the USGS website. The CDFG stated that they would be willing to supply the SWRCB with copies of the historical data that they possess.

Action Item: Julie Means (CDFG) to provide hardcopies of the historical hydrology data to Britt Fecko (SWRCB).

Several stakeholders expressed that the hydrology information is needed to understand the context of the other CWAG study results.

The CDFG requested a Hydrology subgroup meetings for an update on the information by held before the October CAWG meeting.

Action Item #2: Hydrology Subgroup meeting scheduled for 10AM on September 30 at the CDFG Office.

CAWG-1: Habitat Overview of Comments and revisions

Wayne Lifton (ENTRIX) explained that ENTRIX sent the CD to the CAWG with the revised versions of CAWG-1 and CAWG-4 along with a table detailing the revisions made based on stakeholder comments. Wayne L. reviewed the CAWG-1: Habitat DTSR and stakeholder comments with the group.

Action Item #3: Wayne Lifton (ENTRIX) will remind the Sacramento office that Britt needs to be called for document distributions, so she can pick up from the ENTRIX office.

Action Item #4: Julie Means (CDFG) will send an email with her interim contact information during the CDFG move to Carla Anthony (SCE) and Bryan Harland (Kearns & West).

Action Item #5: Any member of the CAWG should contact either Bryan Harland (Kearns & West), Carla Anthony (SCE), or Martin Ostendorf (ENTRIX) with their new information. Those three will coordinate information.

The SWRCB asked how the group will reconcile the lack of information on SCE's Large Woody Debris (LWD) management and inventory, specifically the small tributaries. The USFS reviewed the CAWG-2 Study Objectives and explained that they are trying to find out what impact the project has had on LWD. Wayne L asked if the group can defer this to CAWG-2 and consider the CAWG-1 part of LWD being complete. The group agreed and the information would be provided in the CAWG-2 2003 Study Report.

Action Item #6: ENTRIX will specify a date for a PHABSIM Dam 5 to Powerhouse 8 fieldtrip and distribute to the CAWG. Martin Ostendorf (ENTRIX) will call Britt once the trip is scheduled.

The USFS asked if the group will find out how much gravel movement occurred during this summer's spill event. Mitchell Katzel (ENTRIX) said ENTRIX will be providing that information to the group at a future meeting.

Bill asked the group if they can approve CAWG-1. The USFS said that the QC in the Dam 5 to Powerhouse 8 needs to be resolved. Wayne L. suggested approving the report as is and the QC then be included as an outstanding study element, which will be provided in the 2003 report. The USFS agreed.

The USFS asked what the status of the reservoirs bathymetric surveys that are noted in CAWG-1 as an outstanding element. These also are identified in CAWG-2. It was explained that some work was done, but the work was to be completed under CAWG 2. The CDFG stated that they had fisheries people look at the report and they did not have any edits.

Agreement: CAWG-1 DTSR was approved.

Action Item #7: Bryan Harland (Kearns & West) will remove Holly Eddinger from all Big Creek Relicensing mailing lists. She is no longer involved with the relicensing.

CAWG-2: Geomorphology, Review Stakeholder Comments

Mitchell reviewed the remaining stakeholder comments to the CAWG-2 DTSR, which was not completely reviewed at the April CAWG meeting. He suggested that he and the SWRCB and USFS stakeholders hold a meeting regarding their request for the information on the total length of unregulated and regulated streams and watershed area.

Action Item #8: Mitchell Katzel (ENTRIX), Rick Hopson (USFS) and Britt Fecko (SWRCB) will hold a conference call on the request for information on stream reaches. Will report back to the CAWG on the results. Bryan Harland (Kearns & West) will help coordinate the call.

Discussion of incomplete GIS portions of work. Wayne L asked if the GIS item can be included in the 2003 report and moved to the outstanding study elements section. The group agreed.

The USFS explained their reference to the Grant research paper. He explained that it proposes a new methodology for examining sediment transport. Mitchell said that he reviewed the paper and the methodology relies on having real sediment load data and we cannot use it here since no such data exists for the ALP streams. The USFS said that he doesn't think you need that data, but only hydrology data. The USFS requested that the group to take a look at this data using the Grant as a concept.

The SWRCB said the Grant methodology would be helpful for dealing with the sediment budget component of the CAWG-2 study. Mitchell said when he read the paper it seemed to him that you need the sediment info, but he will go back and look. Another stakeholder said that she thinks what Grant is proposing is an approach at looking at how you have tributary contributions. This would be considered for 2003 report.

Action Item #9: Geomorphology Subgroup will discuss the Grant research paper and it's relation to the CAWG-2 study.

Mitchell then reviewed the rest of the stakeholder comments and stated that he will take the comments and draft a revised CAWG-2 DTSR, which will be distributed to the CAWG.

Agreement: The group approved the study report, if the changes are made as requested in the stakeholder comments.

CAWG-3 Instream Flow, Review Stakeholder Comments and Responses

Larry Wise (ENTRIX) reviewed a table detailing comments received on CAWG 3 and the responses to those comments. The group discussed and agreed on proposed changes which Larry will make to the CAWG-3 DTSR and then redistribute to the group. .

The USFS stated that if they have an issue with the HSC, they will contact Larry within a week. If not, they approve the report.

Agreement: The group approved CAWG-3 with those changes. Kearns & West will contact stakeholder to obtain approval offline

HSC Verification Update

Larry gave a presentation on the HSC Verification Update. See PowerPoint presentation for further details on the approach and fieldwork update.

The SWRCB asked if snorkeling will bias the results. Larry answered that the technique is to look as far forward as they swim up and observe the fish. If you come up on a fish and they dart under a rock that doesn't count as an observation. The visibility is very good in the project area too. Habitat is assessed whether or not there are fish. The SWRCB asked if sampling at base flows will bias the results. Larry said it would if not taken into account, to do this they are looking at different reaches at different flows. When they are at ungaged reaches, they make a note of the flow.

Larry said that the next step is to look at the relationships of the microhabitat variables for independence or correlation and which the test is appropriate. Ed asked if with additional work will there be something to present to the group for the fish to pass the test. He pointed out that the information needs to come to the group soon for a decision.

Action Item #10: Larry Wise (ENTRIX) to send Bryan the HSC PowerPoint presentation, Bryan to send to the CAWG.

Ed asked what will happen if they are unable to collect enough observations. The group will have to decide on how to handle. Possibly use different criteria or adjust the criteria to account for actual habitat use.

The USFS asked Larry if they have avoided looking for hardheads in deep pools due to trying to sample equal areas. Larry said yes, but they are going to change that and go looking.

Larry will summarize the HSC results and bring the approach to be used based on testing to the CAWG for approval. If HSC pass test, they will be used, if not Larry will propose what should be done.

CAWG-5: Water Temperature Overview

Wayne L reviewed the PowerPoint presentation on the CAWG-5: Temperature Monitoring DTSR. See CAWG-5 DTSR for details.

The SWRCB stated that they are the ultimate decision maker for the criteria for beneficial uses. The stakeholder representative can provide advice to the CAWG on what the SWRCB will decide. They can provide suggestions and references. When the SWRCB looks at temperature, they only look at peer reviewed, published references. Ed asked if the SWRCB can bring references information on how they've dealt with temperature criteria in other relicensings for the group to discuss.

Action Item #11: Britt Fecko (SWRCB) will provide examples of SWRCB criteria for water temperature from other relicensings to Bryan Harland (Kearns & West), who will distribute to the CAWG.

The SWRCB asked if 24°C is considered the LD 50. Larry said no. They asked where the hardhead reference of 28°C came from. Larry said it's in Peter Moyle's new textbook.

A stakeholder asked if ENTRIX has information on the sampling sites from the 2000 field season, which occurred before the study plan was approved. Wayne L said they are in there and where the data collection differed from the final study plan, it is noted.

Another stakeholder asked how Wayne interpreted the 5°F increase. Wayne answered that they looked at the difference in temperature. If the difference in temperature was greater than 5°F, then they flag it. In the summary, the report notes if the increase occurs, when the flow was being diverted

The SWRCB asked if they looked at temps above the diversion. Wayne said that they didn't take the temperature above the diversion at all sites, primarily at the diversion. Most diversions being very small.

CAWG-10 Macroinvertebrates Overview

Wayne went over the CAWG-10 DTSR. Please see the CAWG-10 DTSR for further details.

The USFS stated that Midden areas have been used to determine historic presence of Mollusks.

Action Item #12: Geoff Rabone (SCE) to talk to Tom Taylor (SCE) regarding Cultural Midden sites and the identification of historic Mollusks collection points.

Meeting Adjourned

Review Action Items

Action Item #1: Julie Means (CDFG) to provide hardcopies of the historical hydrology data to Britt Fecko (SWRCB).

Action Item #2: Hydrology Subgroup meeting scheduled for 10AM on September 30 at the CDFG Office.

Action Item #3: Wayne Lifton (ENTRIX) will remind the Sacramento office that Britt needs to be called for document distributions, so she can pick up from the ENTRIX office.

Action Item #4: Julie Means (CDFG) will send an email with her interim contact information during the CDFG move to Carla Anthony (SCE) and Bryan Harland (Kearns & West).

Action Item #5: Any member of the CAWG should contact either Bryan Harland (Kearns & West), Carla Anthony (SCE), or Martin Ostendorf (ENTRIX) with their new information. Those three will coordinate information.

Action Item #6: ENTRIX will specify a date for a PHABSIM Dam 5 to Powerhouse 8 fieldtrip and distribute to the CAWG. Martin Ostendorf (ENTRIX) will call Britt once the trip is scheduled.

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Action Item #9: Geomorphology Subgroup will discuss the Grant research paper and it's relation to the CAWG-2 study.

Action Item #10: Larry Wise (ENTRIX) to send Bryan the HSC PowerPoint presentation, Bryan to send to the CAWG.

Action Item #11: Britt Fecko (SWRCB) will provide examples of SWRCB criteria for water temperature from other relicensings to Bryan Harland (Kearns & West), who will distribute to the CAWG.

Action Item #12: Geoff Rabone (SCE) to talk to Tom Taylor (SCE) regarding Cultural Midden sites and the identification of historic Mollusks collection points.

Big Creek Collaborative Combined Aquatics Working Group

September 11, 2003

Final Meeting Notes

Time:	3:00 PM to 5:00 PM	Moderator:	Wayne Lifton
Location:	Piccadilly Inn University Fresno, CA	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Bryan Harland
Name:	Combined Aquatics Working Group		
Attended By:	Bill Pistor (Facilitator)	Kearns & West	
	Bryan Harland (Note Taker)	Kearns & West	
	Janelle Nolan-Summers	ENTRIX	
	Sarah Yarnel	ENTRIX	
	Rick Hopson	USFS	
	Julie Tupper	USFS	
	Britt Fecko	SWRCB	
	Phil Strand	USFS	
	Wayne Lifton	ENTRIX	
	Wayne Allen	SCE	
	Geoff Rabone	SCE	
	Ed Bianchi	ENTRIX	
	Cindy Whelan	USFS	
	Ken Voos	ENTRIX	
Phone Participants:	Julie Means	CDFG	
	Paul Martzen	San Joaquin Paddlers	

Introductions

Stakeholders introduced themselves and the organization they represent. Bill Pistor (Facilitator, Kearns & West) reviewed the agenda. The meeting agenda was changed so that the discussion on CAWG-3 will take the place of CAWG-7, which was covered at the September 10 CAWG meeting. Bill also proposed removing the "approval" part of the CAWG-5 to just a discussion. The agenda was approved by the group with these changes.

Agreement: The group agreed to hold a Riparian Subgroup conference call on September 22 at 8AM. The purpose of the call will be to cover the PFC methodology and an update on the preliminary results of the field studies. Janelle Nolan-Summers (ENTRIX) will send out materials for the call within the next week.

CAWG-8 Amphibians and Reptiles

Bill explained where we were in the CAWG-8 report. The group left off with peer review of the queries approach by Amy Lind and Sarah Kupferburg and began drafting language for the outstanding study elements for the CAWG-8 DTSR.

Britt Fecko (SWRCB) explained that Sarah Kupferburg has sent a hardcopy of her comments on the queries to her via regular mail.

Action Item (follow-up): Britt Fecko (SWRCB) will forward comments on the Amphibian and Reptile Queries methodology from Sarah Kupferburg to Bryan Harland (Kearns & West), who will forward to the CAWG.

Action Item (follow-up): Janelle will contact Julie Tupper (USFS) to have Amy Lind review the Amphibian Reptiles queries methodology. The goal will be to have Amy's review by October 17.

The group developed draft language for the CAWG-8 DTSR, the text of which will be included in the revised CAWG-8 DTSR. Bill asked for approval on the language. The SWRCB asked if they can have Jim Canaday's review before approving. Bill asked if the SWRCB would agree to the CAWG approving the language on the condition that Jim Canaday will review and approve offline. The SWRCB agreed and said Jim Canaday will review by September 26.

Agreement: The CAWG approved the CAWG-8 DTSR for distribution to the Plenary and general public with the exception of the SWRCB, who will review during the public and plenary comment period. The group agreed.

Bill said if the SWRCB submitted any approval or comments before the reports go out, it will be incorporated.

CAWG-3

The Group reviewed the CAWG-3 DTSR Revised version and the response to comments table. Geoff proposed adding "during that season" to the end of the last sentence on page nine end of the third paragraph. Geoff also wanted to remove any excess hyphenation. The group agreed.

Update on HSC

Larry Wise (ENTRIX) gave the group an update on the HSC work. He said crews are out of the field and have indicated which data is desirable for testing. Right now, ENTRIX is in the process of getting the last three weeks of observation into the database. They will send out a list of counts for all observations next week.

Action Item #1: Larry Wise (ENTRIX) to send out counts of observations for the HSC to the CAWG.

A stakeholder asked if the data being collected will allow the group to look at other criteria. Larry said that the data being collected will allow the group to evaluate almost any criteria for the species studied. Larry said that the CAWG will be able to do many things with the information being collected. The stakeholder indicated that the CAWG needs to discuss criteria as a group.

The stakeholder asked when the group will be at that point where they can look at criteria. Larry said that they can put together criteria proposed for evaluation and can send them around for people to take a look at. Larry said they can have out in a couple of weeks.

Action Item #2: Larry Wise (ENTRIX) will send a variety of HSC criteria to the CAWG for review by September 26. The group will address at the CAWG meeting on October 8.

Wayne L explained that the study plan set up criteria for initial testing. He said that if the observations don't fit, then the group will look at other criteria for use in development of specific criteria. Larry agreed and said that in instances where things aren't fitting quite right then they should look at other criteria.

The USFS indicated that they would like another step in the process before the group begins the modeling process.

A stakeholder suggested forming a separate subgroup for HSC and asked Larry when the validation of the data collected will be completed. Larry answered that by the beginning of the week following next he will

have it completed.

Wayne L asked the USFS if they know of any other curves for trout that are applicable to the upper Big Creek system. The USFS said that the American River might be an example for the group to look at.

Action Item #3: Larry Wise (ENTRIX) will contact R2 and Tom Payne regarding HSC for fish from the upper American River to ascertain availability and appropriateness for potential use at Big Creek.

A stakeholder suggested having a subgroup meeting instead of holding offline meetings between experts. The group will address HSC at the next CAWG meeting.

Updates on Other CAWG Fieldwork

Larry and Wayne L. will be working on a schedule for fieldwork for the next few weeks and Wayne Allen will let people know when and where field crews will be doing work.

A stakeholder asked Larry if Mitchell is planning on doing any geomorph work in the reaches where Larry is working. Ed said that he's pretty sure that they are doing something out there, but not sure. Ed suggested that anyone interested in fieldwork schedules contact Martin Ostendorf (ENTRIX) or Carla Anthony (SCE).

Action Item #4: Mitchell Katzel (ENTRIX) and Janelle Nolan-Summers (ENTRIX) will send a Riparian and Geomorphology fieldwork update and schedule to the CAWG.

A stakeholder asked what flow levels will be sent down Stevenson creek. Wayne Allen said that they will be sending 80 and 30 CFS. Mono: 50, 25 and 7 CFS.

Action Item #5: Larry Wise (ENTRIX) will send an email with the schedule for remaining instream flow work to Bryan Harland (Kearns & West), who will forward to the CAWG.

CAWG-5 Water Temperature Modeling (PowerPoint Presentation)

Ken Voos (ENTRIX) gave a presentation on the CAWG-5 water temperature model. The report is a review of the existing temperature models that might be applicable to Big Creek Relicensing. For the details of the presentation, please see the PDF, which will be distributed to the CAWG.

Action Item #6: Wayne Lifton (ENTRIX) will send a PDF version of the September 11, 2003 CAWG-5 presentations to Bryan Harland (Kearns & West), who will forward to the CAWG.

Models selected for review:

SNTEMP (USGS)
Hear Source (Oregon DEQ)
CE-QUAL-R2 (USACE)
CE-QUAL_RIV1 (USACE)
RMA-11 (Resource Management Associates)
QUAL-2e (USEPA)

A stakeholder asked if you can reduce instability of models by reduce the size of the reach? Can you use the two dimensional model for a piece of the project area. Ken said yes and if we use a simple model and find areas that we want to focus on, then the group can use a more complex model.

Wayne L. said that can be done depending upon the level of detail. If you haven't collected data at the level of detail you want to model, it's hard to retrofit information and that additional information collection would be very time-consuming (could result in need for another year of data at a different scale). He said that the model would also need to include appropriate hydraulic data at an appropriate scale. Geoff said that there may be other ways to get at the more complex information.

A stakeholder asked if you would know if you are getting unstable, unreliable results from a dynamic model. Ken said no, you will not be able to tell in most cases except in the cases when the results are so far off that they are noticed by the person running the model.

A stakeholder asked if the results from the dynamic models will be more accurate representation of what's going on. Ken said no.

A stakeholder said that it may be interesting to look at the rate at which the heating occurs during the day, which is what the dynamic models do. Ken said both models can do that. She asked if dynamic models will give more detailed information on the fluctuations throughout the day. Ken said that is true.

A question was asked about whether conditions could be simulated that were not observed in the field. Wayne L explained that the models selected are physical models that simulate physical factors that correspond to real conditions and can be used to extrapolate. Ken said that the models will predict what is going to change. A regression model shouldn't be extrapolated. A regression model will not be representative, if some factor is not accountable for.

A stakeholder asked who at Oregon State University worked on the Heat Source model. Ken said he didn't know. The stakeholder said that the problem is that it's new and we don't know how reliable it is. Ken agreed and said that there's a website set up by the author. Ken said a model needs to be used numerous times to know the bugs.

The SWRCB said one of their concerns about SNTMP is that it simulates maximum temperatures and that one of her major objectives is maximum temps. Ken said that he has used the SNTMP many times and that there have been some issues with past versions of the maximum temperature models, which can be .75 to 1 degree off. The latest version Ken is using provides a better calibration. He said maximum temperature prediction largely depend on the mean daily temperatures.

Wayne said you can have problems with both dynamic and steady-state models and that modeling is a simplification of reality and not reality. Sometimes things happening in the real world are different from the model. Sometimes dynamic models can go off on you in reaching a solution and can have major problems with calibration and prediction.

A stakeholder said that during those times when the temperature is critical (low flow) would that increase the variation around the mean? Ken said that nice thing about the stable model is you can get a great simulation of the mean daily temperatures. If something's wrong, it can be easily identified. After calibration, you can find the differences. In the end, when you know where the error occurs with your results. You can get very confident with the mean dailies at any flow and then add the maximums on to that.

The stakeholder said that you're only using meteorological information to get the maximums and not the stream conditions. You're going to have differing levels of confidence depending on different conditions of the stream. Ken said that one way to account for that is that in calibrating. Ed said that you come up with calibration statistics that can give you level of confidence. So depending on the flow level, you can know how confident you are. Wayne said that all these models are especially affected by how you structure the model. This has a major effect on results.

Recommendation: Ken suggested that the CAWG use the SNTMP model for most of the data, using Heat Source and CE-QUAL-W2 to supplement the information, if necessary. The group will discuss the recommendation at the October CAWG meeting.

A stakeholder asked how the group would decide on using certain models. Ken said that the group would have to look at the data at a later date and decide for the a specific use.

The SWRCB commented that there is a process that the SWRCB goes through for determining if streams are in compliance with beneficial uses criteria. She said they will be looking at both Maximum and Mean daily temperatures for deciding what model to use.

Julie Means (CDFG), who was on the phone, asked for a hardcopy of the presentations.

Action Item #7: Bryan Harland (Kearns & West) will drop off a hardcopy of the CAWG-5 Model report at the CDFG office for Julie Means (CDFG).

Selection of Bypass Reaches for Stream Temperature Modeling (PowerPoint Presentation)

Wayne gave a presentation to the group on the bypass reaches to be modeled as a part of the CAWG-5 study. He gave the reasons for Temperature Modeling.

The SWRCB said that there is a problem with the CAWG-5 report. Generally, the SWRCB measures the above diversion and below diversion. We would be comparing the tributaries to the reservoir to the bottom of the reach. Wayne said he can provide the information the SWRCB wants in the report, but the reach selection will most likely remain the same. The SWRCB agreed. Wayne said that he doesn't think that different comparisons would change things in terms of reach selection based on water temperatures. Release of cold water from Project lakes came up. That piece of the modeling picture isn't really necessary for this relicensing because the outlets for the large lakes are located near the bottom in stratified lakes, and release flows from those outlets provide cold water during the summer.

Wayne L. continued the presentation and reviewed the approach to reach selection.

Stakeholders asked for the information on the days the diversions were in operation to be included in the report. Wayne agreed.

The SWRCB explained their criteria for water temperature and said that if you have a situation where you have fish and are dealing with 19°C, the maximum warming cannot go beyond 2.78°C. If you have a water temperature upstream that is at the maximum, then downstream you cannot exceed it. Britt explained that the 2.78°C is the assumed natural warming. Wayne said that he had understood that the 2.78°C was for the warming of the project on top of the natural warming. The SWRCB explained that unless a reference reach is available you cannot go beyond the 2.78°C in total warming. Wayne L. said that was one of the purposes for which you might use a model.

The SWRCB stated that they asked for thermographs on unimpaired reaches for this reason. Geoff said they did not ask for that information. Wayne said the group discussed placement during the development of the study plan. If you're modeling a reach and it has 5°F degrees of warming, then you can determine the difference of with the project and without the project. Using the models we can determine how much is of the warming is due to the diversion and how much is not. Wayne said that they discussed using the model to parse out the project effects.

Bill suggested moving on from this topic since it is essentially a project affects analysis discussion. The group agreed.

Wayne continued on with the presentation. A stakeholder asked if the 24°C temperature was decided by the CAWG. Wayne said it was in the literature. Another stakeholder said he doesn't remember the CAWG agreeing on 24°C, but just using it as a conservative estimate. Ed explained that stakeholders can submit comments on the threshold in the DTSR.

Wayne explained that the CAWG will have to agree on a threshold, but in the meantime, we are using conservative numbers to identify reaches to model. He went on to explain that the 19°C number came from Trout Unlimited and the SWRCB, adding that CDFG had stated that they were considering using 19°C for the statewide criteria. The 24°C number came from extremely conservative criteria in the literature. A

stakeholder asked if the literature is cited in the report. Wayne said some of it is , but there is a great deal of literature on the subject.

Wayne reviewed the table with the number of days the reach went over 19°C. Then gave numbers of days monitored versus the temps.

Ross Creek was a problem because it went dry and there is a non-project diversion for the apple orchard upstream.

Wayne gave the considerations for warming. When diversion is turned out, warming is natural. A stakeholder asked if Wayne believes that the structure of the diversion doesn't cause warming. Wayne said basically yes. The stakeholder said we should examine that to determine if that's true. The group agreed.

Wayne recommended not modeling the reaches that exceed the 5°F warming, but do not exceed the mean daily or maximum daily temperature criteria. The SWRCB asked about a other reasons for modeling the reaches. Wayne said the Board will have to decide what their needs are.

Action Item #8: Britt Fecko (SWRCB) will check on the diversion allotment for the upstream non-SCE diverter on Ross Creek and report back to the CAWG.

Next steps and timing:

The CAWG needs to determine which reaches to model. ENTRIX will touch base with CAWG members try to approve stream reach proposal and modeling proposal on September 22, 3:30 conference call. At the next CAWG meeting the group will talk about which things to simulate.

Summary of Action Items

Action Item #1: Larry Wise (ENTRIX) to send out counts of observations for the HSC to the CAWG.

Action Item #2: Larry Wise (ENTRIX) will send a variety of HSC criteria to the CAWG for review by September 26. The group will address at the CAWG meeting on October 8.

Action Item #3: Larry Wise (ENTRIX) will contact R2 and Tom Payne regarding HSC for fish from the upper American River to ascertain availability and appropriateness for potential use at Big Creek.

Action Item #4: Mitchell Katzel (ENTRIX) and Janelle Nolan-Summers (ENTRIX) will send a Riparian and Geomorphology fieldwork update and schedule to the CAWG.

Action Item #5: Larry Wise (ENTRIX) will send an email with the schedule for remaining instream flow work to Bryan Harland (Kearns & West), who will forward to the CAWG.

Action Item #6: Wayne Lifton (ENTRIX) will send a PDF version of the September 11, 2003 CAWG-5 presentations to Bryan Harland (Kearns & West), who will forward to the CAWG.

Action Item #7: Bryan Harland (Kearns & West) will drop off a hardcopy of the CAWG-5 Model report at the CDFG office for Julie Means (CDFG).

Action Item #8: Britt Fecko (SWRCB) will check on the diversion allotment for the upstream non-SCE diverter on Ross Creek and report back to the CAWG.

Big Creek Collaborative Combined Aquatics Working Group

October 8, 2003

Final Meeting Notes

Time:	9:00 AM to 5:00 PM	Moderator:	Wayne Lifton
Location:	USFS Clovis Office	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Bryan Harland
Name:	Combined Aquatics Working Group - Geomorphology/Hydrology Subgroups		
Attended By:	Phil Strand Bill Pistor Bryan Harland Wayne Lifton Wayne Allen Roger Robb Phil Strand Larry Wise Julie Means Geoff Rabone	USFS Kearns & West Kearns & West ENTRIX SCE Friant Water Users Authority USFS ENTRIX CDFG SCE	
Phone Participants:	Britt Fecko Ken Voos Paul Devries Dudley Reiser	SWRCB ENTRIX R2 – USFS R2 – USFS	

Introductions and Agenda

Bill Pistor (Kearns & West) began the meeting by having stakeholders introduce themselves and the organizations they represent. He then reviewed the day's agenda. Wayne Lifton (ENTRIX) suggested adding the approval of the pebble count methodology, the group approved the revised agenda.

Review Action Items

Outstanding action items listed below:

Action Item: Britt Fecko (SWRCB) will provide Wayne Lifton (ENTRIX) with the list of literature cited in the CAWG-7 DTSR she would like copies of. There was no commitment to provide the references, however. ENTRIX will check with SCE for direction.

Action Item: Larry Wise (ENTRIX) will send an e-mail with the scheduled flows for the PHABSIM work to Bryan Harland (Kearns & West), who will forward to the CAWG.

A stakeholder asked if there will be a schedule of fieldwork activities sent to the CAWG. Mitchell Katzel (ENTRIX) said that they are finishing up next week.

Action Item #1: Mitchell Katzel (ENTRIX) will send a fieldwork schedule for geomorphology to Bryan Harland (Kearns & West), who will forward to the CAWG.

Approve Meeting Summaries

The SWRCB submitted comments on the September 11 CAWG meeting. Geoff (SCE) said that he thinks the SWRCB edits should be added to this meeting summary and not to those of Sept 11th. Bill proposed adding a footnote to the Sept 11 notes and adding the clarification language to this meeting summary. Bill suggested putting into the meeting note "The SWRCB gave a demonstration on temperature parameters at the meeting; a follow up e-mail was submitted at a later date, which is presented in the October meeting notes." Then, the full text of the e-mail will be presented in these notes. The group agreed.

Action Item #2: Britt Fecko will send the SWRCB water temperature criteria e-mail to Bryan Harland (Kearns & West), who will forward to the CAWG and attach to the September 11 CAWG meeting summary.

With that edit, the meeting summaries were approved.

Geomorphology Methodology

Bill reviewed the revised methodology for pebble counts for the CAWG and asked for the CAWG's approval.

Agreement: The revised pebble count methodology was approved.

Instream Flow

Discussion of Habitat Suitability Criteria

Larry Wise (ENTRIX) gave a presentation on the results of the HSC testing analysis. He reviewed management goals and objectives from the CAWG-3 Study Plan as well as the general and specific approaches. He then gave a PowerPoint presentation on HSC (for further details, please see the attached presentation).

Larry reviewed the Greshens and Orth method, which provides a statistical evaluation of whether a set of HSC is appropriate for use on a given stream. This approach compares the frequency of utilization of depth and velocity with the availability of these parameters within the stream. The values of depth and velocity are divided into "suitable" vs. "unsuitable" and "optimal" vs. "marginal" categories based upon the criteria being tested and threshold suitability values (in this case 0.5 and 0.1). He provided an example showing a curve with lines depicting the threshold values that divide suitable from unsuitable, and optimal from marginal. In CAWG 3 the threshold values were defined as 0.1 and 0.5. The Greshens and Orth test compares the utilization and availability within these categories in two one-tailed chi-square tests; one for suitable vs. unsuitable and one for optimal vs. marginal. The null hypothesis being tested is that both categories are being used to the same extent based on their relative availability within each test. The alternate hypothesis is that suitable habitat is used more than unsuitable habitat and optimal habitat is used more than marginal habitat. Both null hypotheses must be rejected for the criteria to pass for a given parameter.

The values of depth available may influence the way in which a fish selects velocities and vice versa. Where depth and velocity are not being selected independently, a simultaneous test of both parameters is indicated. This is termed a "joint" test. Larry discussed testing for such interactions and considering a criteria set to pass where there is an interaction and the joint test passes. When there is no interaction, then depth and velocity may be considered to be independent and would both need to pass for a criteria set to be accepted for use..

Larry reviewed, basin by basin, the observations for each fish species. Larry sent out the curves for each fish species before this meeting, and indicated that some have already passed. For those that didn't pass, he sought recommendations from the CAWG as to how to move forward.

A stakeholder asked if Larry can provide a curve depicting the ratio of use to availability from the verification data. Larry replied that in most cases there are not enough observations to develop a reliable relationship in this manner. Such a curve would be badly skewed if there was a low number of utilization observations

available. Additionally, this is beyond the scope of what was agreed to in CAWG-3. Wayne L. said that ENTRIX would need to ask SCE if they should do the extra work of attempting to prepare such curves. Geoff added that the altered flows are preference curves and included in their development were observations collected on streams within the Big Creek system, as well as from adjacent watersheds (i.e., Willow Creek).

Action Item #3: Britt Fecko (SWRCB) to contact Larry Wise (ENTRIX) regarding her request for additional curves. They will report back to the group with any further related actions.

Larry showed examples of HSC that didn't pass and some overlays of different criteria curves. Paul Devries questioned the narrow peaks of the curves and said that he thought that the AF Preference velocity curve needed to be shifted to the right and that a preferred velocity of zero did not reflect trout's use of feeding lanes.

Wayne L. stated that the velocity criteria reflected the actual mean column velocities being used by the fish. Therefore, adjusting criteria that reflect actual habitat use is not appropriate. For the Juvenile rainbow trout, Larry suggested using the S&A criteria. He asked the group for approval and/or opinions on a future conference call.

The group discussed the study methodology and the use of Altered Flows criteria. Larry said that the study plan called for the testing of Altered Flows Preference Criteria for trout and the Pit River Criteria for non-trout species. If these passed, then they would be used. If they didn't pass, then other criteria would be sought and tested, such as the Smith and Aceituno Criteria for trout. The USFS representative said he looked at the study plan and it does specify what Larry said. He has concerns regarding the criteria, but wishes he looked at the criteria when the study plan was approved. Dudley asked if there will not be a chance to go back. This issue will be addressed at a future HSC meeting.

Some stakeholders said they wanted the opportunity to look at the other curves.

A stakeholder said that he's not sure that the Altered Flows (AF) curves will be applicable if they don't reflect feeding lanes. He said that S&A provide criteria for areas where cover is available and a second set where cover is absent. Larry used the S&A criteria with-cover for this study, as cover is abundant in the Big Creek system.

Wayne L said he has problems using criteria that incorporate velocities for feeding, as trout are not necessary drift feeding only. Larry looked into the feeding lane issue as far as criteria sets. Larry said there is only one criterion he knows of which was developed by the Fish and Wildlife service of Colorado. The feeding lane criteria are separate from the normal velocity HSC and represent the use of a modeling option in HABTAE or HABTAV, the PHABSIM habitat models.

A stakeholder suggested that there needs to be some time for the group to digest this and then hold a conference call or a meeting to discuss the curves. He thinks that the goal really needs to be getting agreement before moving on because we don't want to revisit this in the future. The stakeholder asked if Larry would provide a short summary of the background information on the different sets of HSC curves that we are being asked to consider, so that we can make better decisions about their use.

Action Item #4: Larry Wise (ENTRIX) to prepare a memo providing a background on the different HSC criteria and send to Bryan Harland (Kearns & West), who will forward to the CAWG.

Agreement: The group proposed forming a HSC subgroup. The group agreed.

The group discussed adding all the curves to all the plots of the observed data sets, rather than just the AF if it passes.

Action Item #5: Julie Means (CDFG) to provide Gary Smith's rationale for not using the Raleigh HSC criteria to the CAWG.

Action Item #6: 6A-Larry Wise (ENTRIX) will send plots with all HSC curves overlain on utilization histograms out to the CAWG by Tuesday (10/14). The CAWG will review, then hold a meeting on October 27 and 28 (10AM to 4PM each day) in Modesto to discuss further.

6B-Paul DeVries (R2) will check into getting the UARP criteria data to Larry by Friday (10/10).

The group discussed potential agenda items for the HSC subgroup meeting.

Potential HSC subgroup agenda items:

- Review Gary Smith's rationale for not preferring the Raleigh curve.
- Discussion of correlation between depth and velocity selection.
- Paul DeVries proposed not spending a lot of time on the YOY, and only focusing on the Adult and Juvenile, since the fry are not typically used in any decision making process in relicensing for trout.
- Cover in relation to the HSC.

Larry showed a table summarizing which habitat suitability criteria had passed the transferability test, and were therefore acceptable for use in the PHABSIM studies, as outlined in the CAWG-3 study plan.

Recommendation on Approach for Bolsillo Creek Habitat Analysis

Larry explained that at a previous meeting, the group decided that the food transport analysis was inconsistent with the observed conditions. The group asked that Larry come up with an alternate approach, which he presented.

Larry explained that in the Vermilion Relicensing, they used flows required to maintain depth suitability in pools. Results were presented as the percentage of stream width with suitable depths as a function of flow.

A stakeholder asked if this was the same approach used in Portal. Larry said no. This is focused on pools, while portal was focused on riffles.

Action Item #7: Larry Wise (ENTRIX) will copy the pool evaluation methodology from the Vermilion report and send to Bryan, who will forward to the CAWG.

Larry said that since people were comfortable with the approach in the Vermilion relicensing he recommends the same approach for Bolsillo Creek. He also proposes using this approach on Rock Creek.

A stakeholder asked why the methodology doesn't work. Larry explained that the answer obtained during the first analysis didn't relate to reality, it was suggesting a flow of 7 cfs when there is only a flow of 10 cfs for a maximum of a couple of days during peak runoff. The new method will give the group a better idea of habitat rather than a flow that doesn't exist in the stream, except for a short period of time.

Agreement: The group agreed to use the Vermilion method on Bolsillo and Rock Creeks.

Temperature Modeling Decision: Approval of Model to be Used

Action Item #8: Bryan Harland (Kearns & West) will send PDF versions of the slide presentations from today's meeting to the CAWG.

Wayne Lifton and Ken Voos (ENTRIX) reviewed the recommended model for temperature to the group. The proposal is to use SNTMP, using Heat Source or CE-QUAL-W2 to supplement the information, if necessary.

Wayne reviewed the language from CAWG-5 discussing the use of existing models. He also gave the

results of BiCEP Model calibration check.

A stakeholder asked what “bias” referred to in the presentation. Wayne explained that the Maximum Error is the biggest deviation at any time of any day. Ken explained “bias” as the average difference between the predicted temperature and actual temperature. The probable error is the 50% confidence interval, which means that 50% of the time, the model predictions will be within the actual temperature (plus/minus) the probable difference.

Wayne gave the status of the model reaches. The fourth model needs some additional work, but the others are ready to go. Wayne asked for approval of the proposed models.

A stakeholder asked what the improved maximum temperature algorithm referred to. Ken explained that the prediction in the original SNTMP model for the maximum daily temperature was not very accurate downstream from dams. He has modified the code to improve maximum temperature predictions by accounting for upstream conditions. This has proven to be very satisfactory in use.

The stakeholder asked what “looks upstream” means. Ken said that the new version considers dams and tributaries, so it retrieves the actual recorded value from that point downstream and takes the packet downstream under daylight conditions.

A stakeholder asked if there was any chance that the methodology be provided in writing to the CAWG.

Action Item #9: Ken Voos and Wayne Lifton (ENTRIX) will provide a written description of the maximum temperature methodology of the modified SNTMP to Bryan Harland (Kearns & West), who will forward to the CAWG.

A stakeholder asked if they have any areas in mind right now that they might want to use CE-QUAL-W2. Wayne said no, but they wanted to be clear that if SNTMP doesn't work, they will have a backup in mind that may be appropriate.

The USFS said that Julie Tupper felt that there would be a need to compare SNTMP to other dynamic models in some reaches. Wayne said that the idea is that they will run the SNTMP to the actual data set, then the group will be able to see whether it can accurately predict actual temperatures. He said that there is a lot of set up work involved in running these models. The USFS requested giving a tentative approval of the SNTMP, then if Julie T. has a problem, to discuss later.

Action Item #10: Ken Voos, Wayne Lifton (ENTRIX), Geoff Rabone, Wayne Allen (SCE), and Julie Tupper (USFS) to hold a conference call to discuss her issues related to the SNTMP model. Bryan Harland (Kearns & West) will help to coordinate the call and inform members of the CAWG when it will take place.

Agreement: The group agreed to use SNTMP, using Heat Source or CE-QUAL-W2 to supplement the information, if necessary with the above caveat.

Follow-up discussion of reaches to be modeled

The group discussed the reaches to be modeled for temperature and developed a proposed methodology, which is listed below:

A stakeholder asked if Mono and Bear creeks could be modeled to see what the effect of additional flow releases would be on the SFSJR.

PROPOSAL: Perform a sensitivity analysis to game out a range of flows for Mono and/or Bear, then if the ability to evaluate the effect on the SFSJR is too close to call, then in the PME phase, the CAWG will decide whether to model. Sensitivity analysis includes looking at the effect of increased flows from the creeks at water temperatures representative of both the diversion (coolest temperature available) and near

the confluence with the SFSJR. The results would be the effect on SFSJR temperatures.

Wayne proposed supplying the proposal in writing so stakeholders can review, then revisit at the next CAWG meeting, or a later date.

Action Item #11: Ken Voos and Wayne Lifton (ENTRIX), will write up an approach (phased) for dealing with analyzing the effect of Bear Creek and Mono Creek flow releases on the South Fork San Joaquin River and deciding whether modeling of those creeks is necessary. This will be sent to Bryan Harland (Kearns & West) to send to the CAWG.

The SWRCB said that they don't have a problem with the proposed reaches, just the exclusion of the other reaches. Wayne asked that the group approve the reaches now as a starting point and then revisiting at a later date the other reaches. The group agreed.

Simulation Conditions

Simulation Output will include the predicted water temp based on numerous variables.

Wayne proposed modeling the same flows as considered in PHABSIM modeling for that reach. And average and 20% exceedance meteorology and normal hydrology for summer months: June, July, and August and including September for SJR downstream of Mammoth Pool and Stevenson Reach.

A stakeholder asked what normal hydrology means. As a conservative estimate, can't the group look at a hot and dry year? Wayne Allen (SCE) said that they have two different operations: normal and dry. Wayne said that they can simulate for average and dry. The group agreed. Phil asked if we can include the month of May as well for the lower reaches only (Mammoth, Stevenson and Big Creek).

Simulation from the point of discharge to the end of the reach with the results reported at 0.5-km intervals along the stream was proposed and accepted by the group as the simulation framework. ENTRIX will take the results and put into table of reach, month, meteorology and flow of stream temps by location for daily mean and maximum temp. They will provide figures of temperature along stream longitude for each flow by month and meteorology as well as percent of stream length exceeding certain temperatures.

A stakeholder asked if Wayne can write up the simulation proposal as well. He said that he could provide the presentation slides to her as modified by the group today.

Action Item #12: Wayne Lifton (ENTRIX) will modify the slides on modeling conditions and send to Bryan Harland (Kearns & West), who will send to the CAWG.

CAWG-5 and CAWG-10 Revised DTSRs

The group received the revised editions of CAWG-5 and 10 as well as a table detailing the response to comments. The group decided to discuss and approve the DTSRs at a later date.

Meeting Adjourned

Summary of Action Items

Action Item #1: Mitchell Katzel (ENTRIX) will send a fieldwork schedule for geomorphology to Bryan Harland (Kearns & West), who will forward to the CAWG.

Action Item #2: Britt Fecko will send the SWRCB water temperature criteria e-mail to Bryan Harland (Kearns & West), who will forward to the CAWG and attach to the September 11 CAWG meeting summary.

Action Item #3: Britt Fecko (SWRCB) to contact Larry Wise (ENTRIX) regarding her request for additional curves. They will report back to the group with any further related actions.

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criteria to the CAWG.

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Action Item #12: Wayne Lifton (ENTRIX) will modify the slides on modeling conditions and send to Bryan Harland (Kearns & West), who will send to the CAWG.

Big Creek Collaborative Combined Aquatics Working Group

January 14, 2004

Meeting Notes

Time: 10:00 AM to 4:30 PM
Location: Piccadilly Inn University
Moderator: Wayne Lifton
Facilitator: Bill Pistor
Teleconference No.: 1-800-556-4976
Name: Combined Aquatics Working Group
Recorder: Ryan Bricker

Attended By:

Bill Pistor (Facilitator)	Kearns & West
Ryan Bricker (Note Taker)	Kearns & West
Andrew Wyckoff	Kearns & West
Wayne Lifton	ENTRIX
Julie Means	CDFG
Geoff Rabone	SCE
Wayne Thompson	Federation of Fly Fisherman
Rick Hopson	USFS
Julie Tupper	USFS
A. Britt Fecko	SWRCB
Phil Strand	USFS
Lonnie Schardt	Huntington Lake Association
Monty Schmidt	NRDC
Roger W. Robb	Friant Water Users Authority
Larry Wise	ENTRIX
Wayne Allen	SCE

Phone Participants:

Brian Caruso	ENTRIX
Debbie Giglio	USFWS
Mitchell Katzel	ENTRIX
Woody Trihey	ENTRIX
Paul Devries	R2 Resource Consultants

Introductions and Agenda

Bill initiated the meeting by introducing Ryan Bricker (Kearns & West) and Andrew Wyckoff (Kearns & West) and then asked for everyone to introduce themselves and the organizations they represent.

Review Action Items/Meeting Notes

The group reviewed and approved the November Meeting Summary and went through the Action Items from the December CAWG meeting.

Action Item #1: Geoff Rabone (SCE), Phil Strand (USFS), and others to check for an email from Jim Canaday (SWRCB) regarding the SWRCB water temperature criteria (from late September or October). If not found, Britt Fecko (SWRCB) to re-craft and provide to Kearns & West for distribution to the CAWG.

Action Item #2: Brian Caruso (ENTRIX) to correct the hydrology table error identified by Rick Hopson (USFS) and provide new Hydrology Packet on CD.

The group then discussed the 2004 CAWG meeting schedule. The group was informed that SCE is considering having all meetings held regularly at the Piccadilly Inn and that it is safe to say that we will be having more meetings this year than in the past.

Action Item #3: CAWG meeting currently scheduled for February 12, 2004 to be adjusted due to State Holiday.

Monty Schmitt (NRDC) was new to the group and asked if he could be given a brief update on the CAWG 12 and CAWG 13 studies. Wayne Lifton (ENTRIX) responded that CAWG 12 "Water Use" is still a little further out. The hydrology must be completed as well as the water routing modeling before "Water Use" can be wrapped up. Right now they are shooting for March for the distribution of CAWG 12 "Water Use." Wayne L. also added that they are just entering the impact analysis phase and they might be a little behind of where they would like to be. CAWG 13 "Anadromous Fish" is one of the 2004 reports coming out in the next month or two and there will be the normal comment period.

Action Item #4: Add NRDC (Monty Schmitt) to CAWG Distribution Lists and Kearns & West to provide contact info to Carla Anthony (SCE).

Britt Fecko (SWRCB) asked for a negotiations scheduling estimate. Negotiations are expected to kick off in March along with a Mutual Gains training session. The goal is to wrap-up settlement in December 2004.

Rick Hopson (USFS) asked if the routing models will be a CAWG decision point. Wayne L. replied that it is in the study plan that CAWG consensus is required.

Britt brought to the group's attention that the February CAWG meeting is currently scheduled for the 12th which is a state holiday and will need to be rescheduled.

The group reviewed past Action Items.

CAWG 6 Hydrology Update:

Wayne L. displayed a PowerPoint presentation on the Big Creek Hydrology Study to the group while Brian Caruso (ENTRIX) narrated from the phone. Brian talked the group through the slides and explained how to read the various graphs and informed the group of the sources of various data. It was mentioned that the graphs presented are going to be distributed on CD with updates made. As they go through the streams and diversions, the spreadsheet has constantly been updated.

Brian continued explaining the data summary tables and what the columns and symbols represented. Rick asked why they were choosing to use twenty year records rather than the entire records. Brian replied that they are looking at the entire record, but in many cases some stations only have data going back to the 80s. In addition, the conditions from the last 20 years may be more valid for the group's purposes than data from the 30s or 40s, because of additional project facilities being constructed since then. Wayne L. added that the reason for looking at the 20 year records is to have "apples to apples"

comparison. Brian agreed, but added that there are still some cases where we don't even have 20 years of data, so the data is not entirely consistent, but they are trying to be as consistent as possible.

Brian went on to further explain the data summary sheet. Britt asked if the tunnel numbers could also be added as well as the names. In other documents and data sheets, sites are referenced by their tunnel numbers. Brian answered that they have found some inconsistency in names from different documents but they can add tunnel numbers.

Action Item #5: Brian Caruso (ENTRIX) to correct Eastwood table, add tunnel numbers to conduit names, and provide annotations to the small diversion hydrographs.

Brian continued to explain the data summary table for small diversions. Rick had a question about Crater Creek and why there was only one gauge. Wayne Allen (SCE) explained the location of the gauge to the group and Wayne L. added for clarification that these are diverted flows. It was explained that it is impossible to tell by just looking at it. It was decided that as an Action Item that Wayne A. would look into this issue.

Action Item #6: Wayne Allen (SCE) to look into why there is only one gauge value for Crater Diversion.

Brian went on to explain why flat peaks were excluded from the statistics while their values were included on the table. He explained that the flat peaks value tells us that it was at least a certain value. He also told the group that in the end less than 2 percent of the data was excluded from analysis. However, even though these are small percentages, the values tended to be located at the extreme ends of the highs and lows and therefore could have an impact on the final results, so this should be talked about in the future.

Where they did see peaks flatten out, they checked for streams below the diversion to look for increased flows there as well. From this they can look to see if measurement devices were working properly. Rick thought that the next step might be to throw the numbers back in and see how sensitive the analysis would be.

Wayne Allen told the group that at Camp 62, where they had flat peaks, vertical shafts were drilled into the tunnel in 2001-2002 and Camp 62 had experienced a problem. It would not accept the water. Wayne A. then suggested that it be added as an Action Item for him to look into this issue further.

Action Item #7: Wayne Allen (SCE) to look into issues regarding Camp 62 and the vertical shafts that were drilled in 2000-2001.

Rick added that this would not explain Hooper or Bolsillo.

Bill asked Brian if the sensitivity analysis suggested by Rick was something that they would already do or if the group should make it an Action Item. Brian responded that it is not something that they would do. Julie Tupper (USFS) added that it is more important to understand the hydrology of the main streams. She thought that the group should figure out if there are more important things that need to be done first. Geoff Rabone (SCE) agreed with Julie and suggested it be added to the bin list.

Bin Item: Brian Caruso (ENTRIX) to consider sensitivity analysis for excluded data for small diversions.

Brian continued with the presentation. One of the slides showed hydrographs for each year at Chinguapin. It was pointed out that there was no data for the years 1996-1997 when the station was knocked out by a flood. Geoff asked if Chinguapin was the one with the flat peak and wanted to look at that. Brian answered that it didn't have a flat peak, but did have a series of low flows very close to 0 (looking at 1992). The graph excluded September which included some of the data they wanted to look at and Brian told the group that it could be included in the final version.

Brian continued to explain the hydrograph slides and data gaps for 1972 through the early 80's. Rick asked if they were planning on doing an unimpaired analysis for these streams. Brian responded that right now the goal is to estimate the unimpaired flows where we have gauges. There are requests for data at flows where there are no gauges and they are looking at those by a case by case basis. Geoff asked if it would be possible to add the vertical lines to the graphs for ease of viewing. Brian answered that they could.

Action Item #8: Brian Caruso (ENTRIX) to add appropriate vertical lines to hydrographs for ease of viewing.

Britt asked if the Bear Creek conduit was just for Bear Creek. Wayne A. answered that it is.

Brian went on to explain the exceedance tables. Julie T. asked when the minimum pool went into effect in Florence Lake. The answer was 1979. Julie T. suggested that it might be nice to use that as our cut-off date.

Action Item #9: Brian Caruso (ENTRIX) to use 1979 (when minimum pool went into effect) as the beginning of modern period for exceedance tables for Florence storage (minimum storage requirement estimates).

Geoff wanted to confirm that the plan was to distribute these graphs on CD. He brought up that it would be difficult to read these graphs in black and white and wanted to make sure it was acceptable to the group if the graphs were in color on CD instead. It was agreed that for now the graphs will continue to be in color and that all stakeholders will have an opportunity to receive a CD.

Brian continued with the presentation. Julie T. brought up that the group has piles of data - so much that it becomes complicated figuring the whats, wheres, and whys of everything that is going on and suggested that a summary be provided to the Working Group.

Action Item #10: Brian Caruso (ENTRIX) to produce a summary list (which, where, and what) for the large volume of data.

Rick mentioned that a table for IHA and Summary Statistics locations was previously provided to the group, but there was never any resolution on what will be done and at

which locations. It would be unfortunate if later in the process people started asking for additional information.

Action Item #11: Brian Caruso (ENTRIX) to present rationale with examples for doing different levels of IHA in different cases. To present at February CAWG.

Phil Strand (USFS) asked about the possibility of making all the data for discharge stations available to the CAWG. Wayne A. answered that all the data used is on the USGS website. Julie T. added that some SCE data was also used and believes that it would be helpful if the CAWG could at least be provided with the information that is not on the USGS website.

Action Item #12: Brian Caruso (ENTRIX) and Wayne Allen (SCE) to identify what data is being used that is not USGS data.

CAWG 2 Geomorphology Review of Field Notes

Mitchell Katzel (ENTRIX) and Woody Trihey (ENTRIX) joined the meeting by telephone to discuss their responses to the USFS's field inspection draft summary comments. Mitchell told the group that one of the points discussed was that Big Creek below Huntington has undergone a great deal of change. He believes that they will need to work with the channel as it is (currently first order status) rather than attempt to change it to a fourth order channel, which is probably what it used to be. But for Big Creek below Huntington, if the group is not happy with the first order status maybe it will have to be changed to a fourth order channel. Rick replied that the Forest Service was not proposing a fourth order channel, but thought that there needs to be a discussion on whether a fourth order channel was needed. Phil added that they did have a discussion out in the field and it was suggested there to think about it as a first order channel, but no decisions were made.

Mitchell asked the group if they thought that it needs to be added to the memo that further discussion is needed. Rick replied that he thought so. He also added that Mitchell and Woody should also include this as one of their recommendations, but maybe present it as a decision point. It was also suggested that the memo be revised using a single text technique. Julie T. added that everyone needs to be cautious when writing these memos to make sure they are presenting data rather than making decisions. Someone who wasn't involved in this discussion could pick this up and think that a decision had been made. It was agreed that it would be better to phrase the memo as a proposal.

Action Item #13: Mitchell Katzel (ENTRIX) to revise field trip memo as recommendations rather than a decision and distribute for approval by the CAWG. (Future Decision Point)

Rick asked when the quantitative data and would be available. Mitchell answered that it will be coming out, but he couldn't give a date. But it will be part of the 2003 DTSR.

Britt said that, referring to Mitchell's response on measuring the channel, she thought it might be necessary to evaluate the quantitative results then reevaluate on whether it will be necessary to make measurements based on what the channel naturally was. Mitchell agreed that the current study plan will provide some information but may not have all the

information that the CAWG needs to make decisions. This means that sometimes additional information gathering will be needed. We may need hard data with test flows.

Woody told the group that if they are going to work with the existing channel they could look at the type of movement from the fine sediment in the channel. If they were thinking of changing the channel type, there are some considerations that need to be taken into account. Information could be used from cross-sections for determining what the channels used to be like and if it was decided to release water, think of the debris that would flow down to dam one. There are lots of other factors to look at and the group might not even want to go there. They have got a lake and a first order flow regime and might want to work with what currently exists rather than what used to be there. Bill added that it sounded like the discussion was important, but might be needed later in the PM&E stage. Wayne L. agreed that this is a discussion for down the road after the reports have been distributed.

The Group took a lunch break.

CAWG 3 Instream Flow – HSC Update

Larry Wise (ENTRIX) went through the Stanislaus River HSC with the group and discussed what they will be using for the meeting on the 28th and 29th. He explained that on the Stanislaus River, they took their observations and developed a generic trout criteria similar in concept to the total trout criteria (adults + juveniles) the CAWG discussed at their previous meeting. The original intent had been to verify criteria using transferability testing, as we were doing here. They were unable to verify curves and ended up developing site specific curves from the smaller transferability data set. Generally substantially more observations are required to develop site specific criteria. The group began to review the different curve sets.

Phil asked about the difference between the Stan 1 and Stan 2 curves. Larry replied that they ran two different sets of criteria in the Stanislaus relicensing process. He added that for adult trout velocity, one of the things they looked at was bioenergetics when they developed Stan 1. Phil asked to know how they arrived at that and if they used habitat runs. Larry replied that he talked to Mark Allen to get his information and beyond that he didn't have all the answers. Britt told the group that Russ Kanz might be able to fill everyone in. Julie T. told the group that they might be able to get Craig Addley to come talk to the group about the Stanislaus River Criteria.

Geoff noted that the Stan curves were developed on a fairly low number of observations compared to SCE's. Larry agreed that those numbers would be considered low if you were developing criteria. Julie M. said that she could get a copy of the final report for everyone.

A stakeholder asked about UARP criteria. Larry responded that they had already talked about the UARP. Geoff asked about information on the hardhead specifically, but this information was not on the slides. Larry went on to explain the UARP hardhead criteria to the group. He added that the UARP hardhead criteria have not been approved by Peter Moyle yet so everything should be considered preliminary. UARP only had adult hardhead criteria. They couldn't find any criteria for juvenile hardhead.

Action Item #14: Britt Fecko (SWRCB), Julie Tupper (USFS), and Julie Means (CDFG) to give Larry Wise (ENTRIX) a copy of the SPLAT Validation Study Report. ENTRIX to distribute to the CAWG.

The group moved on to Passage Analysis. It was proposed that 10 percent contiguous width criterion be dropped from the analysis. Larry explained to the group that by the time you get to your 25 percent total you almost always get your 10 percent contiguous. The 10 percent contiguous width requires a substantial amount of work, as is not output directly by the RHABSIM or PHABSIM programs. Rather you have to manually go through reams of output to determine the flow at which the 10 percent contiguous width is met.

It was asked if this was separate from barrier analyses and the answer was yes. In PHABSIM there are transects in representative riffles. There are physical barriers (falls, culverts, etc.) identified in CAWG 1 that will be included in the barrier report, along with the typical passage flows from the passage analysis described above. Wayne continued to explain that what Larry was suggesting has been done on many larger rivers. It's hard to get the 10 percent contiguous values from the data and it is very labor intensive

Geoff said that he would say to go ahead, because it seems like the Thompson's 0.4 foot depth criteria is based on the physical dimensions of a trout, velocity on swimming speed, and width would be based on the physical dimensions of a trout as well. Ten percent of the width of most streams is much larger than the typical width of an adult trout.

Britt asked what exactly they are trying to get at with this study. The answer was that they are trying to identify the flows in the larger streams in which passage may be obstructed. They are picking representative riffles and calculating a representative passage flow. For each transect they look to see what flow is needed to achieve the minimum passage criteria over at least 25 percent of the stream width. Britt asked what they are trying to get at with the contiguous. It was Larry's opinion that the contiguous is supposed to be big enough for the fish to find and the 25 percent is intended to allow the fish to find its way from one area of passage within a unit to another, as the thalweg of the channel is not always contiguous. Paul asked if this was going to be applied to both high and low flows? Larry replied that it would be applied mostly to low flows. Phil concluded that this meant that they are mostly going to be looking at depth as the main issue.

It was stated that they are not asking for approval at this point but will likely ask for approval at the next meeting. The CAWG was asked to please forward questions to Kearns & West and they will forward them to ENTRIX. It would be nice to get a sense from everyone if this seems like an acceptable approach.

Future Decision Point: Use of Thompson's Criteria for Passage Analysis.

Larry handed out a packet that included the Stanislaus and UARP criteria in addition to what was handed out at the previous meeting. He went through the tables with the group and explained what the codes meant. Larry agreed to provide the group with a legend to accompany the packet.

Action Item #15: Larry Wise (ENTRIX) to produce page of glossary keys/legend for abbreviations, symbols, line width, etc.

Action Item #16: Ryan Bricker (Kearns & West) to email location info for Modesto HSC meeting to the CAWG.

Action Item #17: ENTRIX to distribute HSC meeting agenda to the CAWG early next week.

Phil asked if the background materials from Julie M. could be provided to the group before the next meeting. Julie M. answered that if it was small enough she could make copies.

There was no more business on HSC and the group moved on to discuss responses to CAWG 5.

Discussion of CAWG 5 Report Comments and Responses

All comments received on CAWG 5 have been entered into the table accompanied by the response.

Referring to her comment that included replacing the words “warm” and “cold” in the report with numeric values, Britt said that she agrees that it is easier to read “warm” and “cold” and can live with it, even though it is a technical report.

Britt’s next issue had to do with natural warming in comparison to warming resulting from the diversion of flows. She stated that the EPA is very specific about what natural waters are and suggested that rather than saying increase temperatures “due to natural warming” it may be better to say “warming is due to absence of flow.” She also offered to provide Geoff with the EPA definition that the SWRCB follows.

Action Item #18: Britt Fecko (SWRCB) to provide Geoff Rabone (SCE) with citation for the EPA’s definition of natural warming, anthropogenic effect, etc.

Britt also had a concern with the data gap for Big Creek Upstream of Huntington Lake resulting from vandalism. The following year experienced a dramatic temperature jump. She said that there has to be some other reference stream in comparison to Big Creek Downstream. Wayne L. replied that they do have some. Home Creek and Line Creek are examples. Britt added that it may be helpful to provide comments or footnotes where there are data gaps or jumps in the graphs. Wayne L. replied that they have been modifying the text and it will be footnoted on the graphs.

Phil had a comment regarding using the 24 degree Celsius criteria as a baseline before the CAWG has accepted what the effects might be. Wayne L. replied that they also have data for 22 degrees Celsius and 23 degrees Celsius. The main reason for using 24 was to conservatively identify reaches for modeling. All the data for different temperatures will be appended to the report. A stakeholder told the group that there was NOAA fisheries temperature data that they could use. Wayne L. told the group that they have referred to the EPA issue paper #5. Jim Canaday pointed this out when it first came out and they have been watching it. There is a lot of good stuff that they have compiled, but there are also many differences in the species and strains of fish that are

being evaluated in the Pacific Northwest as opposed to what we find in California, the southern portion of the range for many of these species.

Wayne L. told the group that the rewrite will be significant in terms of edits with all the tables being entered in. The executive summary table will have the reference streams that Britt wanted to see. He added that they will try to make it as painless as possible, but with all the changes it will be pretty complex

Monty said that while looking at the 2001 study plans, one of the things that he was interested in was trying to understand how the issue of restoration of Anadromous fish downstream was being looked at. It has been unclear for years how to look at water temperature as a connected element. Wayne L. replied that temperature and other variables downstream of the Project area are only addressed in terms of biological effects in the Anadromous fish report and only as they have been identified to date. It is a summary of project potential effects and proposed projects (in addition to Big Creek) that may affect this project in terms of cumulative impacts. Potential downstream effects of the Big Creek system will be noted in the report, but basically no actions will be suggested until something is proposed as a suitable project or PM&E.

Monty told the group that he was still trying to figure out what it would take to restore Anadromous fish below Friant dam. He is looking at anything that would have to do with timing of flows and providing suitable temperatures downstream at different times of the year. There is a draft restoration study in the works. The SCE studies are further along than their research downstream, but they are just trying to get a handle on it to see if temperature is an issue.

Monty told the group that it would help to look at some of SCE's data. Bill suggested that Monty talk to Wayne L. Monty asked if there was a modeling of outflows as part of Big Creek No. 4. Temperature models would be helpful since it is the end of the SCE project. Wayne L. and Geoff responded that it was a long time ago, but that they could look at the Big Creek No. 4 license application.

Action Item #19: Geoff Rabone (SCE) to provide Monty Schmitt (NRDC) with a copy of the Big Creek 4 temperature portion of the license application.

Geoff brought up a comment made by Britt where she talked about the effects of temperatures and "species of concern". He told Britt that when he thinks about "management species," he thinks of things like trout or frogs, but when he read in her comments about "species of concern," he was a bit troubled. He wanted to know if she was looking at something else that was not being currently considered in the study plans. Britt responded that it was just a generic term that she used.

There were no further issues and the Group Reviewed Action Items and adjourned.

Action Item #1: Geoff Rabone (SCE), Phil Strand (USFS), and others to check for an email from Jim Canaday (SWRCB) regarding the SWRCB water temperature criteria (from late September or October). If not found, Britt Fecko (SWRCB) to re-craft and provide to Kearns & West for distribution to the CAWG.

Action Item #2: Brian Caruso (ENTRIX) to correct the hydrology table error identified by Rick Hopson (USFS) and provide new Hydrology Packet on CD.

Action Item #3: CAWG meeting currently scheduled for February 12, 2004 to be adjusted due to State Holiday.

Action Item #4: Add NRDC (Monty Schmitt) to CAWG Distribution List and Kearns & West to provide contact info to Carla Anthony (SCE).

Action Item #5: Brian Caruso (ENTRIX) to correct Eastwood table, add tunnel numbers to conduit names, and provide annotated hydrographs to the data summary tables.

Action Item #6: Wayne Allen (SCE) to look into why there is only one gage value for Crater Diversion.

Action Item #7: Wayne Allen (SCE) to look into issues regarding Camp 62 and the vertical shafts that were drilled in 2000-2001.

Action Item #8: Brian Caruso (ENTRIX) to add appropriate vertical lines to hydrographs for ease of interpreting.

Action Item #9: Brian Caruso (ENTRIX) to use 1979 (when minimum pool went into effect) as the beginning of modern period for exceedance tables for Florence storage (minimum storage requirement estimates).

Action Item #10: Brian Caruso (ENTRIX) to produce a summary list (which, where, and what) for the large volume of data.

Action Item #11: Brian Caruso (ENTRIX) to present rationale with examples for doing different levels of IHA in certain cases. Present at February CAWG.

Action Item #12: Brian Caruso (ENTRIX) and Wayne Allen (SCE) to identify what data is being used that is not USGS data.

Action Item #13: Mitchell Katzel (ENTRIX) to revise field trip memo to sound like a record of the trip with recommendations rather than decisions and distribute for approval by the CAWG. (Future Decision Point)

Action Item #14: Britt Fecko (SWRCB), Julie Tupper (USFS), and Julie Means (CDFG) to give Larry Wise (ENTRIX) a copy of the SPLAT Validation Study Report. ENTRIX to distribute to the CAWG.

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Action Item #18: Geoff Rabone (SCE) to provide Monty Schmitt (NRDC) with a copy of the Big Creek No. 4 temperature portion of the license application.

Bin Items and Future Decision Points

Bin Item: Brian Caruso (ENTRIX) to consider sensitivity analysis for excluded data for small diversions.

Future Decision Point: Use of variation of Thompson's Criteria for Passage Analysis.

**Big Creek Collaborative
Combined Aquatics Working Group**

November 10, 2004

Meeting Notes

Time:	10:00 AM to 12:00 PM	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Andrew Wyckoff
Access Code:	271911		
Participants:	Bill Pistor Andrew Wyckoff Wayne Lifton Wayne Allen Roger Robb Phil Strand Wayne Thompson Mario Santoyo Rick Hopson	Kearns & West Kearns & West ENTRIX SCE FWUA USFS Fly Fishers FWUA USFS	
Phone Participants:	Julie Means Ken Voos	CDFG ENTRIX	

Introductions and Agenda

The meeting was initiated and stakeholders introduced themselves and specified which organization they represented. Bill (Kearns & West) then laid out the meeting agenda.

Wayne (ENTRIX) indicated that all CAWG reports, except for CAWG 5 Temperature Modeling, had been approved. CAWG 9 and CAWG 12 are on a different schedule and will be distributed later on in the process.

Meeting Notes and Action Item (AI) Review

The group approved the meeting notes from the October 12th, 13th and 28th CAWG meetings. The following AI is still outstanding:

AI: Wayne Lifton (ENTRIX) will distribute the marked-up version of CAWG 13, which was created during the October 13, 2004 CAWG meeting, to the CAWG.

Wayne is still trying to find information on Hills Ferry. If it could not be obtained, the reference to it in the report would be edited appropriately. Julie (CDFG) said she would look one more time for the information but that she did not want the distribution of the marked-up version to be delayed on account of this technicality.

CAWG 5 Temperature Modeling Discussion

Ken (ENTRIX) ran through a presentation, which detailed his further evaluation of factors affecting the validation statistics and results for the three stream reaches under discussion from

the CAWG 5 Temperature Modeling Report. These reaches were the upper two SFSJR reaches and the reach between Mammoth Pool Dam and Rock Creek. He reminded the group that at the October 28th meeting they had discussed three types of potential violations of the model assumptions—precipitation, atypical air temperature (Tair) patterns and large flow variation—which had affected the maximum temperature largest over and under predictions in the validation statistics. Ken projected a table which presented the rejected validation days for the three reaches. He noted that the atypical Tair pattern filtered out the greatest number of days. He then noted that the statistics had improved after the filtering. Julie asked if the large flow violations were a result of precipitation or project operations. Wayne said that the localized precipitation events were most likely the cause for the large flow variations.

Rick (USFS) asked if each data point equaled one day. Ken said each data point equaled one day times the number of temperature validation points in a particular reach. Phil (USFS) then expressed his reservation about the number of days being rejected. Ken responded that the rejected days should not have been used in the first place. Furthermore, in the simulation stage, they will be interested in modeling hot, dry days as opposed to the atypical events which include rain storms, or fronts passing through, which had been rejected. Thus, their rejection would not be a factor in the end. Phil continued to express reservation and said he wanted to discuss the matter with Julie Tupper (see AI #1 below). He added that earlier in the process Julie had suggested that dynamic modeling may need to be done. Bill proposed that after Phil and Julie discuss the matter, they should both talk with Wayne and Ken (see AI #2 below). Wayne stressed that this conversation would only be about the three reaches described in the tables since these were the only ones under discussion.

Mario (FWUA) said the USBR has previously done extensive modeling for instream and reservoir temperatures. He suggested that having consistent temperature modeling methodologies between the USBR effort and the Big Creek relicensing effort may be valuable. Wayne (ENTRIX) pointed out that the CAWG 5 Temperature Modeling approach had been discussed at earlier stages of the relicensing process and that the modeling had been completed. The CAWG is currently at the approval stage for the report. Bill suggested that Valerie Curley (USBR) talk with Geoff Rabone (SCE), Wayne (SCE), Wayne (ENTRIX) and Ken (ENTRIX) to discuss this matter (see AI #3 below).

The group then reviewed the meetings action item and adjourned.

November 11, 2004 Action Items

AI #1: Phil Strand (ENTRIX) will talk with Julie Tupper (ENTRIX) re: the USFS position on the CAWG 5 model.

AI #2: Phil Strand (USFS), Julie Tupper (USFS), Wayne Lifton (ENTRIX) and Ken Voos (ENTRIX) to discuss USFS issues for the three reaches that Phil is concerned about.

AI #3: Valerie Curley (USBR) will discuss downstream USBR temperature modeling efforts with Wayne Lifton (ENTRIX), Geoff Rabone (SCE) and Wayne Allen (SCE).

Big Creek Collaborative Combined Aquatics Working Group

December 14, 2004

Meeting (Conference Call) Notes

Time:	10:00 AM	Moderator:	Wayne Lifton
Location:	Conference Call	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Andrew Wyckoff
Access Code:	271911		
Attended By:	Bill Pistor	Kearns & West	
	Andrew Wyckoff	Kearns & West	
	Wayne Lifton	ENTRIX	
	Julie Means	CDFG	
	Geoff Rabone	SCE	
	Clare Hsu	USBR	
	Julie Tupper	USFS	
	Ken Voos	ENTRIX	
	Phil Strand	USFS	
	Rick Hopson	USFS	
	Wayne Allen	SCE	
	Cindy Whelan	USFS	
	Valerie Curley	USBR	
	Joe Kubitschek	USBR	
	Roger Robb	FWUA	
	Russ Yaworsky	USBR	

Introductions and Agenda

Stakeholders introduced themselves and specified which organization they represented. Bill Pistor (K&W) laid out the meeting agenda, which focused on CAWG 5 temperature modeling. Parties have worked offline to go through calibration and statistics.

CAWG 5 Temperature Modeling Discussion

The group reviewed a memo provided by ENTRIX. The memo documented an additional round of calibration efforts in the temperature model since the November CAWG meeting. The Forest Service had issues with the number of days being removed from the dataset. ENTRIX and the Forest Service worked offline and the memo is a result of that work.

An attempt had been made to improve the model by removing days that were inappropriate. Those include rainy days, days where flow was unsteady, and days with atypical air temperature variation. Since November's meeting and follow-up discussion with USFS staff, the days with air temperature variation had been added back into the dataset. Ken (ENTRIX) stated that he has been concentrating on three reaches in his recalibrating efforts; South Fork San Joaquin River Reach Nos. 1 and 2 and Mammoth Pool Reach. Geoff (SCE) asked if Ken replaced days that were removed from the model with new information. Ken (ENTRIX) replied that the (unsteady flow and rainy) days were completely taken out, leaving one less day in the dataset. He added that removing these days from the dataset improved the ability to see trends and also helped with calibration statistics and model predictive performance.

South Fork Reach Nos. 1 and 2 tables: Ken reported that there were big improvements in reducing the maximum over predictions and under predictions. The model could not simulate rainfall and daily flow fluctuation; that is why there is so much improvement. ENTRIX has more work to do on the South Fork Reach No. 2 and the maximum daily calibration. They suspect something else is going on that needs further investigation.

The group reviewed the before and after histogram plots from South Fork Reach Nos. 1 and 2. Generally, the shape of the peaks improved, and the tails of the distribution were reduced, showing a better fit. ENTRIX will take a second look at maximum daily predictions for South Fork Reach No. 2 in mainly two locations; upstream of Camp 61 Creek and upstream of Mono Creek. They will look at those locations and review the data and try to improve the fit of the data in order to have the predicted values better track the observed values.

The group reviewed the results of the additional analysis of model performance for the Mammoth Pool Reach. After eliminating the days with unsteady flow and rainfall (atypical air temperature days were **not** removed), additional calibration reduced the dispersion of the histogram of bias values for the daily mean temperatures and made the histogram of bias for the maximum temperatures more normal with less dispersion. Julie (USFS) mentioned the model having a mass balance problem because of the lack of water. Ken (ENTRIX) replied that pooling could be causing these problems, and they will take that possibility into consideration.

Phil (USFS) said that the statistics have been improved. He and others were initially concerned about the number of days being excluded. By reducing the number of days excluded and recalibrating, we did get improvements to the statistics in the model. He is less concerned than he previously was. Julie (USFS) stated that her concern is upstream of Camp 61 Creek. Ken (ENTRIX) said they plan to look into that.

ENTRIX will finish up the remaining issues with South Fork Reach No. 2 this week and get a final version of the memo out with time series plots to the CAWG after January 1, if complete. Wayne (ENTRIX) stated that at some point after the holiday, the group will have to make decisions and recommendations on this.

Phil (USFS) requested the files. Wayne stated that it will be distributed as soon as Ken is finished with the analysis. ENTRIX will distribute the files to CDFG, USBR, the Forest Service, Geoff and others who are interested (See AI #2 below).

USBR and SCE will discuss temperature modeling offline after this conference call.

The group will have another conference call to discuss modifications made to South Fork Reach No. 2 on Thursday, January 6th from 10:00-12:00 (See AI #3 below), if Ken is ready.

Action Item 1: ENTRIX to distribute final version of memo after January 1, when ready.

Action Item 2: ENTRIX will distribute the Temperature Modeling dataset as soon as Ken Voos completes his analysis.

Action Item 3: K&W will send an email to the CAWG confirming the January 6th conference call.

The next in-person CAWG meeting is January 12th from 10:00-4:00 in Fresno.

The meeting adjourned.

**Big Creek Collaborative
Combined Aquatics Working Group**

February 9, 2005

Meeting Notes

Time:	10:00 AM to 4:00 PM	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Ryan Bricker
Access Code:	271911		
Participants:	Wayne Allen Ryan Bricker Joanna Clines Deborah Giglio Rick Hopson Mitch Katzel Wayne Lifton Julie Means Bill Pistor Geoff Rabone Roger Robb Katie Ross-Smith Phil Strand Wayne Thompson Woody Trihey Julie Tupper Cindy Whelan Larry Wise	SCE Kearns & West U.S. Forest Service U.S. Fish and Wildlife Service USFS ENTRIX ENTRIX CDFG Kearns & West SCE Friant Water Users ENTRIX USFS Fly Fishers for Conservation, Inc ENTRIX U.S. Forest Service U.S. Forest Service ENTRIX	
Phone Participants:	Ken Voos	ENTRIX	

Introductions and Agenda

Bill Pistor asked the group to introduce themselves and reviewed the agenda.

Review Outstanding Action Items

The group then reviewed the January action items.

Wayne Allen gave a brief update on the results of the February 2nd snow survey. He told the group that water levels are currently at 190% of the annual expectancy for a normal water year, and if there was no more precipitation for the remainder of the year the level would end at approximately 120%.

Review and Approve Meeting Notes

The group then reviewed the January CAWG meeting summary. Roger Rob referred to page two of the summary, where it notes Ken Voos reporting over-predicting temperature modeling by about 0.4°C, and asked if a reference to that measurement could be added to all relevant tables as a sub-note. Ken said this was doable. Geoff Rabone asked if the 0.4°C was a mean or a maximum. It was answered that the number represented a maximum, which Geoff requested be clarified in the sub-note as well (see AI #1 below). There were no additional comments and the January meeting summary was approved.

CAWG 5 Temperature Modeling Memo Comments

Wayne Lifton (ENTRIX) told the group that the CAWG 5 Temperature Modeling Memo was sent out shortly after the last CAWG meeting along with a request for comments. Wayne informed the group that no comments had been received and asked if anyone had any they would like to discuss.

Wayne then told the group that the next steps would be to get the temperature modeling report out to the group with changes based on recalibrations, and he hoped to do this in February. He added that the near-term schedule for the CAWG was to get through the PRIM in February and then revisit the temperature modeling in March.

Rick Hopson said that he and Phil Strand had been looking at the unimpaired hydrology data for below Mono Diversion and were observing some large changes that did not seem realistic. It was determined that Rick and Phil did not have the latest version of the data, in which some corrections were made to the Mono Creek and Bear Creek data. Wayne explained that the suspect data used the Flow Balance method in the first version and this was repaired and changed to use an Area-Based measurement. Wayne agreed to send a new version of the file to the USFS and Geoff Rabone (see AI #3 below).

Discuss Potential Resource Issue Criteria and Potential Resource Issue Matrix (PRIM) and Resource Information Matrix (RIM) for Geomorphology

Mitch Katzel explained to the group the contents and categories of the Geomorphology RIM. Mitch informed the group that one of the parameters in the Geomorphology RIM used Montgomery Buffington classifications and it was requested that Montgomery Buffington codes be added for reference (see AI #4 below). It was decided that a Rosgen Code table for use with the Geomorphology RIM would also be useful (see AI #5 below).

Mitch continued to walk the group through the contents of the RIM. He explained that some reaches had two measurements for slope. This was because sometimes, with long reaches, the slope determined from localized measurements for the floodplain modeling were different from reach scale slope measurements derived from the topographic map, so both were included. Julie Tupper requested that a column for the length of the reaches be added to the RIM. Mitch said that it could be added.

Mitch continued to explain the contents of the Geomorphology RIM. When discussing Bank Erodibility, Mitch told the group that streams were classified as either erodible or non-erodible. Julie Tupper told the group that it can be frustrating to work with unclear definitions, such as erodible, and thought that it would be a good idea to create a glossary with definitions from reports as well as references to reports where information can be found (see AI #6 below).

Mitch continued to explain the contents of the RIM including erodibility classification methods, Floodplain, Spawning Gravel, Fine Sediment, Fine Sediment content of spawning gravels from bulk samples, and Large Woody Debris.

Rick asked if information on geomorphic significant discharges or flows would be included somewhere. Mitch replied that a RIM would be created for hydrology, which would include pre and post-project flood frequencies. Rick then also requested that a floodplain definition be included in the next version of the Geomorphology RIM.

Julie Tupper, referring to Bankfull Width measurements, asked if it would be made clearer if the bankfull width measurements are based on present-day or historic bankfull indicators. Mitch answered that the bankfull indicators were identified in the field and represent the present-day rather than historic bankfull indicators. Julie stated that it was often difficult to identify and distinguish present-day from historic bankfull indicators and that it might not be possible to even pick out a present-day bankfull indicator, which is often confused with the most recent high flow on a stream. Mitch stated that we were aware of the problems with identifying a bankfull

discharge at the time that we conducted the field studies. He further stated that it is not uncommon that true bankfull indicators are not renewed on a regular schedule on regulated streams, and that bankfull indicators might not even occur at all. Regardless of these challenges, Entrix did their best to identify bankfull indicators that represented the present-day bankfull flow. All of these issues regarding the challenges of identifying bankfull discharges were raised and discussed in the 2004 CAWG-2 Geomorphology.

Roger Robb requested that fine sediment criteria also be clarified in the next versions of the RIM and Rick added that there seemed to simply be a general request to put all the relevant information in one place that would be helpful for interpreting the chart.

Wayne told the group that the next CAWG meeting was scheduled for February 22, when the group would be dealing with comments to the PRIM. In order to give Mitch sufficient time to respond to comments, Wayne requested that stakeholders submit their comments to the Geomorphology PRIM by February 16th (see AI #7 below). He also told the group that they would try to provide the populated Geomorphology PRIM at the next meeting, but warned that they would probably not be able to get it out prior to the meeting. He also told the group that the unpopulated Hydrology PRIM would probably go out by February 16th (see AI #8 below).

The group then reviewed the comments submitted on the criteria for the Geomorphology PRIM as well as Mitch's prepared responses to those comments. The group discussed the concern with measuring changes in bankfull width in places where there are very few cross-sections to use on which to base comparative results. Mitch told the group that they noted the changes to bankfull width by visual field observations, which were all changes believed to be a change of at least 50% or more. It was suggested that visual measurements could potentially misleading or could show recent changes that were obvious, but might not show changes that occurred years ago. Geoff then pointed out that there were only three instances in the PRIM that were affected by these measurements and suggested the group just agree that it is ok. Julie Tupper said that the bankfull width based on hydrology data is by definition a 1.5 year flow, so you need to see the historic flow data. Rick then told the group that right now he is fine with the bankfull width data, but thought that it needed to be very clear what the data is showing.

Regarding bed particle size criteria, Rick felt there was a need to capture instances where change occurred, but were not substantial enough to make it on the table. Wayne suggested that a possible solution might be to use multi-phased criteria that would capture a larger range of particle sizes. After discussing the matter, it was decided that Mitch would propose a different indicator for determining change in bed particle size. Wayne asked Mitch to develop some criteria by the middle of the following week to be discussed on the 22nd. If Mitch's new proposal is adequate, then he will bring a populated table to the meeting on the 22nd (see AI #9 below).

The group then discussed some comments and responses to Spawning gravel. Mitch explained a new, more robust, set of criteria developed using more of the data collected from spawning inventory studies and bulk sampling of reservoir sediments obtained from spoils material excavated for sediment maintenance. Rick voiced concern with the V^* value being used frequently, but not always being based on the literature. Woody Trihey replied that he felt that a lot of fine data for V^* existed and he would like to use it.

The group quickly reviewed the remainder of the Geomorphology comments and responses and moved on to discuss roads.

Mitch told the group that roads are not geomorphic attributes and therefore the road ratings alone should not define a major resource issue. Mitch suggested that the geomorphic effects of roads are captured in the "Sedimentation" column of the PRIM. Wayne suggested that Mitch insert a new column showing where there are roads adjacent to reaches, and also include the road ratings. Bill suggested that the CAWG could deal with road sedimentation, and a note could be sent to the Land Management Working Group telling them that they need to add a column to their

RIM to deal with road maintenance and other road-related issues (see AI #10 below).

Mitch then reviewed the contents of the Geomorphology PRIM with the group.

Bill explained that the PRIM will be used as a tool to help the CAWG focus on a manageable list of issues to develop a list of PM&Es to send to the Plenary where they will decide what PM&Es will be included in the final package.

Discuss PRIM and RIM for Riparian

Katie Ross-Smith explained to the group the categories and contents of the Riparian RIM.

Rick asked if the floodplain connectivity and bar inundations could be two separate columns since they are two separate measurements. Katie said that it would be done, but the information for each is specifically detailed in the RIM and comments in the PRIM.

It was asked what the absence of a comment for Proper Functioning Condition (PFC) meant and Katie replied that it meant that they did not conduct a study there. She then told the group that she would grey-out these boxes in future versions of the RIM.

The group moved on to discuss the Riparian Comment and Response Table. The Forest Service asked if timber harvest data had been provided to ENTRIX. Katie indicated that it had not (see AI #11 below).

The group discussed the PFC attribute. Wayne Thompson asked if there was a reference for PFC. Katie told the group that there is a document that describes and provides the PFC datasheet, which includes hydrologic, geomorphic, and vegetation characteristics. Julie Tupper suggested that it might be helpful to include a reference to the report. Katie replied that this reference would be included. PFC will also be included in the glossary with a reference to where the information is available in the riparian report, in addition to being included in the comments of the PRIM.

Katie continued to review the comments and responses with the group. The group discussed the need for additional clarification to be included in the Riparian Criteria on the riparian coverage from aerial photography and the criteria for the presence of upland species were determined. Katie said that she would include that the riparian coverages were determined by comparing 1944 and 2001 aerial photography. The 1944 set is the earliest and most complete set. This would be included in the text for that criteria. Katie said she would include information on the rationale for the upland species criteria (in reference to Joanna Cline's comment of 'only one plant') in a footnote. Katie also suggested that she could include a graph or table that would show the frequency distribution of evaluated resources with the range of reaches with impacts that might occur depending on the criteria level, as appropriate.

Katie continued to review the comments and responses with the group. When discussing the comment that addressed the symbols in the PRIM, it was suggested that different letters and symbols could be used rather than bolds and colors. ENTRIX said that they would meet internally and decide on a consistent symbol key (see AI #12 below).

Katie then provided the group with an overview of the categories and contents of the Riparian PRIM.

Julie Tupper voiced a concern with having a lack of flow regime data for riparian communities along the main stem of the San Joaquin and thus not knowing what types of flows would enhance the area. Katie said that there is a possibility that data might be available from the geomorphology and aquatics transects, depending on if the locations of the transects are across bars and if the width of the surveyed transects in relation to flows for bar inundation. Larry Wise said that he would work with Katie to determine if their transects would be useful for the purposes

of evaluating flows for riparian communities on the bars (see AI #13 below).

Wayne asked the group to provide comments to the Riparian RIM and PRIM by February 16th (see AI #14 below).

Discuss Potential Resource Issue Criteria, PRIM and RIM for Fisheries (Including Temperature and Habitat)

Larry then led the group in a brief overview of the Aquatics PRIM and RIM. Geoff asked Larry if he could include in the PRIM a comment in the 2000-2001 Monthly Mean Range column that would indicate the months when it was a dry. Wayne answered that they could include a comment that would lay out a month by month description of conditions (see AI #15 below).

Upcoming CAWG February Schedule

Bill reminded the group of the upcoming CAWG meetings on the 22-24th of February at the Piccadilly Inn Airport location (see AI #16 below) (see AI #17 below).

Cindy Whelan (USFS) asked if it would be possible to discuss the hydrology model at the meeting scheduled for the 23rd. Wayne Allen responded that model would be rolled-out by the second set of CAWG meetings in March and could be discussed then.

February 9, 2005 Action Items

- AI #1:** Wayne Lifton (ENTRIX) to provide copies of the Temperature Input on CD to Phil Strand (USFS) and Geoff Rabone (SCE). Information provided on USB drive to USFS during meeting.
- AI #2:** Kearns & West to provide Rick Hopson (USFS) with a copy of Big Creek Relicensing Initial Information Package.
- AI #3:** Wayne Lifton (ENTRIX) to re-check the Bear Creek data and provide the USFS a revised CD containing the hydrology data.
- AI #4:** ENTRIX to add Montgomery Buffington classification codes to the Geomorphology RIM.
- AI #5:** ENTRIX to distribute a Rosgen Code table for use with the Geomorphology RIM.
- AI #6:** ENTRIX to prepare a glossary of definitions from each report, with references to occurrences in report, for both Geomorphology and Riparian RIMs.
- AI #7:** CAWG members to provide Kearns & West with comments on the Geomorphology RIM by 2/16/05.
- AI #8:** ENTRIX to distribute the Unpopulated Hydrology PRIM to the CAWG by 2/16/05.
- AI #9:** Mitchell to propose an alternative criteria for determining change in bed particle size.
- AI #10:** ENTRIX to coordinate with the Land Management Working Group to add a column regarding road ratings in the road section of the Land Management PRIM.
- AI #11:** USFS to provide timber harvest information to Katie Ross-Smith for inclusion in the Riparian RIM.
- AI #12:** Per the 2/9 comment and response discussion, additional resource criteria explanation to be added to the RIM.
- AI #13:** Larry Wise and Katie Ross-Smith Cross-reference reaches with only qualitative data with reaches where PHABSIM was conducted to determine if other riparian information is available to use.
- AI #14:** CAWG members to provide ENTRIX/Kearns & West with comments on the Riparian RIM and PRIM by 2/16/05.
- AI #15:** CAWG members to provide ENTRIX/Kearns & West with preliminary comments on the Aquatics RIM and PRIM.
- AI #16:** Kearns & West to contact Carla Anthony (SCE) to obtain the 2005 Meeting Location Calendar/Table for distribution to the CAWG.
- AI #17:** Kearns & West to ensure that additional seating capacity is provided at future meetings of the CAWG.

**Big Creek Collaborative
Combined Aquatics Working Group**

March 22, 2005

Meeting Notes

Time:	10:00 AM to 4:00 PM	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Emily Armstrong
Access Code:	271911	Coordinator:	Wayne Lifton
Participants:	Wayne Allen Emily Armstrong Ed Bianchi Jim Canaday Julie Means Matt Myers Janelle Nolan-Summers Bill Pistor Geoff Rabone Roger Robb Phil Strand Wayne Thompson Julie Tupper Larry Wise	SCE Kearns & West ENTRIX SWRCB CDFG SWRCB ENTRIX Kearns & West SCE Friant Water Authority USFS Fly Fishers for Conservation, Inc U.S. Forest Service ENTRIX	
Phone Participants:	Stuart Beck Debbie Giglio Julie Means Ken Voos	R2 USFWS CDFG ENTRIX	

Introductions and Agenda

Bill Pistor asked the group to introduce themselves and reviewed the agenda.

Review and Approve Meeting Notes

Bill asked for comments on February 22-23 meeting notes. The group members present did not have comments. The group approved the meeting notes pending approval from Rick Hopson who had requested the edits at the previous meeting. Edits on the March 9th notes were sent to Kearns & West. K&W will redistribute the notes and the group can approve them at the April meeting (see AI#1 below).

Review of Outstanding Action Items

The group reviewed the action items. Ed Bianchi reported on action item #3 from the March 9th meeting. There was an analysis in the 2003 Recreation 3 Report that looks at the boatable flow ranges under the unimpaired and existing flow regime.

Approve CAWG Temperature Modeling Report

Wayne Lifton reviewed the history of the CAWG 5 report. The report was updated and submitted to the CAWG in February for review and approval. Phil Strand pointed out some areas of concern via email and Ken Voos will respond to them.

Ken Voos said that Phil's comments have to do with simulated warm temperatures downstream of Bear Creek. We investigated sensitivity runs for South Fork testing how Bear and Mono could influence South Creek. The sensitivity runs were broken down into two tests. The first test used temperatures at Bear Creek at the diversion and/or Mono Creek at the diversion to see how the tributaries could influence temperatures downstream in South Fork. Water temperatures observed in 2001 in Bear Creek turned out to be warmer in the diversion pool at the depth of the recorder than at the diversion release point from the diversion, which releases flows from the bottom of the diversion pool. This caused warmer temperatures to be discharged to the South Fork San Joaquin River in the model than were actually recorded. Phil Strand referenced chart F21 and said this is where he expects to see temperatures dropping and they are increasing. The group looked at chart F21 and Wayne Lifton explained that temperatures are increasing because of the warm Bear Creek water mixing in.

Julie Tupper asked if the temperatures increased because Bear diversion was warming. If a lot of water is being released out of Bear Creek diversion, it shouldn't be warm. Ken Voos said Bear Creek is not being simulated. If it were, it probably would have cooled a bit and would not have been as high as it was in the sensitivity test. Julie T said we need to know if we can obtain cooling by putting water into some of the diversions, so this isn't realistic. Ken replied that in the first test simulated cooler temperatures, which were based on the actual measured temperatures upstream of the SFSJR. In Test 2, we expected cooler temperatures at the diversion, but as it turned out we measured warmer temperatures in the diversion. Wayne Lifton added that these are high flows to be simulating, but we wanted to do this for the sensitivity test knowing that water is not available all the time. We should pick the coolest temperature at the toe of the dam rather than in the diversion. Ed said the concern about the temperatures being too high is right. It seems the test was done correctly but is giving us the wrong answer. He suggested simulating it with the flows coming out of the bottom instead. Geoff Rabone agreed with Ed. He asked how much work it would take to run the Bear Creek simulation and if the Bear Creek concern affects the larger picture or is it something that can be dealt with on its own. Wayne Lifton said it is a simple task to re-run this with the temperature upstream of the diversion and only affects the one appendix.

Wayne Lifton projected the unimpaired exceedance flows for Bear Creek for dry years. Julie T said her concern is that a lot of water is being released and that is not realistic. She added that the Forest Service may suggest that releasing water from Bear Creek may cool the SFSJR down, but throwing numbers in there right now doesn't seem to add value. We need to be working in the realm of reality. Ed asked the group to suggest appropriate flow ranges. Wayne Lifton suggested the 20%, 50% and 80% exceedance. Julie T asked that the same simulation be done in Mono Creek because there is a historic record there. The group agreed that Entrix should rerun the simulation using the 20%, 50% and 80% exceedance numbers for Bear Creek and Mono Creek (see AI #2 below).

Julie T suggested leaving Bear Creek blank in the table because the temperature at Florence is baseline until Bear Creek. Wayne Lifton will shade the areas that aren't affected by changes in the simulation. He will also do this for the Mono columns and label it as unaffected by simulated Bear or Mono inflows. He will also footnote river miles where there is confluence with major creeks.

Julie T asked about Camp 61 and Hooper and if similar simulations can be conducted in those locations. The Forest Service might want to look at that in the future.

Bill asked if the group was comfortable with the study report. Phil said he continues to have questions regarding the statistics in the simulations and the over predicting. Julie T added that the limited amount of data is part of the Forest Service's discomfort. There are concerns that we didn't have sufficient data to do as good of modeling as possible. Bill suggested the group approve the study plan with the caveat that the Forest Service is uncomfortable with the lack of

data. Julie Means stated that CDFG concurs that the limitations with the data causes discomfort with the study report.

Geoff stated that in FERC relicensing, there exists a short window to conduct studies. SCE started doing temperature monitoring before we actually got approval to do it just to get more data. We were trying in good faith to get as much as we could. Phil recognized that effort and added that in reality, there is a limited dataset to work with. Jim Canaday added that there will be a monitoring plan post licensing, which will allow the group to keep our thumbs on the pulse of what is going on out there.

The CAWG approved the CAWG 5 Temperature Modeling Report with the caveat from the Forest Service and CDFG.

Review Amphibian Criteria, Populated PRIM and RIM

Janelle Nolan-Summers distributed the Amphibian materials and stated that this information is draft. The group reviewed the Amphibian/Reptile Potential Resource Issue Criteria. Janelle used existing information collected from studies, activities that occurred at project facilities, and areas where resource issues were potentially affecting habitat to develop the criteria. Resource issues potentially affecting habitat to support special-status amphibians and reptiles were evaluated based on review of the Riparian, Geomorphology, Water Quality, and Water Temperature PRIMs.

Resource specific criteria were developed for each special-status species. Janelle reviewed the criteria for each species: Foothill Yellow-Legged Frog, Mountain Yellow-Legged Frog, and Yosemite Toad, special-status Salamanders, Western Pond Turtle, and other special-status reptiles.

Foothill Yellow-Legged Frog Discussion: Jim Canaday asked if data has been collected in all of the habitat types for each of the resource areas. He is trying to understand how an issue was identified at the source and how it is controlled if it is an issue. Janelle responded that there are a few streams where data was not collected. Janelle added that this is linked back to the PRIM. There are some Project reaches where water quality sampling did not occur and she needs to reference back to that to note where data were and were not available. Janelle will go back to the PRIM and note those areas (see AI #3 below). Ed added streams were not sampled if they were dry.

Jim asked how a substantial change was depicted. Janelle said it is consistent with criteria included in the Riparian PRIM and is based on parameters. Jim said there is nothing in the Basin Plan about frogs so we have to go back to the literature. Phil suggested using breeding temperatures from the Stanislaus as a baseline of temperatures of interest that might influence breeding. Amy Lind has that information.

Phil asked about changes in habitat and changes to the hydrograph. Are we getting conditions that are more favorable to invasive species? There may be something that can be done with PM&Es to address invasive species like bull frogs. Julie T referenced work done on the Yellow-Legged Frog in the Pit River Monitoring Plan. She will talk to Jim Holeman. Janelle said she will also talk with Sarah Yarnell who is working on that monitoring plan (see AI #4 below).

Yosemite Toad Discussion: Janelle said the direct loss of individuals does not include sedimentation because this toad is a meadow species. The major change in habitat criteria refers back to the Riparian criteria. Phil asked if the Riparian criteria considered the Geomorphology over banking flows. This is something he wants to look at in the future. Bill suggested adding a cross reference to the other resource PRIMs in the comment cells of the Amphibian/Reptile PRIM. Janelle will add the cross reference and (see AI #5 below).

Western Pond Turtle Discussion: Janelle said that substantial change in habitat includes major change in canopy, substantial change in large woody debris, and substantial change in water

quality. Phil said in terms of timing and water quantity, we would be looking for some monitoring at some sites for some animals. He noted that the group will have to look at this information in more detail as we move forward. Julie T asked about hydrology. Janelle said that information is addressed with the Riparian and Sedimentation.

Horned Lizard Discussion: Janelle stated that the lizard is primarily a terrestrial species. There are currently no maintenance activities occurring that affects this species. It is being tracked through the process.

Geoff asked how the conflict between human recreation use and the Western Pond Turtle is tracked or coordinated between working groups. Phil said we need to identify where those conflicts are occurring and move from there. Ed said it seems like that will be dealt with when PM&Es are identified in other working groups and they are shared across groups.

Janelle reviewed the Amphibian/Reptile PRIM. It is split by reach like the other resource PRIMs. The top is split by species and the criteria that were previously discussed. Temperature requirements are shown. She reviewed some of the footnotes and explained how they were incorporated and will make sure they are consistent with other resource PRIMs (see AI #6 below).

Project facilities in the study area are listed on the last page. Facilities where herbicides have been used within 500ft of occurrence of a special-status species are included. Ed said if there are areas where water quality samples weren't taken, we need to have another symbol to indicate that there wasn't data available and indicate why samples were not collected.

Janelle walked through examples in the PRIM. Bill clarified that the back-up data for the other resource areas is not referenced in this PRIM so we will have to reference back. Julie Means asked if it would be possible to have columns to identify if bull frogs are present and if there are significant recreation sites in these areas to help in dwindling out some of the issues. She added that presence/absence information would be helpful.

Janelle introduced the Amphibian RIM. Elevation is included and N/A was added if the range was not applicable to that species. Dashes indicate no appropriate habitat was identified in the species range. Janelle noted that diversion structures are not included in this document. Geoff said that Florence Lake should be included because of the available clearance data. Janelle will make a footnote out of this.

Janelle said she needs to address some additional criteria dealing with water temperature and bullfrogs and will do that with the CAWG via email.

Bill suggested the CAWG provide comments on the Amphibian PRIM materials to Kearns & West by April 14th (see AI #7 below).

Resolve Comments on Fisheries Criteria, Populated PRIM and RIM

Larry Wise stated that comments on the Time Series proposal were submitted by the Forest Service and USFWS. Larry reviewed the comments. Phil had requested the flow providing maximum WUA be run and asked for more detail as to what outputs might be. USFWS asked that the same Time Series analysis be run using the criteria they developed.

Larry said a streamlined version of Terry Waddle's spreadsheet will be used for this analysis and that the output would be that provided by Terry's spreadsheet. He showed the spreadsheet. Larry pointed out a couple of issues in using the spreadsheet. One is that the spreadsheet fills in a zero for habitat when there is missing flow data within the period of record. A second issue is with how to handle flows that are greater than the range of extrapolation of the WUA models. Larry said that one way to approach this is to use the habitat interpolation portion of the spreadsheet to calculate the daily habitat values, and then set up an alternate back end to

process and summarize this data. The end product would be the habitat time series, exceedance tables, and exceedance plot for flow and habitat.

Larry asked if Phil wants additional information. Phil said this is one way to look at habitat over exceedance values and over time; there may be other models that other folks want to use. Ed asked how it looks at the unimpaired hydrology that is outside of the range. Larry said it doesn't; we have to decide how to extrapolate the WUA curve. Larry said the model cannot look at comparisons with unimpaired flows. Phil said we need to explain how the extrapolation Larry referred to will occur. Larry responded that there are a number of ways we can do that. The model can be set to return a null for habitat, a zero for habitat, or any other value the user desires. Larry said they will also run the 6th flow that Phil requested in his comments.

Larry responded to USFWS comments on the Time Series analysis. They asked that the same analysis be repeated with the criteria they developed and distributed to the CAWG last summer. Geoff said the CAWG collaboratively tried to come up with one set of curves the group could use and USFWS was the only entity who disagreed. He doesn't want to get into dueling criteria by running both sets of curves. Debbie Giglio said USFWS wants to put that information forward to the group for consideration and requests the curves be run along with the other information. Geoff asked if Mark Gard will provide the statistics and methodology from his report. Debbie suggested having a focused conference call to discuss this. Jim Canaday said in the spirit of collaboration, the USFWS should be run.

The group discussed how USFWS filled out their comments on the Aquatics PRIM. Matt Myers suggested making USFWS X's a different color. Larry asked Debbie to provide the criteria for how they filled out the PRIM in order to be prepared for the conference call. The group agreed those who are interested can participate in a conference call to discuss these items. Debbie will ask Mark Gard about his availability for the conference call and will work with K&W to set up the call. Larry will put together a list of information they need from Mark for him to consider before the call (see AI #7 below).

The group discussed the inflection point proposal put forward by ENTRIX. Larry reviewed the slides that were distributed to the group, including the methods and results (plots) at selected locations for adults of different species. Two methods were considered based on the WUA function and the rate of change in WUA function. Inflection points were determined from these two functions using the approach suggested by Gippel and Stewardson. Larry provided a summary table to the CAWG showing the results of the two techniques for rainbow and brown trout and non-trout species (where present). The results of the two techniques were generally similar, but varied in a few instances. Larry reviewed some of these examples. Larry suggested using the inflection point from the WUA function, as it provided more consistent and reliable results than the rate of change function. Phil asked that the methods Larry used be emailed to the group (see AI #9 below).

Debbie asked that Kearns & West please send all 11x17 materials to her by mail (see AI #10 below).

Ed summarized that ultimately, we want some decision on the inflection point flow and then we can move forward with the analysis. Bill asked how the group felt. Phil said he is comfortable for now but he needs to review the methods.

The group discussed the Fisheries PRIM. Wayne Lifton referenced Phil's concern regarding WUA in the PRIM, with specific attention on the influence of cells with low suitability on the overall WUA and said they would like to discuss this. Larry reviewed the results of a minimum suitability threshold sensitivity analysis and said the results of the analysis indicated there were minor reductions in adult trout habitat and the shape of the curve did not change much. There were similar results for trout spawning. In his opinion, the results would not change the flow

recommendations. He reviewed the results for each species. Phil will look things over and if he has questions, he will talk to Larry.

Wayne Lifton reviewed the supplemental information distributed to the group. There was a request to take a look at other potential indices of fish food and EPT was mentioned as a potential candidate. An EPT index was calculated in CAWG 10. The handout shows the stream reaches, sites where macroinvertebrates were collected, densities of EPT and the EPT index from the CAWG 10 report. The table presented identified where things were significantly different between sites. The EPT index is based on the percentage of EPT that are in replicate. This provides information on an index of three taxa that are important to fish food, as well as the dipterans, which are dominant throughout the system. Between overall densities and EPT, we get a feel for what is going on out there.

Wayne Lifton reviewed the table depicting the number of consecutive days in which 19°C was exceeded. Jim Canaday said for right now, SWRCB don't necessarily agree to the 24°C maximum temperature threshold. Julie T said it would be useful to see the number of days measured. Wayne said he will incorporate the number of days monitored each year as a column in this table. Jim Canaday asked for a companion data sheet to go along with the table. Wayne Lifton responded that there is a temperature exceedance table by degrees in the report, but it can be pulled out and compiled (see AI #11 below). Julie T asked for the Excel spreadsheets of the temperature data from the CAWG 5 Report (see AI #12 below).

Julie T added that in terms of temperature, the Forest Service manages to a desired condition, and that is not 19 or 24°C. She referenced the USFWS paper that was sent out and how it has been used in other relicensings. Ed suggested the group talk about this now if they want to consider other criteria that requires analysis. The group decided to talk about this during Water Quality PRIM discussion tomorrow. Jim Canaday added that because of different authorities and different responsibilities, we look at temperature differently. With the basin plan, it's a numeric standard as well as what is being protected. The water quality standard is not just a minimum temperature; there is a safety margin that has to be built in. He will be looking for numbers that have biological relevance but they can't stretch the envelope.

Matt suggested Martin use this 19°C table to populate the Water Quality PRIM.

The meeting was adjourned.

March 22, 2005 Action Items

AI #1: Kearns & West to redistribute the March 9th meeting notes with Woody Trihey's edits for CAWG approval at the April meeting.

AI #2: Entrix will rerun the temperature simulation for Bear and Mono Creek, using temperature from the toe of the dam, for dry years in July and August using 20%, 50% and 80% exceedance numbers.

AI #3: Janelle will identify reaches where water quality sampling was not conducted. She will work with Martin Ostendorf to cross reference water quality information with the Amphibian PRIM.

AI #4: Janelle will talk with Sarah Yarnell regarding information on invasive species (bull frogs) in the Pit and Feather River Monitoring Plans. Julie Tupper will check with Jim Holeman on the Pit River information.

AI #5: Janelle will add cross references to other resource PRIMs into the comment cells of the Amphibian PRIM and check to make sure footnotes in the Amphibian PRIM are consistent with the Geomorphology PRIM.

AI # 6: Janelle will make sure footnotes in the Amphibian PRIM are consistent with other resource PRIMs.

AI #7: CAWG members will provide comments on the Amphibian PRIM materials to Kearns & West by April 14th.

AI #8: Interested parties will participate in a conference call to discuss running the time series analysis on the USFWS alternative curves. Kearns & West will provide USFWS with a list of

information Entrix needs to consider running the time series. Debbie Giglio will get Mark Gard's availability for the conference call and coordinate with Kearns & West.

AI #9: Entrix will provide the group with the methods Larry used in the inflection point analysis and the minimum suitability threshold sensitivity analysis.

AI #10: Kearns & West will send Debbie Giglio hard copies of the PRIMs.

AI #11: Entrix will incorporate the number of days monitored each year as a column in the table containing the number of consecutive days in which 19°C was exceeded in a *Temperature Exceedance Table by Degrees*. Martin will use this table to populate the Water Quality PRIM.

AI #12: Entrix to provide SWRCB and USFS (and others who request it) with CAWG 5 Temperature Modeling data in Excel format.