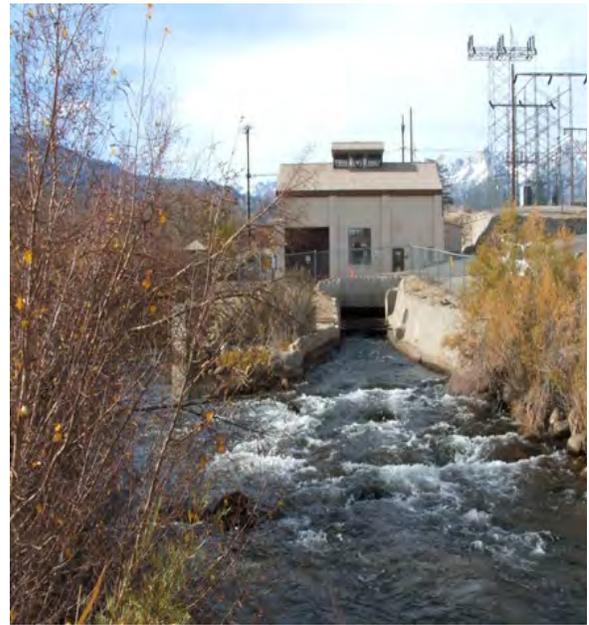


SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project

(FERC Project No. 1394)



Final LICENSE APPLICATION

VOLUME II



June 2022

LIST OF EXHIBITS

Exhibit E Appendices A through F

SOUTHERN CALIFORNIA EDISON

**Bishop Creek Hydroelectric Project
(FERC Project No. 1394)**

FINAL LICENSE APPLICATION

APPENDIX A CONSULTATION RECORD

June 2022

Support from:

Kleinschmidt

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Table 1 Comment Response Table: Draft License Application

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
1	DLA; Exhibit A	USFS	<p>The text states that, Hillside dam is an 810-foot-high rockfill dam completed in 1910, to enlarge an existing natural lake. Impoundment at Hillside creates the South Lake Reservoir, which provides storage for the Project and recreational opportunities. We agree that South Lake provides desirable recreation opportunities, however, the studies and DLA do not quantify or enumerate these opportunities in sufficient detail to discern what contribution or impact the Project is having relative to a no-project scenario.</p> <p>We raise this issue because SCE has compared “without project” scenarios during recreation discussions to argue that certain opportunities would have occurred without the Project. Since the DLA does not provide historical information on the recreational opportunities supported by the pre-project lakes, we cannot necessarily agree or disagree with speculation about what would have occurred at South Lake (or Sabrina) without the Project. Further, in describing the dam itself, SCE notes that: the upstream face of the dam is covered with redwood timber and a polyvinyl chloride (PVC) membrane liner, which serves as the impermeable barrier.</p> <p>The first 1966 Safety Review report notes that in the original 1910 construction, the upstream rock facing was covered with a timber facing composed of 3-inch by 12-inch native, rough-sawed lumber. The original plank facing was completely removed in 1930 and replaced with several layers of 3-inch by 12-inch and 2-inch by 12-inch redwood planking. In 1960 the redwood facing was judged to be in generally sound condition, despite some surface weathering. Leakage had not increased noticeably. To arrest the weathering, a 2-inch-thick coating of redwood lumber was nailed over the 1930 facing. In 2011, a geomembrane liner was installed over the redwood facing to cover and waterproof the entire upstream surface. It is assumed that the competency of the redwood elements that comprise this dam (and the dam at Lake Sabrina) are still in “generally sound condition,” though the most recent reference is from 2011. SCE should provide the most current inspection reports to clarify the status of this feature, and for other older redwood features found throughout the Project.</p>	<p>Additional language describing a 2013 inspection of the wood facing has been included in this FLA in Exhibit A, Section 2.3.</p> <p>With respect to recreation opportunities, SCE and the USFS have had multiple conversations since the filing of the DLA. While SCE continues to believe that baseline condition for recreation activities in the Sierra Nevada would support significant recreation use without Project facilities, our FLA has identified facilities at the reservoirs Project related recreation facilities. PME-8 (Recreation Management Plan) identifies a process for developing a long-term program for managing these facilities in collaboration with the USFS.</p>
2	DLA; Exhibit A	USFS	<p>The text states that, Longley Lake is operated as secondary store and release facility for water storage and downstream hydropower generation of electricity. Longley Lake dam discharges water to McGee Creek, where it flows over 1 mile before being intercepted by the McGee Creek diversion. This description does not explain how water is released, whether via spillway, low level outlet, or other feature/operation, nor does it provide information about the capacity to make releases into McGee Creek. SCE should provide this information.</p>	<p>Additional language describing operations has been added to in Exhibit E, Section 2.5 of the FLA, with available information, and after interviewing SCE operators. Exhibit A was updated to be consistent with the provided information</p>
3	DLA; Exhibit A	USFS	<p>This section is notated that, SCE is currently consulting with land management agencies on proposed changes to the Project boundary and conducting internal research to confirm land ownership in various areas [for Exhibit G]. A detailed description of federal lands within the proposed Project boundary will be provided in the Final License Application. While the Forest Service has reviewed the Exhibit G submittal in the DLA, it</p>	<p>Proposed Project Boundary modifications are provided in Exhibit E, Section 6.1 of this FLA. Additional information is included in Exhibit G, as well as in the Lands Memorandum, which is part of Volume III of this FLA. Section 9.9.7 of Exhibit E itemizes the recommended changes, and those that have been updated since the DLA are indicated.</p>

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
			will await the FLA for final review. Updated sections or changes should be clearly notated in the FLA.	
4	DLA; Exhibit E	USFS	The Plant Communities discussion describes Canyon Live Oak generally, but there are no Canyon Live Oaks within Bishop Creek or Project.	The CalVeg (USFS 2019) Plant Community maps indicate approximately 1.02 acres of Canyon Live Oak within the 500-foot <u>buffer</u> of the Project Boundary. This represents 0.02% of the mapped area. Additional information has been added to Exhibit E
5	DLA; Exhibit E	USFS	Whitebark pine is incorrectly referenced, it is an ESA Proposed Threatened species (as of December 2020), not a SCC species.	USFWS proposed Rule 85 FR 77408 was cited in text and included in reference list (USFWS 2020)
6	DLA; Exhibit E	USFS	The description of the riparian study plan (TERR-1) does not allow for meaningful dialogue over resource impacts or findings. Discussion should include a more comprehensive summary of findings and how each resource was addressed in TERR-1.	Exhibit E has been supplemented with additional discussion of long-term riparian monitoring, including additional analysis requested by CDFW. Where additional information and discussion developed was not incorporated into Exhibit E; however, Appendix H (Volume II) to the FLA contains additional analysis resulting from questions posed by the USFS and CDFW (refer to comments 60-67 below)
7	DLA; Exhibit E	USFS	SCE should clarify for TERR 1, whether in its view, the decline observed for black cottonwood abundance is within the NR could be related to project operations. The results in Section 8.7.5.1 are for riparian vegetation overall, not specifically for black cottonwood.	Section 9.7 of Exhibit E summarizes monitoring and study results from long-term assessments conducted under the current license; Section 9.7.5 discusses potential effects of project operations within the normal range of black cottonwood. Both sections were supplemented to better clarify that SCE does not believe variations in black cottonwood abundance are outside the range of natural variability or negatively affected by project operations. However, SCE proposes measures to help manage the descending limb of the hydrograph (PME 1.1) as well as the implementation of the Sediment Management Plan (PME-3) which may enhance riparian resources in general to help meet desired conditions of the land managers. Additionally, the TERR 1 final technical report was provided with the DLA and is being resubmitted with the FLA (Volume III)
8	DLA; Exhibit E	USFS	SCE should provide rationale for how the study results demonstrate that observed declines of black cottonwood are not related to Project effects.	While results of the study do indicate observed declines in black cottonwood in specific locations, there have been changes in abundance even in reaches which have not had a dam or other impediment to flow or sediment present. As such, SCE is of the opinion that declines in specific locations are not related to Project effects. Additional information on both the Riparian Community Assessment Study (TERR-1) and graphical results of the analysis are provided in Volume 3 and Appendix H of this FLA, respectively.
9	DLA; Exhibit E	USFS	This section should explain the potential link between black cottonwood and proposed sediment release and flushing flows, which are expected to benefit black cottonwood and other woody riparian plant recruitment.	This comment refers to Section 9.7.6 of the FLA; as discussed, SCE does not anticipate impacts from Project operations outside the range of normal variations. The measures proposed in the Sediment Management Plan were developed not to mitigate Project effects but, rather, to enhance the existing riparian community. These enhancement measures were designed to address USFS desired conditions. The anticipated impacts of these enhancement measures are described in further detail in Section 9.7.5.1 of Exhibit E of this FLA.
10	DLA; Exhibit E	USFS	Whitebark pine, an ESA proposed threatened species, occurs in Bishop Creek and within the vicinity of the Project. It should be identified as being present within the Project area	White bark pine was not identified during surveys for special status plants. The surveys were undertaken in areas within the Project boundary that are subject to SCE O&M and hence, areas subject to potential future work and disturbance. SCE is not proposing any changes to its O&M procedures. Whitebark pine is an upland conifer and SCE's O&M activities in upland areas is undertaken along existing roads and at existing facilities. Therefore, there will be no effects to whitebark pine as a result of SCE's relicensing of the Project. Should SCE propose a future project (outside of O&M) that would disturb currently undisturbed upland areas, that

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
				would be a future project outside of the license and require independent surveys for sensitive resources.. More specifically, with respect to identifying this species as being within the Project area, SCE has reviewed CalFlora and the Consortium of California Herbaria data, which provides species occurrences. SCE concurs that species have been reported near the Project area, but this species was not observed it within the Project boundary. IPaC provides a list of species that may be affected by an activity, based on the known range of the species. Does the Forest Service have specific knowledge of occurrences within the Project area that may not be mapped?
11	DLA; Exhibit E	USFS	IPaC (USFWS) consultation regarding plants should be documented/recorded. Reporting should include whitebark pine in the Project area. The other databases described in this section do not currently track whitebark pine.	Please refer to SCEs response to item 10, above with respect to any concerns about Project effects. CalFlora and the Consortium of California Herbaria track whitebark pine and do not show occurrences of that the species within the Project area. IPaC provides a list of species that may be potentially affected by activities in a location; however, "the primary information used to generate this list is the known or expected range of each species." Inclusion of the species in the IPaC search does not definitively indicate that the species occurs within the search area.
12	DLA; Exhibit E	USFS	Section 8.8.8.1 should be revised to include an analysis of effects to whitebark Pine.	Whitebark pine was not identified during surveys for special status plants. The surveys were undertaken in areas within the Project boundary that are subject to SCE O&M and hence, areas subject to potential future work and disturbance. SCE is not proposing any changes to its O&M procedures. Whitebark pine is an upland conifer and SCE's O&M activities in upland areas is undertaken along existing roads and at existing facilities. Therefore, there will be no effects to whitebark pine as a result of SCE's relicensing of the Project. Should SCE propose a future project (outside of O&M) that would disturb currently undisturbed upland areas, that would be a future project outside of the license and require independent surveys for sensitive resources.
13	DLA; Exhibit G	USFS	Describes Forest System Road (07S110) as proposed Project access. This road is outside of the current Project boundary. SCE should provide information about the use of this or other roads described as proposed Project access to inform management and maintenance considerations for the FLA.	Forest System Road 07S110 is an example of a forest system road that is partially within the Project boundary, but which contains portions that are outside the boundary while still being used for Project purposes. A portion of this road that should be brought into the boundary is associated with access to the cell phone repeater. This has been included in the LANDS1 memorandum as Project Road -21
14	DLA; Appendix A 1.0	USFS	New Environmental Measures describes Potential Mitigation and Enhancement Measures (PME's), many of which are listed as plans that have yet to be fully described. While the Forest Service is supportive of the suite of plans proposed by SCE, we have yet to agree or discuss the operational specifics of such plans. Thus we are unable to provide substantive comments on the plans listed throughout the Appendix, that serve as placeholders for further discussion. In general, we are supportive of the overall goals as outlined by SCE.	Comment noted. Draft versions of the Botanical, Wildlife and Invasive Species Plans were distributed to agencies (including the USFS_ for 30-day review period between the filing of the DLA and the filing of this FLA. Comments were received from CDFW, and a matrix with responses to those comments are included here in Appendix A. USFS and other relicensing participants will have an opportunity to review and comment on the remaining draft plans being submitted with this FLA.
15	DLA; Appendix A 1.0	USFS	Minimum instream flow section should include a summary of the meetings and dialogue between SCE and the agencies regarding resource interests and impacts and PM&E proposals to date.	A discussion of agency goals presented at the March 1, 2022 TWG meeting and clarified in subsequent discussions is included in Section 9.5 of Exhibit E.

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16	DLA; Appendix A 1.0	USFS	Should be updated to include the more specific sediment operational proposal post-DLA issuance that has been discussed, and include a discussion about resource goals beyond Project maintenance to include riparian vegetation recruitment and health.	Comment noted; the Draft Sediment Management Plan has been developed to include more details as discussed with agencies.
17	DLA; Appendix A 1.0	USFS	SCE should provide a copy of its Vegetation Management Operations Manual to clarify the applicability of these procedures towards addressing vegetation management in the Bishop Creek license area.	SCE feels the VMOP is too granular and beyond the scope of PMEs, therefore language from the manual was directly incorporated into the management plans.
18	DLA; Appendix A 1.0	USFS	These maps include the CalVeg type "Subalpine Conifer- SA" which lists whitebark pine as one of the component species, which provides support for whitebark pine being present in the Project area. The analysis should be revised to include this information.	Please refer to SCEs response to item 10, above with respect to any concerns about Project effects on this species. The vegetation community data utilized was provided by the USFS. The text includes a general description of the vegetation communities mapped within the Project area, including typical component species, as provided by CalVeg (USFS 2019). The text does not provide a site-specific description of the vegetation within the Project area. Therefore, while whitebark pine may occur in the Project area, its presence should not be definitively inferred by the presence of this greater vegetation community within the FERC boundary.
19	DLA; Appendix A 1.0	USFS	Whitebark pine should be included in this table as "Known to Occur."	Whitebark pine is known to occur in the Project <u>vicinity</u> based on the literature review; however, it was not observed during special-status plant surveys at Project facilities/recreation areas, and for reasons summarized in SCE's response to Item 10, above, Project effects on whitebark pine are not a concern. A review of CalFlora and Consortium of California Herbaria data does not identify the species within the Project boundary. It is a species identified by the USFWS' IPaC search as potentially affected by activities in this location; however, "the primary information used to generate this list is the known or expected range of each species." Therefore, it is appropriate to not include this species as "Known to Occur" in the Project area.
20	DLA; Appendix A	USFS	Please clarify whether the mapped observations for invasive and special status plants are based on the license area surveys from 2019 and 2020, or whether they are based on all available datasets/databases.	The mapped observations are based on the 2019/2020 special-status plant surveys.
21	DLA; Appendix A	USFS	These maps include the CalVeg type "Whitebark Pine-WB," providing further support that whitebark pine is present in the Project area. The analysis should reflect this information.	Whitebark pine is known to occur in the Project <u>vicinity</u> based on the literature review; however, it was not observed during special-status plant surveys at project facilities/recreation areas. Although "Whitebark Pine – WP" lists whitebark pine as one of the component species which does not mean that the species occur throughout the entire mapped polygon. The current known distribution of the species gathered from available database shows that its distribution is patchy and known occurrences well outside the Project boundaries, but that does not preclude the community type from being mapped within the Project boundary. While the CalVeg data does show the whitebark pine alliance as occurring within the Project area and this suggests that the species may occur in the Project area, the presence of this vegetation community does not definitively identify this species as present within the Project area. For this reason, SCE concludes that whitebark pine "may occur" instead of being "known to occur". No further analysis is needed; for reasons summarized in SCE's response to Item 10, above, Project effects on whitebark pine are not a concern. The Botanical Resources Management Plan includes whitebark pine as on the potential species and therefore if called for, a survey for special status plant species, including whitebark pine will be performed.

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
22	DLA; Exhibit A	Water Board	Table 4.4-1 states the total rated KW for powerhouse 2 is 7,320, it should be 7,820.	Rated capacity is limited by the generator, which in this instance is rated as 7320 kw; therefore, the rated capacity of powerhouse no. 2 is 7,320 kw as stated. Information in the table was reported incorrectly for the rated KWs of Unit no. 1 and Unit no. 2 generators; the correct rated KW for Units no. 1 and no. 2 is 2,500 (each). The table was updated, and the total rated capacity for powerhouse no. 2 remains 7,320 kw.
23	DLA; Exhibit A	Water Board	Table 4.4-1, the generator KW for powerhouse 6 is not listed.	This total was added.
24	DLA; Exhibit A	Water Board	Table 4.4-1, the total Project generator KW should be 29,657, and the total Project rated KW should be 29,422.	The total Project generator KW was updated; the rated KW total was not changed, as the suggested. The change was based on an error in our original table that has been addressed (see comment above regarding rated KW for powerhouse no. 2)
25	DLA; Exhibit B	Water Board	Please ensure that Exhibit B, page 3, Table 2.5-1 correctly matches the updated generation capacities in Exhibit A, page 21 and 22, Table 4.4-1.	No changes are required to Table 2.5-1; the information in the table was reviewed and any differences in capacities listed are attributed to rounding differences.
26	DLA; Exhibit E	Water Board	Section 5.5.1.2 Water Rights is blank and does not include any information regarding water rights associated with the Project. Please complete this section.	This information was added
27	DLA; Exhibit E	Water Board	Section 6.5, the first paragraph is repeated twice.	This paragraph was corrected
28	DLA; Exhibit E	Water Board	The second paragraph ends without identifying which table contains the issues identified by the Federal Energy Regulatory Commission and the Technical Working Group, please add the table number.	The table number was edited
29	DLA; Exhibit E	Water Board	Table 8.4-17 should include a column that identifies the specific use for each water right.	This table was updated to include the requested information.
30	DLA; Exhibit E	Water Board	States that the State Water Board undertook a water quality monitoring effort in Bishop Creek as a part of the Surface Water Ambient Monitoring Program (SWAMP) from 2013 – 2016 and that the results of this monitoring effort can be found in Table 8.4-25; however, Table 8.4-25 presents 1986 depth profiles for Lake Sabrina. The SWAMP monitoring results are presented in Table 8.4-30, please update this section to reflect the accurate table number	The section was edited.
31	DLA; Exhibit E	Water Board	Table 6.5-1 Summary of Environmental Measures and Plans Under the Proposed Action states that Protection, Mitigation and Enhancement (PM&E) measure 1 will be modified under the proposed action, however, PME-1 in Appendix A states that SCE will continue to maintain current instream flow requirements. Please add a description of the proposed modifications to Appendix A.	The text of the FLA (Table 6.5-1) now matches the proposed MIFs in Appendix A.
32	DLA; Exhibit E	Water Board	Please fix page numbers.	We've reviewed page numbering and believe them to be correct.
33	DLA; Exhibit E	Water Board	Please include a record of consultation with State Water Board staff and other interested parties as a requirement in the final PME-3 Sediment Management Plan.	This consultation was included.
34	DLA; Exhibit E	Water Board	Proposed PM&E measures for the Project are still being finalized in consultation with relevant agencies such as the United States Forest Service, United States Fish and Wildlife Service, State Water Board, and the California Department of Fish and Wildlife. Therefore, State Water Board staff will not be able to fully evaluate the Project's environmental effects or proposed PM&E measures until provided with the Final License Application.	Comment noted.
35	DLA; Exhibit E	FERC	In Exhibit E, Section 5.7.3.2, Avian Protection Plan, page 5-50, you state that your current Avian Protection Plan (APP) includes "Major procedures discussed in this document include permits, avian mortality, proactive retrofits, bird nest removal, injured birds, and	SCE filed the APP plan as an Appendix C to the General Wildlife Resources Final Technical Report, found in Volume III (one of four); In the FLA, SCE made a more explicit call-out in the Exhibit E FLA to indicate where this may be found. The APP applies to all Project facilities

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
			<p>ground-disturbing activities." Later, in Section 8.6.4.2, Effects of Continued Operations and Maintenance of the Project Transmission Line on Migratory Birds and Raptors, on page 8-167, you further state that "No deaths of migratory birds or raptors have been reported in the Bishop Creek Project boundary due to powerline encounters." Please clarify in the FLA whether this "reporting" is due to inspections of the transmission line under the APP and what project activities, or facilities are accounted for with regard to "avian mortality" in the APP. In the Initial Study Report, you rely heavily on the adequacy of your APP to inform the environmental analysis for these facilities and resources.1) In addition, Commission staff requested at the Initial Study Report Meeting that the APP be included in the DLA and FLA filings as this was vital to our analysis; 2) however, the APP was not provided as requested. Therefore, please provide a copy of the current APP in your FLA or it will be considered a deficiency under §5.18(b)(5)(C) of the Commission's regulations.</p> <p>In addition, in Section 5.8.2, Transmission, Power, and Communication Line Maintenance Program, you state that pursuant to Appendix XI of your Transmission Owner Tariff, you provide an annual report covering your Transmission and Compliance Program. Please provide any relevant reporting information with respect to avian protection on the project transmission line in your FLA.</p>	<p>where there is a potential for habitat or interaction with operations, and this includes nesting bird surveys and monitoring.</p> <p>SCE reports fatalities on an annual basis. With regard to avian protection reporting under the APP, SCE queried the Avian Program staff and confirmed that no known mortalities have occurred within the FERC Project boundary. With respect to the Transmission, Power, and Communication Line Maintenance Program, a report per-se is not generated. These records are logged into an Excel database and reported under the Special Purpose Utility Permit cited above.</p> <p>The source of the reporting will be clarified in the FLA. SCE will clarify what Project activities and facilities fall under the Avian Projection Plan (APP). With the filing of the Wildlife Management Plan (WMP), the APP will be included as an attachment, with the clarification that this document is subject to change.</p> <p>In the Effects Analysis for Wildlife, the APP is one of five (5) documents cited, in addition to (1) SCE's Implementation Plan for Mitigation for Impacts to Sensitive or Endangered Plant and Animal Species (SEPP), (2) Vegetation Operations Management Plan (VMO), (3) the Nesting Bird Management Guidelines for Small Projects (NBG), and (4) SCE's long term streambed alteration agreement with CDFW. These documents were referenced to illustrate SCE's commitment to migratory bird and raptor protection.</p> <p>SCE implements these documents as needed for each project and for routine O&M. One is not relied upon any more than any other. However, the primary guidance document is the SEPP, which required pre-activity surveys for sensitive resources prior to any project or activity that has the potential to effect sensitive resources. The APP and NBG provide guidelines for nesting bird and raptor surveys and protection. SCE Operations staff also undergoes annual training to ensure the goals of these plans are implemented at the Project.</p>
SCE 36	DLA; Exhibit E	FERC	<p>Staff accessed the U.S. Fish and Wildlife Service's Information, Planning, and Conservation (IPaC) database (https://ipac.ecosphere.fws.gov/) on April 21, 2022.3 The IPaC results included the following species that were not covered in the DLA: fisher (<i>Pekania pennanti</i>; endangered); Owens pupfish (<i>Cyprinodon radiosus</i>; endangered); fish slough milk-vetch (<i>Astragalus lentiginosus var. piscinensis</i>; threatened). The IPaC report also included Monarch butterfly (<i>Danaus plexippus</i>), a Candidate species. While Candidate species are not protected and not required to be analyzed in our National Environmental Policy Act document, it is possible that the monarch butterfly may become a federally protected species during the term of any license the Commission may issue for this project. Therefore, please ensure that your FLA includes a discussion of these species.</p>	<p>SCE notes that Exhibit E in the Draft License Application omitted reference to tables with these species. For clarity, the tables that contain information specific to the species noted in the comment have been moved to the main body of the FLA</p>
37	DLA; Exhibit G	FERC	<p>Section 5.18(f) of the Commission's Regulations state that maps and drawing must conform to the requirements of Section 4.39 of the Commission's Regulations. Section 4.39 specifies that Exhibit G maps must be stamped by a registered land surveyor; however, the Exhibit G maps provided in the DLA are not. Subsequently, the FLA must provide the Exhibit G specified in section 5.18(f) of the regulations and conform to the specifications outlined in section 4.39 of the Commission's Regulations.</p>	<p>Comment noted. The Exhibit G drawings included in the FLA confirm to the requirements of 18 C.F.R. § 4.39. SCE has also added an additional Location Map (Appendix J) meeting the requirements of 18 CFR § 5.18 (b)(iii)</p>

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
38	DLA; Exhibit E	CDFW	The cumulative effects analysis should include an analysis of the cumulative effects of Project operations and maintenance, as well as the associated effects of climate change such as drought and increased wildfires, on bat populations located within or utilizing the Project boundaries. A description of the bats that are known to occur in or use the Project area and their status should also be included in the cumulative effects analysis.	The scope of the cumulative effects analysis for the relicensing studies was established by FERC in Scoping Document 1 and was limited to water resource questions. Cumulative impacts on WNS was not identified as a cumulatively affected resource. Therefore, SCE will keep its analysis in Exhibit E confined to those questions identified by FERC. Other information requested by CDFW regarding bats known to occur or use the Project area are available in Exhibit E and the Wildlife Technical Report
39	DLA; Exhibit E	CDFG	The cumulative effects analysis should include an analysis of the cumulative impacts of Project operations and white nose syndrome (WNS) on bat colonies utilizing Project facilities. The species most likely to be affected by WNS are <i>Myotis lucifugus</i> and <i>Myotis yumanensis</i> , and they are also the most likely to roost in associated dam buildings. They also forage predominantly over open water by trawling for emerging insects. Rapid drops in lake levels caused by sudden dam releases could affect the surface area of the water body available to foraging bats.	<p>The scope of the cumulative effects analysis for the relicensing studies was established by FERC in Scoping Document 1 and was limited to water resource questions. Cumulative impacts on WNS was not identified as a cumulatively affected resource. Therefore SCE will keep its analysis in Exhibit E confined to those questions identified by FERC. However, for the benefit of addressing CDFW's questions, SCE offers the following:</p> <p>Based on ~25+ years of sampling for hibernating bats throughout the Sierra Nevada, and Inyo and White mountains, in the area by Dr. Michael Morrison did not detect any individuals with WNS. Additionally, swab sampling has not detected the fungus causing WNS in the Bishop Creek Area (See CDFW comments stating such). WNS most affects bats in the winter while hibernating.</p> <p>The wintering bat study conducted by bat expert Dr. Morrison (Psomas 2020) reported the following: of all the Project facilities inspected the powerhouses were determined to be the most suitable for bat roosting. Appurtenant structures, such as sheds and warehouses, were inspected; however, no evidence of roosting was observed, and the other structures did not provide environmental conditions equivalent to the powerhouses, such as accessibility, thermal insulation, heat sources."</p> <p>Therefore, the Project facilities do not provide suitable winter hibernacula and so there would be no effect to bats from WNS during winter hibernation.</p> <p>While some Project facilities support bat roosts in the summer, these roosts occur in portions of the facilities that are inaccessible to Project operation staff. No change in Project facilities or operations would occur with respect to the observed summer bat roosts and the persistence of the existing summer roosts reinforces the absence of effects of Project operations on the roosts.</p> <p>The bat studies performed from the relicensing recorded 10 bat species in the Bishop Creek area. All of those bat species forage for insect prey. The prey base arises from the creeks, seeps, ponds, as well as the Project lakes and impoundments. SCE regulates lake levels per the current license. Sudden lake level drops (not defined in comment) do not occur. The lake levels in South Lake and Sabrina are routinely lowered in the winter to provide storage for spring run-off. Even at low levels there is more than enough water surface to provide a prey base for foraging bats. Bats typically forage for insects over a large area within their territory because aerial insects tend to occur in patches, which do not always occur in the same locations night after night. In addition, Bishop Creek, its tributary creeks and streams, seeps,</p>

Comment Number	Document/Exhibit	Entity	Comments	SCE Response
				ponds and other impoundments provide ample foraging areas for bats until the time they leave the area for winter hibernacula.
40	DLA; Exhibit E	CDFG	CDFW would like clarification on what constitutes evidence of bat day roosting sign.	As stated in the ISR and the Wildlife Technical Report, evidence of day roosting includes "...urine staining, guano deposits, vocalizations". In addition, evidence of bat day roosting includes direct visual observations of the bats in the ceilings.
41	DLA; Exhibit E	CDFG	Page 50 of the Final Technical Report (Wildlife Initial Study Report TERR 4) states that some facilities are being used as summer roosts and are most likely big-brown bats. CDFW requests that this statement is included in the FLA and a discussion is provided that describes why it is assumed that big-brown bats are the species using the facilities as summer roosts. It is possible that big-brown bats are using the facilities but the typical bats in powerhouses and other hydro facilities elsewhere in the state are <i>Myotis yumanensis</i> and <i>Myotis lucifugus</i> depending on elevation.	Neither the Wildlife Technical Report nor any of the individual bat survey reports stated that the likely species using any of the Project facilities for roosting was <i>Eptesicus fuscus</i> . As stated in acoustic survey report (Psomas 2020) this species was recorded as present during acoustic surveys, but in fact, no specific species of bat was identified as the occupier of any roost. A review of bat roosting habits from the literature reveals that of the ten species of bats recorded during the surveys all are well known to roost in man-made structure, just not <i>M. lucifugus</i> and <i>M. yumanensis</i> . In addition, none of the bat species recorded during the studies are federally or state-listed species or of special status.
42	DLA; Exhibit E	CDFG	SCE should include information detailing that the longstanding operations of the Project have created suitable summer, winter and maternity roosting habitat for bats. Bats now depend on this habitat for winter hibernation, and/or to raise young. Sudden exclusion of bats or interruption of the bat habitat could lead to significant bat mortality if a 'Bat Avoidance, Minimization and Mitigation Plan' is not in place.	<p>The technical wildlife report and specifically the winter bat memorandum stated that the Project facilities are not suitable for winter hibernacula and that no bats were found to use any of the facilities as winter roosts. Therefore, bats do not utilize or depend on Project facilities for hibernation.</p> <p>SCE does not propose any changes to Project operations, including powerhouse operations. Powerhouses are run on a continual basis throughout the year, except for needed maintenance.</p> <p>No maternity roosts were confirmed to occur in this study. One possible maternity roost was found located in a transformer shed adjacent to Plant No. 2. The shed was not disturbed but given the season it is likely that the colony is a maternity colony. No negative effects would occur because SCE has no plans to alter the structure.</p> <p>SCE has no plans or intentions to exclude bats from the powerhouses. SCE and bats have coexisted at those locations for many years and the bats have not presented SCE with issues or problems.</p> <p>Bat exclusion is a typical mitigation measure for Projects with potential direct impacts to the roosting bats. This mitigation measure is allowed and encouraged by many agencies, including CDFW, because bats typically utilize multiple roosts in an area that are used as needed. When one roost because unavailable, a nearby alternative roost is used.</p> <p>SCE is not proposing to prepare a "Bat Avoidance, Minimization and Mitigation Plan" beyond what is identified in the Wildlife Plan, because the Project will not impact bats as proposed for relicensing. Should SCE, at a later date, need to repair or modify a powerhouse or outbuilding, that would be a project outside relicensing and separate studies, including bat surveys, may be appropriate at that time.</p>
43	DLA; Exhibit E	CDFG	A table similar to Table 8.8-2 (Page 8-198) should be included for the complete inventory of the bat species (not just species of special concern) using the Project area. An	A table is included in the TERR – 4 FTR, included with the FLA in Volume III. Ten bat species were acoustically recorded as foraging at the Project facilities during winter roost assessment:

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			<p>understanding of what types of roost the Project area is used for is necessary to avoid impacting bats. It is also important to note that all maternity colonies of bats are protected, not just species of special concern.</p>	<p>California myotis (<i>Myotis californicus</i>), western small-footed myotis (<i>Myotis ciliolabrum</i>), little brown myotis (<i>Myotis lucifugus</i>), long-legged myotis (<i>Myotis volans</i>), Yuma myotis (<i>Myotis yumanensis</i>), hoary bat (<i>Lasiurus cinereus</i>), big brown bat (<i>Eptesicus fuscus</i>), silver-haired bat (<i>Lasionycteris noctivagans</i>), canyon bat (<i>Parastrellus hesperus</i>), and Mexican free-tail (<i>Tadarida brasiliensis</i>).</p> <p>More than five bats were observed roosting in crevices at powerhouses Nos. 5 and 6, but the species present could not be determined. No active maternity nests were observed during surveys. The Wildlife Management Plan includes measures to protect and avoid bats and maternity roosts, including consultation with CDFW.</p>
44	DLA; Exhibit E	CDFG	<p>It is important to detail that Powerhouse 2 is presumed to be supporting an active maternity roost. In the spring bats return pregnant to established maternity roosts. If exclusion from or disturbance to the maternity roost occurs due to maintenance or repair or other operational needs, large mortality of young and adult bats within the maternity colony could occur.</p>	<p>Maturity roosting was not confirmed. One possible maternity roost was inferred at a transformer shed at Plant No. 2 because bats were present during the maternity season. SCE is aware of the sensitivity of maternity roosts.</p> <p>SCE has no plans or intentions to exclude bats from the powerhouses or transformer shed. SCE operations and bats have coexisted at these locations for many years and the bats have not presented SCE with issues or problems.</p> <p>Bat exclusion is a typical mitigation measure for projects with potential direct impacts to roosting bats. This mitigation measures is allowed and encouraged by many agencies, including CDFW, because bats typically utilize multiple roosts in an area that are used as needed. When one roost because unavailable, a nearby alterative roost is used. Avoidance and protection measures for bats are included in the Wildlife Management Plan.</p>
45	DLA; Exhibit E	CDFG	<p>A thorough survey of roosts should include the bat species, the reproductive status, and the number of bats in the colony. This is typically accomplished by catching several bats in mist-nets as they emerge from the building roosts and recording species, sex and reproductive status. Some colonies may be mixed Myotis species, and recording echolocation calls during emergence aids in this determination. Exit counts on the facilities to determine if colonies are stable or declining occur annually at approximately the same dates, either when all the emerging bats are only adults (no juveniles flying yet) or after all the babies are flying in a colony (usually by the end of July). Acoustic monitoring should occur during the exit counts.</p>	<p>The Wildlife Resources Study Plan was thoroughly reviewed by the agencies and approved by FERC in its study plan determination. Memoranda providing updates on the bat surveys were provided while the surveys were being conducted and results were summarized in the Initial Study Report in 2020 and in the Final Technical Report that was provided in the summer of 2021.</p> <p>The approved goal of the wildlife study was to determine if any special status bats were using the Project facilities. To achieve that goal, a habitat assessment, a winter bat study, and an acoustics survey were performed. The studies demonstrated that no special status bats were using Project facilities in such a manner that could cause impacts. The study methods were provided to all agencies for comment prior to implementation and CDFW provided no comments on the goals or methods of the bat studies.</p> <p>Surveys and studies that would have involved physical disturbance to roosts and bats were specifically avoided and were not necessary to accomplish the goals of the study. Extensive and intrusive surveys as recommended are not needed to inform the relicensing process or FERC. Avoidance and protection measures for bats are included in the Wildlife Management Plan.</p> <p>Given the results of the wildlife surveys, further studies on roosting bats at Project facilities are not planned by SCE and are not warranted. The study suggested it is not practical or likely to be effective. Bats use openings near the roof of the powerhouses, which makes any attempts</p>

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				to accurately observe infeasible without the use of high-lift buckets and similar equipment. Such an endeavor is unwarranted given the goals of the of the TERR-4 studies and its findings.
46	DLA; Exhibit E	CDFG	Information on areas where bat surveys were not conducted (e.g., tunnels, dams [i.e., Longley Lake], facilities at McGee and Birch Creek) will help CDFW understand where data may be lacking and where surveys need to be conducted prior to changes in operation, and/or prior to maintenance or construction activities.	<p>The Wildlife Resources Study Plan was thoroughly reviewed by the agencies and approved by FERC in its study plan determination. Survey were only performed at facilities where bats are likely to use the facility for roosting, and hence most likely to impact SCE operations or be impacted by SCE operations.</p> <p>Facilities like Longley Lake and diversion, and Birch and McGee Creeks and diversion would certainly provide foraging opportunities for bats, but the structures are not expected to provide suitable roosting opportunities and so they were not targeted for surveys. The dams at South Lake and Sabrina were not surveyed for the same reason: the dams provide no features for roosting.</p> <p>Measures for protecting bat species at Project facilities are included in the Wildlife Management Plan and include pre-construction surveys by a qualified biologist, preparation of a bat exclusion and mitigation plan and consultation with CDFW should any bats be identified.</p>
47	DLA; Exhibit E	CDFG	Bats are known to roost in buildings, tunnels, dam structures, vegetation, and other aspects of Hydroelectric projects. Bats are also known to forage on tail races.	SCE agrees with this general comment; for this reason, the approved study plan focused on areas with the highest likelihood of occurrence and species diversity, and on areas relevant to regular Project operations. Dr. Morrison and Dr. Blood each have over 30 years of experience with bat studies and Mr. Norton has over 20 years of experience and holds a SCP to capture and handle bats.
48	DLA; Exhibit E	CDFG	It is important to establish if the bats using the Project area have been infected with White Nose Virus (WNV) and to monitor them annually for this disease. Bats infected with WNV are especially susceptible to stressors such as roost disturbance or exclusion and will more readily be infected by and perish from WNV. Information regarding bat roost type (day, night, maternity) and size, bat species, reproductive status and health, should be provided in the FLA.	<p>Correction: White Nose Syndrome (WNS) is caused by a fungus rather than a virus.</p> <p>The Bishop Creek Project, including powerhouses, have operated for over 100 years, and bat roosts are currently known in locations that have been subject to noise, vibration, and human presence for that length of time. No changes to facilities or how they are operated are proposed. Therefore, these conditions are considered existing conditions under which bats are continuing to roost at some Project locations. It is important to note that white nose syndrome (WNS) has not been recorded in bats in either Mono or Inyo counties. Surveys by local bat expert Dr. M. Morrison confirmed that WNS is not present. Bats typically use and move amongst more than one roost in an area (Ruczyński and Bartoń, 2020 for roost switching, Willis and Brigham 2004 for Eptesicus fuscus, Brigham et al. 1997 for M. californicus, Randall et al. 2014 for M. lucifugus; Kunz 1982 for bats in general; H. T. Harvey & Associates 2004 for mitigation). The Bishop Creek Watershed provides thousands of acres of rocky outcrops, caves, mines, snags, hollow trees, and other man-made structures that provide bats with alternative roosting opportunities. Typically, if a roost becomes unavailable, bats will move to and occupy another roost site in the area.</p> <p>Information on roost type and size are included in the TERR 4 FTR in Volume 3 of the FLA. See response to comment 43 for a list of identified bat species. Bat reproductive status and health was not collected as part of the approved study plan.</p>
59	DLA; Exhibit E	CDFG	SCE states that based on the completed studies and reviews of existing literature, SCE identified that there are no adverse effects to upland wildlife from the operation of the Project. However, the 2019 Results of a Bat Roost Habitat Assessment Conducted for the	The technical wildlife report, and specifically the winter bat memorandum, has stated that the Project facilities are not suitable for winter hibernacula. And that no bats were found to use

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			<p>Bishop Creek Hydroelectric Relicensing Project in Inyo County, CA identified that bats use the powerhouses associated with the Project as summer and maternity roosting habitat. According to the 2019 Report, active day roosts were observed in Powerhouse 6 and Powerhouse 5 and an active maternity roost were identified in the transformer shed immediately adjacent to Powerhouse 5; a potential maternity colony was identified at Powerhouse 2; and it was determined that Powerhouse 6 has the potential to support maternity roosting. CDFW requests that SCE include an impact evaluation from continued Project operations on bats. Specifically, CDFW requests an analysis of the impacts that Project operation and maintenance (O&M) s could have on summer, winter and maternity bat colonies. The FLA should identify O&M activities occurring in the Project facilities and how those activities could impact bats within the Project facilities. Any activities that could result in exclusion of bats from powerhouses and other Project facilities, or disturbance of roosting bats are important to note.</p>	<p>any of the facilities as winter roosts. Therefore, bats do not utilize or depend on Project facilities for hibernation.</p> <p>SCE does not propose any changes to Project operations, including powerhouse operations. Powerhouses are run on a continual basis throughout the year, except for needed maintenance.</p> <p>No maternity roosts (active or otherwise) were confirmed to occur at the Project facilities included in this study. One possible maternity roost was located in a transformer shed adjacent to Plant No. 2. The shed was not disturbed but given the season it is likely that the colony is a maternity colony. No negative effects would occur because SCE has no plans to alter the structure.</p> <p>SCE has no plans or intentions to exclude bats from the powerhouses. SCE and bats have coexisted at those locations for many years and the bats have not presented SCE with issues or problems.</p> <p>Bat exclusion is a typical mitigation measure for Projects with potential direct impacts to the roosting bats. This mitigation measure is allowed and encouraged by many agencies, including CDFW, because bats typically utilize multiple roosts in an area that are used as needed. When one roost becomes unavailable, a nearby alternative roost is used.</p> <p>Measures for protecting bat species at Project facilities are included in the Wildlife Management Plan and include pre-construction surveys by a qualified biologist. Should bats be identified during those surveys, a bat exclusion and mitigation plan would be developed and submitted to CDFW for review and consultation.</p>
50	DLA; Appendix A	CDFG	<p>Many of the new environmental measures and plans provided by SCE have yet to be fully described. While CDFW is supportive of the general plans and Protection, Mitigation and Enhancement (PME) measures proposed by SCE, CDFW has not had the opportunity to review and comment on the operational specifics of the new environmental measures and plans. Therefore, CDFW requests the opportunity to provide substantive comments on the plans once available, now listed throughout the Appendix as place holders for further discussion.</p>	<p>Comment noted. SCE held many meetings with agencies, including CDFW to discuss potential PME measures between the filing of the DLA and the filing of this FLA. As management plans were finalized they were submitted to agencies to review. CDFW provided comments on the Wildlife Management Plan, Invasive Species Management Plan and the Botanical Resources Management Plan. A similar comment response matrix for those plans is included in as Table 2 of this Consultation Appendix.</p>
51	DLA; Appendix A	CDFG	<p>The minimum instream flow section should include a summary of the meetings and dialogue between SCE and the RP's regarding resource interests, impacts and PME proposals that have been discussed to date. Although SCE does not propose any changes to the Project, CDFW believes that changes to the minimum instream flows are necessary to protect fish and wildlife resources. CDFW is actively working with SCE and the RP's to identify areas within the Project where minimum instream flows can be altered to closely mimic the natural hydrograph and provide for increased habitat value for fish and wildlife resources.</p>	<p>A discussion of agency goals presented at the March 1 TWG meeting and clarified in subsequent discussion is included in Exhibit E and meeting materials are also included in the consultation record. As described in Section 9.5.5 of Exhibit E, there are no indications of Project effects on aquatic resources; with respect to articulated management objectives and the qualitative goals provided by resource agencies appear to be met with the proposed MIFs (PME-1); Sediment Management (PME-2) and targeted Stocking (PME-3).</p>
52	DLA; Appendix A	CDFG	<p>The gaging plan should include documentation of any gauges (SCE owned or not) within the Project boundary that are not recording data correctly, as well as a plan to fix or replace any of the malfunctioning gauges.</p>	<p>All SCE gages are recording and functioning within expected parameters. Maintaining the existing gages is a FERC requirement and will continue to govern SCE's maintenance plan. As described in Section 5.2.6 of Exhibit E, there are gages that historically collected information</p>

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				that are not part of SCE's ongoing compliance requirements. For example, Coyote Creek (USGS No. 10270960) and Birch Creek below diversion dam (USGS No. 10268282) were only operational for a short time; between 1990 and 1996, and 1995 and 1999, respectively.
53	DLA; Appendix A	CDFG	CDFW is supportive of preparation of a Sediment Management Plan with the goal of reintroducing sediment back into Bishop Creek via flushing flows. Reintroducing sediment into the sediment starved system of Bishop Creek will improve conditions for fish and aquatic resources, including riparian communities, located within the Project area and downstream impact area of the Project. The Sediment Management Plan should include a monitoring plan that documents changes in substrate (e.g., size and distribution), riparian communities (e.g., recruitment, species composition and cover), aquatic resources and fish populations in relation to PME's implemented under the new license (e.g., reintroducing of sediment, geomorphic or peak flows).	SCE has neither documented nor determined Project effects on riparian or fisheries resources. SCE is proposing the Sediment Management Plan to effectively enhance these resources to meet desired conditions of the resource agencies and better support Project operations. SCE is proposing a monitoring effort with goals to confirm that the movement of sediment is conforming to anticipated patterns, based on the mechanics of the sediment release. Monitoring for impacts on riparian or fisheries resources is not proposed.
54	DLA; Appendix A	CDFG	CDFW's fisheries biologist is currently unavailable to provide comments on fisheries related topics but will provide comments on the Stocking Plan and other fisheries related topics within a month of the submittal of this letter	Comment noted.
55	DLA; Appendix A	CDFG	CDFW recommends that the Wildlife Resource Management Plan include a plan for avoiding, minimizing, and mitigating impacts to bat species that could use Project facilities as wintering, night and/or day, and/or maternity roosting sites. This should include 1) rescheduling maintenance activities that could disturb roosting bats to a time when the bats are seasonally absent and 2) consulting with a bat biologist to assess if proposed structural modification activities or other construction activities have the potential to affect bats. Additionally, CDFW headquarters is currently leading an effort to swab bats at multiple locations throughout the state to monitor for the spread of the WNS fungus and the Bishop area is included in the survey locations. Currently WNS has only been detected in Shasta and has not been detected yet in the Eastern Sierra. CDFW recommends the Wildlife Resource Management Plan include a section for coordination between SCE and CDFW on future CDFW WNS surveys. Coordination actions could include providing access to Project facilities and notifying CDFW's sampling program when bats first appear in the Spring in their facilities. The fungus is most easily detected when the bats first come out of hibernation, but lesions heal and fungal spores on their skin are lost when their metabolic rate rises with activity. Keeping records of counts of maternity colonies is also a key goal because the likely consequence of establishment of the fungus in the Sierra is that bats die unseen in unknown hibernating sites and the signal that mortality is occurring will be that bats don't return to maternity roost sites. There are a low number of known summer, winter and maternity roosting colonies in the Eastern Sierra, so access to the known existing colonies is crucial for monitoring of the spread of WNS in California. CDFW supports SCE's plan to continue implementing an Avian Protection Plan (APP), to adhere to a Nesting Bird Management Guide, as well as to conduct pre-activity nesting bird and raptor surveys. Although CDFW has not reviewed the specifics of these plans, CDFW believes that any buffers for special-status birds should be determined through collaborative discussion between SCE, CDFW, the U.S. Forest Service and the United States Fish and Wildlife Service. Currently special-status raptor species known to nest near the Project is the northern Goshawk (0.18 miles north of Birch-McGee Creek Diversion; 0.75 miles south of South Lake Dam). CDFW considers	<p>The Wildlife Management Plan includes measures to protect bat species, pre-construction surveys for bird, raptors and bats, including a discussion on appropriate buffers as well as agency consultation.</p> <p>Major structural changes to any of the powerhouses would be outside the relicensing process and resultant license conditions, meaning any structural changes to the powerhouses would require separate studies and agency consultations.</p>

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			special-status bird species to include species State listed as endangered, threatened, or candidates for these listings; Federally listed as endangered, threatened, or proposed for these listings; State fully protect species; State species of special concern, watch list species; and Forest Service sensitive species.	
56	DLA; Appendix A	CDFG	The FLA should state that any mitigation plans (e.g., seed collection, revegetation) for unavoidable impacts to sensitive or endangered plant or animal species will be reviewed and approved by the U.S. Forest Service and CDFW. The FLA should provide reference to Appendix G Invasive and Special-Status Plants Observed in the Bishop Creek Project Area Map Book.	The Botanical Resources and Wildlife management plans include protection and avoidance measures for sensitive or endangered plant or animal species, including consultation with CDFW and USFS on minimization plans. Appendix G from the DLA is included as Appendix I of this FLA.
57	DLA; Appendix A	CDFG	The Invasive Species Management Plan should provide reference to Appendix G Invasive and Special-Status Plants Observed in the Bishop Creek Project Area Map Book as a reference for invasive species distribution baseline conditions.	The mapbook is included as an attachment to the Invasive Species Management Plan.
58	DLA; Appendix A	CDFG	CDFW will provide review of and comments on the 2017 Mussel Prevention Plan once CDFW has received this plan.	Between issuance of the DLA and this FLA, SCE determined that the Mussel Prevention Plan would not be presented as a new PME. Rather, this is an ongoing measure in response to California Assembly Bill 2065 (now Fish & Game Code §2302 and 14 CCR 672.1). SCE conducted a study of all of their lakes and reservoirs to assess vulnerability to infestation, per in 2009 and 2010. This assessment included water chemistry parameters, lake depth, elevation and water temperature. This company-wide assessment led to the development of the 2017 Mussel Prevention Plan, which is still being implemented across all SCE facilities. No mussels have yet to be identified in any SCE lakes or reservoirs, as noted in the annual reports SCE submits to CDFW by March 31 of each year. For this reason, and because this plan is for all SCE lakes and reservoirs, this plan is not intended to be included as a part of this FERC license.
59	DLA; Appendix A	CDFG	CDFW recommends the addition of the following applicable sections of Fish and Game Code (FGC) to this part of the Final License Application (FLA). CDFW recommends the addition of: FGC §5937 which states the following: "Sufficient Water for Fish Existing Below Dams –The owner of any dam shall allow sufficient water at all times to passthrough a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over a or around the dam to keep in good condition any fish that maybe planted or exist below the dam, when, in the judgment of the department, it is impracticable or determinant to the owner to pass the water though the fishway."	The Initial Statement of the FLA has been expanded to reference FGC § 5937.
60	Comments/Questions in Email Dated May 9, 2022	USFS	Indicate presence/absence of cottonwoods (and specify species of Populus) by reach. (e.g. persisting in the system, distribution is expanding/contracting) (All reaches).	Except for water birch (<i>Betula occidentalis</i>), trends in cottonwoods tend to follow those of other species, including <i>Robinia</i> . <i>Robinia</i> was not observed at the monitoring sites or IFIM reaches upstream of Plant No. 4. However, downstream of Plant No. 4 in Reach No. 2, cottonwood declines appear to be paralleling increases in <i>Robinia</i> abundance. Water birch appears to be the most stream-dependent of all the riparian species and did not appear in the lower section of Reach 2 until at least 10 years after minimum instream flows began in 1994 (the very low values of less than 1 percent cover in 2004 and 2009 do not show in the graph). The other woody riparian species appear to be taking advantage of both stream flows and

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				higher groundwater levels that resulted from minimum instream flows in that reach. Additional details and graphs are provided in Appendix H to this FLA.
61	Comments/Questions in Email Dated May 9, 2022	USFS	Is there evidence of recruitment in other woody riparian species? (Riparian monitoring site transects) Is there evidence of recruitment in other woody riparian species? (Riparian monitoring site transects)	Additional information in response to this comment is provided in Section 9.7.3.2 of Exhibit E of the FLA. The only other woody riparian species on the monitoring sites besides Populus are water birch (<i>Betula occidentalis</i>) and willows (<i>Salix spp.</i>) depending on reach. Searches for seedling beds of all woody riparian species were required as part of the monitoring program, but the data files have seedling records only for black cottonwoods in IFIM Reach No. 5. Water birch and willows expand primarily through multi-stemmed growth and seedlings of these species have not been observed.
62	Comments/Questions in Email Dated May 9, 2022	USFS	How does the trend in cottonwood abundance/structure relate to trends in cover/abundance of other woody riparian species, including Robinia? (Reach 1, 2 and 3, or wherever Robinia occurs)	Based on transect locations, there is no direct evidence that Robinia is outperforming other woody riparian species. Except for water birch, trends in cottonwoods tend to follow those of other species, including Robinia. It is reasonable to assume that if Robinia is left unchecked, eventually it will outcompete other riparian species; however, the measures developed in the Invasive Species Management Plan (Volume II) are intended to address the spread of invasive species, including Robinia. Additional information on the trends of riparian vegetation is included in Section 9.7.3.2 of Exhibit E of this FLA.
63	Comments/Questions in Email Dated May 9, 2022	USFS	How often/what years are there flows high enough such that stream stage accesses surfaces suitable for black cottonwood recruitment? (Reaches 1-5 using stage-change and riparian monitoring data)	Due to limitations of the available gage data, the frequency and corresponding years of high flows was not directly analyzed. However, based on the continued presence of cottonwood in Project reaches, it is reasonable to assume that flows suitable for black cottonwood recruitment have occurred throughout the term of the Project license and will continue to occur, following continued operation and maintenance of the Project.
64	Comments/Questions in Email Dated May 9, 2022	USFS	How often do or when have these high flows coincided with timing of seed production by cottonwood? (~May 1- June 30[1]; example = April 1- Sept 30 [Fremont cottonwood on the Yuba]) (Reaches 1-5 using stage-change and riparian monitoring data)	<p>It can be expected that frequency of such flows is low. It is not known when black cottonwood seed production typically occurs in this watershed, but production of catkins by this species throughout its range in the state is known to be from February through April. Therefore, it can be assumed that seed production probably occurs in the range of May and June.</p> <p>Regardless, the fact that black cottonwoods became established with the Project in operation for over a century suggest that such flows and timing with seed production do happen and have happened under the existing license. As the cover data for lower IFIM Reach No. 2 shows, black cottonwoods became significantly more abundant in this losing reach beginning in 1999, after the minimum instream flow program was implemented. It should be noted that at all monitoring sites, channel incision and gradients are such that high flows are expected to result in scour and loss of any seedlings that may be trying to establish along the banks of the channel itself, therefore unless they can reach groundwater relatively quickly, frequent high flows would be unlikely to favor seedlings. Distribution of the cottonwoods and greater abundance of younger stands in gaining reaches of the creek suggest that infrequency of overbank flows and/or their timing are not necessarily the only hydrologic factors favoring cottonwood establishment. Also, their life history and predominant reproduction via cloning, rather than via seedlings, suggests that successful seedling establishment requires a coincidence of infrequent events even under the best of conditions.</p>
65	Comments/Questions in Email Dated May 9, 2022	USFS	Currently are there fine enough sediments available during these high flows to provide soils for seedling (or fragment) establishment? (Reaches 1-5)	We have not quantified this but deposition of fine sediments would be expected to occur during low flows, not high flows. The foundation of the sediment management plan assumes that movement of sediment into bypass reaches will be achieved by lowering the intake

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				reservoirs so that the high flows (whether released or natural) can scour and sluice material from the intake.
66	Comments/Questions in Email Dated May 9, 2022	USFS	Is the recession rate/ draw down rate, less than or equal to 2.5 cm/day and is it sustained throughout the growing season (~May 1- Sept 15[1])? (rate of root growth to follow groundwater recession) Some years? All years? Where? (Reaches 1-5)	We have not quantified the existing recession rate to that fine a scale; but current operations prioritize bringing flow into operational control as quickly as possible following a spill event. What this means is that SCE would seek to preserve storage by re-establishing the minimum instream flows.
67	Comments/Questions in Email Dated May 9, 2022	USFS	1. What is the height structure (surrogate for ~age) of cottonwoods at each riparian monitoring site transect with cottonwoods? Number of individuals? What is the trend? (All riparian monitoring sites)	<p>Height data for all <i>Populus</i> species detected in the transects are graphed Appendix H (Volume II). Data for the baseline years are indicated by unfilled columns. All <i>Populus</i> are primarily clonal, therefore "individual" had no meaning for the purpose of data collection. Instead, the number of data records is shown for each height category.</p> <p>The species of <i>Populus</i> varies by reach but in general, trees taller than approximately 3 meters are relatively scarce. Where taller trees do occur, they tend to be in the hydrologically "gaining" reaches. In terms of trends over time for sites that have data through the most recent monitoring year (2019), results vary by reach. In the lower section of Reach No. 2, fewer small and more large black cottonwoods were observed in 2019 compared to previous years. In the upper section of Reach No. 2, small Fremont cottonwoods were observed beginning in the 1999, 5 years after the minimum instream flow program was implemented but were not observed after 2009. As can be seen in the graph of cover for the upper section of Reach No. 2 in the previous section, 2009 was the year when Robinia first appeared at the site. However, damage from beaver activity was noted in that year. In IFIM Reach No. 5, small black cottonwoods continued to be present in the transects in 2019, but fewer records of them compared to previous years. Supplemental information relating to the height structure of cottonwoods is provided in Section 9.7.3.1 of Exhibit E of this FLA. Additional details and graphs are provided in the Appendix H, Volume II to this FLA.</p>

TABLE 2: COMMENT RESPONSE TABLE FOR MANAGEMENT PLANS

Table 2 Comment Response Table: Management Plans

Comment Number	Plan/Measure	Entity	Comments	SCE Response
1	Wildlife and Botanical Resources Management Plans	CDFW	Increased human presence, noise, vibration, and light as well as modifications to existing roosts can lead to disturbance of roosting bats, and increased stressors on bats can increase their susceptibility to white nose virus thereby increasing their chances of mortality. Disturbance of bats can result in premature roost abandonment and mortality. Exclusion of bats from historic roosts can lead to bat mortality.	The Bishop Creek Project including powerhouses have operated for over 100 years. Bat roosts are currently known in locations that have been subject to noise, vibration, and human presence for that length of time. Therefore, these conditions are considered existing conditions under which bats are continuing to roost at some Project locations. It is important to note that white nose syndrome (WNS) has not been recorded in bats in either Mono or Inyo counties. Surveys by local bat expert Dr. M. Morrison confirmed that WNS is not present. Bats typically use and move amongst more than one roost in an area (Ruczyński and Bartoń, 2020 for roost switching, Willis and Brigham 2004 for Eptesicus fuscus, Brigham et al. 1997 for M. californicus, Randall et al. 2014 for M. lucifugus; Kunz 1982 for bats in general; H. T. Harvey & Associates 2004 for mitigation). The Bishop Creek Watershed provides thousands of acres of rocky outcrops, caves, mines, snags, hollow trees, and other man-made structures that provide bats with alternative roosting opportunities. Typically, if a roost becomes unavailable, bats will move to and occupy another roost site in the area.
2	Wildlife Resources Management Plan	CDFW	CDFW recommends the following measures be included in the Wildlife Management Plan (see comments 3-10):	SCE has included a section on bats to the Wildlife Resource Management Plan and included those measures as outlined in response to comments 3-10.
3	Wildlife Resources Management Plan	CDFW	Consultation with a bat biologist prior to conducting any construction work within the Project boundaries.	Agreed. If proposed future construction or maintenance to a Project facility structure(s) known or suspected to be used by bats for day roosting, SCE will consult with a qualified bat biologist to survey the site prior to construction. And if occupied the biologist will prepare a bat exclusion/mitigation plan for SCE to implement. The plan will be provided to the USFS and CDFW for review prior to the start of bat exclusion activities. All bat exclusion/mitigation activities will be performed by a qualified bat biologist holding appropriate USFWS and CDFW permits and MOUs.
4	Wildlife Resources Management Plan	CDFW	Exclusion of bats from the Project facilities requires working with a qualified bat biologist. If there is a need to exclude bats from the Project, SCE would consult with a bat biologist to develop a bat exclusion plan and appropriate avoidance, minimization and mitigation measures. An example of potential mitigation measures is - in coordination with a bat biologist - constructing bat houses outside of the Project facilities to provided new bat roosting habitat.	Agreed. Refer to Response #3.
5	Wildlife Resources Management Plan	CDFW	Conduct pre-activity surveys for roosting bats prior to any construction or maintenance activities in those parts of the Project area that provide suitable roosting habitat (vegetation, structures such as buildings, tunnels, dams).	Agreed. Refer to Response #3.
6	Wildlife Resources Management Plan	CDFW	If roosting bats are present within a facility that could be affected by maintenance activities, the activities should be evaluated to determine if the associated noise, vibration or light could result in disturbance to roosting bats. If there is potential for disturbance or roosting bats, a bat biologist should be consulted, and maintenance activities may need to be rescheduled to after the bats have left the roost for the season.	Agreed. Refer to Response #3.
7	Wildlife Resources Management Plan	CDFW	Maternity colonies can be very sensitive to disturbance, especially when they have dependent young. Even very brief disturbances could cause bats to abandon their roosts and result in mortality to their young. To avoid impacts to maternity colonies, all maintenance activities and construction should be rescheduled outside of the bat roosting season to avoid impacts to bat maternity colonies.	Agreed. Refer to Response #3. Additionally, if possible, SCE will post-pone the activity until the pups are mature enough to be on their own and the maternity season is completed. This language has been added to the Wildlife Resources Management Plan bat section.
8	Wildlife Resources Management Plan	CDFW	Any construction or maintenance activities that will result in modifications to roost sites can have significant impacts on the roosting bats. Reduction in the size of roosts, occlusion of entrances to roost sites, changes in flight path and other modifications can change airflow, humidity and temperature of roosts and result in roost abandonment and bat mortality.	Agreed. Refer to Response #3.
9	Wildlife Resources Management Plan	CDFW	Surveys will be conducted by a qualified biologist holding all required scientific collecting permits from CDFW or a valid 10(A) permit from the USFWS if needed for target species. Field surveys will be conducted using currently accepted protocols.	Agreed. Should surveys for bats be needed, a qualified bat biologist holding the appropriate permits will be consulted. This requirement has been added to the Wildlife Resources Management Plan.

Comment Number	Plan/Measure	Entity	Comments	SCE Response
10	Wildlife Resources Management Plan	CDFW	Any data collected on bats will be provided during the Annual FERC Agency meetings and provided to the agencies upon request.	Agreed. Should any data on bats be collected by SCE during the year, it would be shared at the annual meeting.
11	Wildlife Resources Management Plan; Avifaunal Measures	CDFW	CDFW to date has not received SCE's Corporate-wide Avian Protection Plan (APP) and SCE's Nesting Bird Management Plan (NBMP) for Small Projects and therefore cannot provide comments on the definitions and guidance provided in these documents.	SCE filed the APP as Appendix C to the General Wildlife Resources Final Technical Report, found in Volume III (one of four) of the DLA. Both the APP and NBMP are included as attachments to the Wildlife Management Plan as part of the FLA.
12	Wildlife Resources Management Plan; Avifaunal Measures	CDFW	CDFW recommends that any buffers established for protection of nesting birds or to protect special-status bird species should be determined through collaborative discussion amongst SCE, CDFW, USFS, and the USFWS as necessary.	Buffers are prescribed in Table 1 of the NBMP (Attachment to the Wildlife Management Plan) and will be followed as appropriate and as determined by the biologist. Typical survey buffer would be 300 feet depending on the activity.
13	Wildlife Resources Management Plan; Nesting Season Protection Measures	CDFW	CDFW agrees that a strict beginning and end date for the nesting bird season is not practical as climate change is affecting nesting periods and should instead be determined by a qualified biologist on an annual and per project basis taking into account bird species, project elevation and other seasonal variables.	Agreed. Text in the Wildlife Management Plan has been modified.
14	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	CDFW suggests general nesting bird and raptor surveys be conducted no less than 14 days prior and again no more than 3 days prior to Project implementation to ensure no new nests were established since the first survey.	SCE has modified language in the plan to clarify that these surveys are dependent on the nature and timing of the project; SCE provides annual environmental awareness training to the Bishop Creek Hydro personnel. The training covers nesting birds, and threatened and endangered species, and procedures to follow if any are observed. Standard O&M activities, which are covered under this Plan include basic vegetation trimming and hazard tree removal, with typical activities occurring in developed and previously disturbed areas. SCE O&M crews are trained to identify nests and if seen, consult with the SCE Environmental Manager. For new projects or non-routine activities, measures such as nesting bird surveys would be implemented at the direction of the Environmental Manager
15	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	The nesting bird survey radius should be determined by a qualified avian biologist and be based on a per project basis (i.e., a project that could result in the removal of larger diameter trees or removal of larger areas of vegetation may require the survey buffer to increase).	Refer to response #14. Buffer sizes are included in Table 1 of the Nesting Bird Guidelines for Small Projects, and these were developed by a qualified biologist. The guidelines will be consulted for non-routine O&M activities. That document will be attached to the Wildlife Resources Management Plan.
16	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	If an active nest is discovered, the nest tree is flagged, and the biologist has determined the appropriate avoidance buffer, all personnel onsite should be notified of the nest and its location, as well as of the avoidance buffer.	The NBMP provides guidance for active nest monitoring including the size of buffers depending on the species being monitored. The Wildlife Management Plan has been modified to incorporate some of that document's language for non-routine O&M activities.
17	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	SCE states that "During Project operations and maintenance activities, SCE will provide a monitor, on a periodic basis, to watch the nest for disturbance" If there is an active nest on or near the Project site that could be impacted from Project activities, a qualified biologist should be onsite daily during all Project activities near the nest to observe the nest status and behavior and determine if buffers need to be changed or Project activities need to be halted.	The NBMP provides guidance for active nest monitoring. Monitoring conducted for non-routine O&M activities will vary from daily as needed depending on the nature of work activities, location of nest, and the species nesting. The management plan has been clarified that these measures are to be implemented for non-routine maintenance activities. Staff are also trained to consult with the Environmental Manager when nesting is encountered during routine maintenance
18	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	SCE states that "The monitor, if not a biologist, will be trained by a biologist prior to the start of activities. The monitor will inform the biologist of observation at the end of each day monitoring occurred." CDFW recommends that the monitor be a trained biologist with sufficient previous experience in conducting nest surveys and nest monitoring.	SCE trains its operations personnel to spot and report nesting birds. The Wildlife Management Plan has been revised to reflect this comment.
19	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	SCE states that "Trees that contain raptor nests shall not be removed or trimmed, unless a qualified biologist determines that the nests are inactive or abandoned. Trees that contain raptor nests shall not be removed or trimmed, unless a qualified biologist determines that the nests are inactive or abandoned. The USFS and CDFW will be notified of the removal of abandoned or inactive raptor nests." Many raptors exhibit high site and nest fidelity and will reuse the same nest year after year.	SCE understands that many species of raptors have high site fidelity. The NBMP provides guidance for raptor nests on non-routine O&M activities and projects. The language in that plan has been incorporated into the Wildlife Management Plan.

Comment Number	Plan/Measure	Entity	Comments	SCE Response
20	Wildlife Resources Management Plan; Nesting Birds and Raptors	CDFW	Northern goshawks will often reuse and repair nests from previous years or will use nests of other accipiters. Removing raptor nest that are not currently in use can impact their reproductive success and CDFW recommends avoiding the removal of all raptor nests regardless of their status. If a raptor nest is confirmed to be abandoned and must be removed, CDFW recommends that USFS and CDFW are consulted prior to removal and the methods for confirming the nest was abandoned are shared. SCE should specify how and when USFS and CDFW will be notified of the removal of abandoned or inactive raptor nests.	SCE is aware of raptor nest site fidelity and will not remove known nests unless unavoidable. The Nesting Bird Management Plan for Small Projects provides guidance for active and inactive raptor nests. The Wildlife Management Plan has been modified to incorporate some of that document's language germane to raptor nests. The plan currently does not include prior notification procedures but has been modified to clarify that notification via email to CDFW and the USFS of removal of abandoned nests will be made within 14 days.
21	Wildlife Resources Management Plan; Mule Deer Measures	CDFW	SCE should state if there is a maintenance schedule implemented to ensure the guzzlers are in good working condition. If wildlife are dependent on these guzzlers SCE should ensure that they are quickly aware of and repair any issues promptly.	Wildlife Crossings and Guzzlers are maintained two times per year. SCE makes them ready for summer, winterizes them and performs some small repairs during the year. This has been clarified in the Wildlife Management Plan.
22	Wildlife Resources Management Plan; Protective Measures	CDFW	CDFW recommends that any Project activity that requires a qualified biologist to be onsite, should also include a Worker Environmental Awareness Training be provided to all staff by the qualified biologist, prior to the initiation of Project activities.	SCE provides annual environmental awareness training to the Bishop Creek Hydro personnel. The training covers nesting birds, and threatened and endangered species, and procedures to follow if any are observed. Prior to individual O&M activities that could affect special status resources SCE will have a qualified biologist prepare and deliver a training to the work crew.
23	Wildlife Resources Management Plan; Special Status Species Measures	CDFW	The federal status for Sierra Nevada red fox (<i>Vulpes vulpes necator</i>) is described as candidate in Appendix A, however, it's federal listing status was upgraded to federally endangered in September 2021 (see Federal Register documentation here). The Likelihood for Occurrence/Occurrence Notes for the Sierra Nevada red fox should be updated to "known to occur." Sierra Nevada red fox were detected in the Upper Lamarck Lake drainage during 2020 and 2021 surveys, including a detection 2.2 miles west of the Sabrina Lake Dam. Based on recent photo and scat detections, CDFW considers Sierra Nevada red fox to be likely distributed relatively continuously along the Sierra crest between Ebbetts Pass and Bishop Pass.	Noted. The status and occurrence has been revised in the Wildlife Management Plan.
24	Invasive Species Management Plan; Invasive Plant Species General Best Management Practices	CDFW	CDFW recommends that SCE include a measure that states if herbicide treatment needs to occur around waterways, SCE will only use herbicides that have been certified for use in aquatic systems.	Agreed. Text in the Invasive Species Management Plan has been revised to make this clearer.
25	Botanical Resources Management Plan	CDFW	CDFW recommends that SCE prepare a Riparian Monitoring Plan in addition to the provided Botanical Resources Management Plan. This Riparian Monitoring Plan should include a plan to monitor the changes of the riparian community (i.e., age structure, invasive species, recruitment, species diversity) as a result of any changes to the sediment regime (i.e., reintroduction of sediment trapped in intakes or behind dams) or flow (i.e., changes in minimum instream flow or geomorphic/peak flows) determined during Relicensing. Baseline surveys and annual follow up surveys will be necessary at riparian monitoring locations to document and determine impacts of the Project to the riparian and to guide adaptive management adjustments to protect the riparian community.	Riparian monitoring conducted as a requirement of the existing license has shown increases in riparian and wetland vegetation cover and diversity after the minimum instream flow program was implemented in 1994. These increases were significant between Power Plant No. 4 and No. 5 and downstream of the McGee Creek diversion, all of which had an ephemeral hydrologic regime prior to implementation of the flow release program. The goals of the riparian monitoring program have been met, having demonstrated that the system has responded well to the flow regime. Changes to the flow characteristics of Bishop Creek as a result of PME-1 include geomorphic flows in wet years and minor changes in Minimum Instream Flows. These changes are expected to have a negligible (or positive) effect on riparian conditions. Given the overall health and robustness of the riparian community along Bishop Creek, SCE does not propose to continue riparian monitoring under the new license.
26	Botanical Resources Management Plan; Purpose and Intent	CDFW	The purpose and intent should also include determining whether a proposed action could impact riparian communities and sensitive natural communities, and then avoiding, minimizing and mitigating impacts.	SCE agrees that riparian and sensitive plant communities' impacts should be avoided if possible, if not minimized. SCE's routine O&M typically approaches work areas along existing access roads and foot trails. Ground disturbance for most O&M functions is usually less than 0.001 acre because the maintenance sites are repeatedly accessed year after year. SCE only utilizes the minimum area necessary to perform any O&M function. Plant communities have been added into the Botanical Management Plan, based on the USFS plant community maps and in response to this comment.

Comment Number	Plan/Measure	Entity	Comments	SCE Response
27	Botanical Resources Management Plan; Bishop Creek Special Status Plant Species	CDFW	This section should include a list of all the sensitive natural communities within the Project boundary.	Refer to Response # 26. Text has been adjusted where appropriate.
28	Botanical Resources Management Plan; Goals and Objectives of This Management Plan	CDFW	The goals and objectives for the Botanical Resources Management Plan should also include measures to avoid, minimize and mitigate impacts to riparian vegetation in the Project boundary. Many riparian communities are considered sensitive natural communities ¹ , including aspen (<i>Populus tremuloides</i>) stands. There are several large aspen stands throughout the Project boundary, with aspen dominating the South Fork of Bishop Creek (see Attachment 1). If avoidance, minimization, and mitigation measures for riparian communities are included in a separate SCE document, it should be referenced here and the document should be provided to the Technical Working Group members for review.	SCE agrees that riparian and sensitive plant communities' impacts should be avoided if possible and if not, minimized, and the measures reflect this intent. The text and goals statements don't contain measure, <i>per se</i> . Refer to Responses #25 and 26 for additional information.
29	Botanical Resources Management Plan; Measures	CDFW	Sentence should state that "For all routine O&M activities, SCE Operations staff shall contact the SCE Environmental Manager for Bishop Creek to determine if any special-status plant species or their habitat could be affected by the planned activity" (bold and italic words are additions).	The intent of this Botanical Resources Management Plan is to provide guidance to undertake routine O&M measures as informed by the Botanical Resources Studies and to provide a mechanism for ensuring non-routine activities are reviewed. Because annual training is provided for SCE Operations staff, the SCE Environmental Manager would only be notified for non-routine activities.
30	Botanical Resources Management Plan; Pre-activity Consultation	CDFW	CDFW to date has not received SCE's Vegetation Operations Management Manual and therefore cannot provide comments on the guidance and policies provided in this document.	Upon review and discussion with the technical working group, select text from the Vegetation Operations Management Manual (VOMM) has been included in the Botanical Resources Management Plan where appropriate. The VOMM is no longer referenced in the Botanical Management Plan and will not be distributed as part of the FLA.
31	Botanical Resources Management Plan; Pre-activity Investigation	CDFW	The Pre-Activity Investigation Report should include all information required in the Reporting and Data Collection (Section 3) of the Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.	Agreed. Text has been added in section 4.2.2 to clarify that surveys conducted for non-routine activities includes all information required in the Reporting and Data Collection of the Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. subsection of the Botanical Resources Management Plan.
32	Botanical Resources Management Plan; Protective Measures	CDFW	Avoidance measures should also include 1) pre-Project planning and design, 2) establishment of buffers, 3) evaluating a no-Project alternative.	This management plan is intended to protect sensitive botanical resources from impact during SCE's routine O&M activities. These activities may include small projects that still qualify as O&M. For non-routine activities, the Botanical Management Plan includes pre-activity literature review and field surveys that are part of the pre-activity planning. The Botanical Management Plan also provides for the measures to facilitate avoidance in Section 4.2. In general, a "no-Project" alternative is not evaluated.
33	Botanical Resources Management Plan; Protective Measures	CDFW	On-site mitigation for Project impacts should include the development of a Mitigation Monitoring plan that details the maintenance and monitoring of the mitigation site to ensure its success.	Most O&M activities take place in previously disturbed areas in and around SCE facilities. In most cases "natural" vegetation is not affected or is affected slightly so that natural regrowth is allowed following the work. Should a future project impact natural vegetation and the biologists determine that natural regrowth would likely be unsuccessful, a mitigation monitoring plan would be developed. Text in Section 4.2 of the Botanical Management Plan was revised to clarify this intent.
34	Botanical Resources Management Plan; Protective Measures	CDFW	Transplanting of rare plants, artificial propagation, seed transfer of rare plants or rare plant habitat restoration likely will not fully mitigate impacts to rare plants and their habitat. Rare plants usually have specialized and poorly understood habitat requirements that make it hard to replicate and successfully mitigate impacts to rare plants. Project activities should always be planned to fully avoid impacts to rare plants.	Agreed. However, avoidance is not always possible. For this reason, the Botanical Management Plan provides for mitigation. Translocation is one option, also seed collection, and if needed consultation with resource agencies.

Comment Number	Plan/Measure	Entity	Comments	SCE Response
35	Botanical Resources Management Plan; Appendix A Special Status Plant Species - Table A-1	CDFW	This table should include all the sensitive natural communities within the Project boundary.	Table A-2, an attachment to the Botanical Management Plan was developed in response to this comment. A written description of each community is also provided in that table.
36	Annual Meeting Agenda	CDFW	CDFW requests that the agenda for the Annual Meetings with USFS and CDFW include a list of all the deliverables (e.g., reports including nesting bird survey, findings, monitoring) that SCE states will be provided in the Annual Meetings. The associated governing document for each item (e.g., Page 10 of Bishop Creek Wildlife Resources Management Plan) should also be included along with each deliverable in the agenda.	Agreed. It should be noted that the items provided will depend on the timing of the Annual Meeting and activities conducted up until that date.

References

- Brigham, R. M., M. J. Vonhof, R. M. R. Barclay, and J. C. Gwilliam. 1997. Roosting behavior and roost-site preferences of forest-dwelling California bats (*Myotis californicus*). *Journal of Mammalogy*, 78: 1231 -1239.
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- Randal, L. A., T. S. Jung, and R. M. R. Barclay. 2014. Roost-site selection and movements of little brown myotis (*Myotis lucifugus*) in southwestern Yukon. *Northwestern Naturalist*, 95: 312 -317.
- Ruczyński, I. and K. A. Bartoń. 2020. Seasonal changes and the influence of tree species and ambient temperature on the fission-fusion dynamics of tree-roosting bats. *Behavioral Ecology and Sociobiology (2020)* 74: 63. 8 pp.
- Willis, C. R. And R. M. Brigham. 2004. Roost switching, roost sharing and social cohesion: forest-dwelling big brown bats, *Eptesicus fuscus*, conform to the fission-fusion model. *Animal Behaviour*, 68, 495 – 505.

**COMMENT LETTERS RECEIVED FOR THE DRAFT LICENSE APPLICATION AND
DRAFT MANAGEMENT PLANS**

File Code: 2770

Date: 04-15-2022

To: Kimberly D. Bose Secretary, Federal Energy Regulatory Commission

888 First Street, NE Washington DC 20426

Dear Secretary Bose:

This document is in response to Southern California Edison Company (SCE or Licensee) January 27, 2022, filing of the Bishop Creek (FERC #1394) "Draft Application for New License" (DLA). This response is in compliance with the Integrated Licensing Process regulations at 18 Code of Federal Regulations Part 5 §5.16 "Preliminary Licensing Proposal". Specifically, this response provides comments on the three volumes that comprise the DLA including: initial statement, exhibits, appendices, and technical reports. This response is filed by the Inyo National Forest to provide comments and concerns as they relate to resource protection of National Forest System lands and resources, as provided for in the Federal Power Act.

While our comments include concerns with missing components of approved study plans or request clarification of existing data, we do not request modification of existing studies or new studies at this time. Therefore, we do not address the FERC modified or new study criteria at 18 CFR §5.15 (f). Since all of the study information is not currently available, we maintain our ability to comment on completed study information as it becomes available. In that regard, we note some study reports have elements that are still not complete, and when they are finalized, there will be another opportunity to comment on updated information. There may not be sufficient information for the Forest Service to make informed decisions until all studies are complete.

In some other proceedings, Forest Service study proposals, additional information requests or recommendations for clarification have been denied by the Licensee, with some denials upheld by FERC. When later decisions were needed for those resources where the Forest Service felt there was insufficient information, we relied on our best professional judgment. In some of those cases the Licensee stated that there was insufficient data for Forest Service decisions based on professional judgment. This circular disagreement has resulted in hearings, disputes and other untenable situations. We state for the record that if Forest Service-requested information or clarification is not provided by the Licensee and we later use professional judgment to interpret the limited information, we do not believe the Licensee can use "lack of information" as a reasonable justification for disagreeing with Forest Service proposed mitigations.

The collaborative meetings, to discuss information released to date and begin development of mitigations for resources affected by Project operations, have been productive. We are optimistic that we will reach consensus decisions on this relicensing and look forward to continued discussions with the Licensee and other relicensing participants. We appreciate this opportunity to provide comments on the Licensee's DLA.



If you have any questions, please contact Sheila Irons, Inyo National Forest FERC Coordinator, at sheila.irons@usda.gov or 760-965-9609.

2

Sincerely,

LESLEY YEN, Forest Supervisor
Inyo National Forest

Attachment 1

Forest Service Comments on SCE's Draft License Application and Adequacy of Studies for

Bishop Creek Hydroelectric Project No. 1394

The Forest Service (FS) provides the following comments, differences of interpretation of study results, and adequacy of studies to SCE's (Licensee's) January 27, 2022 Draft License Application (DLA). We would appreciate these comments being addressed in the Final License Application (FLA) or other response document, as appropriate. Since these comments do not request either new studies or modify existing studies, we do not address the 18 Code of Federal Regulations, Part 5, §5.15 (f), as it is inapplicable.

We note for the record that many reports are still in the process of being refined or completed and much of the measures proposed are generic plan proposals that have yet to be fully developed. While this response provides some indications where we may differ with the Licensee's interpretation, on the whole we are in general agreement with SCE's approach and direction towards meeting various resource goals and interests as well as their openness to engage in collaborative dialogue towards resolution. Comments reference the corresponding text from the DLA for ease in cross-referencing.

Volume I

Executive Summary, Initial Statement, Exhibits A, B, C, D, E, F, G, H

ES Initial Statement

2.3 Hillside Dam

Page 3:

The text states that, *Hillside dam is an 810 foot-high rockfill dam completed in 1910, to enlarge an existing natural lake.* Impoundment at Hillside creates the South Lake Reservoir, which provides storage for the Project and recreational opportunities. We agree that South Lake provides desirable recreation opportunities, however, the studies and DLA do not quantify or enumerate these opportunities in sufficient detail to discern what contribution or impact the Project is having relative to a no-project scenario. We raise this issue because SCE has compared "without project" scenarios during recreation discussions to argue that certain opportunities would have occurred without the Project. Since the DLA does not provide historical information on the recreational opportunities supported by the pre-project lakes, we cannot necessarily agree or disagree with speculation about what would have occurred at South Lake (or Sabrina) without the Project.

Further, in describing the dam itself, SCE notes that:

The upstream face of the dam is covered with redwood timber and a polyvinyl chloride (PVC) membrane liner, which serves as the impermeable barrier. The first 1966 Safety Review report notes that in the original 1910 construction, the upstream rock facing was covered with a timber facing composed of 3-inch by 12-inch native, rough-sawed lumber. The original plank facing was completely removed in 1930 and replaced with several layers of 3-inch by 12-inch and 2-inch by 12-inch redwood planking. In 1960 the redwood facing was judged to be in generally sound condition, despite some surface weathering. Leakage had not increased noticeably. To arrest the weathering, a 2-inch-thick coating of redwood lumber was nailed over the 1930 facing. In 2011, a geomembrane liner was installed over the redwood facing to cover and waterproof the entire upstream surface.

It is assumed that the competency of the redwood elements that comprise this dam (and the dam at Lake Sabrina) are still in “generally sound condition,” though the most recent reference is from 2011. SCE should provide the most current inspection reports to clarify the status of this feature, and for other older redwood features found throughout the Project.

2.3 Longley Lake

Page 13:

The text states that, *Longley Lake is operated as secondary store and release facility for water storage and downstream hydropower generation of electricity. Longley Lake dam discharges water to McGee Creek, where it flows over 1 mile before being intercepted by the McGee Creek diversion.* This description does not explain how water is released, whether via spillway, low level outlet, or other feature/operation, nor does it provide information about the capacity to make releases into McGee Creek. SCE should provide this information.

7.0 Project Boundary

Page 27:

This section is notated that, *SCE is currently consulting with land management agencies on proposed changes to the Project boundary and conducting internal research to confirm land ownership in various areas [for Exhibit G]. A detailed description of federal lands within the proposed Project boundary will be provided in the Final License Application.* While the Forest Service has reviewed the Exhibit G submittal in the DLA, it will await the FLA for final review. Updated sections or changes should be clearly notated in the FLA.

Exhibit E

Page 8-154:

The Plant Communities discussion describes Canyon Live Oak generally, but there are no Canyon Live Oaks within Bishop Creek or Project.

Page 8-155:

Whitebark Pine is incorrectly referenced, it is an ESA Proposed Threatened species (as of December 2020), not a SCC species.

Page 8-174:

The description of the riparian study plan (TERR-1) does not allow for meaningful dialogue over resource impacts or findings. Discussion should include a more comprehensive summary of findings and how each resource was addressed in TERR-1.

Page 8-185:

SCE should clarify for TERR 1, whether in its view, the decline observed for Black Cottonwood abundance is within the NR could be related to project operations. The results in section 8.7.5.1 are for riparian vegetation overall, not specifically for Black Cottonwood.

Page 8-185:

SCE should provide rationale for how the study results demonstrate that observed declines of Black Cottonwood are not related to project effects.

Page 8-186-187:

This section should explain the potential link between Black Cottonwood and proposed sediment release and flushing flows, which are expected to benefit Black Cottonwood and other woody riparian plant recruitment.

Page 8-191:

Whitebark Pine, an ESA proposed Threatened species, occurs in Bishop Creek and within the vicinity of the project. It should be identified as being present within the Project area.

Page 8-194:

IPaC (USFWS) consultation regarding plants should be documented/recorded. Reporting should include Whitebark Pine in the project area. The other databases described in this section do not currently track Whitebark Pine.

Page 8-208:

Section 8.8.8.1 should be revised to include an analysis of effects to Whitebark Pine.

Exhibit G

Describes Forest System Road (07S110) as *proposed project access*. This road is outside of the current project boundary. SCE should provide information about the use of this or other roads described as *proposed project access* to inform management and maintenance considerations for the FLA.

Exhibit E - Appendices A-I

Appendix A 1.0:

New Environmental Measures describes Potential Mitigation and Enhancement Measures (PME's), many of which are listed as plans that have yet to be fully described. While the Forest Service is supportive of the suite of plans proposed by SCE, we have yet to agree or discuss the operational specifics of such plans. Thus we are unable to provide substantive comments on the plans listed throughout the Appendix, that serve as placeholders for further discussion. In general, we are supportive of the overall goals as outlined by SCE.

PME-1: Minimum instream flow section should include a summary of the meetings and dialogue between SCE and the agencies regarding resource interests and impacts and PM&E proposals to date.

PME-3: Should be updated to include the more specific sediment operational proposal post-DLA issuance that has been discussed, and include a discussion about resource goals beyond project maintenance to also include riparian vegetation recruitment and health.

PME-6 and PME-7: SCE should provide a copy of its *Vegetation Management Operations Manual* to clarify the applicability of these procedures towards addressing vegetation management in the Bishop Creek license area.

Appendix E: These maps include the CalVeg type "Subalpine Conifer- SA" which lists Whitebark Pine as one of the component species, which provides support for Whitebark Pine being present in the project area. The analysis should be revised to include this information.

Appendix F, Table F-1: Whitebark Pine should be included in this table as "Known to Occur."

Appendix G: Please clarify whether the mapped observations for invasive and special status plants are based on the license area surveys from 2019 and 2020, or whether they are based on all available datasets/databases.

Appendix H: These maps include the CalVeg type "Whitebark Pine-WB", providing further support for Whitebark Pine being present in the project area. The analysis should reflect the this information.



State Water Resources Control Board

April 26, 2022

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426
Via e-filing to FERC Docket

COMMENTS ON DRAFT LICENSE APPLICATION FOR THE BISHOP CREEK HYDROELECTRIC PROJECT FERC PROJECT (FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 1394)

Dear Secretary Bose:

Southern California Edison (SCE) currently owns and operates the Bishop Creek Hydroelectric Project (Project), also referred to as Federal Energy Regulatory Commission (FERC) Project No. 1394. On January 27, 2022, SCE filed a draft license application for the relicensing of the Project.

State Water Board staff appreciates SCE's continued engagement with interested parties during the relicensing process. Working collaboratively with all interested parties, where possible, often allows for expedited resolution of issues and results in environmental benefits.

State Water Board staff appreciates the opportunity to provide comments on the draft license application for the Project. Please see Attachment A for the State Water Board's comments.

If you have questions regarding this letter, please contact Philip Meyer, Project Manager, by email at Philip.Meyer@waterboards.ca.gov. Written correspondence should be directed to:

State Water Resources Control Board
Division of Water Rights – Water Quality Certification Program
Attn: Philip Meyer
P.O. Box 2000
Sacramento, CA 95812-2000

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

Sincerely,

Philip Meyer
Environmental Scientist
Water Quality Certification Program
Division of Water Rights

cc:

Wayne Alen
Principal Manager
Southern California Edison
1515 Walnut Grove Ave.
Rosemead Ca, 91770
Wayne.Allen@SCE.com

Mathew Woodhall
Project Lead
Southern California Edison
1515 Walnut Grove Ave.
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Tristan Leong
Hydroelectric Coordinator
US. Forest Service -Region 5
1323 Club Drive
Vallejo, CA 94592
Tristan.Leong@USDA.com

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD COMMENTS ON THE DRAFT LICENSE APPLICATION FOR THE BISHOP CREEK HYDROELECTRIC PROJECT FERC NO. 1394

State Water Resources Control Board (State Water Board) staff are providing the following comments on Southern California Edison's (SCE) Draft License Application for relicensing Bishop Creek Hydroelectric Project (Project):

1. Exhibit A, page 21, Table 4.4-1 states the total Rated KW for powerhouse 2 is 7,320, it should be 7,820.
2. Exhibit A, page 21, Table 4.4-1, the Generator KW for powerhouse 6 is not listed.
3. Exhibit A, page 22, Table 4.4-1, the Total Project Generator KW should be 29,657, and the Total Project Rated KW should be 29,422.
4. Please ensure that Exhibit B, page 3, Table 2.5-1 correctly matches the updated generation capacities in Exhibit A, page 21 and 22, Table 4.4-1.
5. Exhibit E, page 5-42, Section 5.5.1.2 Water Rights is blank and does not include any information regarding water rights associated with the Project. Please complete this section.
6. Exhibit E, page 6-1, section 6.5, the first paragraph is repeated twice.
7. Exhibit E, page 8-1, section 8.1, the second paragraph ends without identifying which table contains the issues identified by the Federal Energy Regulatory Commission and the Technical Working Group, please add the table number.
8. Exhibit E, page 8-74, Table 8.4-17 should include a column that identifies the specific use for each water right.
9. Exhibit E, page 8-92 states that the State Water Board undertook a water quality monitoring effort in Bishop Creek as a part of the Surface Water Ambient Monitoring Program (SWAMP) from 2013 – 2016 and that the results of this monitoring effort can be found in Table 8.4-25; however, Table 8.4-25 presents 1986 depth profiles for Lake Sabrina. The SWAMP monitoring results are presented in Table 8.4-30, please update this section to reflect the accurate table number.
10. Exhibit E, page 6-1, Table 6.5-1 *Summary of Environmental Measures and Plans Under the Proposed Action* states that Protection, Mitigation and Enhancement (PM&E) measure 1 will be modified under the proposed action, however, PME-1 in Appendix A states that SCE will continue to maintain current instream flow requirements. Please add a description of the proposed modifications to Appendix A.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

11. Exhibit E, section 6, please fix page numbers.
12. Please include a record of consultation with State Water Board staff and other interested parties as a requirement in the final PME-3 Sediment Management Plan.
13. Proposed PM&E measures for the Project are still being finalized in consultation with relevant agencies such as the United States Forest Service, United States Fish and Wildlife Service, State Water Board, and the California Department of Fish and Wildlife. Therefore, State Water Board staff will not be able to fully evaluate the Project's environmental effects or proposed PM&E measures until provided with the Final License Application.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426
April 27, 2022

OFFICE OF ENERGY PROJECTS

Project No. 1394-080 – CA
Bishop Creek Hydroelectric Project
Southern California Edison Company

VIA Electronic Mail

Mr. Matthew Woodhall
Bishop Creek Licensing Project Manager
Southern California Edison
Matthew.Woodhall@sce.com

Reference: Comments on Draft License Application

Dear Mr. Woodhall:

Pursuant to 18 CFR § 5.16(e), this letter contains Commission staff's comments on Southern California Edison's January 27, 2022, draft license application (DLA) for the Bishop Creek Hydroelectric Project. Our specific comments on the DLA are outlined in Appendix A. Please incorporate your response to comments on the DLA in the final license application (FLA).

If you have any questions, please contact Kelly Wolcott at (202) 502-6480, or at kelly.wolcott@ferc.gov.

Sincerely,

Timothy Konnert, Chief
West Branch
Division of Hydropower Licensing

Enclosure: Appendix A--Comments on the Draft License Application for the Bishop Creek Hydroelectric Project, FERC No. 1394-080

APPENDIX A
COMMENTS ON THE DRAFT LICENSE APPLICATION FOR
THE BISHOP CREEK HYDROELECTRIC PROJECT NO. 1394

Commission staff has identified that your draft license application (DLA) did not contain some of the information that will be required by our regulations for a final license application (FLA). In our comments, we note the areas of the DLA where more specific information will be needed for a complete license application.

General

1. Kelly Wolcott and Timothy Konnert are based out of the Commission headquarters in Washington, DC. Please update the distribution list in the FLA to include the following address for both: 888 First Street, NE, Washington, D.C. 20426.

Exhibit E – Environmental Report

2. In Exhibit E, section 5.7.3.2, *Avian Protection Plan*, page 5-50, you state that your current Avian Protection Plan (APP) includes “Major procedures discussed in this document include permits, avian mortality, proactive retrofits, bird nest removal, injured birds, and ground-disturbing activities.” Later, in section 8.6.4.2, *Effects of Continued Operations and Maintenance of the Project Transmission Line on Migratory Birds and Raptors*, on page 8-167, you further state that “No deaths of migratory birds or raptors have been reported in the Bishop Creek Project boundary due to powerline encounters.” Please clarify in the FLA whether this “reporting” is due to inspections of the transmission line under the APP and what project activities or facilities are accounted for with regard to “avian mortality” in the APP. In the Initial Study Report, you rely heavily on the adequacy of your APP to inform the environmental analysis for these facilities and resources.¹ In addition, Commission staff requested at the Initial Study Report Meeting that the APP be included in the DLA and FLA filings as this was vital to our analysis;² however, the APP was not provided as requested. Therefore, please provide a copy of the current APP in your FLA or it will be considered a deficiency under §5.18(b)(5)(C) of the Commission’s regulations.

In addition, in section 5.8.2, *Transmission, Power, and Communication Line Maintenance Program*, you state that pursuant to Appendix XI of your Transmission Owner Tariff, you provide an annual report covering your Transmission and Compliance Program. Please provide any relevant reporting information with respect to

¹ See page 2 of the Initial Study Report filed November 2, 2020.

² See pages 2, 13, and 14 of the Initial Study Report Meeting summary filed November 23, 2020.

avian protection on the project transmission line in your FLA.

3. Staff accessed the U.S. Fish and Wildlife Service's Information, Planning, and Conservation (IPaC) database (<https://ipac.ecosphere.fws.gov/>) on April 21, 2022.³ The IPaC results included the following species that were not covered in the DLA: fisher (*Pekania pennanti*; endangered); Owens pupfish (*Cyprinodon radiosus*; endangered); fish slough milk-vetch (*Astragalus lentiginosus* var. *piscinensis*; threatened). The IPaC report also included Monarch butterfly (*Danaus plexippus*), a Candidate species. While Candidate species are not protected and not required to be analyzed in our National Environmental Policy Act document, it is possible that the monarch butterfly may become a federally protected species during the term of any license the Commission may issue for this project. Therefore, please ensure that your FLA includes a discussion of these species.

Exhibit G – Project Boundary Maps

4. Section 5.18(f) of the Commission's regulations state that maps and drawing must conform to the requirements of section 4.39 of the Commission's regulations. Section 4.39 specifies that Exhibit G maps must be stamped by a registered land surveyor; however, the Exhibit G maps provided in the DLA are not. Subsequently, the FLA must provide the Exhibit G specified in section 5.18(f) of the regulations and conform to the specifications outlined in section 4.39 of the Commission's regulations.

³ The IPaC report was filed to the docket for the project the same day.



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



May 2, 2022

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
Division of Hydropower Licensing
888 First Street NE
Washington, DC 20426

Subject: Comments from the California Department of Fish and Wildlife on Southern California Edison's Draft License Application for the Relicensing of the Bishop Creek Hydroelectric Project, FERC Project No. 1394

Dear Ms. Bose,

The California Department of Fish and Wildlife (CDFW) has received and reviewed the Draft License Application (DLA), filed by Southern California Edison (SCE) for the relicensing of the Rush Creek Hydroelectric Project (Project, FERC No. 1394). The DLA was filed by SCE with the Federal Energy Regulatory Commission (FERC) on January 27, 2022. Pursuant to 18 CFR §5.16(e), CDFW is providing comments and recommendations on the DLA below.

AUTHORITIES

CDFW is the relevant State fish and wildlife agency for resource consultation pursuant to the Federal Power Act Section 10(j) (16 U.S.C. section 803 (j)). The fish and wildlife resources of the State of California are held in trust for the people of the State by and through CDFW (Fish & G. Code § 711.7). CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (Fish & G. Code § 1802). Information generated through the appropriate studies will be utilized by CDFW in the development of recommendations.

The mission of CDFW is to manage California's diverse fish, wildlife, and plant resources, and the habitats on which they depend, for their ecological values and for their use and enjoyment by the public. It is the goal of CDFW to preserve, protect, and as needed, to restore habitat necessary to support native fish, wildlife, and plant species within the FERC-designated boundaries of the Project, as well as the areas adjacent to the Project in which resources are affected by ongoing Project operations, maintenance, and recreational activities.

General Statement

The FERC Project Relicensing Participants (SCE, CDFW and other Technical Working Group Members, henceforth abbreviated as RP) have been meeting for several months to determine if there are areas where collaborative agreement can be reached on protection, mitigation, and enhancement measures that would be included in the new FERC license. CDFW plans to continue to work with the Licensee and other RP's to determine where protection, mitigation, and enhancement measures can be agreed upon before the filing of the Final License Application (FLA).

Volume I

Executive Summary, Initial Statement, Exhibits A, B, C, D, E, F, G, H

Initial Statement

Information Required Pursuant to 18 CFR §4.51 (a)(1) (Page 1)

Pursuant to 16 U.S.C. § 808(e) any license issued by FERC shall be for a term of no less than 30 years and no more than 50 years from the date the license is issued. CDFW's understanding is that FERC generally issues new licenses for more than 30 years if significant changes in Project operations, new construction, and/or other large capital expenditures are proposed. The information provided by the Licensees thus far to RP's and FERC, including the PAD and DLA, does not indicate that any major operational changes, new construction, or expenditures are proposed by Licensees for the Project at this time. Thus, CDFW recommends FERC issue the shorter term 30-year license term to Licensees for the Project.

Information Required Pursuant to 18 CFR §4.51 (a)(5)(i) (Page 2)

CDFW recommends the addition of the following applicable sections of Fish and Game Code (FGC) to this part of the Final License Application (FLA). CDFW recommends the addition of:

FGC §5937 which states the following: "Sufficient Water for Fish Existing Below Dams – The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over a or around the dam to keep in good condition any fish that may be planted or exist below the dam, when,

in the judgment of the department, it is impracticable or determinant to the owner to pass the water through the fishway.”

Exhibit E

Environmental Analysis Report

8.2.4 Scope of Cumulative Effects Analysis

(Page 8-12) The cumulative effects analysis should include an analysis of the cumulative effects of Project operations and maintenance, as well as the associated effects of climate change such as drought and increased wildfires, on bat populations located within or utilizing the Project boundaries. A description of the bats that are known to occur in or use the Project area and their status should also be included in the cumulative effects analysis.

(Page 8-12) The cumulative effects analysis should include an analysis of the cumulative impacts of Project operations and white nose syndrome (WNS) on bat colonies utilizing Project facilities. The species most likely to be affected by WNS are *Myotis lucifugus* and *Myotis yumanensis*, and they are also the most likely to roost in associated dam buildings. They also forage predominantly over open water by trawling for emerging insects. Rapid drops in lake levels caused by sudden dam releases could affect the surface area of the water body available to foraging bats.

Proposed Action and Action Alternatives

8.8.4.2 Wildlife

Bats

(Page 8-199) CDFW would like clarification on what constitutes evidence of bat day roosting sign.

(Page 8-199) Page 50 of the Final Technical Report (Wildlife Initial Study Report TERR 4) states that some facilities are being used as summer roosts and are most likely big-brown bats. CDFW requests that this statement is included in the FLA and a discussion is provided that describes why it is assumed that big-brown bats are the species using the facilities as summer roosts. It is possible that big-brown bats are using the facilities but the typical bats in powerhouses and other hydro facilities elsewhere in the state are *Myotis yumanensis* and *Myotis lucifugus* depending on elevation.

(Page 8-200) SCE should include information detailing that the longstanding operations of the Project have created suitable summer, winter and maternity roosting habitat for bats. Bats now depend on this habitat for winter hibernation, and/or to raise young. Sudden exclusion of bats or interruption of the bat habitat could lead to significant bat mortality if a 'Bat Avoidance, Minimization and Mitigation Plan' is not in place.

(Page 8-200) A table similar to Table 8.8-2 (Page 8-198) should be included for the complete inventory of the bat species (not just species of special concern) using the Project area. An understanding of what types of roost the Project area is used for is necessary to avoid impacting bats. It is also important to note that all maternity colonies of bats are protected, not just species of special concern.

(Page 8-200) It is important to detail that Powerhouse 2 is presumed to be supporting an active maternity roost. In the spring bats return pregnant to established maternity roosts. If exclusion from or disturbance to the maternity roost occurs due to maintenance or repair or other operational needs, large mortality of young and adult bats within the maternity colony could occur.

(Page 8-200) A thorough survey of roosts should include the bat species, the reproductive status, and the number of bats in the colony. This is typically accomplished by catching several bats in mist-nets as they emerge from the building roosts and recording species, sex and reproductive status. Some colonies may be mixed *Myotis* species, and recording echolocation calls during emergence aids in this determination. Exit counts on the facilities to determine if colonies are stable or declining occur annually at approximately the same dates, either when all the emerging bats are only adults (no juveniles flying yet) or after all the babies are flying in a colony (usually by the end of July). Acoustic monitoring should occur during the exit counts.

(Page 8-200) Information on areas where bat surveys were not conducted (e.g., tunnels, dams [i.e., Longley Lake], facilities at McGee and Birch Creek) will help CDFW understand where data may be lacking and where surveys need to be conducted prior to changes in operation, and/or prior to maintenance or construction activities.

(General Comment) Bats are known to roost in buildings, tunnels, dam structures, vegetation, and other aspects of Hydroelectric projects. Bats are also known to forage on tail races.

(General Comment) It is important to establish if the bats using the Project area have been infected with White Nose Virus (WNV) and to monitor them annually for this disease. Bats infected with WNV are especially susceptible to stressors such as

roost disturbance or exclusion and will more readily be infected by and perish from WNV. Information regarding bat roost type (day, night, maternity) and size, bat species, reproductive status and health, should be provided in the FLA.

8.6.4 Potential Adverse Effects and Issues Regarding Wildlife Resources

(Page 8-166) SCE states that based on the completed studies and reviews of existing literature, SCE has identified that there are no adverse effects to upland wildlife from the operation of the Project. However, the *2019 Results of a Bat Roost Habitat Assessment Conducted for the Bishop Creek Hydroelectric Relicensing Project in Inyo County, CA* identified that bats use the powerhouses associated with the Project as summer and maternity roosting habitat. According to the 2019 Report, active day roosts were observed in Powerhouse 6 and Powerhouse 5 and an active maternity roost were identified in the transformer shed immediately adjacent to Powerhouse 5; a potential maternity colony was identified at Powerhouse 2; and it was determined that Powerhouse 6 has the potential to support maternity roosting. CDFW requests that SCE include an impact evaluation from continued Project operations on bats. Specifically, CDFW requests an analysis of the impacts that Project operation and maintenance (O&M) s could have on summer, winter and maternity bat colonies. The FLA should identify O&M activities occurring in the Project facilities and how those activities could impact bats within the Project facilities. Any activities that could result in exclusion of bats from powerhouses and other Project facilities, or disturbance of roosting bats are important to note.

Volume II

Appendices A, B, C, D, E, F, G, H, I

Appendix A - Proposed Protection, Mitigation, & Enhancement Measures for the Bishop Creek Hydroelectric Project

1.0 New Environmental Measures and Plans

Many of the new environmental measures and plans provided by SCE have yet to be fully described. While CDFW is supportive of the general plans and Protection, Mitigation and Enhancement (PME) measures proposed by SCE, CDFW has not had the opportunity to review and comment on the operational specifics of the new environmental measures and plans. Therefore, CDFW requests the opportunity to provide substantive comments on the plans once available, now listed throughout the Appendix as place holders for further discussion.

PME-1: Minimum Instream Flow Measures

The minimum instream flow section should include a summary of the meetings and dialogue between SCE and the RP's regarding resource interests, impacts and PME proposals that have been discussed to date.

Although SCE does not propose any changes to the Project, CDFW believes that changes to the minimum instream flows are necessary to protect fish and wildlife resources. CDFW is actively working with SCE and the RP's to identify areas within the Project where minimum instream flows can be altered to more closely mimic the natural hydrograph and provide for increased habitat value for fish and wildlife resources.

PME-2: Gaging Plan

The gaging plan should include documentation of any gauges (SCE owned or not) within the Project boundary that are not recording data correctly, as well as a plan to fix or replace any of the malfunctioning gauges.

PME-3: Sediment Management Plan

CDFW is supportive of preparation of a Sediment Management Plan with the goal of reintroducing sediment back into Bishop Creek via flushing flows. Reintroducing sediment into the sediment starved system of Bishop Creek will improve conditions for fish and aquatic resources, including riparian communities, located within the Project area and downstream impact area of the Project.

The Sediment Management Plan should include a monitoring plan that documents changes in substrate (e.g., size and distribution), riparian communities (e.g., recruitment, species composition and cover), aquatic resources and fish populations in relation to PMEs implemented under the new license (e.g., reintroducing of sediment, geomorphic or peak flows).

PME-4: Stocking Plan

CDFW's fisheries biologist is currently unavailable to provide comments on fisheries related topics but will provide comments on the Stocking Plan and other fisheries related topics within a month of the submittal of this letter.

PME-5: Wildlife Resources Management Plan

CDFW recommends that the Wildlife Resource Management Plan include a plan for avoiding, minimizing, and mitigating impacts to bat species that could use Project facilities as wintering, night and/or day, and/or maternity roosting sites. This should include 1) rescheduling maintenance activities that could disturb roosting bats to a

time when the bats are seasonally absent and 2) consulting with a bat biologist to assess if proposed structural modification activities or other construction activities have the potential to affect bats. Additionally, CDFW headquarters is currently leading an effort to swab bats at multiple locations throughout the state to monitor for the spread of the WNS fungus and the Bishop area is included in the survey locations. Currently WNS has only been detected in Shasta and has not been detected yet in the Eastern Sierra. CDFW recommends the Wildlife Resource Management Plan include a section for coordination between SCE and CDFW on future CDFW WNS surveys. Coordination actions could include providing access to Project facilities and notifying CDFW's sampling program when bats first appear in the Spring in their facilities. The fungus is most easily detected when the bats first come out of hibernation, but lesions heal and fungal spores on their skin are lost when their metabolic rate rises with activity. Keeping records of counts of maternity colonies is also a key goal because the likely consequence of establishment of the fungus in the Sierra is that bats die unseen in unknown hibernating sites and the signal that mortality is occurring will be that bats don't return to maternity roost sites. There are a low number of known summer, winter and maternity roosting colonies in the Eastern Sierra, so access to the known existing colonies is crucial for monitoring of the spread of WNS in California.

CDFW supports SCE's plan to continue implementing an Avian Protection Plan (APP), to adhere to a Nesting Bird Management Guide, as well as to conduct pre-activity nesting bird and raptor surveys. Although CDFW has not reviewed the specifics of these plans, CDFW believes that any buffers for special-status birds should be determined through collaborative discussion between SCE, CDFW, the U.S. Forest Service and the United States Fish and Wildlife Service. Currently special-status raptor species known to nest near the Project is the northern Goshawk (0.18 miles north of Birch-McGee Creek Diversion; 0.75 miles south of South Lake Dam). CDFW considers special-status bird species to include species State listed as endangered, threatened, or candidates for these listings; Federally listed as endangered, threatened, or proposed for these listings; State fully protect species; State species of special concern, watch list species; and Forest Service sensitive species.

PME-6: Botanical Resources Management Plan

The FLA should state that any mitigation plans (e.g., seed collection, revegetation) for unavoidable impacts to sensitive or endangered plant or animal species will be reviewed and approved by the U.S. Forest Service and CDFW.

The FLA should provide reference to Appendix G Invasive and Special-Status Plants Observed in the Bishop Creek Project Area Map Book.

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
May 2, 2022
Page 8

PME-7: Invasive Species Management Plan

The Invasive Species Management Plan should provide reference to Appendix G Invasive and Special-Status Plants Observed in the Bishop Creek Project Area Map Book as a reference for invasive species distribution baseline conditions.

PME-10: Invasive Mussels Prevention Plan

CDFW will provide review of and comments on the 2017 Mussel Prevention Plan once CDFW has received this plan.

CONCLUSION

CDFW appreciates the opportunity to comment on the DLA filed by SCE for the relicensing of the Bishop Creek Hydroelectric Project. CDFW looks forward to further discussions with the Technical Working Group members.

If you have any question pertaining to this letter, please contact Alyssa Marquez, at (760) 567-0332 or Alyssa.Marquez@Wildlife.ca.gov

Sincerely,

Trisha A. Moyer

Trisha Moyer, Habitat Conservation Program Supervisor

cc: Alisa Ellsworth, CDFW
Alyssa Marquez, CDFW
Beth Lawson, CDFW
Nick Buckmaster, CDFW

Ecc: Technical Working Group Members



State of California – Natural Resources Agency
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Via e-mail

May 17, 2022

Matthew Woodhall
Southern California Edison
Generation-Regulatory Support Services/ Project Lead
1515 Walnut Grove Ave
Rosemead, CA 91770
matthew.woodhall@sce.com

Subject: California Department of Fish and Wildlife Comments on Southern California Edison's Draft Management Plans for the Relicensing of the Bishop Creek Hydroelectric Project, FERC Project No. 1394

Dear Mr. Woodhall,

The California Department of Fish and Wildlife (CDFW) has received and reviewed the draft Wildlife, Botanical Resources and Invasive Species Management Plans (cumulative 'Management Plans') drafted by Southern California Edison (SCE) for the relicensing of the Bishop Creek Hydroelectric Project (Project, FERC No. 1394). The Management Plans were provided to the Technical Working Group (TWG) members via email on April 26, 2022. As requested by SCE, CDFW is providing comments and recommendations on the draft Management Plans below.

AUTHORITIES

CDFW is the relevant State fish and wildlife agency for resource consultation pursuant to the Federal Power Act Section 10(j) (16 U.S.C. section 803 (j)). The fish and wildlife resources of the State of California are held in trust for the people of the State by and through CDFW (Fish & G. Code § 711.7). CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (Fish & G. Code § 1802). Information generated through the appropriate studies will be utilized by CDFW in the development of recommendations.

The mission of CDFW is to manage California's diverse fish, wildlife, and plant resources, and the habitats on which they depend, for their ecological values and for their use and enjoyment by the public. It is the goal of CDFW to preserve, protect, and as needed, to restore habitat necessary to support native fish, wildlife, and plant species within the FERC-designated boundaries of the Project, as well as the areas adjacent to the Project in which resources are affected by ongoing Project operations, maintenance, and recreational activities.

Conserving California's Wildlife Since 1870

Wildlife Management Plan

Goals and Objectives

Currently the Wildlife Management Plan only provides measures for special-status species and mule deer. CDFW has jurisdiction over the conservation, protection, and management of all fish, wildlife, and native plants, and the habitat necessary for biologically sustainable populations of those species. CDFW requests that the Wildlife Management Plan include a goal and objective of avoiding, minimizing and mitigating any impacts to bats utilizing the Project area (facilities as well as vegetation). The relicensing studies reported that the Project facilities have created suitable summer, winter and maternity roosting habitat for bats. The surveys identified that bats are utilizing Powerhouse 5 and 6 for summer roosting, that Powerhouse 2 and 5 (adjacent to the transformer shed) have potential maternity colonies, and that Powerhouse 6 has the potential to support maternity roosting.

Increased human presence, noise, vibration, and light as well as modifications to existing roosts can lead to disturbance of roosting bats, and increased stressors on bats can increase their susceptibility to white nose virus thereby increasing their chances of mortality. Disturbance of bats can result in premature roost abandonment and mortality. Exclusion of bats from historic roosts can lead to bat mortality.

5.0 Measures

CDFW recommends the following measures be included in the Wildlife Management Plan:

1. Consultation with a bat biologist prior to conducting any construction work within the Project boundaries.
2. Exclusion of bats from the Project facilities requires working with a qualified bat biologist. If there is a need to exclude bats from the Project, SCE would consult with a bat biologist to develop a bat exclusion plan and appropriate avoidance, minimization and mitigation measures. An example of potential mitigation measures is - in coordination with a bat biologist - constructing bat houses outside of the Project facilities to provide new bat roosting habitat.
3. Conducting pre-activity surveys for roosting bats prior to any construction or maintenance activities in those parts of the Project area that provide suitable roosting habitat (vegetation, structures such as buildings, tunnels, dams).
4. If roosting bats are present within a facility that could be affected by maintenance activities, the activities should be evaluated to determine if the associated noise,

vibration or light could result in disturbance to roosting bats. If there is potential for disturbance or roosting bats, a bat biologist should be consulted, and maintenance activities may need to be rescheduled to after the bats have left the roost for the season.

5. Maternity colonies can be very sensitive to disturbance, especially when they have dependent young. Even very brief disturbances could cause bats to abandon their roosts and result in mortality to their young. To avoid impacts to maternity colonies, all maintenance activities and construction should be rescheduled outside of the bat roosting season to avoid impacts to bat maternity colonies.
6. Any construction or maintenance activities that will result in modifications to roost sites can have significant impacts on the roosting bats. Reduction in the size of roosts, occlusion of entrances to roost sites, changes in flight path and other modifications can change airflow, humidity and temperature of roosts and result in roost abandonment and bat mortality.
7. Surveys will be conducted by a qualified biologist holding all required scientific collecting permits from CDFW or a valid 10(A) permit from the USFWS if needed for target species. Field surveys will be conducted using currently accepted protocols.
8. Any data collected on bats will be provided during the Annual FERC Agency Meeting meetings and provided to the agencies upon request.

5.2 Avifaunal Measures

CDFW to date has not received SCE's Corporate-wide Avian Protection Plan (APP) and SCE's Nesting Bird Management Plan for small projects (NBMP) and therefore cannot provide comments on the definitions and guidance provided in these documents.

CDFW recommends that any buffers established for protection of nesting birds or to protect special-status bird species should be determined through collaborative discussion between SCE, CDFW, the United States Forest Service and the United States Fish and Wildlife Service as necessary.

5.2.1 Nesting Season Protection Measures

CDFW agrees that a strict beginning and end date for the nesting bird season is not practical as climate change is affecting nesting periods and should instead be

determined by a qualified biologist on an annual and per project basis taking into account bird species, project elevation and other seasonal variables.

5.2.2 Nesting Birds and Raptors

CDFW suggests general nesting bird and raptor surveys be conducted no less than 14 days prior and again no more than three days prior to Project implementation to ensure no new nests have been established since the first survey.

The nesting bird survey radius should be determined by a qualified avian biologist and be based on a per project basis, i.e. a project that could result in the removal of larger diameter trees or removal of larger areas of vegetation may require the survey buffer to increase.

If an active nest is discovered, the nest tree is flagged, and the biologist has determined the appropriate avoidance buffer, all personnel onsite should be notified of the nest and its location, as well as of the avoidance buffer.

SCE states that *“During Project operations and maintenance activities, SCE will provide a monitor, on a periodic basis, to watch the nest for disturbance”*. If there is an active nest on or near the Project site that could be impacted from Project activities, a qualified biologist should be onsite daily during all Project activities near the nest to observe the nest status and behavior and determine if buffers need to be changed or Project activities need to be halted.

SCE states that *“The monitor, if not a biologist, will be trained by a biologist prior to the start of activities. The monitor will inform the biologist of observation at the end of each day monitoring occurred”*. CDFW recommends that the monitor be a trained biologist with sufficient previous experience in conducting nest surveys and nest monitoring.

SCE states that *“Trees that contain raptor nests shall not be removed or trimmed, unless a qualified biologist determines that the nests are inactive or abandoned. Trees that contain raptor nests shall not be removed or trimmed, unless a qualified biologist determines that the nests are inactive or abandoned. The USFS and CDFW will be notified of the removal of abandoned or inactive raptor nests”*. Many raptors exhibit high site and nest fidelity and will reuse the same nest year after year. Northern goshawks will often reuse and repair nests from previous years or will use nests of other accipiters. Removing raptor nest that are not currently in use can impact their reproductive success and CDFW recommends avoiding the removal of all raptor nests regardless of their status. If a raptor nest is confirmed to be abandoned and must be removed, CDFW recommends that USFS and CDFW are consulted prior to removal and the methods for confirming the nest was abandoned

are shared. SCE should specify how and when USFS and CDFW will be notified of the removal of abandoned or inactive raptor nests.

5.3 Mule Deer

SCE should state if there is a maintenance schedule implemented to ensure the guzzlers are in good working condition. If wildlife are dependent on these guzzlers SCE should ensure that they are quickly aware of and repair any issues promptly.

6.0 Protection of Other Resources

CDFW recommends that any Project activity that requires a qualified biologist to be onsite, should also include a Worker Environmental Awareness Training be provided to all staff by the qualified biologist, prior to the initiation of Project activities.

Appendix A Special Status Species (Table A1 – Endangered and Threatened Species Potential).

The federal status for Sierra Nevada red fox (*Vulpes vulpes necator*) is described as candidate in Appendix A, however, it's federal listing status was upgraded to federally endangered in September 2021 (see Federal Register documentation [here](#)). The *Likelihood for Occurrence/Occurrence Notes* for the Sierra Nevada red fox should be updated to "known to occur". Sierra Nevada red fox were detected in the Upper Lamarck Lake drainage during 2020 and 2021 surveys, including a detection 2.2 miles west of the Sabrina Lake Dam. Based on recent photo and scat detections, CDFW considers Sierra Nevada red fox to be likely distributed relatively continuously along the Sierra crest between Ebbetts Pass and Bishop Pass.

Invasive Species Management Plan

5.2.3 Treatment/Removal Techniques for Invasive Plant Species

CDFW recommends that SCE include a measure that states if herbicide treatment needs to occur around waterways, SCE will only use herbicides that have been certified for use in aquatic systems.

Botanical Resources Management Plan

CDFW recommends that SCE prepare a Riparian Monitoring Plan in addition to the provided Botanical Resources Management Plan. This Riparian Monitoring Plan should include a plan to monitor the changes of the riparian community (i.e., age structure, invasive species, recruitment, species diversity) as a result of any changes to the sediment regime (i.e., reintroduction of sediment trapped in intakes or behind

dams) or flow (i.e., changes in minimum instream flow or geomorphic/peak flows) determined during Relicensing. Baseline surveys and annual follow up surveys will be necessary at riparian monitoring locations to document and determine impacts of the Project to the riparian and to guide adaptive management adjustments to protect the riparian community.

2.0 Purpose and Intent

The purpose and intent should also include determining whether a proposed action could impact riparian communities and sensitive natural communities, and then avoiding, minimizing and mitigating impacts.

2.2 Bishop Creek Special-Status Plant Species

This section should include a list of all the sensitive natural communities within the Project boundary.

3.0 Goals and Objectives of This Management Plan

The goals and objectives for the Botanical Resources Management Plan should also include measures to avoid, minimize and mitigate impacts to riparian vegetation in the Project boundary. Many riparian communities are considered sensitive natural communities¹, including aspen (*Populus tremuloides*) stands. There are several large aspen stands throughout the Project boundary, with aspen dominating the South Fork of Bishop creek (see Attachment 1). If avoidance, minimization and mitigation measures for riparian communities are included in a separate SCE document, it should be referenced here and the document should be provided to the Technical Working Group members for review.

5.0 Measures

Sentence should state that “*For all routine O&M activities, SCE Operations staff shall contact the SCE Environmental Manager for Bishop Creek to determine if any special-status plant species or their habitat could be affected by the planned activity*” (***bold and italic*** words are additions).

¹ CDFW's Vegetation Classification and Mapping Program (Veg CAMP) and the California Native Plant Society's Vegetation Program rank California Natural Communities by rarity (range, distribution, and ecological integrity) and threat (residential and commercial development, agriculture, energy production and mining, and invasive and other problematic species and genes).

5.1 Pre-activity Consultation

CDFW to date has not received SCE's Vegetation Operations Management Manual and therefore cannot provide comments on the guidance and policies provided in this document.

5.1.2 Pre-activity Investigation

The Pre-Activity Investigation Report should include all information required in the [Reporting and Data Collection \(Section 3\) of the Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#).

5.1.3 Protective Measures

Avoidance measures should also include 1) pre-Project planning and design, 2) establishment of buffers, 3) evaluating a no-Project alternative.

On-site mitigation for Project impacts should include the development of a Mitigation Monitoring plan that details the maintenance and monitoring of the mitigation site to ensure its success.

Transplanting of rare plants, artificial propagation, seed transfer of rare plants or rare plant habitat restoration likely will not fully mitigate impacts to rare plants and their habitat. Rare plants usually have specialized and poorly understood habitat requirements that make it hard to replicate and successfully mitigate impacts to rare plants. Project activities should always be planned to fully avoid impacts to rare plants.

Appendix A. Special-Status Plant Species – Table A-1. Special-Status Plant Species and Potential to Occur in the Project Area

This table should include all the sensitive natural communities within the Project boundary.

General Comment

CDFW requests that the agenda for the Annual Meetings with USFS and CDFW include a list of all the deliverables (e.g., reports including nesting bird survey, findings, monitoring) that SCE states will be provided in the Annual Meetings. The associated governing document for each item (e.g., Page 10 of Bishop Creek Wildlife Resources Management Plan) should also be included along with each deliverable in the agenda.

Matt Woodhall
SCE
May 17, 2022
Page 8

CONCLUSION

CDFW appreciates the opportunity to comment on the DLA filed by SCE for the relicensing of the Bishop Creek Hydroelectric Project. CDFW looks forward to further discussions with the Technical Working Group members.

If you have any question pertaining to this letter, please contact Alyssa Marquez, at (760) 567-0332 or Alyssa.Marquez@Wildlife.ca.gov.

Sincerely,

Trisha A. Moyer

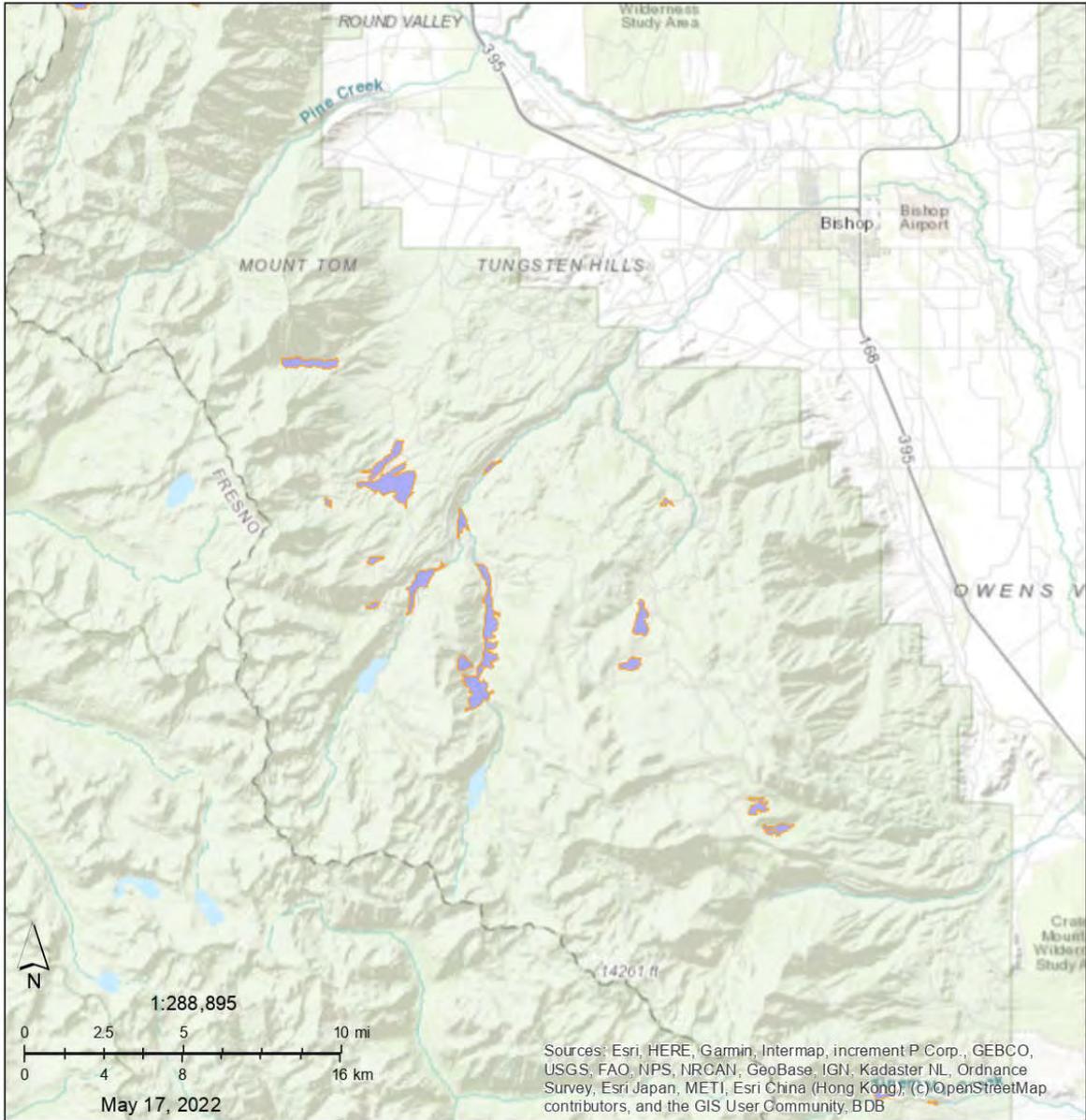
Trisha Moyer, Habitat Conservation Program Supervisor

cc: Alisa Ellsworth, CDFW
Alyssa Marquez, CDFW
Trisha Moyer, CDFW

Ecc: Technical Working Group Members

Attachment 1

Aspen Stands



Aspen Delineation - Inyo National Forest [ds366]

CONSULTATION SUMMARY TABLE MAY 2019 THROUGH JUNE 2022

Item #	Date Sent	Stakeholder Group	Type of Correspondence/ Consultation Event	Documentation
1	5/1/2019	Interested parties list	Notice that SCE's NOI/PAD for relicensing of the Bishop Creek Hydroelectric Project is now complete and filed with FERC 5/1/2019	Attached - emails
2a 2b	5/20/2019	USFS	Finlay Anderson sent proposed approach to Bishop Creek Geomorphology and Sediment Modeling Plan re: addressing sources of sediment	Attached - emails & pdf
3a 3b	6/4/2019	Chase Hildeburn, WaterBoards	Finlay Anderson sent draft Water Quality Implementation Plan	Attached - emails & pdf
4	6/6/2019	Aquatics TWG	Terra Alpaugh sent materials for June 11, 2019 Aquatics TWG webinar	Attached - emails
5	6/6/2019	USFS	Emails between Brad Blood and Kary Schlick re: bat studies	Attached - emails
6	6/13/2019	Brad Blood, Steve Norton	Mike Morrison sent email to Steve/Brad re: winter survey	Attached - emails
7a 7b 7c	6/19/2019	Brad Blood, Michael Morrison	Kary Schlick sent email re: 2018 bat survey results, included 2 attachments	Attached - emails & pdf
8	6/20/2019	Brad Blood	Kary Schlick and Brad Blood had a follow up conversation to the 6/19 emails re: current schedule for the general wildlife surveys	Attached - emails
9	6/28/2019	Chase Hildeburn, WaterBoards	Emails re: Bishop Creek Water Quality Study	Attached - emails
21	7/2/2019	Frank Winchell	Bishop Creek Relicensing FERC No. 1394 Tribal Consultation	Attached - emails
10a 10b 10c	7/8/2019	Cultural	Emails re: FERC letter to Lone Pine and Shelly Davis-King's notes re: visit with Bishop Paiute	Attached - emails, pdf, photo

11a 11b	7/18/2019	TWG	SCE's Bishop Creek Relicensing Cultural and Tribal Reso	Attached - PDF, emails
16a 16b	8/13/2019	TWG	Bishop Creek Relicensing Study Plan Update	Attached - emails, PDF
12a 12b 12c	9/18/2019	TWG leads	Bishop Creek Relicensing: FERC Wavier Notice	Attached - PDFs, emails
13	9/19/2019	TWG	CDFW response to FERC Waiver Notice	Attached - emails
14	9/20/2019	TWG	Shelly's outreach compilation June - Sept	Attached - PDF
15a 15b	9/26/2019	CDFW	On behalf of Matt Woodhall - additional background info on waiver request	Attached - emails
17a 17b	10/3/2019	TWG	Bishop Creek Relicensing Study Plan Update Approved Waiver	Attached - emails, PDF
18a 18b	10/7/2019	TWG	Bishop Creek Relicensing: Update on Aquatic Mesohabitat Survey	Attached - emails, PDF
19	10/15/2019	Tristan Leong, Nick Buckmaster	Bishop IFIM Transect site selection	Attached - emails
20	10/18/2019	Nick Buckmaster, Ken Jarrett	Bishop Creek Scale Samples from S Cal Edison Stream fish study	Attached - emails
92	10/28/2019	USFS	Emails from Kleinschmidt to USFS re: Bishop Creek - Recreation Study Plan Advancement	Attached - emails
94	10/28/2019	TWG	Recreation Use and Needs General Recreation Survey Frequency	Attached - PDF
95	11/7/2019	USFS	Recreation Study Plan Meeting with the Inyo National Forest (INF)	Attached - PDF
22	12/5/2019	Nick Buckmaster, Tristan Leong	Bishop Creek IFIM study - HSI criteria	Attached - emails
97	12/6/2019	TWG	Revised 2020 General Recreation Survey	Attached - PDF
93	12/10/2019	USFS	Scheduling follow up email from Kleinschmidt to USFS re: meeting prep for the Bishop Creek - Recreation Study Plan Advancement	Attached - email
96	12/10/2019	TWG	Updated Recreation Use and Needs General Recreation Survey Frequency with Appendix A	Attached - PDF

23	1/14/2020	Nick Buckmaster, Tristan Leong	Emails re: first look at potential brown trout HSI	Attached - emails
98a 98b	1/14/2020	USFS	Email and PDF to USFS re: Memo_Recreation Study Plan Implementation	Attached - emails, PDFs
24a 24b	1/15/2020	Sheila Irons, Diana Pietrasanta, Tristan Leong, Nora Gamino, Philip Desenze	Bishop Creek - Recreation Survey Schedule	Attached - emails, PDF
99a 99b	1/22/2020	USFS	Email and PDF to USFS re: FINAL_Memo_Recreation Study Plan Implementation_Off Site Surveys; REC 1 and REC 2 Study Plan Implementation	Attached - emails, PDFs
100a 100b	1/23/2020	USFS	Email and PDF to USFS re: General Recreation Survey	Attached - emails, PDFs
27a 27b	2/6/2020	Sheila Irons, Diana Pietrasanta, Tristan Leong, Nora Gamino, Philip Desenze	Emails re: Bishop Creek - Recreation Surveys Memo; Recreation Surveys (Off-site Survey Implementation)	Attached - emails, PDF
28a 28b	2/6/2020	Sheila Irons, Diana Pietrasanta, Tristan Leong, Nora Gamino, Philip Desenze	Emails re: Bishop Creek - Recreation Survey and Recreation Surveys (Off-site Survey Implementation) in Spanish	Attached - emails and Word Document
101a 101b 101c 101d	2/6/2020	TWG	Email and PDF to USFS re Off-site Survey Implementation	Attached - email, PDF
25a 25b	2/14/2020	Nick Buckmaster, Tristan Leong	Email from Brandon re: draft brown trout and Owens sucker HSC memo for review: Instream Flow Study - Habitat Suitability Criteria Memorandum	Attached - emails, Word document
29a 29b	2/14/2020	TWG	Bishop Creek Relicensing Revised Water Quality Implementation Plan and draft document	Attached - emails, PDF
26	2/22/2020	Sheila Irons, Diana Pietrasanta, Tristan Leong, Nora Gamino, Philip Desenze	Emails re: Bishop Creek - Recreation Surveys	Attached - emails

31a 31b	2/24/2020	Chase Hildeburn	Emails re: Michael Donovan's notes from his call with Chase at the RWQCB and notes document	Attached - emails, Word document
102a 102b	2/24/2020	USFS	Email and PDF to USFS re General Recreation Survey_Spanish	Attached - email, PDF
30	2/28/2020	TWG	Emails re: Bishop Creek Relicensing Revised Water Quality Implementation Plan	Attached - PDF
103	3/25/2020	USFS	Email to USFS re Covid delays for Off-site Surveys	Attached - email
32	4/17/2020	TWG	Bishop Creek Relicensing TWG Distribution	Attached - PDF
104	5/13/2020	USFS	Email to USFS re Check-in & Off-site Survey Discussion Attachments SurveyMonkey	Attached - email
34	5/14/2020	TWG	Emails re: Reminder: Submit Comments on Bishop Creek Relicensing Study Reports by 5/15 COB; correspondence between Terra, Blake, Sheila, and Edith	Attached - emails
35	5/14/2020	TWG	Emails re: Reminder: Submit Comments on Bishop Creek Relicensing Study Reports by 5/15 COB; correspondence with Finlay's comment	Attached - emails
36a 36b	5/22/2020	TWG	Email from Brandy Wood with comments on Relicensing Study Reports: CDFW Comments on FERC Relicensing Technical Study Report Appendices A-H (FERC Project # 1394)	Attached - email, PDF
37	5/26/2020	TWG	Emails re: For Review: 5/7 and 5/19 Bishop Creek TWG Mtg Summaries	Attached - emails
38	6/11/2020	Nick Buckmaster	Nick Buckmaster's comments on 5/7 and 5/19 TWG Mtg. Summaries	Attached - emails
39a	6/11/2020	TWG	Email - Final 5/7 and 5/19 Bishop Creek TWG Mtg Summaries	Attached - emails
39b	6/11/2020	TWG	Final 5/7 and 5/19 Bishop Creek TWG Mtg Summaries	Attached - PDF
106a 106b 106c 106d	7/21/2020	USFS	Emails to USFS re Bishop Creek Recreation: Check-in & Off-site Survey Discussion	Attached - emails, PDF
105	7/27/2020	USFS	Emails to USFS re Bishop Rec Studies	Attached - emails

40	9/9/2020	Sheila Irons, Diana Pietrasanta,	Bishop Relicensing Fish Studies during September 7-11.	Attached - emails
41	9/10/2020	USFS	Upcoming Birch McGee Studies - flows deviations and fire conditions	Attached - email
42	9/10/2020	USFS	Upcoming Birch McGee Studies - flows deviations and fire conditions	Attached - email
43	10/9/2020	Raymond Andrews	Call re: Bishop Creek schedule, details on Lee Vining Creek, details on autumn gathering, storytelling, how to share information and more	Attached - email
80	10/27/2020	TWG	Follow Up - Bishop Creek 10/26 Effects Mtg	Attached - emails
44	11/2/2020	TWG	Bishop Creek Relicensing ISR Filing	Attached - message
45	11/6/2020	TWG	Materials for 11/10 Bishop Creek Relicensing Initial Study	Attached - email
46	11/9/2020	Bishop Paiute Tribe	Request for monitor for Bishop Creek Surveys	Attached - email
47	11/9/2020	FWS	Bishop Creek Wildlife Surveys	Attached - email
48	11/12/2020	USFS	Question about Cal-IPC inventory	Attached - emails
49	11/24/2020	TWG	Bishop Creek Relicensing Initial Study Report Meeting	Attached - emails
50	2/10/2021	CDFW	Proposed Owens speckled dace Habitat Suitability Criteria	Attached - emails
51a	2/10/2021	CDFW	Emails re trout aging status	Attached - email
51b	2/11/2021	CDFW	SADA Site 5 Scale Ages	Attached - excel
51c	2/12/2021	CDFW	Cardinal Upper Scale Ages	Attached - excel
51d	2/13/2021	CDFW	Cardinal 1 Scale Ages	Attached - excel
51e	2/14/2021	CDFW	Sada 3 Scale Age Inventory	Attached - excel
51f	2/15/2021	CDFW	Cardinal Lower Scale Ages	Attached - excel
52	3/3/2021	TWG	Bishop Creek Relicensing Progress Report	Attached - email
53a	3/3/2021	TWG	Bishop Creek Relicensing Aquatics Technical Reports	Attached - email
53b	3/3/2021	TWG	TWG Memo	Attached - memo
55a	3/12/2021	TWG	Bishop Creek Recreation TWG	Attached - emails
55b	3/12/2021	TWG	Bishop Creek Recreation TWG	Attached - PDF
56	3/16/2021	CDFW	Bishop Creek Recreation TWG emails re: Creel Survey	Attached - emails
54a	3/18/2021	USFWS	Bishop Creek Relicensing Project re: eagles	Attached - email
54b	3/18/2021	USFWS	USFWS Pacific Southwest Region Golden Eagle Nest Buffer	Attached - PDF
54c	3/18/2021	USFWS	USFWS Pacific Southwest Region Golden Eagle Nest Buffer	Attached - PDF

57	3/24/2021	CDFW	Bishop Creek Recreation TWG emails re: Creel Survey	Attached - emails
58a	5/14/2021	TWG	Request for feedback (due 7/13): Bishop Creek Aquatics	Attached - email
58b	5/14/2021	TWG	Aquatics Technical Reports	Attached - memo
59	7/9/2021	TWG	Reminder email re: Request for feedback (due 7/13): B	Attached - email
60	7/23/2021	CDFW	CDFW's comment letter on the Bishop Creek Aquatics	Attached - email
61	7/29/2021	TWG	Upcoming BC Hydro Relicensing Meetings	Attached - email
62b	8/1/2021	TWG	Final Technical Report	Attached - PDF
62a	8/16/2021	TWG	For Review: Bishop Creek Operations Model Technical	Attached - email
63	8/23/2021	TWG	Bishop Creek and Lee Vining Hydro Projects Relicensing	Attached - email
64	8/26/2021	TWG	For Review: Bishop Creek Relicensing Wildlife and	Attached - email
65	9/7/2021	TWG	Bishop Creek Recreation TWG Update	Attached - email
66	9/13/2021	TWG	Update: Bishop Creek Relicensing Fall 2021 Meetings	Attached - email
68b	9/15/2021	CDFW	Response to CDFW Comments on Fish and Aquatics Stu	Attached - memo
67	9/27/2021	CDFW	Bishop Creek Meeting Schedul	Attached - email
68a	10/4/2021	CDFW, USDA	SCE Response Memorandum for AQ Report	Attached - email
71	10/4/2021	CDFW	Response to CDFW Comments on Fish and Aquatics Stu	Attached - memo
69	10/6/2021	TWG	Bishop Creek Lands Memo	Attached - email
70	10/14/2021	CDFW	Bishop SCE Updated Response to Comments on AQ Reports	Attached - email
72a	10/14/2021	CDFW, USDA	Bishop SCE Updated Response to Comments on AQ Reports	Attached - emails
72b	10/14/2021	CDFW, USDA	Bishop AQ Report Comment	Attached - PDF
73	10/14/2021	CDFW, USDA	Bishop Creek Hydrologists' Ops Model Mtg.	Attached - email
74a	10/15/2021	CDFW, USDA	Bishop Creek Operations Model - CDFW Comments	Attached - email
74b	10/15/2021	CDFW	Comments on the Bishop Creek FERC Operations Model Final Technical Report	Attached - PDF
75	10/18/2021	CDFW	Bishop Creek Operations Model Scenarios Meeting	Attached - email
76	10/18/2021	CDFW	Bishop Creek Operations Model Scenarios Meeting	Attached - email
77	10/19/2021	Chase Hildeburn	Moving on from WQC Unit	Attached - email
79a	10/27/2021	TWG	Follow Up - Bishop Creek 10/26 Effects Mtg	Attached - email

79b	10/27/2021	TWG	2021 Annual Bishop FERC Training	Attached - PDF
78	10/28/2021	CDFW	Follow Up - Bishop Creek 10/26 Effects Mtg	Attached - email
81a 81b	10/29/2021	CDFW	Email from Psomas to CDFW re: the Mule Herd Exhibits and GIS data; GIS map	Attached - email and PDF
82	10/29/2021	TWG	Action Items - BC Effects Mtgs. (10/26 and 10/28) and	Attached - emails
86a 86b 86c	11/4/2021	CDFW, USFS, hydrologists	11/4 Bishop Creek Operations Model Meeting Follow-up: Ops Model comment response - CDFW and 211104_Summary_BC Ops Mtg	Attached - email, PDFs
83	11/5/2021	TWG	For Review by 1/4/22: Bishop Creek Relicensing Techni	Attached - emails
89	11/5/2021	TWG	Emails re: Bishop Creek Updated Study Report Acceptance	Attached - email
84a 84b	11/12/2021	CDFW	CDFW's comments on Bishop Creek FERC Botanical Report	Attached - email, PDF
85a 85b (zip file)	11/16/2021	USFS	USFS's review for the FERC Final Tech reports: Riparian TERR 1, Invasive plants TERR 2, and Special Status Plants TERR	Attached - email, PDFs, Excel Spreadsheets
87	11/16/2021	CDFW, USFS, hydrologists	11/4 Bishop Creek Operations Model Meeting Follow-Up emails from Beth re: missing the meeting	Attached - emails
88a 88b 88c	11/17/2021	TWG	For Review: Bishop Creek Relicensing Meeting Summaries	Attached - email, Word documents
90a 90b	11/17/2021	CDFW, USFS	10/6 SCE/CDFW Bishop Creek Meeting Summary	Attached - email
91a 91b	11/17/2021	CDFW, USFS	Correspondence between Trisha (CDFW) and Finlay re: 10/6 SCE/CDFW Bishop Creek Meeting Summary; re-forwarded the Bishop Creek Updated Study Report Acceptance email	Attached - emails

111a 111b 111c	12/3/2021	USFS	Comments on Rec 2 and Lands 1 studies	Attached - email; Excel spreadsheet; PDF
107	12/3/2021	TWG	Bishop Creek USR Mtg. Summary Filing and Schedule	Attached - email
110	12/3/2021	CDFW and USFS Hydrologists	Emails re 12/8 Mtg. - Bishop Creek Ops Model Review	Attached - email
108a 108b 108c 108d 108e 108d 108f	12/8/2021	USFS	Email to USFS re Next Steps: Bishop Creek SCE/USFS Recreation Facilities Mtg.	Attached - emails; PDF; Excel spreadsheet
109a 109b	1/5/2022	TWG	Bishop Creek FERC Relicensing 2022 Workshops - Doodle Poll	Attached - emails
112	1/14/2022	SWRCB	SWRCB requests re Bishop Creek Water Quality Data	Attached - emails
113	1/18/2022	USFS	Emails re Request to remove Richard McNeill - Bishop Creek Relicensing PM&E Meeting_ recreation	Attached - emails
114a 114b 114c	1/19/2022	USFS	Meeting Summary from 1/11 Bishop Creek Small Group Recreation Discussion	Attached - emails, PDF, Excel spreadsheet
115a 115b	1/26/2022	CDFW, USFS	Email re Notes - Bishop Creek Ops Model Review Mtg.	Attached - emails, PDF
116a 116b	1/26/2022	USFS	Email re Notes - Bishop Creek 12_7 Rec Call with SCE_USFS	Attached - emails, PDF
117	1/27/2022	TWG	Email re Bishop Creek Relicensing Update - DLA Filed	Attached - emails
118a 118b 118c	1/28/2022	TWG	Bishop Creek PME 12_07-09 PM&E Summary	Attached - emails, PDF

119	1/28/2022	TWG	Emails re FOR REVIEW: Bishop Creek FERC Relicensing Water Quality Report, REC 1 Report, Revised LANDS 1 Memo, & Operations Model	Attached - emails
120a 120b 120c 120d 120e 120f	2/11/2022	USFS	2.10 Bishop Creek Small Group Recreation Discussion	Attached - emails, PDF
121a 121b	2/22/2022	TWG	Bishop Creek FERC Relicensing - Operations & Flows Meeting Approach for 3_1 PM&E Mtg.	Attached - emails, PDF
122a 122b 122c 122d	2/22/2022	USFS	Bishop Creek FERC 2_10 Relicensing Small Group Recreation Discussion Summary	Attached - emails, PDFs
123a 123b 123c	3/8/2022	TWG	Bishop Creek FERC Relicensing_ Check-In on Ops Model Needs	Attached - emails, PDFs
124a 124b 124c 124d	3/18/2022	USFS	Bishop Creek FERC Relicensing 3_17 Small Group Rec Discussion Notes	Attached - emails, PDFs
125a 125b	3/25/2022	USFS	Item 125a - Emails with USFS re black cottonwood discussion and Memorandum from USFS	Attached - emails, PDFs
126a 126b 126c 126d	3/30/2022	CDFW, USFS	Emails and memorandum re HSI criteria for Owens sucker and speckled dace	Attached - emails, PDFs
127a 127b 127c 127d	4/26/2022	TWG	Bishop Creek FERC Relicensing - Management Plans for Review and Comment	Attached - emails, PDFs
128a 128b	4/25/2022	USFS	Emails and FERC letter from USFS re Management Plan Examples	Attached - emails, PDFs

129	4/25/2022	CA Coastal Commission	Emails with California Coastal Commission re Consistency Determination	Attached - emails
130	4/29/2022	USFS	Bishop Creek 4_28 Small Group Recreation Discussion	Attached - emails
131	5/2/2022	Bishop Paiute Tribe	Emails with Bishop Paiute Tribe re staffing updates for Bishop Paiute Tribe	Attached - emails
132	5/2/2022	CDFW	Emails from CDFW re Bishop Creek FERC Relicensing 5_3 PM&E meetings (re_ stocking information)	Not attached (information cannot be shared broadly)
133	5/13/2022	CDFW, USFS	Emails re Follow up questions regarding Riparian information.	Attached - emails
134	5/18/2022	CDFW	CDFW's email re schedule for 5_25 Bishop Creek PME Meeting	Attached - emails
135a 135b 135c 135d	5/23/2022	TWG	Bishop Creek FERC Relicensing - PM&E Summaries for Distribution	Attached - emails, PDFs
136a 136b 136c	5/23/2022	TWG	Bishop Creek FERC Relicensing - 5_18 PM&E Emails and Summary	Attached - emails, PDFs
137a 137b 137c 137d	5/30/2022	TWG	Bishop Creek FERC Relicensing 5_25 PM&E Mtg. Action Items; Notes; Tree Height Data	Attached - emails, PDFs
138a 138b 138c	6/7/2022	USFS	Emails re Follow-up_ 6_2 Bishop Creek Relicensing Small Group Recreation; cost estimates; facility needs	Attached - emails, PDFs

139	3/23/2022	SHPO	FERC831003C SCE Bishop Creek Hydroelectric Project APE_SHPO	Attached - PDF; The BLM and INF provided comments on the cultural resources Technical Study Reports. These comments were addressed and are on file with SCE.
140	6/9/2022	CDFW, USFS, SWRCB	Bishop Creek Relicensing Update (pre FLA)	Attached - emails
141	4/5/2022	TWG	Bishop Creek FERC Relicensing 3.30 PM&E Mtg. Action Items	Attached - email

**AGENCY CONSULTATION: COASTAL ZONE MANAGEMENT ACT AND STATE
HISTORIC PRESERVATION OFFICER**

Item 129 - Emails with California Coastal Commission re Consistency Determination+.pdf

From: [Shannon Luoma](#)
To: [Terra Alpaugh](#)
Cc: [Finlay Anderson](#); [Lindsay Tryba](#)
Subject: FW: Consistency Determination
Date: Monday, April 25, 2022 3:51:41 PM

Terra and Lindsay – please include this email from the coastal commission in the consultation record. Thanks!

Shannon Luoma
Licensing and Regulatory Section Manager
Office: 425.528.1614

From: Emily Waters <Emily.Waters@Kleinschmidtgroup.com>
Sent: Monday, April 25, 2022 3:46 PM
To: Finlay Anderson <finlay.anderson@kleinschmidtgroup.com>; Shannon Luoma <Shannon.Luoma@Kleinschmidtgroup.com>
Subject: FW: Consistency Determination

FYI. I'll update the language in text to reflect this.

Emily Waters
Licensing & Regulatory Coordinator

971-236-5853
www.KleinschmidtGroup.com
Follow us on [LinkedIn](#)

From: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Sent: Monday, April 25, 2022 3:25 PM
To: Emily Waters <Emily.Waters@Kleinschmidtgroup.com>
Subject: RE: Consistency Determination

Hi Emily -

The Commission staff agrees that the Southern California Edison (SCE) relicensing of the Bishop Hydroelectric Project (FERC Project No. P-1394) is not located within the California coastal zone and that its operation does not affect coastal resources. By this email the Commission staff determines that SCE has met its federal Coastal Zone Management Act responsibilities. Please contact me should you have any questions regarding this matter.

Regards,
Cassidy

Cassidy Teufel
Manager
Energy, Ocean Resources
and Federal Consistency

Item 129 - Emails with California Coastal Commission re Consistency Determination+.pdf

California Coastal Commission
455 Market Street, Suite 228
San Francisco, CA 94105-2219
(805) 585-1825
<http://www.coastal.ca.gov/>

From: Emily Waters <Emily.Waters@Kleinschmidtgroup.com>
Sent: Monday, April 25, 2022 9:44 AM
To: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: RE: Consistency Determination

Hi Cassidy,

Thanks for the response! We wondered if offices were still closed or not. The project being relicensed is the Bishop Hydroelectric Project (FERC Project No. P-1394). It is located in Bishop, California on Bishop Creek and its smaller tributaries, including the South Fork and Middle Fork of Bishop Creek, Green Creek, Birch Creek, and McGee Creek. Bishop Creek is a tributary to the Owens River. Southern California Edison (SCE) is the Project owner and operator. SCE has a relicensing website with links to project filings and information which you can access here: <https://www.sce.com/regulatory/hydro-licensing/bishop-creek-project-relicensing>. Please let me know if you have any other questions.

Sincerely,

Emily Waters
Licensing & Regulatory Coordinator

971-236-5853
www.KleinschmidtGroup.com
Follow us on [LinkedIn](#)

From: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Sent: Monday, April 25, 2022 9:33 AM
To: Emily Waters <Emily.Waters@Kleinschmidtgroup.com>
Subject: RE: Consistency Determination

Hi Emily –

Thanks for reaching out on this. Can you provide more information about the hydropower facility being relicensed (name, location, watercourse)? Please also note that our offices are still closed so the best way to reach me is via email.

Thanks,
Cassidy

Cassidy Teufel
Manager

Item 129 - Emails with California Coastal Commission re Consistency Determination+.pdf

*Energy, Ocean Resources
and Federal Consistency
California Coastal Commission
455 Market Street, Suite 228
San Francisco, CA 94105-2219
(805) 585-1825
<http://www.coastal.ca.gov/>*

From: Emily Waters <Emily.Waters@Kleinschmidtgroup.com>
Sent: Monday, April 25, 2022 9:24 AM
To: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: Consistency Determination

Hello,

I'm following up about a voicemail I left last week at a phone number listed for Cassidy Teufel, who is listed as the federal consistency coordinator on the Coastal Commission website. I'm working on a hydropower project relicensing located in Bishop, California. Due to the project's location, we do not believe that the project affects the coastal zone, but it is a federally regulated project (FERC) so we are inquiring about getting a negative determination or consistency determination from the California Coastal Commission. I am hoping that you or someone else at the Commission can provide us a written statement regarding our need (or lack thereof) for a consistency determination that we can include in our final license application to FERC. If I should contact someone else at the Commission for this request, kindly pass along their contact information.

Sincerely,

Emily Waters
Licensing & Regulatory Coordinator
Kleinschmidt
971-236-5853
www.KleinschmidtGroup.com
Follow us on [LinkedIn](#)



**DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION**

Armando Quintero, Director

Julianne Polanco, State Historic Preservation Officer

1725 23rd Street, Suite 100, Sacramento, CA 95816-7100

Telephone: (916) 445-7000 FAX: (916) 445-7053

calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

March 23, 2022

In reply refer to: FERC890512A

Mr. Wayne Allen
Principal Manager
Regulatory Support Services
Southern California Edison
1515 Walnut Grove Avenue
Rosemead, CA 91770

VIA EMAIL/FERC E-File

RE: Section 106 Consultation for the Relicensing of the Southern California Edison Bishop Creek Hydroelectric Project (FERC No. 1394) Inyo County, California

Dear Mr. Allen,

The State Historic Preservation Officer (SHPO) received your consultation letter dated January 11, 2022, pursuant to Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 300101), as amended, and its implementing regulation found at 36 CFR 800. In the Notice of Intent to File License Application dated June 27, 2019, the Southern California Edison Company (SCE) was designated as the non-federal representative for Section 106 consultation for the Federal Energy Regulatory Commission (FERC) and consults on their behalf pursuant to 36 CFR § 800.2(c)(4).

SCE, on behalf of the FERC is requesting SHPO comments on the Area of Potential Effects (APE) it proposed for the above referenced undertaking. SCE is seeking a license renewal to continue operation and maintenance for FERC Project No. 1394; the current license expires June 30, 2024. The Project consists of 13 dams/diversions and five powerhouses with a generating capacity of 28.565 megawatts. SCE has been consulting with Project stakeholders in public meetings and Technical Working Groups since March 15, 2018.

SCE propose the APE to include all FERC Project facilities where Project Operations and Maintenance (O&M) have the potential to cause direct or indirect effects to historic properties. The proposed APE was depicted on maps submitted with the letter and includes all Project facilities and O&M areas located within the existing FERC Project Boundary and any other facilities outside of the FERC Boundary where Project O&M activities are conducted including areas where SCE proposed to expand the FERC boundary.

Following review of the proposed APE, I offer the following comments:

Mr. Wayne Allen

FERC831003C

March 23, 2022

Page 2 of 2

- Pursuant to 36 CFR § 800.4(a)(1), I find the APE as defined to be sufficient for the undertaking.

If you have any questions or concerns, please contact Brendon Greenaway at (916) 445-7036 or Brendon.Greenaway@parks.ca.gov.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'J' followed by a horizontal line extending to the right.

Julianne Polanco
State Historic Preservation Officer

SOUTHERN CALIFORNIA EDISON

**Bishop Creek Hydroelectric Project
(FERC Project No. 1394)**

FINAL LICENSE APPLICATION

APPENDIX B

**PROPOSED PROTECTION, MITIGATION,
AND ENHANCEMENT MEASURES FOR
THE BISHOP CREEK HYDROELECTRIC
PROJECT AND MANAGEMENT PLANS**

June 2022

Support from:

Kleinschmidt

NEW ENVIRONMENTAL MEASURES AND PLANS

The Protection, Mitigation and Enhancement (PME) measures described in this document are being proposed as a result of consultation with stakeholders and agencies, in addition to the effects analysis conducted as part of the relicensing process and presented in this Final License Application (FLA), which utilized results of the Technical Study Plans as approved by the Federal Energy Regulatory Commission (FERC) in 2019. Final Technical Reports for each study are included in Volume III of this FLA.

PME measures in this document are described in full detail where appropriate. For those plans that require additional space, a summary is provided here, and management plans are attached to this document in the following order:

- Sediment Management Plan (Attachment B1)
- Wildlife Management Plan (Attachment B2)
- Botanical Management Plan (Attachment B3)
- Invasive Management Plan (Attachment B4)
- Recreation Management Plan (Attachment B5)
- Historic Properties Management Plan (to be filed as a supplemental report following the filing of the FLA)

PME-1: WATER RESOURCES MANAGEMENT

Implementation of the Water Resources Management PME-1 represents proposed measures related to management of water resources in the Bishop Creek Hydroelectric Project (Bishop Creek Project) area to address resource management objectives within operational constraints of the Project. There are four components to the measure:

1.1 ANNUAL CONSULTATION

Southern California Edison (SCE), the U.S. Forest Service (USFS), and the California Department of Fish and Wildlife CDFW will meet each year no later than April 15 to review SCE's proposed Summer Operation and Maintenance Plan for the Project facilities. This plan will address:

- a. Construction and maintenance work that is earth disturbing in nature and is beyond simple maintenance work to include construction and maintenance of powerhouses, power line, penstocks, flowline, roads, dams and all other facilities
- b. Timing, duration, and magnitude of redd disruption flows in paragraph 1.3
- c. Water management and implementation of geomorphic flows

Management of flows and lake levels will be based on the forecast for the Owens River Basin compiled by the state of California on April 1 and the updated projected natural flows into South Lake and lake Sabrina.

Costs associated with the operation and maintenance (O&M), and generation costs of implementation are summarized in Exhibit D.

1.2 MINIMUM INSTREAM FLOWS

SCE conducted a new instream flow study during 2019 and 2020 in the Bishop Creek Project reaches. The goal of the instream flow study was to provide data to support evaluation of Project operations and existing minimum instream flows (MIFs) on aquatic resources such as fish, aquatic habitat and riparian vegetation. This Minimum Instream Flow measure reflects the results of the study and subsequent discussion with resource agencies through the Fish and Aquatics Technical Working Group (TWG). Agency proposed objectives for MIFs are summarized in Section 9.5.5 of Exhibit E, along with anticipated effects of the Proposed Action.

Revised MIFs are intended to continue management of instream flow for the benefit of fish and aquatic resources, with some adjustments based on the results of the Instream Flow Habitat Assessment Study (AQ-1). Under the Proposed Action, SCE shall provide MIFs as described in Table 1.2-1, to support aquatic resources.

Table 1.2-1. Proposed Instream Flow Requirements^{1,2}

Reach	Reach Description (Upstream to Downstream)	Minimum Flow (cfs)	Duration
Reach 10	South Lake to South Fork Diversion	13 cfs or natural flow, whichever is less	Last Friday in April through October 31
		8 cfs or natural flow, whichever is less	November 1 through last Thursday in April
Reach 9	South Fork below South Fork Diversion	10 cfs or natural flow, whichever is less	Last Friday in April through October 31
		4 cfs or natural flow, whichever is less	November 1 through last Thursday in April
Reach 8	Lake Sabrina to Intake No. 2	13 cfs or natural flow, whichever is less	Last Friday in April through October 31
		10 cfs or natural flow, whichever is less	November 1 through last Thursday in April
Reach 7	Below Intake No. 2 and above the confluence of the South Fork	10 cfs	Last Friday in April through October 31
		7 cfs	November 1 through last Thursday in April
		5 cfs	year-round in dry years*
Reach 6**	Below the confluence of Bishop Creek South Fork and Middle Fork	20 cfs	Last Friday in April through October 31
		11 cfs	November 1 through last Thursday in April
		9 cfs	year-round in dry years*
Reach 5	Below Intake No. 3 (Plant No. 2 to Plant No. 3)	13 cfs	Last Friday in April through October 31
	Below Intake No. 3 (Plant 2 to Plant 3)	10 cfs	November 1 through last Thursday in April
Reach 4 and Reach 3	Below Intake No. 4 and confluence of Coyote Creek (Plant 3 to Plant 4)	5 cfs***	Year round
Reach 2	Below Intake No. 5 (Plant No. 4 to Plant No. 5)	12 cfs	Year round
Reach 1	Below Intake No. 6 (Plant 5 to Plant 6)	2 cfs	Year round
N/A	McGee Creek Diversion	1 cfs or natural flow, whichever is less	Year round
N/A	Birch Creek Diversion	0.25 or natural flow, whichever is less	Year round

¹ Proposed flows on a daily average following standard SCE QA/QC protocols.

² Compliance met when the mean daily flows are at least 90% of the applicable continuous flow release value in the table above, 90% of the time.

* Defined as “less than 75% of April 1 (normal) snow water equivalent”.

** The flows in the reach below the confluence of the Bishop Creek South Fork, and Middle Fork of Bishop Creek (Reach 6) are the sum of releases from Intake No. 2 and releases from the South Fork diversion.

*** Receives an additional 3-5 cfs inflow from Coyote Creek; SCE would release 2 cfs from Intake No. 4.

1.3 REDD DISRUPTION

To enhance native fisheries, SCE will initiate a short-duration pulse flow in Reaches 1 through Reach 4, to disrupt redds that may be established by non-native brown trout. These flows will be provided annually except during dry years as defined in PME-1.2 above. The timing, duration and magnitude of the flows will be the maximum bank-full flow 200 cfs for 4 hours in Reaches 1-4 but may be modified as described in paragraph 1.1.

1.4 GEOMORPHIC FLOWS

A geomorphic flow would be provided during the June/July/August timeframe to coincide with natural snowmelt runoff (determined as discussed during consultation described in paragraph 1.1) during each wet year (defined as greater than 125 percent of the 30-year average). The geomorphic flow would consist of a peak discharge of 300 cubic feet per second (cfs) for at least 12 hours through the entire system below Intake No. 2. A minimum 12-hour flow ramp up period would occur prior to the peak discharge and a minimum 12-hour flow ramp down period would occur afterwards. It is anticipated that these flows will be beneficial and provide overbank flows, promote riparian growth, provide flow diversity, as well as improve sediment mobility and fish habitat in the reaches they occur within. Geomorphic flows would be provided via the main spillway overflow at the intakes.

PME-2: SEDIMENT MANAGEMENT PLAN (ATTACHMENT B1)

As outlined in Exhibit E, the Bishop Creek Sediment and Geomorphology Final Technical Report (Volume III) confirmed that the finer sediment (e.g., sand and gravel) in the bypass reaches of Bishop Creek accumulates in the Project impoundments and that the substrate in the bypass reaches is generally cobbles and boulders. As such, PME-3 is intended to better manage the geological and soil resources, in support of improved conditions for fish and aquatic resources, including riparian communities, and consistent with O&M activities.

SCE has developed a Sediment Management Plan to improve the management of the geological and soil resources which describe the approach to transport sediment through Bishop Creek. Following submittal of this Final License Application (FLA):

The Sediment Management Plan includes the following components:

- An outline of the schedule, duration, and magnitude of sediment management releases, along with a description of constraints that might influence how the program is implemented

- Details on the methods proposed for sediment management; including use of low-level outlets to draw down intake reservoirs to reintroduce sediments back into the bypass reaches of Bishop Creek
- An overview of the mechanical sediment removal (when necessary) for maintenance of low-level outlets and intake gates
- A description of coordination and consultation with downstream water managers

PME-3: STOCKING PLAN

As described in Section 9.9 of Exhibit E, enhancement of recreational fishing opportunities in the Project reservoirs would be consistent with the management objectives of the Forest Service and CDFW. CDFW currently stocks in both Lake Sabrina and South Lake and in Bishop Creek.

The purpose of this Plan is to 1) offset potential fish entrainment in the Bishop Creek Project and 2) enhance the existing recreational fishery resource.

SCE will stock 5,000 catchable trout¹, or its equivalent (not to exceed 2,500 pounds), for placement in the Project area annually; the location and timing for placement will be determined in consultation with CDFW. The 5,000 catchable trout may range in size and weight depending on availability of fish and needs identified through consultation.

SCE will use the following measures to implement this Plan:

- Provide resource agencies a proposal for annual stocking allotment to fulfill consultation obligation
- Obtain and release 5,000 catchable trout for stocking (or the equivalent of 2,500 pounds) in the Project area as approved in the annual proposal
- Obtain all required permits from relevant resource agencies prior to release of fish in Project reservoirs
- Submit a memorandum of stocking activity to FERC and CDFW within 30 days after distribution of fish in Project reservoirs

Fish will be transported to the release sites by a licensed vendor. SCE will release the stocked fish following proper fish-handling procedures and protocols.

PME-4: WILDLIFE RESOURCES MANAGEMENT PLAN (ATTACHMENT B2)

In 2019 and 2020, SCE completed a General Wildlife Survey. To protect wildlife resources from potential impacts associated with both routine and non-routine O&M activities within the FERC Project Boundary, SCE has developed a Wildlife Resources Management Plan (WRMP). This plan describes the following:

¹ “Catchable trout” is understood to be between 6.0 and 1.0 fish per pound. Most frequently this will be 2.0 fish per pound (approximately 12 inches in length).

- Continued implementation of the Avian Protection Plan (APP)
- Continued implementation SCE’s Nesting Bird Management Guidance (NBG) for Small Projects
- Continued implementation of Pre-Activity Nesting Bird and Raptor Surveys during the recognized nesting season, adjusted for altitude across the Project
- Continued maintenance of mule deer and other wildlife crossings and guzzlers
- Management and protective activities for at-risk wildlife species

Non-routine O&M or ground disturbing activities in riparian areas will continue to require pre-activity surveys for riparian birds and other special status wildlife, as well as replacement of lost habitat due to O&M activities. A description of those and similar requirements will be included in the WRMP for the Project.

The corporate-mandated APP incorporates relevant guidelines published by the Avian Power Line Interaction Committee (APLIC) and the U.S. Fish and Wildlife Service (USFWS) in 2005.

The 2019-2020 General Wildlife Survey revealed that no special status wildlife species were observed wintering, roosting, or nesting at the Project facilities. Additionally, during the 2019-2020 General Wildlife Survey, while bat species were found to use some powerhouses as summer day roosts, no winter roosting was found. Northern goshawk was confirmed nesting along Birch Creek but was not utilizing any Project facilities. Golden eagle and bald eagle were observed flying over the Project area.

PME-5: BOTANICAL RESOURCES MANAGEMENT PLAN (ATTACHMENT B3)

As outlined in Exhibit E, a total of six special status plant species were observed within the FERC Project boundary during surveys conducted in 2019 and 2020, one of which is a Forest Species of Conservation Concern (Frog’s-bit buttercup [*Ranunculus hydrocharoides*]). The other five have special status rank with the California Native Plant Society. Database searches identified numerous additional special status plant species as having potential to occur but were not observed in 2019 or 2020. It is recognized that rarity or risk status for a species could change over time during the term of the new license. Given this information, the Botanical Resources Management Plan (BRMP) has been developed to include protection measures in the event that non-routine O&M activities may disturb or otherwise impact special status plants over the term of the new license.

An Implementation Plan for Mitigation of Impacts to Sensitive or Endangered Plant and Animal Species (SEPP) was prepared in 1995, after the existing license was issued. The BRMP supersedes SEPP and includes measures to protect Rare, Threatened and Endangered (RTE) Species. Additional components to this PME include:

- An updated table of species known to occur, or with potential to occur, within the FERC Project boundary. The table will summarize the life history of each species (e.g., perennial, annual), season(s) when the species is most likely to be detected if field

surveys are conducted, rarity/conservation status, habitat associations, and elevation ranges where each species has typically been observed (while recognizing that these ranges could change with climate change)

- Measures that could be implemented to avoid impacts, such as pre-activity field surveys conducted as early as reasonable ahead of the planned activity but still within the appropriate season(s) of detectability
- Management and protective activities for at-risk botanical species

PME-6: INVASIVE SPECIES MANAGEMENT PLAN (ATTACHMENT B4)

SCE conducted surveys in 2019 and 2020 to evaluate potential impacts to wildlife and botanical resources, which included a survey for invasive plants. The Invasive Species Management Plan (ISMP) maintains consistency with the Inyo National Forest 2019 Land Management Plan and provides guidance for both routine O&M projects and non-routine projects. The ISMP describes measures to achieve desired conditions for invasive species including information on the treatment or management of the spread of these species. Plan components include:

- A list of invasive species known to occur within the FERC Project Boundary, a brief summary of the life history of each that is relevant to control or eradication, and a priority rank for each (e.g., control versus eradication versus limiting dispersal)
- Description of SCE's current best management practices for preventing the introduction and dispersal of invasive species
- Measures for control or eradication at specific target areas, e.g., populations of black locust (*Robinia pseudoacacia*).

PME-7: RECREATION RESOURCES MANAGEMENT PLAN (ATTACHMENT B5)

SCE conducted recreation facility and usage surveys in 2020 and 2021, respectively. Based on these study results, SCE has prepared a Recreation Resources Management Plan (RRMP) for the management of and benefit to recreation resources. The plan describes the development of an Implementation Plan and schedule for measures that:

- Are consistent with area recreation needs
- Ensure public access to Project-induced recreation facilities
- Incorporate necessary lands within the Project boundary for Project-induced recreation purposes
- Describe access to Project facilities that SCE will improve or restore to acceptable accessibility standards, as needed
- Provide for proportional cost-sharing with the Forest Service to support recreational use where there is non-exclusive use
- Create a structure retaining USFS management and operations through an operating agreement regarding the USFS facilities for which SCE is responsible.

This financial management would be structured according to the most efficient distribution and use of funds

- Address ways that SCE can collaborate with the USFS to manage prohibited activities around the reservoirs, which are primarily outside of the FERC Project boundary (e.g., dispersed camping in wilderness or below the high-water mark at Lake Sabrina and South Lake)

SCE intends for the development of the Implementation Plan to be developed in consultation with the Inyo National Forest.

PME-8: HISTORIC PROPERTIES MANAGEMENT PLAN (TO BE DEVELOPED)

From 2020 to 2021, SCE conducted cultural resource studies including archaeological, built environment, traditional cultural properties (TCP), and tribal cultural resources. SCE currently implements a Cultural Resources Management Plan and will develop a Historic Properties Management Plan (HPMP) for the Project. The HPMP will consider the direct and indirect effects of continued Project O&M on the National Register of Historic Places (NRHP) listed or eligible Resources, including public recreation activities, which may have an adverse effect on historic properties.

The proposed HPMP will include guidelines for monitoring archaeological site conditions as well as PM&E measures to avoid, minimize, and/or mitigate direct and indirect effects to NRHP eligible or listed resources. The HPMP will be developed in consultation with the California State Historic Preservation Office and interested Native American Tribes following the filing of the FLA.

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project

(FERC Project No. 1394)



SEDIMENT MANAGEMENT PLAN



JUNE 2022

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

SEDIMENT MANAGEMENT PLAN

Southern California Edison
1515 Walnut Grove Ave
Rosemead, CA 91770

June 2022

Support from:

Kleinschmidt

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Attachment A	Estimated Rating Curve of the Low-Level Outlets at Each Intake
--------------	--

ACRONYMS

B

Basin Plan Water Quality Control Plan for the Lahontan Region

BLM Bureau of Land Management

C

CDFW California Department of Fish and Wildlife

cfs cubic feet per second

F

FERC Federal Energy Regulatory Commission

FLA Final License Application

I

INY Inyo National Forest

K

kW kilowatt

L

LADWP Los Angeles Department of Water Programs

LLO low level outlets

M

msl mean sea level

MWh megawatt hour

O

O&M operations and maintenance

P

Plan Sediment Management Plan

Project Bishop Creek Hydroelectric Project

R

Regional Board Lahontan Regional Water Quality Control Board

S

SCE Southern California Edison

SWRCB State Water Resources Control Board

U

USDA U.S. Department of Agriculture

USFS U.S. Forest Service

USGS U.S. Geological Survey

1.0 INTRODUCTION

This Sediment Management Plan (Plan) was developed for the Bishop Creek Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC) Project No. 1394 to accompany Southern California Edison's (SCE) application for a new FERC license. This Plan identifies SCE's responsibilities for the management of sediment at Project facilities and through bypass reaches, along with an operational approach for implementing sediment management procedures.

1.1 PROJECT LOCATION

The Project is located in the Owens Valley, along the eastern Sierra Nevada Mountains (Figure 1.1-1). Most of the basic hydro-generation facilities have been in existence since the early 1900s. The Project facilities include powerhouses¹, dams, impoundments (including South Lake and Lake Sabrina), diversions, weirs, outbuildings, valve houses, access roads, and a flowline. The Project's facilities are sited along Bishop Creek and its tributaries including South Fork, Middle Fork, and Green Creek, plus Birch Creek and McGee Creek north of Bishop Creek. Bishop, Birch, and McGee creeks are tributaries to the Owens River. Project facilities are located within the Inyo National Forest (INF) and the John Muir Wilderness (managed by the U.S. Forest Service [USFS]), and include lands managed by Bureau Land Management (BLM) and private lands. Subsequently, land uses adjacent to the Project are varied and include residential, grazing, public recreation, and federally-designated wilderness land, among others.

The Project area is one of moderate to steep ridge and valley topography. Elevations within the drainages range from approximately 4,000-feet above mean sea level (msl) to over 13,000-feet above msl. Bishop Creek is a major stream with a total drainage area of approximately 70 square-miles, flowing northeastward approximately 28 miles from its headwaters in the Sierra Nevada to its confluence with the Owens River at the city of Bishop. The North, Middle and South Forks of Bishop Creek originate in nearby glacial basins separated by ridges. South Lake and Lake Sabrina are the major storage reservoirs in the watershed.

The Project area supports upland vegetation communities and a mixture of floodplain, wetland, riparian, and littoral communities within and adjacent to Bishop Creek. Plant community types consist of alpine grasses and forbs, alpine mixed scrub, barren, bitterbrush, saltbush, curl-leaf mountain mahogany, Great Basin mixed scrub, rabbitbrush, basin sagebrush, Great Basin – desert mixed scrub, blackbush, eastside pine, annual grasses and forbs, perennial grasses and forbs, lodgepole pine, high desert mixed scrub, singleleaf pinyon pine, limber pine, canyon live oak, subalpine conifers, whitebark pine, wet meadows, riparian mixed hardwood, willow, quaking aspen, perennial lake or pond, water, and willow shrub (Psomas, 2020).

¹ Note to reader – in this document, the term “powerhouse” is used as a general reference to the structure; however, when referencing a specific structure the term “Plant” is used.

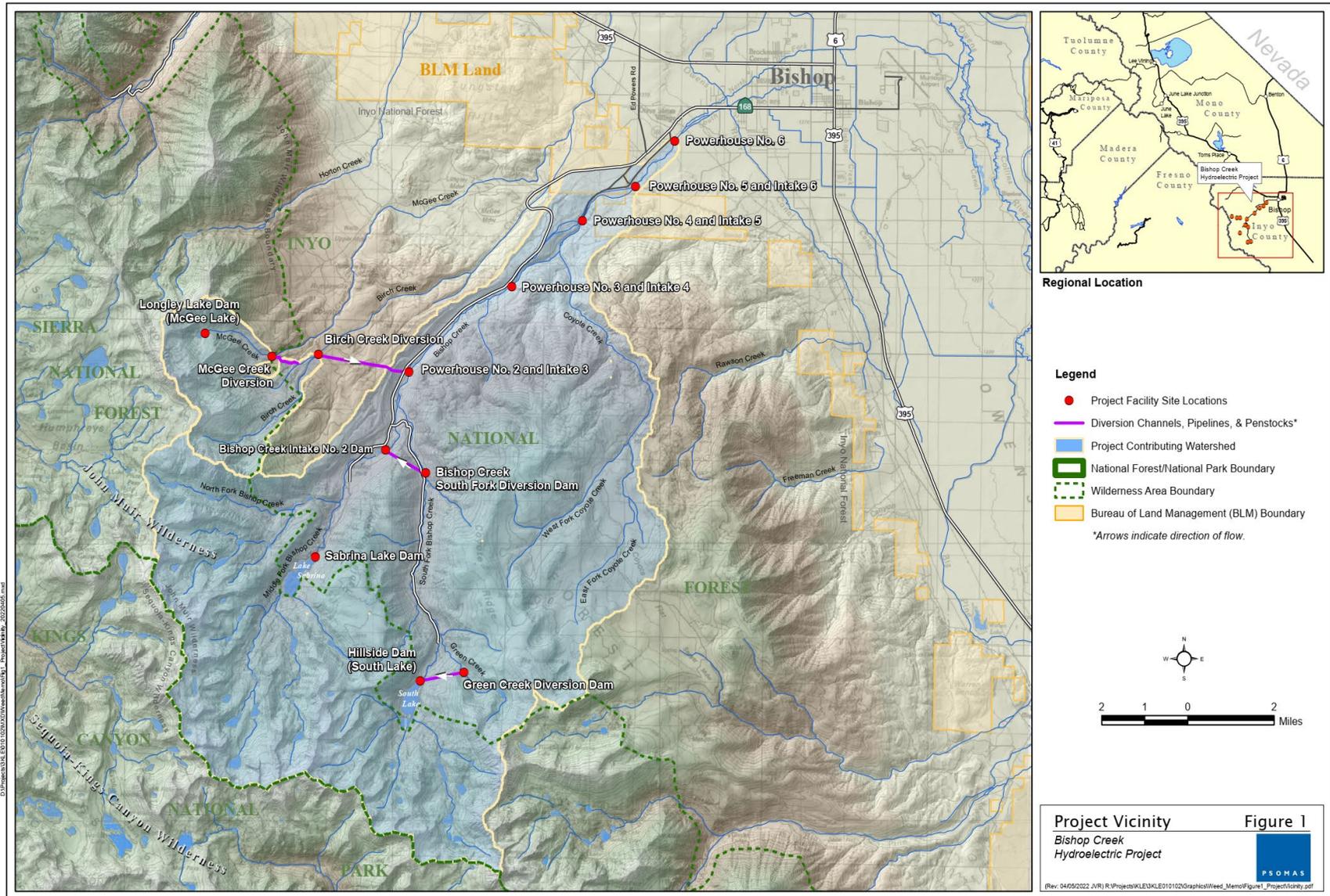


Figure 1.1-1 Project Vicinity.

1.2 PROJECT FACILITIES

Southern California Edison Company (SCE) is the licensee, owner, and operator of the Bishop Creek Project. The Bishop Creek Project consists of five developments: Power Plants No. 2 through No. 6 on the Middle Fork of Bishop Creek and three primary storage reservoirs that include South Lake, Lake Sabrina and Longley Lake (Figure 1.2-1).

The Project has a total of dependable generating capacity of 28,925 kilowatts (kW) and has an average annual energy production of 128,039 megawatt hours (MWh). Stored water is transported through a series of connecting flowlines and penstocks to the powerhouses and returned to the river through the tailrace at Plant No. 6. Under the existing Project license, the FERC Project boundary encompasses federal lands administered by either the U.S. Department of Agriculture (USDA) Forest Service or the BLM, and SCE-owned or private land. SCE does not propose any changes to Project O&M and does not propose any new construction.

For additional information regarding these features and their operations, please refer to Exhibit E of the 2022 Final License Application (FLA), available at www.ferc.com or www.sce.com/bishopcreek.

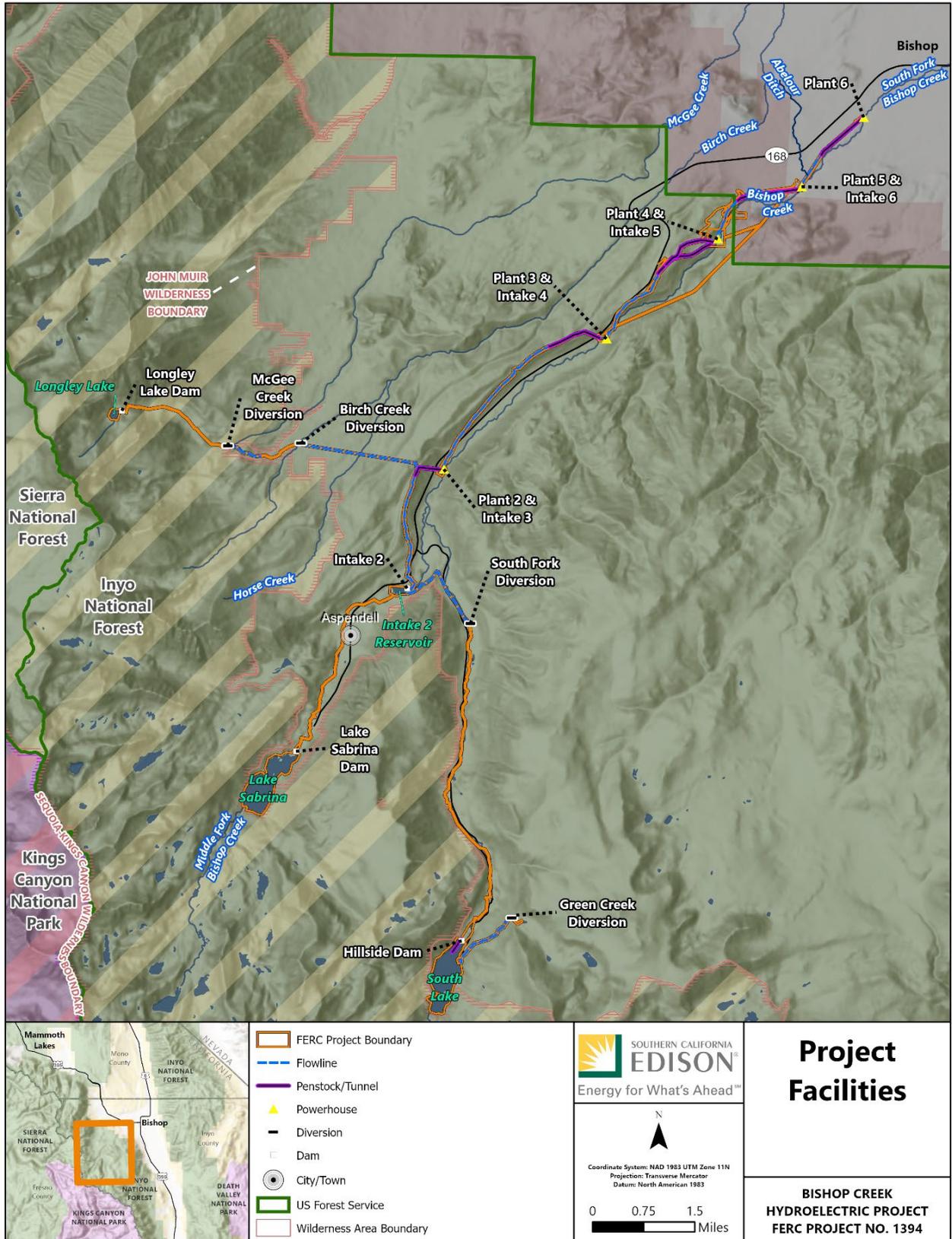


Figure 1.2-1 Bishop Creek Project Facilities.

1.3 EXISTING CONDITIONS AND FLOW DYNAMICS

The flow in Bishop Creek (also known as the bypass channel because it bypasses the powerhouses) is managed by regulatory requirements for in-stream flow and water supply to downstream users, with variations in these flow requirements throughout the year. The existing conditions include regulated flow contributions from storage reservoirs to the upper reaches of Bishop Creek, unregulated contributions from the North Fork tributary, and additional regulated flow contributions directly to the penstocks from Birch and McGee creek diversions. Two unregulated tributaries (Egypt Creek and Coyote Creek) enter the Project between Plant No. 2 and Plant No. 4. The flow within Bishop Creek (and total outflow from the Project) varies with inflow from the unregulated tributaries, uncontrolled spill from the reservoirs, and variability in generation; a summary of flow in Bishop Creek bypass reach just upstream of Plant No. 6 is provided in Figure 1.3-1.

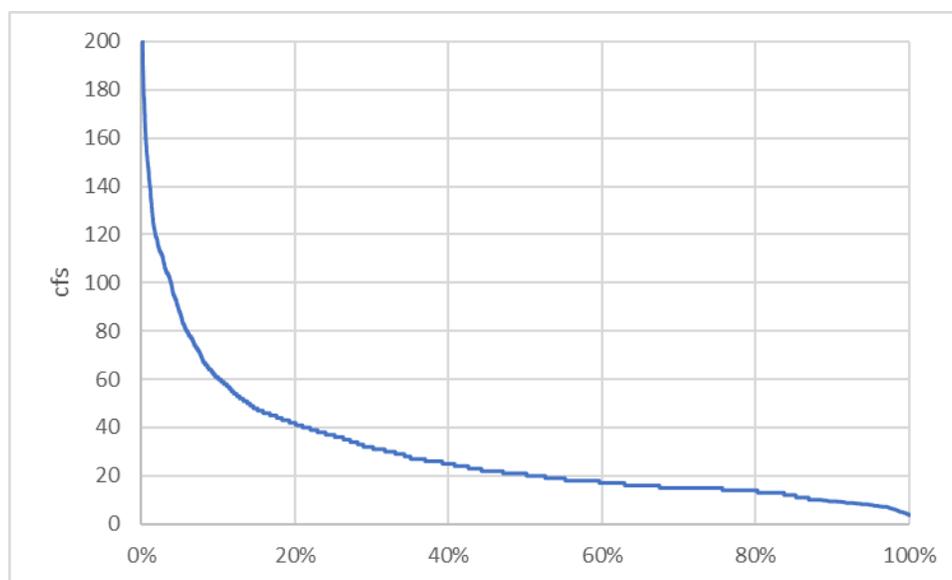


Figure 1.3-1 Bishop Creek Bypass Reach at Plant No. 6: Annual Flow Duration Curve Based on Daily Average Flows from October 1988 to October 2019 at USGS Gage 10270872.

The streamflow gages on Bishop Creek between Intake Reservoir No. 2 and No. 6 are not calibrated to flows above 30 cubic feet per second (cfs), so there is limited data on flows within these bypassed reaches.

1.4 WATER YEAR CONSIDERATIONS

Plant operation is dictated by water availability. Both the 1922 Chandler Decree and the 1933 Sales Agreement (Sales Agreement) between Southern Sierra Power Company (a predecessor to SCE) and Los Angeles Department of Water Program (LADWP) form the

standard operations for which all regulations must be prioritized². Rule curves that describe the general allocation of water for these constraints during mean, high- and low-water years are provided in Section 5.5 of Exhibit E of the FLA.

For purposes of planning and implementation of measures in this plan SCE defined wet, normal, and dry water year types as follows:

- Wet Year: 125 percent or more than 30-year average of summed snow course measurements
- Normal Year: Between 75 percent and 125 percent of 30-year average of summed snow course measurements
- Dry Year: 75 percent or less than 30-year average of summed snow course measurements

These are based on the sum of snow course measurements taken at Bishop Pass, Piute Pass, and East Piute Pass locations, in late March or early April annually. A review of historic records, on a 30-year moving period of record, indicate that the percent of water year types are represented as follows: wet (30 percent), normal (33 percent) and dry (37 percent).

² The Project water scheduling priority is based on the requirements of a 1922 water rights ruling (*Hillside Water Company v. Trickey et. al.*, “Chandler Decree”). Wintertime flows are regulated by the 1933 Sales Agreement between the Southern Sierra Power Company and LADWP.

2.0 PURPOSE AND INTENT

SCE's sediment management activities were previously permitted on an individual basis. The intent of this Plan is to outline the sediment management activities that will be authorized for implementation under the terms of the new license. During relicensing resource agencies, including the CDFW, requested that SCE consider managing the sediment in Bishop Creek to more frequently release finer sediment into the bypass reach which will provide benefits to macroinvertebrates, fish habitat/foraging, and riparian habitat. The existing substrate in Bishop Creek predominately consists of cobbles and boulders due to finer sediment (e.g., sand and gravel) being displaced by moderate flows and accumulating in Project impoundments. Therefore, this Plan was developed to better manage and more frequently release fine sediment in Bishop Creek to improve conditions for fish and aquatic resources, and riparian communities. Additionally, the frequent release of sediment into the bypass reaches of Bishop Creek would reduce the need for mechanical sediment removal at the Project impoundments.

The Plan includes the following components:

- An outline of the schedule, duration, and magnitude of flow releases to mobilize sediment, along with a description of variables that could influence how the program is implemented
- Details of the methods proposed for sediment management; including the use of low-level outlets (LLOs) to draw down intake reservoirs to transport sediment through the bypass reaches of Bishop Creek
- An overview of the mechanical sediment removal (when necessary) for maintenance of LLOs and intake structures
- A description of coordination and consultation with agencies and downstream water managers

2.1 OPERATIONAL NEEDS

Stream sediment deposits accumulate behind Project facilities (impoundment dams), diversions, intake structures, water measurement controls (flumes and weirs), and other structures. These deposits require periodic removal to maintain Project operations. This Plan outlines the approach and measures SCE will implement to manage sediment deposits.

The measures proposed in this Plan are not a significant departure from current sediment management activities that were implemented to meet operational needs. However, this Plan clarifies that the proposed mobilization of sediment from intakes into bypass reaches will meet O&M needs, in addition to meeting resource objectives for aquatic health.

2.2 PRE-LICENSE CONSULTATION

This Plan was developed in consultation with agencies and stakeholders, including the USFS, CDFW, LADWP, and the State Water Resources Control Board (SWRCB). The USFS and CDFW presented general goals for sediment management and geomorphic flows (Refer to Consultation Record, FLA Appendix B for meeting materials). Of the goals presented, two relate directly to the development of this Plan.

Table 2.2-1. Relevant Agency Sediment Management Goals

Title	Goal	Proposal
Sediment Supplementation and Monitoring Plan	Maintain natural sediment regime (i.e., input, transport and storage) that promotes recruitment of cottonwoods and provides for a diverse river ecosystem	Develop a Sediment Supplementation and Monitoring Plan that incorporates mobilization of sediment from intakes back into the channel
Geomorphic and Peak Flows	Implement geomorphic and peak flows that would promote a natural river regime and provide for movement of sediment throughout the river system	Incorporate geomorphic and peak flows into the Sediment Supplementation and Monitoring Plan and use to promote other Project goals

Reach specific proposals presented by agencies included:

- Reach No. 5 (Bishop Creek below Intake No. 3):
- Geomorphic flows and/or ramping rates
- Movement of sediment into this reach by either sluicing or mechanical movement
- Reaches No. 4 and No. 3 (between Intake No. 4 reservoir and Intake No. 5 reservoir)
- Physical movement of sediment into this reach by either sluicing or mechanical movement

3.0 GOALS AND OBJECTIVES

The goal of this Plan is to provide operational guidance to SCE staff and regulatory authorities on the procedures and activities that are necessary to implement and manage sediment removal of Project intakes, consistent with the Purpose and Intent described in Section 2.

The goals of this Plan include:

- Facilitate ongoing maintenance of Project facilities by providing a mechanism for sediment removal
- Provide an ecological benefit to downstream reaches by allowing sediment to mobilize into the stream

4.0 INFRASTRUCTURE AND CONSTRAINTS

Bishop Creek Project is required to operate within certain legal, regulatory, and physical constraints as described below.

4.1 REGULATORY AND WATER RIGHTS CONSTRAINTS

SCE manages reservoir operations to support hydro-generation and water allocation requirements in accordance with the requirements of 1933 Sales Agreement and the 1922 Chandler Decree.

The Sales Agreement provides for seasonal maximum carry-over limits of 2,147 acre-feet, as measured on or about April 1, annually. Variances from this requirement have been obtained on a case-by-case basis in the past, by mutual-agreement between SCE and LADWP. Additionally, SCE meets with the USFS annually to determine seasonal minimum storage requirements.

The 1922 Chandler Decree and water rights determine how flows are allocated and used, as follows:

- Seasonal diversion and accumulation limit are not to exceed historically measured use (i.e., not to exceed current Project capacity), including an annual limit of 1400-acre feet from Green Creek
- Instantaneous diversion limit at all locations are not to exceed historically measured use (i.e., not to exceed current Project capacity), including a daily average limit of 1 cfs for domestic use³
- Minimum Project flow-through (downstream delivery) requirements, for senior downstream water rights holders, are measured below Plant No. 6, as required by the 1922 Chandler Decree Table 4.1-1.
- Minimum instream flow requirement of 0.25 cfs at the Birch Creek diversion, for senior downstream water rights holders, as stipulated by the 1922 Chandler Decree
- Minimum instream flow requirement of 1.6 cfs during the irrigation season (April-September), and 0.4 cfs at other times, through the Abelour Ditch, for senior downstream water rights holders in the Rocking K Subdivision

³ Domestic water use includes indoor and outdoor uses at residences, and includes uses such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, water lawns and gardens, and maintaining pools (USGS, 2019).

Table 4.1-1. 1922 Chandler Decree Daily Average Flow Requirements Below Plant No. 6

Time Period	Daily Average Flow (cfs)	Instantaneous Minimum Flow (cfs)
April 1-15	44	33
April 16-30	68	51
May 1-15	87	65
May 16-31	98	74
June 1 - Jul 31	106	90
August 1-31	106	80
September 1-15	76	57
September 16-30	58	44

Source: Chandler Decree, 1922

4.1.1 LAHONTAN BASIN PLAN

The Bishop Creek Project is located in the Owens River watershed, which is under the jurisdiction of the Lahontan Regional Water Quality Control Board (Regional Board). The Water Quality Control Plan for the Lahontan Region (Basin Plan) sets forth water quality standards for surface and ground waters of the region, including both designated beneficial uses of water and the narrative and numerical objectives which must be maintained or attained to protect those uses (LRWQCB, 1995).

4.1.2 PHYSICAL INFRASTRUCTURE CONSTRAINTS

Existing Project infrastructure (dam/spillways, LLO, penstocks, diversion dams/ditches, and powerhouses) will be used to implement this Plan and no improvements or alterations to the existing infrastructure are necessary.

Intake No. 2 through Intake No. 5 each have a main spillway section that includes two 36-inch-diameter LLOs, while Intake No. 6, has a 36-inch and a 42-inch-diameter LLO. An estimated rating curve of the LLOs at each intake is included with this Plan, Attachment A. A summary of estimated LLO capacities is provided as Table 4.1-2.

Table 4.1-2. Infrastructure Details for Plant/Intake Nos. 2-6

Plant/Intake	Maximum Powerhouse Capacity (cfs)	Intake Impoundment Volume (ac-ft)	Estimated Low-Level Outlet Capacity (flow at full pond WSEL/flow for WSEL at top of LLO pipe)* (cfs)
2	120	78	350/85
3	164	6.4	250/70
4	125	12.8	290/75
5	131	6.3	310/70
6	148	5.5	250/95

Note: Capacity is only for the low-level outlet(s). Powerhouse intake infrastructure is separate and includes some drawdown capacity/ability to return flow to Bishop Creek, but the intake infrastructure is typically not used to pass “dirty” water to protect SCE infrastructure.

Low Level Outlets – Slide Gates

Each LLO is equipped with a manually operated slide gate (Figure 4.1-1). Slide gates are intended to function in the full open or full closed position but can be opened to varied degrees from approximately 30 percent open to fully open. Partial opening less than 30 percent open increases the risk of damage to infrastructure due to vibration. Since the slide gates are intended to primarily provide a means to drain the impoundments they can only provide very coarse flow adjustments when partially open. Also, flows through a partially open gate are difficult to quantify due to intake geometry, constrictions, and potential for blockage. Therefore, estimates of LLO capacities were not made for partial gate opening.

Another limitation with the slide gate operations is the ability to measure the flow release from the partially open gate due to the limited network of downstream gaging locations. Some locations have a flow gage that is accurate across the range of flows proposed in this Plan (e.g., bypass reach by Plant No. 6), while other gages are only calibrated up to approximately 30 cfs (e.g., bypass reach at Plant No. 2 through Plant No. 5). This will require an adjustment period where flows fluctuate above or below the target flow until the gate settings, flow releases, and generation flows are balanced to achieve the target flows stated in this Plan.

The use of partially opened slide gates is not recommended due the potential for infrastructure damage and minimal ability to measure the flow release.

Abelour Ditch - Water Delivery Obligation

To meet obligations for downstream water users on the Abelour Ditch, water is continuously discharged from the system to the Abelour Ditch via Intake No. 6, with a backup discharge point from Intake No. 5. Thus, Intake No. 5 and Intake No. 6 cannot be offline at the same time because the Rocking K Subdivision would not receive their required water allocation.



Figure 4.1-1 Intake No. 5 Low-Level Outlet Slide Gate.

Low Level Outlet Inlet - Localized Sediment Transport

The transport of sediment from any of the impoundments would only occur in the immediate vicinity of the LLO inlet when the impoundment is full, due to low flow velocities. To mobilize sediment from the impoundments, the water surface elevation needs to be as low as possible to allow more of the sediment to be mobilized by higher velocity flows as the water travels along the bottom of the impoundment to the LLO inlet. Depending on the required flow through the LLO to meet downstream requirements, some ponding may occur to an elevation near or just above the top of the LLO pipe to achieve the head required to drive water through the LLO (Table 4.1-2).

Low Level Outlet Inlet - Blockage

Another physical constraint on the transport of sediment and passage of flow through the LLO is the potential for high debris loading to block the LLO. This is more likely at Intake No. 5, below the outlet of Coyote Creek, where more large woody material occurs. If the LLO becomes blocked during water and sediment release, current practice is to close that outlet and use grappling hooks or other means to manually remove the obstruction to restore flow.

5.0 MEASURES

As described in the following text, SCE will implement a sediment mobilization and transport measure and mechanical removal measure.

5.1 SEDIMENT MOBILIZATION AND TRANSPORT MEASURE

Sediment mobilization and transport techniques will be used to initiate sediment movement from the Project impoundments Intakes No. 2 through No. 6 into the bypass reaches and transport sediment through the system with subsequent high flow releases.

5.1.1 TIMING AND SCHEDULE

SCE proposes to drawdown the impoundments during certain wet years to simulate natural sediment transport processes during those years to the bypass reaches. The first occurrence of sediment transport would occur during the first wet year following license issuance, with additional sediment transport occurring as agreed to during the annual Consultation Meeting (Section 7-Consultation and Reporting). Sediment transport is not required in all wet years but must be performed according to the frequencies outlined in Table 5.1-1. There shall be a maximum of one sediment transport event per intake per year, except when maintenance needs dictate a maintenance-related intake impoundment drawdown.

Table 5.1-1. Frequency of Sediment Transport Events for Intake No. 2 through Intake No. 6

Sites	Minimum Period between Sediment Management Activity	Maximum Period between Sediment Management Activity
Intake Impoundment No. 2	1 year	20 years
Intake Impoundment No. 3 through No. 6	1 year	10 years

Sediment mobilization from impoundments is planned for the early spring (April, timeframe) and transport of sediment from the Bishop Creek bypass reaches is planned for June-July. Transport of sediment from Bishop Creek is intended to correlate with and mimic the natural hydrograph that typically has peak snowmelt runoff at this time.

The sediment management release requires Project operations to control over the Bishop Creek flow as described in Section 5.1.3.2 Sediment Management Phases (Phases 1 through 3) which typically occurs in June. Chandler Decree flow requirements below Plant No. 6 begin in April and increase until the peak in early July.

5.1.2 COORDINATION WITH DOWNSTREAM USERS

As discussed previously, the Project's operation is dictated by water availability and regulatory constraints. Therefore, SCE will coordinate with LADWP to inform them of

planned changes in flow, sediment releases, and power generation outages. This coordination shall be executed as early as practical to allow parties potentially affected to plan for the any changes associated with sediment transport activities.

5.1.3 SEDIMENT MOBILIZATION AND TRANSPORT PROCESS

The proposed sediment management process consists of an initial First Release in year one of implementation, followed by a five phase (0 through 5) process in subsequent implementation years, as described below.

5.1.3.1 First Release

Sediment Chemical Composition

Prior to implementation of the first sediment management event, SCE will collect a composite sample of the sediment from each forebay. The composite samples will be tested by a certified analytical laboratory for hazardous chemicals. The list of analytes for laboratory testing will be determined in consultation with the State Water Board and based on historical land management practices in the watershed that may have contributed hazardous materials. Laboratory results of the composite samples will be communicated with the resource agencies for review and to obtain concurrence that the sediment management activity may proceed.

Initial Sediment Volume

There is limited information on pre-construction impoundment bathymetry, precise volumes of sediment removed during prior removals, and the current sediment volume in the intake impoundments. Sediment volume estimates are provided in Table 5.1-2 and Table 5.1-3.

Table 5.1-2. Sedimentation Volume Estimate from Past Records

Intake Impoundment No.	Second-most Recent Recorded Mechanical Removal Year	Most-recent Recorded Mechanical Removal Year	Most-recent Recorded Mechanical Removal Volume (CY)	Estimated Average Sediment Deposition (CY/yr)
4	1982	2010	1,500	54
5	1982	2011	2,000	69
6	1982	2009	1,200	44
Average Sediment Deposition (CY/yr)				56

Table 5.1-3. Current Impoundment Sediment Volume Estimates

Intake Impoundment No.	Most-recent Recorded Mechanical Removal	Estimated Current Sediment Volume (CY)	Estimated Accumulated Sediment Volume at Minimum Frequency (CY)	Estimated Accumulated Sediment Volume at Maximum Frequency (CY)
2*	1990	1,792	56	1,120
3*	1982	2,240	56	560
4	2010	648	54	540
5	2011	759	69	690
6	2009	1,012	44	440

*Intakes No. 2 and No. 3 use the average sediment deposition from past records, although this may be low for Intake No. 2 (it is the uppermost impoundment in the system).

5.1.3.2 Sediment Mobilization and Transport Phases

The following describes the five phases to implement the sediment mobilization and transport management activity.

- Phase 0 (Normal Operation): The plants operate at near full capacity and providing the minimum instream flow release requirements. The impoundments are at full pond. Flow into the upstream reach is equal to or greater than the minimum instream flow requirement for the reach. Flow into the downstream stream reach is over the main spillway and equal to or greater than the minimum instream flow requirement for that reach.
- Phase 1 (Drawdown⁴): The objective of this phase is to lower the impoundment water surface elevation to expose the deposited sediments in preparation for mobilization of those sediments in Phase 2.
- Phase 2 (Sediment Mobilization): The objective of this phase is to mobilize sediments from the impoundment into the downstream reach of Bishop Creek, but not transport the sediment the entire way to the next downstream impoundment.
- Phase 3 (Impoundment Water-up): The objective of this phase is to refill the impoundment while maintaining downstream required flows. Flow in the upstream

⁴ SCE currently implements year-round protection measures in planning and carrying out operation and maintenance activities at Project sites. One such measure relevant to the Phase 1 (Drawdown) proposed in this Sediment Management Plan is fish rescue. In the process of draining a dam impoundment to allow for work in dry conditions, a fish rescue will be implemented. SCE will notify CDFW prior to moving any live fish from the impoundment to another suitable location and will provide personnel and equipment necessary to collect stranded fish from the impoundment as it is drained. Any stranded fish will be collected and immediately placed in an adjacent lake or waterway.

reach is reduced to natural (unregulated tributaries), minimum instream flow, or minimum flow as required to meet downstream water user needs.

- Phase 4 (Flushing Flow): The objective of this phase is to mobilize the sediment from within the bypass reach below the impoundment to the receiving waters downstream during naturally high periods of flow (typically June/July timeframe). The upstream reach flow would be at natural flow (unregulated tributaries) or minimum instream flow.

5.2 MECHANICAL SEDIMENT REMOVAL MEASURE

Mechanical removal is the use of heavy equipment (e.g., bulldozer, excavator, dump trucks) to mobilize or remove sediment in the intake impoundments or bypass reaches of Bishop Creek. Any use of this heavy equipment would be over existing roads, grades, or sediment deposits, except where temporary fill is required to obtain access for mechanical sediment removal. Any temporary fill used for mechanical removal would be entirely removed post-mechanical removal and is anticipated to include either wood crane mats, stone placed over geotextile fabric, or other means as agreed to by consulting parties.

5.2.1 MECHANICAL REMOVAL IN THE IMPOUNDMENTS

Sediment and debris may require manual removal from the impoundments if it is not removed through efforts of Phases 0-4. This would include equipment entry into Intake Impoundment Nos. 2, 3, 4, 5, 6, and the South Fork diversion.

5.2.2 MECHANICAL REMOVAL AT INTAKE STRUCTURES AND WEIR PONDS

The following describes mechanical removal activities at intake structures and weir ponds that would be implemented on an as needed basis to maintain the operations of the facility. Such work is generally performed in the springtime to allow the later naturally higher flows to assist in the removal of sediment and debris. SCE would restrict mechanical sediment removal activity in the channel to an area no further upstream or downstream than necessary to perform the work. These sites are listed as follows.

- Bishop Creek channel above Plant No. 6 tailrace/inlet structure
- Bishop Creek below Intake No. 5 tailrace/inlet structure
- Bishop Creek below Intake No. 4 tailrace/inlet structure
- Bishop Creek below Intake No. 3 tailrace/inlet structure
- Birch Creek below Birch/McGee diversion inlet structure
- Middle Fork Bishop Creek below Lake Sabrina weir pond
- South Fork Bishop Creek below South Lake weir pond
- South Fork Diversion weir pond

5.2.3 MECHANICAL MOVEMENT OF SEDIMENT

Mechanical mobilization of sediment may be performed, at SCE's initiative, to mobilize deposited sediment from drained intake impoundments. This may include use of heavy machinery to cause the sediment in a partially drained impoundment to be mobilized into and through the LLOs for that impoundment during Phase 1 or Phase 2 of sediment transport. This mobilized sediment is expected to be deposited in the bypass reach of Bishop Creek downstream of that impoundment, for transport during the sediment transport flow (Phase 4). Any use of mechanical sediment removal as part of the sediment management would be communicated to downstream users as soon as possible prior to the sediment mobilization (target during initial spring consultation and planning for each year).

5.2.4 DISPOSITION OF MECHANICALLY REMOVED SEDIMENT

Any sediment mechanically removed from the intake impoundments or bypass reach would be placed in an approved upland location near Bishop Creek Project, except where mechanical removal is initiated to mobilize sediment into the LLOs in an intake impoundment.

6.0 MONITORING

As the sediment mobilization involves the release of sediment into the bypass reaches of Bishop Creek, it would be necessary to confirm that the release of the sediment and subsequent transport flows mobilize the sediment into the receiving water body. The following outlines the proposed monitoring efforts associated with the activities of this Plan.

6.1 MONITORING POST-SEDIMENT TRANSPORT RELEASE

It is anticipated that the first sediment management event would likely mobilize more sediment than typical. Due to this, SCE proposes to begin qualitative sediment monitoring after second sediment transport event. If the monitoring results indicate an accumulation of sediments in the bypass reach (rather than transport through the reach), then SCE would discuss the need for additional effectiveness monitoring with the resource agencies.

The purpose of this Sediment Management Plan is to move sediment throughout the Bishop Creek system, both at the request of agencies and to support SCE operation activities. The proposed monitoring after a sediment transport activity would consist of a visual qualitative survey of the bypass reaches to observe if sediment deposition occurred.

6.1.1 QUALITATIVE EVALUATION

The qualitative evaluation would include an observer walking along the entire reach (or use of a drone) between the impoundment from where sediment was released and the next impoundment downstream to visually observe if depositional bars, areas of recent sediment deposition, or other signs of sediment deposits or mobilization occur along the reach. The observer would assign an estimate of percent of the bed covered by each major substrate class (e.g., silt, sand, gravel, cobble, boulder) for the entire bypass reach and report these estimates in the annual report. The number of major depositional areas observed during this survey would be noted and included in the annual report. The expectation is that after the sediment release (Phases 1-3) the substrate would be finer than the initial survey, and after the mobilization flow (Phase 4), the substrate would return to similar conditions as the initial survey. For each sediment management event at each intake (when Quantitative Evaluations are performed) a total of three surveys will be completed on the same timeline as the Quantitative Evaluation.

6.2 MECHANICAL SEDIMENT REMOVAL MONITORING

No sediment monitoring is proposed during the mechanical removal from the impoundments, inlet structures or weir ponds. Mechanical removal is expected to be over a limited extent of the bypass reach or within an intake impoundment for an extremely short duration, with the intent being to remove sediment from an area that is required to maintain Project operation, perform Project maintenance, or maintain accurate gaging of Project flows.

7.0 CONSULTATION AND REPORTING

At the annual agency meeting, SCE would review seasonal snowpack data, propose a schedule for any sediment mobilization and transport or the mechanical removal for the upcoming year based on the anticipated water year type. This consultation would include a review of any past activities as submitted in the prior year's annual report. After there is agreement regarding SCE's proposal, SCE would formally inform USFS, CDFW, LADWP, and SWRCB of the planned activities in Bishop Creek for the given year as early as possible, but no later than May 15 of that year, allowing as much advance notice of any plant outages as possible.

7.1 REPORTING

Reporting shall be via a brief annual summary report covering each of the following activities that occurred in the prior year:

- Sediment mobilization and transport
- Mechanical removal of sediment

The report would be submitted electronically to USFS, CDFW, LADWP and SWRCB by June 30 of the year following the occurrence of the activity and shall include:

- Relevant data relating to the activity, including summary of consultation prior to activity (as required by this Plan)
- When the activity (and sub-activities for sediment transport) occurred
- Flows prior to, during, and after the activity in the surrounding reaches (as available by existing stream gages)
- Results of any monitoring required for that activity (as identified in this Plan)
- Comparison to prior activities of similar type (e.g., to historic cross sections and substrate for surveyed cross sections)
- Photographs of the activity
- Summary of past activities completed under this Sediment Management Plan

7.2 PLAN REVIEW

This Plan would be reviewed every 10 years after issuance of the license.

8.0 REFERENCES

Chandler Decree 1922. Hillside Water Company v. William A. Trickey et.al, U.S. District Court, Southern Division of California (Northern Division), No. B-61 EQ, Final Decree in Equity (Chandler Decree), January 27, 1922 (Unreported).

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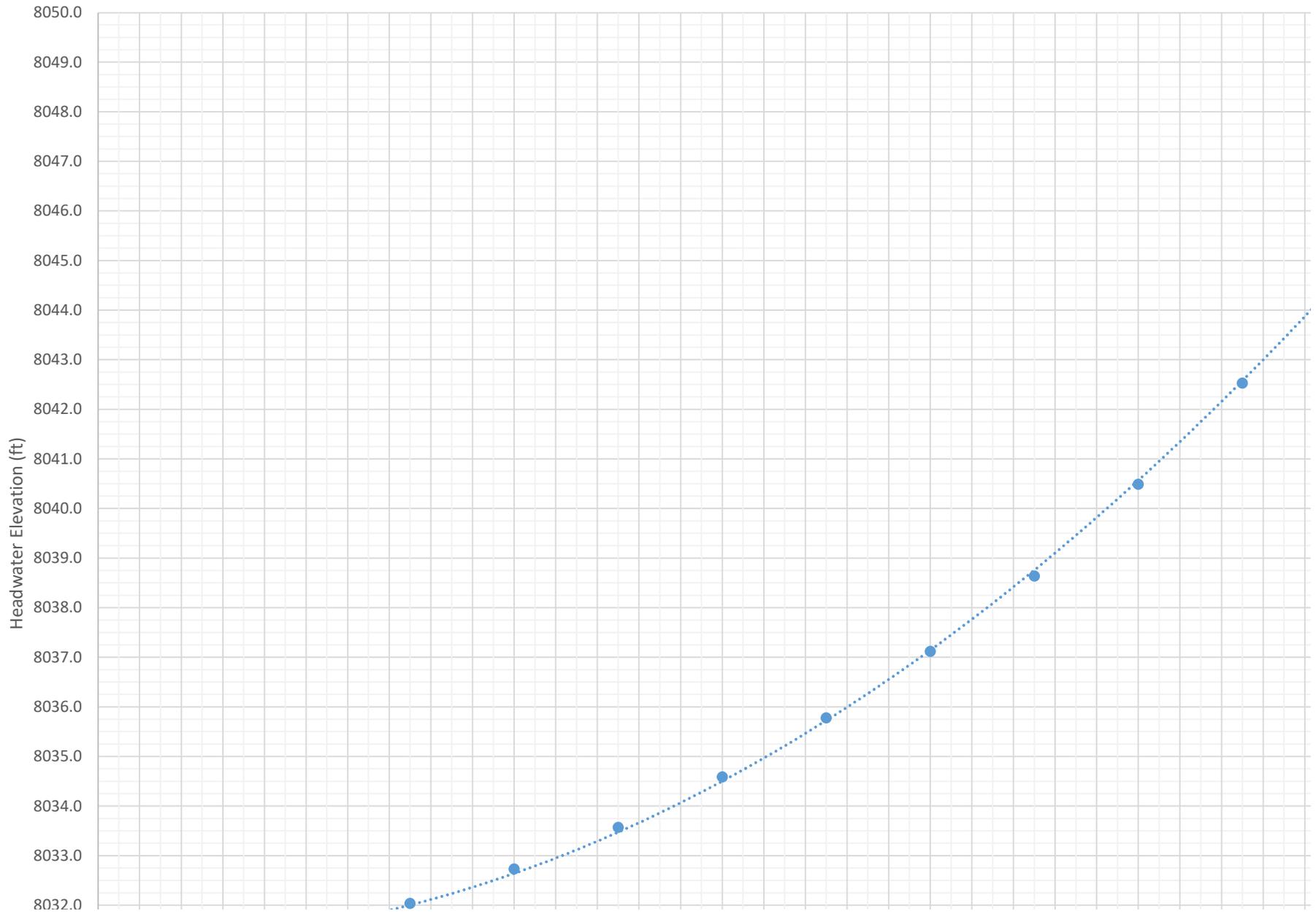
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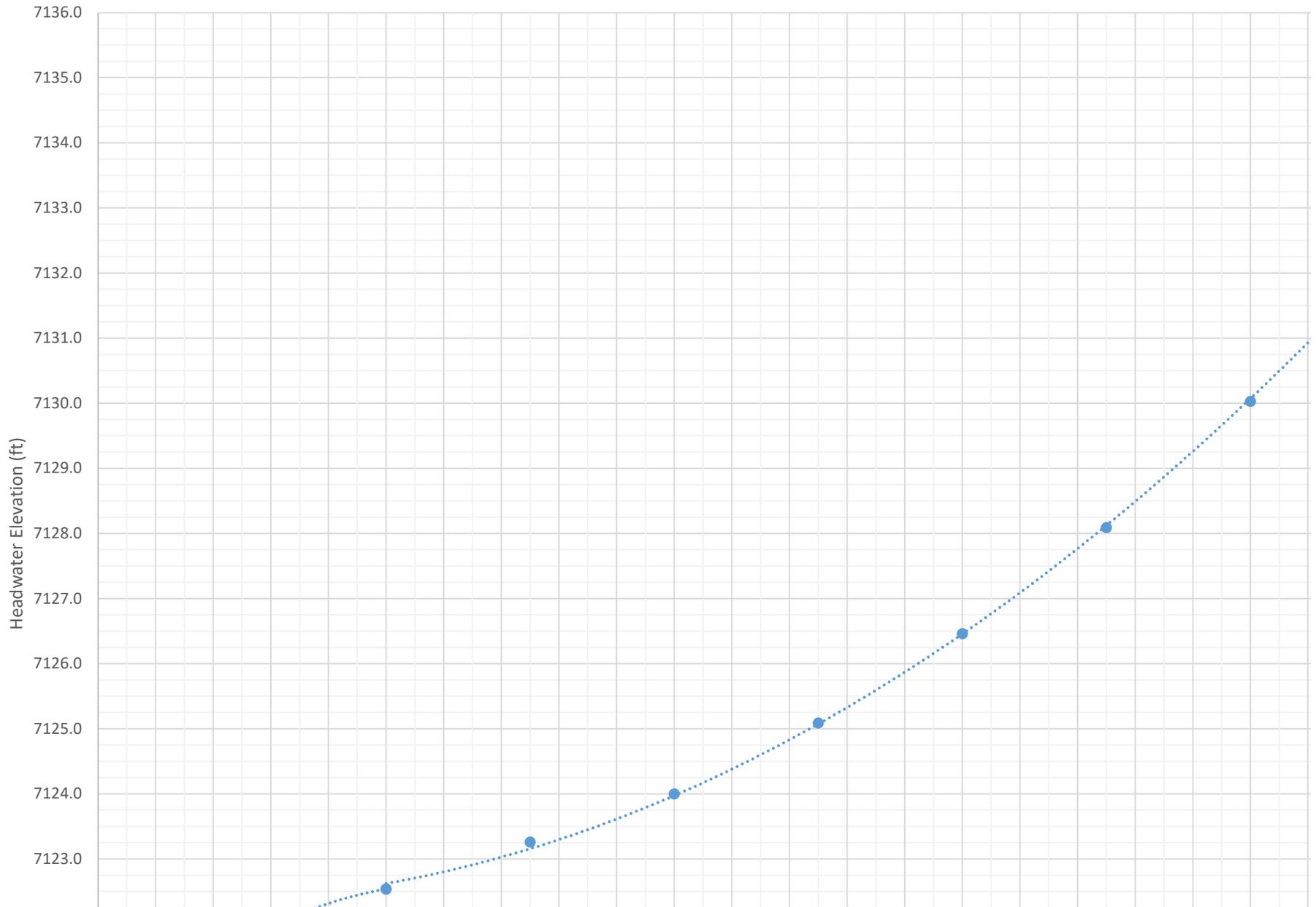
ATTACHMENT A

ESTIMATED RATING CURVE OF THE LOW-LEVEL OUTLETS AT EACH INTAKE

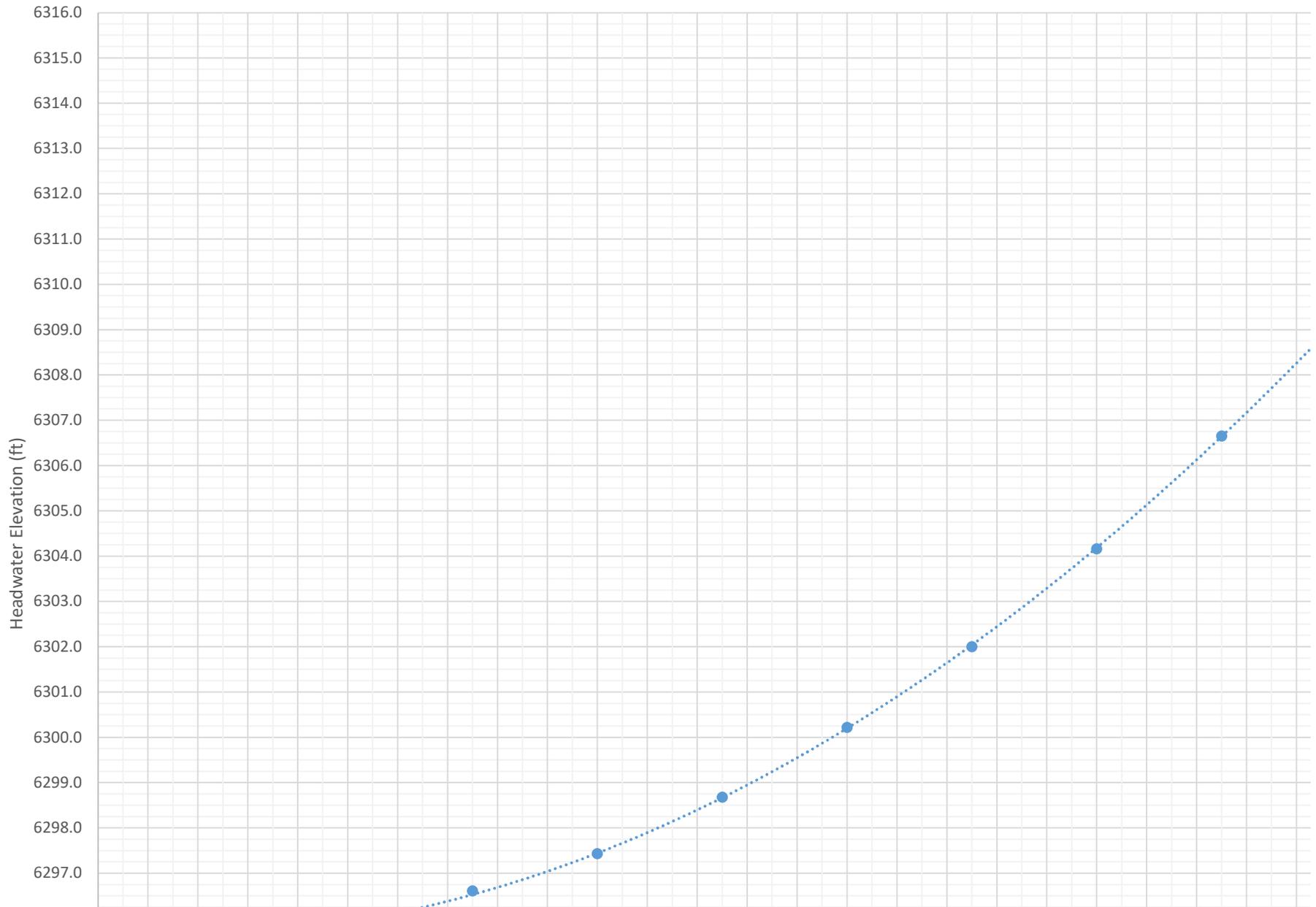
Intake 2 Low-Level Outlet Rating Curve



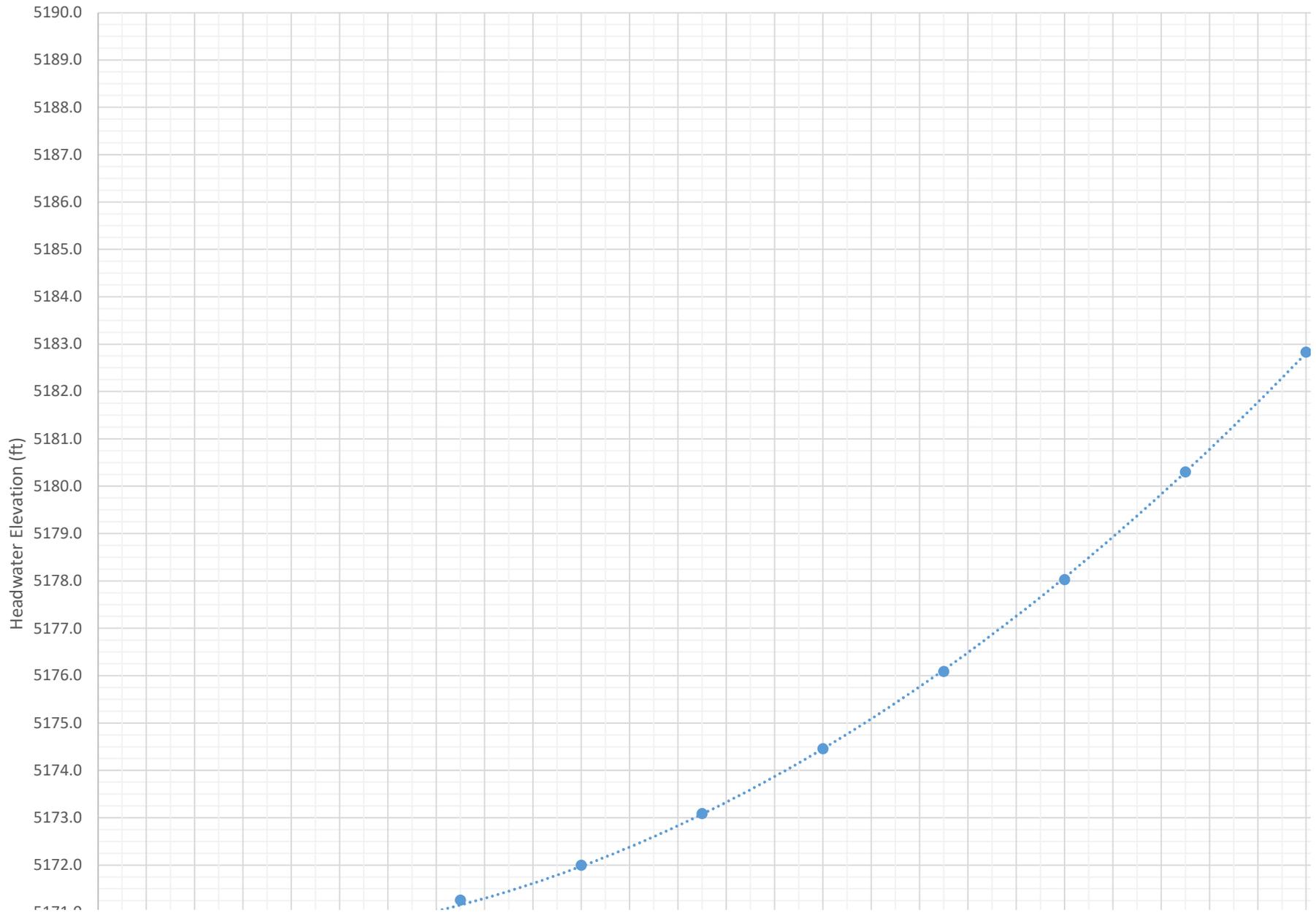
Intake 3 Low-Level Outlet Rating Curve



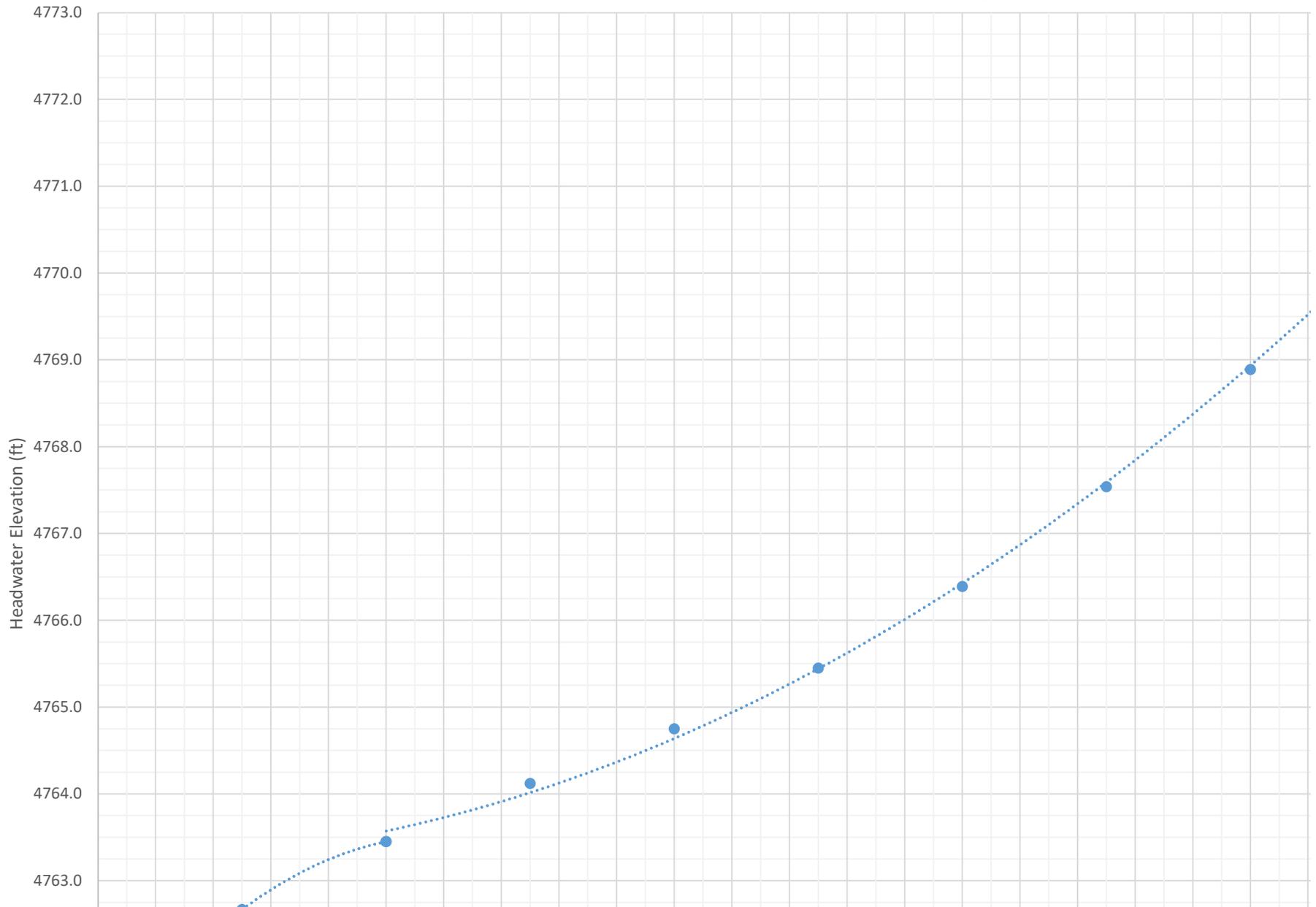
Intake 4 Low-Level Outlet Rating Curve



Intake 5 Low-level Outlet Rating Curve



Intake 6 Low-Level Outlet Rating Curve



SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project

(FERC Project No. 1394)



WILDLIFE RESOURCES MANAGEMENT PLAN



JUNE 2022

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

WILDLIFE RESOURCES MANAGEMENT PLAN

Southern California Edison
1515 Walnut Grove Ave
Rosemead, CA 91770

June 2022

Support from:

Kleinschmidt

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List of Attachments

Attachment A Special Status Species

Attachment B SCE Nesting Bird Management Plan for Small Projects

Attachment C SCE Avian Protection Plan

List of Acronyms

A

APLIC	Avian Power Line Interaction Committee
APP	Avian Protection Plan
AVM	acoustic velocity meter

B

BGEPA	Bald and Golden Eagle Protection Act
BLM	U.S. Bureau of Land Management

C

CDFW	California Department of Fish and Wildlife
C.F.R.	Code of Federal Regulation
cfs	cubic feet per second

D

DBH	diameter breast height
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E

ESA	Endangered Species Act
ESAP	Endangered Species Alert Program

F

FERC	Federal Energy Regulatory Commission
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I

INF	Inyo National Forest
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M

MBTA Migratory Bird Treaty Act
msl mean sea level
MW megawatt

N

NBMP Nesting Bird Management Plan

O

O&M operations and maintenance

P

Plan Wildlife Resources Management Plan
Project Bishop Creek Hydroelectric Project

S

SCC species of conservation concern
SCE Southern California Edison Company

U

U.S.C. United States Code
USFS U.S. Forest Service
USFWS U.S. Fish and Wildlife Service

1.0 INTRODUCTION

The Wildlife Resources Management Plan (Plan) was developed for the Bishop Creek Hydroelectric Project (Project) Federal Energy Regulatory Commission (FERC) Project No. 1394 to accompany Southern California Edison's (SCE) application for a new FERC license. The Plan identifies SCE's responsibilities for the management and protection for special status wildlife species and their associated habitat within the Project boundaries. For purposes of this Plan, special status is defined as species listed under the federal or state Endangered Species Acts, U.S. Forest Service (USFS) Inyo National Forest (INF) At-Risk Species and Species of Conservation Concern, and California Species of Special Concern. Attachment A, Special Status Species, provides lists of special status species including an assessment of each species' potential to occur within the Project boundary.

This Plan was developed to accompany SCE's application for a new FERC license and would be implemented for both routine and non-routine operation and maintenance (O&M) activities for the duration of the new license. This Plan identifies SCE's responsibilities for the management of special status wildlife resources associated with the Project. The Plan updates and expands wildlife information and protection measures that were described in a 1995 Implementation Plan for Mitigation of Impacts to Sensitive or Endangered Plant and Animal Species (SCE, 1995) that was prepared as a requirement of Article 113 of the Order for the Project's previous license issued on July 19, 1994. During the term of the new license, it is anticipated that additional updates may be required to reflect changes in species status.

1.1 PROJECT LOCATION

The Project is located in Owens Valley and along the eastern Sierra Nevada Mountains. Most of the basic hydro-generation facilities have been in existence since the early 1900s. The Project facilities include powerhouses¹, dams, impoundments (including South Lake and Lake Sabrina), diversions, weirs, outbuildings, valve houses, access roads, and a flowline. The Project's facilities are sited along Bishop Creek and its tributaries including South Fork, Middle Fork, and Green Creek, plus Birch Creek, and McGee Creek north of Bishop Creek. Bishop, Birch, and McGee creeks are tributaries of the Owens River. Project facilities are located within the Inyo National Forest (INF) and the John Muir Wilderness (managed by the U.S. Forest Service [USFS]), and include lands managed by Bureau Land Management (BLM) and private lands. Subsequently, land uses adjacent to the Project vary, and include residential, grazing, public recreation, and federally-designated wilderness land, among others.

The Project area is one of moderate to steep ridge and valley topography. Elevations within the drainages range from approximately 4,000-feet above mean sea level (msl) to over 13,000-feet above msl. Bishop Creek is a major stream with a total drainage area of

¹ Note to reader – in this document, the term “powerhouse” is used as a general reference to the structure; however, when referencing a specific structure the term “Plant” is used.

approximately 70 square-miles, flowing northeastward approximately 28 miles from its headwaters in the Sierra Nevada to its confluence with the Owens River at the city of Bishop. The North, Middle and South Forks of Bishop Creek originate in nearby glacial basins separated by ridges. South Lake and Lake Sabrina are the major storage reservoirs in the watershed.

The Project area supports upland vegetation communities and a mixture of floodplains, wetlands, riparian, and littoral communities within and adjacent to Bishop Creek. Plant community types consist of alpine grasses and forbs, alpine mixed scrub, barren, bitterbrush, saltbush, curl-leaf mountain mahogany, Great Basin mixed scrub, rabbitbrush, basin sagebrush, Great Basin – desert mixed scrub, blackbush, eastside pine, annual grasses and forbs, perennial grasses and forbs, lodgepole pine, high desert mixed scrub, singleleaf pinyon pine, limber pine, canyon live oak, subalpine conifers, whitebark pine, wet meadows, riparian mixed hardwood, willow, quaking aspen, perennial lake or pond, water, and willow shrub (Psomas, 2021).

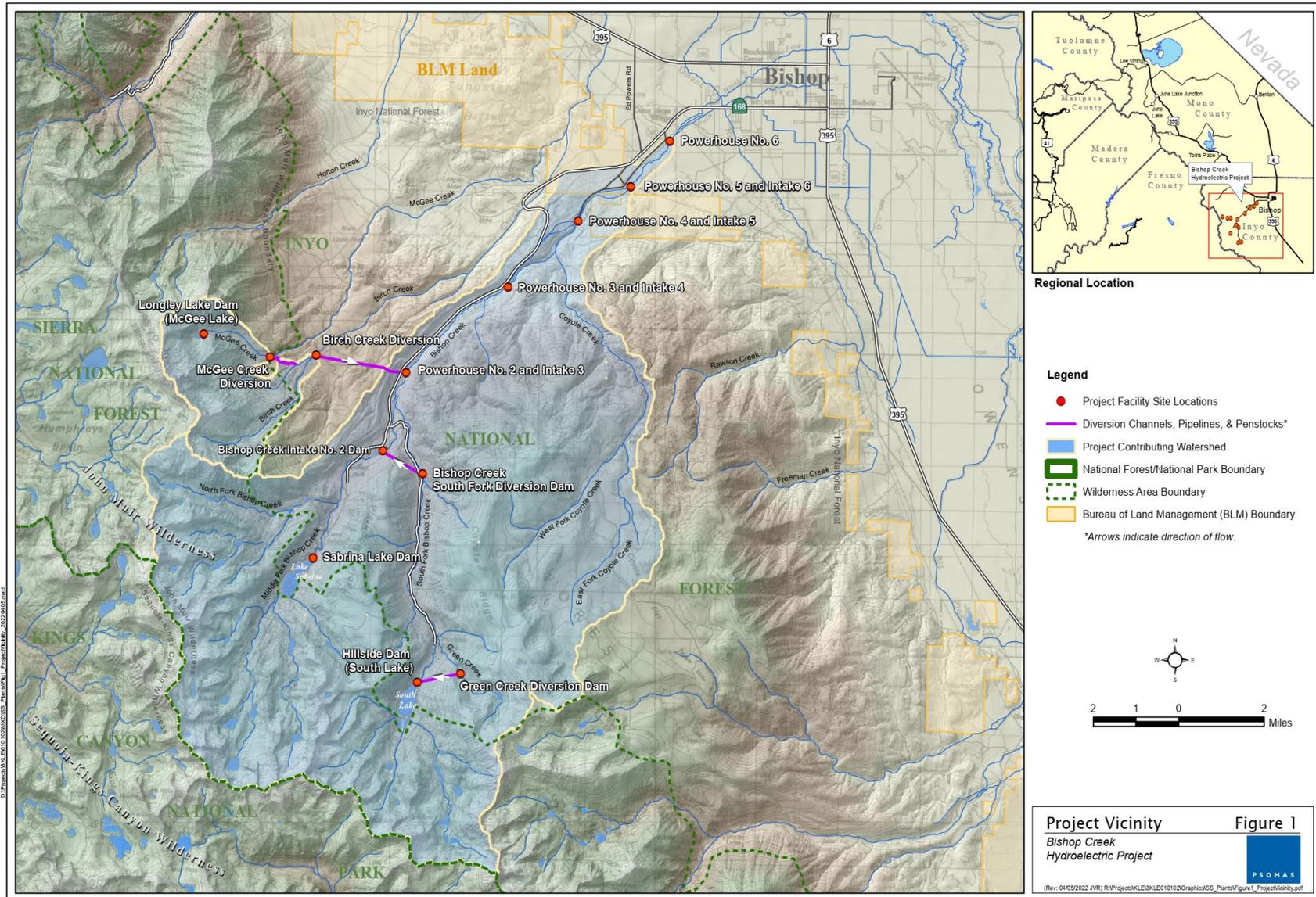


FIGURE 1.1-1 BISHOP CREEK PROJECT VICINITY

1.2 PROJECT FACILITIES

Southern California Edison Company (SCE) is the licensee, owner, and operator of the Bishop Creek Project. The Bishop Creek Project consists of five developments: Power Plants No. 2 through No. 6 on the Middle Fork of Bishop Creek and three primary storage reservoirs that include South Lake, Lake Sabrina and Longley Lake.

The Project has a total dependable generating capacity of 28,925 kilowatts (kW) and has an average annual energy production of 128,039 megawatt hours (MWh). Stored water is transported through a series of connecting flowlines and penstocks to the powerhouses and returned to the river through the tailrace at Plant No. 6. Under the existing Project license, the FERC Project boundary encompasses federal lands administered by either the U.S. Department of Agriculture (USDA) Forest Service or the BLM, and SCE-owned or private land. SCE does not propose any changes to Project O&M and does not propose any new construction.

For additional information regarding these features and their operations, please refer to Exhibit E of the 2022 Final License Application (FLA), available at www.ferc.com or www.sce.com/bishopcreek.

2.0 PURPOSE AND INTENT

The intent of this Plan is to outline the wildlife management activities that will be authorized for implementation under the terms of the new license. During relicensing resource agencies, including the CDFW, requested that SCE 1) provide clear guidance to SCE staff and consulting parties on what type of activities may be undertaken without additional consultation, or where additional discussion about non-routine activities may be warranted; 2) determine whether a non-routine O&M activity will potentially disturb special status wildlife species that occur or could potentially occur in the Project area; and 3) how such consultation can be most effectively initiated.

Measures described in this plan should prevent special status wildlife conflicts before they occur. SCE relies on regular training of its staff to guide implementation of this plan (Section 4.1). SCE personnel should contact the Environmental Manager for help with defining the most appropriate action to ensure completion of the work without affecting special status wildlife species.

2.1 REGULATORY REQUIREMENT

Federal and state Endangered Species Acts (ESA) protect threatened and endangered wildlife species. The federal ESA specifically lists species to be protected and includes significant penalties for disturbance of listed species. This act not only established protection measures, but actively encourages the recovery of endangered species through management programs. Adherence to the federal ESA is required because the Bishop Project facilities are operated under a license issued by the FERC. The California ESA is similar in its intent and procedures to the federal law. It is important to know that impacts to endangered species do not have to be intentional for violations to occur.

Federal Migratory Bird Treaty Act (MBTA) applies to most birds in the United States with the exception of a few introduced species, such as the house sparrow, European starling, and rock pigeon. 16 United States Code (U.S.C.) §§ 703-712. 50 Code of Federal Regulation (C.F.R.) § 10.13. The purpose of the MBTA is to afford protection to migratory birds, their parts, nests, and eggs. The MBTA states that, unless permitted by regulation, it is unlawful to “pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, or import ... any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof...” 16 U.S.C. § 703.. Special Purpose Permits are available for transporting bird carcasses and nest management.

Bald and Golden Eagle Protection Act (BGEPA) applies to bald and golden eagles, their eggs, and their nests receive additional protection under the BGEPA 16 U.S.C. §§ 668 to 668d. It is a crime for a person or entity who lacks the required permit to “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export, or import ... any bald eagle... or any golden eagle, alive or dead, or any part, nest or egg thereof” 16 U.S.C. § 668(a).

The BGEPA has provisions for permitted incidental take under 50 C.F.R. Section 22. SCE holds a permit for exhibition purposes and has a mounted golden eagle on display at Camp Edison. Permits can be approved for the take of eagles during otherwise lawful activities or to remove a nest that poses a safety hazard.

USFS At-Risk species are federally recognized threatened, endangered, proposed, and candidate species and species of conservation concern within a plan or forest area (USFS, 2019).

The USFS defines species of conservation concern (SCC) as species (other than federally recognized threatened, endangered, proposed, or candidate species), that are known to occur in the Plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long term in the plan area.

Multiple sections of California Fish and Game Code provide protection for nesting birds and raptors unless the California Fish and Game Code or its implementing regulations provide otherwise. Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically addresses raptors (i.e., birds of prey in the orders Falconiformes and Strigiformes) and makes it unlawful to take, possess, or destroy these birds or their nest or eggs. Section 3513 prohibits the take or possession of migratory non-game birds as designated by the MBTA or any part of such bird.

The state of California created the “Fully Protected” classification in an effort to identify and provide additional protection to those animals that are rare or that face extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most species on these lists have subsequently been listed under the state and/or federal ESAs; however, some have not been formally listed. Fully protected species that may not be taken or possessed at any time except as provided by California Fish and Game Code.

California Department of Fish and Wildlife (CDFW) defines a Species of Special Concern as a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: 1) is extirpated from the state or, in the case of birds, is extirpated in its primary season or breeding role; 2) is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered but has not formally been listed; 3) is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; and 4) has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. A Species of Special Concern is an administrative designation and carries no formal legal status.

2.2 BISHOP CREEK SPECIAL STATUS SPECIES

SCE's application for license identified the need for the development and implementation of a Wildlife Species Management Plan for special status wildlife species. For the purposes of this document, a "special status wildlife species" is any species meeting the regulatory requirements listed above.

Attachment A, Special Status Species, provides tables of special status species and their potential to occur in the Bishop Creek Project. During the term of the new license, it is anticipated that SCE will utilize updated or revised lists as appropriate.

3.0 GOALS AND OBJECTIVES

The goals in this Plan include:

- Provide for clear operational decision-making when planning and/or implementing O&M related activities in support of Project operations
- Prevent disturbance/impacts to federally and state listed endangered and threatened species
- Prevent disturbance/impacts to USFS At-Risk Species and Species of Conservation Concern
- Prevent disturbance/impacts to other special status species, such as California Species of Special Concern
- Maintain of mule deer/wildlife crossing and wildlife guzzlers
- Prevent disturbance/impacts to bats and maternity roosts

4.0 MEASURES

Resource surveys were conducted as part of the relicensing (data and reports are found in Volume III of the FLA) and an impacts analysis was completed in Exhibit E of the Final License Application (Volume I). Based on the analysis, SCE did not identify any adverse effects from its routine activities on wildlife resources, including special status wildlife species that were identified in the Project Boundary.

Routine O&M activities include but are not limited to:

- Trimming and mowing
- Road grading and trail maintenance
- Hazard tree removal
- Transmission, power and communication line maintenance
- Maintenance outages
- Plant inspections and maintenance
- Flowline inspections and maintenance

These O&M activities typically occur within previously disturbed areas, or in areas that are regularly maintained and cleared of vegetation surrounding the Project facilities.

Over the course of the license, Project facilities may require additional work not currently covered under routine activities. While existing resource surveys may inform consultation with affected stakeholders, these tasks would be considered new projects which are not necessarily covered under the new license. Should new O&M activities need to be conducted SCE personnel will contact the SCE Environmental Manager on appropriate measures, which may include agency consultation or additional surveys.

These non-routine O&M activities may include:

- Ground disturbing activities beyond those performed for routine O&M activities
- Reconstruction activities involving major Project facilities
- Construction activities that involve expanding the footprint of existing facilities

4.1 TRAINING AND EDUCATION

SCE employees attend environmental training sessions on an annual basis, as well as an as-needed basis. These training sessions vary based on the activity; however, they all include a review of background material, permit conditions, instructions, and materials on how to avoid impacts on biological resources. Project-specific meetings may be

conducted in the field on a job-specific or activity-specific basis to review appropriate maintenance protocols (avoidance and protection measures) in environmentally sensitive areas. SCE will incorporate the avoidance and protective measures discussed in this Plan into the Environmental Training Program for Project personnel to protect the special status wildlife.

4.2 NON-ROUTINE OPERATIONS AND MAINTENANCE ACTIVITY MEASURES

For non-routine O&M activities, SCE Operations staff will contact the SCE Environmental Manager to determine if any special status wildlife or their habitat could be affected by the planned activity. If the planned activity has the potential to affect any special status wildlife or their habitat, the need for pre-activity surveys will be evaluated.

Most facilities are located on or near the INF and site-specific environmental documents are prepared and/or permits acquired for ground disturbing construction activities on USFS land. This process often includes sensitive species database searches and may include field studies and site-specific impact analysis.

During the preparation of the yearly work plan, SCE will contact its biologist to discuss any intended O&M activities. If it is determined that the proposed activity will impact sensitive wildlife resources, SCE will request the biologist survey the area and prepare a biological determination that will include recommendations for avoidance or minimization if needed.

Impacts to special status species will be avoided wherever possible. Measures to facilitate avoidance may include, but are not restricted to, the following:

- Demarcation of the maximum extent of the special status resource(s) to be avoided. This may include flagging of individual resources or installation of a temporary barrier (e.g., roping off areas to be avoided; installation of silt fencing, straw wattles, or gravel/sandbags if soil disturbance is anticipated) to prevent impact to the species.
- Retention of a biological monitor during ground-disturbing or vegetation removal activities to ensure that special status resources are avoided. SCE and its biologist will jointly determine the need for monitoring. Any impacts to state or federally listed species will be reported to the USFS, the USFWS, and the CDFW within 24 hours.
- If impacts to special status species cannot be avoided, minimization or compensation for impacts may be required, depending on the status and size of the impacted population. Measures to minimize or compensate for unavoidable impacts may include coordination with the resource agencies to determine the appropriate minimization or compensation strategy.

4.2.1 GENERAL PRE-ACTIVITY CONSULTATION AND SURVEYS

Prior written approval must first be obtained from the USFS before initiating any activity the USFS deems as affecting or potentially affecting sensitive species on National Forest System lands. BLM will be consulted when BLM land is affected.

In areas that may support state or federal listed species, USFS At-Risk Species, Species of Conservation Concern or other special status species, a qualified biologist shall conduct appropriate surveys for the relevant species. Surveyors will use accepted scientific protocols and methods, if published.

Prior to any field survey, a literature review will be conducted to determine if any special status wildlife or potential habitat for special status wildlife is present in the activity area. Updated literature reviews will provide information on changes in species status designations that may occur over the license period and identify new species occurrences within the Plan area. The literature search will include a review of the most recent INF Forest Plan to identify any new wildlife species of conservation concern. Once species or habitats have been identified, species specific surveys will be conducted if determined necessary by the SCE Environmental Manager. Surveys will be conducted by a qualified biologist holding all required scientific collecting permits from CDFW or a valid 10(A) Permit from the USFWS if needed for target species.

A report will be prepared describing the survey methods, results, and any recommendations and provided to the USFS as part of SCE's annual report. If any special status species are found immediately adjacent to the work area, SCE will visibly mark the area to be avoided, and, if necessary, a monitor will be present to document avoidance of the area and associated resources. SCE and its biologist will jointly determine the need for monitoring. Any observance or impacts to state or federally listed species will be reported to the USFS, USFWS, and CDFW within 24 hours.

4.2.2 AVIFAUNAL MEASURES

SCE maintains and implements a corporate-wide Avian Protection Plan (APP; Attachment C) (SCE, 2015) and a Nesting Bird Management Plan for Small Projects (NBMP, Attachment B) (SCE, 2016). These plans will be consulted prior to any O&M ground or native vegetation disturbing activity or any activity that may have the potential to disturb nests or nesting birds. These are corporate-wide plans and subject to change as new policies become implemented.

The NBMP provides guidance on pre-activity nesting bird survey methods, monitoring and reporting for falling outside the scope of routine O&M activities. Additionally, it provides useful definitions, guidelines on buffers and how to implement them, and management for inactive nests.

The APP is based on relevant guidelines published by the Avian Power Line Interaction Committee (APLIC) and the USFWS. The APP is applicable to the Project because there are powerlines and associated infrastructure in the Bishop Creek FERC boundary that will be covered under the new license. The APP provides procedures for reporting incidences bird mortality for common and threatened and endangered species, avian safe construction standards, and employee training.

4.2.3 NESTING SEASON PROTECTION MEASURES

If any O&M activities need to occur within the nesting season (February 1 to September 15, or later depending on the onset of spring temperatures and snow melt), and the work will impact mature scrub, trees, or riparian habitat that will likely support nesting birds, SCE will contact the Environmental Manager and discuss the work activities. Subsequently, the Environmental Manager will determine if a nesting bird survey or other type of biological survey will be necessary. Because of the range in elevations for the Project, and because the onset and duration of winter and spring vary greatly from year to year in the Project area, a strict beginning and ending date for nesting surveys is not practical. For activities that will potentially impact trees and other nesting habitat, as described above, SCE proposes to time any needed nesting surveys to coincide with the spring thaw and the onset of consistently warm (above freezing) temperatures.

Surveys for nesting birds and raptors will be scheduled as deemed appropriate by the SCE Environmental Manager, and after consultation with INF and CDFW as applicable. Typical survey buffer will be 300 feet depending on the activity. The size of the survey buffer will be determined by the biologist taking into account the activity and the amount of vegetation disturbance. (i.e., activities that remove large trees will require a large buffer than projects removing small or no trees). The NBMP provides guidance on buffer sizes and will be the decision document for these surveys. If the biologist determines that no nesting birds are present, or that any potential nesting habitat or activities will not be impacted by the proposed activities, and that no other special status resources will be impacted then the activities can proceed.

A report will be prepared to document the survey, findings, and monitoring results (if performed). Reports will be provided to SCE's Environmental Manager and the findings will be reported at SCE's annual meeting with the USFS and CDFW.

4.2.4 NESTING BIRDS AND RAPTORS

If nesting activity is observed, or nesting birds/raptors are observed displaying nesting/territorial behavior (such as flying with nesting material or food), the biologist will note the location of the nest, and a second survey may be scheduled if the proposed activities could impact the nest. Active nests and nest trees will be flagged and mapped. A buffer surrounding the nest will be established based on the Table 1 in the NMBP (Attachment B). The location of the nest and the size of the buffer will be communicated with SCE operations prior to the start of activities. During O&M activities, SCE will provide a monitor, on a daily or periodic basis, to monitor the nest for disturbance. The regularity of the monitoring, either daily or periodic will be determined by the biologist based on the nature of the activity, proximity of the nest, and species. If the biologist observes definite disturbance to the bird, raptor or nest, the biologist will immediately contact SCE and have the work halted. The work will not begin again until the biologist determined that continuing the activities will not disturb the nesting bird or raptor.

Trees that contain raptor nests will not be removed or trimmed, unless a qualified biologist determines that the nests are inactive or abandoned.

Prior to the removal of a raptor nest the biologist will follow the guidelines provided in SCE's NBMP: *"In accordance with the definition of inactive nest for raptors provided in this Guidance, inactive raptor nests that will impact construction activities will be removed according to the following protocol:*

- A biological monitor/avian biologist will observe the nest for four consecutive hours or for consecutive two-hour periods over two successive days to determine if there is any activity at the nest site.
- If an avian biologist determines that the nest is unlikely to be active based on these observations, the construction team will provide personnel to inspect the nest if it is not accessible by a biological monitor/avian biologist due to safety concerns;
- For inaccessible nests, the construction team will take a photo of the nest contents and provide the photograph to a biological monitor/avian biologist;
- Once a biological monitor/avian biologist has confirmed from the photo that the nest is inactive, the construction contractor will remove the nest.
- Nests will not be collected or taken off site by biologists because this would be in violation of the MBTA and Native Bird sections of the California Fish and Game Code."

No raptor nests will be removed unless necessary for the activity and there is no alternative. The USFS and CDFW will be notified of the removal of abandoned or inactive raptor nests via email from the SCE Environmental Manager within 14 days of nest removal.

If the biologist determines that no nesting birds or raptors are present, or that any potential nesting habitat or activities will not be impacted by the proposed activities, then no other surveys will be performed.

A report will be prepared to document the survey, findings, and monitoring results (if performed). Reports will be provided to SCE's Environmental Manager and the findings will be reported at SCE's annual meeting with the USFS and CDFW.

4.3 MULE DEER

SCE installed two wildlife crossings which span the above-ground flow line between Intake No. 2 and the penstock for Plant No. 2. The crossings were installed when the original wooden flowline with a metallic flowline was replaced. SCE also installed three wildlife guzzlers at that time.

The wildlife study prepared for this relicensing demonstrated that the wildlife crossings and guzzlers are being utilized on a regular basis by mule deer and other wildlife including mountain lion, coyote, and grouse.

SCE currently inspects and maintains the crossings and guzzlers two times per year. SCE performs small repairs as needed during the year and also prepares the guzzlers

for summer and winterizes them when appropriate. SCE will continue to maintain the wildlife crossings and guzzlers in good working condition and will coordinate with the USFS as-needed throughout the life of the license.

4.4 BATS

No construction to facilities is currently proposed with this license. However, should construction to a Project facility structure(s) known or suspected to be used by bats for day roosting become necessary, SCE will consult a qualified bat biologist to survey the site prior to construction. The bat biologist will perform a visual survey of the facility and as well as an acoustic survey, if needed, to determine the location(s) and species of bat present. If the biologist determines that the facility is occupied and that the activity will impact the day roosting bats, the biologist will provide SCE with avoidance options, including passive and active relocation. The bat biologist will prepare a bat exclusion and mitigation plan prior to implementation of any activity. The plan will be provided to CDFW for review and consultation.

If the roost is a maternity roost, SCE will, to the extent practical, wait to perform the activity until the pups have matured and are able to fly on their own at the end of the maternity season. If the work cannot wait, the bat biologist will prepare a bat exclusion and rescue plan. The plan will be provided to CDFW for review and consultation.

The qualified bat biologist will hold the proper 10(A) permit from the USFWS, if needed, and a Scientific Collecting Permit and MOU from CDFW.

Data collected on bats by SCE will be reported at SCE's annual meeting with the USFS and CDFW.

5.0 OTHER RELEVANT SCE RESOURCE PROTECTION PROGRAMS

5.1 ENDANGERED SPECIES ALERT PROGRAM

The Endangered Species Alert Program (ESAP) (SCE, 2005) was developed to provide SCE personnel with a means to identify when they may be working within an area with the potential occurrence of legally protected plant and animal species in the SCE Service Territory. For each of these species within the SCE service territory, the ESAP Manual includes a photograph, description, natural history information, and map showing the species' distribution in relation to SCE facilities. Should a proposed activity have a potential to conflict with a known sensitive species population, SCE's Environment, Health and Safety Division staff will be notified to evaluate the situation and, if needed, participate in consultation with the regulatory agencies. SCE will include the avoidance and conservation measures discussed above in the ESAP to protect the sensitive species mentioned above.

6.0 CONSULTATION

6.1 PRE-LICENSE CONSULTATION

This Plan was developed in consultation with the USFS INF, the U.S. Fish and Wildlife Service (USFWS), and CDFW. SCE provided a draft copy of this Plan to agencies for a 30-day review and comment period. After receiving comments on the draft Plan, SCE incorporated appropriate revisions into this final Plan. A complete comment response table is included with the FLA as Appendix A, Consultation Record.

6.2 COMPLIANCE CONSULTATION

SCE meets annually with the USFS and CDFW in the spring to discuss proposed activities for the remainder of the calendar year. During this meeting, SCE will solicit feedback from the agencies on the planned activities and any concerns of those special status species covered in this Plan. Based on discussions at the annual meeting, SCE may modify implementation of non-routine ground disturbing activities or other projects with a plan for pre-activity surveys appropriate for the species of concern.

SCE meets with the USFS and CDFW on an as-needed basis throughout the year to discuss the Project and implementation activities. SCE will continue to consult with agency staff on an as-needed basis.

7.0 REFERENCES

- California Department of Fish and Wildlife (CDFW). 2021. California Natural Diversity Database. RareFind 5 [Internet]. Version 5.1.1. Electronic database. Natural Heritage Division, California Department of Fish and Game, Sacramento, California.
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- Southern California Edison Company (SCE). 2015. Avian Protection Plan. Prepared by Environmental Services Department. 37 pp.
- Southern California Edison Company (SCE). 2016. Nesting Bird Management Guidance for Small Projects. Prepared by Environmental Services Department. 12 pp.
- U.S. Forest Service (USFS). 2018. Communication from USFS Inyo National Forest (K. Schlick) to Kleinschmidt (F Anderson). List of potentially occurring threatened and endangered and other sensitive species potentially occurring in the Project Study Area.
- U.S. Forest Service (USFS). 2019. Land Management Plan for the Inyo National Forest – Fresno, Inyo, Mono, and Tulare Counties, California; Esmeralda and Mineral Counties, Nevada. Publication R5-MB-323a September 2019.
- U.S. Fish and Wildlife Service (USFWS). 2018. Information, Planning, and Conservation System (IPaC) website.

ATTACHMENT A
SPECIAL STATUS SPECIES

Table 1. Endangered and Threatened Species Potential

Scientific/ Common Name	Federal Status	State Status	Habitat	Likelihood for Occurrence/ Occurrence Notes
Known to Occur in the Project Vicinity				
<i>Haliaeetus leucocephalus</i> bald eagle	USFS_SSC	Endangered CDFW_FP	Requires large bodies of water, or free flowing rivers with abundant fish, and adjacent snags or other perches and nesting sites to support them. Perching sites are composed of large trees or snags with heavy limbs or broken tops. Roosts communally in winter in dense, sheltered, remote conifer stands. California breeding habitat is primarily in mountain and foothill forests and woodlands near reservoirs, lakes, and rivers.	<u>Expected to occur for foraging and wintering; but not expected to occur for nesting.</u> eBird* reports a recent sighting (2018) at Lake Sabrina. No occurrences of bald eagle were documented in the California Natural Diversity Database (CNDDB) search for the Project vicinity. 2019 Survey – Observed.
<i>Aquila chrysaetos</i> golden eagle	--	CDFW_FP,	Golden eagles occur locally in open country such as open coniferous forest, sage-juniper flats, desert, and barren areas, especially in rolling foothills and mountainous regions. Within southern California, the species favors grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nesting is primarily restricted to rugged, mountainous country. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	<u>Expected to occur for foraging and wintering; expected to occur as a vagrant but not expected to occur for nesting.</u> eBird reports recent sightings (2018) at Aspendell, Intake No 2 and South Lake, North Lake, and Lake Sabrina. No occurrences of golden eagle were documented in the CNDDB search for the Project vicinity. 2019 Survey – Observed.
<i>Empidonax traillii</i> willow flycatcher		Endangered	In general, prefers moist, shrubby areas, often with standing or running water, e.g., in California, restricted to thickets of willows, whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes. In the West, generally occurs in beaver meadows, along borders of clearings, in brushy	<u>Expected to occur for foraging; mainly expected to occur as a migrant but not expected to occur for nesting.</u> eBird reported observation at Aspendell, Lake Sabrina, South Lake, and North Lake, suitable habitat. Please note that eBird does not distinguish between northern subspecies of willow flycatcher and southwestern willow flycatcher.

Scientific/ Common Name	Federal Status	State Status	Habitat	Likelihood for Occurrence/ Occurrence Notes
			lowlands, in mountain parks, or along watercourses to 7,500 feet.	2019 Survey – None Observed.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	Endangered USFS_SCC	Endangered	Occurs in riparian woodlands in Southern California. Willow-dominated riparian habitats that are similar to least Bell's vireo nesting habitats; shows a stronger preference for sites with surface water in the vicinity, such as along streams, on the margins of a pond or lake, and at wet mountain meadows.	<u>Expected to occur for foraging; mainly expected to occur as a migrant but not expected to occur for nesting.</u> eBird reported observation at Aspendell, Lake Sabrina, South Lake, and North Lake, suitable habitat. <u>Please note that eBird does not distinguish between northern subspecies of willow flycatcher and southwestern willow flycatcher.</u> 2019 Survey – None Observed.
<i>Vulpes vulpes necator</i> _ Sierra Nevada DPS Sierra Nevada red fox	Endangered	Threatened	Uses dense vegetation and rocky areas for cover and den sites. Found in a variety of habitats, including alpine, alpine dwarf scrub, broadleaved upland forest, meadow and seep, riparian scrub, subalpine coniferous forest, upper montane coniferous forest, and wetland; at elevations above 2,500.0 feet.	Known occur; Sierra Nevada red fox were detected in the Upper Lamarck Lake drainage during 2020 and 2021 surveys, including a detection 2.2 miles west of the Sabrina Lake Dam. Based on recent photo and scat detections, CDFW considers Sierra Nevada red fox to be likely distributed continuously along the Sierra crest between Ebbetts Pass and Bishop Pass. Previously reported from 3.8 miles northeast of Plant No. 6, located in Bishop, northeast of the Project watershed northeastern most boundary. 2019 Survey – None Observed.
May Potentially Occur in the Project Vicinity				
<i>Ovis canadensis sierrae</i> Sierra Nevada bighorn sheep	Endangered	Endangered, CDFW_FP	Available water and steep, open terrain free of competition from other grazing ungulates within alpine, alpine dwarf scrub, chaparral, chenopod scrub, Great Basin scrub, Mojavean desert scrub, montane dwarf scrub, pinon and juniper woodlands, riparian woodland, and Sonoran Desert scrub habitats, from 5,000 to 9,000 feet	May potentially occur. Reported from 12.9 miles northwest of Plant No. 6, located at Wheeler Crest (aka Wheeler Ridge), 10 miles northwest of Bishop, 12.9 miles northwest of the Project watershed northern boundary. 2019 Survey – None Observed.

Scientific/ Common Name	Federal Status	State Status	Habitat	Likelihood for Occurrence/ Occurrence Notes
			during the winter and 10,000 to 14,000 feet during summer.	
Unlikely to Occur in the Project Vicinity				
<i>Rana muscosa</i> southern mountain yellow-legged frog	Endangered	Endangered	Highly aquatic and rarely found more than 3.3 feet from water. They can be found sitting on rocks along the shoreline where there may be little or no vegetation. Historically inhabited lakes, ponds, marshes, meadows, and streams at elevations typically ranging from approximately 4,500 to 12,000 feet.	Unlikely to occur. No recorded occurrences in Inyo County. 2019 Survey – None Observed.
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	Endangered	Threatened	Always encountered within a few feet of water. Tadpoles may require 2 to 4 years to complete their aquatic development. Found in streams, lakes, and ponds in montane riparian and a variety of other habitats from 4,495 to 11,975 feet.	Unlikely to occur. Reported from South Fork Bishop Creek, 2.1 miles south of Bishop Creek South Fork diversion dam; Wonder Lake, 2.3 mi northwest of Sabrina Lake; Treasure Lakes 3,4,5,6, and 7; 1.6 miles west of north end of South Lake. Populations along Bishop Creek are considered extirpated by CDFW. 2019 Survey – None Observed.
<i>Anaxyrus canorus</i> Yosemite toad	Threatened	CDFW_SSC	Primarily montane wet meadows: also, in seasonal ponds associated with lodgepole pine and subalpine conifer forest within meadow and seep, subalpine coniferous forest, and wetland habitat, from 6,400 to 11,300 feet.	Unlikely to occur. Reported 5.5 miles southwest of Sabrina Lake dam, located 1.2 miles southwest of Project watershed western boundary. 2019 Survey – None Observed.
<i>Gulo</i> California wolverine	Proposed Threatened	Threatened, CDFW_FP	Needs water source. Uses caves, logs, burrows for cover and den area. Hunts in more open areas. Can travel long distances. Found in the north coast mountains and the Sierra Nevada in a wide variety of high elevation habitats, including alpine, meadow and seep, north coast coniferous forest, riparian forest, subalpine coniferous forest, upper montane coniferous forest, and wetland from 1,640 to 4,921 feet.	Unlikely to occur. Reported from 0.38 mile south of South Lake dam, located along the east side of South Lake; however, it is considered extirpated from Project area by CDFW (personal communication). 2019 Survey – None Observed.

Scientific/ Common Name	Federal Status	State Status	Habitat	Likelihood for Occurrence/ Occurrence Notes
<p>* https://ebird.org/region/US-CA-027 USFS: U.S. Forest Service; CDFW: California Department of Fish and Wildlife.</p> <p>Legend: USFS SSC Species of Conservation Concern CDFW FP Fully Protected SSC Species of Special Concern</p>				

Table 2. Other Special Status Species Potential

Scientific/ Common Name	Federal Status	State Status	Habitat	Likelihood for Occurrence/Occurrence Notes
Known to Occur in the Project Vicinity				
<i>Accipiter gentilis</i> northern goshawk	BLM_S	CDFW_SSC	Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees within north coast coniferous forest, subalpine coniferous forest, and upper montane coniferous forest habitats from 915 to 9,900 feet.	Known to occur. This species has been recorded 0.18 mile north of Birch Creek Diversion, near Birch Creek; and 0.75 mile south of South Lake dam on the east side of South Lake. 2019 Survey – Observed.
May Potentially Occur in the Project Vicinity				
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	BLM_S	CDFW_SSC	Roosts in the open, hanging from walls and ceilings throughout California in a wide variety of habitats, including chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, upper and lower montane coniferous forest, meadow and seep, riparian forest/woodland, and valley and foothill grassland. Most common in mesic sites. Roosting sites limiting. Extremely sensitive to human disturbance. Found from 4,000 to 10,800 feet.	May potentially occur. This species has been recorded at Yaney Mine, approximately 1.1 miles east of the Project watershed's eastern boundary, 1.6 miles northeast of Plant No. 5 and Intake 6. 2019 Survey – None Observed.
<i>Euderma maculatum</i> spotted bat	BLM_S	CDFW_SSC	Feeds over water and along washes mostly on moths. Needs rock crevices in cliffs or caves for roosting within wide variety of habitats from arid deserts and grasslands through mixed conifer forests from mostly 900 to 2,700 feet but up to 9,700 feet.	May potentially occur. This species has been recorded 1.5 miles northeast of Plant No. 6, located in a residential area between Highway 395 and Highway 168, northeast of the Project watershed northeastern most boundary. 2019 Survey – None Observed.
<i>Lepus townsendii</i> western white-tailed jackrabbit	–	CDFW_SSC	Open areas with scattered shrubs and exposed flat-topped hills with open stands of trees, brush and herbaceous understory within sagebrush, subalpine conifer, juniper, alpine dwarf shrub, and perennial grassland habitats, from 120 to 12,000 feet.	May potentially occur. This species has been recorded north of Bishop, northeast of the Project watershed's northeastern most boundary, 4.5 miles northeast of Plant No. 6 along North Fork Bishop Creek near Highway 6.

Scientific/ Common Name	Federal Status	State Status	Habitat	Likelihood for Occurrence/Occurrence Notes
				2019 Survey – None Observed.
<i>Lithobates pipiens</i> northern leopard frog	–	CDFW_SSC	Highly aquatic species. Shoreline cover submerged, and emergent aquatic vegetation are important habitat characteristics within freshwater marsh, Great Basin flowing waters, Great Basin standing waters, marsh and swamp, wetland habitats, from sea level to 7,000 feet.	May potentially occur. This species has been recorded northwest of the Project watershed's northernmost boundary, 1.7 miles northwest of Plant No. 6, 0.4 mile east of Birch Creek, 4 miles west of Bishop. Species analyzed in Aquatic Resources Section. 2019 Survey – None Observed.
<i>Martes caurina sierrae</i> Sierra marten	USFS_SSC	–	Needs variety of different-aged stands, particularly old-growth conifers and snags which provide cavities for dens/nests, within mixed evergreen forests with more than 40% crown closure along Sierra Nevada and Cascade Mountains, from 8,000 to 10,300 feet.	May potentially occur. This species has been recorded 2.7 miles southwest of Sabrina Lake dam, along Middle Fork Bishop Creek just south of Dingleberry Lake. 2019 Survey – None Observed.
<p>USFS: U.S. Forest Service; BLM: Bureau of Land Management; CDFW: California Department of Fish and Wildlife</p> <p>Legend:</p> <p>USFS</p> <p>SSC Species of Conservation Concern</p> <p>BLM</p> <p>S Sensitive</p> <p>CDFW</p> <p>SSC Species of Special Concern</p>				

Table 3. U.S. Forest Service Inyo National Forest At-Risk Species

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
<i>Ovis canadensis sierrae</i> Sierra Nevada bighorn sheep	Endangered	Alpine and subalpine zones, with open slopes where the land is rocky, sparsely vegetated and characterized by steep slopes and canyons (USDA Forest Service, 2001). 4,000 to 12,000 feet (Sierra Mtn)	2	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Rana sierra</i> Sierra Nevada yellow-legged frog	Endangered	Ranges throughout the northern Sierra Nevada mountains in high elevation, deep lakes (Sierra Mtn between north end of Mt Whitney RD (Mattlock Lakes) to north end of Mono Lake RD.	1	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Rana muscosa</i> Mountain yellow-legged frog, northern DPS	Endangered	High elevation lakes and wet meadow systems. On the Inyo NF this species only occurs on the Mt. Whitney RD (Mulkey and Bullfrog Meadows).	1	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Anaxyrus canorus</i> Yosemite toad	Threatened	Sierra Nevada endemic species occurring in wet montane meadows in elevations ranging from 6,435 to 11,385 feet from the Blue Lakes region north of Ebbetts Pass in Alpine County south to Kaiser Pass in the Evolution Lake/Darwin Canyon region of Fresno County (USDA Forest Service, 2001).	1	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Cyprinodon radiosus</i> Owens pupfish	Endangered, not likely to occur on the INF	Inyo NF has no occupied habitat (Fish Slough-BLM, Mule Springs-BLM, Well 368-BLM, Warm Springs-DWP). For more information http://ecos.fws.gov/docs/five_year_review/doc2395.pdf INF (2017FPR_BA) and the USFWS agreed that the following species were not likely to occur on the INF nor be impacted by Forest Service actions: North American wolverine, California condor, Least Bell's vireo, Yellow-billed cuckoo, western U.S. Distinct Population Segment (DPS), Western snowy	1	NE	This species or its critical habitat range does not overlap with the Project area.

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		plover, Pacific Coast DPS, Delta smelt, Little Kern golden trout, Steelhead, northern California DPS, Owens pupfish.			
<i>Gila bicolor snyderi</i> Owens tui chub	Endangered	<p>In the Inyo NF, the only occurrence is within a portion of Little Hot Creek and Sotcher Lake (Mammoth RD). Not native to Sotcher Lake, or the watershed. Were incidentally re-located to Sotcher Lake by way of trout stocking activities from the Hot Creek Hatchery, where they co-exist with the hatchery. Species is scattered throughout the lake and it has been verified that this species can survive and reproduce in waters and habitat outside the warmer native locations.</p> <p>Fisheries biologist will determine suitable design criteria to ensure listed species habitat is improved or enhanced and determine the level of consultation under the ESA.</p> <p>Stocked lakes below:</p> <ul style="list-style-type: none"> • Sotcher Lake: Threatened OWTC • INF portion of Little Hot Creek Lake: Threatened OWTC 	1	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Oncorhynchus clarkii henshawi</i> Lahontan cutthroat trout	Threatened	<p>Out-of-basin population in INF. Occupy clear cold water mountain meadow streams. In the INF the one out-of-basin population occurs within O'Harrel Creek. Genetically not from Walker River determined from Carson River strand which are less concern (Mono Lake RD).</p> <p>O'Harrel Creek Watershed- no entry until wildlife biologist is consulted. Encompasses the ridge top above the head waters/spring sources downstream to the FS boundary. Includes area within fenced LCT protected area where O'Harrel Creek flows out of the</p>	1	NE	This species or its critical habitat range does not overlap with the Project area.

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		canyon into any foothill's treatment units. Fisheries biologist will determine suitable design criteria to ensure listed species habitat is improved or enhanced and determine the level of consultation under the ESA. Stocked lakes below: <ul style="list-style-type: none"> • June Lake: Threatened LCT • Gull Lake: Threatened LCT • Silver Lake: Threatened LCT • McCleod Lake: Threatened LCT • Birch Lake: Threatened LCT 			
<i>Oncorhynchus clarkii seleniris</i> Paiute cutthroat trout	Threatened	Out-of-basin population in INF. Occupy low gradient meadow streams with an average water depth of .5-half feet. In the INF the only occurrence is within Cottonwood and Cabins creeks (White Mtn RD).	1	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Martes pennanti pacifica</i> Pacific fisher	Threatened (2020)	Forest or woodland landscape mosaics that include late-successional conifer-dominated stands. 6,500 to 10,000 feet. 1 of 9 core areas includes small portion of INF (mostly Sequoia NF) Kern Plateau w/lowest occupancy rate in region, Mgmt = tree growth & canopy cover (pg. 12 Feb 2016_ConservationStrategy) (Whitney RD, Kern Plateau)	1	NE	This species may occur within the Project area. SCE proposes no changes to project operations. Suitable habitat occurs outside of SCE routine operations areas.
<i>Vulpes necator</i> _ <i>Sierra Nevada DPS</i> Sierra Nevada red fox	Proposed Endangered 2020	Forested areas (red fir and lodgepole pine) and subalpine and alpine habitats in proximity to meadows, riparian areas, and brush fields above 5,000-foot elevation (USDA Forest Service, 2001). Limited occurrence information on Mammoth RD. Known to occur on adjacent NF (Stanislaus & H-T). 2017 FPR indicates it does not show up on the USFWS Species Lists for the Inyo NF in iPAC.	1	NE	Species or its critical habitat range does not overlap with the Project area.

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		https://www.fws.gov/sacramento/outreach/2020/01-07/			
<p><i>Danaus plexippus</i></p> <p>Monarch butterfly (Sierra Nevada DPS)</p>	<p>Candidate 2020</p>	<p>West of the Rocky Mountains, monarchs overwinter in sheltered groves along the California coast, where it is considered to be rare with a restricted range. Abundance at California winter habitats has been monitored since 1997 at over 170 locales as part of the annual Western Monarch Thanksgiving Counts (See Monarch Watch), analyses indicates that population numbers declined from a high of 1,237,487 monarchs in 1997 to only 99,063 in 2002 (Stevens and Frey, 2004). Ongoing monitoring conducted by the Xerces Society and Mia Monroe has determined that the overwintering population in California was 292,674 monarchs in 2015 (Pelton et al., 2016).</p> <p>All monarch records on the INF are non-breeding records. There are breeding records within 5 miles of the INF administrative boundary at Fish Slough (2), Round Valley (1), Warm Springs. There are known occurrence records on INF for Saddlebag Lake, June Lake, and White Mountains. Observation records adjacent to the INF occur at Bishop Reservation, Fish Slough, Gerkin Springs, Lone Pine, Mono Lake, Mule Springs, Round Valley, and in Benton, Mammoth Lakes, and Warm Springs, CA. (Mono Lake, Mammoth Lakes and White Mtn RD; likely Mt. Whitney) In 2014, President Obama issued a Presidential Memorandum entitled "Creating a Federal Strategy to Promote the Health of Honeybees and Other Pollinators". Based on USFWS listing priorities and workload, the</p>	<p>2</p>	<p>NE</p>	<p>Species may occur in Project area during migration. SCE is proposing no changes in operations.</p>

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		<p>Service intends to propose listing the monarch in 2024, if listing is still warranted at that time. https://www.fws.gov/news/ShowNews.cfm?ref=u.s.-fish-and-wildlife-service-finds-endangered-species-act-listing-for-&_ID=3681</p> <p>More information about the 12-month finding and how to help conserve monarch butterflies is available here: https://www.fws.gov/savethemonarch</p>			
<p><i>Centrocercus urophasianus</i> Greater sage-grouse (Bi-state DPS)</p>	<p>SCC</p>	<p>Large, interconnected expanses of sagebrush, with a native grass and forb understory (USDA Forest Service, 2008). Species has had recent 2019 petition decisions that found listing under the ESA was not warranted: Bi-state population of greater sage-grouse (USDI, 2015b). April 1, 2020 found not to be warranted for the 3rd time. Reverted back to SCC status on INF. Prioritize the BSSG Action Plan and INF specie specific plan components.</p>	<p>1</p>	<p>NE</p>	<p>This species range does not overlap with the Project area.</p>
<p><i>Martes caurina sierra</i> Sierra Marten</p>	<p>SCC</p>	<p>Forested habitats above 5,500 feet elevation, with large diameter trees, snags, and down logs, moderate-to-high canopy closure, and an interspersed of riparian areas and meadows (CWHR size class 4, 5, and 6; vegetation density >40%) (USDA Forest Service, 2001). Eastside Marten Habitat defined from SNEP LSOG: riparian hardwood, red fir, mixed conifer, white fir, eastside white fir/mixed conifer (104, 108, 110, 111, 114). LOP May1-July31 Protect Den & Rest sites Rx >21" large green tree, snags, stumps and down woody debris.</p>	<p>2</p>	<p>NE</p>	<p>Species may occur in Project area. No changes in O&M practices.</p>

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
<i>Ovis canadensis nelsoni</i> Nelson Desert Bighorn Sheep	SCC	White Mountain area at elevations ranging from 6,000 to 12,000 feet. Most occur in the White Mountain Wilderness, with approximately 300 animals (or approximately 10 percent of the population) occurring outside this area in Silver Canyon.	1	NE	This species or its critical habitat range does not overlap with the Project area.
<i>Haliaeetus leucocephalus</i> Bald eagle	SCC	Forested stands with large, old dominant or co-dominant trees in the vicinity of lakes, reservoirs, rivers, or large streams that support an adequate food supply (USDA, Forest Service, 2001).	2	NE	Species may occur in Project area during migration. SCE is proposing no changes in operations.
<i>Empidonax traillii</i> (includes: <i>Empidonax traillii brewsteri</i> and <i>Empidonax traillii adastus</i>) Willow flycatcher	SCC	Meadows greater than 15 acres in size with water present and a woody riparian shrub component greater than 6.5 feet in height. Rush Creek population which occurs on the Inyo National Forest and also private lands managed by LADWP. In 2001 two nesting pairs in the lower Rush Creek area. In 2004 the population increased to 16 individuals then decreased annually, to a population of six individuals in 2010 (3 males and 3 females) (McCreedy, 2011).	2	NE	Species may occur in Project area during migration. SCE is proposing no changes in operations. Surveys performed did not find suitable nesting habitat structure in Project area.
<i>Strix nebulosa</i> Great gray owl	SCC	Mixed coniferous forest where such forests occur in combination with large meadows or other vegetated openings. 2,400 to 9,000 feet	2	NE	Species may occur in Project area during migration. SCE is proposing no changes in operations.
<i>Strix occidentalis</i> California spotted owl	SCC	Found in five vegetation types in the Sierra Nevada: foothill riparian/hardwood, ponderosa pine/hardwood, mixed-conifer forest, red fire forest, and the east side pine forest. Stands have at least 40 percent canopy cover and higher than average downed woody material and snags. 7,700 to 10,000 feet	2	NE	Species may occur in Project area during migration. SCE is proposing no changes in operations.

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
<i>Dendragapus fuliginosus howardi</i> Mt. Pinos Sooty Grouse	SCC	Found in areas south of the town of Independence, in suitable habitat found in Kearsarge Pass, Onion Valley, Mt Whitney and Mt Whitney Portal, Olancha Creek and Haiwee Canyon (Bland 2013, 2017).	2	NE	Species observed by wildlife cameras at wildlife guzzlers near Intake No 2. Species may occur in Project area during migration. SCE is proposing no changes in operations.
<i>Batrachoseps campi</i> Inyo Mountains salamander	SCC	Endemic to the Inyo Mountains but also found in the White Mtn.	1	NE	Species range does not overlap with the Project area.
<i>Batrachoseps robustus</i> Kern Plateau salamander	SCC	On the Kern Plateau (Whitney RD) <i>Batrachoseps robustus</i> are abundant on the Kern Plateau especially in mesic areas and are found in nearly every drainage in the eastern Sierra from Walker Creek (east of Olancha) to Nine Mile Creek (Hansen and Wake, 2005). These include Olancha critical aquatic refuge and Haiwee Canyon critical aquatic refuge.	1	NE	Species range does not overlap with the Project area.
<i>Anaxyrus exsul</i> Black toad	SCC	Extremely limited range in Deep Springs Valley area. Associated with springs and adjacent riparian vegetation (White Mtn. RD)	1	NE	Species range does not overlap with the Project area.
<i>Pyrgulopsis owensensis</i> Owens Valley springsnail	SCC	Occurs within un-altered spring habitat with cool, clean water along the Sierra Nevada and White mountains escarpment.	1	NE	Species range does not overlap with the Project area.
<i>Pyrgulopsis wongi</i> Wong's springsnail	SCC	Occurs within un-altered spring habitat with cool, clean water along the Sierra Nevada and White mountains escarpment.	1	NE	Species range does not overlap with the Project area.

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
<p><i>Euphydryas editha monoensis</i> Mono Lake checkerspot butterfly</p>	<p>SCC</p>	<p>Found in wet meadows and pine forests on the east slope of the Sierra Nevada Mountains in Alpine and Mono Counties, may have been extirpated (Mono Lake RD). Davenport et al., (2006) report that the subspecies flies from late April to early July. Austin & Murphy (1998), report that the adults fly from mid-April to late June. They occur in scattered colonies on the east side of the Sierras in Great Basin Scrub habitat, from east below Sonora Pass to Big Pine Creek Canyon and the foodplants are <i>Penstemon rydbergii</i>, <i>Collinsia parviflora</i> (family Scrophulariaceae known by the common names maiden blue eyed Mary and small-flowered collinsia), possibly some <i>Castilleja</i> species (K Davenport 2013, pers. comm.).</p>			<p>Species range does not overlap with the Project area.</p>
<p><i>Plebulina emigdionis</i> San Emigdio blue butterfly</p>	<p>SCC</p>	<p>This butterfly is a rare and localized species ranging from 3,000 feet – 5,000 feet in washes and alluvial fans (P Opler 2015, pers. comm.). Only known locations occur in the southern portion of the Inyo forest in the desert scrub habitats that include desert saltbush species (Atriplex) and associated scale insects and ants. The population at Cartago is unique and is in great danger of being exterminated if and when Highway 395 is widened at that point. The larval foodplant at Cartago is <i>Atriplex polycarpa</i> which is unusual because vast areas of desert are covered with <i>A. polycarpa</i> yet <i>emigdionis</i> is not found in these areas. (Whitney RD)</p>	<p>1</p>	<p>NE</p>	<p>This species range does not overlap with the Project area.</p>

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
<p><i>Speyeria nokomis apacheana</i> Apache silverspot butterfly (previously called Apache Fritillary)</p>	<p>SCC</p>	<p>A subspecies of western <i>Speyeria nokomis</i> limited mainly to spring-fed meadows in Nevada and California. Found on the east slope of the Sierra Nevada Mountains in Alpine, Inyo and Mono Counties where it occurs in marshes and wet meadows near springs, seeps, and riparian areas. In or near Inyo National Forest only in Round Valley, Inyo County, and northwest shore of Mono Lake vicinity (P Opler 2015, pers. comm). The larval food plant is <i>Viola nephrophylla</i> (nephrophylla, is from the Greek for "kidney shaped leaves"). The subspecies has a flight period from late July to September. (Mammoth Lakes and White Mountain RD)</p>	<p>1</p>	<p>NE</p>	<p>This species range does not overlap with the Project area.</p>
<p><i>Colias behrii</i> Sierra sulphur butterfly</p>	<p>SCC</p>	<p>It occurs mainly in meadows over 9,000 feet in elevation. For the Inyo National Forest, there appears to be a congregation near Mono Lake and one to the south in Inyo and Tulare counties. Occurs in high elevation wet meadows where <i>Vaccinium cespitosum</i> occurs. <i>Vaccinium cespitosum</i> is a low-lying plant rarely reaching half a meter (1.5 feet) in height which forms a carpet-like stand in rocky mountainous meadows. The dwarf bilberry foliage is reddish-green to green and the flowers are tiny urn-shaped light pink cups less than a centimeter (>0.4 inches) wide.</p>	<p>1</p>	<p>NE</p>	<p>This species range does not overlap with the Project area.</p>
<p><i>Euphilotes battoides mazourka</i> Square dotted blue butterfly</p>	<p>SCC</p>	<p>The species is known from Badger Flat adjacent to Mazourka peak from 8,000 to 13,000 feet elevation (Mt. Whitney RD). Key ecological conditions include the food plant <i>Eriogonum umbelatum subaridum</i> and the subspecies is univoltine and flies during July (Davenport et. al. 2006). Caterpillar plant</p>	<p>1</p>	<p>NE</p>	<p>This species range does not overlap with the Project area.</p>

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		host may be various wild buckweats (<i>Eriogonum sp.</i>) including coastal buckwheat and sulphur-flower . The larvae feed on the flowers and fruits of Eriogonum species. The larvae are tended by ants. The species overwinters in its chrysalids in sand or leaf litter.			
<i>Plebejus icarioides inyo</i> Boisduval's blue butterfly	SCC	The Inyo Mountains are the only known location for this subspecies (White Mountain and Mt Whitney RD). Widespread in the Inyo Mountains, using several Lupinus species for larval foodplant. (K Davenport, 2013)	2	NE	This species range does not overlap with the Project area.
<i>Tuberochernesaalbui</i> A cave obligate pseudoscorpion	SCC	The only known location is Poleta Cave (Muchmore 1997) on White Mountain RD.	1	NE	This species range does not overlap with the Project area.
<i>Oncorhynchus mykiss aguabonit</i> California Golden trout	SCC	Native habitat within the South Fork Kern River on the Kern Plateau (Whitney RD).	1	NE	This species range does not overlap with the Project area.
<i>Margaritifera falcata</i> Western pearlshell	SCC	Within the South Fork Kern River and tributaries on the Kern Plateau and Golden Trout Wilderness (Whitney RD). A single CNDDDB record for this species was located on the forest along the South Fork Kern River in Monache Meadows; however, the record dates to 1948. Shells of this species were found on the Forest at two locations in the South Fork Kern River in 2006, but no current documentation of an extant population was found. Key ecological conditions include cold creeks and rivers with clean water and where sea-run salmon or native trout persist. Documented host fishes for <i>M. falcata</i> include: cutthroat trout, rainbow/steelhead trout, Chinook salmon, and brown trout, and a number of other fish	1	NE	This species range does not overlap with the Project area.

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		<p>are considered potential hosts. Potential for concern is restoration actions on Kern or Monache during restoration and water diversions. Sensitive to habitat and water quality degradation. Mitigation occurs before dewatering and channel work to salvage and relocate upstream among existing populations and monitor. https://xerces.org/conserving-the-gems-of-our-waters</p>			
<p><i>Odocoileus hemionus</i> Mule Deer</p>	<p>INF Game Mgmt Species</p>	<p>Found throughout the Sierra Nevada Mountains, Inyo and White Mountains, the eastern Sierra valley and where forage values occur for winter and summer in all Counties where it occurs in marshes and wet meadows near springs, seeps, and riparian areas. Sustain common and uncommon species SPEC-FW-DC-2 and provide habitat, movement, and connectivity for a variety of species including wide-ranging generalists such as deer. To minimize disturbance in mule deer holding areas, vegetation treatment projects should not occur from May 1 through June 15, and in key winter range areas from November 15 through March 31. Long-term over short-term benefits should be the deciding factor where conflicts exist. Consider fawning sites and LOP for fawns.</p>	<p>2</p>	<p>NE</p>	<p>Resident head and two migratory herds occur in Project area. SCE is proposing no changes in operations.</p>
<p>"Other Species" Common and Uncommon native species</p>	<p>Plan Component</p>	<p>Sustain common and uncommon species SPEC-FW-DC-2 and provide habitat, movement, and connectivity for a variety of species including wide-ranging generalists such as bear, mountain lion, and deer; more localized, semi-specialists such as ground-nesting, shrub-nesting, and cavity-nesting birds and various bats; and</p>	<p>2</p>	<p>NE</p>	<p>Various common and uncommon native species may occur in Project area. No changes in O&M practices.</p>

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
		specialists such as old forest and sagebrush-associated species.			
<p>ESA Note - The new Forest Plan Biological Assessment found that we determined, and the USFWS agreed, that the following species were not likely to occur on the Inyo NF nor be impacted by Forest Service actions addressed in the forest plan: North American wolverine, California condor, Least Bell's vireo, Yellow-billed cuckoo, western U.S. Distinct Population Segment (DPS), Western snowy plover, Pacific Coast DPS, Delta smelt, Little Kern golden trout, Steelhead, northern California DPS, Owens pupfish.</p>					
¹Species Consideration					
1	Category 1: (not in or adjacent to the project area) Species whose habitat is not in or adjacent to the project area and would not be affected by the Project.				
2	Category 2: (not be either directly or indirectly affected) Species whose habitat is in or adjacent to project area but would not be either directly or indirectly affected.				
3	Category 3: (directly or indirectly affected) Species whose habitat is present, and individuals or habitat would be directly or indirectly affected by the Project.				
²Determinations					
NE	No effect (ESA listed species)				
MANLAA	May affect, not likely to adversely affect (ESA listed species)				
MALAA	May affect, likely to adversely affect (ESA listed species)				
CONF	Conferencing (ESA listed species)				
N/A	Not applicable, species or habitat not within the PA				
³Management Plan Components					
DC	Desired Condition				
OBJ	Objective				
GOAL	Goal				
STD	Standard				
GDL	Guideline				

SPECIES	FEDERAL STATUS	² HABITAT, RANGE & CONSERVATION INFO	¹ SPECIES CONSIDERATION	² DETERMINATION	NOTE & ³ PLAN COMPONENTS
36 CFR § 219.9 (a) and (b)	Refer to the Inyo Forest Plan (USDA 2018) for individual plan components				
<p>Background - Under the 2012 Planning Rule (36 CFR 219.7(c)(3)), the Regional Forester determined the terrestrial wildlife, aquatic wildlife, and plant species meeting the criteria for species of conservation concern (SCC) for the Inyo National Forests' Land Management Plan. The definition of SCC is found at 36 CFR 219.9(c), and criteria for identifying them are outlined in the Forest Service Handbook FSH 1909.12 Chapter 10, Section 12.52c. A species of conservation concern is a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area (36 CFR 219.9). This analysis is based on best available information, NRIS, relevant ESA related plans, INF Final Forest Plan (revised 2019) plus associated references particularly SCC Persistence Analysis and SCC Rationales Analysis and EIS.</p>					
<p>Citations</p>					
<p>Persistence Analysis for Species of Conservation Concern, Inyo National Forest (USFS, 2019);</p>					
<p>Persistence analysis is specific to the Inyo NF SCC and summarizes the key ecological conditions and risk factors for each species of conservation concern, and the plan components that mitigate those risk factors, provide for persistence, and contribute to maintaining a viable population of each species of conservation concern within the plan area. A supporting crosswalk, providing the full language for each plan component, threats, and species grouped by key ecological conditions was developed to create this summary.</p>					
<p>Rationales for Animal Species Considered for Species of Conservation Concern, Inyo National Forest (USDA, 2018);</p>					
<p>Rational document contains information on species life history, distribution, ecological conditions, and threats is largely; additional information on each species of conservation concern, the associated selection process, and full references for best available science can be found in this rational document and will not be repeated here.</p>					

ATTACHMENT B

NESTING BIRD MANAGEMENT PLAN FOR SMALL PROJECTS

Nesting Bird Management Guidance for Small Projects

Southern California Edison

Corporate Environmental Services

April 2016

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1.0 Management for Nesting Birds

1.1 Management Summary

Management of nesting birds means avoiding or minimizing project activities that have the potential to cause active nest failures as well as to minimize or avoid construction delays. Protecting active nests involves establishing construction disturbance-free buffers within which construction activities are restricted. Establishing and maintaining buffers is designed to prevent take of active nests, eggs, nestlings, or nesting birds as a result of construction activities. Tolerance to disturbance can vary from one bird species to another. Therefore, it is feasible to establish species-specific, or family/group-specific, recommended buffers that will permit successful nesting, while reducing constraints on construction activities. This Guidance details buffers per species or family/group based on construction type, activity, and duration; natural history; individual behavior; stage of the reproductive cycle; known tolerances; and environmental site conditions.

This section describes the definition of an active nest, determination, and implementation of reduced species-specific or family/group-specific buffers, implementation of nest buffers, and the removal of inactive nests.

1.2 Definition of an active nest

Active nests of native bird species are protected in the state of California by both state and federal law. If this project is outside of California, other state laws may be applicable.

While MBTA does not clearly define what an active (or inactive) nest is, the U.S. Fish and Wildlife Service (USFWS; 2003) has clarified that the federal regulations do not pertain to the destruction of nests alone (without birds or eggs).

Though nests without birds or eggs are not protected from destruction by MBTA, CDFW has not provided clarification on protection of nests. California Fish and Game Code 3503 protects nests and eggs from “needless” destruction. Therefore, non-raptor, non-special status species nests without eggs or chicks are considered inactive for the purposes of this Guidance. For raptors and special status species, a nest is considered active upon initiation of construction. In most cases, a previously active nest becomes inactive when it no longer contains viable eggs and/or living young and is not being used by a bird as part of the reproductive cycle (eggs, young, fledging young still dependent upon nest). In some cases, a nest can be abandoned by the bird constructing it and become inactive prior to egg laying. In such cases, determination that the nest is inactive is made on a case-by-case basis based on consistent observations and the determination of an avian biologist. Using this approach, buffers are established around an active nest and will remain established until the nest is determined to be inactive by an avian biologist or construction activities are complete in the area.

Because a moderate number of avian species never “build” nests, special attention will be provided to potential nests, known old nests and the behavior of adults of any member of the order Strigiformes (owls), or Caprimulgiformes (nightjars), Cathartidae (new world vultures) or families in the order Falconiformes (diurnal birds of prey) including Falconidae (falcons), and Accipitridae (eagles, hawks, and kites).

1.3 Active Nest Avoidance and Documentation

1.3.1 Determination of Species-specific or Avian Group/Family Specific Buffers

The buffers around active nests for the various groups of birds are depicted in Table 1 and are the recommended distances at which light construction activities can theoretically occur without disturbing the nest, adults and/or young to the point of potential nest failure.

Light construction activities are considered to be foot traffic, manual labor, hand work and the temporary use of motor vehicles and light construction equipment such as bobcats, manlifts, utility trucks, and/or bucket trucks. These activities are minor in scale and have no (below ambient) - to low- noise disturbance associated with them.

Moderate and heavy construction activities include the installation and removal of concrete footings, dismantling, and installation of structures. Moderate construction activities include large equipment traffic (i.e., graders, bulldozers, cranes, and loaders), loud construction noise (jackhammers, sawing, generators, etc.), and/or offloading of fill or other materials. Heavy construction activities include active dirt movement by large equipment, trenching, repetitive use of large equipment in one area, auguring, demolition of structures, use of cranes, and loud constant construction noise. These activities involve more ground disturbance and increased noise levels in comparison to light construction activities. If moderate or heavy construction activity is scheduled in the vicinity of a nest, a species-specific buffer larger than the identified buffer per Table 1 may be determined by the avian biologist. As with light construction activity, a biological monitor and/or avian biologist should be present during the construction activity. If the nesting pair becomes agitated or the incubating bird leaves the nest as a result of the construction activity, then the buffer may need to be larger than the implemented buffer as determined by the avian biologist.

Earth disturbing activities may include: grading; scraping; and vegetation alteration (clearing, brushing, tree trimming or removal). These activities involve direct removal of potential nest substrate and generally contain increased noise levels in comparison to light construction activities. However, it should be noted that noise levels associated with earth disturbing activities can be greatly reduced with the use of hand tools. If construction activities include earth disturbance (grading, scraping), vegetation alteration (clearing, brushing, tree trimming or removal) or other activities that may impact an active nest, the buffer distance may need to be adjusted as determined by an avian biologist.

The duration and frequency of activity in the vicinity of a nest should also be taken into consideration when evaluating whether or not the buffer requirement is met. The distance buffers were established based on construction activities that are temporary or infrequent in nature. If a construction crew will be working in the vicinity of an active nest for an extended period depending on the nature of the work (an extended period can be defined as a few minutes for heavy construction to an hour or more for light construction), then the species-specific buffer may need to be larger.

It is important to emphasize that species-specific buffers are measured from the nest to the site of the construction activity outwards and accounts for the nest's location, including the height of the nest.

In Table 1, some species fall into more than one category and may therefore have more than one species-specific buffer associated with it. A blue-gray gnatcatcher (*Polioptila caerulea*), for example, nesting in a thicket or understory is less likely to be disturbed than one nesting in a more exposed location in a shrub or small tree even though both nests are the same distance from the construction activity. Likewise, a red-tailed hawk (*Buteo jamaicensis*) that has acclimated to human activities is less likely to be disturbed at its

nest (and thus placed in Birds of Prey Category 2) than one that is not accustomed to human activity (placed in Birds of Prey Category 3). For similar reasons, birds assigned to a category based on their nesting habits are not all likely to have similar thresholds of disturbance. In these instances, a range of species-specific buffers is indicated in Table 1.

Buffer reductions will consider known species tolerances for disturbance. Larger buffers are used for large avian species and for species that are not tolerant of disturbance. Smaller buffers are generally used for smaller avian species and also species that have a high tolerance for disturbance, such as those that are commonly found nesting close to development. Several species have been identified as common species that use the electric power transmission structures (Lattice Steel Towers) or build nests in/on equipment that is stored at a site. These include some red-tailed hawks, common ravens, western kingbirds, Cassin’s kingbirds, and house finches.

Refer to current lists for species protected by federal and state laws. Assume most species are protected with the exception of house sparrows, European starlings, rock pigeons, and other similar introduced species.

Table 1. Buffers for Horizontal and Vertical Ground Construction

Avian Group	Species	Minimum Horizontal Buffer for Ground Construction (feet)
Quail	California/Gambel’s quail (see note)	75
Birds of Prey (Category 1)	American kestrel, barn owl	100
Birds of Prey (Category 2)	red-tailed hawk (some), great horned owl, burrowing owl	150-250
Birds of Prey (Category 3)	turkey vulture, red-tailed hawk (some), peregrine falcon, prairie falcon	300-500
Eagles	Golden eagle	1 mile line of sight 0.5 mile no line of sight
Shorebirds	Killdeer, snowy plover (the larger buffers for snowy plover)	125-150
Doves	mourning dove	25-50
Roadrunners	greater roadrunner	100
Nightjars	lesser nighthawk, common poorwill	100
Swifts	white-throated swift	50
Hummingbirds	Anna’s hummingbird, Costa’s hummingbird,	25
Woodpeckers	ladder-backed woodpecker	25
Passerines (cavity and crevice nesters)	Say’s phoebe, ash-throated flycatcher, rock wren, canyon wren, Bewick’s wren, juniper titmouse, white-breasted nuthatch	25
Passerines (bridge, culvert, and building nesters)	Say’s phoebe, northern rough-winged swallow, house finch	25-50
Passerines (ground nesters, open habitats)	horned lark, rock wren, western meadowlark	100
Passerines (understory and thicket nesters)	gray vireo, bushtit, Bewick’s wren, blue-gray gnatcatcher, spotted towhee, green-tailed towhee, black-throated gray warbler, Brewer’s sparrow, black-chinned sparrow, sage sparrow, American goldfinch	25

Avian Group	Species	Minimum Horizontal Buffer for Ground Construction (feet)
Passerines (shrub and tree nesters)	Cassin's kingbird, western kingbird, loggerhead shrike*, common raven*, verdin, bushtit, blue-gray gnatcatcher, cactus wren*, northern mockingbird, Bendire's thrasher*, Le Conte's thrasher*, phainopepla*, black-throated gray warbler, black-throated sparrow, great-tailed grackle, Scott's oriole*, house finch, lesser goldfinch*	50-100
Passerines (open scrub nesters)	Loggerhead shrike*, verdin, cactus wren*, black-tailed gnatcatcher, northern mockingbird, Le Conte's thrasher*, Phainopepla*, black-throated sparrow, Brewer's blackbird, Scott's Oriole*, lesser goldfinch*	50-100
Passerines (tower nesters)	western kingbird, common raven, house finch	25

Note: Start with 300-for birds marked with an *

1.3.2 Implementation of Species-Specific Buffers

This section describes the process of implementing species-specific buffers for active nests. Implementation of species-specific buffers does not include listed species. Species-specific nesting buffer implementation during construction will be designed to avoid take of an active nest. Buffers implemented for each particular nest may be greater or less than the buffers detailed in this Guidance (Table 1). Implemented buffers for non-special-status species may be reduced to smaller buffers detailed in the Guidance (Table 1), as determined by an avian biologist. Implemented buffers for special status species may be reduced to smaller buffers through consultation with the appropriate resource and land management agencies.

When an active nest is discovered, a biological monitor will delineate and restrict construction as necessary per the standard buffer (Table 1). A biological monitor will document the construction type, activity, and duration; the individual behavior of the bird; the stage of the reproductive cycle; and the site conditions. An avian biologist will be consulted and will determine if a reduced species-specific buffer can be applied to the active nest. An avian biologist will make this determination based on the information provided by a biological monitor, the species' natural history, and its known tolerances. If a reduced species-specific buffer can be implemented, the SCE biologist will be consulted prior to the reduction of the standard buffer. Buffer reductions will take place only after consideration of site-specific conditions such as distance to construction, type and anticipated duration of construction, microhabitat at the location of the nest that may provide visual and acoustic barriers, behavior of the pair, and its reproductive stage.

For ground-based construction activities, vertical separation of the nest from the construction area will be considered when selecting the appropriate horizontal buffer. Some species build their nests very high in trees and structures. For example, a common raven nest 150 feet off the ground in an existing structure is less likely to be affected by ground work occurring directly below than a nest 50 feet off the ground. The horizontal and vertical buffers will be implemented using the guidelines as described in this Guidance.

The habitat and infrastructure surrounding a nest location will be evaluated for its ability to provide a visual and/or acoustic barrier to construction. This information will be used to help determine an appropriate buffer. As an example, a more concealed nest may require a smaller buffer than a nest that has a direct line of sight to construction.

The observed behavior of an individual bird during the nest search process and consequent nest monitoring will help determine the appropriate buffer distance. For example, an incubating adult that appears more skittish and is readily disturbed could receive a larger buffer than an incubating adult that sits tight and appears more acclimated to disturbance.

Generally, nesting birds are most susceptible to failure early in the nesting cycle when fewer resources have been invested towards the nest. Therefore, it is more important to reduce disturbances during egg laying rather than later in the nesting cycle, which could result in the determination of a larger buffer being necessary early on, then reducing its size later in the nesting season.

Extreme weather events may produce conditions that would increase the likelihood of nest failure. Combined with the stress of nearby construction activity, a nest might fail that would otherwise succeed. On unseasonably hot or cold days, species-specific buffers *may* need to be temporarily increased.

A nesting bird database will be maintained for all nests identified within active construction areas. At a minimum, for each nest, the following information will be documented:

- Status (active or inactive)
- Species
- Nest location
- Behavioral observations
- Site conditions
- Estimated date of nest establishment
- Estimated fledge date
- Buffer size implemented

To avoid the take of active nests in active construction areas, an avian biologist or biological monitor will implement and maintain the established buffer, monitor adjacent construction activities, and document the nesting birds' behavior observations and active nest status. SCE will ensure that the construction contractor is made aware of the buffers through the use of construction maps outlining environmental and biological constraint areas, and/or flagging, staking and signage, and direct communication in the field.

1.3.3 Buffer Distances for Access Roads

Substations, material storage yards, helicopter landing zones, assembly and support yards, contractor yards, and construction areas may be accessed by a single ingress/egress point. These access roads into construction areas are frequently located adjacent to vegetation (e.g., shrubs and trees), including vegetation planted to screen substation facilities that provide suitable nesting habitat for birds. Implementing buffers for active nests that become established along access roads may restrict access to and construction activities within substations and yards.

Ingress/egress to the project work areas will be managed to avoid take of an active nest while allowing use of these roads for construction activities. Take of an active nest from vehicular travel along project access roads can be avoided through the implementation of the following management practices:

- The areas along access roads will be surveyed by the biological monitor to document locations of active nests and to assess buffers,
- The speed limit on all project access roads will be restricted to no more than 25 mph,
- Vehicles will not stop or idle along project access roads within an active nest buffer,
- Construction personnel will not loiter through or within an active nest buffer,
- Watering of access roads for dust control will be limited to prevent direct watering of an active nest within active nest buffers

1.3.4 Active Substations and Yards

Once construction or clearance of vegetation for a yard or substation is complete and the yard or substation is established and is in active operation, reduced buffers for non-special status species' nests found inside or outside of the yard or substation will be implemented. Reduced buffers for nests inside of yards and substations are acceptable for non-special status species due to acclimation to the regular construction activities. Indirect impacts to the individual nests are not anticipated as work will occur within the yard or substation only. However, if a major change in the activity level or activity type within the yard or substation will occur, there may be situations where larger appropriate nest buffers will be implemented within the yard or substation specific to that activity.

1.4 Inactive Nest Management

This section discusses the protocol to remove inactive nests in compliance with MBTA and California Fish and Game Code in active construction areas, including yards, substations, and materials and equipment. In most cases, a previously active nest becomes inactive when it no longer contains viable eggs and/or living young and is not being used by a bird as part of the reproductive cycle (eggs, young, fledged young still dependent upon nest). Based on the Migratory Bird Permit Memorandum (USFWS 2003), inactive nests are defined as nests without birds or eggs.

This protocol does not cover listed species or bald or golden eagles. The purpose of inactive nest removal/deterrence is to prevent or reduce the potential reuse of a currently inactive nest (e.g., return of a pair to the specific site) in a problematic location. In addition, as part of SCE's routine operation and maintenance (O&M), nests that pose an imminent threat to SCE facilities will be removed pursuant to existing permits/agreements with resource agencies and are not the subject of this Guidance.

The following sections describe inactive nest removal/deterrence for raptors, colonial bird species, and other non-listed, non-game native birds. Active nests outside of the construction area will be protected through establishment of above-mentioned buffers to avoid the take of an active nest, as discussed in other sections. All inactive nest removals/ deterrent placements for the project will be documented.

1.4.1 Raptors

Since raptors exhibit nest site fidelity, inactive raptor nests may be protected even though no eggs or young are present. The removal of raptor nests under construction may still qualify as take and be in violation of the California Fish and Game Code. Inactive or partially built raptor nests will be documented by the biological monitor.

In accordance with the definition of inactive nest for raptors provided in this Guidance, inactive raptor nests that will impact construction activities will be removed according to the following protocol:

- A biological monitor/avian biologist will observe the nest for four consecutive hours or for consecutive two hour periods over two successive days to determine if there is any activity at the nest site.
- If an avian biologist determines that the nest is unlikely to be active based on these observations, the construction team will provide personnel to inspect the nest if it is not accessible by a biological monitor/avian biologist due to safety concerns;
- For inaccessible nests, the construction team will take a photo of the nest contents and provide the photograph to a biological monitor/avian biologist;
- Once a biological monitor/avian biologist has confirmed from the photo that the nest is inactive, the construction contractor will remove the nest.

Nests will not be collected or taken off site by biologists because this would be in violation of the MBTA and Native Bird sections of the California Fish and Game Code.

Removal of all inactive raptor nests will be documented on a daily basis to the SCE biologist.

1.4.2 Species Not Mentioned in this Guidance

Consult with the SCE Avian Protection Specialist for any species not covered within this guidance before proceeding.

1.4.3 Non-listed, Non-Game Bird Species Nest Removal

Removal/ deterrence of non-listed, non-game bird inactive nests for species other than raptors and colonial bird species will be completed as discussed below. The USFWS and CDFW do not need to be notified prior to removal/deterrence of these inactive nests when they are removed in compliance with federal and state regulations.

Inactive nests found within construction areas, including substations, yards, materials, and equipment, may either be removed and dropped to the ground, or placed with a deterrent. The Construction Contractor will provide personnel to inspect the nest and take a photograph of the contents if it is not accessible by a biological monitor/avian biologist. Nests will not be collected or taken off site (this would be in violation of the MBTA and the California Fish and Game Code).

When construction takes place during the nesting season, inactive nests will be identified during preconstruction surveys and during construction monitoring, if not previously identified during earlier project- or non-project SCE surveys or monitoring. To determine if a passerine nest is inactive, a minimum of one uninterrupted, consecutive hour of monitoring in suitable conditions or confirmation the nest is empty is required prior to removal. The construction contractor will provide personnel to inspect the nest and take a photograph of the contents if it is not accessible by a biological monitor/avian biologist. After the biological monitor/avian biologist confirms that the nest is inactive and that it does not belong to a listed species, the nest can be immediately removed and left on site.

No nests will be taken off site or collected (this is in violation of the MBTA and the California Fish and Game Code). The nest location will be subsequently monitored to detect any re-nesting attempts.

2.0 Field Approach

Nesting bird surveys will be carried out in several stages during the nesting season. A preconstruction survey for biological resources that includes a survey for nesting birds in areas of suitable habitat will be conducted. The first day of construction and, if necessary based on changing construction activity levels and locations, for each day during construction during the nesting season, the biological monitor will perform daily sweeps to look for resources, including nesting birds. The daily or weekly (depending on construction) sweeps will be conducted to identify new nests (partially built, active, or inactive) not detected during the preconstruction survey or clearance sweep and to also document the status (active or inactive) of known nests in a construction area. The preconstruction survey, clearance sweep, and daily/weekly sweeps will be conducted within suitable habitat for nesting birds within the construction areas and include a 300-foot survey buffer, collectively referred to as the Biological Survey Area (BSA). Care will be taken to avoid potential take of a nest due to surveying and monitoring efforts.

2.1 Survey Requirements

2.1.1 Survey Experience and Training

As different species have different nesting niches and different breeding strategies, surveyors must be able to readily distinguish species that may breed locally from those that do not and know the habitat contexts and types of behaviors to look for when evaluating nesting potential. For example, surveyors must know whether the species normally nests on the ground or high in trees, or whether only females construct the nest, in which case watching the male would be counterproductive. Surveyors will receive training on the information and procedures detailed within this Guidance.

2.1.2 Field Maps

Maps showing the project disturbance limits, ROW, access roads and other project features and current nest and buffer data will be available on demand in the database. Surveyors will have access to the database to view all previously collected data. The database and associated mapping interface will be regularly updated so real-time biological resource data, including nests, will be available to the surveyor.

A major factor affecting the rate of coverage for nesting bird surveys is the rate at which birds visit a nest site. Depending on species, nest stage, and other factors such as food availability and recent disturbance near the nest, birds may visit their nest almost constantly or at intervals of several hours. Smaller birds generally visit nests more frequently than larger birds.

In some open areas with minimal potential for inconspicuous nests, the rate of coverage for surveyors may be as high as 10 acres per hour. Under very difficult circumstances, such as dense brush with some bird activity, a 2,500-square-foot site (0.06 acres) may require two (2) hours. However, both rates are acceptable, with typical survey rates expected to average around 0.5 to 1 acre per hour.

2.2 Nesting Season Survey Methodology

2.2.1 Nest identification

A survey visit will consist of a pedestrian search by a surveyor for both direct and indirect evidence of bird nesting. Direct evidence will include the visual search of an actual nest location. Indirect evidence will include observing birds for nesting behavior, such as copulation, nest building, adult agitation or injury feigning, feeding chicks, removal of fecal sacks, and other characteristic behaviors that indicate the presence of an active nest. The size of the survey area will vary on site specific conditions. Ideally the surveyor should be able to survey a substantial portion of the perimeter from one inconspicuous location to detect birds entering and leaving the survey area. Much of the surveyor's time will require sitting quietly in inconspicuous locations when other types of disturbance are absent; and intensively listening and observing all bird behaviors for discernible direct and indirect evidence of nesting. When moving through vegetation, surveyors will watch for distraction displays, aggressive responses and interactions, and birds flushing suddenly from atypically close range (often an indicator of a nest site). If defensive or distraction displays from birds are observed, an active nest is likely to be nearby. Surveyors will utilize visual observations of nests and bird behavior as a method for detecting potential nests.

2.2.2 Nest Observation

Once a nest is found, it will be approached to check the status. If no adult or juvenile bird activity is observed within one hour (four hours for raptor nests), the nest can be considered inactive. If the nest will be directly impacted by project activities, then the removal procedures outlined in Section 2.6.1 of this guidance will be implemented. If an avian biologist/biological monitor determines that an hour (or four hours for raptors) is not sufficient to make a determination on the nest status, then one hour increments will be employed until a final determination regarding nesting status can be made. Every effort will be made as to not expose the nest to potential predation as a result of survey and/or monitoring activities. All nest visits will be conducted by a single surveyor and will last only as long as necessary to check the nesting stage or until circumstances necessitate departure (e.g., potential nest predator detected or sustained indications of stress by any protected bird).

When approaching a nest, surveyors will first determine whether there are any potential nest predators nearby (e.g., western scrub-jays [*Aphelocoma californica*], common raven [*Corvus corax*], cactus wren [*Campylorhynchus brunneicapillus*], house wren [*Troglodytes aedon*]). If no predators are observed, the surveyor will approach the nest. Surveyors will be carefully aware of the possibility of additional, undetected nests nearby. They will avoid creating a scent or visual path that directs animals to the nest (e.g., leaving no trampled spot by the nest and continuing past the nest upon leaving it rather exiting on the entrance path). Surveyors will also briefly look in at least two empty potential host plants for bird nests before and after looking in the nest in an attempt to deter predators.

2.2.3 Active Nest Determination

When an active nest (defined in section 2.2) is confirmed, the species-specific buffer will be implemented per the Guidance and avian biologist's discretion and work within the new nest buffer will cease immediately. If a bird is seen building a nest or feeding nestlings, but the vegetation is too dense for the surveyor to visually locate the nest, the approximate nest location will be inferred by the surveyor based on observed bird behaviors. Surveyors are not to risk the failure of a nest in an effort to discern an exact location or exact status (e.g., number of eggs, size of nestlings, etc.). The surveyor will then observe the nest and the parental behavior to determine if a reduced buffer can be implemented if appropriate. Active

nests will be monitored before implementing a reduced buffer. Prior to implementation, all buffer reductions will require the approval of an SCE biologist.

A nest completion date can be estimated by combining the stage of nesting at discovery and the known nesting stage range. However, since the date will be estimated, it is important to note that a nest may be active for a shorter or longer period of time. For altricial species, a time buffer from three days up to three weeks will be added to every nest to allow for post-fledging nest dependence.

2.3 Monitoring

As a part of the construction monitoring, a biological monitor will check the status of any active nests within the survey area and update the nest monitoring database.

Biologists will be responsible for documenting new nests, providing status updates of previously identified active nests, and monitoring implemented buffers within and adjacent to construction areas. They will utilize construction monitoring maps, flagging, staking, and signage, and in-field communication to monitor for compliance with project requirements. Biologists will utilize monitoring methods as described in section 2.0 to minimize disturbance to active nests while conducting updates and documenting behavioral reaction to construction. Nests updates will be conducted only as often as necessary to determine egg laying, hatching and fledging, but may be modified to accommodate adverse weather conditions where flushing an adult off of the nest could threaten the nest outcome. All nest visits shall be documented in the database as appropriate.

2.4 Reporting

The avian biologist will provide a final report appropriate to the size of the project. All data collected for the project will be included with the report.

2.4.1 Data Sheets

All nesting bird data will be entered into a database. This will provide the SCE biologist, avian biologist, and biological monitor current information pertaining to that nest, as well as the ability to print maps with the nest data (nest location and buffers).

2.4.2 Communication

Refer to nesting bird management flowcharts.

ATTACHMENT C
SCE AVIAN PROTECTION PLAN

SCE	EHS	ENVIRO	PL	Doc. No	1	 SOUTHERN CALIFORNIA EDISON [®] An EDISON INTERNATIONAL [®] Company
				Version	1	
Responsible Department: Environmental Services Department						
Eff. Date		Latest Signature Date				
Supersedes		SCE-CEHS-EP-PL-1			NA	
<h1>Avian Protection Plan</h1>						

Environmental Services Department Corporate Plan

SCE-EHS-ENVIRO-PL-1

Approved by: See [Attachment 8.2](#) Signature Page for all signatures Date: _____

Don Neal
Director, Corporate Environmental, Health and
Safety Department

Approved by: _____ Date: _____

Paul Grigaux
Vice President, Transmission, Substations &
Operations

Approved by: _____ Date: _____

Gregory Ferree
Vice President, Distribution Business Line

Approved by: _____ Date: _____

Kevin Cini
Vice President, Major Projects Organization

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1. Introduction

1.1 Purpose

The Southern California Edison (SCE) Avian Protection Plan (APP) details SCE processes for managing avian issues. The requirements explained in the APP are applicable to all SCE facilities and shall be implemented by SCE Employees and Contractors.

1.2 Scope

The APP incorporates relevant guidelines published by the Avian Power Line Interaction Committee (APLIC) and the U.S. Fish and Wildlife Service (USFWS) in 2005. SCE's APP incorporates the following eight key elements:

- Corporate Policy
- Training
- Permit Compliance
- Construction Standards
- Nest Management
- Reporting System
- Mortality Reduction Measures
- Quality Control

SCE's environmental corporate policy can be found on the SCE Portal [here](#). Construction Standards are addressed in other company documents, but referenced in this document.

SCE's Environmental Services Department (ESD) is expected to oversee the implementation of the APP in affected SCE organizations. ESD is expected to solicit input from the affected SCE organizations and perform annual review of the APP.

2. Definitions

2.1 Authorized SCE Employee

ESD Director, SCE Avian Protection Specialist, SCE Biologist, Patrolmen, Troublemakers, Foremen, Transmission System Operators, or other personnel as authorized by the T&D Director.

2.2 Imminent Danger (Alteration of Active Nest)

Impending circumstances likely to result in the electrocution of a bird or in a fire, or pose an immediate threat to the stability of the bulk electric system, human health, or public and/or employee safety.

2.3 Incidental Take

See the definition of Take in [Section 2.10](#) below. An Incidental Take is incidental to, and not the purpose of, carrying out of an otherwise lawful activity per the Endangered Species Act (ESA) and the Bald and Golden Eagle Protection Act (BGEPA). 50 C.F.R. § 22.3 (2013).

2.4 Major Projects

Projects that have specific avian protection measures defined during California Public Utilities Commission (CPUC) proceedings and/or associated project-specific resource agency permitting actions.

2.5 Migratory Bird

Any bird, whatever its origin and whether or not raised in captivity, which belongs to a species listed in 50 C.F.R. Section 10.13 (2013), or which is a mutation or a hybrid of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. 50 C.F.R. § 10.12 (2013). Most bird species in the U. S. are considered to be migratory birds and are protected under the Migratory Bird Treaty Act (MBTA), except for introduced species, such as the house sparrow, European starling, rock pigeon, monk parakeet, and some game species, such as the ring-necked pheasant. The MBTA is discussed further in [Section 3.1.2](#).

2.6 Nest

The definitions of Nest, Active Nest, and Inactive Nest vary across species and between Federal and California laws and agency interpretation.

2.6.1 USFWS Definition (USFWS Federal Fish & Wildlife Permit; 50 C.F.R. § 22.3):

Active Nest: Nest with eggs, young, or incubating adults present.

Inactive Nest (non-eagle): Nest without eggs, young, or incubating adults present.

Inactive Nest (eagle): Inactive nest means a bald eagle or golden eagle nest that is not currently being used by eagles as determined by the continuing absence of any adult, egg, or dependent young at the nest for at least 10 consecutive days immediately prior to, and including, at present.

2.6.2 California Department of Fish and Wildlife (CDFW) Definition

Active Nest: CDFW has not provided a written definition of an active nest.

Inactive Nest: Nest no longer in use; without viable eggs, nestlings, or juveniles. Determined by an avian biologist.

2.7 Possession

Possession means detention and control of a Protected Species. 50 C.F.R. § 10.12 (2013). This includes picking up or handling of any Migratory Bird. This may also include moving or transporting Migratory Birds or Nests.

2.8 Protected Species

Any bird listed under federal or state laws and regulations, such as the federal and state Endangered Species Acts, BGEPA, the MBTA, and California Fish & Game Code.

2.9 Special Purpose Permit

A permit issued by the USFWS that must be acquired before any person may lawfully Take, salvage, otherwise acquire, transport, or possess Migratory Birds, their parts, Nests, or eggs for any purpose not covered by the standard form permits of 50 C.F.R. Section 21 (2013).

2.10 Take

2.10.1 Federal Definitions of Take

The definition of “take” is different under the three relevant federal laws: the BGEPA, ESA, and MBTA.

2.10.1.1. BGEPA

The BGEPA defines Take as: To pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect destroy, molest or disturb, or to attempt to engage in such conduct. 16 U.S.C. § 668c; 50 C.F.R. § 22.3 (2013). The BGEPA is discussed further in [Section 3.1.3](#). “Disturb” means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. 50 C.F.R. § 22.3 (2013).

2.10.1.2. ESA

The federal Endangered Species Act defines Take as: To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct in regards to a listed species. 16 U.S.C. § 1532 (19). “Harm” may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. 50 C.F.R. § 22.3 (2013). “Harass” is defined as “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” 50 C.F.R. § 17.3 (2013).

2.10.1.3. MBTA

To pursue, hunt, shoot, wound, kill, trap, capture, or collect (alive or dead), or to attempt to engage in such conduct. 50 C.F.R. § 10.12 (2013). See additional discussion of the MBTA in [Section 3.1.2](#).

2.10.2 *California Definition of Take (California Fish & Game Code)*

To hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.
Cal. Fish & Game Code § 86.

2.11 Threatened and/or Endangered (T&E)

Any species subject to the protection of the federal and California Endangered Species Acts. 16 U.S.C. §§ 1531 to 1544; Fish & Game Code §§ 2050-2115.5.

3. Regulatory Background

In addition to the federal and state laws protecting birds discussed below, the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require projects subject to these regulations to evaluate potential impacts of these projects on Protected Species.

If project impacts are potentially significant, further investigation will be required to determine whether and which Applicant Proposed Measures (APMs) are necessary to demonstrate that impacts can be reduced to below-significant levels. For further discussion of this issue, see [6.1: Applicant Proposed Measures](#).

3.1 Federal Requirements

The three primary federal laws protecting birds are:

- ESA
- MBTA
- BGEPA

All three laws make it unlawful to Take birds without the proper permits. It is important to note the definition of Take differs among the three laws. For example, Take under the ESA includes habitat degradation and harassment. The definition of Take under each law can be found in the Definitions section. Each of these federal laws is discussed in detail below.

3.1.1 ESA

Special protection is afforded to T&E bird species under the ESA. 16 U.S.C. §§ 1531 to 1544. The ESA and its companion regulations make it unlawful to import, export, Take, transport, possess, sell, purchase, or receive in interstate or foreign commerce any species of fish or wildlife (including birds) listed as endangered or threatened. 16 U.S.C. § 1538.

The ESA has provisions for permitted Incidental Take. Incidental Take authorization can be obtained through ESA Section 7 for projects with a federal nexus (e.g., involving federal money, lands, or interconnection) or through Section 10 for projects with no federal nexus. Such authorization allows for otherwise prohibited Take of a species, so long as the Take is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

3.1.2 MBTA

The MBTA applies to the vast majority of birds in the United States with the exception of a few species, such as the house sparrow, European starling, and rock pigeon. 16 U.S.C. §§ 703-712. 50 C.F.R. § 10.13 (2013).

The purpose of the MBTA is to afford protection to migratory birds, their parts, Nests, and eggs. The MBTA states that, unless permitted by regulation, it is unlawful to “pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, or import ... any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof...” 16 U.S.C. § 703.

The USFWS defined Active Nest in the permit issued to SCE. (See [Section 2.6.1](#) above for the USFWS definitions of Active Nest and Inactive Nest.) In circumstances such as public safety concerns, the USFWS can issue a permit for removal of an Active Nest. Inactive Nests are not protected from destruction, but are only protected from possession.

Currently, there are no provisions to allow for Incidental Take under the MBTA. Special Purpose Permits are available for transporting bird carcasses and nest management.

3.1.3 BGEPA

Bald and golden eagles, their eggs, and their Nests receive additional protection under the BGEPA. 16 U.S.C. §§ 668 to 668d. It is a crime for a person or entity who lacks the required permit to “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export, or import ... any bald eagle... or any golden eagle, alive or dead, or any part, nest or egg thereof” 16 U.S.C. § 668(a).

The BGEPA has provisions for permitted Incidental Take under 50 C.F.R. Section 22 (2013). SCE holds a permit for exhibition purposes and has a mounted golden eagle on display at Camp Edison. Permits can also be approved for the Take of eagles during otherwise lawful activities or to remove a nest that poses a safety hazard.¹

3.2 State Requirements

The following Fish and Game Code sections protect birds:

- California Endangered Species Act (CESA) (§§ 2050-2115.5)
- All birds (§ 3503)
- Birds in the orders Falconiformes or Strigiformes (i.e., birds-of-prey) (§3503.5)
- Aigrette or egret, osprey (*Pandion haliaetus*), bird of paradise, goura, numidi, or any part of such a bird (§3505)
- Fully protected birds (§3511)
- Migratory nongame bird as designated in the MBTA, or any part of such migratory nongame bird, except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA (§3513).

The CDFW may issue permits to allow Incidental Take of state-listed species pursuant to CESA.

¹ Under California law, however, bald and golden eagles have additional protection. See Fish & Game Code Sections 2081 and 3511.

4. Responsibilities

4.1 ESD Director

- Maintains strategic oversight and establishes policies and standard to ensure that SCE complies with applicable requirements related to avian protection.
- Designates SCE Avian Protection Specialists and SCE Biologists.

4.2 SCE Avian Protection Specialist

- Oversee the implementation of the APP. Solicits input from the affected SCE organizations and performs an annual review of the APP.
- Only the Avian Protection Specialist is authorized to apply for Take permits under BGEPA and MBTA.
- Receives and processes SCE's Wildlife Mortality/Bird Nesting Reports.
- Contacts a federal agent when a dead eagle or T&E species is discovered.
- Contacts CDFW if a dead or injured state-listed species is discovered.
- Maintains a record of bird fatalities and submits the record as required to the appropriate agencies.
- Contacts the USFWS and/or CDFW (depending on the species) to request a permit when an eagle or T&E nest needs to be removed.
- Enters information in the Geographic Information System (GIS) on avian mortality, nesting, and injury.
- Maintains an APP document library and provides access as necessary.
- Chairs the Eagle Zone Review Team.
- Provides advice on biological considerations for implementation of Transmission and Distribution (T&D) Construction Standards for avian-safe line construction or retrofits.
- Provides avian expertise to the SCE Biologist.
- Coordinates annual review and updates to the APP working with T&D Personnel and Major Projects Organization Personnel.

4.3 SCE Biologist

- Determines species of bird carcass when others cannot.
- Collects eagle and T&E bird carcasses.
- Sends eagle carcasses to the National Eagle Repository.
- Coordinates with a wildlife rehabilitator for transport of injured birds to rehabilitation facilities.
- Provides avian support and recommendations to the project team on capital licensing projects.
- Evaluates potential impacts to birds for SCE projects.

4.4 SCE Personnel

- Work with the SCE Avian Protection Specialist to review replacement or modification of a structure.
- Participate in the Eagle Zone Review Team.
- Provide project information to the SCE Biologist necessary for evaluating potential impacts to birds.
- Work with the SCE Biologist to ensure efficient and effective implementation of the avian mitigation requirements during project execution.
- Participate in the retrofit program per [Section 5.3.7](#).

4.5 Major Projects Organization Personnel

- Provide project information to the SCE Biologist necessary for evaluating potential impacts to birds.
- Work with the SCE Biologist to ensure implementation of avian mitigation requirements.

5. Procedures

Note: Several factors contribute to avian collisions and electrocutions, including but not limited to habitat, prey abundance, body size, weather, wind direction relative to electric facilities, season, age of the bird, and behavior. For additional information on avian interactions, including nesting on structures, see [Birds and Power Lines](#) and [Nest Management Guidelines](#) on the SCE Portal at: [Org Units>Corporate Environmental, Health & Safety>Standards & Data Management>Environmental Standards & Manuals>Avian Protection Plan](#).

5.1 SCE Vehicles and USFWS Permit

5.1.1 All SCE vehicles that may be used to transport birds shall be equipped with SCE's [USFWS Special Purpose Permit](#). The SCE Avian Protection Specialist provides the current permit to Transportation Services for placement in vehicles.

5.2 Reporting

Note: The reporting requirement does not apply to major projects that have reporting requirements specified in a Nesting Bird Management Plan and/or project-specific reporting requirements (see [Section 6](#) for Major Projects). However, the project biologist shall report electrocutions and line collisions to the SCE Avian Protection Specialist for tracking.

5.2.1 SCE Employees are expected to report dead birds and Active Nests that pose problems near (e.g., on an overhanging tree branch) or on SCE equipment and facilities (e.g., poles, towers, substations) to the SCE Biologist within 24 hours of discovery. (As explained in Section 5.5, Employees and/or Contractors who discover injured birds must contact the SCE Biologist on call immediately.) For reporting procedures regarding eagle Nests, see [Section 5.4](#). This report may be made via telephone or email. A [Wildlife Mortality/Bird Nesting Report](#) must be submitted within five (5) business days of the discovery. This deadline may be extended upon approval from the SCE Avian Protection Specialist or designee.

5.2.2 Contractors are expected to report dead birds and Active Nests that pose problems near or on SCE equipment and facilities within 24 hours of discovery. (As explained in Section 5.5, Employees and/or Contractors who discover injured birds must contact the SCE Biologist on call immediately.) For reporting procedures regarding eagle Nests, see [Section 5.4](#). Reports must be made to the SCE Representative (SCE personnel responsible for managing the contract). The SCE Representative shall submit the SCE [Wildlife Mortality/Bird Nesting Report](#) form within five (5) business days of the discovery. This deadline may be extended upon approval from the SCE Avian Protection Specialist or designee.

Note: The SCE [Endangered Species Alert Program \(ESAP\) Manual](#) contains information that may facilitate the identification of sensitive bird species found in SCE's service territory. It can aid in completing the [Wildlife Mortality/Bird Nesting Report](#).

5.3 Avian Mortality

Note: Any questions should be directed to the SCE Biologist on call, who can be reached through the SCE operator 24 hours a day, 7 days a week for reporting and/or support. Avian mortalities can also be reported via email to: BiologicalResources@sce.com.

WARNING

Diseases can be transmitted by contact with wildlife; therefore, employees shall wear safety glasses and nitrile gloves and/or use an inverted plastic bag to pick up carcasses (refer to Section 5.10). Contractors are expected to provide the same level of protection to their employees and subcontractors.

Figure 1, Avian Mortality Procedure Flowchart, shows an overview of the process described in this section.

- 5.3.1 The SCE Employee is expected to take digital photographs of the bird, the structure, and surrounding areas to provide a context for the find and to document the species, and attach the photographs to the [Wildlife Mortality/Bird Nesting Report](#). If no camera is available, the SCE Employee is expected to provide a written description of the bird (basic dimensions and colors) and of the avian-safe status of the structure within the Report.
- 5.3.2 Unless the bird is a T&E species, the SCE Employee is expected to remove any tag or band from the bird and mail the tag or band to the SCE Avian Protection Specialist along with the Wildlife Mortality/Bird Nesting Report. Contact the SCE Avian Protection Specialist at BiologicalResources@sce.com for the current pony location. If the tag or band cannot be removed, the tag or band information should be recorded on the Wildlife Mortality/Bird Nesting Report.
- 5.3.3 The SCE Employee should attempt to determine whether the bird is an eagle, T&E, or California fully protected species. See [Attachment 8.1](#) for a list of special status bird species in SCE territory and the [ESAP Manual](#) if needed. If the species of bird cannot be determined, the SCE Employee is expected to contact a SCE Biologist.
- Note:** Both bald and golden eagles occur within SCE's service territory. It is important to initially determine if the bird is an eagle or another bird of prey (i.e., raptor). Adult bald and golden eagles range anywhere from 30 to 40 inches long and have a 79- to 80-inch wingspan, while other raptors, such as red-tailed hawks, are considerably smaller, measuring about 19 inches long and with a 49-inch wingspan. When in doubt, contact the SCE Biologist for guidance.
- 5.3.4 If the bird is not an eagle or T&E species, the SCE Employee shall bag and transport the carcass to the closest SCE facility and dispose of it in a dumpster at the SCE facility.
- 5.3.5 If the bird is an eagle:
- 5.3.5.1 The SCE Employee is expected to notify the on-call SCE Biologist at the earliest reasonable opportunity.
 - 5.3.5.2 The SCE Employee shall place the bird in a plastic bag using either nitrile gloves or an inverted plastic bag.
 - 5.3.5.3 The SCE Employee shall arrange to keep the carcass frozen until collected by a SCE Biologist. This can be accomplished by placing the

bagged bird in a cooler full of ice or by filling a plastic bag with ice and placing the bagged bird inside.

5.3.5.4. The SCE Biologist is expected to verify the species identity at the earliest reasonable opportunity and, if confirmed that the carcass is an eagle, promptly notify the SCE Avian Protection Specialist. If the bird is an eagle, the SCE Biologist is expected to contact a USFWS law enforcement agent for coordination. If the bird is a state-listed species, the SCE Biologist is expected to notify the CDFW before the end of the next business day.

5.3.5.5. If the SCE Biologist determines that the bird is **not** an eagle, the SCE Biologist shall instruct the SCE Employee to dispose of the bird. The SCE Employee shall bag and transport the carcass to the closest SCE facility and dispose of it in a dumpster at the SCE facility.

5.3.5.6. If the carcass is an eagle, the SCE Avian Protection Specialist shall report to the appropriate agencies and send the carcass to the National Eagle Repository. The carcass must be shipped on Monday, Tuesday, or Wednesday only, for delivery no later than Friday (unless Friday is a holiday). The eagle should be sent to:

U.S. Fish & Wildlife Service
National Eagle Repository
Rocky Mountain Arsenal, Building 128
Commerce City, CO 80022

5.3.6 If the bird is a T&E species (for example, California condor):

5.3.6.1. The SCE Employee is expected to take a digital photograph if possible (Section 5.3.1) and send to the on-call SCE Biologist at the earliest reasonable opportunity.

5.3.6.2. The SCE Employee shall leave the bird in place. Should the incident be discovered after normal workday hours, the SCE Employee should attempt to cover the carcass with a box or bucket to reduce the chance of scavenging.

5.3.6.3. The SCE Biologist is expected to verify the species identity based on the photograph or description at the earliest reasonable opportunity and, if confirmed that the carcass is a T&E species, promptly notify the SCE Avian Protection Specialist. If the bird is a federally listed T&E species, the SCE Biologist is expected to contact a USFWS law enforcement agent for coordination. If the bird is a state-listed species, the SCE Biologist is expected to notify the CDFW before the end of the next business day.

5.3.6.4. If the SCE Biologist determines that the bird is **not** a T&E species, the SCE Biologist shall instruct the SCE Employee to dispose of the bird.

The SCE Employee shall bag and transport the carcass to the closest SCE facility and dispose of it in a dumpster at the SCE facility.

- 5.3.6.5. If the carcass is a T&E species, the SCE Avian Protection Specialist shall follow directions from USFWS and/or CDFW regarding disposition of the carcass.
- 5.3.7 The SCE Employee is expected to submit a completed Wildlife Mortality/Bird Nesting Report within five (5) business days of the discovery date. This deadline may be extended upon approval of the SCE Avian Protection Specialist.
- Note:** If the bird is **not** an eagle, non-eagle raptor, or T&E species, only the following fields are required: name; work location; date; pole or tower number; and photographs.
- 5.3.8 If the bird is an Eagle, non-eagle raptor, or T&E species:
- 5.3.8.1. Within five (5) business days of the discovery, the SCE Employee is expected to create a work request (or notify the appropriate organization within SCE's T&D to create a work request) to retrofit the pole to comply with SCE's current design specifications for avian protection (refer to SCE DOH DC-535). This time frame may be extended upon approval of the SCE Avian Protection Specialist.
- 5.3.8.2. A Priority 2-150 notification is expected to be initiated for reactive post-fatality retrofits (not including pole replacement) with a completion date of 90 days for the installation of covers or other protective devices pursuant to Distribution Overhead Construction Standards (DOH) DC 535 - Avian Safe Power Line Construction; and Transmission Overhead Construction Standards (TOH). 5.3.5.3. Variances may be authorized by the appropriate District or Grid Manager (T&D) and the Biology Manager (NCR) in consultation with the Avian Protection Specialist and shall be documented in a confirmatory email from each and tracked by the SCE Avian Protection Specialist. In the event that a consensus date cannot be established, the authorized T&D Director, in consultation with the Director of ESD, shall make the final decision.
- 5.3.9 If the bird is an eagle, two structures in each direction from the incident pole are expected to be evaluated for similar configurations and retrofits as a part of the work request.
- 5.3.10 For non-eagle raptors, only the incident pole is to be reviewed for retrofit.
- 5.3.11 For all other bird species, retrofits are expected to be scheduled as determined by the responsible T&D group, but normally not to exceed two (2) years from receipt of the Priority 2 notification.
- Note:** Variances to the timeline above may be authorized by a joint decision made by the authorized T&D Director and the Director of ESD. Such variances must be documented in the Priority 2 notification and tracked by the SCE Avian Protection Specialist.

5.4 Proactive Retrofits

5.4.1 During non-emergency repairs, planned maintenance, and/or scheduled construction, T&D field personnel will ensure that construction at the working level and below is in compliance with avian protection standards, if practical. If, for any reason, the avian protection standards cannot be implemented at the working level and below, a priority 2-150 notification will be initiated, triggering a return to the structure to complete avian compliance requirements. See DOH DC 535 for approved avian protection materials.

Avian Mortality Procedure Overview

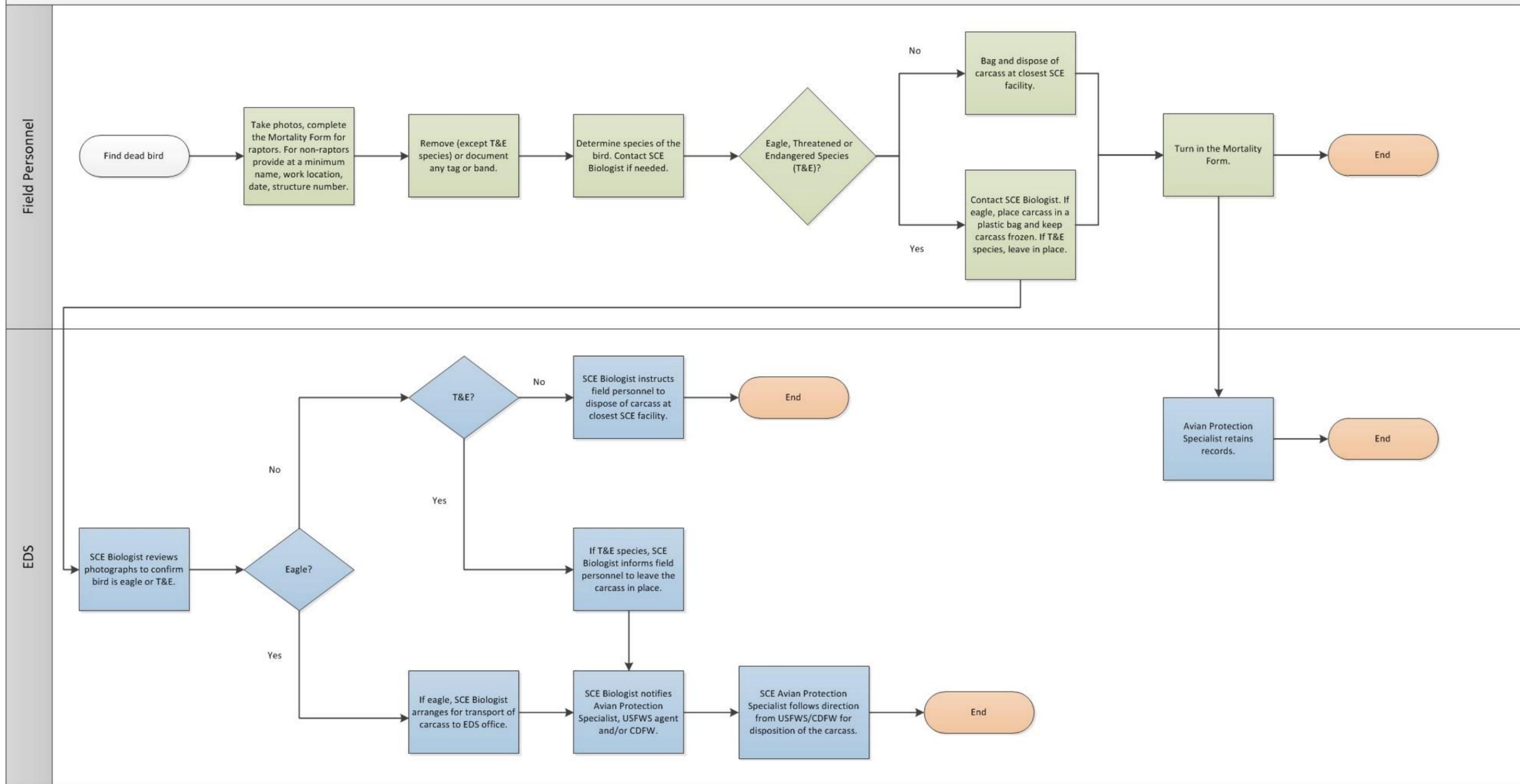


Figure 1. Avian Mortality Procedure Flowchart

5.5 Bird Nest Removal

WARNING

Diseases can be transmitted by contact with Bird Nests. Section 5.9 contains safety requirements to implement before any contact with Nests.

This section applies to all SCE facilities and projects. Contact the SCE Avian Protection Specialist or the ESD project biologist for guidance on the definition of an Active Nest under CDFW ([See also 2.6, Nest](#)).

Figure 2, Nest Issues Procedure Flowchart, shows an overview of the process described in this section.

5.5.1 Bird Nests (active and inactive) may be disturbed or removed only under the following circumstances:

- For all Active Nests, and Inactive Nests of Eagles or T&E species: only if the Nest poses an Imminent Danger that threatens system reliability (e.g. risk of causing outages or fires, or downed equipment) or safety (of the public or SCE Employees or Contractors);
- For Inactive Nests that are not Eagle or T&E species, but only if the Nest:
 - Threatens system reliability;
 - Is on vegetation or structures to be trimmed or removed during course of normal system maintenance; or
 - Is within an SCE work area and may be impacted by work activities.

Note: Only an Authorized SCE Employee shall determine if there is an Imminent Danger.

5.5.2 Imminent Danger Circumstances

5.5.2.1. Active Nest (not Eagle or T&E)

- The SCE Employee or Contractor shall immediately notify the on-call SCE Biologist. Imminent Danger circumstances are required for Take of a Nest.
- If the Nest requires removal or relocation, the SCE Biologist shall provide support to aid in the relocation or retrieval of nest contents for transport to a wildlife rehabilitation facility or disposal (as appropriate).
- If the nest does not need to be removed, the SCE Biologist shall provide instruction to the SCE Employee or Contractor regarding working near an Active Nest and/or provide a biological monitor during work activities.
- The SCE Biologist shall provide the SCE Employee or Contractor with oral instructions on how to manage the nest to be followed up with written instructions.

5.5.2.2. Active or Inactive Nest of Eagle or T&E

- If the Nest requires removal or relocation, the SCE Biologist shall promptly contact USFWS and/or CDFW, and if the Nest lies with a Major Project footprint, contact the respective SCE Project Biologist.
- If the Nest does not need to be removed, the SCE Biologist shall provide instruction to the SCE Employee or Contractor regarding working near an Active Nest and/or provide a biological monitor during work activities.
- The SCE Biologist shall provide the SCE Employee or Contractor with oral instructions on how to manage the nest to be followed up with written instructions, as well as copies of any permits issued by USFWS or CDFW related to removing or relocating the Nest.

5.5.2.3. Inactive Nest (not Eagle or T&E)

- The Nest may be trimmed, removed, or relocated.
- No Wildlife Mortality/Bird Nesting Report is required unless the Nest is relocated. If the Nest is relocated, submit the Wildlife Mortality/Bird Nesting Report within five (5) business days of relocation.

5.5.3 Nest is a hazard or obstructs work, but is not an imminent danger to system reliability or safety

5.5.3.1. Active Nest (not Eagle or T&E)

- The SCE Employee or Contractor shall not alter the Nest and shall report to the SCE Biologist or SCE Avian Protection Specialist within 24 hours of discovery via telephone or email. The SCE Employee or Contractor

shall submit the Wildlife Mortality/Bird Nesting Report within five (5) business days of the discovery.

- If the Nest requires removal or relocation, the SCE Biologist shall provide support in determining when the Nest will become Inactive and allow for work to proceed.
- If the Nest does not need to be removed, the SCE Biologist shall provide support in determining when the Nest will become Inactive and allow for work to proceed or, when circumstances allow because risk of nest failure is low, shall provide instruction to the SCE Employee or Contractor regarding working near an Active Nest, and/or provide a biological monitor during work activities.
- The SCE Biologist shall provide the SCE Employee or Contractor with oral instructions to be followed up with written instructions.

5.5.3.2. Active or Inactive Nest of Eagle or T&E

- If the Nest belongs to an Eagle or T&E species, the SCE Employee or Contractor shall not alter the Nest and shall report to the SCE Biologist or SCE Avian Protection Specialist within 24 hours of discovery via telephone or email. The SCE Employee or Contractor shall submit the Wildlife Mortality/Bird Nesting Report within five (5) business days of the discovery.
- The SCE Biologist or Avian Protection Specialist shall request a permit from the USFWS to remove the Nest, and/or contact CDFW for further direction (as appropriate). The SCE Biologist or Avian Protection Specialist shall direct the SCE Employee or Contractor regarding the appropriate actions to take related to the Nest.

5.5.3.3. Inactive Nest (not Eagle or T&E)

- Nest may be trimmed, removed, or relocated.
- No Wildlife Mortality/Bird Nesting Report is required unless the Nest is relocated. If the Nest is relocated, submit the Wildlife Mortality/Bird Nesting Report within five (5) business days of relocation.

For guidance on managing nests on SCE facilities, refer to the Nest Management Guidelines on the SCE Portal at: [Org Units>Corporate Environmental, Health & Safety>Standards & Data Management>Environmental Standards & Manuals>Avian Protection Plan](#).

Nest Issues Procedure Overview

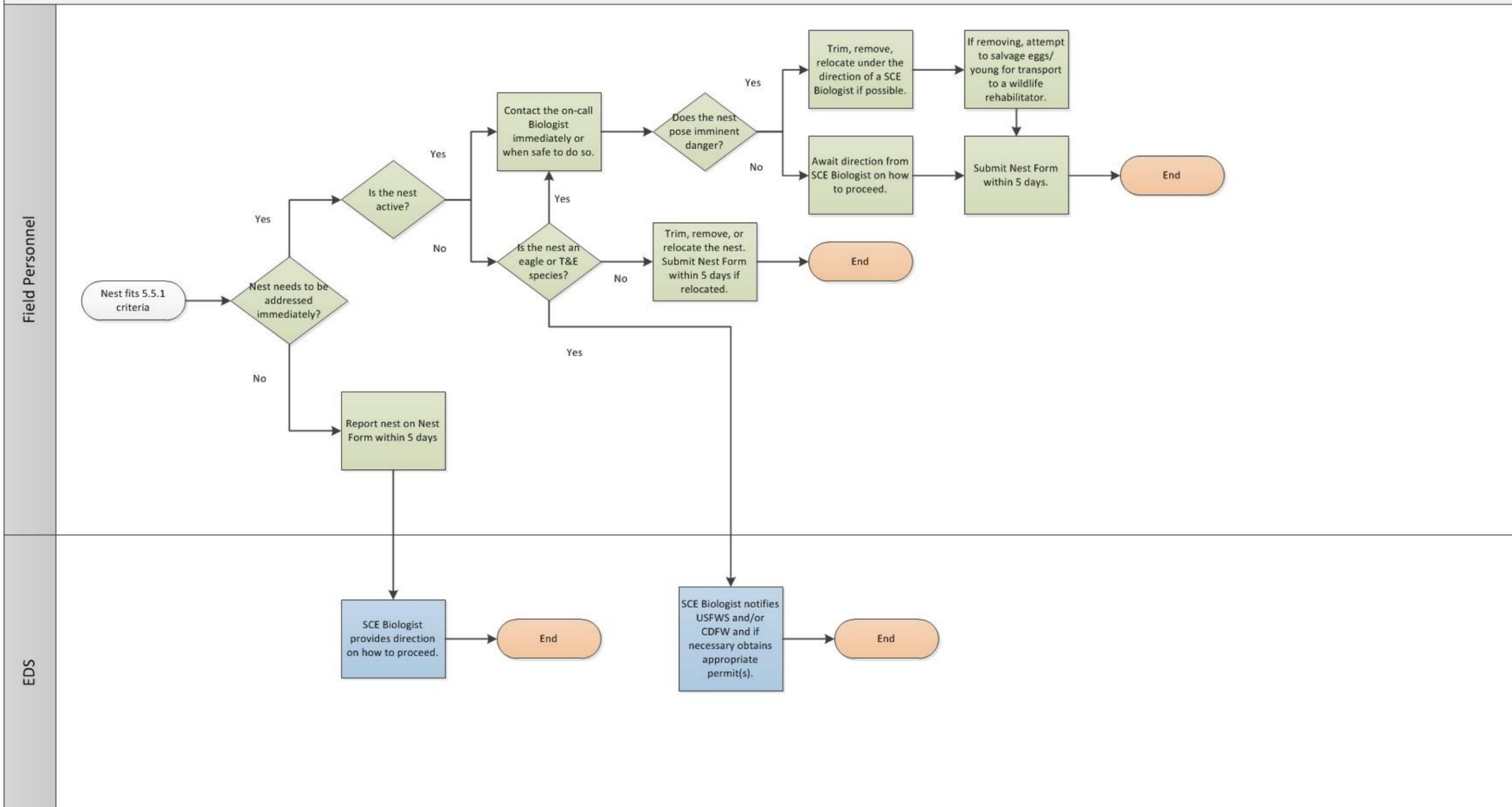


Figure 2.

Figure 2. Nest Issues Procedure Flowchart

5.6 Injured Birds

- 5.6.1 Unless they are qualified, SCE Employees and Contractors shall not handle injured birds. Refer to [Section 5.9 - Safety Procedures](#). Qualified personnel are determined by the SCE Avian Protection Specialist through an interview.
- 5.6.2 If an SCE Employee or Contractor encounters a bird injured due to contact with a SCE facility, the SCE Employee or Contractor is expected to immediately contact the on-call SCE Biologist, who will identify a licensed wildlife rehabilitator.
- 5.6.3 The on-call SCE Biologist (or a ESD-hired biological contractor with avian expertise) is expected to recover the injured bird and transport it to the wildlife rehabilitator.
- 5.6.4 The on-call SCE Biologist is expected to notify the SCE Avian Protection Specialist, who is expected to follow up with the wildlife rehabilitator for the final disposition of the bird. The SCE Avian Protection Specialist is expected to include the disposition information on the injured bird in the annual report to USFWS in compliance with the Special Purpose Permit.

5.7 Information Management

- 5.7.1 All completed forms are expected to be sent to the ESD Biological Resources Group via email at BiologicalResources@sce.com.
- 5.7.2 Records kept for compliance with the USFWS Special Purpose Permit shall be maintained for five (5) years from the date of expiration of the permit pursuant to 50 C.F.R. Section 13.46. Per company policy, ESD shall maintain all records related to this APP for 10 years after expiration of the USFWS Special Purpose Permit.

5.8 Construction Standards

SCE will apply avian-safe design principles where feasible and with appropriate consideration to effectiveness, cost, and biological resource significance.

- 5.8.1 SCE avian-safe construction standards are expected to be maintained in the following standards: Distribution Overhead Construction Standards ([DOH](#)) DC 535 - Avian Safe Power Line Construction; Transmission Overhead Construction Standards ([TOH](#)); and Electrical Construction Station ([ECS](#)) Section 57 – Animal Protection (Substations).
 - 5.8.1.1. Changes to the SCE avian-safe construction standards are expected to be sponsored by a T&D Director and initiated through the T&D Standards Request/Q&A Submittal Form.
 - 5.8.1.2. Substations do not pose a threat to eagles and therefore will follow standard construction guidelines.
- 5.8.2 At the recommendation of T&D or the SCE Avian Protection Specialist, certain poles may be fitted with covers to mitigate the potential for electrocution of protected bird species using standard SCE materials and hardware.
- 5.8.3 SCE has designated Eagle Zones within which additional phase-to-phase and phase-to-ground clearances are expected to be maintained on new and rebuilt facilities, unless such efforts would compromise public or worker safety. Refer to T&D Standards & Publications for process to deviate from SCE standards as well as the DOH for documentation required for submittal to the SCE Avian Protection Specialist.
 - 5.8.3.1. Current maps and information on Eagle Zones can be found on the SCE Portal within the T&D Standards & Publications section (*click here to access Eagle Zone Maps*).
 - 5.8.3.2. The SCE Avian Protection Specialist chairs the Eagle Zone Review Team. The team shall be comprised of representatives of T&D and other SCE personnel as specified by the SCE Avian Protection Specialist and the authorized T&D Director or designee. The team is expected to review the Eagle Zone boundaries every two years. The team is expected to establish criteria for expanding or contracting Eagle Zones and include these criteria in a report produced every two years, which is expected to be posted to the APP document library maintained by the SCE Avian Protection Specialist.
 - 5.8.3.3. To change Eagle Zone boundaries, the Eagle Zone Review Team is expected to submit a [T&D Standards Request/Q&A Submittal Form](#). Standards & Publications is expected to update the Distribution Design Standards ([DDS](#)) manual with any approved changes to the Eagle Zones.

5.9 Ground-Disturbing Activities

Ground-disturbing activities include the following, but are not limited to,: pole replacements, line extensions, staging or laydown areas, vegetation clearing, undergrounding circuits, access road grading, and driving off existing access roads constitute ground disturbance.

- 5.9.1 Prior to the start of ground-disturbing activities, an [Environmental Screening Form](#) must be completed. Among other topics, the Environmental Screening Form covers bird Nests, woodpecker-damaged poles, and projects within an Eagle Zone. The review of each project submitted to ESD includes impacts to avian species.

5.10 Avian-Specific Safety Requirements

- 5.10.1 Prior to climbing any structure to inspect or remove a nest, SCE Employees and Contractors shall evaluate safety hazards and, if conditions warrant, take an outage on the line before climbing the structure.
- 5.10.2 When removing a Nest, the following personal protective equipment (PPE) shall be used:
- 5.10.2.1. Goggles
 - 5.10.2.2. Face Shield
 - 5.10.2.3. Hardhat
 - 5.10.2.4. Gloves appropriate for the work performed
 - 5.10.2.5. Flame resistant (FR) coveralls (as required); or FR shirt with sleeves rolled down
 - 5.10.2.6. A N95 or P100 filtering facepiece (dust mask) should be used. **Note:** The supervisor will provide the SCE Employee with a copy of Appendix D from the respiratory standard as specified in SCE's Respiratory Protection Program.
- 5.10.3 If the removal of a Nest could release airborne dust containing dried fecal matter and/or nesting materials, protective measures such as wetting the nesting material and working upwind shall be employed to avoid inhalation of nest material. A pre-job tailboard or job hazard analysis shall be conducted to address such issues.
- 5.10.4 While removing or trimming a nest, do not eat, drink, or smoke. Clean tools such as hot sticks if they contact the nest. Upon completion of the job, wash hands and any other exposed areas with soap and water. If potable water is unavailable, use hand sanitizer.
- 5.10.5 If handling a bird carcass, wear protective clothing, including coveralls, nitrile gloves, and safety glasses. Wear nitrile gloves and/or use an inverted plastic bag to pick up carcasses. Do not eat, drink, or smoke while handling carcasses. Wash hands and any other exposed area with soap and water after disposing of a carcass. If potable water is unavailable, use hand sanitizer.

5.11 Training

SCE conducts avian protection training for SCE Employees and Contractors with APP responsibilities. ESD is expected to develop and maintain training programs under the APP. Operational units are expected to determine which employees require training. Training is provided by or with input from the SCE Avian Protection Specialist. ESD is expected to determine when updated training is needed for employees not receiving annual training.

5.11.1 *Operational Personnel*

The annual training program educates those SCE Employees who maintain the SCE T&D system regarding the APP and their responsibilities. Training topics include avian construction standards and mitigation products, reporting and carcass disposal, Nest management procedures, and injured bird procedures.

5.11.2 *ESD and T&D Environmental Employees*

ESD and T&D Environmental employees are expected to receive initial instruction on the SCE responsibilities under the USFWS Special Purpose Permit. Designated employees, such as Safety and Environmental Specialists, biologists, and archaeologists, are expected to receive initial instruction on how to implement and manage the SCE Wildlife Mortality/Bird Nesting Report.

5.11.3 *SCE Contractors*

SCE Contractors working on T&D systems are expected to receive initial training from ESD on environmental matters, including avian protection. On Major Projects, all contractors are required to receive environmental training prior to entering the project area.

5.12 Quality Control

5.12.1 Inspections

See the [Distribution Inspection and Maintenance Program \(DIMP\)](#) manual and the [Transmission Operations and Maintenance Policies and Procedures \(TOM\)](#) for additional information.

5.12.1.1. SCE inspects wood poles and equipment according to California Public Utilities Commission (CPUC) General Order 165 (GO 165). These inspections include examination of the pole for avian safety and Nests that could impact reliability or safety, or create high fire risk.

5.12.1.2. The Oversight & Quality Assurance group in T&D inspects distribution capital work orders for compliance with SCE standards including the avian protection standard DOH DC 535.

5.12.2 ESD is expected to maintain the Avian Information Management System (AIMS), a Geographic Information System (GIS) database for tracking avian interaction data.

6. Major Projects

Major Projects are generally subject to requirements imposed by the CPUC and resource agencies that address the specific issues associated with wildlife and habitat impacts within the project area.

6.1 Applicant-Proposed Measures

Several federally and state listed bird species occur in SCE's territory (see [Attachment 9.2, Bird Dimensions and Listing Status in SCE Territory](#)).

- 6.1.1 SCE has standardized Applicant-Proposed Measures (APMs) for reducing potentially significant impacts to protected bird species to less than significant levels. Contact the Major Environmental Projects Principal Manager for the most recent version of the APMs. If impacts to Protected Species are expected to be less than significant, avian species APMs may not be necessary. The SCE Development Contractor will initially determine whether or not there are significant biological impacts. The Development Contractor will then review applicable APMs or suggest alternatives. The SCE Biologist may be consulted by the Environmental Project Manager to verify whether biological APMs are required and will be consulted to validate contractor alternatives to include in the Proponent's Environmental Assessment (PEA).
- 6.1.2 SCE's Major Projects Organization (MPO) maintains processes for updating APMs and reviewing PEAs. Those processes apply to this subsection.

6.2 Nesting Bird Management Plan

- 6.2.1 The Nesting Bird Management Plan (NBMP), is often required by the CPUC and will describe measures to be taken by SCE and/or the Contractor to comply with the MBTA and California Fish and Game Code (Sections 3503 and 3503.5). In the absence of a requirement from the CPUC, ESD and MPO shall determine whether an NBMP is appropriate for a Major Project based on contractor recommendations for the project or agency requirements.
- 6.2.2 ESD maintains the NBMP template. Contact the SCE Avian Protection Specialist for the current version.
- 6.2.3 Modifications to the NBMP template must be approved by the ESD Director or designee.
- 6.2.4 *Guidance on Preparation*

The habitat assessment and initial biological surveys for the project will determine whether a NBMP should be developed. The information from these surveys should be used to guide the development of appropriate buffers based on conditions specific to the project. In addition, these surveys will determine which portions of the NBMP template are necessary for management of nests within the project area.

6.3 Projects without an NBMP

If an NBMP is not required, the project should follow the APMs and/or mitigation measures in the final environmental document. This likely means that buffers are defined in the final environmental document, and buffer reductions would be obtained by a request to the resource agencies or the CPUC, depending on the mitigation measures.

6.4 Avian-Safe Design

ESD shall review Major Project designs to ensure compliance with any CPUC mitigation measures that require concurrence with APLIC's Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 (APLIC 2006).

6.4.1 Review of Design

- 6.4.1.1. The Environmental Project Manager, in consultation with the SCE Biologist, places a request with the MPO Project Manager to obtain project design components for transmission, distribution, and substation(s), as appropriate to the project.
- 6.4.1.2. The designs should refer to particular standards within T&D construction manuals, for example, DOH DC 535 Section 2.2, 4/12/16kV, 3-Wire or 4-Wire, Straight Line Post-Suspension Construction.
- 6.4.1.3. For substations, only the animal protection covers applied on equipment within the substation require ESD review, not the substation design itself.
- 6.4.1.4. Any designs not in compliance with the relevant CPUC mitigation measure(s) are expected to be documented and reported to MPO for correction and subsequent approval by the Environmental Project Manager, in consultation with the SCE Biologist.

6.4.2 Documentation for the CPUC

- 6.4.2.1. The SCE Avian Protection Specialist drafts the documentation of the avian-safe design. The documentation is expected to include separate analysis of each project component (transmission, distribution, and substation) and each pole and/or tower design.
- 6.4.2.2. The Environmental Project Manager, in consultation with the SCE Biologist, obtains approval from MPO for the documentation.
- 6.4.2.3. The documentation is submitted to the CPUC by SCE's Regulatory Affairs representative to the Project.

6.5 Reporting

Each project will require procedures for reporting information such as avian mortality or nesting, both internally within SCE and externally to the appropriate agencies. Reporting should be based on project requirements laid out in the environmental documents and permits. Reporting shall be executed via the FRED system, if used on the affected Project. Contact the SCE Avian Protection Specialist for current reporting procedures flowchart templates.

7. References

7.1 Federal

- 50 C.F.R. § 10.13 (2013)
- 50 C.F.R. §§ 17.11-17.12 (2013)
- 50 C.F.R. § 17.31 (2013)
- 50 C.F.R. Part 21, Migratory Bird Permits (2013)
- 50 C.F.R. § 22 (2013)
- Endangered Species Act, 16 U.S.C. §§ 1531-1544
- Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668-668d
- Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712

7.2 State

- California Endangered Species Act, Cal. Fish & Game Code §§ 2050-2069
- Cal. Fish & Game Code §§ 2081.7, 2835, 3503, 3503.5, 3503, 3511, 3513
- CPUC General Order 165 (GO 165)

7.3 SCE

- Avian Power Line Interaction Committee (APLIC) 2006
- Distribution Overhead Construction Standards DOH DC-535 – Avian Safe Power Line Construction.
- Transmission Overhead Construction Standards (TOH)
- Electrical Construction Station (ECS) Section 57 – Animal Protection (Substations)
- Distribution Design Standards (DDS) manual
- Eagle Zone Maps
- SCE's Respiratory Protection Program, Appendix D

- Endangered Species Alert Program (ESAP) Manual
- Birds and Power Lines
- Respiratory Protection Program
- Distribution Inspection and Maintenance Program (DIMP)
- Ground-Disturbing Activities
- Avian Information Management System (AIMS)

Other

- California Natural Diversity Database (CNDDDB) 2008
- Birds of North America Online 2008
- Catalina Island Conservancy 2009

7.4 Hyperlinks

- SCE's Environmental Corporate Policy <https://edisonintl.sharepoint.com/ssc/Pages/myenvironment.aspx>
- SCE's Avian Protection Plan
<https://edisonintl.sharepoint.com/ssc/Pages/Document%20Library%20Pages/environmentalstandardsmanuals.aspx?RootFolder=%2Fssc%2FEnvironmental%20Standards%20%20Manuals%2FAvian%20Protection%20Plan&FolderCTID=0x01200006EC5D54ADCBB747B43E6E25BC6E3278&View=%7B05CC3848%2DD1C1%2D4FBD%2DB52A%2D80CDBBE1B0B0%7D>
- USFWS Special Purpose Permit
<https://ecm.sce.eix.com/livelihood/livelihood.exe/fetch/2000/20590221/20591101/20570387/20554973/20570059/usfaw-mb72848.pdf?nodeid=40935751&vernum=3>
- Wildlife Mortality/Bird Nest Report
<https://edisonintl.sharepoint.com/ssc/Environmental%20Standards%20%20Manuals/Biological%20Resources/Wildlife%20Mortality%20Bird%20Nesting%20Report%2011-19-2012.pdf#search=wildlife%20mortality>
- Endangered Species Alert Program (ESAP) Manual
<https://edisonintl.sharepoint.com/ssc/Pages/Document%20Library%20Pages/environmentalstandardsmanuals.aspx?RootFolder=%2Fssc%2FEnvironmental%20Standards%20%20Manuals%2FBiological%20Resources&FolderCTID=0x01200006>

[EC5D54ADCBB747B43E6E25BC6E3278&View=%7B05CC3848%2DD1C1%2D4FBD%2DB52A%2D80CDBBE1B0B0%7D](https://edisonintl.sharepoint.com/ssc/Pages/Document%20Library%20Pages/environmentalstandardsmanuals.aspx?RootFolder=%2Fssc%2FEnvironmental%20Standards%20%20Manuals%2FAvian%20Protection%20Plan&FolderCTID=0x0120006EC5D54ADCBB747B43E6E25BC6E3278&View=%7B05CC3848%2DD1C1%2D4FBD%2DB52A%2D80CDBBE1B0B0%7D)

- Nest Management Guidelines
<https://edisonintl.sharepoint.com/ssc/Pages/Document%20Library%20Pages/environmentalstandardsmanuals.aspx?RootFolder=%2Fssc%2FEnvironmental%20Standards%20%20Manuals%2FAvian%20Protection%20Plan&FolderCTID=0x0120006EC5D54ADCBB747B43E6E25BC6E3278&View=%7B05CC3848%2DD1C1%2D4FBD%2DB52A%2D80CDBBE1B0B0%7D>
- DOH
[https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Distribution%20Overhead%20Construction%20Standards%20\(DOH\).pdf](https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Distribution%20Overhead%20Construction%20Standards%20(DOH).pdf)
- TOH
[https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Transmission%20Overhead%20Construction%20Standards%20\(TOH\).pdf](https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Transmission%20Overhead%20Construction%20Standards%20(TOH).pdf)
- ECS
[https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Electrical%20Construction%20Station%20\(ECS%203-C\).pdf](https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Electrical%20Construction%20Station%20(ECS%203-C).pdf)
- T&D Standards Request/Q&A Submittal Form
<https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Standards%20Change%20Request%20Form.pdf#search=standards%20request>
- DDS
[https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Distribution%20Design%20Standards%20\(DDS\).pdf](https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Distribution%20Design%20Standards%20(DDS).pdf)
- Environmental Screening Form
<https://edisonintl.sharepoint.com/powersupply/operationalservices/ces/Pages/corporateenvironmentalservices2.aspx>
- DIMP
[https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Distribution%20Inspection%20and%20Maintenance%20Program%20\(DIMP\).pdf](https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Distribution%20Inspection%20and%20Maintenance%20Program%20(DIMP).pdf)

- TOM

[https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Transmission%20Operations%20and%20Maintenance%20Policies%20and%20Procedures%20\(TOM\).pdf](https://edisonintl.sharepoint.com/sites/TD/org/Standards%20%20Publications/Transmission%20Operations%20and%20Maintenance%20Policies%20and%20Procedures%20(TOM).pdf)

Rev.	Date	Description of Revision	Contact
0	04/30/14	Approved APP	K. Donohue
1	07/15/15	Revised APP Language changes that improve the accuracy and readability of the document, but do not change implementation are throughout the APP. Section 5.3.7 Reactive retrofit have been given timeframes of 90 days for raptors, eagles and T&E species and 2 years for all other protected bird species. Section 5.4 has been added for Proactive Retrofits when opportunities arise.	K. Donohue
2	8/8/16	Changed references from Corporate Environmental Health & Safety to Environmental Services Department (ESD). Clarified procedure for bird nest removal in 5.5. Updated hyperlinks. Modifications to Major Projects related to Operational Excellence organization changes.	K. Donohue

8. Attachments

8.1 Listing Status of Avian Species in SCE's Service Territory

Listing Status of Avian Species Susceptible to Collision or Electrocutation Risks in SCE's Service Territory

Common Name	Scientific Name	Federal Status ¹	California Listing ¹	Risk ²	SJV	SN	D	CZ	SCI	CR	IV
American White Pelican	<i>Pelecanus erythrorhynchos</i>	MBTA	SSC	C ³	•	•	•	•		•	•
California Brown Pelican	<i>Pelecanus occidentalis californicus</i>	MBTA	CFP	C ³				•	•		
Great Blue Heron	<i>Ardea herodias</i>	MBTA		C & E	•	•		•		•	•
Great Egret	<i>Ardea alba</i>	MBTA		C & E	•			•		•	•
Turkey Vulture	<i>Cathartes aura</i>	MBTA		E	•	•	•	•		•	•
California Condor	<i>Gymnogyps californianus</i>	FE	SE, CFP	C ³ & E	•	•		•			
Osprey	<i>Pandion haliaetus</i>	MBTA		E				•	•	•	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	MBTA, BGEPA	SE, CFP	C & E	•	•	•	•	•	•	
Red-shouldered Hawk	<i>Buteo lineatus</i>	MBTA		E	•	•		•		•	
Swainson's Hawk	<i>Buteo swainsoni</i>	MBTA	ST	E	•		•	•		•	
Red-tailed Hawk	<i>Buteo jamaicensis</i>	MBTA		E	•	•	•	•	•	•	•
Ferruginous Hawk	<i>Buteo regalis</i>	MBTA		E			•			•	•
Rough-legged Hawk	<i>Buteo lagopus</i>	MBTA		E		•	•			•	
Golden Eagle	<i>Aquila chrysaetos</i>	MBTA, BGEPA	CFP	C ³ & E	•	•	•	•		•	•

Common Name	Scientific Name	Federal Status ¹	California Listing ¹	Risk ²	SJV	SN	D	CZ	SCI	CR	IV
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	MBTA	CFP	C & E	•	•	•	•		•	•
Prairie Falcon	<i>Falco mexicanus</i>	MBTA		C & E	•		•	•		•	•
Greater Sandhill Crane	<i>Grus canadensis tabida</i>	MBTA	ST, CFP	C	•		•				•
Barn Owl	<i>Tyto alba</i>	MBTA		C & E	•	•	•	•	•	•	•
Great Horned Owl	<i>Bubo virginianus</i>	MBTA		E	•	•	•	•		•	•
Yellow-billed Magpie	<i>Pica nuttalli</i>	MBTA		E	•			•		•	
American Crow	<i>Corvus brachyrhynchos</i>	MBTA		E	•	•	•	•		•	•
Common Raven	<i>Corvus corax</i>	MBTA		E	•	•	•	•	•	•	

Sources: California Natural Diversity Database (CNDDB) (2012), Birds of North America Online (2012), Catalina Island Conservancy (2009)

¹Status: FE/SE=federal/state endangered; FT/ST=federal/state threatened; CFP=California fully protected species, SSC=species of special concern; MBTA=Migratory Bird Treaty Act; BGEPA=Bald and Golden Eagle Protection Act

²Typical Risk: C=Collision, E=Electrocution

SJV=San Joaquin Valley, SN=Sierra Nevada, D=Desert, CZ=Coastal Zone, SCI=San Clemente Island, CR=Coastal Ranges, IV=Imperial Valley

³Typically midspan electrocution on distribution voltage lines

8.2 Signature Page

SCE	EHS	ENVIRO	PL	Doc. No	1
				Version	1
Responsible Department: Corporate Environmental, Health and Safety					
Eff. Date		Latest Signature Date			
Supersedes		SCE-CEHS-EP-PL-1		NA	



**SOUTHERN CALIFORNIA
EDISON**
An EDISON INTERNATIONAL® Company

Avian Protection Plan

**Corporate Environmental, Health and Safety
Corporate Plan**

SCE-EHS-ENVIRO-PL-1

Approved by:  Date: 7/10/15
 Don Neal
 Director, Corporate Environmental, Health and Safety Department

Approved by:  Date: 8/13/15
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 Vice President, Major Projects Organization

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SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project

(FERC Project No. 1394)



BOTANICAL RESOURCES MANAGEMENT PLAN



JUNE 2022

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

BOTANICAL RESOURCES MANAGEMENT PLAN

Southern California Edison
1515 Walnut Grove Ave
Rosemead, CA 91770

June 2022

Support from:

Kleinschmidt

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LIST OF ACRONYMS

A

AVM acoustic velocity meter

B

BLM US Bureau of Land Management

Bishop Creek Project Bishop Creek Hydroelectric Project

C

CDFW California Department of Fish and Wildlife

CEQA California Environmental Quality Act

cfs cubic feet per second

CRPR California Rare Plant Rank

E

ESA Endangered Species Act

ESAP Endangered Species Alert Program

F

FERC Federal Energy Regulatory Commission

FLA Final License Application

I

INF Inyo National Forest

kW kilowatt

MWh megawatt hour

O

O&M operation and maintenance

M

msl mean sea level

MW megawatts

P

Plan Botanical Resources Management Plan

Project Bishop Creek Hydroelectric Project

S

SCC Species of Conservation Concern

SCE Southern California Edison

U

USDA U.S. Department of Agriculture

USFS US Forest Service

USFWS U.S. Fish and Wildlife Service

1.0 INTRODUCTION

The Botanical Management Plan (Plan) was developed for the Bishop Creek Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC) Project No. 1394 to accompany Southern California Edison's (SCE) application for a new FERC license. This Plan identifies SCE's responsibilities for the management of special status botanical resources associated with operation and maintenance (O&M) activities associated with the Bishop Creek Project.

For the purposes of this Plan, "special status" is defined as species listed under the federal or state Endangered Species Acts (ESA), U.S. Forest Service (USFS) Inyo National Forest (INF) Species of Conservation Concern (SCC), and/or California Rare Plant Rank (CRPR) species. Attachment A, Special Status Plant Species, provides lists of special status plant species previously recorded in the Project area including an assessment of each species' potential to occur within the Project boundary.

1.1. PROJECT LOCATION

The Project is located in the Owens Valley, along the eastern Sierra Nevada Mountains, (Figure 1.1-1). Most of the hydro-generation facilities have been in existence since the early 1900s. Project facilities include powerhouses¹, dams, impoundments (including South Lake and Lake Sabrina), diversions, weirs, outbuildings, valve houses, access roads, and a flowline. The Project's facilities are sited along Bishop Creek and its tributaries including South Fork, Middle Fork, and Green Creek, plus Birch Creek and McGee Creek north of Bishop Creek. Bishop, Birch, and McGee creeks are tributaries to the Owens River. Project facilities are located within the Inyo National Forest (INF) and the John Muir Wilderness (managed by the U.S. Forest Service [USFS] and include lands managed by US Bureau of Land Management [BLM]) and private lands. Land uses adjacent to the Project vary, and include residential, grazing, public recreation, and federally-designated wilderness land, among others.

The Project area is one of moderate to steep ridge and valley topography. Elevations within the drainages range from approximately 4,000-feet above mean sea level (msl) to over 13,000-feet above msl. Bishop Creek is a major stream with a total drainage area of approximately 70 square-miles, flowing northeastward approximately 28 miles from its headwaters in the Sierra Nevada to its confluence with the Owens River at the city of Bishop. The North, Middle and South Forks of Bishop Creek originate in nearby glacial basins separated by ridges. South Lake and Lake Sabrina are the major storage reservoirs in the watershed.

The Project area supports upland vegetation communities and a mixture of floodplain, wetland, riparian, and littoral communities within and adjacent to Bishop Creek. Plant community types consist of alpine grasses and forbs, alpine mixed scrub, barren,

¹ Note to reader – in this document, the term "powerhouse" is used as a general reference to the structure; however, when referencing a specific structure the term "Plant" is used.

bitterbrush, saltbush, curl-leaf mountain mahogany, Great Basin mixed scrub, rabbitbrush, basin sagebrush, Great Basin – desert mixed scrub, blackbush, eastside pine, annual grasses and forbs, perennial grasses and forbs, lodgepole pine, high desert mixed scrub, singleleaf pinyon pine, limber pine, canyon live oak, subalpine conifers, whitebark pine, wet meadows, riparian mixed hardwood, willow, quaking aspen, perennial lake or pond, water, and willow shrub (Psomas, 2020).

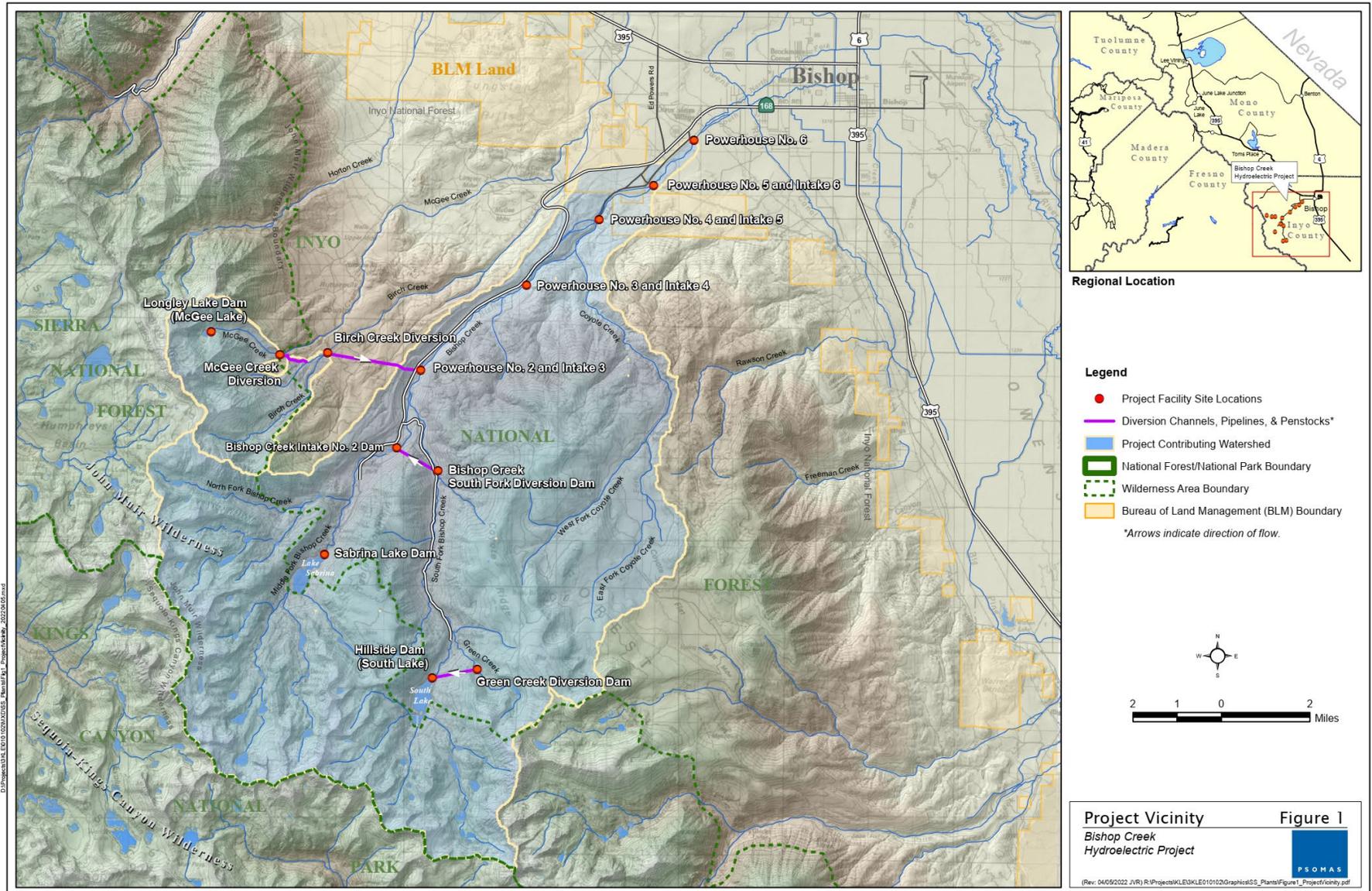


Figure 1.1-1 Project Vicinity

1.2. PROJECT FACILITIES

Southern California Edison (SCE) is the licensee, owner, and operator of the Bishop Creek Project. The Bishop Creek Project consists of five developments: Power Plants No. 2 through No. 6 on the Middle Fork of Bishop Creek and three primary storage reservoirs that include South Lake, Lake Sabrina and Longley Lake.

The Project has a total dependable generating capacity of 28,925 kilowatts (kW) and has an average annual energy production of 128,039 megawatt hours (MWh). Stored water is transported through a series of connecting flowlines and penstocks to the powerhouses and returned to the river through the tailrace at Plant No. 6. Under the existing Project license, the FERC Project boundary encompasses federal lands administered by either the U.S. Department of Agriculture (USDA) Forest Service or the BLM, and SCE-owned or private land. SCE does not propose any changes to Project O&M and does not propose any new construction.

For additional information about these features and their operations, please refer to Exhibit E of the 2022 Final License Application (FLA), available at www.ferc.com or www.sce.com/bishopcreek.

2.0 PURPOSE AND INTENT

This Plan is designed to assist SCE's Bishop Creek personnel to 1) provide clear guidance to SCE staff and consulting parties on what types of activities may be undertaken without additional consultation, or where additional discussion about non-routine activities may be warranted; 2) determine whether a non-routine O&M activity will potentially disturb special status plant species or sensitive riparian plant communities that occur or could potentially occur in the Project area; and 3) how such consultation can be most effectively initiated.

Measures described in this Plan should prevent impacts to botanical resources before they occur. SCE relies on regular training of its staff to guide implementation of this Plan (Section 4.1). SCE personnel should contact the Hydro Generation Environmental Manager for help with defining the most appropriate action to ensure completion of the work without affecting botanical resources.

2.1. REGULATORY REQUIREMENTS

The Federal ESA and California ESA protect rare, threatened, endangered plant species. The federal ESA specifically identifies plant species to be protected and includes significant penalties for disturbance of those listed species. This Act not only established protection measures, but actively encourages the recovery of endangered plant species through management programs. The California ESA is similar in its intent and procedures to the federal law. It is important to note that impacts to endangered species do not have to be intentional for violations to occur.

Plant species may be considered special status if they are considered locally significant, that is, plants that are not rare from a statewide perspective but are rare or uncommon in a local context. This includes USFS SCC. An SCC is a species (other than federally listed or candidate species) that is known to occur in the Project area and for which the USFS determined that the best available scientific information indicates substantial concern about its capability to persist over the long term in the Project area (USFS, 2019). Each forest plan has its own SCC list, which is approved by the Regional Forester. Species are evaluated for SCC listing by following a process outlined in a USFS national directive (FSH 1909.12 § 12.52c-d).

Sections 1900–1913 of the California Fish and Game Code were developed to preserve, protect, and enhance endangered and rare plants in the state of California. The Act requires all state agencies to use their authority to perform programs to conserve endangered and rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the California Department of Fish and Wildlife (CDFW) at least 10 days in advance of any change in land use that would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

The California Rare Plant Ranking (CRPR) is a ranking system by the Rare Plant Status Review group and managed by the California Native Plant Society and the CDFW. The

CRPR summarizes information on the distribution, rarity, and endangerment of California's plants. The California Environmental Quality Act (CEQA) requires consideration of plant species with the following CRPR rankings:

- 1A—presumed extirpated in California and either rare or extinct elsewhere
- 1B—rare endangered in California and elsewhere
- 2A—presumed extirpated in California, but more common elsewhere
- 2B—rare or endangered in California, but common elsewhere

Species with a CRPR of 3 are on a review list, which requires more information; species with a CRPR of 4 are on a watch list, which are of limited distribution. Consideration of these species is not typically required by the CEQA, but these species may warrant consideration based on declining trends, recent taxonomic information, or other factors.

The CRPR employs a Threat Rank extension that further clarifies the level of endangerment of a plant species. An extension of .1 is assigned to plants that are considered “seriously threatened” in California (i.e., over 80 percent of occurrences are threatened or have a high degree and immediacy of threat). Extension .2 indicates the plant is “moderately threatened” in California (i.e., between 20 and 80 percent of the occurrences are threatened or have a moderate degree and immediacy of threat). Extension .3 is assigned to plants that are considered “not very threatened” in California (i.e., less than 20 percent of occurrences are threatened or have a low degree and immediacy of threat or no current threats are known). The absence of a threat code extension indicates that this information is lacking for the plant(s) in question.

2.2. BISHOP CREEK SPECIAL STATUS PLANT SPECIES AND RIPARIAN COMMUNITIES

Attachment A, Special Status Plant Species and Sensitive Riparian Plant Communities, provides a table (Table 1) of special status species and their potential to occur in the Project area. Table 2 in Attachment A provides a list of the five sensitive riparian plant communities in the Project area. Following Table 2 is a description of each of the five sensitive riparian plant communities. These tables will be reviewed by a qualified biologist and revised annually.

Of the special status plant species that have the potential to occur in the Project area, two were observed Project boundary (bolded below), and four were observed immediately adjacent to the boundary (SCE 2019; USFS 2019; Psomas 2020; Attachment B, Maps). These plants are listed below along with their CRPR ranking.

- Few-flowered eriastrum (*Eriastrum sparsiflorum*) – CRPR 4.3
- Stiff lomatium (*Lomatium rigidum*) – CRPR 4.3
- Small-flowered grass-of-Parnassus (*Parnassia parviflora*) – CRPR 2B.2
- Inyo beardtongue (*Penstemon papillatus*) – CRPR 4.3
- Frog’s-bit buttercup (*Ranunculus hydrocharoides*) – SCC, CRPR 2B.1
- Marsh arrow-grass (*Triglochin palustris*) – CRPR 2B.3

Surveys conducted and evaluations provided in the Exhibit E of the FLA indicated that routine O&M will not have an adverse effect on these species. However, these species are referenced for awareness during the conduct of non-routine O&M within the Project boundary.

Five sensitive riparian plant communities reported in the FERC Project Boundary are listed in the following text.

- Wet meadows
- Riparian mixed hardwood
- Willow
- Quaking aspen
- Willow shrub

3.0 GOALS AND OBJECTIVES

The goals of this Plan include:

- Provide for clear operational decision-making when planning and/or implementing O&M related activities in support of Project operations
- Prevent disturbance/impacts to federally and state listed rare, threatened, or endangered species
- Prevent disturbance/impacts to USFS SCC
- Prevent disturbance/impacts to other special status species, such as species with a CRPR of 1 or 2

4.0 MEASURES

Resource surveys were conducted as part of the relicensing. An impacts analysis was completed along with the data and reports are provided in the FLA Exhibit E (Volume I). Based on the analysis, adverse effects within the Project boundary, were not identified for botanical resources including special status plant species, during routine activities.

Routine O&M activities include but are not limited to:

- Trimming and mowing
- Road grading and trail maintenance
- Hazard tree removal
- Transmission, power and communication line maintenance
- Maintenance outages
- Plant inspections and maintenance
- Flowline inspections and maintenance

These O&M activities typically occur within previously disturbed areas, or in areas that are regularly maintained and cleared of vegetation surrounding the Project facilities.

Over the course of the license, Project facilities may require additional work not currently covered under routine activities. While existing resource surveys may inform consultation with affected stakeholders, these tasks would be considered new projects which are not necessarily covered under the new license. Should new O&M activities be required, SCE personnel will contact the SCE Environmental Manager on appropriate measures, which may include agency consultation or additional surveys.

These non-routine O&M activities may include:

- Ground disturbing activities beyond those performed for routine O&M activities
- Reconstruction/repair activities involving major Project facilities
- Construction activities that involve expanding the footprint of existing facilities

4.1. TRAINING AND EDUCATION

SCE employees attend environmental training sessions on an annual basis, as well as on an as-needed basis. These training sessions vary based on the activity; however, they all include a review of background material, permit conditions, instructions, and materials on how to avoid impacts on biological resources. Project-specific meetings may be conducted in the field on a job-specific or activity-specific basis to review appropriate

maintenance protocols (avoidance and protection measures) in environmentally sensitive areas. SCE will incorporate the avoidance and protective measures discussed in this Plan into the Environmental Training Program for Project personnel to protect the special status plant species and sensitive habitat.

4.2. NON-ROUTINE O&M ACTIVITY MEASURES

For non-routine O&M activities, SCE Operations staff will contact the SCE Environmental Manager for Bishop Creek to determine if any special status plants or their habitat could be affected by the planned activity. If the planned activity has the potential to affect any special status plants or their habitat, the need for pre-activity surveys will be evaluated.

Most facilities are located on or near the INF and site-specific environmental documents may be prepared and/or permits required for ground disturbing construction activities on USFS land. This process often includes sensitive species database searches and may include field studies and site-specific impact analysis.

During the preparation of the yearly work plan, SCE will contact its biologist to discuss any intended non-routine O&M activities. If it is determined that the proposed activity will impact sensitive botanical resources, SCE will request the biologist survey the area at a time of year appropriate for detecting the species and prepare a biological determination that will include recommendations for avoidance or minimization if needed.

Special status species will be avoided wherever possible. Measures to facilitate avoidance may include, but are not restricted to, the following:

- Demarcation of the maximum extent of the special status resource(s) to be avoided. This may include flagging of individual resources or installation of a temporary barrier (e.g., roping off areas to be avoided; installation of silt fencing, straw wattles, or gravel/sand bags if soil disturbance is anticipated) to prevent impact to the species.
- Retention of a biological monitor during ground-disturbing or vegetation removal activities to ensure that special status resources are avoided. SCE and its biologist will jointly determine the need for monitoring. Any impacts to state or federally listed species will be reported to the USFS, USFWS, and CDFW within 24 hours.
- SCE maintains and implements an invasive weed management plan. This Plan will be consulted prior to any ground or vegetation disturbing activity to prevent spread of invasive weed species into special status plant species habitat.

If impacts to special status species cannot be avoided, minimization or compensation for impacts may be required, depending on the status and size of the impacted population. Measures to minimize or compensate for unavoidable impacts may include, but are not restricted to, the following:

- Coordination with the resource agencies to determine the appropriate minimization or compensation strategy
- Collection of plant material (e.g., seeds, corms, bulbs, whole plants) for distribution and revegetation after the activity is completed
- Translocation of special status plants

Implementation of the appropriate measure will be determined by SCE's biologist. A plan will be developed and submitted to INF and CDFW for review and consultation.

If impacts to sensitive riparian plant communities cannot be avoided or minimized, then compensation for impacts may be required, depending on the status and size of the impact. Measures to minimize or compensate for unavoidable impacts may include development of a habitat restoration plan with mitigation monitoring based success criteria to be discussed with the INF and CDFW.

4.2.1. PRE-ACTIVITY CONSULTATION

Prior written approval must first be obtained from the USFS before initiating any activity the USFS deems as affecting or potentially affecting sensitive resources on National Forest System lands. BLM will be consulted when BLM land is directly affected.

4.2.2. PRE-ACTIVITY INVESTIGATION

A literature review and field survey may be conducted, as necessary, by a qualified biologist prior to non-routine O&M activities at the direction of SCE's Environmental Manager. Updated literature reviews will provide information on changes in species status designations that may occur over the license period and identify new species occurrences within the Project area. The literature search will include a review of the most recent California Natural Diversity Database, California Native Plant Society's Inventory of Rare, Threatened and Endangered Plants, and Forest Service lists to identify any new special status plants.

- If habitat or known individuals are identified in a work area based on previous surveys or the literature review, species-specific surveys will be conducted as necessary. The need for field surveys will be assessed as early as possible and will be conducted by a qualified botanist.
- Surveys will be floristic in nature, meaning that every plant taxon that occurs in the individual project/activity area will be identified to the taxonomic level necessary to determine rarity and listing status. If collection of a sample or voucher specimen is required to confirm species identification, the biologist will possess a collection permit from the appropriate agency.
- Survey(s) will be timed, to the extent practical, so that the phenology of the particular plant species allows for field identification (usually this is during flowering or fruiting). Survey(s) will be spaced throughout the growing season

to accurately determine what plants exist in the individual project/activity area. The timing and number of visits will be determined by geographic location, the natural communities present, and the weather patterns of the year(s) in which surveys are conducted. Coordination with the USFS botanist may be appropriate to determine survey timing.

- Survey(s) will be comprehensive over the individual project/activity area, including areas that will be directly or indirectly impacted by the activity. This includes areas that may be impacted by equipment staging, soil stockpiling, fuel modification activities, and herbicide application.
- The biologist will report the findings and recommendations to SCE, and the report will be provided to the USFS and CDFW as part of SCE's annual reporting. The biologist will complete a California Natural Diversity Database Field Survey Form documenting special status species observed.

Pre-activity surveys will allow for Project modifications, where feasible, to avoid or minimize potential impacts. The field surveys shall follow the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW, 2018), or the most recent agency-accepted protocol. The Pre-Activity Investigation Report should include all information required in the Reporting and Data Collection (Section 3) of the Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW, 2018).

5.0 CONSULTATION

5.1. PRE-LICENSE CONSULTATION

This Plan was developed in consultation with the USFS INF, the U.S. Fish and Wildlife Service (USFWS), and CDFW. SCE provided a draft copy of this Plan to agencies for a 30-day review and comment period. After receiving comments, SCE incorporated appropriate revisions into this final Plan. A complete comment response table is included with the FLA as Appendix A, Consultation Record.

5.2. COMPLIANCE CONSULTATION

SCE meets annually with the USFS and CDFW each spring to discuss proposed non-routine O&M activities for the remainder of the calendar year. During this meeting, SCE informs the agencies on the planned activities for the year. Based on the planned activities, agencies can relay any concerns surrounding potential impacts to special status species and SCE may plan for pre-activity surveys appropriate for the species of concern.

SCE also meets with the USFS and the CDFW on an as-needed basis throughout the year to discuss individual projects and activities.

6.0 PROTECTION OF OTHER RESOURCES

6.1. ENDANGERED SPECIES ALERT PROGRAM

The Endangered Species Alert Program (ESAP) (SCE, 2005) was developed to provide SCE personnel with a means for identifying when they may be working within an area with the potential occurrence of legally protected plant wildlife species in the SCE service territory. For each of these species within the SCE service territory, the ESAP Manual includes a photograph, description, natural history information, and map showing the species' distribution in relation to SCE facilities. The manual and maps are reviewed prior to implementing any ground disturbing activities in the Project area. Should a proposed activity have a potential to conflict with a known sensitive species population, SCE's Bishop Creek FERC compliance staff will be notified to evaluate the situation and, if needed, participate in consultation with the regulatory agencies.

7.0 REFERENCES

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.

Psomas. 2020. Results of Special Status Plant Surveys for the Bishop Creek Hydroelectric Power Project (FERC No. 1394-080) Relicensing, Inyo County, California.

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Southern California Edison (SCE). 2019. Pre-Application Document Volume I – Main Document and Appendices, Bishop Creek Hydroelectric Project FERC Project No. 1394. Prepared by Kleinschmidt Associates.

U.S. Forest Service (USFS). 2019. Land Management Plan for the Inyo National Forest Fresno, Inyo, Mono, and Tulare Counties, California; Esmeralda and Mineral Counties, Nevada. Publication R5-MB-323a September 2019.

BOTANICAL MANAGEMENT PLAN Attachment A
SPECIAL STATUS PLANT SPECIES AND SENSITIVE RIPARIAN PLANT COMMUNITIES
TABLES

Table 1. Special Status Plant Species Having Potential to Occur in the Project Area

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
<i>Antennaria pulchella</i> beautiful pussy-toes	–	CRPR 4.3	June–September	Alpine boulder and rock field (stream margins) and meadows and seeps from 9,186 ft. to 12,139 ft.	Recorded 1.6 miles south of South Lake (Hillside) Dam. Not observed in 2019 and 2020 surveys. While an <i>Antennaria</i> species was observed, it was identified as a common species.
<i>Boechnera dispar</i> pinyon rock cress	–	CRPR 2B.3	March–June	Granitic, gravelly slopes and mesas in Joshua tree woodland, pinyon, and juniper woodland, and Mojavean desert scrub from 3,297 ft. and 9,202 ft.	Recorded outside of the Project watershed, 1.5 miles southeast of Powerhouse No. 4, east of Coyote Creek. Not observed during 2019 and 2020 surveys. While <i>Boechnera</i> species were observed, they were identified as common species.
<i>Boechnera tularensis</i> Tulare rockcress	USFS_SCC	CRPR 1B.3	June–July	Rocky slopes in subalpine coniferous forest, upper montane coniferous forest from 5,987ft. to 11,007 ft.	Recorded 3.3 miles to the west of the Project watershed’s western boundary, 6 miles west of Lake Sabrina. Not observed during 2019 and 2020 surveys. While <i>Boechnera</i> species were observed, they were identified as common species.
<i>Botrychium crenulatum</i> scalloped moonwort	USFS_SCC	CRPR 2B.2	June–September	Moist meadows and seeps, upper montane coniferous forest, lower montane coniferous forest, marshes, and swamps from 3,887 ft. to 10,203 ft.	Recorded within the Project watershed boundary, 4.3 miles east of South Fork Bishop Creek and 4.8 miles southeast of Bishop Creek South Fork Diversion Dam, along the East Fork Coyote Creek. Not observed during 2019 and 2020 survey effort.
<i>Bruchia bolanderi</i> Bolander’s bruchia	USFS_SCC	CRPR 4.2	N.A.	Moss which grows on damp clay soils in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest; ephemeral nature and	Recorded 2 miles south of the Project watershed’s southern boundary, 5.5 miles south of South Lake. Not observed during 2019 and 2020 surveys.

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
				disturbance adapted; from 5,282 ft. to 10,958 ft.	
<i>Calochortus excavatus</i> Inyo County star-tulip	BLMS, USFS_SCC	CRPR 1B.1	April–July	Mostly on fine, sandy loam soils with alkaline salts; grassy meadows and seeps in shadscale scrub from 393 ft. to 7,201 ft.	Recorded outside the Project’s northeastern watershed boundary, 2.9 miles northeast of Powerhouse No. 6 off Highway 168 in Bishop. Not observed in during 2019 and 2020 surveys.
<i>Carex congdonii</i> Congdon’s sedge	–	CRPR 4.3	July–August	Alpine boulder and rock field and subalpine coniferous forest (rocky) from 8,530 ft. to 12,795 ft.	Reported 2.8 miles west of Longley Lake. Not observed during 2019 and 2020 surveys. While <i>Carex</i> species were observed, they were identified as common species.
<i>Carex scirpoidea</i> <i>ssp. pseudoscirpoidea</i> western single-spiked sedge	USFS_SCC	CRPR 2B.2	July– September	Often on limestone in alpine boulder and rock field, meadows and seeps, and subalpine coniferous forest from 6,988 ft. to 12,007 ft.	Recorded within the Project watershed boundary, 4 miles east of Bishop Creek South Fork Diversion Dam, along West Fork Coyote Creek. Not observed during 2019 and 2020 surveys. <i>Carex</i> species were observed but identified as common species.
<i>Cryptantha glomeriflora</i> clustered-flower cryptantha	–	CRPR 4.3	June– September	Great Basin scrub, meadows and seeps, subalpine coniferous forest, and upper montane coniferous forest from 5,906 ft. to 12,303 ft.	Reported along Highway 168 in 1941, 0.6 miles north of Lake Sabrina. Not observed during 2019 and 2020 surveys. <i>Cryptantha</i> species were observed but identified as common species.
<i>Draba praealta</i> tall draba	–	CRPR 2B.3	July–August	Meadows, seeps, and wetlands from 9,596 ft. to 11,302 ft.	Suitable mesic habitat for this species is present. Species reported from along Lake Sabrina, south of Lake Sabrina Dam. Not observed in 2019 or 2020 surveys.
<i>Eriastrum sparsiflorum</i> few-flowered eriastrum	–	CRPR 4.3	May- September	Chaparral, cismontane woodland, Great Basin scrub, Joshua tree woodland, Mojavean desert scrub, and	Suitable habitat for this species at lower elevation recreation areas. Observed in 2019 at multiple locations downstream of the Bishop Creek South Fork Diversion Dam. Species also reported adjacent to Highway 168, 0.6 miles

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
				pinyon and juniper woodland from 3,527 ft. to 5,610 ft.	northwest of Powerhouse 3 and Intake 4. Not observed in 2020 surveys of the recreational areas.
<i>Helodium blandowii</i> Blandow's bog moss	USFS_SCC	CRPR 2B.3	N.A.	Moss growing on damp soil, especially under willows among leaf litter in meadows, seeps, and subalpine coniferous forest from 6,108 ft. to 8,858 ft.	Recorded 1.3 miles south of the Project watershed southern boundary, 3.6 miles south of South Lake and 4.8 miles south of South Lake Dam, along Middle Fork Kings River. Not observed during 2019 and 2020 surveys.
<i>Lomatium rigidum</i> stiff lomatium	–	CRPR 4.3	April-May	Great Basin scrub and pinyon and juniper woodland from 3,937 ft. to 7,218 ft.	Suitable habitat for this species at lower elevation recreation areas but species was not observed in the 2020 surveys of these areas. Species was observed in 2019 at multiple locations within the Project vicinity.
<i>Lupinus padre-crowleyi</i> Father Crowley's lupine	USFS_SCC	SR; CRPR 1B.2	June–August	Great Basin scrub, riparian forest, riparian scrub, and upper montane coniferous forest from 7,218 ft. to 13,123 ft.	Reported 2.6 miles from the Project vicinity. Not observed during 2019 and 2020 surveys. While <i>Lupinus</i> species were observed, they were identified as common species.
<i>Mentzelia inyoensis</i> Inyo blazing star	BLMS, USFS_SCC	CRPR 1B.3	April–October	Great Basin scrub, pinyon-juniper woodland from 3,789 ft. to 6,496 ft.	Reported from along Bishop Creek, 0.4 miles north of Bishop Creek South Fork Diversion Dam. Suitable habitat is present at lower elevation recreation areas, but species was not observed during the 2020 surveys. While a <i>Mentzelia</i> species was observed, it was identified as a common species.
<i>Muilla coronata</i> crowned muilla	–	CRPR 4.2	Mar–April	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland from 2,198 ft. to 6,430 ft.	Suitable habitat is present. Reported at two locations within the Project vicinity, with one located 0.6 miles east of Powerhouse 6 and the other located 0.8 miles northeast of Powerhouse 5 and Intake 6. Not observed during 2019 and 2020 surveys.

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
<i>Myurella julacea</i> small mousetail moss		CRPR 2B.3	N.A.	Alpine boulder and rock field, subalpine coniferous forest, growing on damp limestone rock and soil; crevices, under hangs, shelves, in filtered light; sometimes on granite, from 8,858 ft. to 9,842 ft.	Suitable habitat is present. Reported from along Middle Fork Bishop Creek 0.6 miles northeast of Lake Sabrina Dam. Not observed in Survey Area during 2019 and 2020 surveys.
<i>Packera indecora</i> rayless mountain ragwort	–	CRPR 2B.2	July–August	Mesic meadows and seeps from 5,593 ft. to 10,006 ft.	Recorded 3.7 miles west of the Project watershed’s western boundary, 6.3 miles west of Lake Sabrina. Not observed during 2019 and 2020 surveys.
<i>Parnassia parviflora</i> small- flowered grass- of-Parnassus	–	CRPR 2B.2	August– September	Wet areas, meadows, and rocky seeps from 6,594 ft. to 9,104 ft.	Suitable habitat for this species is present in mesic areas. Observed in 2019 at the Birch Creek Diversion. Last recorded in 1937 in Buttermilk Country, outside the Project watershed’s northern boundary, 1.9 miles north of Birch-McGee Diversion. Not observed during the 2020 surveys of recreation areas.
<i>Penstemon papillatus</i> Inyo beardtongue	–	CRPR 4.3	June–July	Pinyon and juniper woodland and subalpine coniferous forest from 6,562 ft. to 9,843 ft.	Reported at multiple locations within the Project vicinity, with the closest one 570 feet south of the Survey Area at Lake Sabrina. Not observed during 2019 survey effort around the facilities but was observed in 2019 at the riparian monitoring site located downstream of the McGee Creek Diversion Dam. Not observed in the recreation areas in 2020. While <i>Penstemon</i> species were observed, they were identified as common species.
<i>Phacelia inyoensis</i> Inyo phacelia	USFS_SCC	CRPR 1B.2	April–August	Meadows and seeps (alkaline) from 3,002 ft. to 10,499 ft.	Reported 1.4 miles west of Powerhouse 4 and Intake 5. Not observed during 2019 and 2020 surveys. While <i>Phacelia</i> species were observed, they were identified as common species.

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
<i>Pinus albicaulis</i> Whitebark pine	Candidate for USFS_SCC		July–August	Tree found in Subalpine forest from 10,000 ft. to 12,100 ft.	Reported 1.2 miles northwest and 1.3 miles southeast of Lake Sabrina, and 1.8 miles southeast of South Lake (Hillside) Dam. Not observed in Survey Area during 2019 and 2020 surveys.
<i>Plagiobothrys parishii</i> Parish's popcornflower	USFS_SCC	CRPR 1B.1	March–June	Alkaline soils; mesic sites in Great Basin scrub and Joshua tree woodland from 8,071 ft to 15,069 ft.	Recorded outside the Project watershed's northern boundary, located in a meadow along Highway 395 approximately 1.5 miles east of Bishop in 1913; more recent records are along the Owens River. Not observed during 2019 and 2020 surveys.
<i>Potamogeton robbinsii</i> Robbins' pondweed	–	CRPR 2B.3	July–August	Deep water, lakes, marshes, and swamps from 5,003 ft. to 11,466 ft.	Recorded 1.7 miles southeast of the Project watershed's eastern boundary, 4.6 miles southeast of South Lake Dam, along Fourth Lake. Not observed during 2019 and 2020 surveys.
<i>Ranunculus hydrocharoides</i> frog's-bit buttercup	USFS_SCC	CRPR 2B.1	June– September	In or bordering shallow springs or freshwater marshes and seeps from 4,133 ft. to 7,611 ft.	Suitable mesic habitat for this species is present. Observed in 2019 in mesic habitat near Powerhouse 3/Intake 4 Species also recorded outside the Project watershed's northern boundary, 3.5 miles from Powerhouse No. 6, located in a channel within the town of Bishop. Not observed during 2020 surveys of the recreation areas.
<i>Sabulina stricta</i> bog sandwort	–	CRPR 2B.3	July– September	Moist, granitic gravelly sites in sedge meadows, seeps, alpine boulder and rock field, and alpine dwarf scrub from 8,000 ft. to 12,992 ft.	Last recorded in 1977 along Coyote Ridge within the Project watershed, 1.5 miles east of Green Creek Diversion Dam. Not observed during 2019 and 2020 surveys.
<i>Sidalcea covillei</i> Owens Valley checkerbloom	–	SE; CRPR 1B.1	April–June	Chenopod scrub and meadows and seeps from 3,593 ft. to 4,642 ft.	Reported 2 miles northwest of Powerhouse No. 6. Not observed during 2019 and 2020 surveys.

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
					While a <i>Sidalcea</i> species was observed, it was identified as a common species.
<i>Solorina spongiosa</i> fringed chocolate chip lichen	USFS_SCC	CRPR 2B.2	N.A.	Meadows and seeps, including seeps within subalpine coniferous forest, on moss mats in areas with calcareous seepage. Generally, in high altitude sites with north or east exposure, from 9,498 ft.	Suitable mesic habitat for this species is present. Reported from 0.5 mile north of South Lake Dam, along South Lake Road within South Fork Bishop Creek Drainage but was not observed during the 2019 and 2020 surveys.
<i>Tonestus peirsonii</i> Peirson's tonestus	–	CRPR 4.3	July–August	Alpine boulder and rock field and subalpine coniferous forest (rocky) from 9,514 ft. to 12,139 ft.	Reported 2 miles west of Lake Sabrina. Not observed during 2019 and 2020 surveys.
<i>Trichophorum pumilum</i> little bulrush	USFS_SCC	CRPR 2B.2	August	Limestone soils within bogs and fens, marshes and swamps, and riparian scrub from 9,448 ft. to 10,662 ft.	Suitable mesic habitat for this species is present. Reported from 0.5 mile north of South Lake Dam, along South Lake Road within South Fork Bishop Creek Drainage. Not observed during 2019 and 2020 surveys.
<i>Triglochin palustris</i> marsh arrow- grass	–	CRPR 2B.3	July–August	Meadows and seeps, freshwater marsh, subalpine coniferous forest from 6,988 ft. to 11,597 ft.	Suitable mesic habitat for this species is present. Observed in 2019 at one location within the Project vicinity. Recorded 0.8 miles southwest of Bishop Creek Intake No. 2, 0.15 miles east of Highway 168.
<i>Viola pinetorum ssp. grisea</i> grey-leaved violet	–	CRPR 1B.2	April–July	Dry mountain peaks and slopes in subalpine coniferous forest, upper montane coniferous forest, meadows, and seeps from 5,183 ft. to 12,139 ft.	Recorded 1.3 miles southeast of the Project watershed's eastern boundary, 4.3 miles southeast of South Lake Dam, along Fifth Lake. Not observed during 2019 and 2020 surveys.
SE = State Endangered USFS_SCC = U.S. Forest Service Species of Conservation Concern					

Scientific/ Common Name	Federal Status	State Status and CRPR ¹ Rank	Estimated Detectability Period	Habitat	Habitat Suitability/Survey Results
<p>SR = State Rare BLMS = Bureau of Land Management Sensitive CRPR = California Rare Plant Rank 1B = Plants Rare, Threatened, or Endangered in California and elsewhere 2B = Plants Rare, Threatened, or Endangered in California but more common elsewhere Plants about which we need more information – A Review List Plants of limited distribution – A Watch List</p> <p>CRPR Threat Code Extensions Seriously threatened in California (over 80% of occurrences threatened, high degree and immediacy of threat) Fairly threatened in California (20–80% of occurrences threatened, moderate degree and immediacy of threat) Not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known) Source: USFS_SCC U.S. Forest Service Species of Conservation Concern (Appendix G, Inyo National Forest Land Management Plan, 2019)</p>					

Source: (Psomas, 2021)

Table 2. Sensitive Plant Communities in the Project Area

Community Name and Map Label Area	Total Acres	Percent of Mapped Area
Wet Meadows (HJ)	14.68	0.44%
Riparian Mixed Hardwood (NR)	29.48	0.87%
Willow (QO)	8.24	0.24%
Quaking Aspen (QQ)	484.69	14.36%
Willow (WL)	24.35	0.72%

Source: SCE, 2019

Wet Meadows (HJ)

The wet meadows community is partially composed of sedges (*Carex* spp.), rushes (*Juncus* spp.) and spike rushes (*Eleocharis* spp.) with a combined cover of at least 50 percent. Presence of this community indicates year-long water availability, as in lakeshore, stream bank, perched water tables, and seep areas. Perennial forbs such as monkeyflower (*Mimulus primuloides*) and corn lily (*Veratrum californicum*), as well as woody species such as shrub willows, mountain alder (*Alnus incana* ssp. *tenuifolia*) and lodgepole pine are commonly associated with this montane alliance (SCE 2019).

Riparian Mixed Hardwood (NR)

No native hardwood species or genus is dominant within the riparian mixed hardwood alliance, but it includes a mixture of two or more non-dominant hardwoods including mountain dogwood (*Cornus nuttallii*), fremont cottonwood (*Populus fremontii*), and/or black cottonwood (*P. Balsamifera* ssp. *Trichocarpa*). Tree willows (*Salix* spp.), quaking aspen and water birch (*Betula occidentalis*) are also prevalent. This community is usually found in shaded drainages, riparian, and seep sites, within elevations that range from below 1,000-feet above msl to approximately 9,600-feet msl (SCE, 2019).

Willow (QO)

Tree willows of any species have a canopy cover of at least 50 percent. This community occurs where stream or pond conditions provide sufficient moisture at low to moderate elevations, mostly between 2,600-feet msl to 7,400-feet msl. Riparian hardwoods such as water birch and Fremont cottonwood often occur in proximity to this community (SCE, 2019).

Quaking Aspen (QQ)

With a canopy cover of at least 50 percent, quaking aspen forms clonal stands and dominates other hardwoods in this alliance. It generally occurs above an elevation of approximately 4,600-feet msl in association with moist soil and freshwater seeps. At higher elevations and under exposed conditions, quaking aspen stands may maintain a shrub-like form and never reach tree size (SCE, 2019).

Willow (WL)

Shrub willow cover is at least 50 percent, and these communities occupy low to high elevation streams, springs, and seeps within a broad elevation range of 3,000-feet msl to

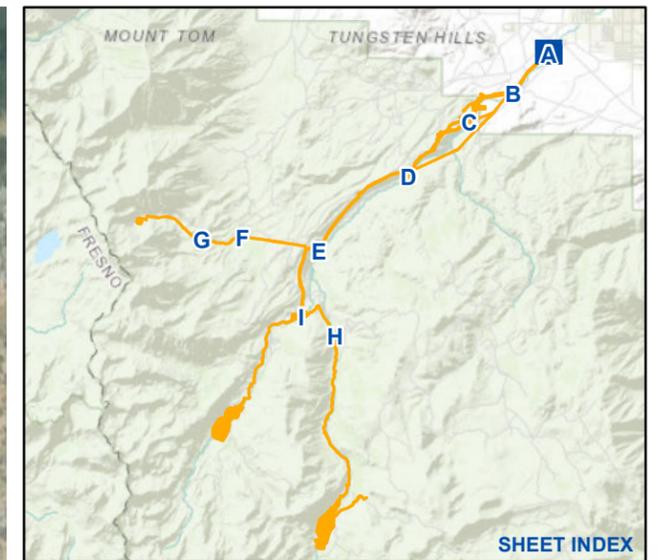
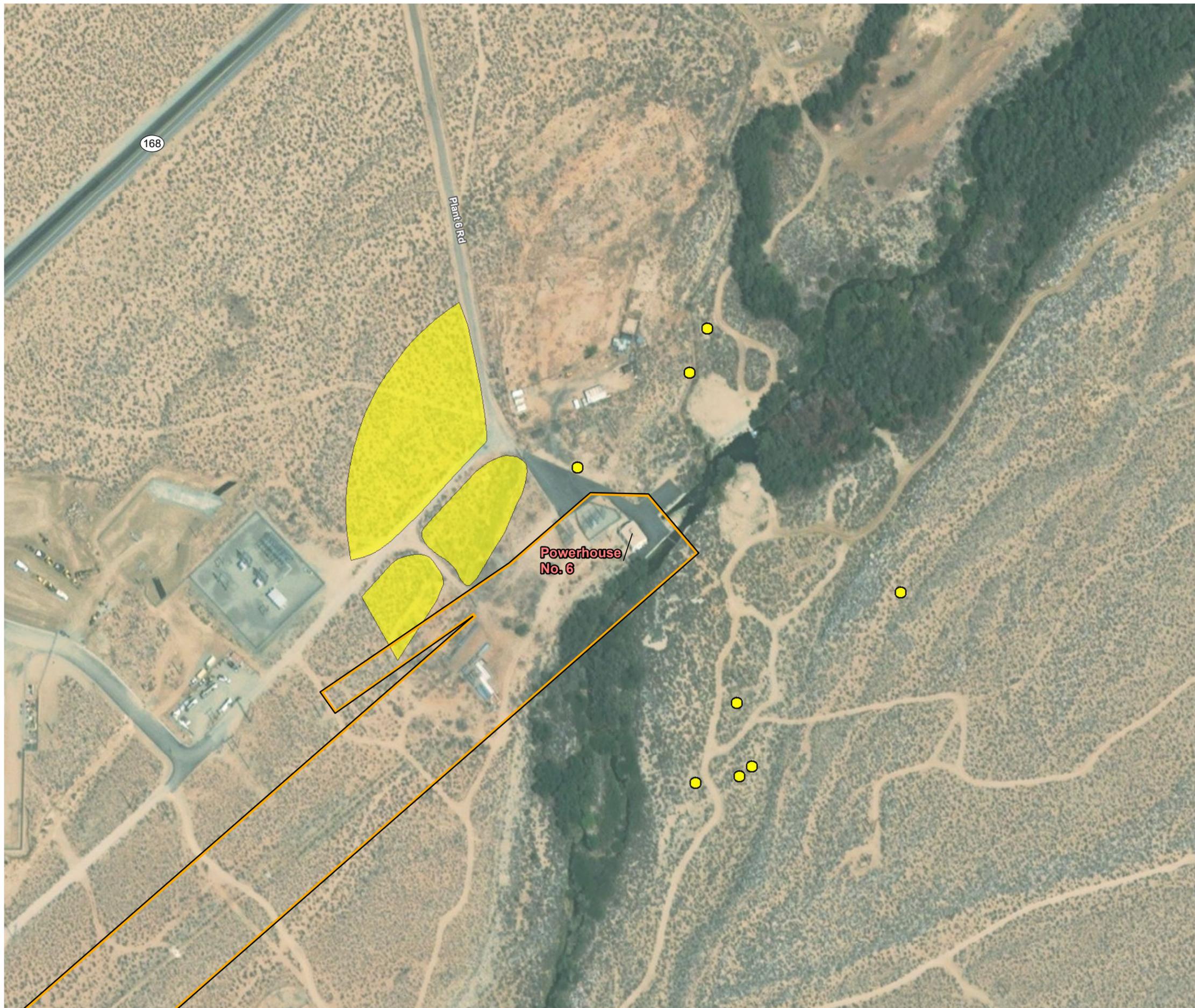
12,000-feet msl. Depending on location and elevation, species may include Geyer's willow (*S. geyeriana*), gray-leaved Sierra willow (*S. orestera*), Lemmon's willow (*S. lemmonii*), narrow-leaved willow (*S. exigua*), shining willow (*S. lucida*), and/or yellow willow (*S. lutea*). As this community may occupy the wettest upland sites, the Wet Meadows Alliance is frequently associated with it, as are other riparian shrubs such as California blackberry (*Rubus ursinus*) (SCE, 2019).

References

Psomas. 2021. Final Technical Report, Assessment of Special Status Plants (TERR 3). Prepared for Southern California Edison to support the Bishop Creek Hydroelectric Project. No. 1394. Filed with FERC January 27, 2022.

Southern California Edison (SCE). 2019. Pre-Application Document Volume I-Main Document and Appendices, Bishop Creek Hydroelectric Project FERC Project No. 1394. Prepared by Kleinschmidt Associates

ATTACHMENT 2
MAPS



Bishop Creek Powerhouse No. 6

FERC Boundary

Special Status Plant Species*

few-flowered eriastrum

few-flowered eriastrum

**Mapped limit 500 feet from Project Facility.*

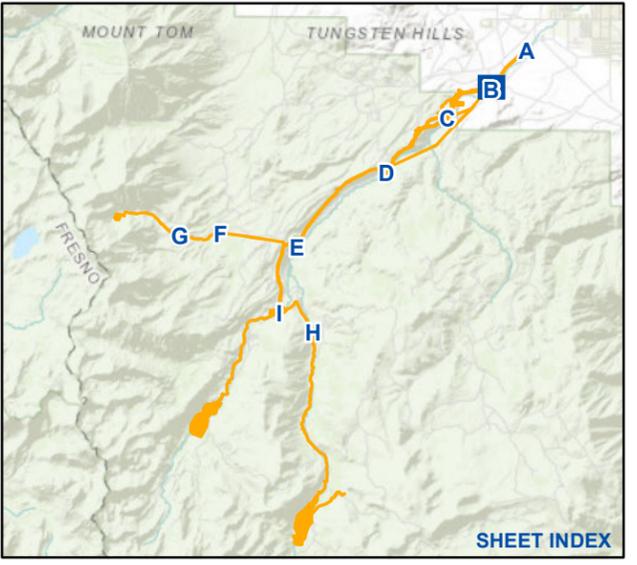
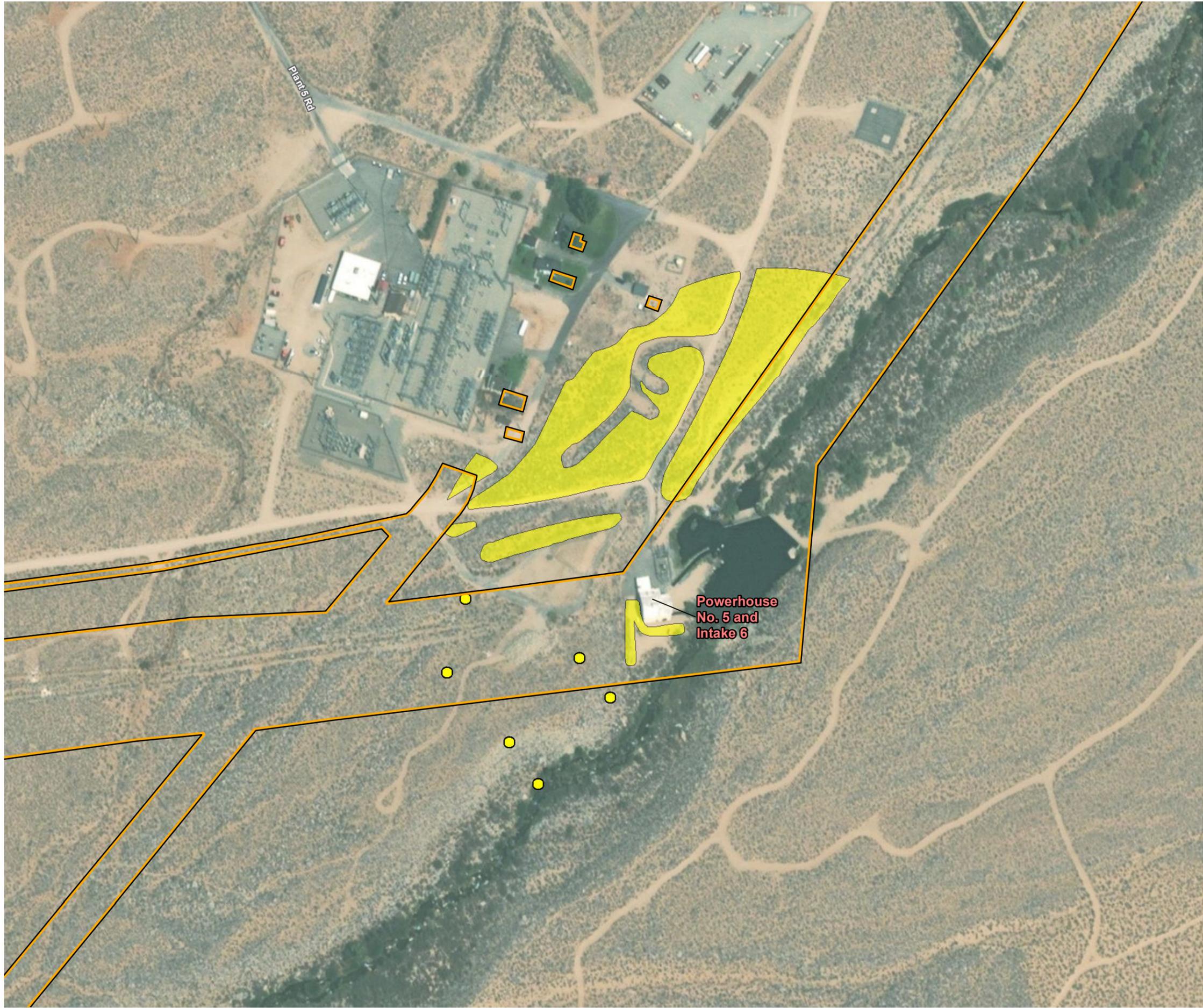


Aerial Source: Esri, Maxar 2021

Special Status Plant Species
Bishop Creek Hydroelectric Project

Figure 2a

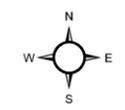




Bishop Creek Powerhouse No. 5 and Intake 6

-  FERC Boundary
- Special Status Plant Species***
-  few-flowered eriastrum
-  few-flowered eriastrum

**Mapped limit 500 feet from Project Facility.*



Aerial Source: Esri, Maxar 2021

Special Status Plant Species **Figure 2b**

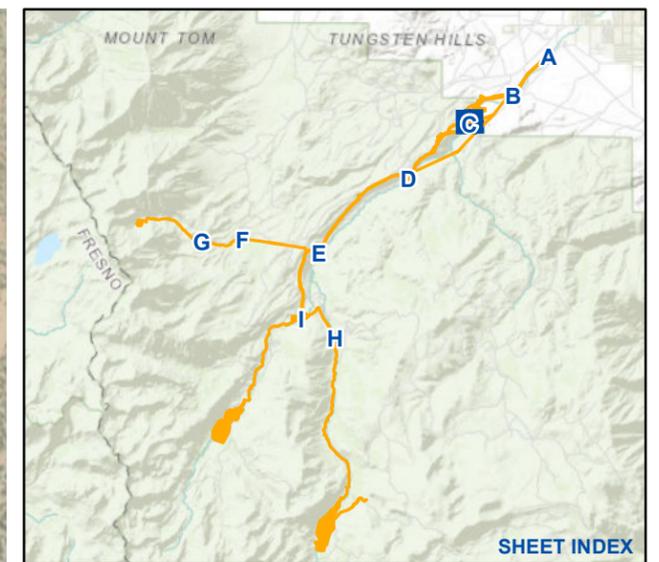
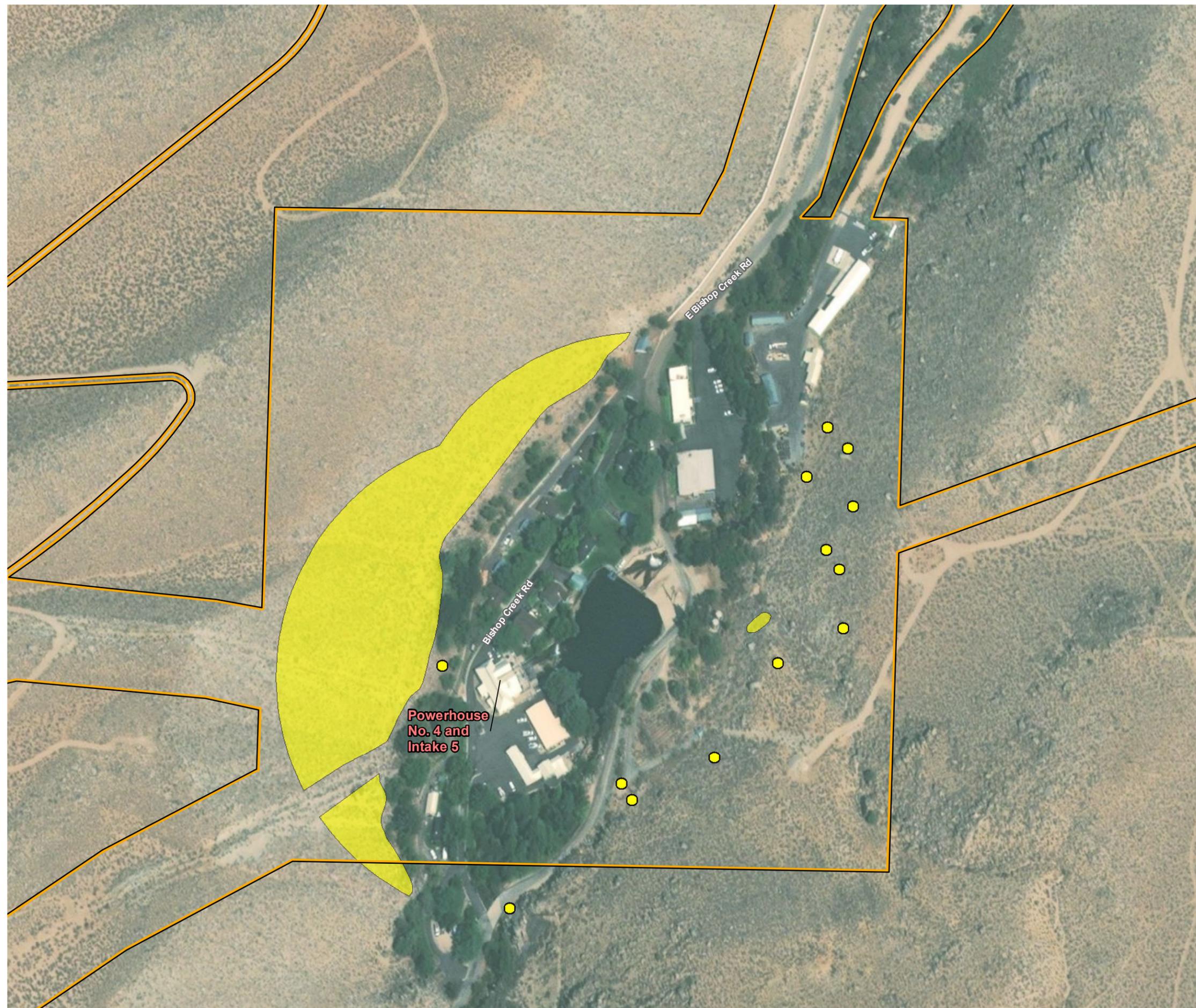
Bishop Creek Hydroelectric Project



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Bishop Creek Powerhouse No. 4 and Intake 5

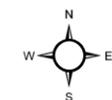
FERC Boundary

Special Status Plant Species*

few-flowered eriastrum

few-flowered eriastrum

**Mapped limit 500 feet from Project Facility.*



Aerial Source: Esri, Maxar 2021

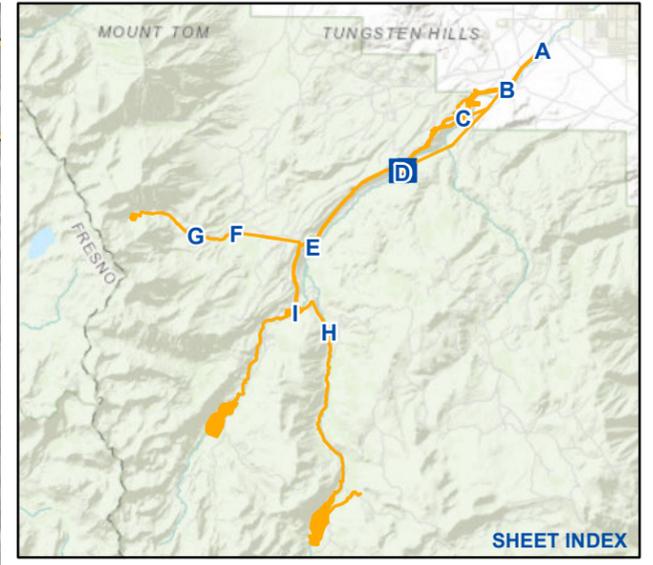
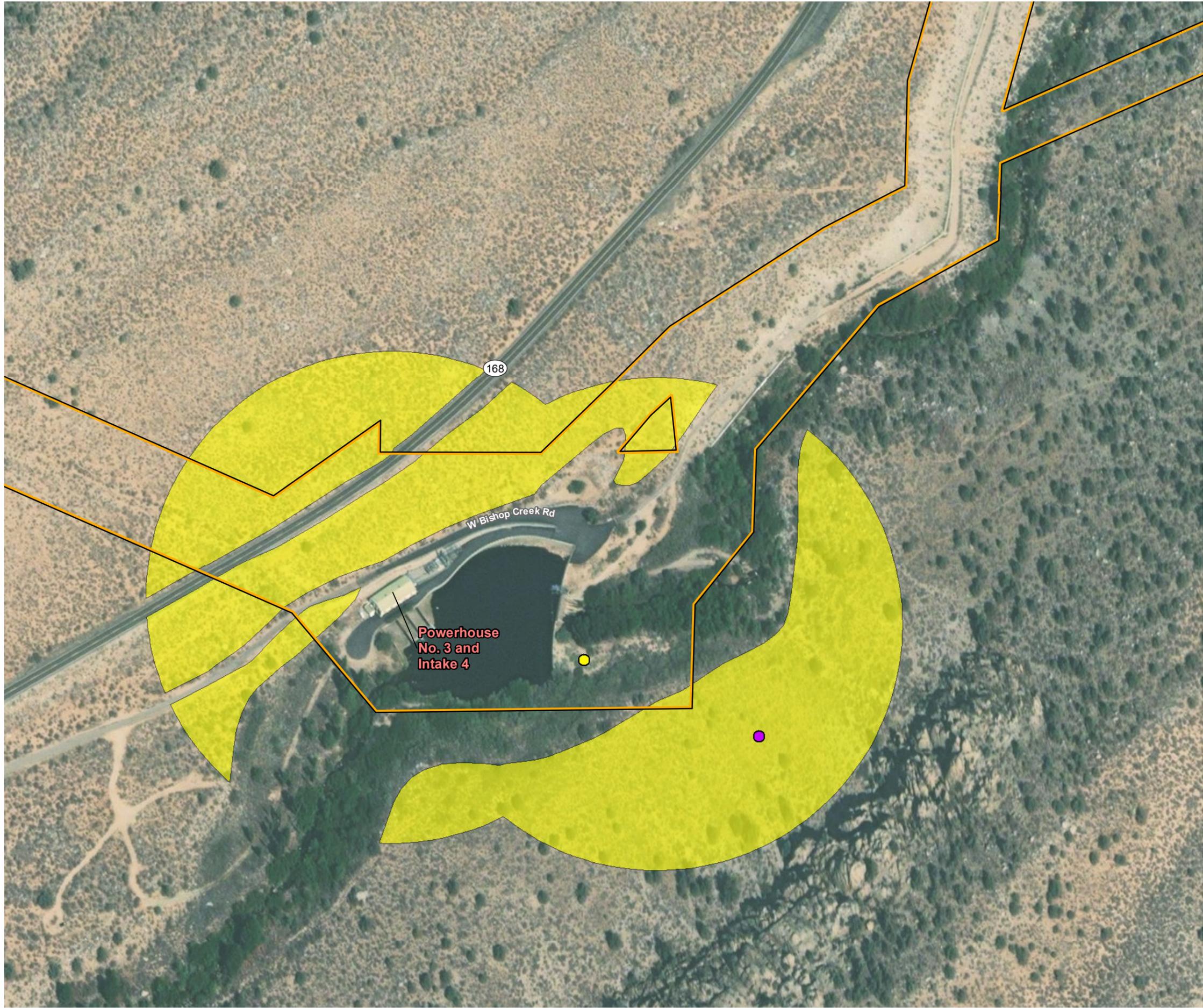
Special Status Plant Species

Figure 2c

Bishop Creek Hydroelectric Project



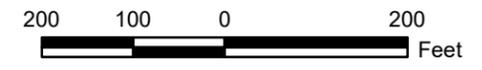
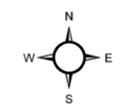
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Bishop Creek Powerhouse No. 3 and Intake 4

- FERC Boundary
- Special Status Plant Species***
- few-flowered eriastrum
- stiff lomatium
- few-flowered eriastrum

*Mapped limit 500 feet from Project Facility.



Aerial Source: Esri, Maxar 2021

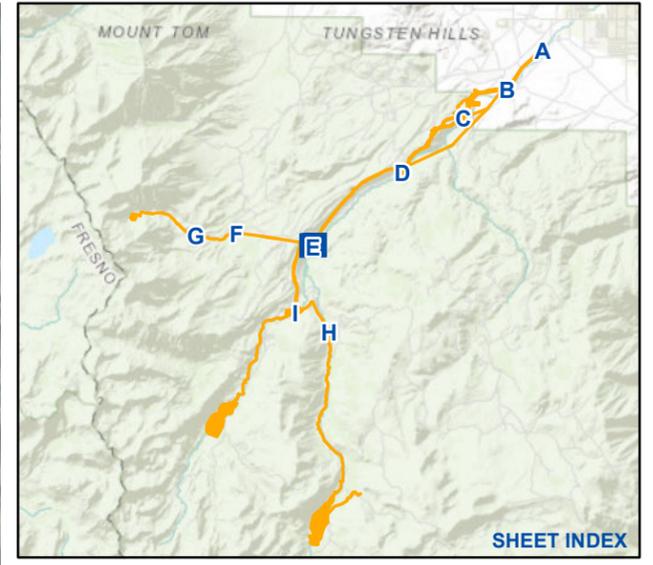
Special Status Plant Species **Figure 2d**

Bishop Creek Hydroelectric Project



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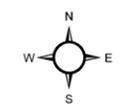
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Bishop Creek Powerhouse No. 2 and Intake 3

- FERC Boundary
- Special Status Plant Species***
- few-flowered eriastrum
- stiff lomatium

**Mapped limit 500 feet from Project Facility.*



Aerial Source: Esri, Maxar 2021

Special Status Plant Species **Figure 2e**

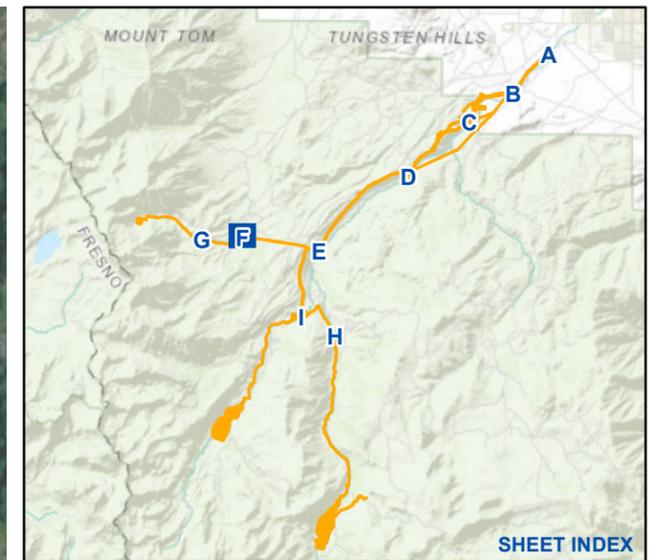
Bishop Creek Hydroelectric Project



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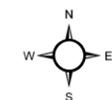
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Birch Creek Diversion

- ✕ Diversion
 - ▭ FERC Boundary
- Special Status Plant Species***
- marsh arrow-grass
 - ▭ small-flowered grass-of-parnassus

*Mapped limit 500 feet from Project Facility.



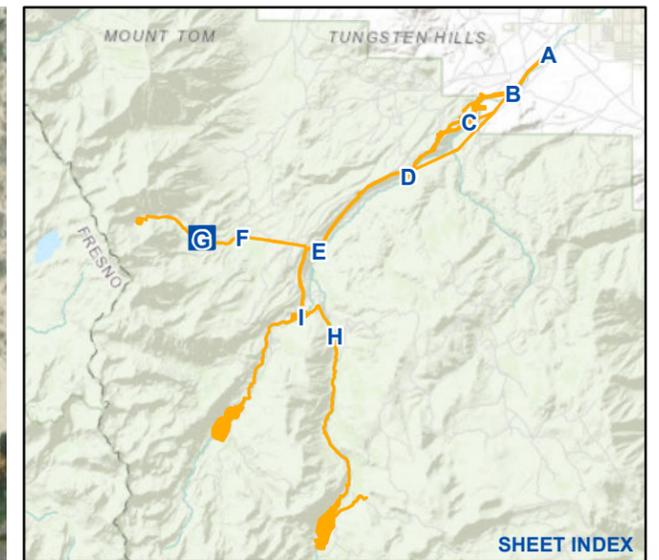
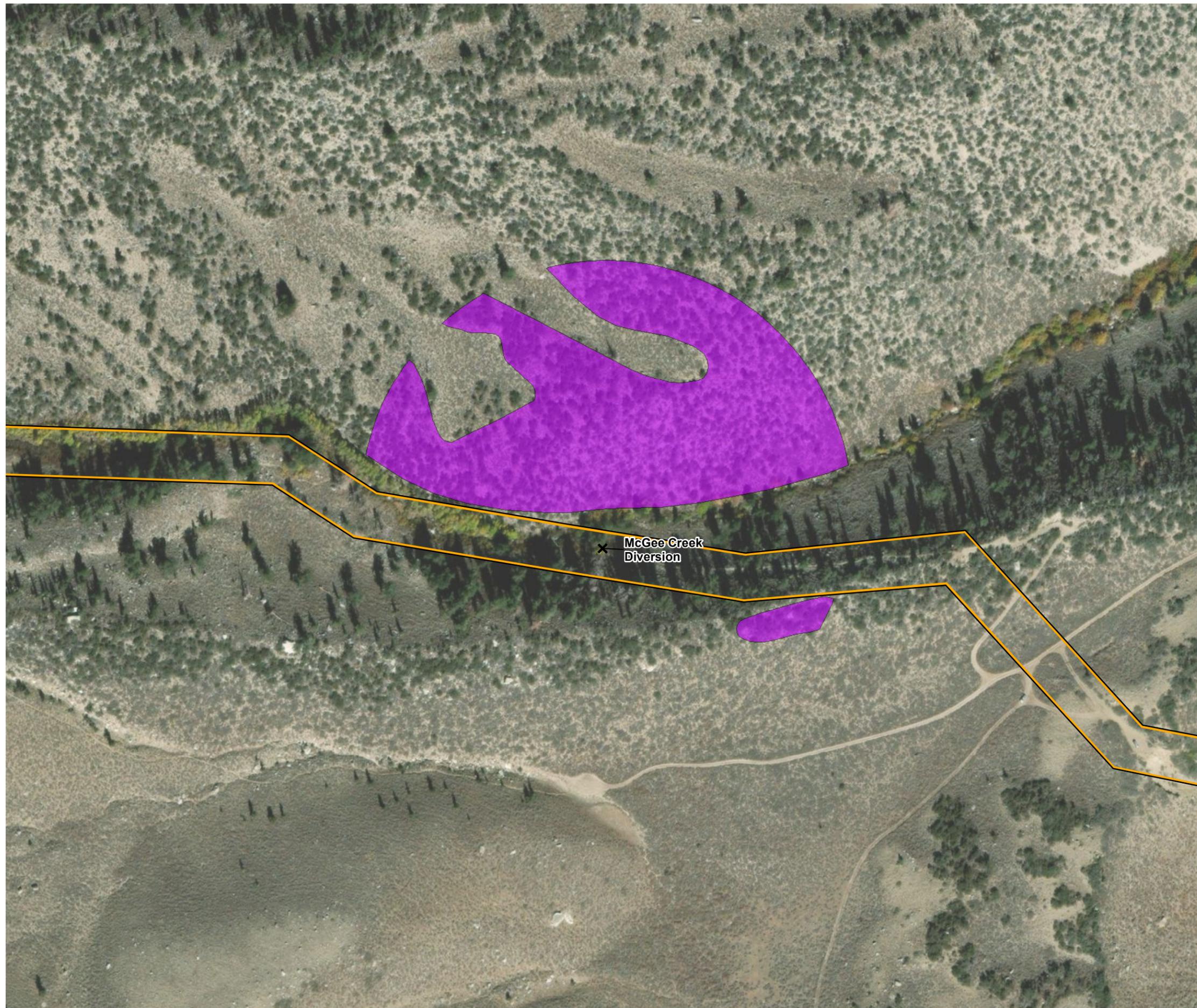
Aerial Source: Esri, Maxar 2021

**Special Status
Plant Species**
*Bishop Creek
Hydroelectric Project*

Figure 2f



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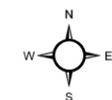
McGee Creek Diversion

- ✕ Diversion
- ▭ FERC Boundary

Special Status Plant Species*

- ▭ stiff lomatium

**Mapped limit 500 feet from Project Facility.*



Aerial Source: Esri, Maxar 2021

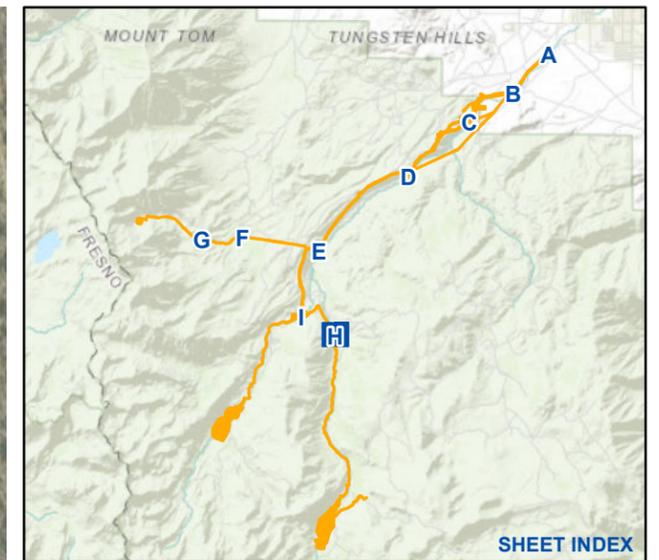
**Special Status
Plant Species**
*Bishop Creek
Hydroelectric Project*

Figure 2g



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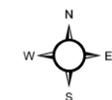
Bishop Creek South Fork Diversion Dam

- ✕ Diversion
- ▭ FERC Boundary

Special Status Plant Species*

- few-flowered eriastrum
- stiff lomatium

*Mapped limit 500 feet from Project Facility.

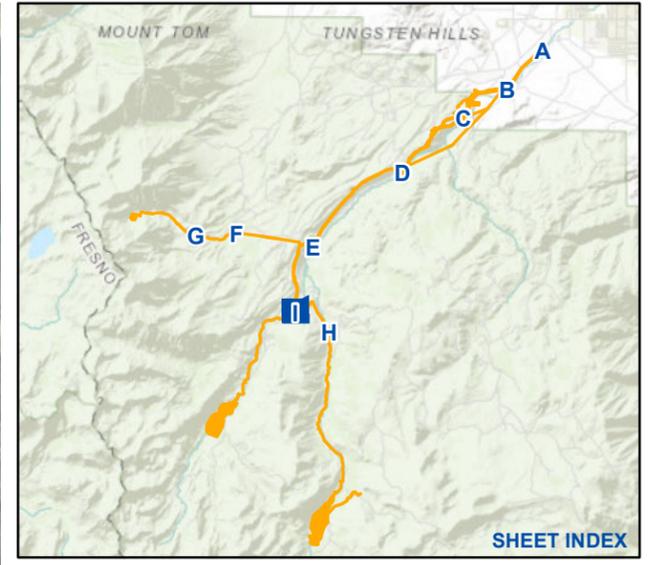
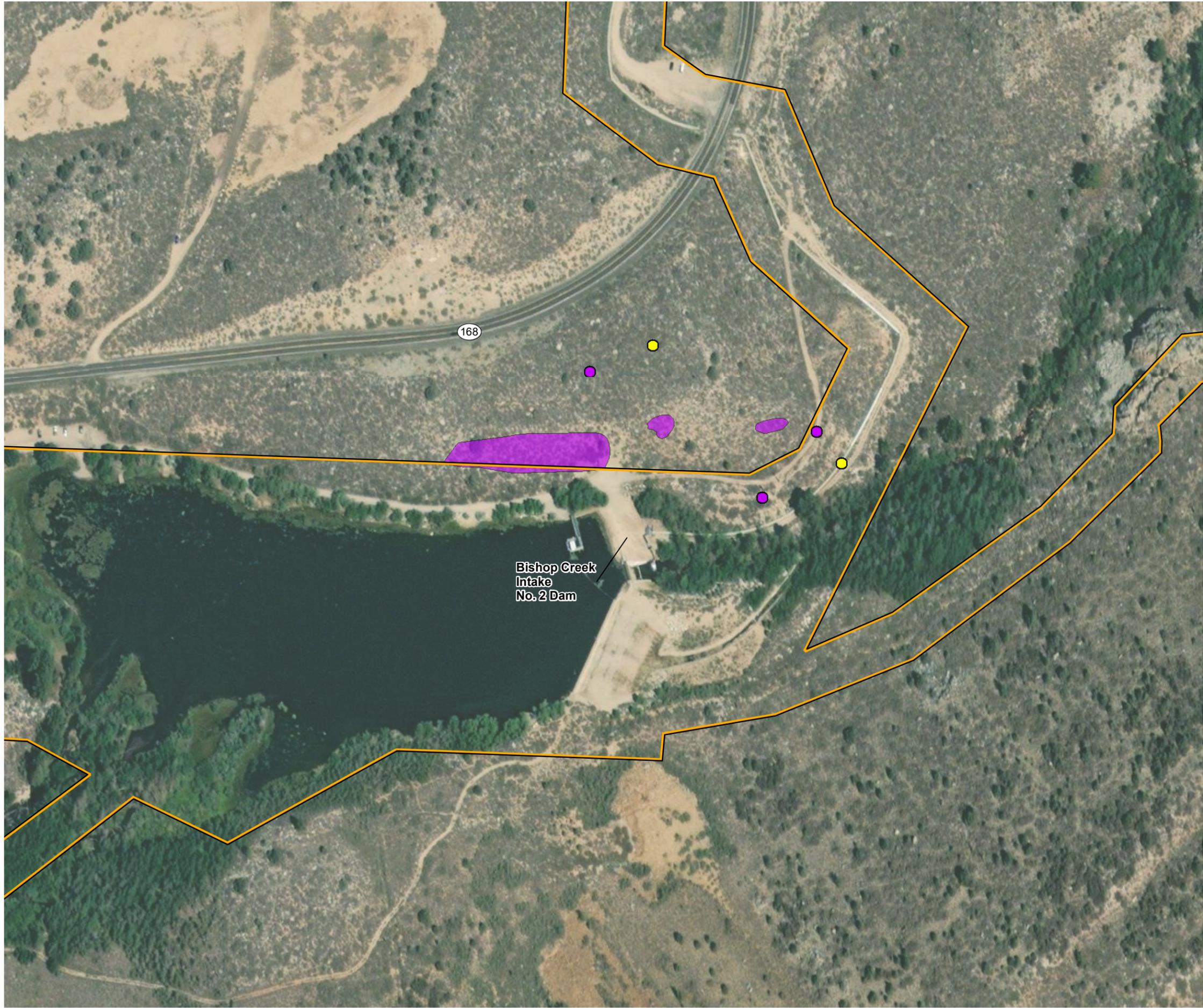


Aerial Source: Esri, Maxar 2021

Special Status
Plant Species
Bishop Creek
Hydroelectric Project

Figure 2h

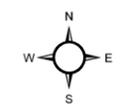




Bishop Creek Intake No. 2 Dam

-  FERC Boundary
- Special Status Plant Species***
-  few-flowered eriastrum
-  stiff lomatium
-  stiff lomatium

*Mapped limit 500 feet from Project Facility.



Aerial Source: Esri, Maxar 2021

Special Status Plant Species **Figure 2i**

Bishop Creek Hydroelectric Project



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SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project

(FERC Project No. 1394)



INVASIVE SPECIES MANAGEMENT PLAN



JUNE 2022

SOUTHERN CALIFORNIA EDISON

**Bishop Creek Hydroelectric Project
(FERC Project No. 1394)**

INVASIVE SPECIES MANAGEMENT PLAN

Southern California Edison
1515 Walnut Grove Ave
Rosemead, CA 91770

June 2022

Support from:

Kleinschmidt

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ACRONYMS

A

B

BLM Bureau of Land Management
BMP best management practice

C

Cal-IPC California Invasive Plant Council
CDFW California Department of Fish and Wildlife

E

F

FERC Federal Energy Regulatory Commission
FLA

I

INF Inyo National Forest
kW kilowatts

M

msl mean sea level
MWh megawatt hour

O

O&M Operation and Maintenance

P

Plan Invasive Species Management Plan
Project Bishop Creek Hydroelectric Project No. 1394

R

RCA Riparian Conservation Area

S

SCE Southern California Edison

U

USDA
USFS U.S. Forest Service

1.0 INTRODUCTION

Southern California Edison Company (SCE) prepared this Invasive Species Management Plan (Plan) to comply with the Federal Energy Regulatory Commission (FERC) Order for issuing a license for the Bishop Creek Hydroelectric Project (Bishop Creek Project) FERC Project No. 1394. The Plan provides for management of invasive plant and wildlife species within the Project boundaries. For purposes of this Plan “invasive plant species” is defined as any non-native plant that has been identified as a nuisance and is listed as such by the California Invasive Plant Council (Cal-IPC) or the Inyo National Forest (INF). A list of invasive plant species identified for the Project is provided in Attachment A, Invasive Plant Species. The Plan provides for consultation with the INF and the California Department of Fish and Wildlife (CDFW). It is anticipated that this Plan would be updated during the term of the new license to reflect any change in species invasive status and/or preferred control strategies.

This Plan was developed to accompany SCE’s application for a new FERC license and would be implemented for both routine and non-routine operation and maintenance (O&M) activities for the duration of the new license. SCE’s responsibilities for the management of invasive plant and wildlife species associated with the Bishop Creek Project are identified in this Plan.

1.1. PROJECT LOCATION

The Project is located in the Owens Valley, along the eastern Sierra Nevada Mountains (Figure 1.1-1). Most of the basic hydro-generation facilities have been in existence since the early 1900s. The Project facilities include powerhouses¹, dams, impoundments (including South Lake and Lake Sabrina), diversions, weirs, outbuildings, valve houses, access roads, and a flowline. The Project’s facilities are sited along Bishop Creek and its tributaries including South Fork, Middle Fork, and Green Creek, plus Birch Creek and McGee Creek north of Bishop Creek. Bishop, Birch, and McGee creeks are tributaries to the Owens River. Project facilities are situated across privately and federally held properties (federal lands include those held and managed by the US Forest Service [USFS] and US Bureau of Land Management [BLM]). Subsequently, land uses adjacent to the Project are varied and include residential, grazing, public recreation, and federally designated wilderness land, among others.

The Project boundary is one of moderate to steep ridge and valley topography. Elevations within the drainages range from approximately 4,000-feet above mean sea level (msl) to over 13,000-feet above msl. Bishop Creek is a major stream with a total drainage area of approximately 70 square-miles, flowing northeastward approximately 28 miles from its headwaters in the Sierra Nevada to its confluence with the Owens River at the city of Bishop. The North, Middle and South Forks of Bishop Creek originate in nearby glacial

¹ Note to reader – in this document, the term “powerhouse” is used as a general reference to the structure; however, when referencing a specific structure the term “Plant” is used.

basins separated by ridges. South Lake and Lake Sabrina are the major storage reservoirs in the watershed.

The Project boundary supports upland vegetation communities and a mixture of floodplain, wetland, riparian, and littoral communities within and adjacent to Bishop Creek. Plant community types consist of alpine grasses and forbs, alpine mixed scrub, barren, bitterbrush, saltbush, curl-leaf mountain mahogany, Great Basin mixed scrub, rabbitbrush, basin sagebrush, Great Basin – desert mixed scrub, blackbush, eastside pine, annual grasses and forbs, perennial grasses and forbs, lodgepole pine, high desert mixed scrub, singleleaf pinyon pine, limber pine, canyon live oak, subalpine conifers, whitebark pine, wet meadows, riparian mixed hardwood, willow, quaking aspen, perennial lake or pond, water, and willow shrub (Psomas, 2022).

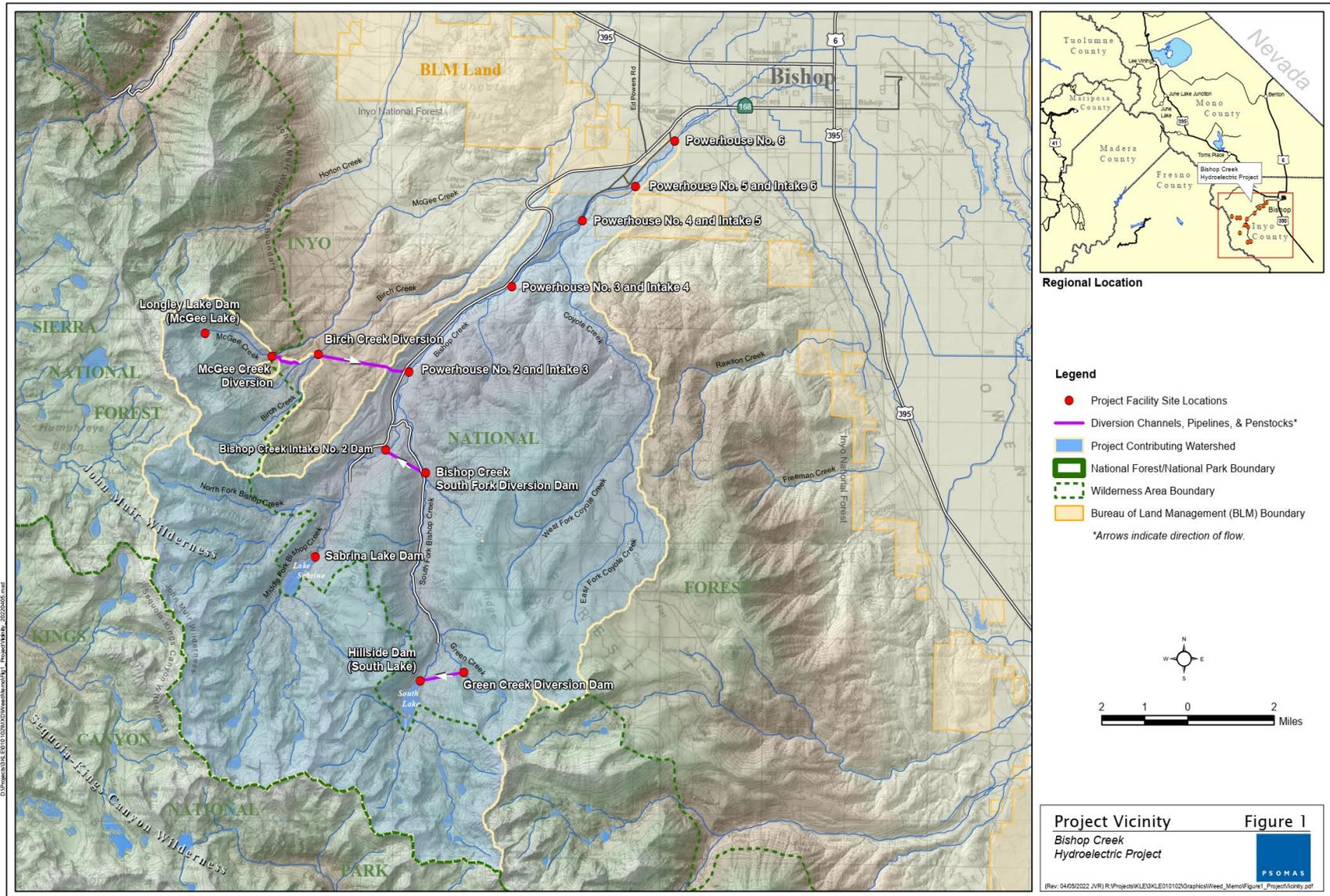


Figure 1.1-1 Project Vicinity

1.2. PROJECT FACILITIES

SCE is the licensee, owner, and operator of the Bishop Creek Project, Federal Energy Regulatory Commission (FERC) Project No. 1394 located on Bishop Creek near the community of Bishop in Inyo County, California. Bishop Creek Project facilities are located within the Inyo National Forest (INF) and the John Muir Wilderness (managed by the U.S. Forest Service [USFS]), and include lands managed by Bureau Land Management (BLM) and private lands. The Bishop Creek Project consists of five developments: Power Plants No. 2 through No. 6 on the Middle Fork of Bishop Creek and three primary storage reservoirs that include South Lake, Lake Sabrina and Longley Lake.

The Bishop Creek Project has a total dependable generating capacity of 28,925 kilowatts (kW) and has an average annual energy production of 128,039 megawatt hours (MWh). Stored water is transported through a series of connecting flowlines and penstocks to the powerhouses and returned to the river through the tailrace at Plant No. 6. Under the existing Project license, the FERC Project boundary encompasses federal lands administered by either the U.S. Department of Agriculture (USDA) Forest Service or the BLM, and SCE-owned or private land. SCE does not propose any changes to Project O&M and does not propose any new construction.

For additional information about these features and their operations, please refer to Exhibit E of the 2022 Final License Application (FLA), available at www.ferc.com or www.sce.com/bishopcreek.

2.0 PURPOSE AND INTENT

This Plan provides guidance to SCE's Bishop Creek personnel to determine: 1) whether an activity will potentially introduce a new invasive plant or wildlife species; 2) if the invasive plant species may spread in the Project Boundary; and 3) if monitoring and control actions should be implemented to the control of invasive species within the Project Boundary. SCE employees will consult the information in this Plan before undertaking O&M activities that may introduce or spread an invasive plant or wildlife species and will include environmental screening as part of planning for any construction or earth-disturbing project.

Measures described in this Plan should prevent the spread of invasive species within the Project Boundary. SCE relies on regular training of its staff to guide implementation of this plan (Section 4.1). For any questions or concerns, contact SCE's Environmental Manager for help with defining the most appropriate actions to ensure completion of the work without introducing or spreading invasive plant or wildlife species.

2.1. REGULATORY REQUIREMENT

Management of invasive species is directed by land-management authorities, with input from the Eastern Sierra Weed Management Area, which facilitates, coordinates and promotes the establishment of an integrated weed management program directed toward the eradication and control of noxious weeds. Because the majority of lands within the Project boundary are federal lands, SCE looks primarily to the INF Land Management Plan (USDA, 2019) and the Forest-Wide Invasive Plant Treatment Project (USFS, 2019) for guidance on invasive species.

2.2. BISHOP CREEK INVASIVE PLANTS

Cal-IPC defines invasive plant species as plants that are not native to an environment, and once introduced, they establish, quickly reproduce, spread, and cause harm to the environment, economy, or human health (Cal-IPC, 2022). "Non-native plants" are species introduced to California after European contact through the direct or indirect result of human activity. Invasive non-native plants that threaten wildlands are plants that 1) are not native to, yet can spread into, wildland ecosystems, and that also 2) displace native species, hybridize with native species, alter biological communities, or alter ecosystem processes. Invasive non-native plants can have a variety of effects on wildlands such as altering ecosystem functions.

Attachment A contains a list of invasive plant species in the region that have the potential to occur in the Project boundary; the list was developed from a query of the Cal-IPC (Cal-IPC, 2022) (based on two parameters) and a list provided by the USFS of invasive plant species currently known in the INF (NRM – TESP/IS, 2018). The "Project region" is defined based on the literature review and includes the INF and Sierra Nevada East bioregion.

Cal-IPC parameters:

- **Jepson region:** The inventory uses geographic floristic provinces and subdivisions within California as described by the Jepson Flora Project (2022). While the Project boundary falls within both the Sierra Nevada and Sierra Nevada East bioregions, the Sierra Nevada floristic province extends well beyond the Project region. Therefore, the query was limited to the Sierra Nevada East bioregion.
- **Habitat types:** The inventory was queried to include species found in the following habitat types – freshwater and estuarine aquatic systems; scrub and chaparral; grasslands, vernal pools, meadows, and other herb communities; riparian and bottomland habitat; woodland; forest; and alpine habitats.

Cal-IPC categorizes plants as High, Moderate, or Limited, according to the degree of ecological impact in California (Cal-IPC, 2022):

- **High:** Severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
- **Moderate:** Substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- **Limited:** Invasive, but ecological impacts are minor on a statewide level (or not enough information to justify a higher score). Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

The USFS (2019) categorized invasive plant species into four treatment strategies as follows.

- **Limited/No Treatment:** Limited to site-specific restoration projects or no treatment efforts at this time
- **Contain:** Treat leading edge or new satellite infestations, or where concurrent with high-value resources
- **Control:** Treat and monitor a portion of the infestations each year, focusing on reducing the acreage and percent cover over time

- **Eradicate:** Annually treat and monitor the infestation with the goal of complete elimination of the species

Table 2.1-1 identifies invasive plant species observed in 2019 and 2020 (Psomas, 2022) or are reported in the Project boundary by CalFlora (2022), and their treatment categories that are known to be in the Project boundary. With the exception of black locust (*Robinia pseudoacacia*), SCE’s surveys indicate that these species have not been established by the Project, nor does the Project contribute to their propagation refer to Exhibit E of the FLA.

Table 2.1-1. Invasive Plant Species Observed During 2019/2020 Surveys

Common Name	Scientific Name	USFS Treatment Strategy	CAL-IPC Rank
Creeping bent grass ^b	<i>Agrostis stolonifera</i>	Containment	Limited
Ripgut grass	<i>Bromus diandrus</i>	Containment	Moderate
Red brome	<i>Bromus rubens</i>	Containment	High
Cheat grass ^a	<i>Bromus tectorum</i>	Containment	High
Bull thistle ^a	<i>Cirsium vulgare</i>	Containment	Moderate
Bermuda grass ^a	<i>Cynodon dactylon</i>	Containment	Moderate
Orchard grass ^b	<i>Dactylis glomerata</i>	Containment	Limited
Tansy mustard ^a	<i>Descuriania sophia</i>	Containment	Limited
Redstem filaree ^b	<i>Erodium cicutarium</i>	Containment	Limited
Tall fescue ^a	<i>Festuca arundinacea</i>	Containment	Moderate
Common velvet grass ^b	<i>Holcus lanatus</i>	Containment	Moderate
Wall barley ^b	<i>Hordeum murinum</i>	Containment	Moderate
Prickly lettuce ^b	<i>Lactuca serriola</i>	Containment	--
Perennial sweet pea ^a	<i>Lathyrus latifolius</i>	Containment	Watch

Common Name	Scientific Name	USFS Treatment Strategy	CAL-IPC Rank
Hairy White-top	<i>Lepidium appelianum</i>	Eradication	--
Alfalfa ^b	<i>Medicago</i> sp.	Containment	Limited
White sweetclover ^a	<i>Melilotus alba</i>	Eradication	--
English plantain ^a	<i>Plantago lanceolata</i>	Containment	Limited
Black locust ^b	<i>Robinia pseudoacacia</i>	Containment	Limited
Himalayan blackberry ^b	<i>Rubus armeniacus</i>	Control	High
Curly dock ^a	<i>Rumex crispus</i>	Containment	Limited
Russian thistle ^a	<i>Salsola tragus</i>	Containment	Limited
Tumble mustard ^a	<i>Sisymbrium altissimum</i>	Containment	--
Sow thistle	<i>Sonchus</i> sp.	Containment	--
Common dandelion ^b	<i>Taraxacum officinale</i>	Containment	--
Puncture vine ^b	<i>Tribulus terrestris</i>	Control	Limited
White clover ^a	<i>Trifolium repens</i>	Containment	--
Siberian elm ^b	<i>Ulmus pumila</i>	Control	--
Woolly mullein ^a	<i>Verbascum thapsus</i>	Containment	Limited

^a Previously known to occur in Project boundary (CalFlora, 2022)

^b Observed non-native (not mapped)

SCE surveys indicate that the species listed for containment and control were not established by the Project, nor does the Project contribute to their propagation (Exhibit E of the FLA). Therefore, SCE is not implementing treatment actions for these species other than routine avoidance measures and evaluation during the 5-year surveys.

Additionally, two species in Table 2.1-1, white-top and white sweet clover, indicate eradication as a treatment strategy. Study results indicate that these two species were not established by the Project, nor does contribute to their propagation. Therefore, SCE will not implement treatment actions other than routine avoidance measures for these two species. Additionally, no requests for eradication were made by the INF during consultation of this Plan.

Treatment guidance for black locust (Table 2.1-1) is to contain the spread using standard measures as described below. However, because the propagation of the species is identified Project effect, the INF requested SCE eradicate this population around Project facilities and in the Project boundary. SCE eradication approaches for black locust in described in Section 4.4 below.

2.3. INVASIVE AQUATIC PLANTS

An invasive aquatic plant species of concern in the INF is the native and sometimes nuisance freshwater alga species *Didymosphenia geminata* which was observed in Lee Vining Creek and Hilton Creek, tributary to Lake Crowley, north of the Bishop Creek Project boundary. However, this species was not identified in the Bishop Creek drainage.

2.4. INVASIVE WILDLIFE

Invasive aquatic species of concern in the INF include the New Zealand mud snail, zebra mussel, quagga mussels, and California salamanders, such as the western tiger salamander which were brought into the area as bait. Zebra and quagga mussels have not been observed in the INF. “Infected” boats are denied access to reservoirs in the area. Zebra and quagga mussels are not expected to occur in the Project reservoirs because of the exceptionally low mineral content of the water. SCE developed a corporate-wide Invasive Mussel Protection Plan (SCE, 2017), which continues to be implemented at all SCE-owned reservoirs. Currently, there are only a few sites where aquatic invasive species are known to occur on the INF and vicinity. The New Zealand mudsnail was observed in the Owens River at the mouth of and below the confluence with McLaughlin Creek (UC ANR, 2022).

No invasive terrestrial wildlife species were identified as a potential issue in the Project boundary. A study commissioned by SCE in 2018 demonstrated that burrowing rodents do not pose a threat to Project infrastructure (Psomas, 2018).

3.0 GOALS AND OBJECTIVES OF THIS MANAGEMENT PLAN

This Invasive Species Management Plan focuses on vegetation management activities and control of invasive species within the FERC Project Boundary.

The goals of this Plan include:

- Provide for clear operational decision-making when planning and/or implementing O&M related activities in support of Project operations
- Prevent the introduction of new invasive plant or wildlife species in the Project boundary as a result of routine O&M activities through early detection of species by periodic monitoring
- Control the spread of invasive plant species currently known to occur in the Project boundary through the use of best management practices (BMPs)
- Eradicate, control, or contain specific invasive plant species using methods that are effective yet safe for the environment
- Identify introductions of other invasive species both terrestrial and aquatic in the Project boundary through consultation with the INF as needed

4.0 MEASURES

Routine inspections and maintenance activities are conducted at Bishop Creek Project facilities to verify the structural and/or functional integrity of the facilities, to identify conditions that might disrupt operation or threaten public safety, and to maintain the facilities in safe and operational conditions. Routine O&M activities (described below) are conducted year-round, weather permitting. SCE schedules routine O&M activities so that special status biological resources are not affected.

Resource surveys were conducted as part of the relicensing (data and reports are found in Volume III of the FLA) and an impacts analysis was completed in Exhibit E of the Final License Application (Volume I). Based on the analysis, SCE identified the presence and spread of black locust is influenced by the Project and has identified measures (described below) to address this effect. No other invasive species was established or propagated by the Project's routine activities.

Routine O&M activities include but are not limited to:

- Trimming and mowing
- Road grading and trail maintenance
- Hazard tree removal
- Transmission, power and communication line maintenance
- Maintenance outages
- Plant inspections and maintenance
- Flowline inspections and maintenance

These O&M activities typically occur within previously disturbed areas, or in areas that are regularly maintained and cleared of vegetation surrounding the Project facilities.

Over the course of the license, Project facilities may require additional work not currently covered under routine activities. While existing resource surveys may inform consultation with affected stakeholders, these tasks would be considered new projects which are not necessarily covered under the new license. Should new O&M activities be required SCE personnel will contact the SCE Environmental Manager on appropriate measures, which may include agency consultation or additional surveys.

These non-routine O&M activities may include:

- Ground disturbing activities beyond those performed for routine O&M activities
- Reconstruction activities involving major Project facilities

- Construction activities that involve expanding the footprint of existing facilities

4.1. TRAINING AND EDUCATION

SCE employees attend environmental training sessions on an annual basis, as well as an as-needed basis. These training sessions vary based on the activity; however, they all include a review of background material, permit conditions, instructions, and materials on how to avoid impacts to biological resources. SCE will include materials concerning invasive plant species, BMPs for minimizing disturbance to habitat and safe handling of chemicals. Training materials will include photographs and tips for the identification of invasive plants in the field as well as internal reporting procedures.

4.2. BEST MANAGEMENT PRACTICES FOR PREVENTING SPREAD OF INVASIVE PLANT SPECIES

BMPs are methods or techniques found to be the most effective and practical in achieving an objective, such as preventing or reducing invasive plant spread, while making optimal use of resources. Implementation of BMPs that reduce invasive plant introduction and spread can help reduce future maintenance needs and costs, reduce fire hazards, reduce herbicide use, enhance access and safety, limit liability for the governing agency or lessee, maintain good public relations, and protect existing wildlife habitat, native plant populations, beneficial insects, as well as threatened and endangered species (Cal-IPC, 2012).

Appropriate BMPs to implement in a given situation will be dependent on the type of work activity; the location of the work (e.g., existing disturbed area, naturally vegetated area); the timing of the work; the invasive plant species identified and whether it is designated for eradication, control, or containment; and the treatment method required. The following general BMPs are recommended.

The following measures will be in place to avoid/minimize the spread of invasive plant species when conducting O&M activities.

- Where feasible, do not stage equipment, materials, or crews in invasive plant-infested areas.
- Where feasible, invasive plant infestations will be designated as control areas, i.e., areas where equipment, traffic and soil-disturbing activities will be excluded. If control areas are designated, they will be identified on Project maps and delineated in the field with flagging.
- All equipment and vehicles used for ground disturbing projects will be free of invasive plant material before moving into the Project boundary. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris. Cleaning will occur at a vehicle washing station or steam-cleaning facility before the equipment and vehicles enter the Project boundary.
- When working in areas of known invasive plant infestations, equipment will be cleaned before moving to other work sites to prevent the spread of invasive plant species from

an infested to potentially non-infested area. Infested areas will be identified on Project maps.

- If erosion control measures are used (e.g., hay bales, straw wattles), they will be certified weed-free. If certified weed-free materials are not available, weed-free rice straw or non-vegetated material (e.g., sand or gravel bags) will be substituted.

4.3. INVASIVE PLANT SPECIES SURVEYS

SCE will conduct surveys for invasive plant species every 5-years over the license period, beginning in year 5 of the new license. Surveys will track existing known occurrences and document the introduction of new invasive plant species.

Surveys will:

- Be conducted by a qualified botanist
- Be timed, to the extent practical, so that the phenology of the invasive plant species allows for field identification (usually this is during flowering or fruiting)
- Be reported with findings to SCE, and provided to the INF staff by December 31 of the year of occurrence.

4.3.1. OTHER INVASIVE SPECIES

If the presence of invasive wildlife or aquatic species, becomes known through outside reporting or observations, SCE will coordinate with the INF and CDFW concerning the need for additional actions.

4.4. INVASIVE PLANT MANAGEMENT ACTIVITIES

This section describes: 1) SCE's general approach for invasive plant management activities that may be implemented during the new license, and 2) SCE's approach to eradicate black locust.

4.4.1. GENERAL MANAGEMENT APPROACH

During the term of the new license, the need to implement a management activity will be: 1) based on determination of Project effect, 2) as a result of non-routine O&M activities that could introduce a new species or cause an existing species to propagate, or 3) as a result of the 5-year survey effort that may identify a new species occurrence or an increase of an existing population. If there is discovery of new invasive species or a significant change to a known occurrences of a population, SCE will consult with the INF to determine the appropriate measures to be implemented under this Plan. Alternately, SCE will consult with INF as appropriate when non-routine O&M activities may pose a risk of introducing or spreading a species.

Known occurrences of invasive species within the Project boundary will be monitored to determine if the population is propagating and increasing in size (Section 4.3). If it is

determined that Project operations are contributing to the species propagation, then a treatment measure may be implemented if appropriate. A variety of treatment measures are available for control or eradication of invasive plant species.

These include both chemical and non-chemical control. Non-chemical control includes mechanical removal (e.g., manual removal, cutting, disking, mowing), controlling plants in place (e.g., girdling, flaming, steaming, or using sheet barriers or solarization), and biological control (i.e., the use of host-specific insects or pathogens to target the invasive plant). Chemical control includes the application of various classes of herbicides utilizing a variety of methods (e.g., foliar spraying, cut-stump treatment). Invasive plant species treatment will be performed to avoid impacts on special status plant and wildlife species and aquatic resources.

The appropriate control method will be selected in consultation with INF. Several factors may influence the type of treatment measures, including the species, the effectiveness of the treatment strategy for each individual species, the size of the invasive plant population, the cost of the potential strategy, and the potential for negative effects on the surrounding environment and natural resources.

As indicated by the guidelines in Table 2.1-1, BMPs for containment, control, or eradication may be appropriate for some species as follows:

- **Containment:** For species assigned a treatment category of containment, SCE is not implementing treatment actions for these species other than routine avoidance measures and evaluation during the 5-year surveys (Table 2.1-1).
- **Control:** For species assigned a treatment category of control, SCE is not implementing treatment actions for these species other than routine avoidance measures and evaluation during the 5-year surveys (Table 2.1-1).
- **Eradication:** For species assigned a treatment category of eradication, SCE is not implementing treatment actions for these species since the Project did not contribute to their establishment or propagation. SCE will implement routine avoidance measures and evaluation of these species and evaluate them during the 5-year surveys (Table 2.1-1). SCE has committed to eradicating black locust as described in Section 4.4.2 below.

Appendix C is included to describe general treatment methods that are available for non-routine O&M or for observations resulting from the 5-year surveys that may indicate a Project effect. However, recommended treatment protocols vary by species and can change over time. Therefore, as appropriate specific treatment approaches would be developed in consultation with the INF on a case-by-case basis.

4.4.2. BLACK LOCUST ERADICATION

As described in Section 2.2.2, SCE will implement measures to eradicate black locust within the Project boundary in areas adjacent to and downstream of Plant No. 4, and to minimize potential for expansion.

Eradicated areas will be monitored for a period of 2 years following treatment/removal efforts to ensure that the population has been eradicated. If treatment/removal efforts are successful (i.e., the species is not observed after 2 years of monitoring), then information on the species will be tracked based on the 5-year survey effort. If treatment/removal efforts are not successful, additional treatment/removal will be performed and the population will be monitored for an additional 2 years. SCE will document populations of black locust that may re-invade.

There are no mechanical strategies effective for the control of mature black locust. Hand pulling can remove seedlings, but once underground creeping rhizomes develop, this technique is generally ineffective. Cutting or girdling will result in prolific root suckering.

SCE will implement chemical control by broadcast foliar treatment or application of herbicide to freshly cut stumps; this is the most effective technique for controlling this species. General BMPs for herbicide application, will be followed. Chemical control may include growth regulators (e.g., aminopyralid, clopyralid, picloram, or triclopyr), aromatic amino acid inhibitors (e.g., glyphosate), branched-chain amino acid inhibitors (e.g., imazapyr + glyphosate or imazapyr + metsulfuron), or photosynthetic inhibitors (e.g., hexazinone or tebuthiuron). DiTomaso et al. (2013) provides specific details for herbicide application. Follow-up treatments will be necessary and will be designed and scheduled by the qualified botanist, beginning no more than 3 months following the initial treatment.

5.0 CONSULTATION

5.1. PRE-LICENSE CONSULTATION

This Plan was developed in consultation with the INF and CDFW. SCE provided an early draft version of this Plan to agencies and stakeholders for a 30-day review and comment period. After receiving comments on the draft Plan, SCE incorporated appropriate revisions and worked to develop this Plan. A complete comment response table is included with the FLA as Table 2 in Appendix A, Consultation Record.

5.2. COMPLIANCE CONSULTATION

SCE meets with the INF and CDFW each spring to present the planned O&M activities for the Project for that calendar year. Should any planned activities potentially impact species covered in this Plan, SCE will consult with CDFW and INF following the protocol. SCE meets with INF and CDFW on an as-needed basis throughout the year to discuss the Project and activities; these meetings will continue through the new license period.

6.0 REFERENCES

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ATTACHMENT 1
INVASIVE PLANT SPECIES

Table A1. Invasive Plant Species Reported by Cal-IPC and the USFS

Scientific Name	Common Name	USFS Treatment Strategy	Cal-IPC Rank
<i>Agrostis stolonifera</i>	creeping bent grass		Limited
<i>Ailanthus altissima</i>	tree of heaven	1 – Eradicate	Moderate
<i>Alhagi maurorum</i>	camel thorn		Moderate
<i>Arundo donax</i>	giant reed		High
<i>Asparagus asparagoides</i>	bridal creeper		Moderate
<i>Avena barbata</i>	slender wild oat		Moderate
<i>Avena fatua</i>	wild oat		Moderate
<i>Bassia hyssopifolia</i>	five-hook bassia	3 – Contain	Limited
<i>Brassica nigra</i>	black mustard		Moderate
<i>Brassica rapa</i>	field mustard		Limited
<i>Brassica tournefortii</i>	Sahara mustard		High
<i>Bromus diandrus</i>	ripgut grass	4 – Limited or None	Moderate
<i>Bromus hordeaceus</i>	soft chess	4 – Limited or None	Limited
<i>Bromus japonicus</i>	Japanese brome	4 – Limited or None	Limited
<i>Bromus rubens</i> (formerly <i>Bromus madritensis</i> ssp. <i>Rubens</i>)	red brome	3 – Contain	High
<i>Bromus tectorum</i>	cheat grass	3 – Contain	High
<i>Centaurea diffusa</i>	diffuse knapweed	1 – Eradicate	Moderate
<i>Centaurea melitensis</i>	toçalote		Moderate
<i>Centaurea solstitialis</i>	yellow star-thistle	1 – Eradicate	High
<i>Centaurea stoebe</i> ssp. <i>Micranthos</i>	spotted knapweed	1 – Eradicate	High
<i>Chorizpora tenella</i>	crossflower	4 – Limited or None	--
<i>Cirsium arvense</i>	Canada thistle	1 – Eradicate	Moderate
<i>Cirsium vulgare</i>	bull thistle	3 – Contain	Moderate
<i>Conium maculatum</i>	poison-hemlock		Moderate
<i>Convolvulus arvensis</i>	bindweed	3 – Contain	--
<i>Cortaderia selloana</i>	pampas grass		High
<i>Cynodon dactylon</i>	Bermuda grass		Moderate
<i>Dactylis glomerata</i>	orchard grass		Limited
<i>Descurainia sophia</i>	tansy mustard	4 – Limited or None	Limited
<i>Dipsacus fullonum</i>	wild teasel	2 – Control	Moderate

Scientific Name	Common Name	USFS Treatment Strategy	Cal-IPC Rank
<i>Dipsacus sativus</i>	Fuller's teasel		Moderate
<i>Egeria densa</i>	Brazilian waterweed		High
<i>Elaeagnus angustifolia</i>	Russian olive	2 – Control	Moderate
<i>Elymus caput-medusae</i>	medusa head		High
<i>Erodium cicutarium</i>	redstem filaree	4 – Limited or None	Limited
<i>Fallopia sachalinensis</i>	giant knotweed		Moderate
<i>Festuca arundinacea</i>	tall fescue		Moderate
<i>Festuca myuros</i> (formerly <i>Vulpia myuros</i>)	rattail sixweeks grass	4 – Limited or None	Moderate
<i>Festuca perennis</i>	rye grass		Moderate
<i>Foeniculum vulgare</i>	fennel		Moderate
<i>Geranium purpureum</i>	little robin		Limited
<i>Grindelia squarrosa</i> var. <i>Serrulata</i>	curlycup gumweed	4 – Limited or None	--
<i>Halogeton glomeratus</i>	saltlover	2 – Control	Moderate
<i>Helminthotheca echioides</i>	bristly ox-tongue		Limited
<i>Hirschfeldia incana</i>	short-pod mustard	3 – Contain	Moderate
<i>Holcus lanatus</i>	common velvet grass	3 – Contain	Moderate
<i>Hordeum marinum</i>	Mediterranean barley		Moderate
<i>Hordeum murinum</i>	wall barley	4 – Limited or None	Moderate
<i>Kochia scoparia</i>	kochia		Limited
<i>Lactuca serriola</i>	prickly lettuce	4 – Limited or None	--
<i>Lathyrus latifolius</i>	perennial sweet pea		Watch
<i>Lepidium appelianum</i>	white-top	1 – Eradicate	--
<i>Lepidium chalepense</i>	lens-podded hoary cress	1 – Eradicate	Moderate
<i>Lepidium draba</i>	heart-podded hoary cress	1 – Eradicate	Moderate
<i>Lepidium latifolium</i>	perennial pepperweed	1 – Eradicate	High
<i>Leucanthemum vulgare</i>	ox-eye daisy		Moderate
<i>Linaria dalmatica</i> ssp. <i>Dalmatica</i>	dalmatian toadflax	1 – Eradicate	Moderate
<i>Linaria vulgaris</i>	butter-and-eggs	1 – Eradicate	Moderate
<i>Lotus corniculatus</i>	bird's-foot trefoil	3 – Contain	--
<i>Malva neglecta</i>	common mallow	4 – Limited or None	--
<i>Marrubium vulgare</i>	horehound	3 – Contain	Limited

Scientific Name	Common Name	USFS Treatment Strategy	Cal-IPC Rank
<i>Medicago polymorpha</i>	California burclover		Limited
<i>Melilotus spp.</i>	Sweetclover	3 – Contain	--
<i>Myoporum laetum</i>	myoporum		Moderate
<i>Onopordum acanthium</i>	Scotch thistle		High
<i>Penstemon subglaber</i>	smooth penstemon	3 – Contain	--
<i>Plantago lanceolata</i>	English plantain		Limited
<i>Poa bulbosa</i>	bulbous bluegrass	4 – Limited or None	--
<i>Poa pratensis ssp pratensis</i>	Kentucky blue grass		Limited
<i>Polygonum aviculare</i>	knotweed	4 – Limited or None	--
<i>Polygonum aviculare ssp. Depressum</i> (formerly <i>Polygonum arenastrum</i>)	oval-leaf knotweed	4 – Limited or None	--
<i>Polypogon monspeliensis</i>	rabbitfoot grass	4 – Limited or None	Limited
<i>Ranunculus testiculata</i> (formerly <i>Ceratocephala testiculata</i>)	curveseed butterwort	4 – Limited or None	--
<i>Rhaponticum repens</i> (formerly <i>Acroptilon repens</i>)	Russian knapweed	1 – Eradicate	Moderate
<i>Ricinus communis</i>	castor bean		Limited
<i>Robinia pseudoacacia</i>	black locust	3 – Contain	Limited
<i>Rubus armeniacus</i>	Himalayan blackberry	2 – Control	High
<i>Rumex crispus</i>	curly dock	4 – Limited or None	Limited
<i>Salsola paulsenii</i>	barbwire Russian thistle		Limited
<i>Salsola tragus</i>	Russian thistle	3 – Contain	Limited
<i>Saponaria officinalis</i>	bouncingbet	2 – Control	Limited
<i>Schismus arabicus</i>	Arabian schismus	4 – Limited or None	Limited
<i>Schismus barbatus</i>	Mediterranean grass		Limited
<i>Sisymbrium altissimum</i>	tumble mustard	4 – Limited or None	--
<i>Sisymbrium irio</i>	London rocket		Limited
<i>Sonchus oleraceus</i>	common sow thistle	3 – Contain	--
<i>Spartium junceum</i>	Spanish broom	1 – Eradicate	High
<i>Spergularia rubra</i>	red sand-spurry	4 – Limited or None	--
<i>Tamarix aphylla</i>	athel		Limited
<i>Tamarix ramosissima</i>	saltcedar	2 – Control	High
<i>Tanacetum vulgare</i>	common tansy		Moderate

Scientific Name	Common Name	USFS Treatment Strategy	Cal-IPC Rank
<i>Taraxacum officinale</i>	common dandelion	4 – Limited or None	--
<i>Tragopogon dubius</i>	yellow salsify	4 – Limited or None	--
<i>Tribulus terrestris</i>	puncture vine	2 – Control	Limited
<i>Trifolium repens</i>	white clover	4 – Limited or None	--
<i>Ulmus pumila</i>	Siberian elm	2 – Control	--
<i>Verbascum thapsus</i>	woolly mullein	4 – Limited or None	Limited

USFS: U.S. Forest Service; Cal-IPC: California Invasive Plant Council

ATTACHMENT 2
INVASIVE PLANT SPECIES-LIFE HISTORY

Invasive Plant Species-Life History

Life history information is provided in this Attachment for species known to occur within the Bishop Creek Project license boundary that are listed for eradication or control by the INF (i.e., sweetclover, spotted knapweed, white-top, Himalayan blackberry, saltcedar, puncture vine, and Siberian elm). Guidelines for specific eradication measures were obtained from *Weed Control in Natural Areas in the Western United States* (DiTomaso et al., 2013) and other available sources, as noted.

Over the course of the license period, additional invasive plant species listed for eradication or control may be introduced into the Project boundary or new species may be designated for eradication or control by the INF. An example is black locust, which is included below for background. A periodic review of the INF invasive species list and Cal-IPC inventory will be conducted to determine if new invasive species have potential to occur over the course of the license period.

The INF provides species-specific treatment strategies and methods for additional invasive plant species (USFS, 2019). These strategies will be consulted on a case-by-case basis as determined through consultation with the INF regarding non-routine O&M, or after the 5-year surveys.

Black Locust (Risk Category: Limited)

Black locust is a deciduous tree native to the eastern United States (Jepson Flora Project, 2022). It grows in disturbed places, roadsides, landscaped sites, and many natural communities including riparian areas, canyon slopes, mixed conifer forests, floodplain forests and woodlands; it prefers rich, moist, limestone-derived soils (Cal-IPC, 2022; DiTomaso et al., 2013). Through root sprouts and seedling establishment, this species creates large clonal stands that displace native vegetation. Its seeds, leaves, and bark are toxic to humans and livestock.

Spotted Knapweed (Risk Category: High)

Spotted knapweed is a biennial to short-lived perennial herb native to Europe (Jepson Flora Project, 2022). It occurs in disturbed open sites, grasslands, overgrazed rangelands, roadsides, and logged areas (Cal-IPC, 2022; DiTomaso et al., 2013). The species is highly competitive with native vegetation and forms dense stands that can exclude desirable vegetation and wildlife in natural areas.

Sweetclover (Risk Category: N/A)

Sweetclovers are members of the pea family (Fabaceae) that can flower and fruit anytime from spring through fall. Species include white sweetclover, annual yellow sweetclover, and yellow sweetclover. All three species are usually annuals (i.e., complete their life cycle within a single year), but white sweetclover and yellow sweetclover may also be biennial, meaning they could persist through a second year under suitable conditions.

White-Top (Risk Category: N/A)

White-top is a rhizomatous, perennial herb native to central Asia (Jepson Flora Project, 2022). It occurs in saline soils and fields and develops an extensive system of deep vertical and horizontal roots that vigorously produce new shoots.

Weed Control in Natural Areas in the Western United States (DiTomaso et al., 2013) does not provide specific eradication measures for white-top; however, it provides measures for another non-native member of the genus, perennial pepperweed. Perennial pepperweed has long, thick, vigorously creeping roots.

Himalayan Blackberry (Risk Category: High)

Himalayan blackberry is a shrub native to Eurasia (Jepson Flora Project, 2022). It is a strong competitor that rapidly displaces native plant species and forms thickets with a dense canopy that limits understory vegetation (Cal-IPC, 2022; DiTomaso et al., 2013). In riparian areas, it can prevent access to water sources for livestock and wildlife. It occurs in disturbed, open, moist sites such as canals, ditch banks, fencerows, roadsides, open fields, and riparian zones.

Saltcedar (Risk Category: High)

Saltcedar is a shrub or tree native to Asia (Jepson Flora Project, 2022). It is associated with dramatic changes in geomorphology, groundwater availability, soil chemistry, fire frequency, plant community composition, and native wildlife diversity (Cal-IPC, 2022; DiTomaso et al., 2013). Saltcedar occurs in rivers, lake and pond margins, washes, roadsides, ditches, flats, sand dunes, and desert springs and grows best in alkaline soil but tolerates salinity and acidity.

Puncture Vine (Risk Category: Limited)

Puncture vine is an annual herb native to the Mediterranean (Jepson Flora Project, 2022). It occurs in disturbed places, roadsides, railways, cultivated fields, orchards, vineyards, waste places, and grasslands (Cal-IPC, 2022; DiTomaso et al., 2013). It is a nuisance to humans and a threat to livestock due to saponin compounds in the foliage that can be toxic. The spiny fruits are especially prone to dispersal via clothing, shoes/boots, and vehicle tires.

Siberian Elm (Risk Category: N/A)

Siberian elm is a deciduous tree native to northern Asia (Jepson Flora Project, 2022). It grows in streambanks, washes, bottomland, roadsides, and disturbed areas; germinates readily; and grows rapidly, out-competing native plants and decreasing species diversity (USFS, 2014).

REFERENCES

- California Invasive Plant Council (Cal-IPC). 2022. California Invasive Plant Inventory Database. Berkeley, CA: Cal-IPC. <https://www.cal-ipc.org/plants/inventory>.
- DiTomaso, J.M. et al. 2013. Weed Control in Natural Areas in the Western United States. Weed Research and Information Center, University of California. 544 pp.
- Jepson Flora Project. 2022 (December, Revision 10). Jepson eFlora. Berkeley, CA: The Jepson Herbarium. <http://ucjeps.berkeley.edu/eflora/>.
- U.S. Forest Service (USFS). 2014 (September). Field Guide for Managing Siberian Elm in the Southwest. USFS Southwestern Region.
- U.S. Forest Service (USFS). 2019. Forest-Wide Invasive Plant Treatment Project Environmental Assessment. April 29, 2019.

ATTACHMENT 3

General Invasive Plant Treatment BMPs

General Invasive Plant Treatment Best Management Practices

The following guidelines are generally applicable to all invasive plant species under most circumstances.

Non-Chemical

- Precautions for non-chemical control care will be taken to avoid fuel spills if using gasoline-powered equipment, especially near aquatic areas.
 - Invasive plant species will be removed/treated before flowering/setting seed to minimize spread and buildup of a seed bank. If removal by hand occurs when the plant is setting seed, personnel will cut and bag the seed stalks before removing the entire plant to minimize dispersal of seed during the removal process.

Guidelines for Herbicide Use

- Herbicide will be applied at the lowest possible rate for effective control.
- Herbicide selection will address site-specific needs. Depending on the target species, herbicide application may include foliar spraying, soil application, basal bark spraying, cut-stump treatment with herbicide, or girdling with herbicide. The method used will be tailored to the specific target species to ensure effectiveness.
- Herbicides will not be used within Riparian Conservation Areas (RCAs), to the extent feasible. If an invasive species is detected within an RCA, the INF will be contacted to discuss the need for treatment and treatment options.
- To apply an unrestricted herbicide (e.g., Roundup Pro, Rodeo, Aquamaster), the applicator will have a qualified applicator's license and will have undergone documented herbicide application training.
- Herbicides will not be used in water, to the extent feasible. Appropriate buffers will be established for aquatic areas if an herbicide that is not approved for aquatic use is required. If treatment is necessary in or near aquatic situations, only a U.S. Environmental Protection Agency-approved glyphosate-based systemic herbicide approved for aquatic use will be applied. Herbicide to be used near aquatic environments will be selected in consultation with U.S. Forest Service watershed specialist.
- Care will be taken to avoid herbicide drift and limit injury to non-target species. This may include spot spraying instead of broadcast spraying; use of a brightly colored, non-toxic, water-soluble dye during applications; and spraying only when weather conditions are conducive to effective uptake of the herbicide by the targeted species (e.g., sunny, dry, and when plants are actively growing) and when wind conditions are such that herbicide drift is non-existent (5 miles per

hour or less). Herbicide spray applications will not occur when wind speeds exceed label restrictions.

- Care will be taken to avoid spills of herbicide, especially near aquatic areas. Mixing of herbicide, filling of wands, and rinsing of equipment will not occur near water, RCAs, or other sensitive sites. Cleaning and disposal of herbicide containers will follow proper regulations. A spill cleanup kit will be readily available whenever herbicides are transported or stored. Proper personal protective equipment will be worn or carried by the applicator at all times when using herbicides. Herbicide mixing/storage and equipment fueling stations will be established that consist of plastic sheeting placed on ground with sandbags to prevent any spills from escaping the area. Herbicide recommendations were made during the development of this Plan. Over the course of the license, new herbicides may be developed. SCE will utilize the best available measures at that time for future control efforts.
- Prior to the application of herbicides a pre-application survey for wildlife will be performed to prevent herbicide contact with wildlife.
- Herbicides will be used as seasonally appropriate. Typically, the best time to treat woody plants is in the fall.

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project

(FERC Project No. 1394)



RECREATION RESOURCES

MANAGEMENT PLAN



JUNE 2022

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

RECREATION RESOURCES MANAGEMENT PLAN

Southern California Edison
1515 Walnut Grove Ave
Rosemead, CA 91770

June 2022

Support from:

Kleinschmidt

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Figure 1.1-1 Project Vicinity. 2

List of Attachments

Attachment A Draft Facilities and Amenities Tables

Acronyms

A

ADA	Americans with Disabilities Act
ABAAS	Architectural Barriers Act Accessible Standards

B

Bishop Creek Project	Bishop Creek Hydroelectric Project
BLM	US Bureau of Land Management

C

CDFW	California Department of Fish and Wildlife
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F

FERC	Federal Energy Regulatory Commission
FLA	Final License Application
FSORAG	Forest Service Outdoor Recreation Accessibility Guidelines
FSTAG	Forest Service Trail Accessibility Guidelines

I

INF	Inyo National Forest
-----	----------------------

K

kW	Kilowatt
----	----------

M

Msl	mean sea level
-----	----------------

MWh Megawatt-hour

N

NFS National Forest System

O

O&M operation and maintenance

P

Plan Recreation Resources Management Plan

PME protection, mitigation, and enhancement

Project Bishop Creek Hydroelectric Project

R

REC 1 Recreation Use and Needs Study

REC 2 Recreation Facilities Condition and Public Accessibility Study

RRIP Recreation Resources Implementation Plan

S

SCE Southern California Edison Company

U

USDA United States Department of Agriculture

USFS United States Forest Service

1.0 INTRODUCTION

Southern California Edison Company (SCE) prepared this Recreation Management Plan (Plan) to accompany their Final Application for a New License from the Federal Energy Regulatory Commission (FERC) for the Bishop Creek Hydroelectric Project (Project) No. 1394. The Plan provides a structured approach to address Project related recreation needs, principally around Project facilities and reservoirs.

1.1 PROJECT LOCATION

Bishop Creek Project is located in the Owens Valley, along the eastern Sierra Nevada Mountains, (Figure 1.1-1). Most of the hydro-generation facilities have been in existence since the early 1900s. Project facilities include powerhouses¹, dams, impoundments (including South Lake and Lake Sabrina), diversions, weirs, outbuildings, valve houses, access roads, and a flowline. The Project's facilities are sited along Bishop Creek and its tributaries including South Fork, Middle Fork, and Green Creek, plus Birch Creek and McGee Creek north of Bishop Creek. Bishop, Birch, and McGee creeks are tributaries to the Owens River. Project facilities are situated across privately and federally-held properties (federal lands include those held and managed by the US Forest Service [USFS] and US Bureau of Land Management [BLM]). Land uses adjacent to the Project vary, and include residential, grazing, public recreation, and federally-designated wilderness land, among others.

The Project area is one of moderate to steep ridge and valley topography. Elevations within the drainages range from approximately 4,000-feet above mean sea level (msl) to over 13,000-feet above msl. Bishop Creek is a major stream with a total drainage area of approximately 70 square-miles, flowing northeastward approximately 28 miles from its headwaters in the Sierra Nevada to its confluence with the Owens River at the city of Bishop. The North, Middle and South Forks of Bishop Creek originate in nearby glacial basins separated by ridges. South Lake and Lake Sabrina are the major storage reservoirs in the watershed.

¹ Note to reader – in this document, the term “powerhouse” is used as a general reference to the structure; however, when referencing a specific structure, the term “Plant” is used.

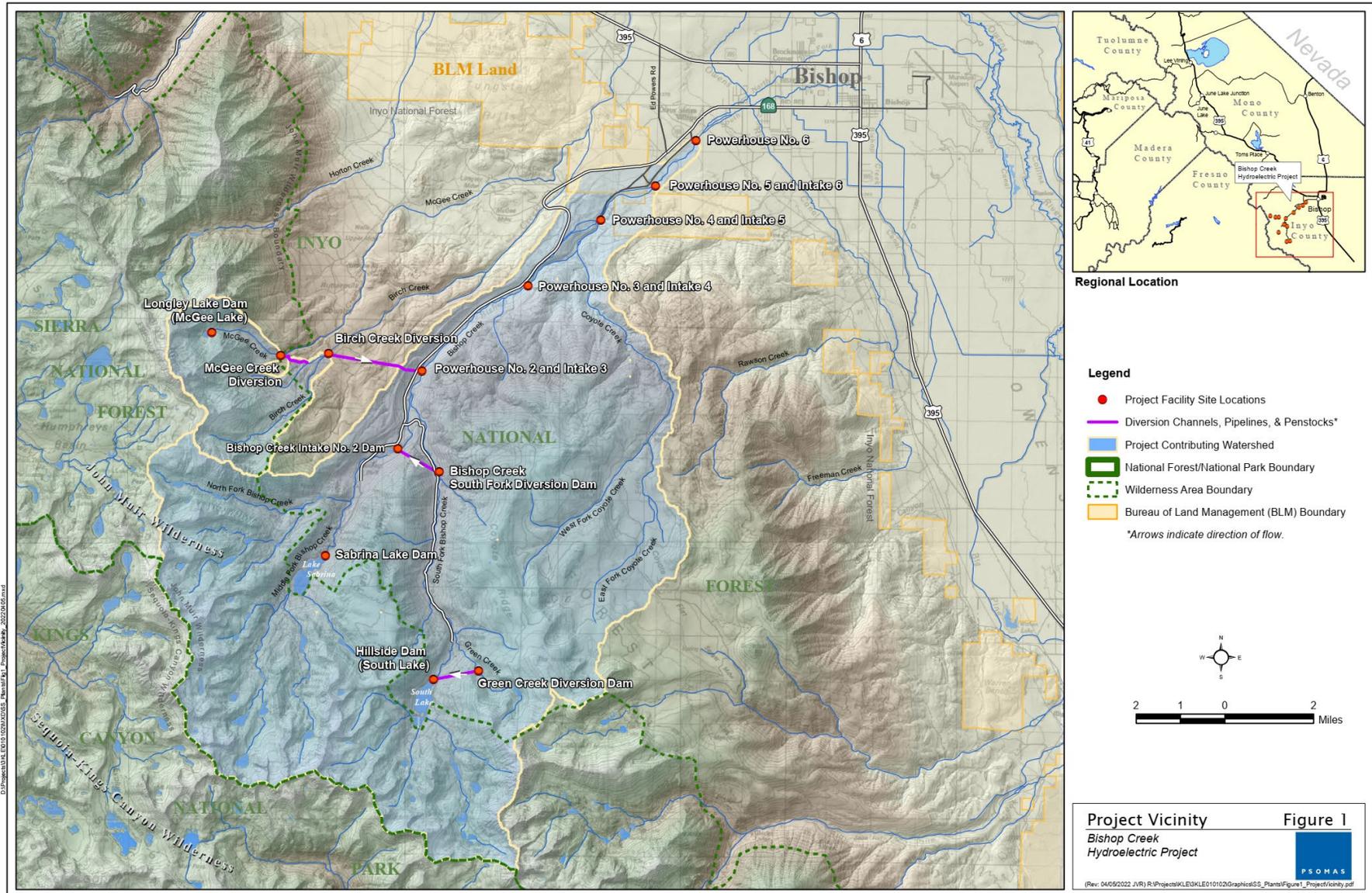


Figure 1.1-1 Project Vicinity.

1.2 PROJECT FACILITIES

SCE is the licensee, owner, and operator of the Bishop Creek Project FERC Project No. 1394 located on Bishop Creek near the community of Bishop in Inyo County, California. Bishop Creek Project facilities are located within the Inyo National Forest (INF) and the John Muir Wilderness (managed by the U.S. Forest Service [USFS]), and includes lands managed by the BLM and private lands. The Bishop Creek Project consists of five developments: Power Plant No. 2 through No. 6 on the Middle Fork of Bishop Creek and three primary storage reservoirs that include South Lake, Lake Sabrina and Longley Lake.

The Bishop Creek Project has a total dependable generating capacity of 28,925 kilowatts (kW) and has an average annual energy production of 128,039 megawatt hours (MWh). Stored water is transported through a series of connecting flowlines and penstocks to the powerhouses and returned to the river through the tailrace at Plant No. 6. Under the existing Project license, the FERC Project boundary encompasses federal lands administered by either the U.S. Department of Agriculture (USDA) Forest Service or the BLM, and SCE-owned or private land. SCE does not propose any changes to Project operations and maintenance (O&M) and does not propose any new construction.

For additional information about these features and their operations, please see Exhibit E of the 2022 Final License Application (FLA), available at www.ferc.com or www.sce.com/bishopcreek.

2.0 PURPOSE AND INTENT

The Recreation Resources Management Plan was prepared to accompany the new FERC license application for the Bishop Creek Project. The primary purpose and intent of this Plan is to describe the protection, mitigation, and enhancement (PME) measures for recreation resources that SCE proposes to implement during the new license term and to document consultation with state and federal agencies and stakeholders regarding those measures. The facilities described in this Plan are located on USFS and SCE lands. Accordingly, this Plan was developed primarily in consultation with the USFS through the filing of the FLA in June 2022. Other stakeholders, including California Department of Fish and Wildlife (CDFW), were involved in developing a stocking management PME to support recreational fishing needs that are separate from this Plan (PME-3, Appendix B of Exhibit E).

3.0 GOALS OF THE RECREATION RESOURCES IMPLEMENTATION PLAN

The goal of this Recreation Management Plan is to set forth a plan and schedule for developing a comprehensive Recreation Resources Implementation Plan (RRIP) to be developed in consultation with the USFS.

Within two years of license issuance, SCE will develop an RRIP that meets the following goals:

- Provide adequate and safe public access
- Make provisions for adequate access to recreational facilities that consider the needs of persons with disabilities, and without regard to race, color, sex, religious creed or national origin
- Coordinate recreation planning and management efforts with INF to balance public access and use of recreation facilities with natural and cultural resource management objectives
- Support cost-effective recreation facilities that benefit the recreating public

4.0 RECREATION RESOURCES AND PROPOSED MEASURES

All developed recreation facilities within or adjacent to the Bishop Creek Project are owned by USFS and managed by USFS or its concessionaires. In consultation with USFS, a number of recreation facilities were identified for inclusion in this Plan based on the results of the Recreation Use and Needs (REC 1) and the Recreation Facilities Condition and Public Accessibility (REC 2) studies as described in the FLA. This includes recreation facilities and informal uses associated with the three Project reservoirs (South Lake, Lake Sabrina, and Intake No. 2 Reservoir). Attachment A provides proposed recreation facilities and amenities tables describing those facilities that were determined to be Project-related and included in a future license for the Project.

Generally, the studies identified existing facilities in need of repair or replacement but also identified the need for a more programmatic approach to resolve issues, that include improved parking availability and circulation for all reservoirs. These studies identified the need for actions related to the preclusion of informal uses (e.g., unauthorized camping activities at the south end of Lake Sabrina and South Lake or unsafe use of Green Creek Diversion Pipeline as a connector trail), where management actions will be taken. As such, no facility-specific improvements or management actions are proposed at this time but will be informed by a landscape architect review and analysis to be conducted within the first 2 years of FERC's issuance of a new license for the Project.

These early exploratory actions will inform detailed PME measures and provide an implementation schedule that will be developed in consultation with stakeholders and included in the RRIP. To the extent that future resource modifications be considered under the RRIP, SCE conducted resource surveys (wildlife, botanical, and cultural) to assess resource impacts that encompass Project lands.

4.1 IMPLEMENTATION ACTIVITIES AND SCHEDULE

Within 2 years of the new license issuance, SCE will develop the RRIP in consultation with the USFS and other stakeholders. Stages of development and ensuing implementation of the RRIP would consist of planning, design, and construction activities. Initial planning activities would include the procurement of a qualified landscape architect to address the following exploratory actions:

- Programmatically address parking capacity, flow, and management at Lake Sabrina, South Lake, and Intake No. 2 Reservoir to increase total capacity among all reservoirs, resolve conflicting uses, and address universal accessibility
- Conduct a facility condition and public accessibility assessment of campsite facilities at Lower Intake No. 2 Campground and assess the need and/or feasibility of up to ten additional campsites at this location
- Conduct a feasibility and needs analysis for renovation or reconstruction, as needed of Lake Sabrina and/or South Lake boat ramps and related facilities, including universal accessibility

The landscape architect would collect applicable USFS standards and existing inventory data to incorporate into the development of both a draft and final report, including conceptual drawings for facility modifications, as needed. Results of the above analyses would be discussed with the USFS and other relevant stakeholders to determine 1) priorities for actions, design, and construction; 2) cost share responsibilities for capital improvements and ongoing O&M; and 3) a schedule for those improvements, all of which would be recorded in the RRIP and filed with FERC for approval. All early exploratory field work, consultation with relevant stakeholders, planning and design, and development of the RRIP is scheduled to be completed within 2 years of license issuance. It is anticipated that most construction activity would be completed during the first 5 to 10 years of the new license; for those items that are currently in excellent condition the project would be revisited or replaced 10 to 15 years into a new license. A more detailed schedule will be prepared following early exploratory field work and development of the RRIP.

In general, existing recreation facilities proposed for reconstruction would be reconstructed in-kind to provide the same level of development and visitor comfort while meeting current, applicable federal and state guidelines that exist during the design and construction phase for these facilities. If planned construction activities are scheduled to begin more than 3 years after USFS design approval, the design would be revisited and updated as necessary to ensure compliance with current, applicable federal and state guidelines and reapproved by the USFS. In some cases, the existing facility design would be adjusted to achieve objectives such as incorporating measures to address any recreation-related impacts to environmental resources, increasing capacity, or redirecting recreational use. Before the design is prepared for reconstruction of the recreation facilities located on National Forest System (NFS) land, SCE will meet with the USFS to review design and functionality based on current use patterns. Reasonable modifications will be made to the facility design to address the functionality of the facility regarding current and projected future use and compliance of the facility with current design standards.

4.2 REGULATORY REQUIREMENTS AND GUIDANCE DOCUMENTS

All recreation facilities designed, constructed, or reconstructed on SCE-owned lands are required to comply with most current guidelines for buildings and facilities covered by the Americans with Disabilities Act (ADA) of 1990² and Title 24 of the California Code of Regulations Code³ (Physical Access Regulations). All recreation facilities designed, constructed, or reconstructed on NFS lands are required to comply with applicable accessibility standards and guidelines (Architectural Barriers Act Accessible Standards⁴

² Standards that apply to places of public accommodation, commercial facilities, and state and local government facilities. As of this date the most current guidelines are provided in the 2010 ADA Standards of Accessible Design (2010 Standards) (DOJ, 2010).

³ Building standards codes designed to comply with the requirements of ADA and state statutes.

⁴ Standards that apply to all facilities covered by the Architectural Barriers Act of 1968 except residential facilities under the purview of the Department of Housing and Urban Development.

[ABAAS], Forest Service Outdoor Recreation Accessibility Guidelines⁵ [FSORAG], and Forest Service Trail Accessibility Guidelines [FSTAG]).

The FSORAG and FSTAG provide guidance for maximizing the accessibility of outdoor recreation areas and trails in the NFS, while protecting the unique characteristics of their natural setting. Both guidelines include conditions for an exception and general exceptions that may be applied to some specific technical requirements. Guidance and documentation in accordance with the practices described in the FSORAG and FSTAG must be followed when applying conditions for exception.

Section 504 of the Rehabilitation Act of 1973 requires that no person be denied access to a program or activity just because the person has a disability. This Act requires that any existing facility on NFS land that is entered by employees or the public to participate in the program or activity inside that facility is required to comply with the applicable accessibility standards and guidelines.

Renovation or new facilities design will follow guidance provided in Forest Service Built Environment Image Guide (USDA Forest Service, 2001).

4.3 RECREATION RESOURCES IMPLEMENTATION PLAN

4.3.1 OBJECTIVES OF THE RECREATION RESOURCES IMPLEMENTATION PLAN

To meet the goals identified in 3.0, the RRIP will meet the following objectives:

- Programmatically address parking constraints at Lake Sabrina, South Lake, and Intake No. 2 Reservoir by employing a qualified landscape architect to accomplish the following:
 - Maximize parking capacity for day-use activities
 - Prioritize reconfiguration of existing facility footprints
 - Add parking capacity where space allows
 - Focus on combined parking capacity among all reservoirs to achieve desired metrics
 - Address parking conflicts (day use, overnight, and trailer parking conflicts; pedestrian and vehicular traffic conflicts).
 - Identify solutions for managing parking capacity on peak days
- Determine which facilities to repair or replace at Lake Sabrina, South Lake, and Intake No. 2 Reservoir – including the improvement of facilities to meet universal accessibility and FSORAG standards – based on previous facility condition and

⁵ Guidelines to incorporate the Outdoor Developed Area Accessibility Guidelines developed by the Access Board and ensure the application of equivalent or higher guidelines, in order to comply with other existing Forest Service policies, including universal design.

public accessibility reports, results of landscape architect analysis, and in consultation with the USFS.

- Address informal uses (e.g., camping, hiking) at Lake Sabrina, South Lake, and Intake No. 2 Reservoir, as identified in previous facility condition and public accessibility reports and in consultation with the USFS.
- Assess the need for and feasibility of developing up to ten additional campsites at Intake No. 2 Reservoir, to be determined in early exploratory actions by a landscape architect following license issuance. Need, feasibility, and priority will be considered, in consultation with the USFS, when determining the timing of any proposed improvements.
- When planning rehabilitation of specific recreation facilities, evaluate if recreation resources are compatible with other resource management plans and take appropriate steps to address any inconsistencies.
- Prioritize improvements and develop a schedule for implementation.
- Describe SCE's ongoing responsibilities for maintenance and/or monitoring of recreation facilities within a new license term.

4.3.2 CONTENTS OF THE RECREATION RESOURCES IMPLEMENTATION PLAN

The RRIP will include the following sections, at a minimum:

- **Introduction.** Introductory information, including the purpose and objectives of the RRIP.
- **Existing Recreation Resources.** Description of existing recreation resources and facilities included in the RRIP.
- **Proposed Recreation Measures.** Description of all recreation measures to be implemented in the RRIP, including those related to facility improvements/repair, new construction, management activities, and O&M activities/responsibilities.
- **Implementation of Schedule.** Schedule for implementation of all RRIP activities, including those related to facility improvements/repair, new construction, management activities, and O&M activities/responsibilities.
- **Treatments for Resource Impacts Related to Recreation Use.** Description of measures to address recreation-related resource impacts, including best practices for any restoration, education, or management efforts to address informal uses or for proposed construction activities. Specific attention for plantings buffering, screening, and enhancing any planned site improvements. All efforts must be compatible with other resource management plans with appropriate steps taken to address any inconsistencies.

- **Recreation Monitoring Program.** If required, a recreation monitoring program to monitor recreation use, needs, and impacts and a plan to address results over the new license term.
- **Annual Recreation Coordination Meeting and Plan Revision.** Details of the process for annual consultation to assess the need for future RRIP revisions.
- **Consultation History.** Documentation of all consultation, reviews, and approvals related to RRIP development.
- **Project Recreation Facilities/Amenities Tables and Design or As-Built Site Plan Drawings.** As applicable, facilities/amenities tables will be developed according to FERC requirements. Any proposed design or as-built drawings available at the time of filing of the RRIP will be included.

SCE meets with the USFS and CDFW on an as-needed basis throughout the year to discuss the Project and implementation activities. SCE will continue to consult with agency staff on an as-needed basis.

5.0 REFERENCES

U.S. Department of Agriculture. (USDA) Forest Service, 2001).
https://www.ada.gov/2010ADASTandards_index.htm.

Department of Justice (DOJ). 2010. Americans with Disabilities Act Standards for Accessible Design. U.S. Department of Justice. Washington D.C. September. Accessed at https://www.ada.gov/2010ADASTandards_index.htm

Forest Service (USDA, Forest Service). 2001. The Built Environment Image Guide for the National Forests and Grasslands. USDA, Forest Service, FS-710, September. Accessed December 5, 2017: https://www.fs.fed.us/recreation/programs/beig/01_frontmatter.pdf.

ATTACHMENT A
PROPOSED FACILITIES AND AMENITIES TABLES

Table 1 Proposed Project Recreation Facilities Table^a

Recreation Site Name	Recreation Facilities
Intake No. 2 Day Use Area (Facilities Owned by USFS)	<p>Intake No. 2 Fishing Pier: ADA fishing pier (concrete ramp and wood pier) Intake No. 2 Bank Fishing (Informal): Informal bank fishing, primarily along SCE access road on northern shoreline Intake No. 2 Picnic Area: 2 picnic tables with BBQ grills Infrastructure: Approximately 20 head-in parking stalls (± 24 ft x 200 ft of earthen/crushed rock); pre-cast concrete, single occupancy pit toilet (ADA compliant); recycling receptacles; dumpster</p>
Lower Intake No. 2 Campground (Facilities Owned by USFS)	<p>Lower Intake No. 2 Campground: 5 walk-in campsites, each with a picnic table, fire pit, and bear locker Infrastructure: Approximately 12 head-in parking stalls (± 24 ft x 200 ft of earthen/crushed rock); CMU block, single occupancy pit toilet; water hydrant; kiosk</p>
Lake Sabrina Recreation Area (Facilities Owned by USFS)	<p>Lake Sabrina Boat Launch: Single lane, concrete boat ramp; 2 floating boat slips/docks; 2 fixed gangways; fish cleaning station Lake Sabrina Boat Landing: Marina building operated by a USFS concessionaire Inlet Trail (Informal): Informal trail leading from Lake Sabrina Boat Landing approximately 0.5 miles to the mid-lake peninsula Lake Sabrina Tailrace Fishing Access (Informal): Informal bank fishing below the dam and along the access road Lake Sabrina Reservoir Fishing Access (Informal): Informal bank fishing along Inlet Trail Sabrina Basin Trailhead: Trailhead with kiosk providing recreation and safety information. Approximately 600 feet of trail from trailhead to the spillway that is maintained by SCE for O&M access. Infrastructure: Approximately 30 informal roadside parking stalls (earthen) along the access road; 24 parking stalls (asphalt) in a lower lot; 36 stalls (asphalt) in an upper lot; CMU block, double occupancy pit toilet; recycling receptacles; trash receptacles; 2 dumpsters</p>
South Lake Recreation Area (Facilities Owned by USFS)	<p>South Lake Boat Launch: Double lane, concrete boat ramp; floating boat slip/dock South Lake Landing: Marina building operated by a USFS concessionaire Weir Lake Fishing Access (Informal): Informal bank fishing below the dam and above Weir Lake weir South Lake Reservoir Fishing Access (Informal): Informal bank fishing adjacent to the upper parking lot and Bishop Pass Trailhead South Lake Picnic Area (Lower): 3 picnic tables adjacent to the boat ramp South Lake Picnic Area (Upper): 2 picnic tables adjacent to upper parking lot and Rainbow Pack Station Trailhead Infrastructure: 5 pull-in parking stalls (asphalt) at Weir Lake; 15 trailer parking stalls (asphalt) across from boat launch; 8 parking stalls and a CMU block, double occupancy pit toilet near boat launch; 86 parking stalls (asphalt), a pre-cast concrete, double occupancy pit toilet (ADA compliant), recycling receptacles, trash receptacles, dumpster, and 6 food lockers and kiosk adjacent to Bishop Pass Trailhead</p>

^a Developed in accordance with FERC’s July 2014 Project Recreation Facilities Tables and As-Built Site Plan Drawing Guidance document;
Note: CMU = concrete masonry units

Table 2 Draft Project Recreation Amenities Table^a

Project No.	Development Name	Recreation Amenity Name	Recreation Amenity Type	Amenity Status	Latitude	Longitude	FERC Citation & Date ^b
P-1394	Bishop Creek 2	Intake No. 2 Fishing Pier	Reservoir Fishing	Constructed - Improvements Pending	37.24826	-118.585736	TBD
P-1394	Bishop Creek 2	Intake No. 2 Bank Fishing (Informal)	Reservoir Fishing (Informal)	Informal Use - Improvements Pending	37.24818	-118.584081	TBD
P-1394	Bishop Creek 2	Intake No. 2 Picnic Area	Picnic Area	Constructed - Improvements Pending	37.2478	-118.586603	TBD
P-1394	Bishop Creek 2	Lower Intake No. 2 Campground	Campground	Constructed - Improvements Pending	37.24731	-118.586667	TBD
P-1394	Bishop Creek 2	Lake Sabrina Boat Launch	Boat Launch	Constructed - Improvements Pending	37.21231	-118.61387	TBD
P-1394	Bishop Creek 2	Lake Sabrina Boat Landing	Marina	Constructed - Improvements Pending	37.21241	-118.614007	TBD
P-1394	Bishop Creek 2	Inlet Trail (Informal)	Trail (Informal)	Informal Use - Improvements Pending	37.21258	-118.614035	TBD
P-1394	Bishop Creek 2	Lake Sabrina Tailrace Fishing Access (Informal)	Tailrace Fishing (Informal)	Informal Use - Improvements Pending	37.21322	-118.61126	TBD
P-1394	Bishop Creek 2	Lake Sabrina Reservoir Fishing Access (Informal)	Reservoir Fishing (Informal)	Informal Use - Improvements Pending	37.21196	-118.61452	TBD
P-1394	Bishop Creek 2	Sabrina Basin Trailhead	Trailhead	Constructed - Improvements Pending			TBD
P-1394	Bishop Creek 2	South Lake Boat Launch	Boat Launch	Constructed - Improvements Pending	37.17184	-118.565773	TBD
P-1394	Bishop Creek 2	South Lake Landing	Marina	Constructed - Improvements Pending	37.17167	-118.565842	TBD
P-1394	Bishop Creek 2	Weir Lake Fishing Access (Informal)	Tailrace Fishing (Informal)	Informal Use - Improvements Pending	37.17601	-118.563718	TBD
P-1394	Bishop Creek 2	South Lake Reservoir Fishing Access (Informal)	Reservoir Fishing (Informal)	Informal Use - Improvements Pending	37.16815	-118.566446	TBD

P-1394	Bishop Creek 2	South Lake Picnic Area (Lower)	Picnic Area	Constructed - Improvements Pending	37.17189	-118.56586	TBD
P-1394	Bishop Creek 2	South Lake Picnic Area (Upper)	Picnic Area	Constructed - Improvements Pending	37.16998	-118.565664	TBD

^a Developed in accordance with FERC’s July 2014 Project Recreation Facilities Tables and As-Built Site Plan Drawing Guidance document

^b Order requiring and/or approving the inclusion of such recreation amenity into the Project license

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

FINAL LICENSE APPLICATION

APPENDIX C

SOIL UNITS IN THE PROJECT AREA MAP SERIES

June 2022

Support from:

Kleinschmidt

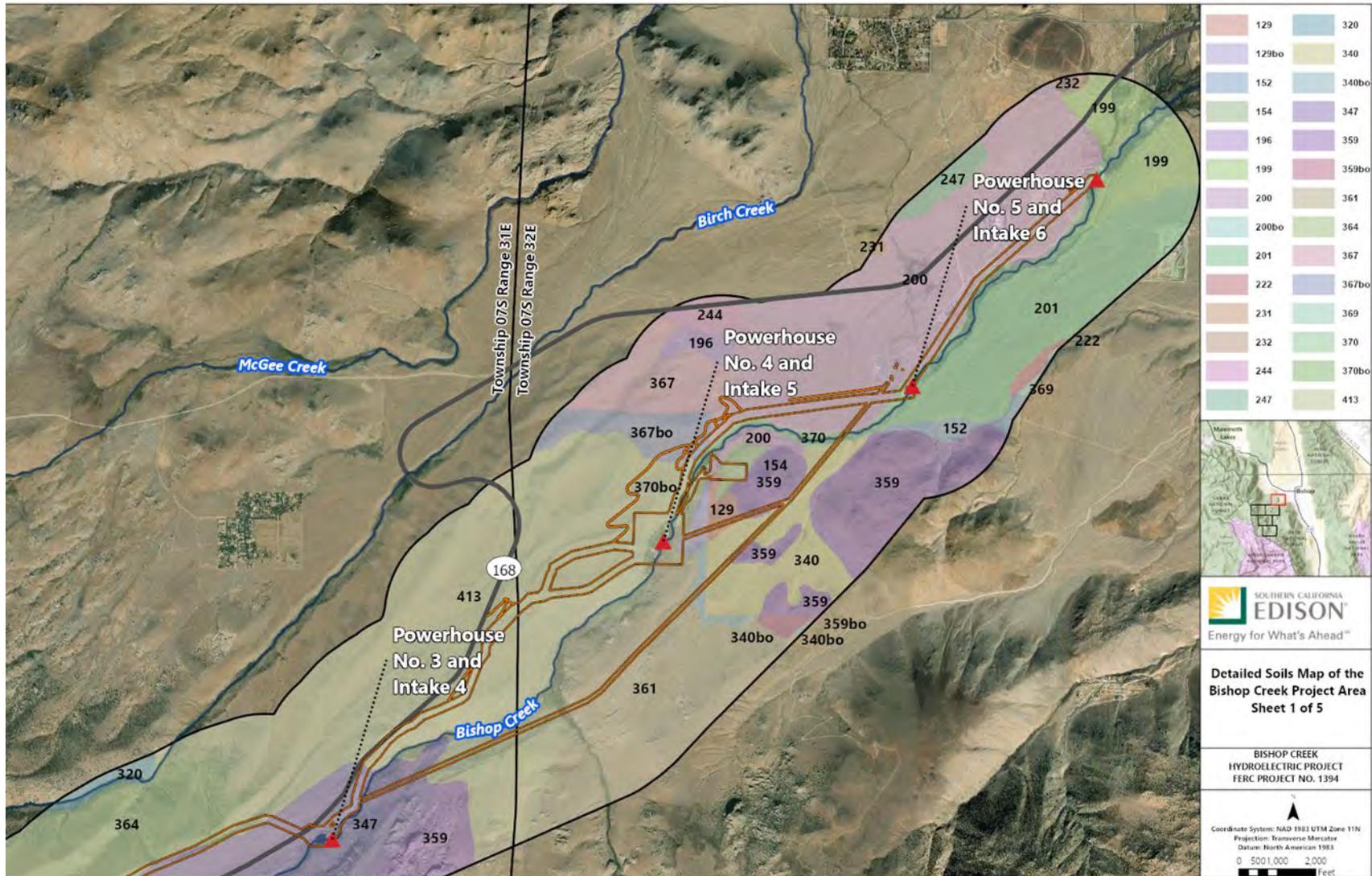


Figure B-1 Soil Units in the Project Area, 1 of 5

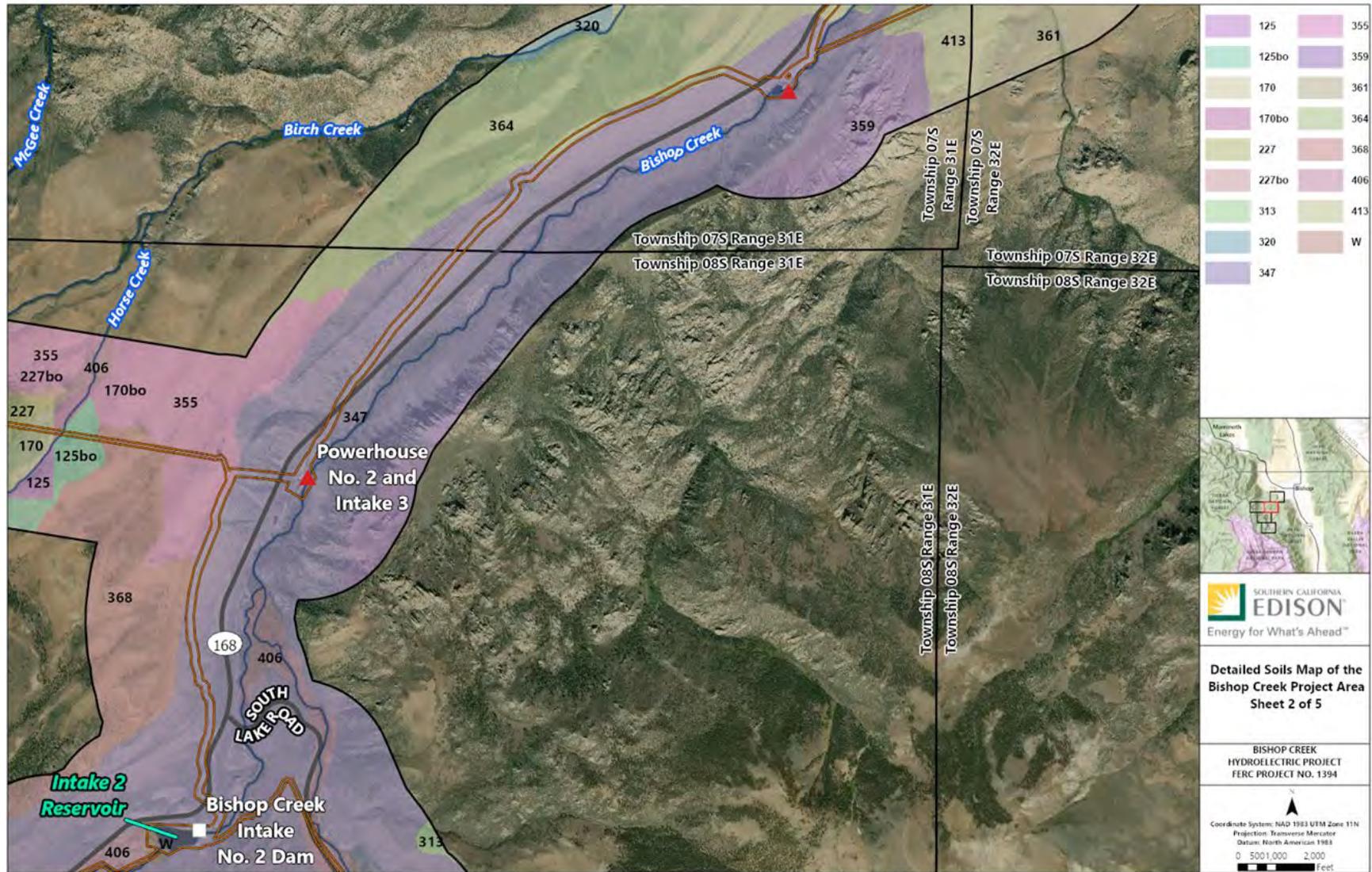


Figure B-2 Soil Units in the Project Area, 2 of 5

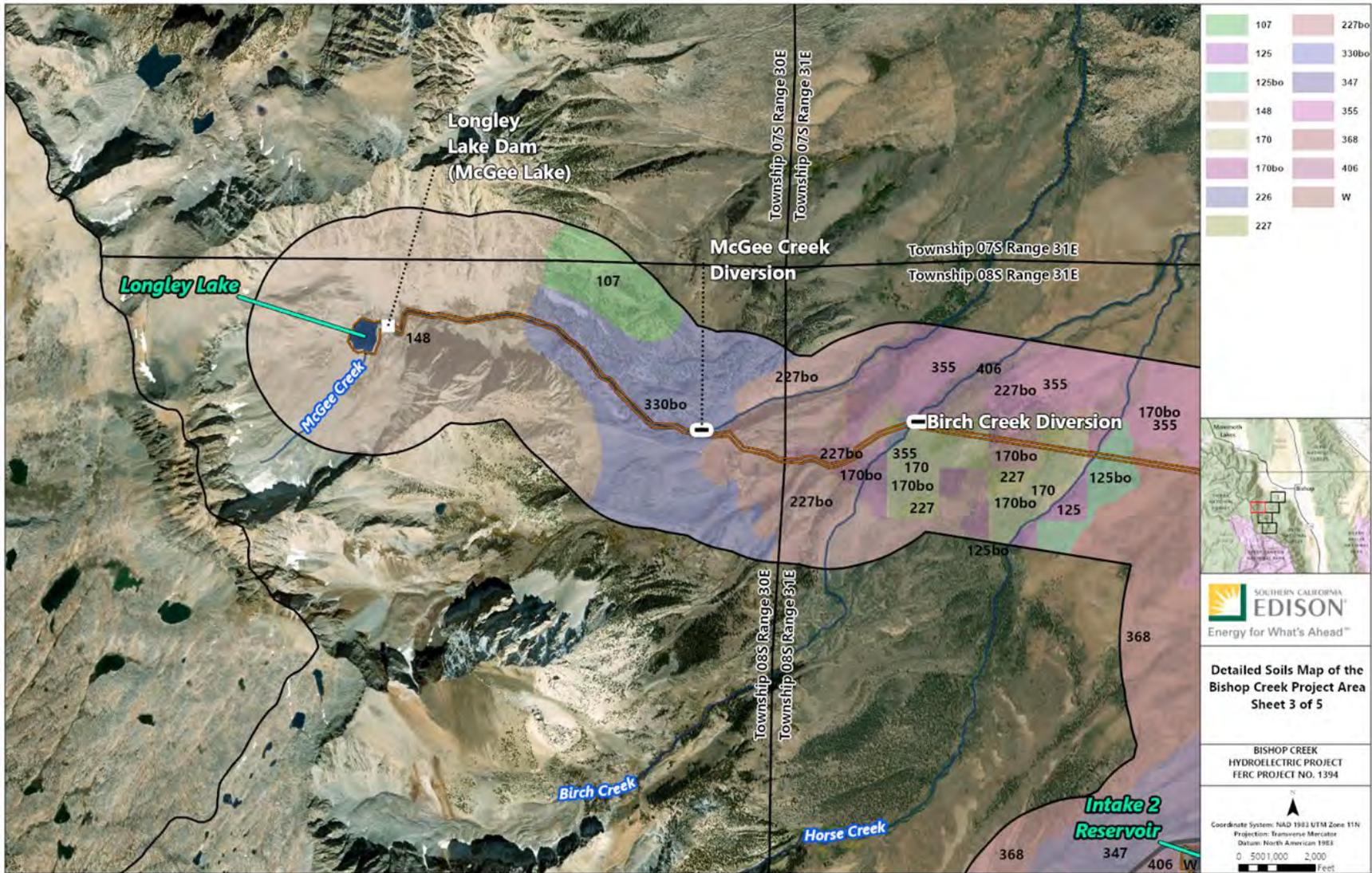


Figure B-3 Soil Units in the Project Area, 3 of 5

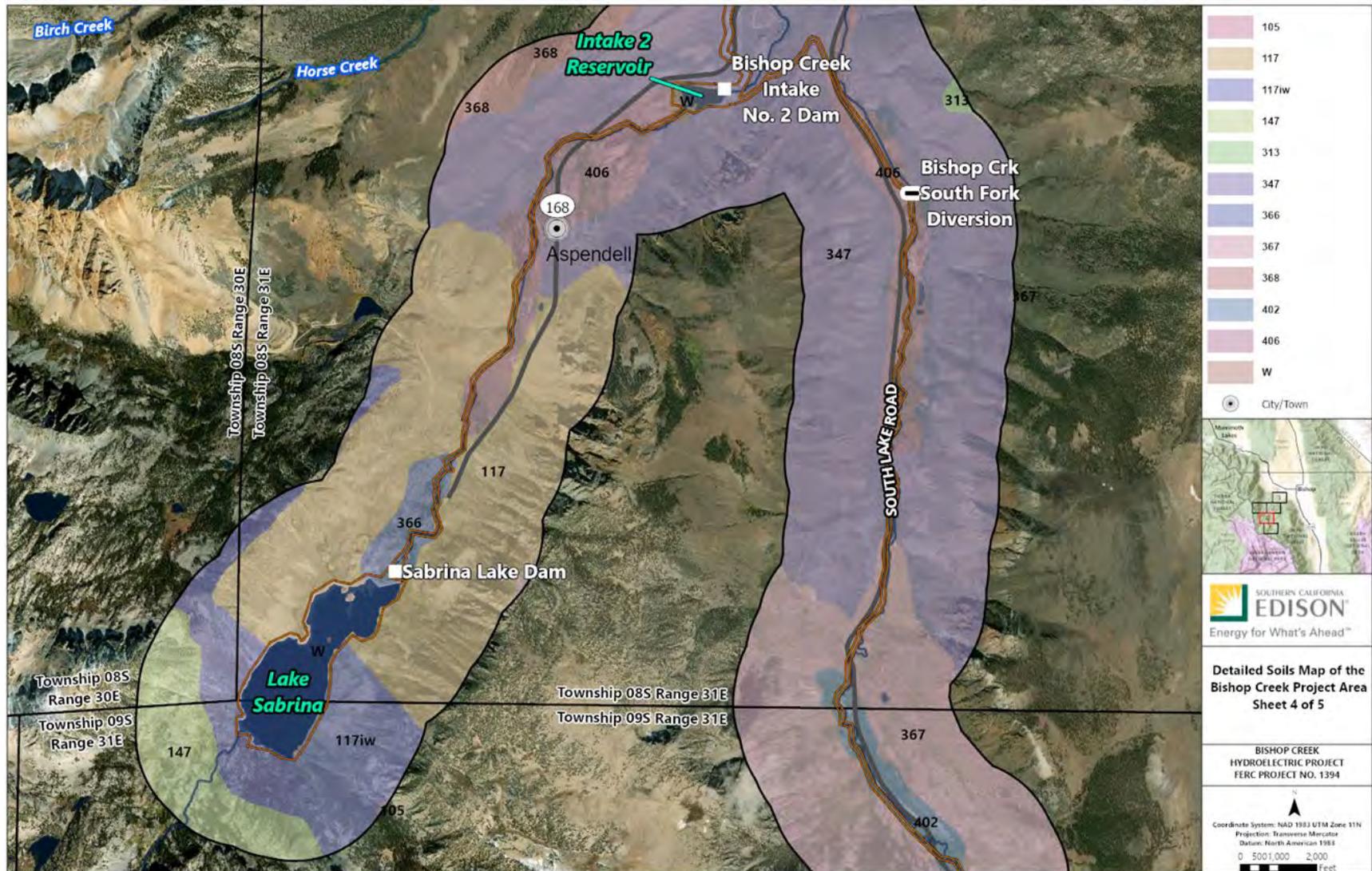


Figure B-4 Soil Units in the Project Area, 4 of 5

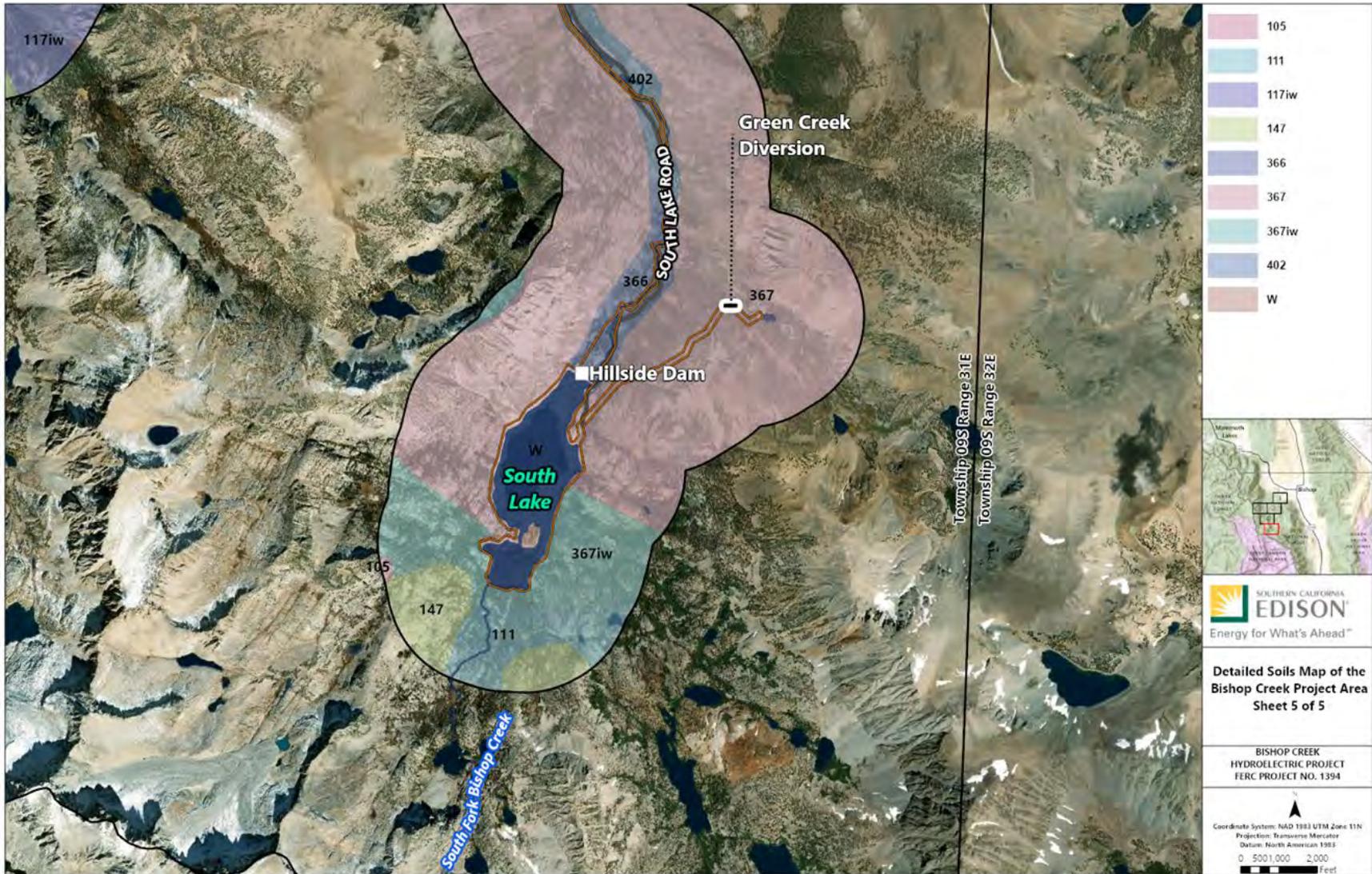


Figure B-5 Soil Units in the Project Area, 5 of 5

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

FINAL LICENSE APPLICATION

APPENDIX D

FLOW DURATION CURVES

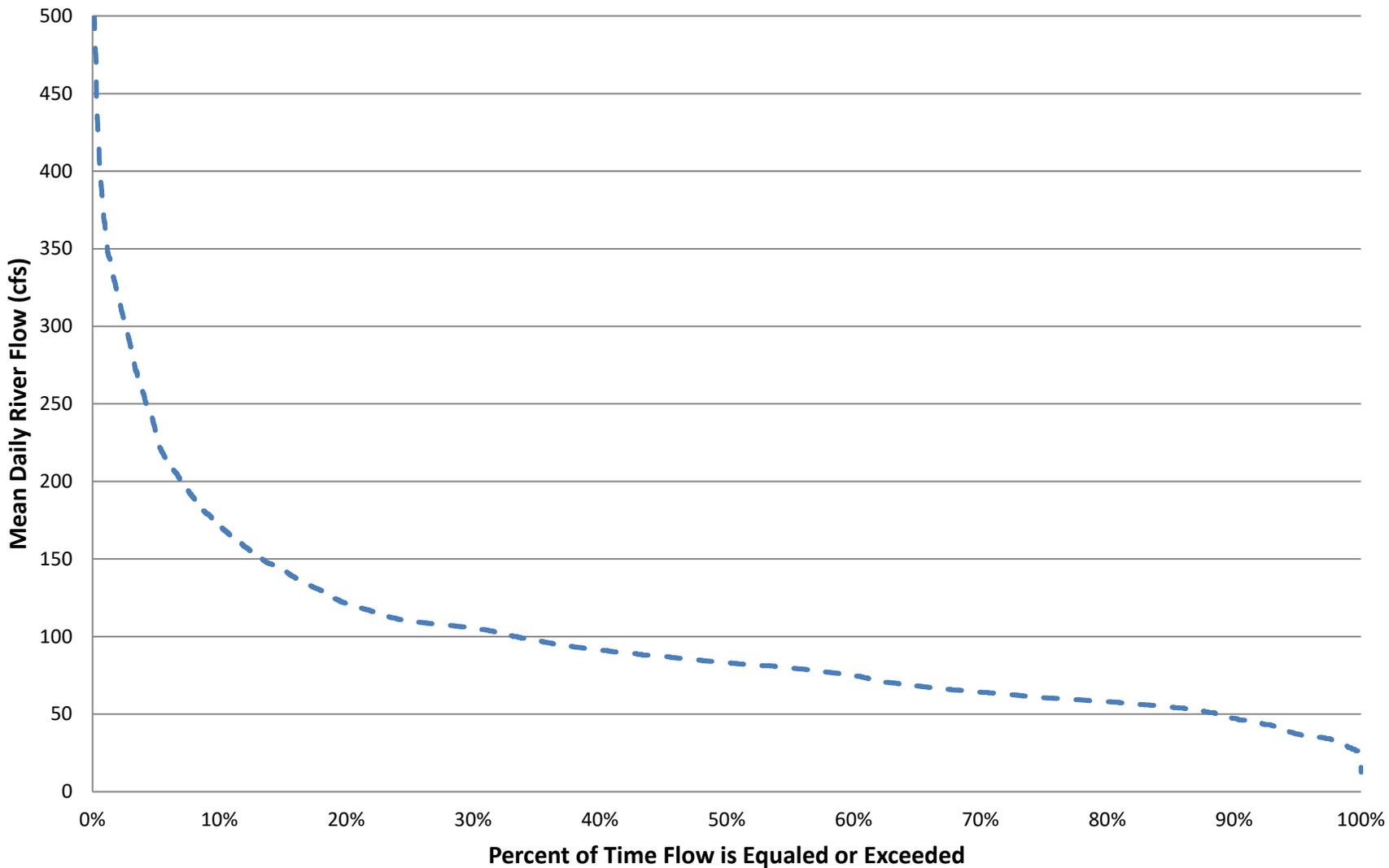
June 2022

Support from:

Kleinschmidt

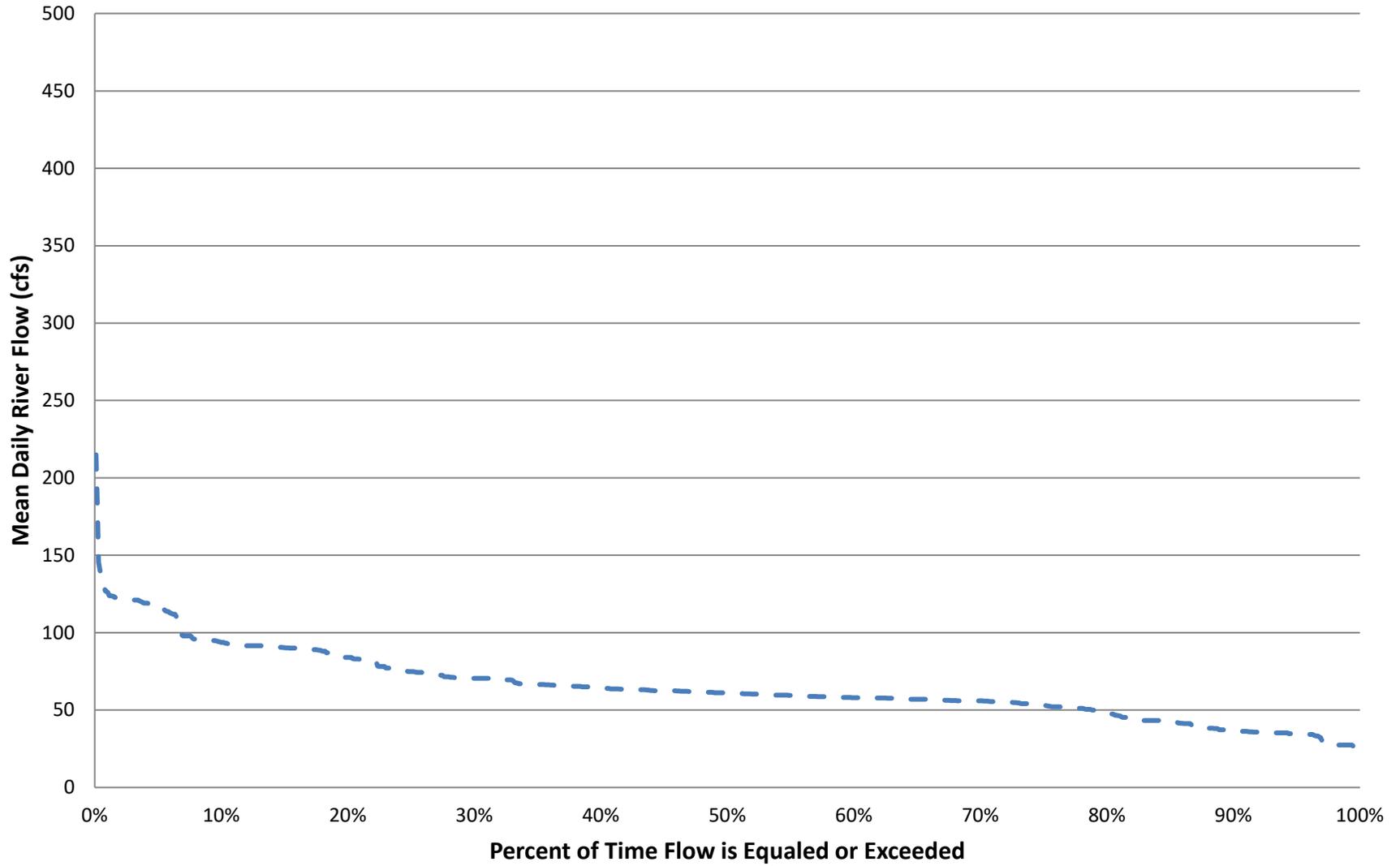
Bishop Creek near Bishop, CA Annual Flow Duration Curve

(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



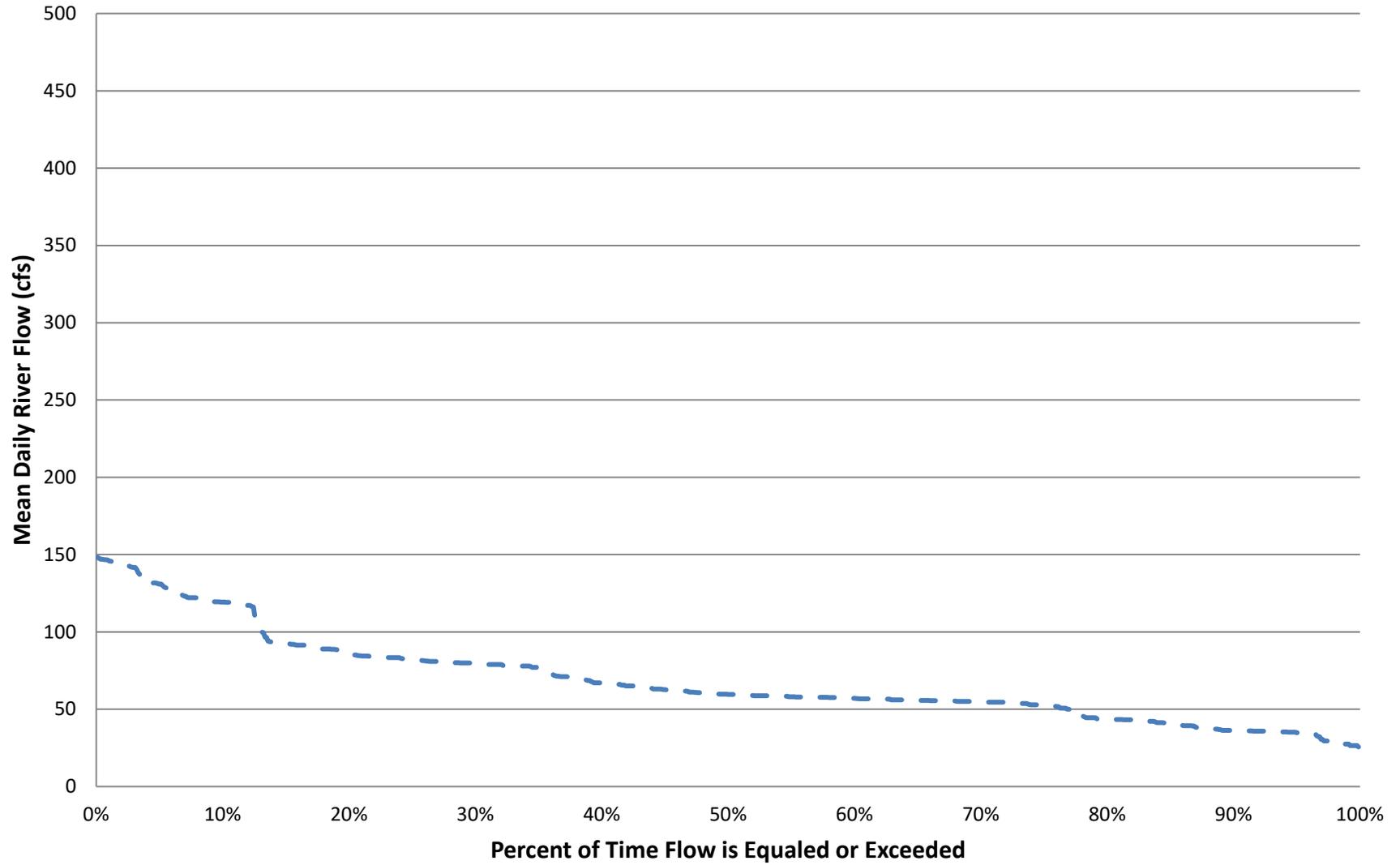
Bishop Creek near Bishop, CA January Flow Duration Curve

(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA February Flow Duration Curve

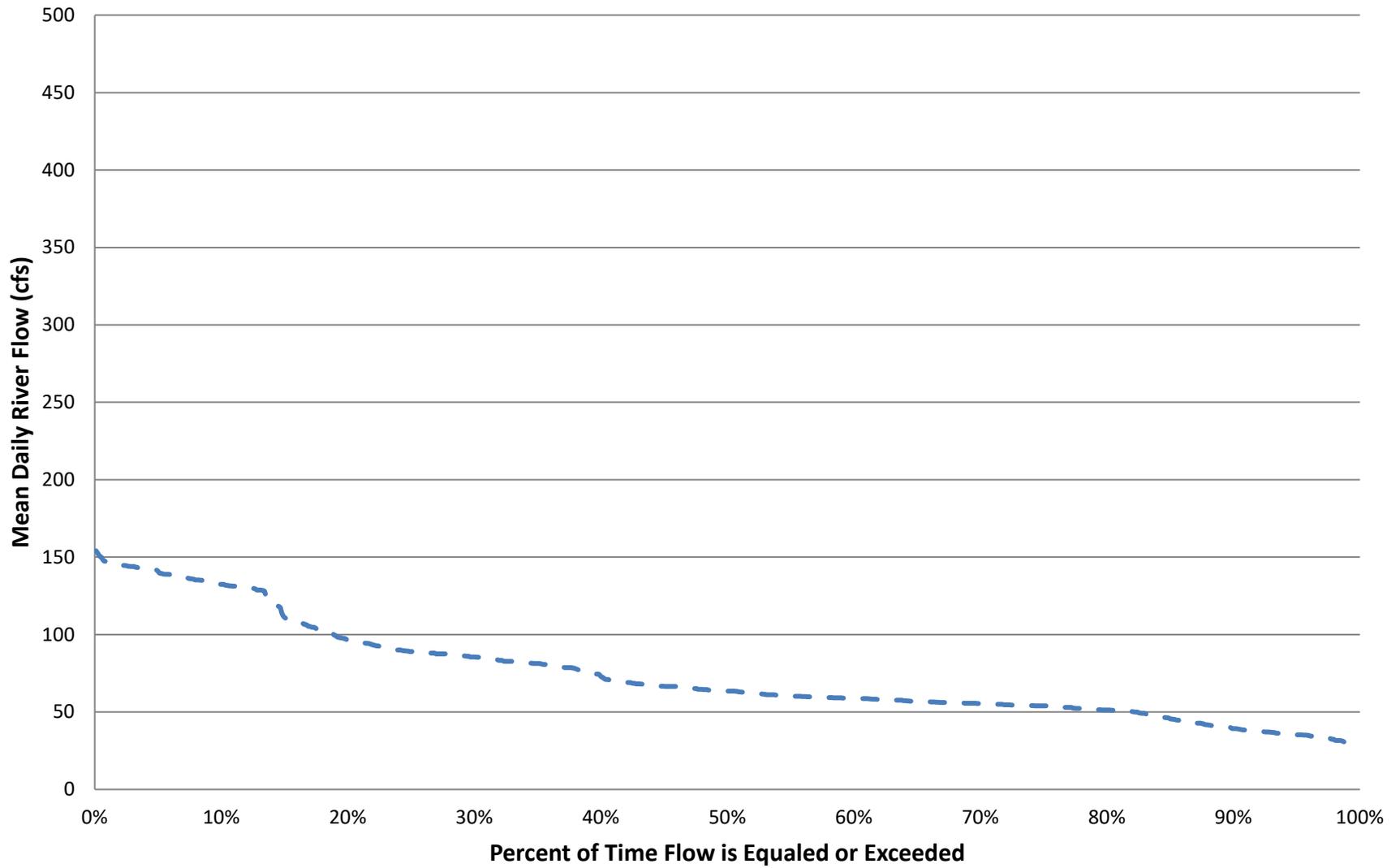
(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA

March Flow Duration Curve

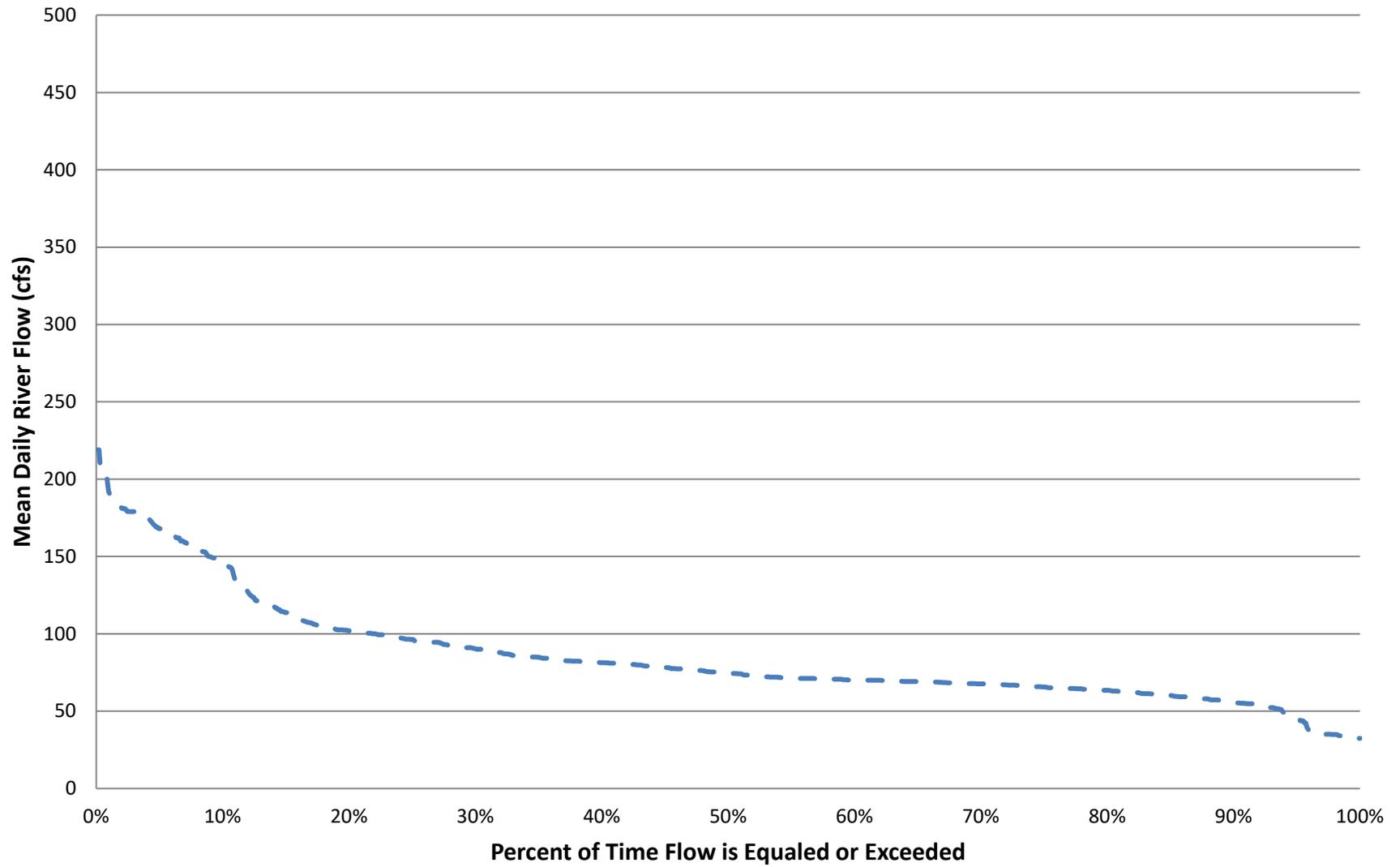
(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA

April Flow Duration Curve

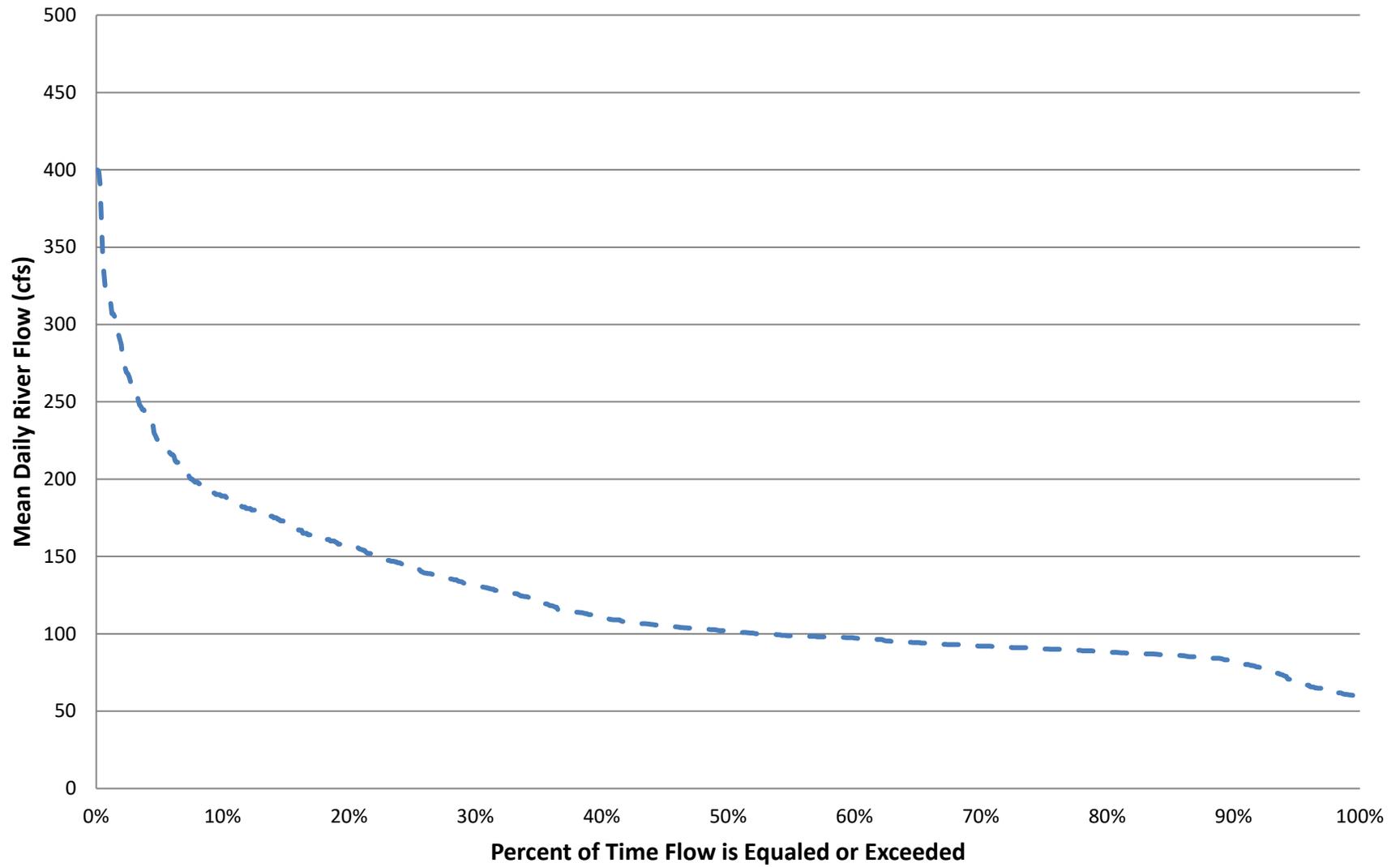
(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA

May Flow Duration Curve

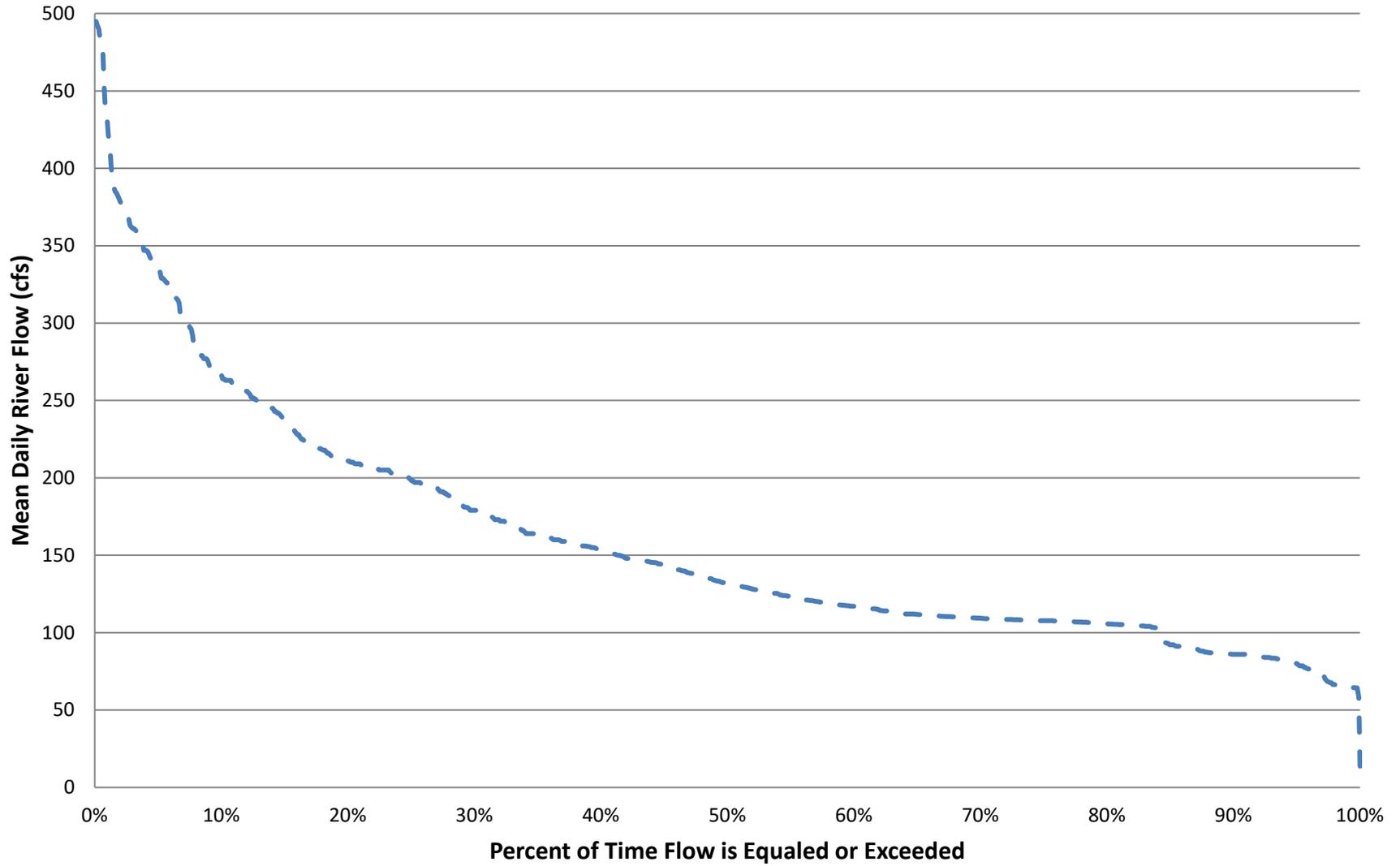
(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA

June Flow Duration Curve

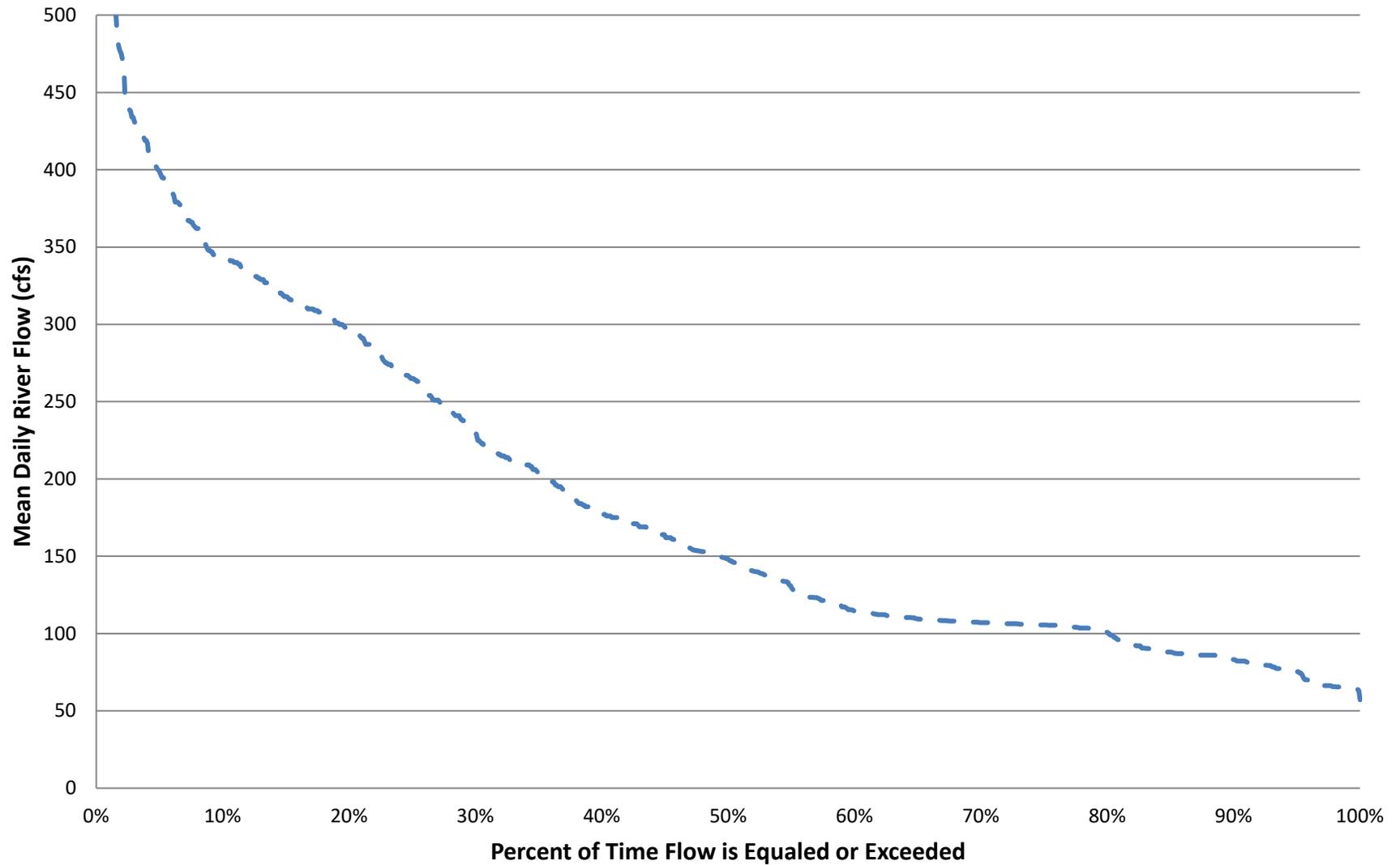
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Bishop Creek near Bishop, CA

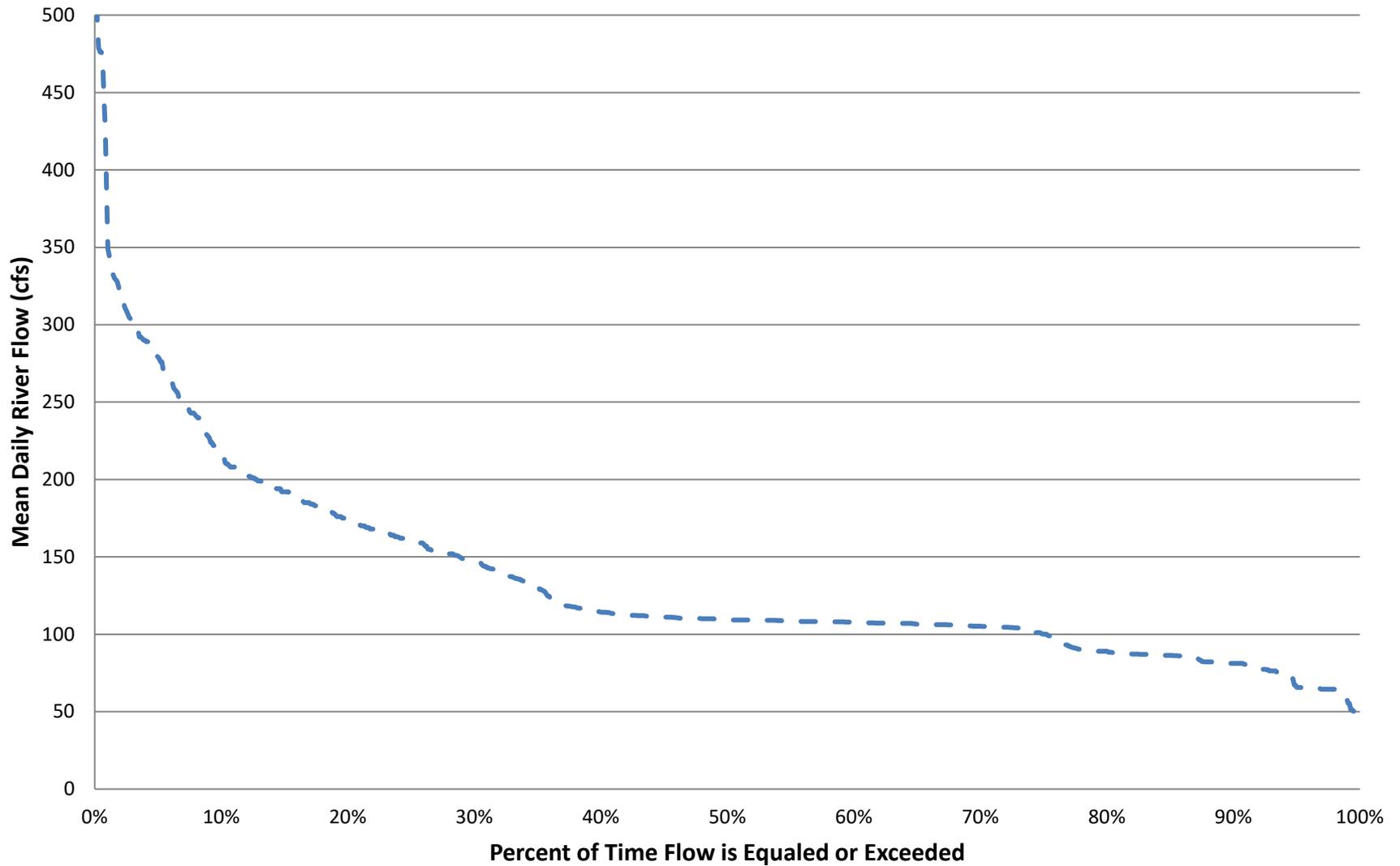
July Flow Duration Curve

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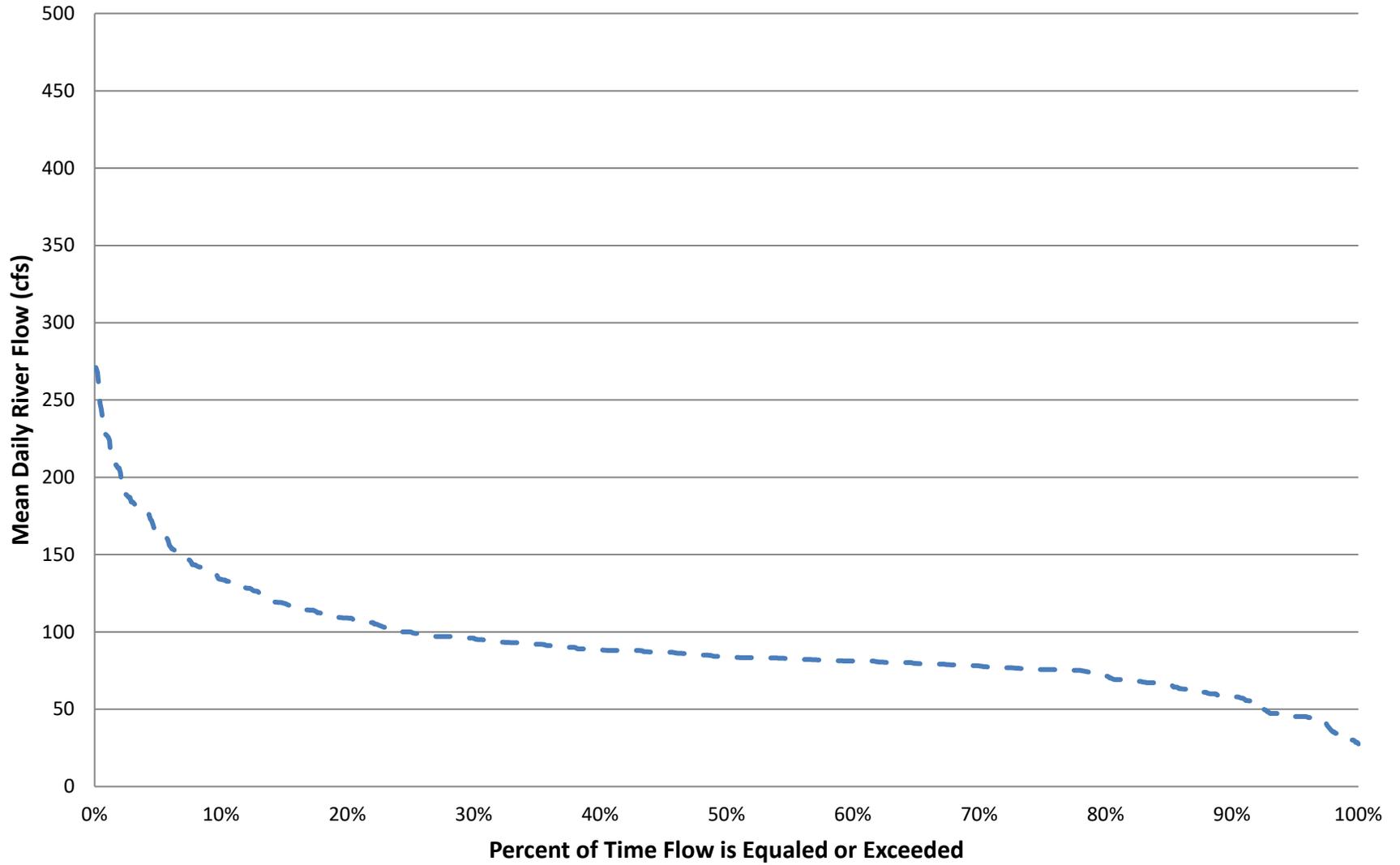
Bishop Creek near Bishop, CA August Flow Duration Curve

(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



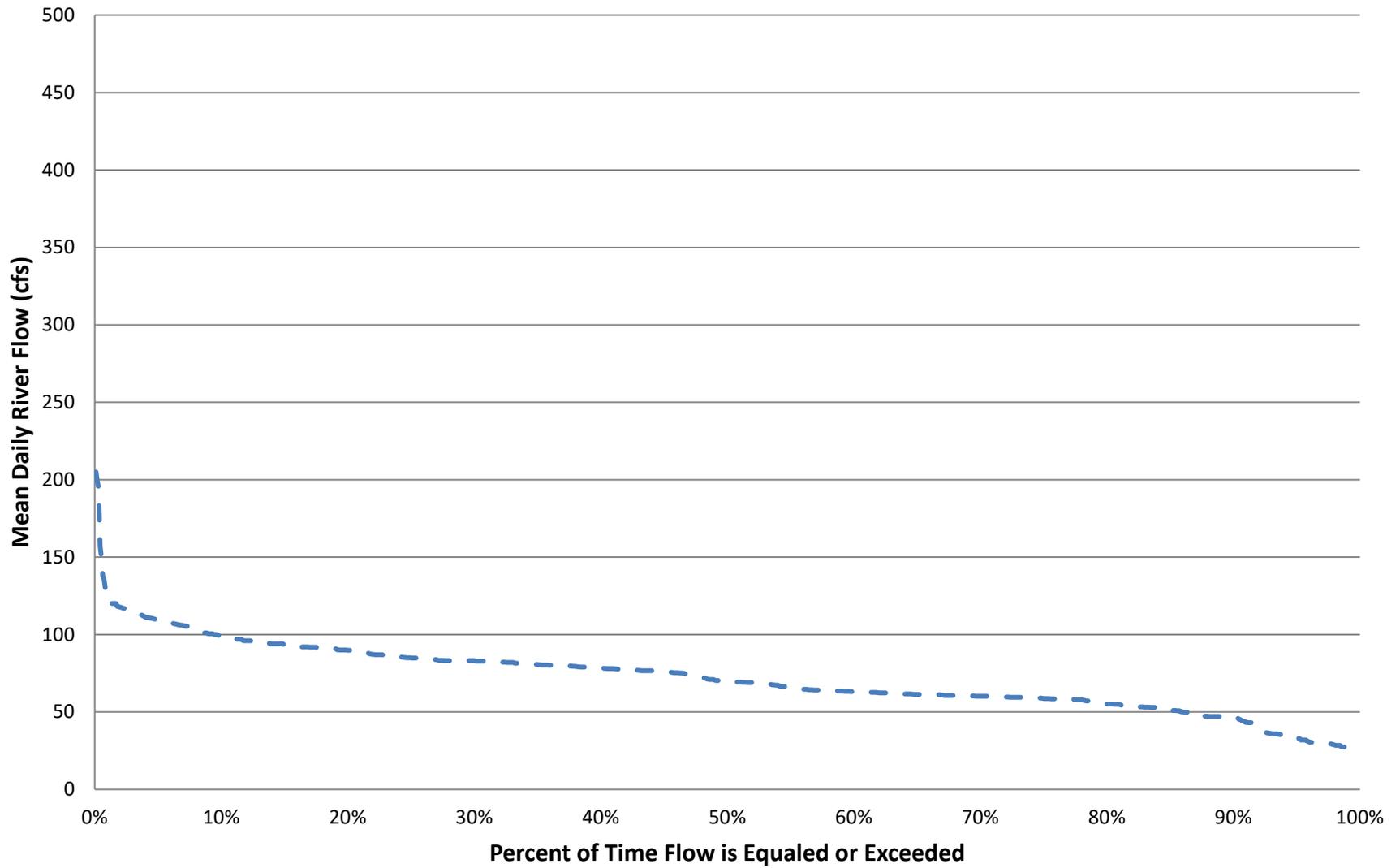
Bishop Creek near Bishop, CA September Flow Duration Curve

(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA October Flow Duration Curve

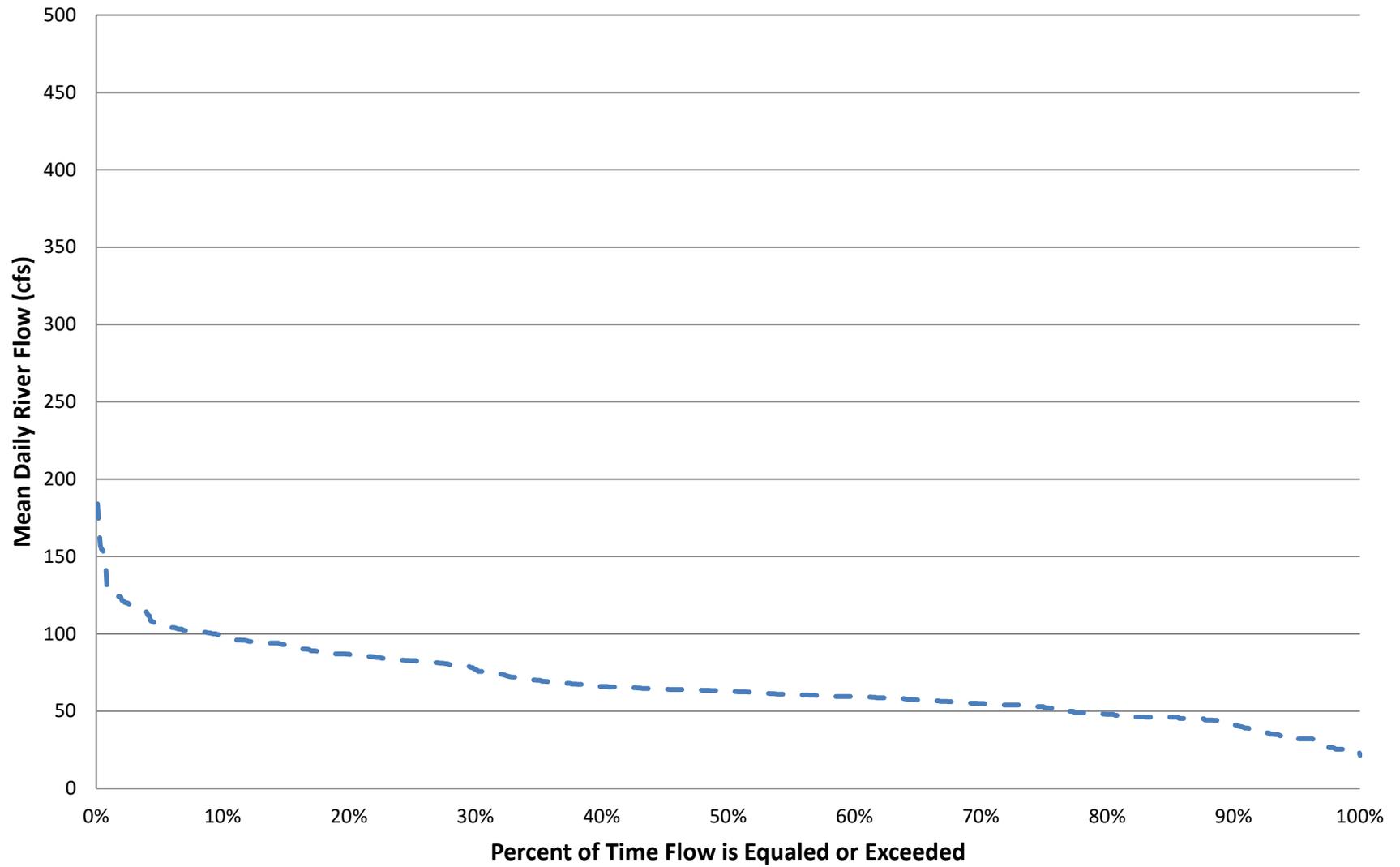
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Bishop Creek near Bishop, CA

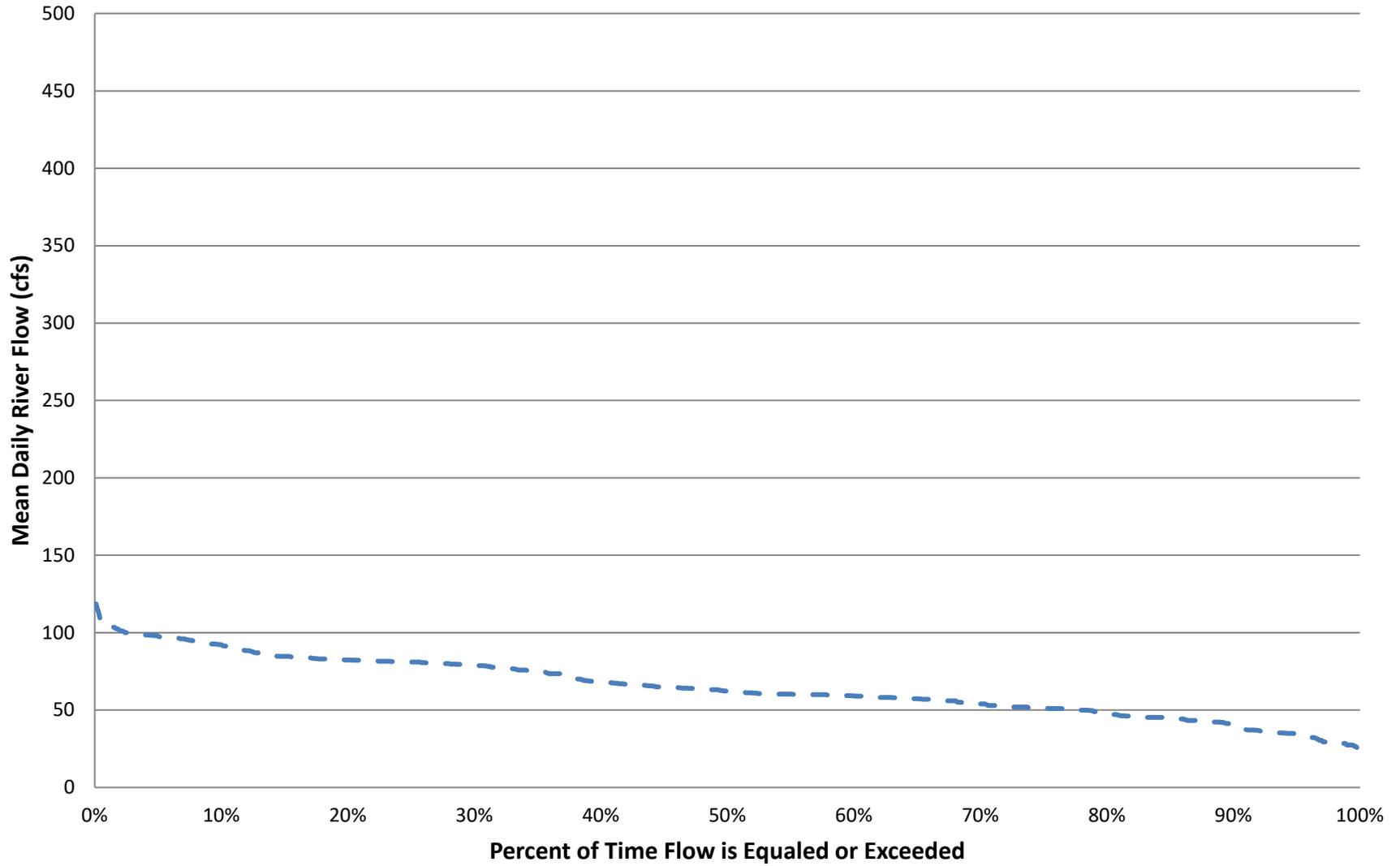
November Flow Duration Curve

(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



Bishop Creek near Bishop, CA December Flow Duration Curve

(USGS Gage Nos. 10271200 & 10271060, Period of Record 10/01/1989 - 09/30/2020)



SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

FINAL LICENSE APPLICATION

APPENDIX E

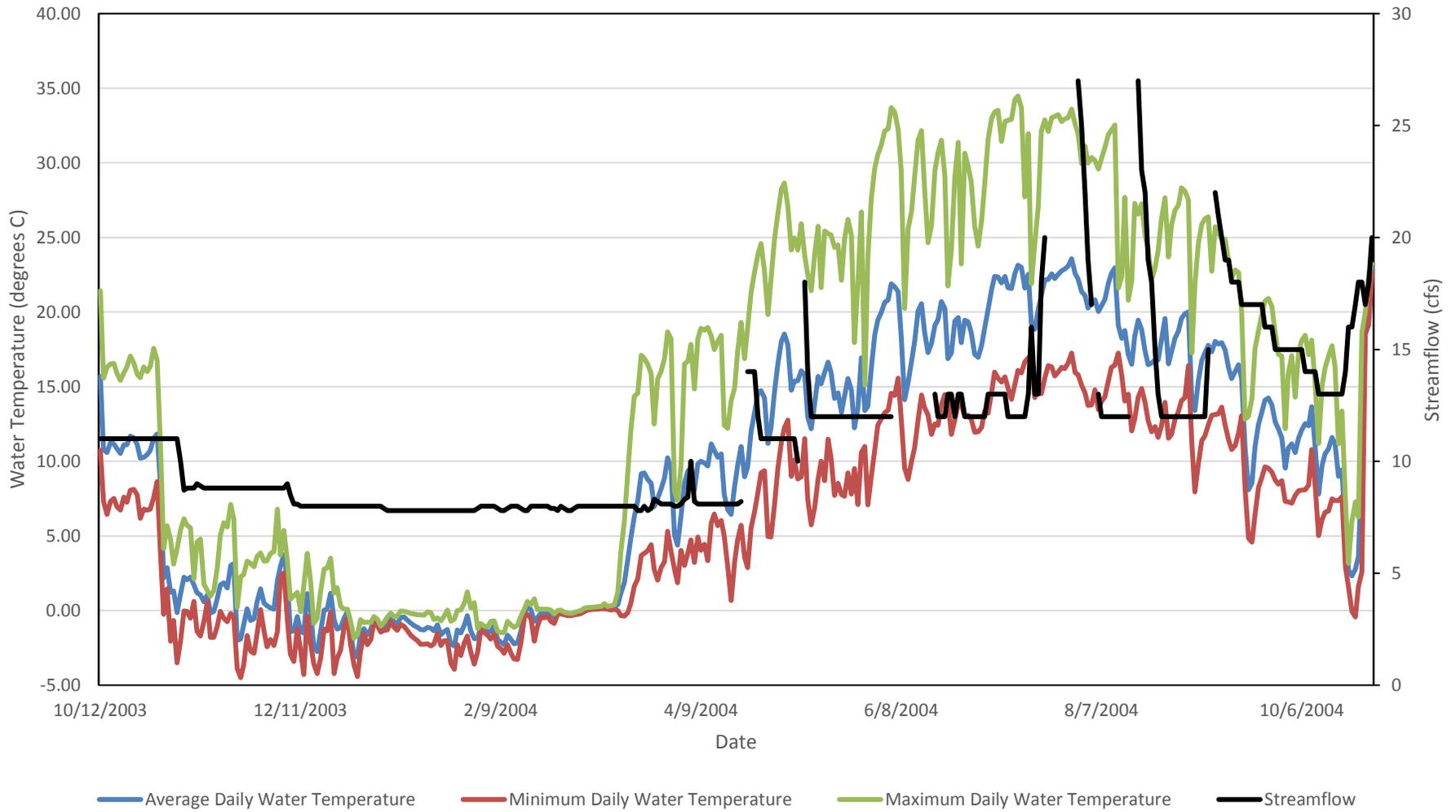
DAILY AVERAGE, MAXIMUM, AND MINIMUM WATER TEMPERATURE VALUES

June 2022

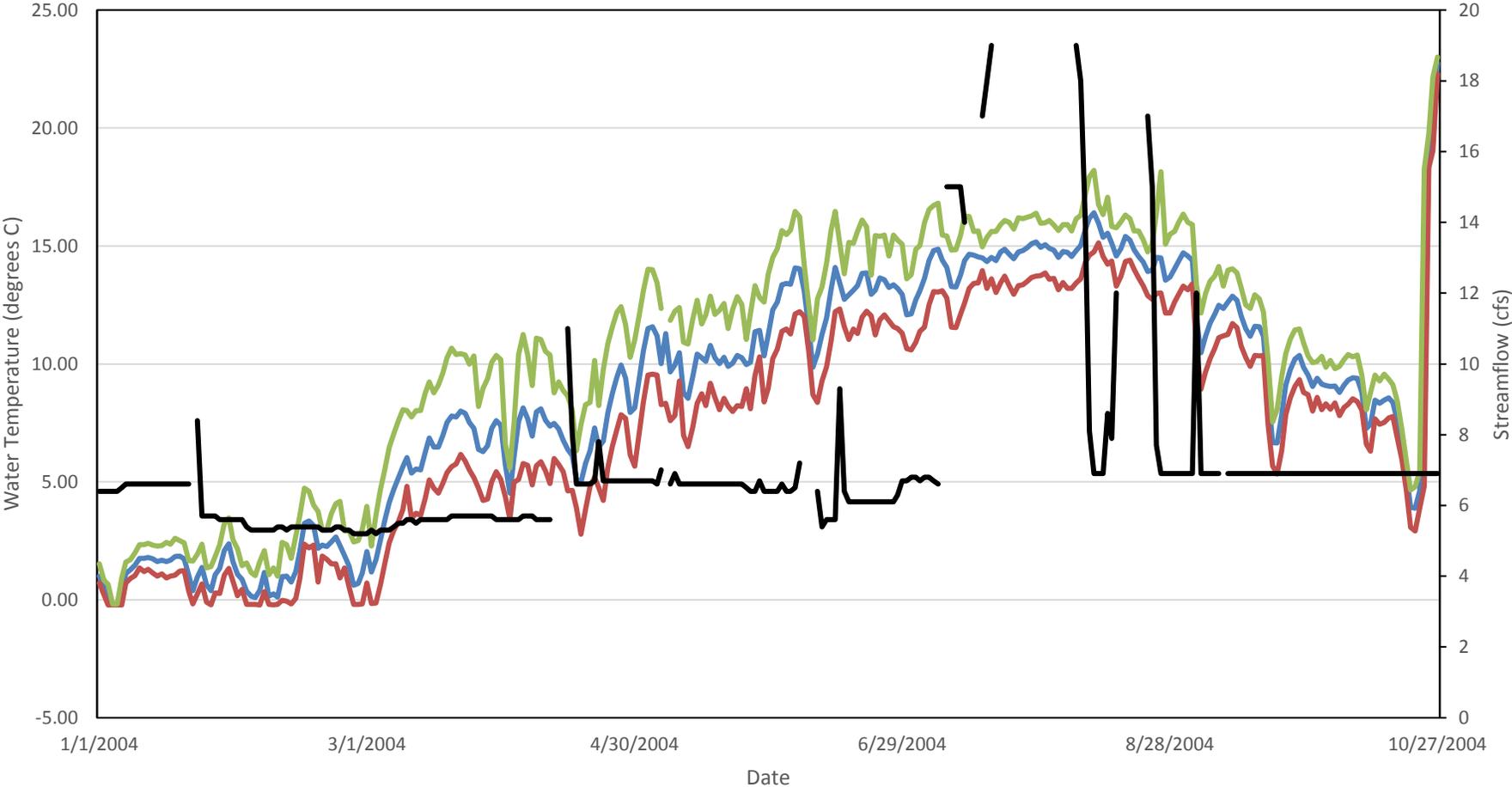
Support from:

Kleinschmidt

Bishop Creek - Site 1

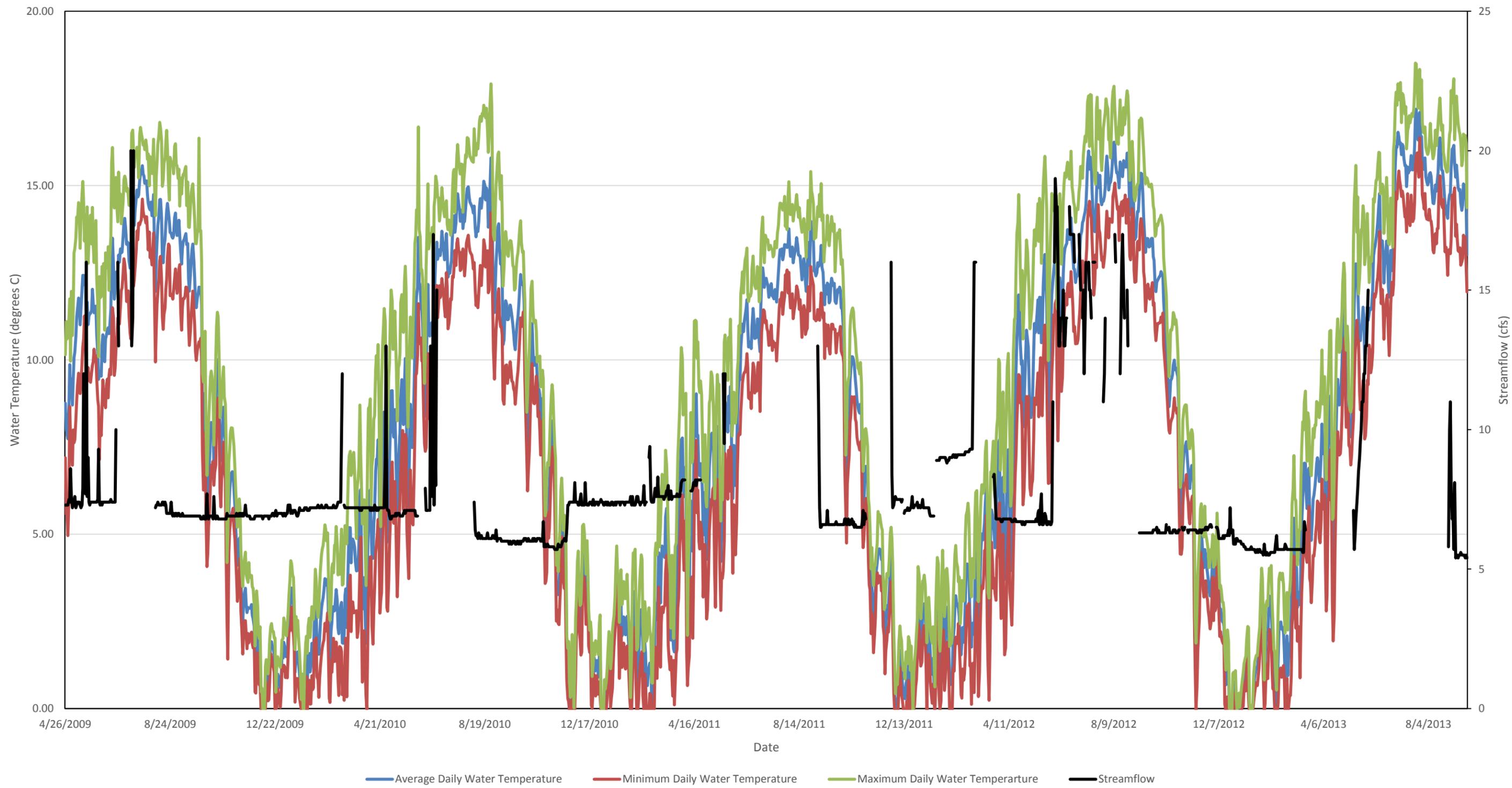


Bishop Creek Site 2

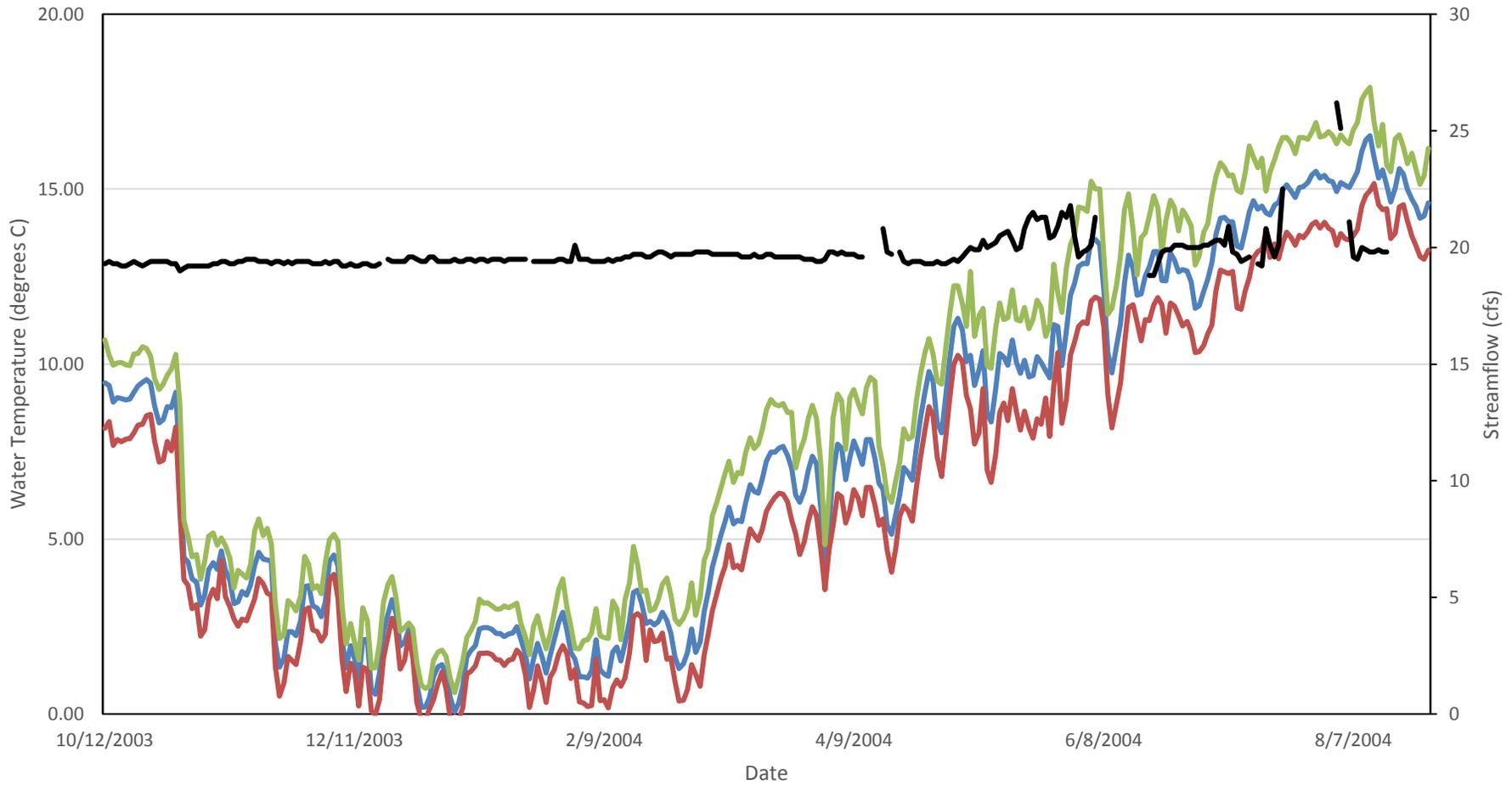


— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

Bishop Creek - Site 2

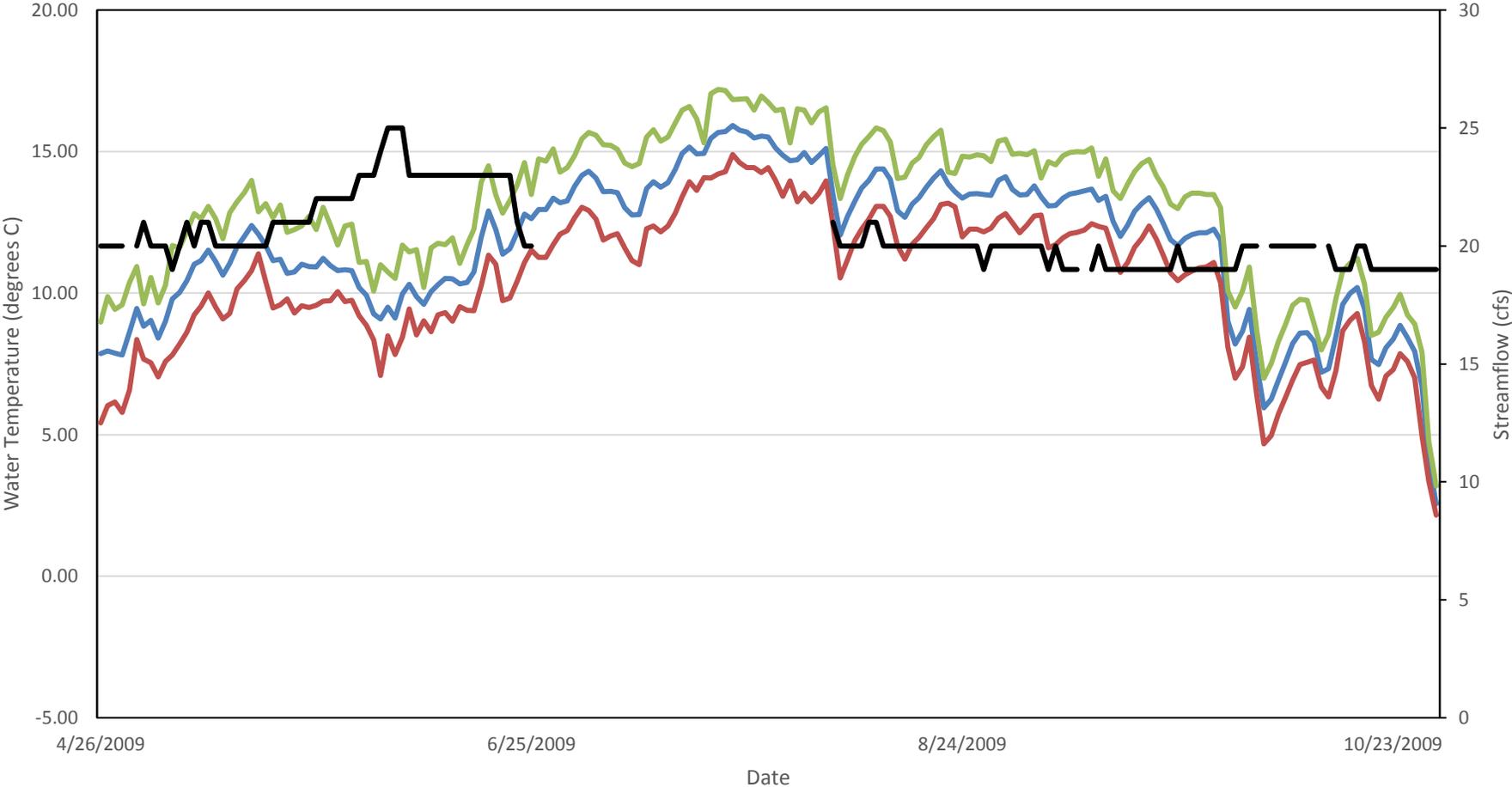


Bishop Creek - Site 3



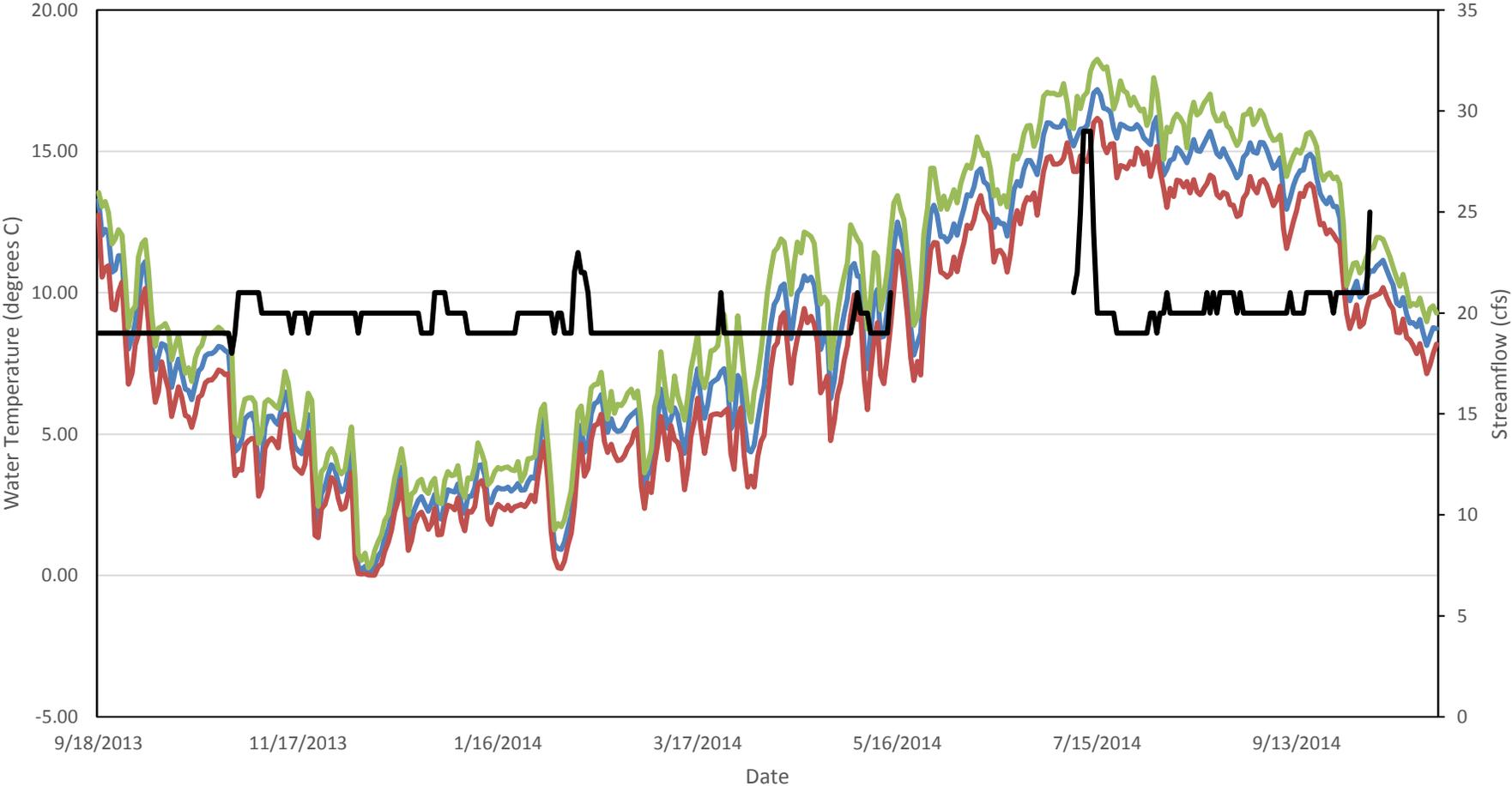
— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

Bishop Creek Site 3



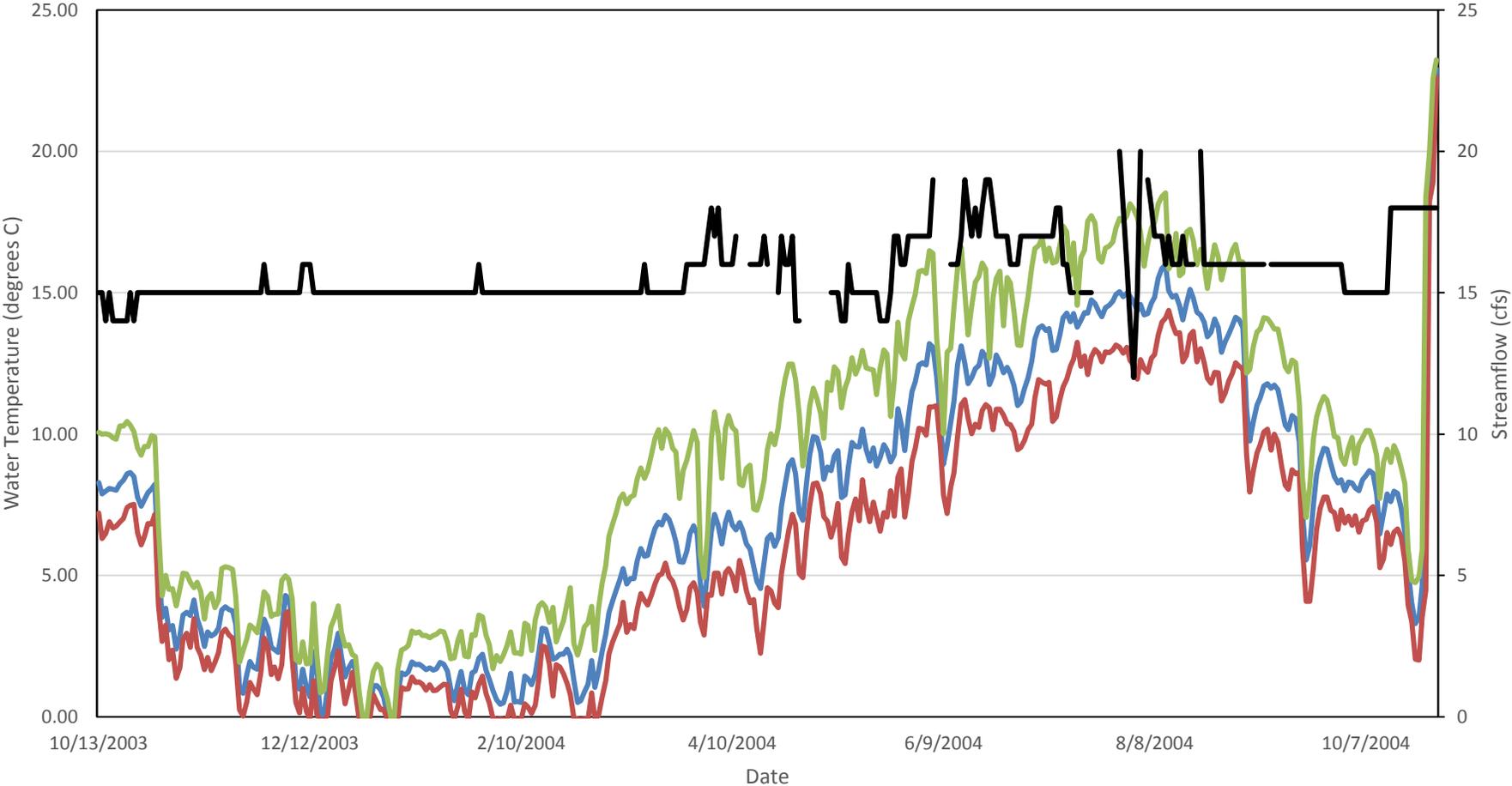
— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

Bishop Creek Site 3



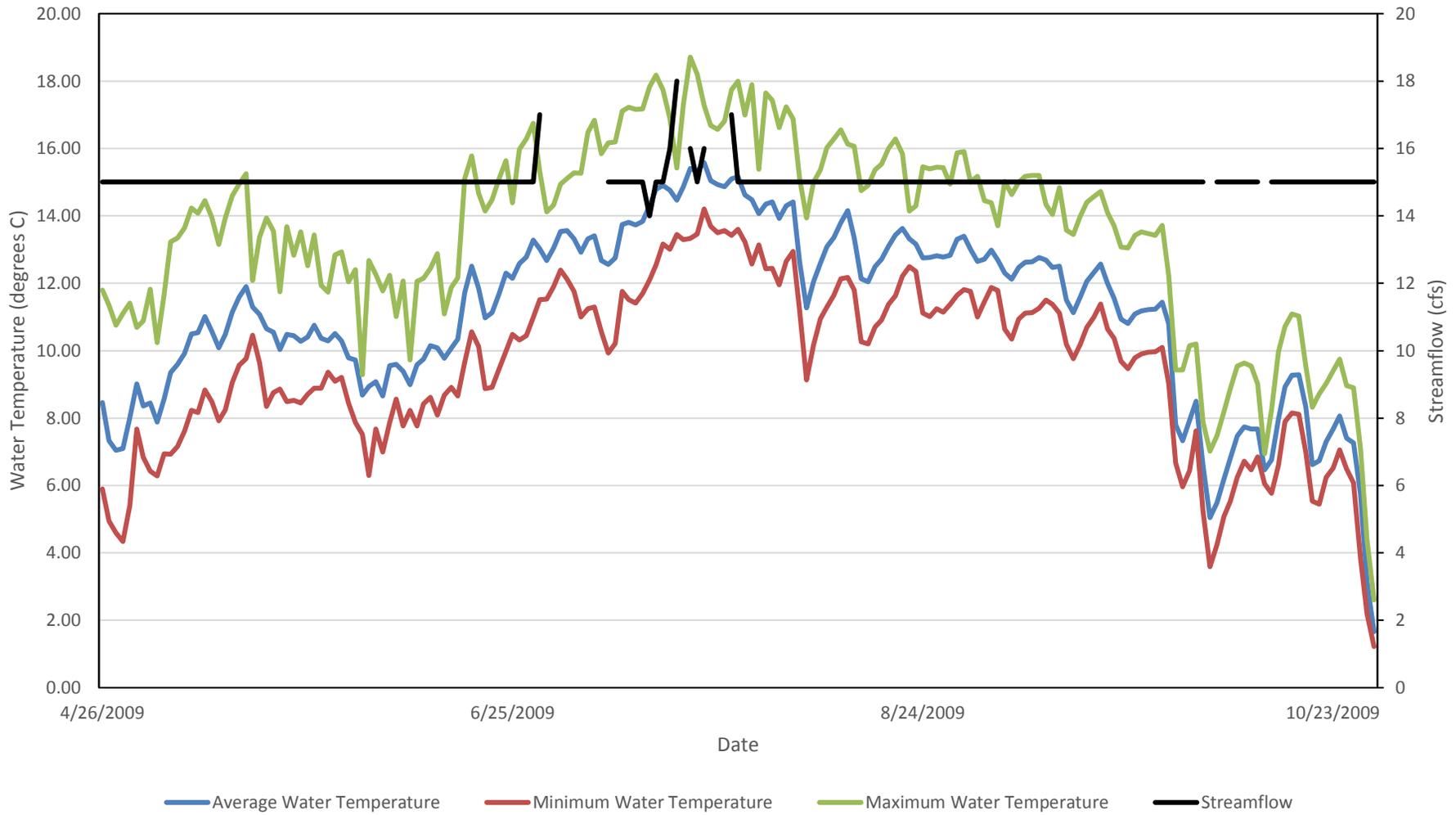
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Bishop Creek Site 4

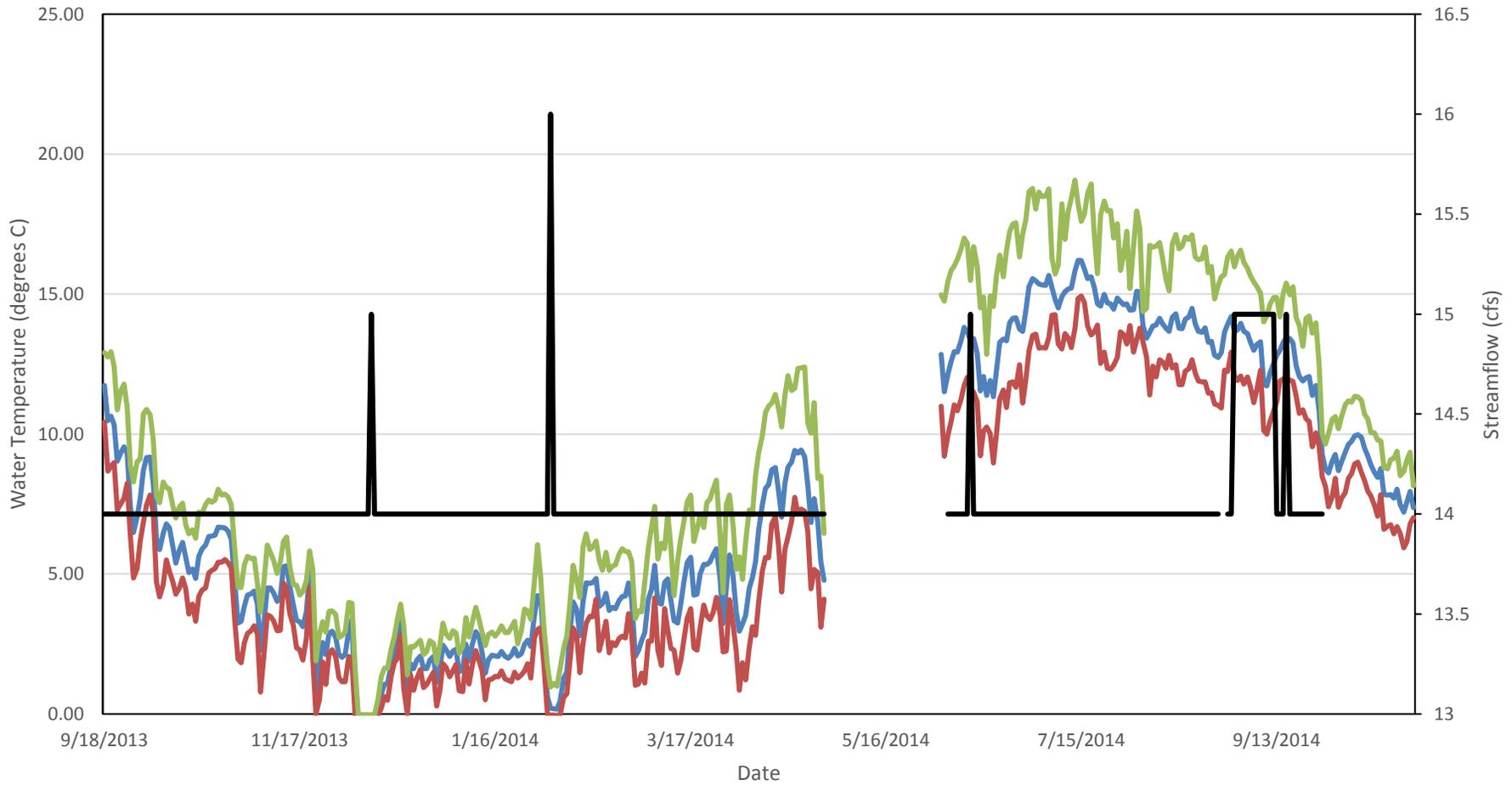


— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

Bishop Creek - Site 4

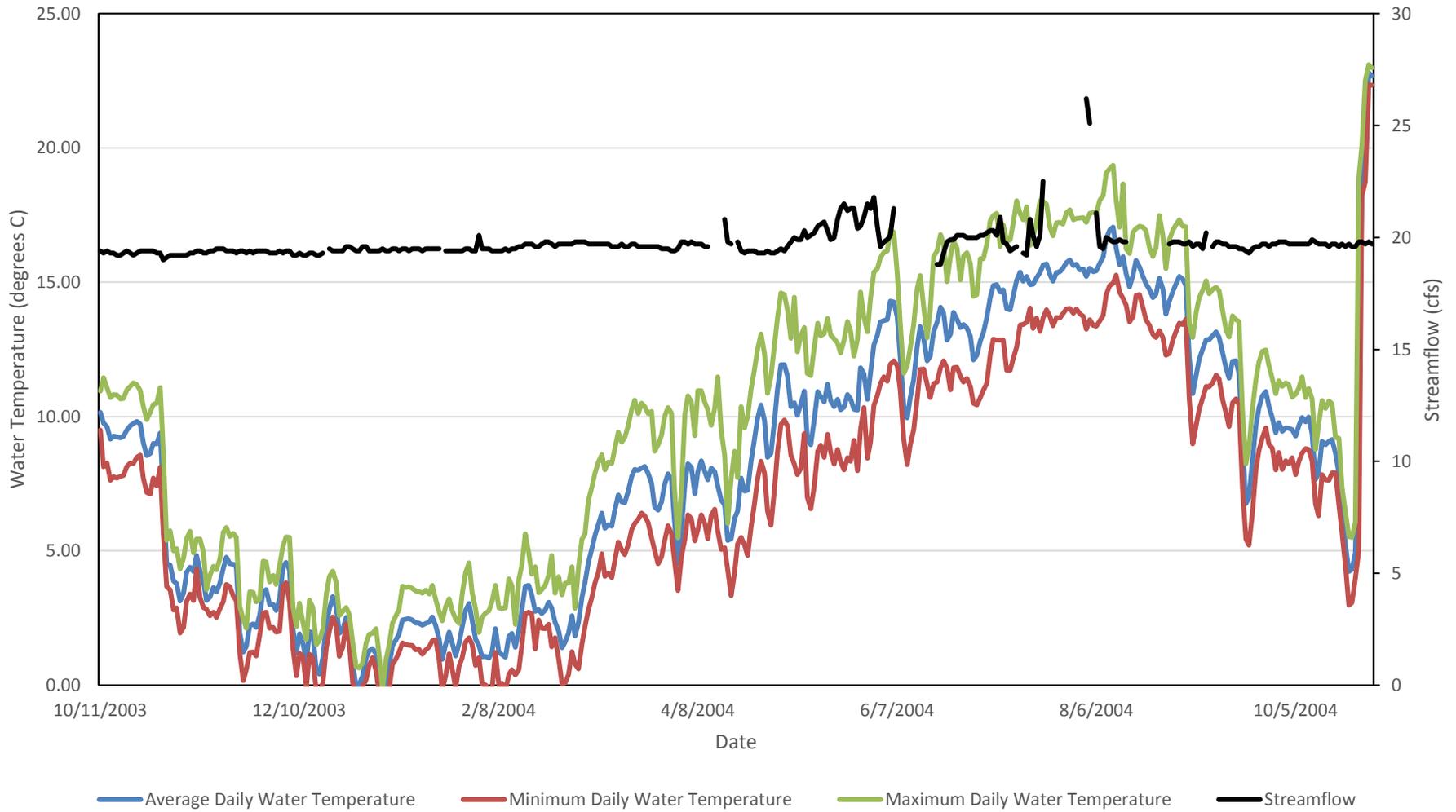


Bishop Creek - Site 4

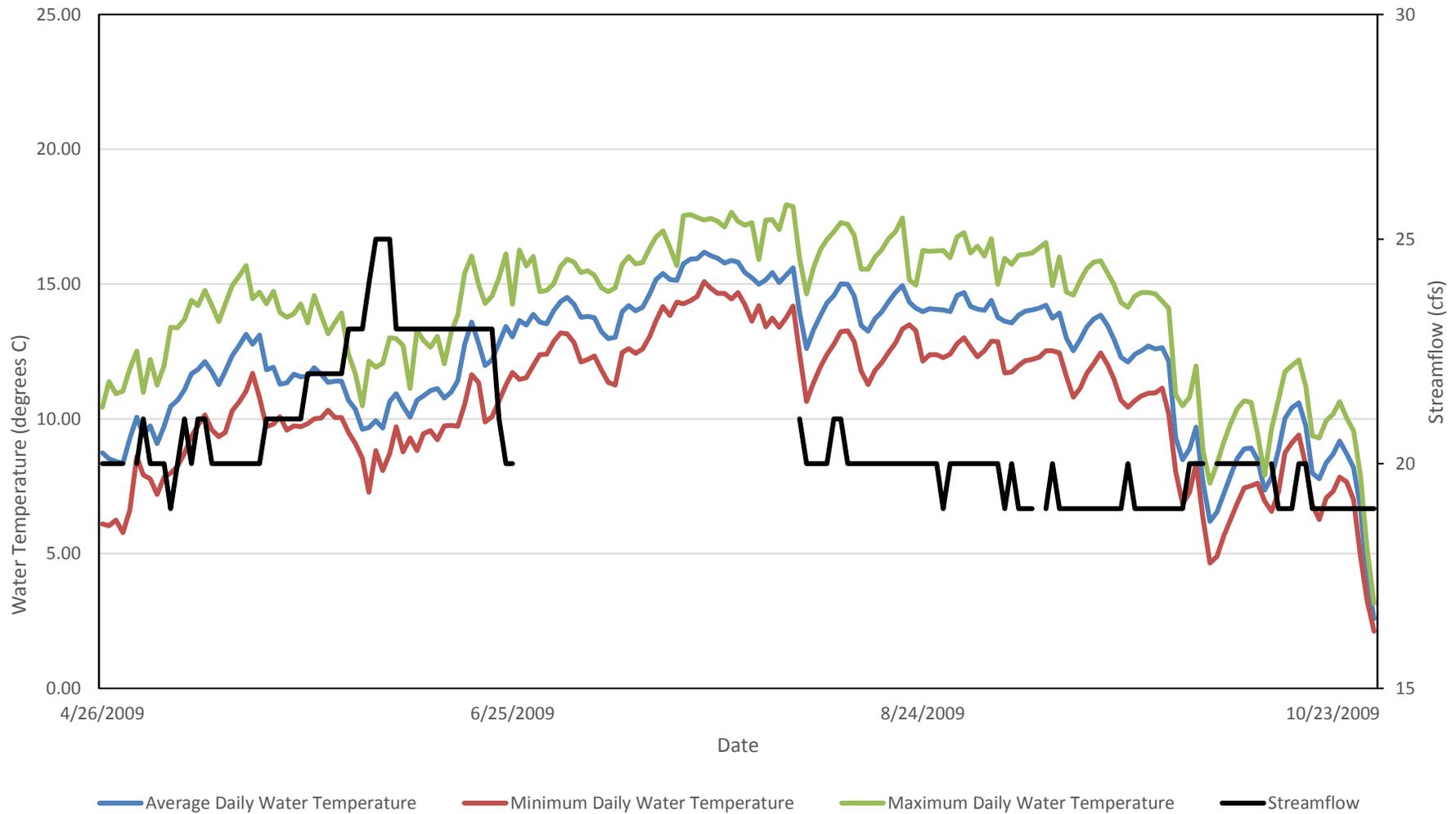


— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

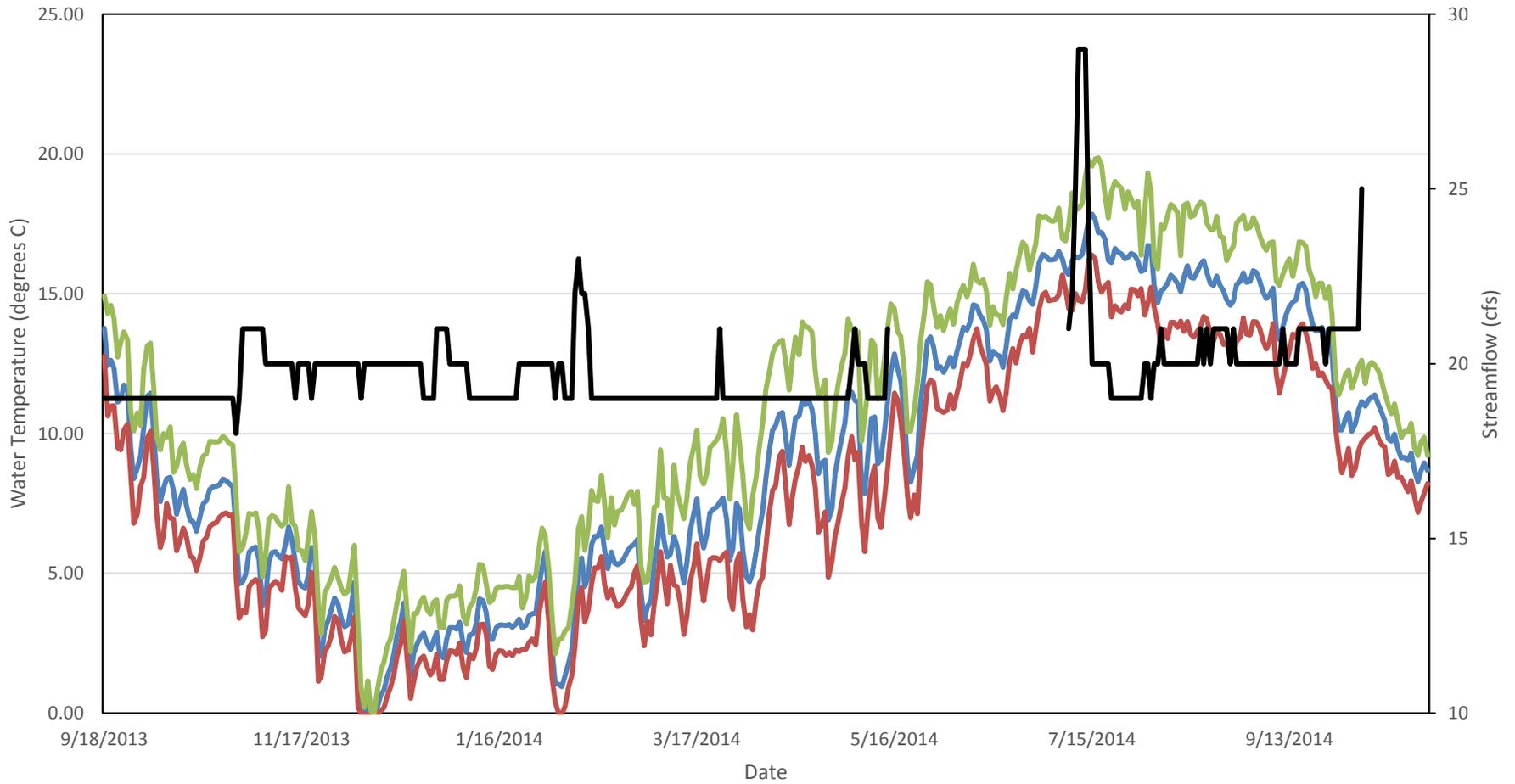
Bishop Creek - Site 5



Bishop Creek - Site 5

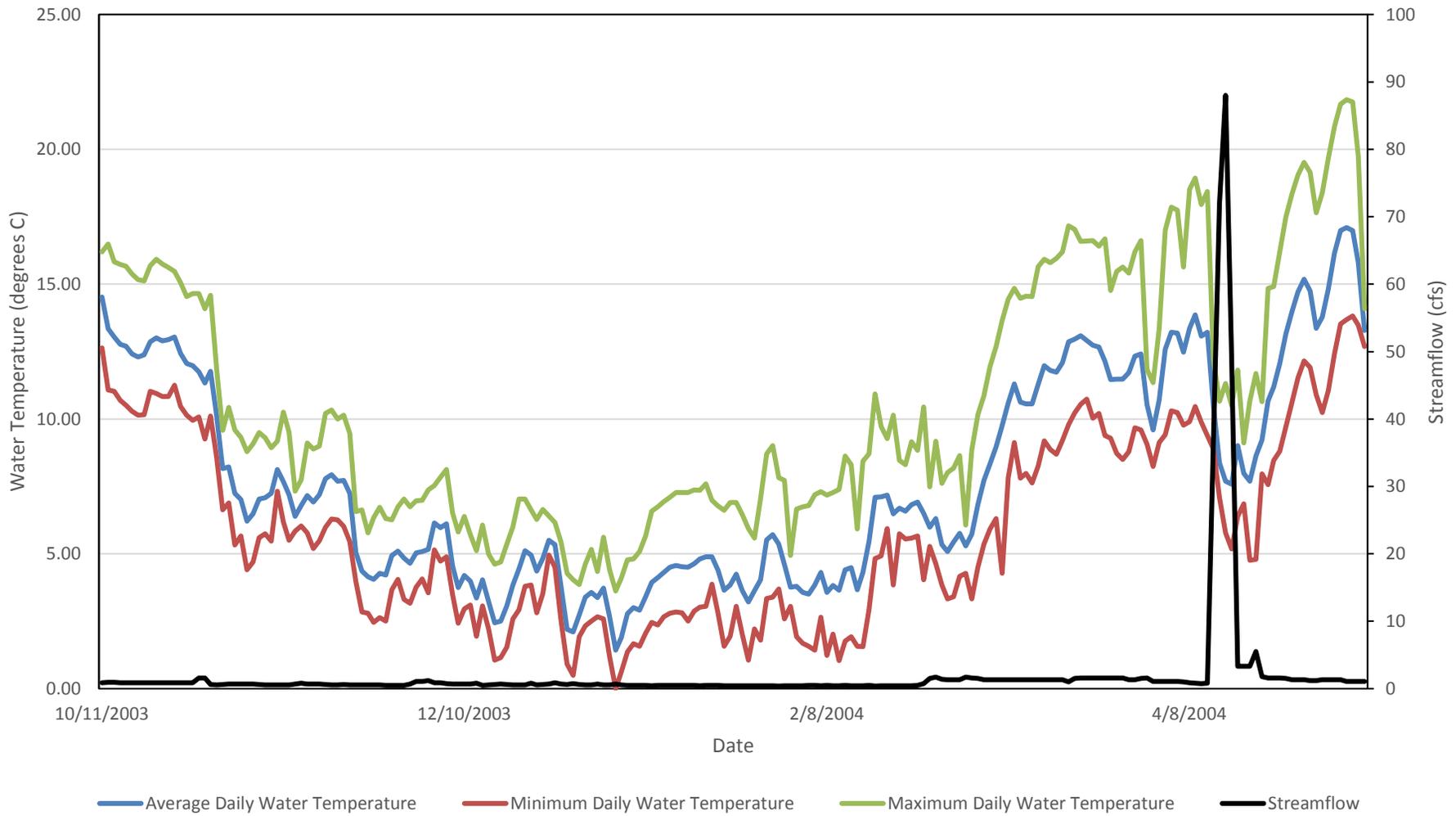


Bishop Creek - Site 5

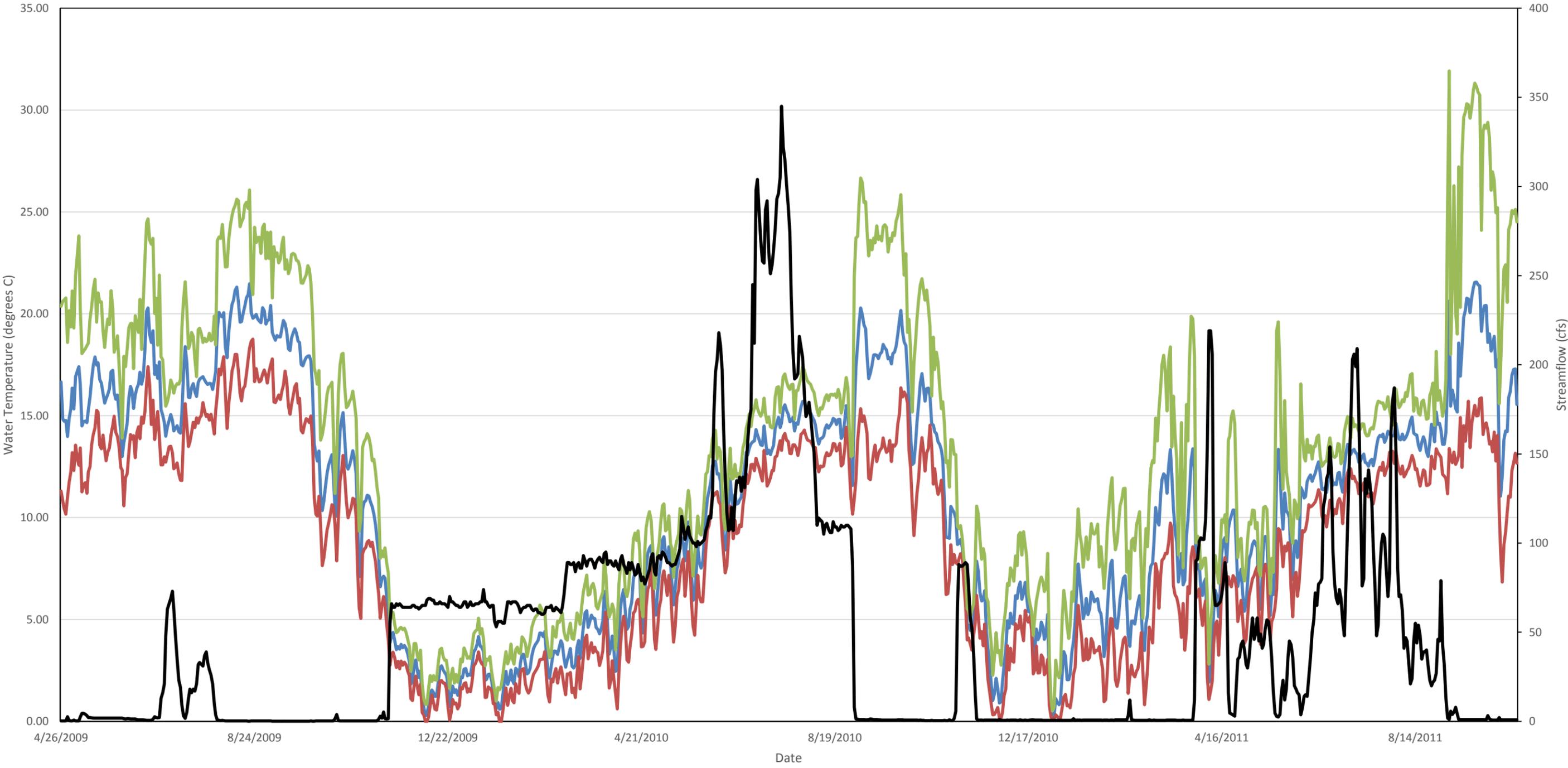


— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

Bishop Creek - Site 6

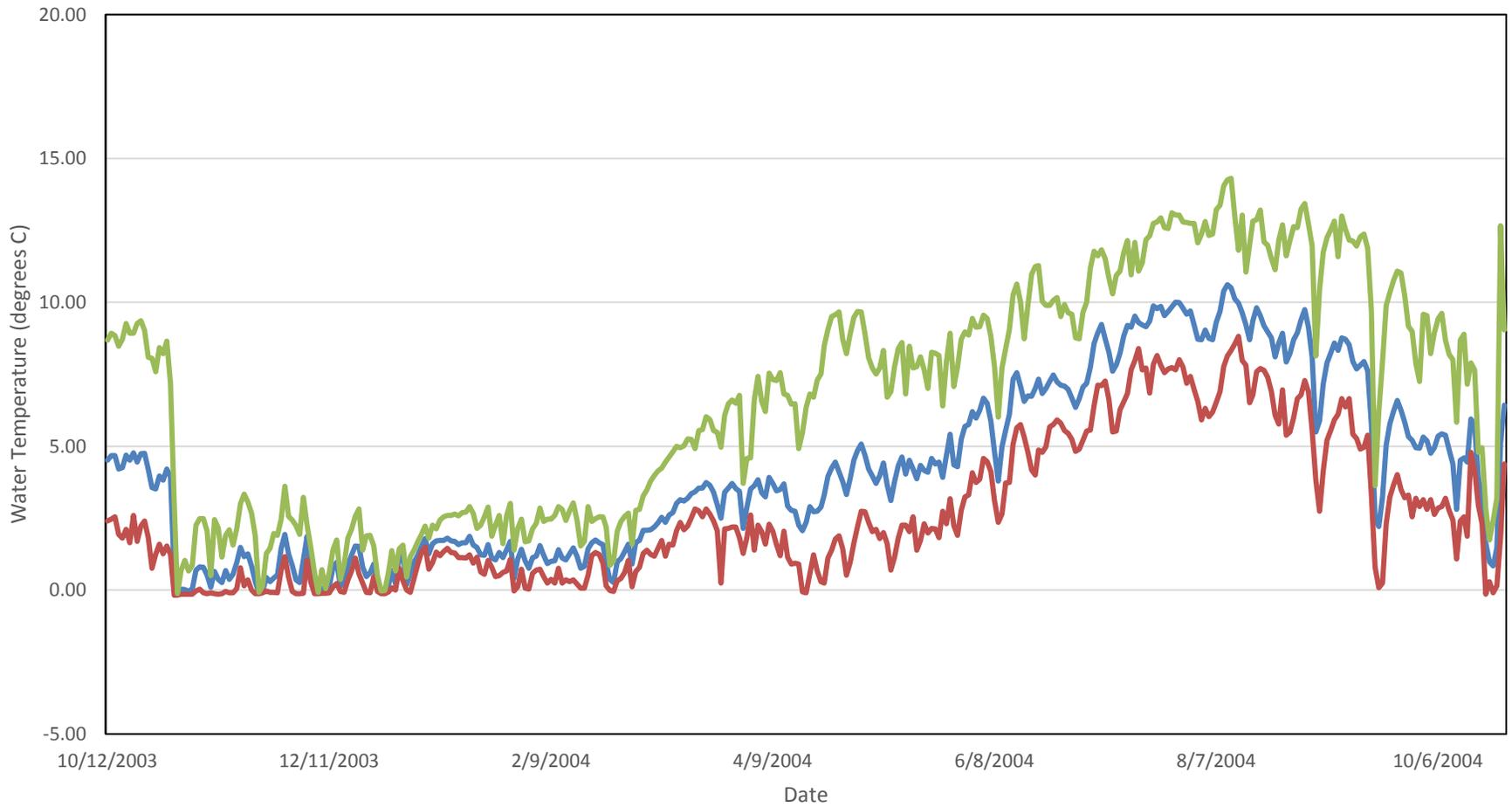


Bishop Creek - Site 6



— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature — Streamflow

McGee Creek above diversion

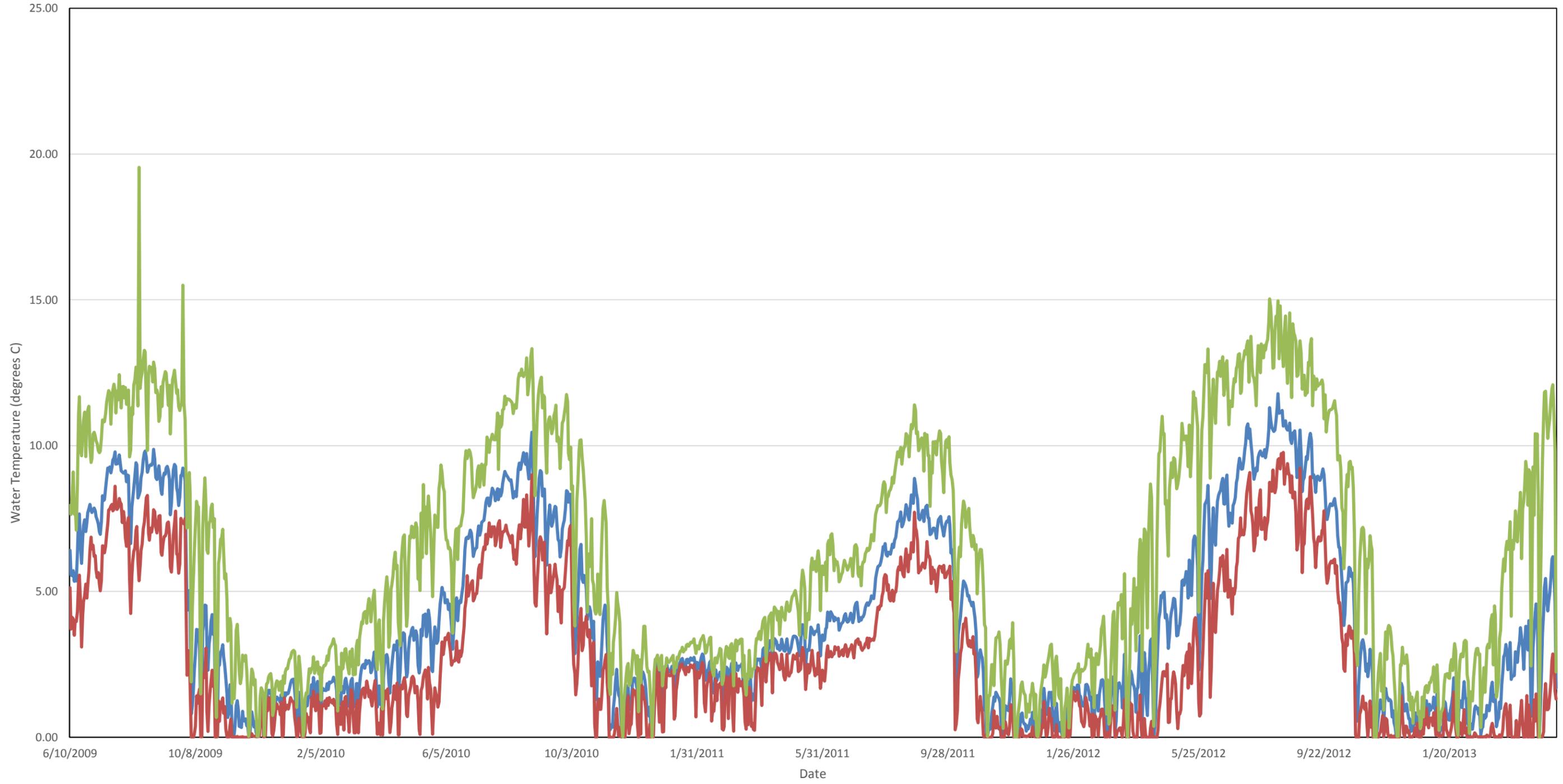


— Average Daily Water Temperature

— Minimum Daily Water Temperature

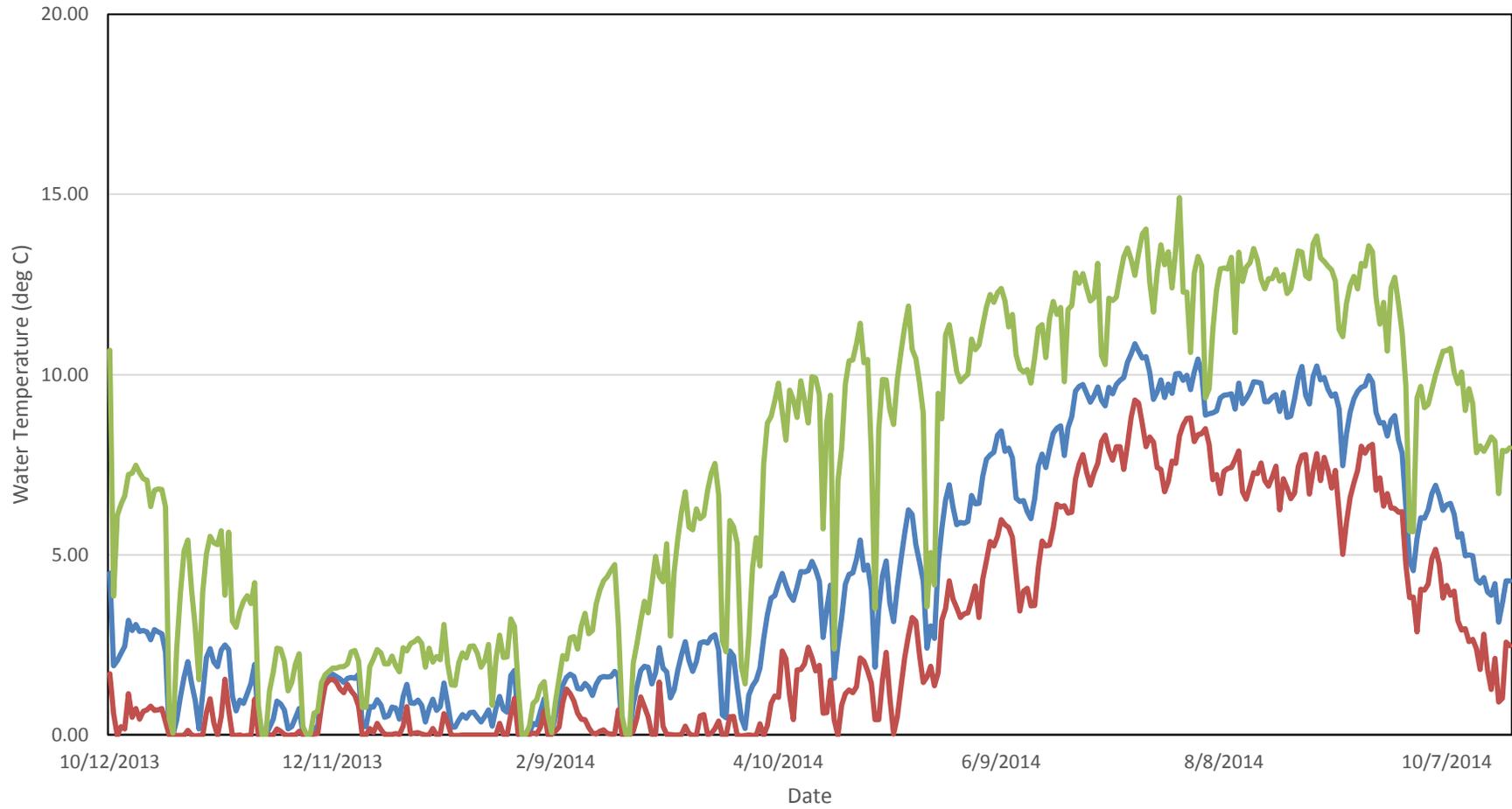
— Maximum Daily Water Temperature

McGee Creek above diversion



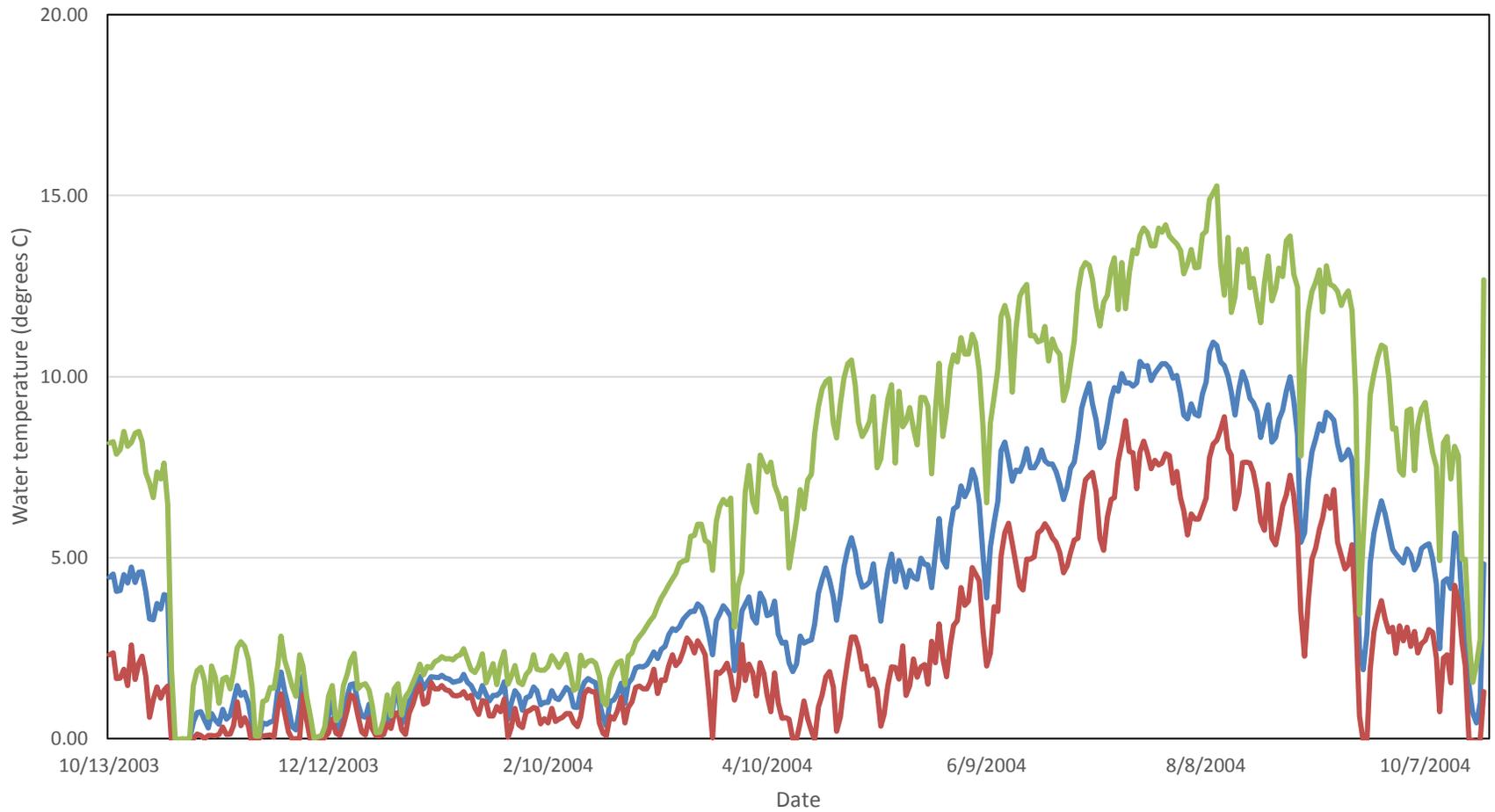
— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature

McGee Creek above diversion



— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature

McGee Creek below diversion

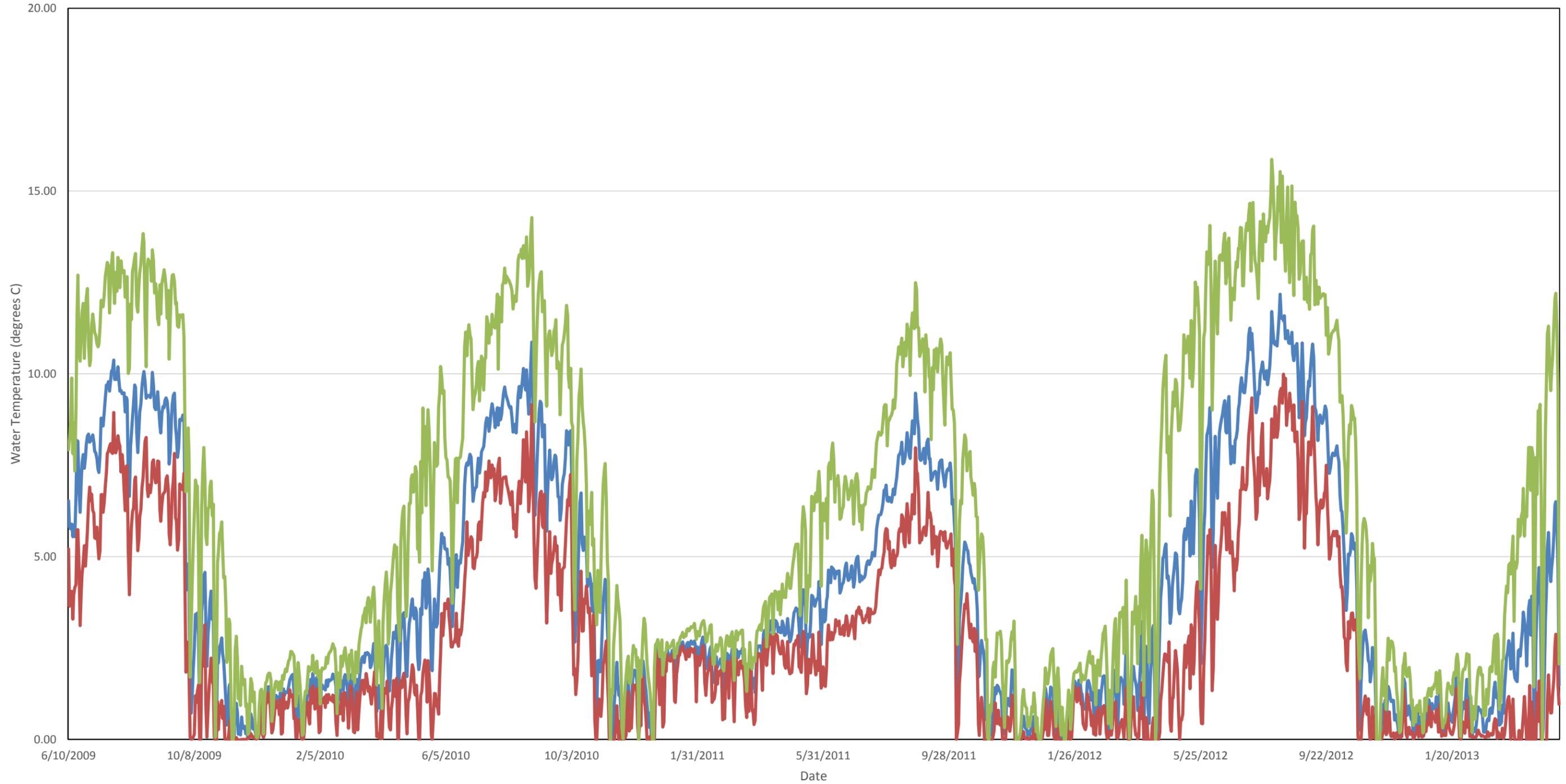


— Average Daily Water Temperature

— Minimum Daily Water Temperature

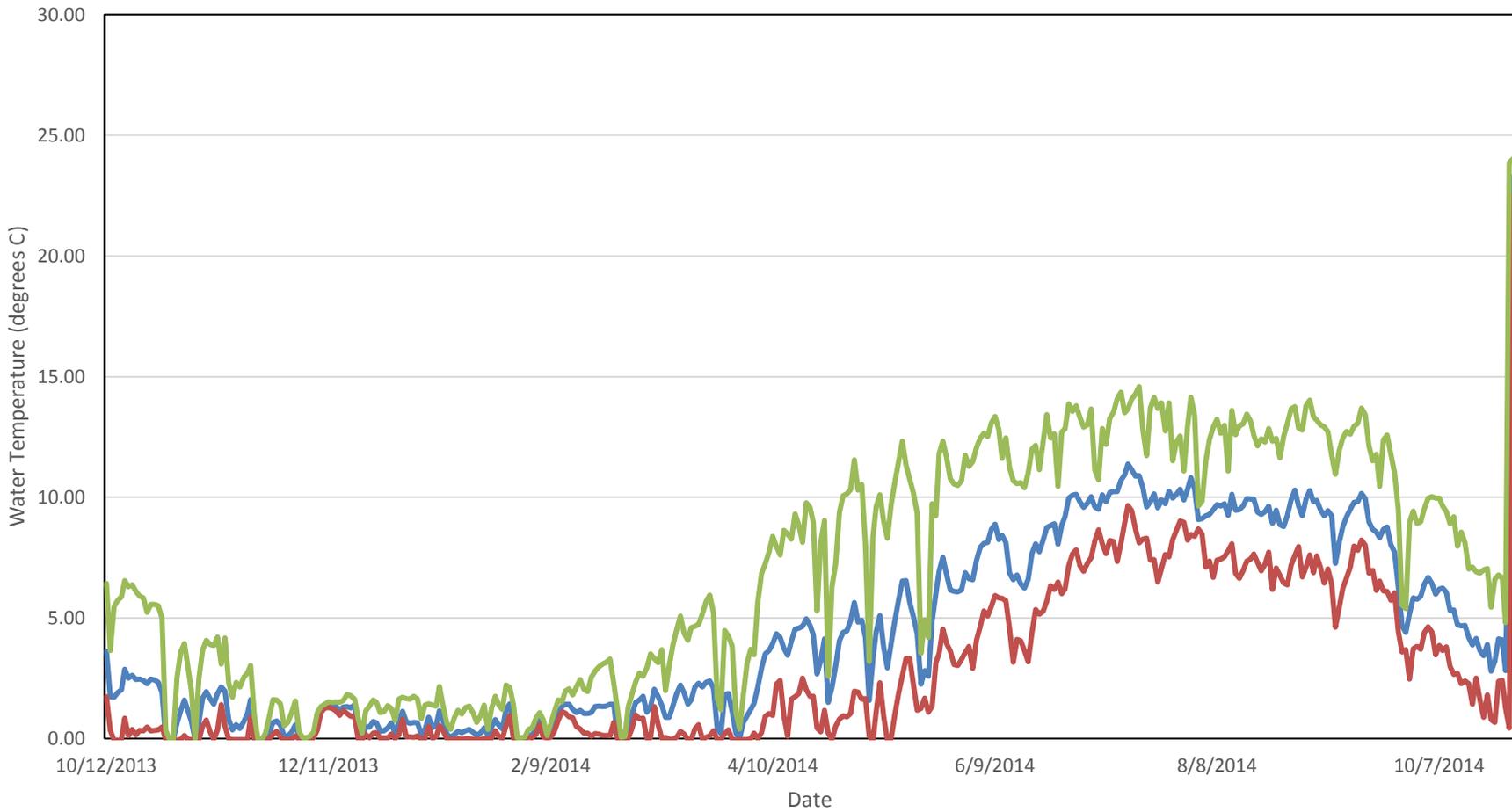
— Maximum Daily Water Temperature

McGee Creek below diversion



— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature

McGee Creek below diversion

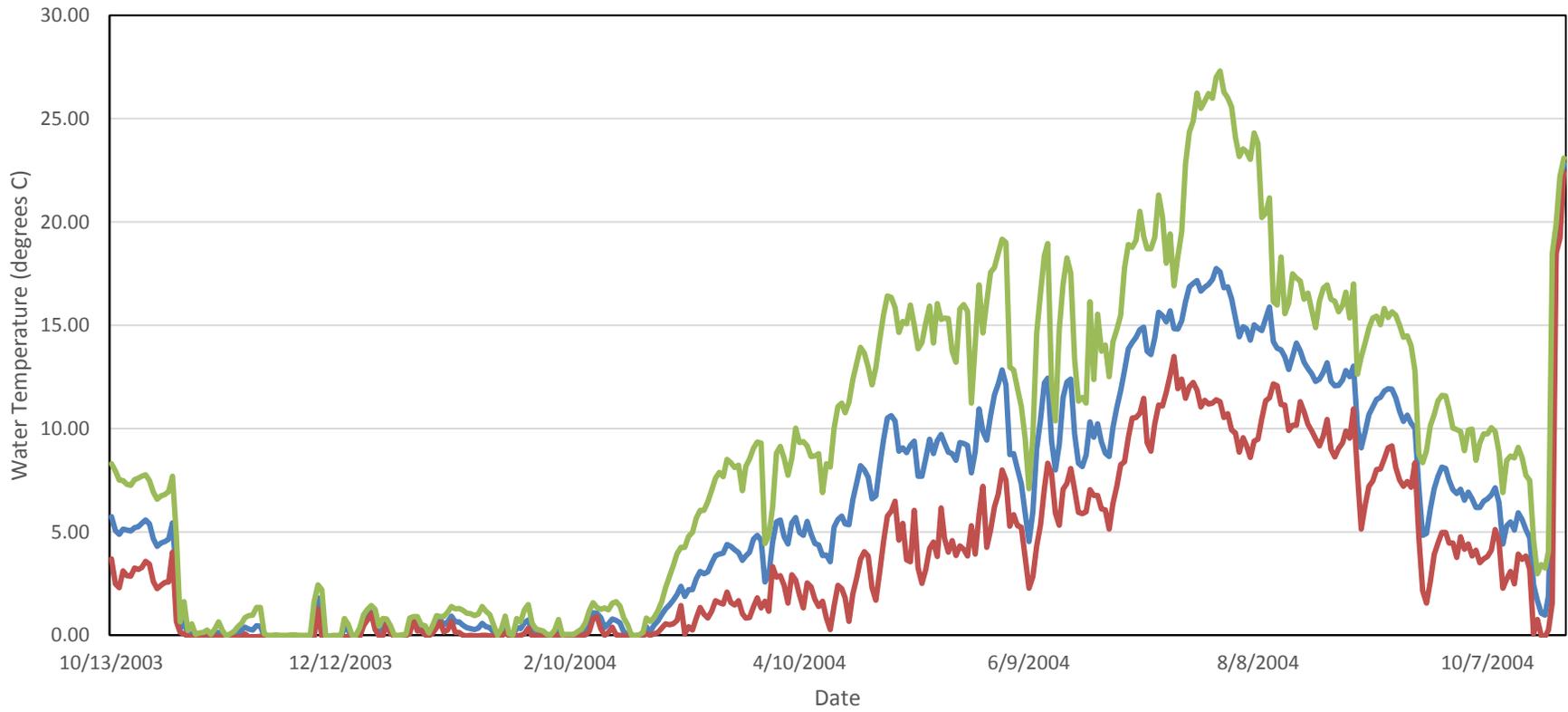


— Average Daily Water Temperature

— Minimum Daily Water Temperature

— Maximum Daily Water Temperature

Birch Creek

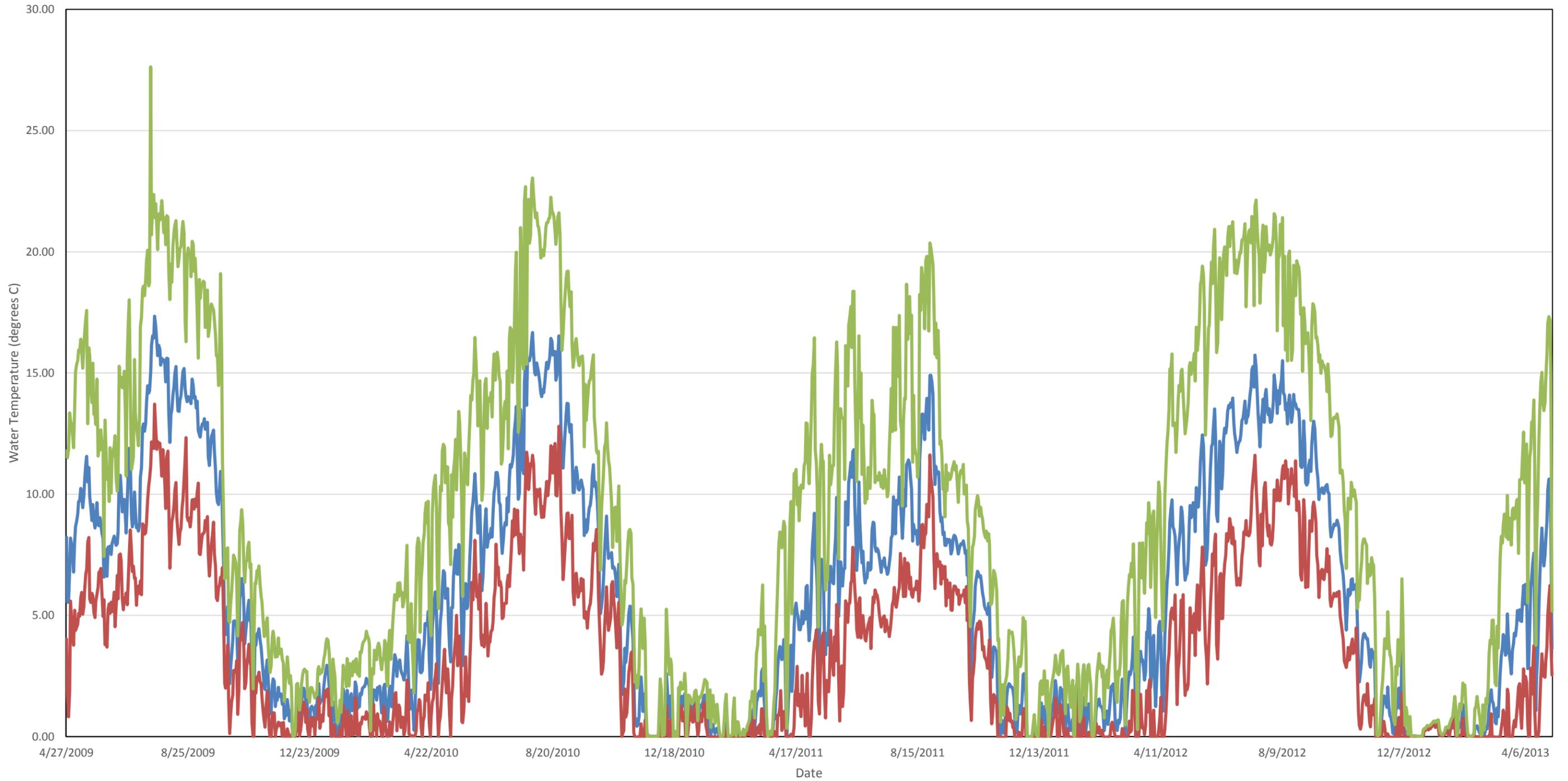


— Average Daily Water Temperature

— Minimum Daily Water Temperature

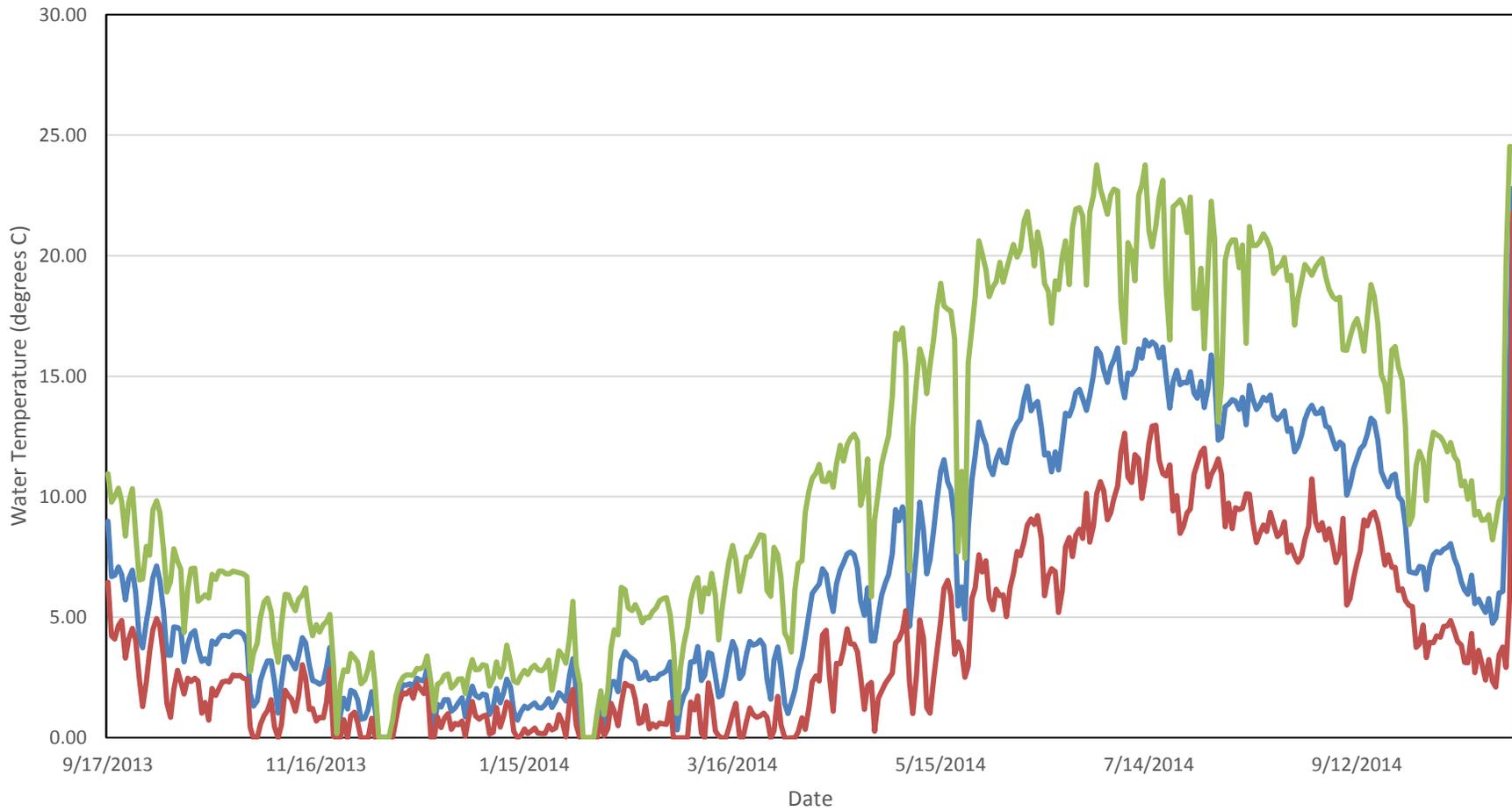
— Maximum Daily Water Temperature

Birch Creek



— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature

Birch Creek

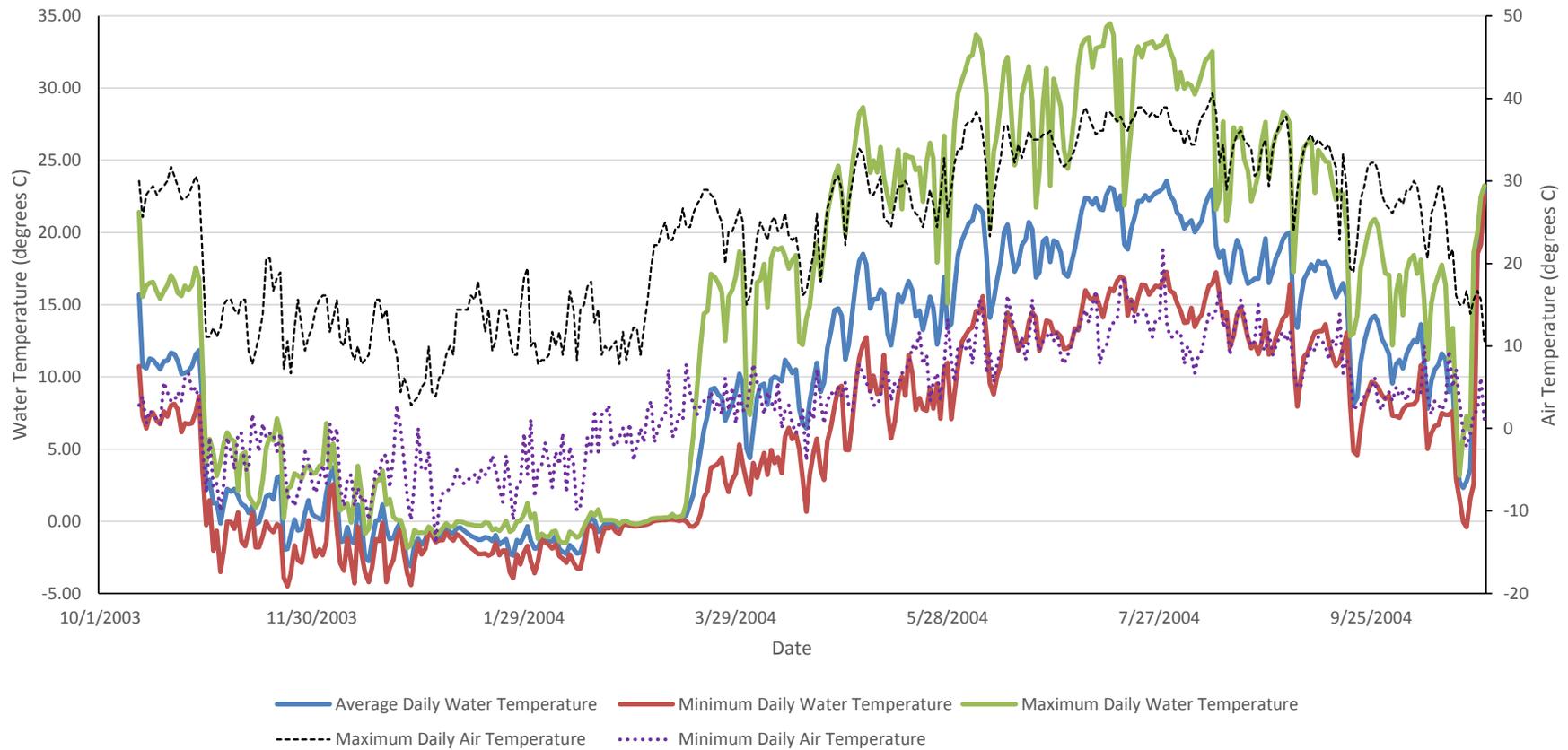


— Average Daily Water Temperature

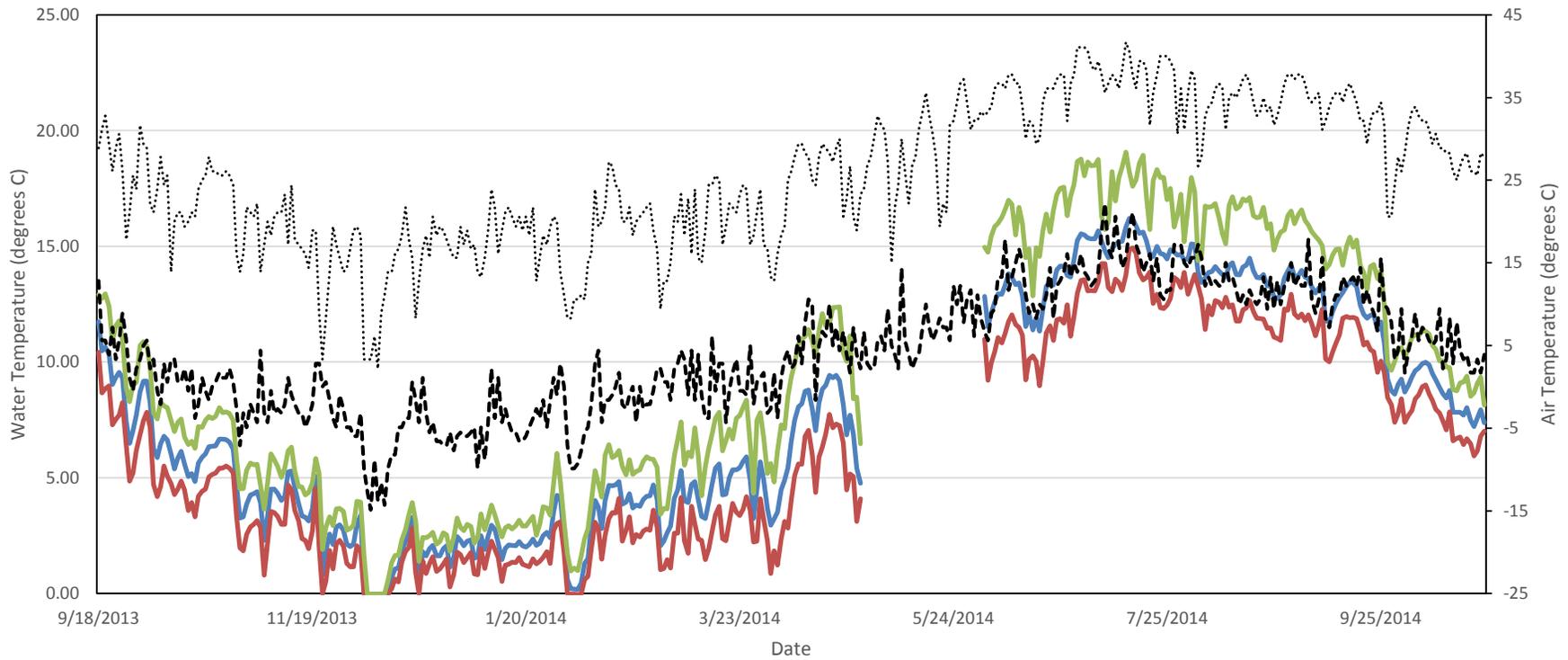
— Minimum Daily Water Temperature

— Maximum Daily Water Temperature

Comparison between Water Temperature at Bishop Creek - Site 1 and Air Temperature at Bishop Airport Weather Station



Comparison of Water Temperature at Bishop Site 4 with Air Temperature at Bishop Airport (COOP Station USW00023157)



— Average Daily Water Temperature — Minimum Daily Water Temperature — Maximum Daily Water Temperature
..... Maximum Daily Air Temperature - - - Minimum Daily Air Temperature

SOUTHERN CALIFORNIA EDISON

Bishop Creek Hydroelectric Project (FERC Project No. 1394)

FINAL LICENSE APPLICATION

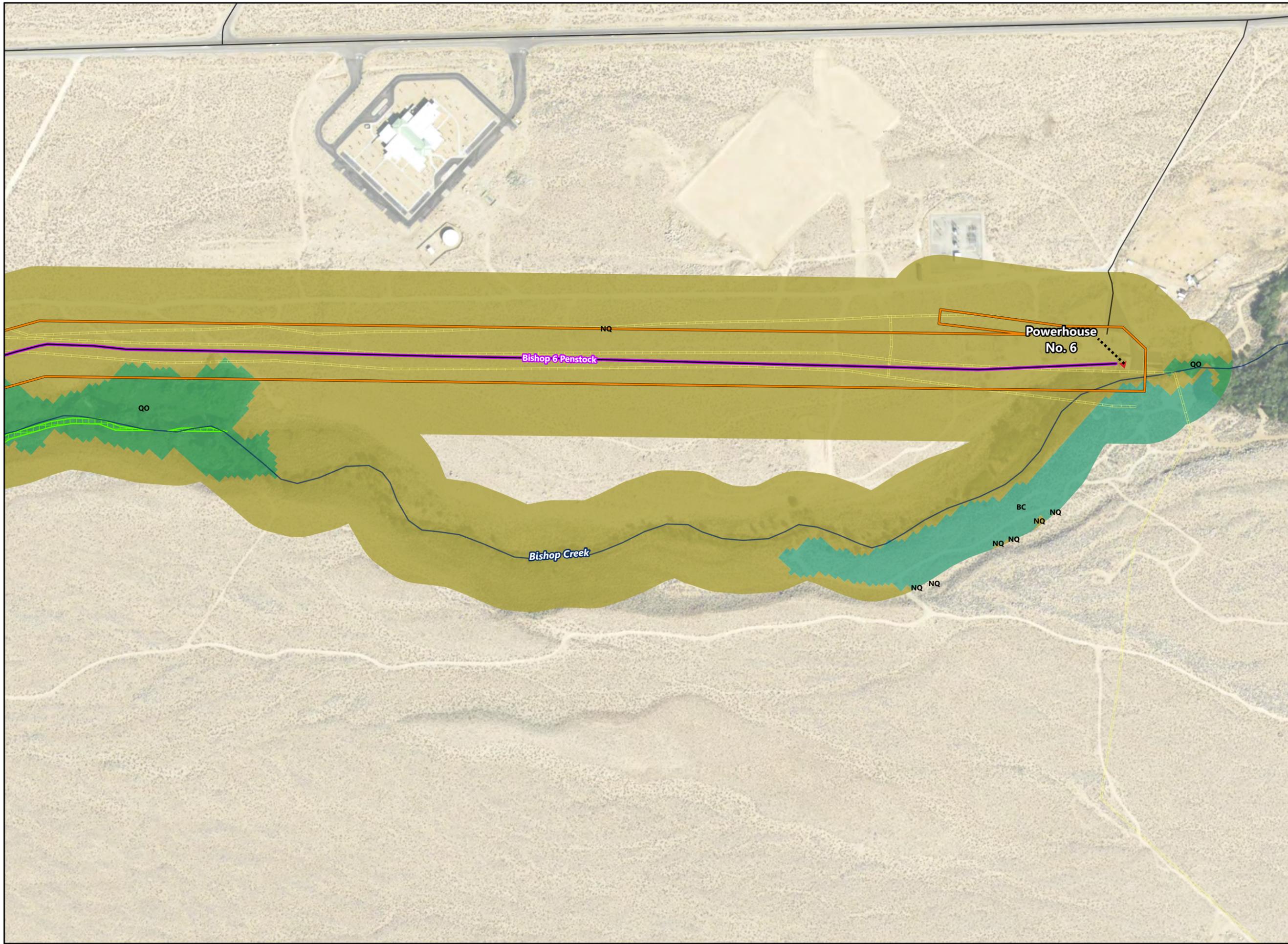
APPENDIX F

MAPS OF PLANT COMMUNITIES WITHIN A 500-FOOT BUFFER AROUND PROJECT FACILITIES, CREEKS, AND RESERVOIRS

June 2022

Support from:

Kleinschmidt



- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BC - Saltbush
- NQ - High Desert Mixed Scrub
- QO - Willow

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

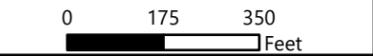


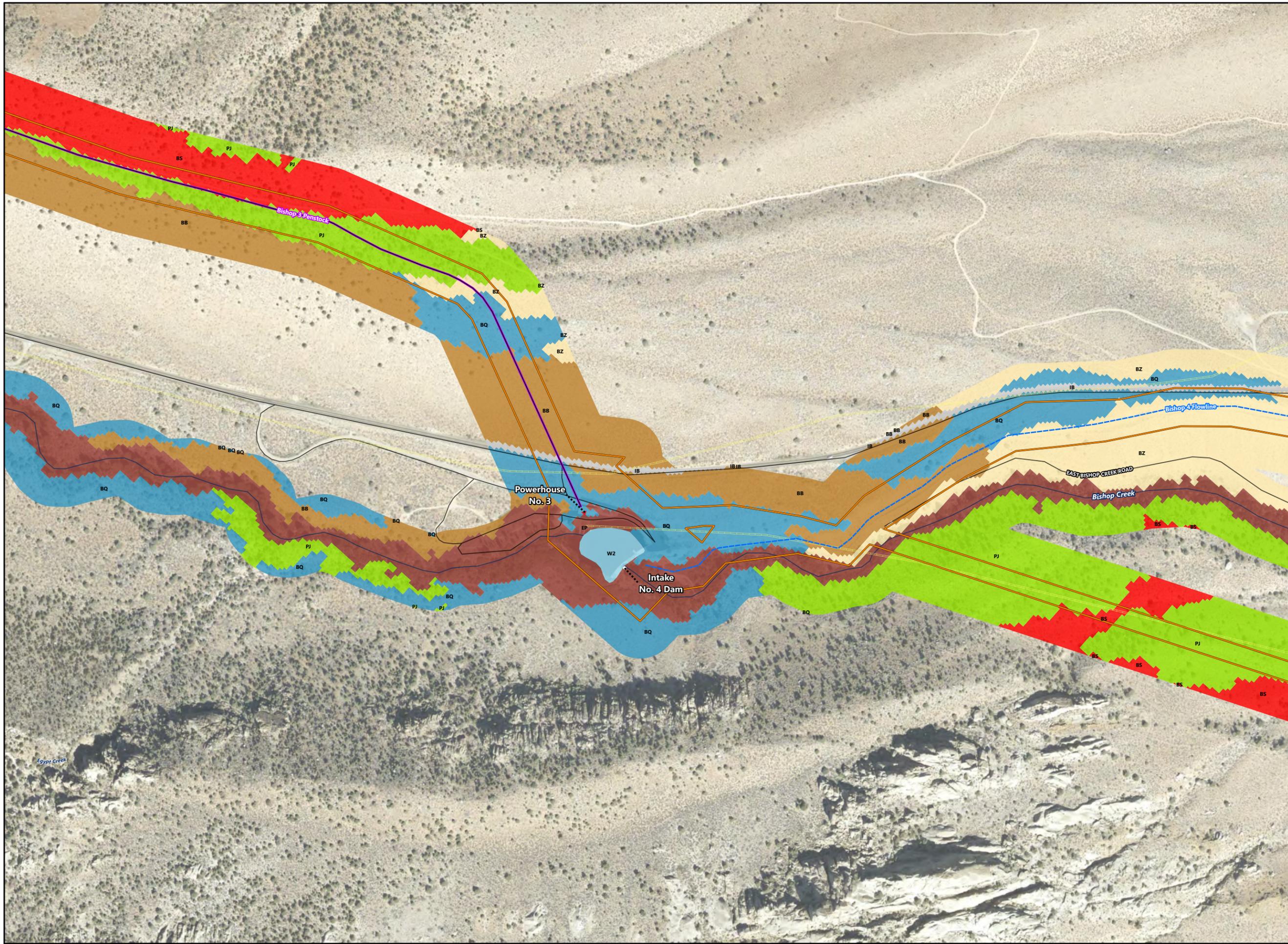
Vegetation & Wetland Classifications

Map No. 1 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- BZ - Great Basin - Desert Mixed Scrub
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

See Map 1 for details.

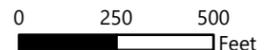


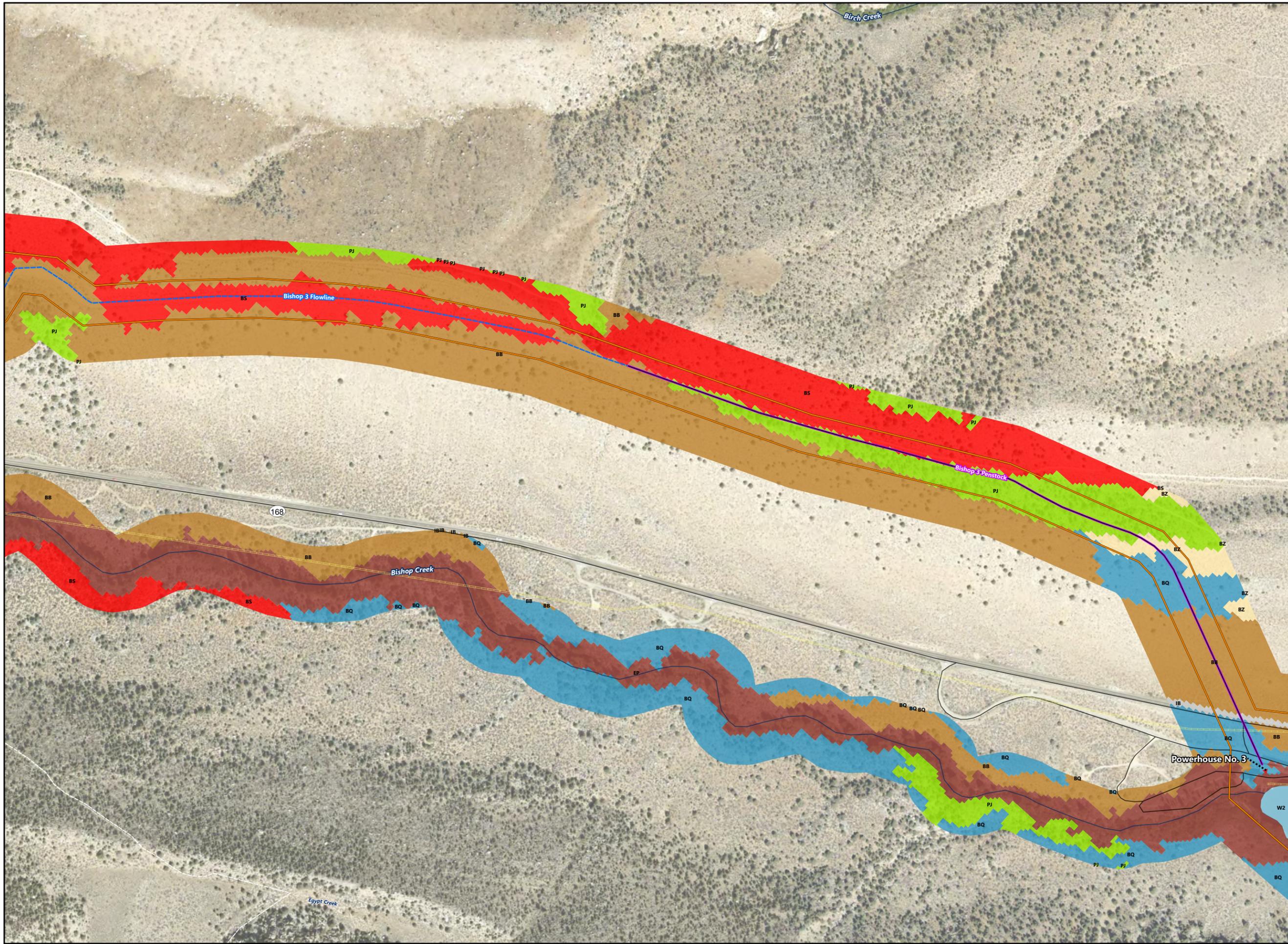
Vegetation & Wetland Classifications

Map No. 2 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- ▬ Project Boundary
- ▲ Powerhouse
- Dam
- ▬ Diversion
- ▬ Flowline
- ▬ Penstock/Tunnel
- ▬ Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- BZ - Great Basin - Desert Mixed Scrub
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



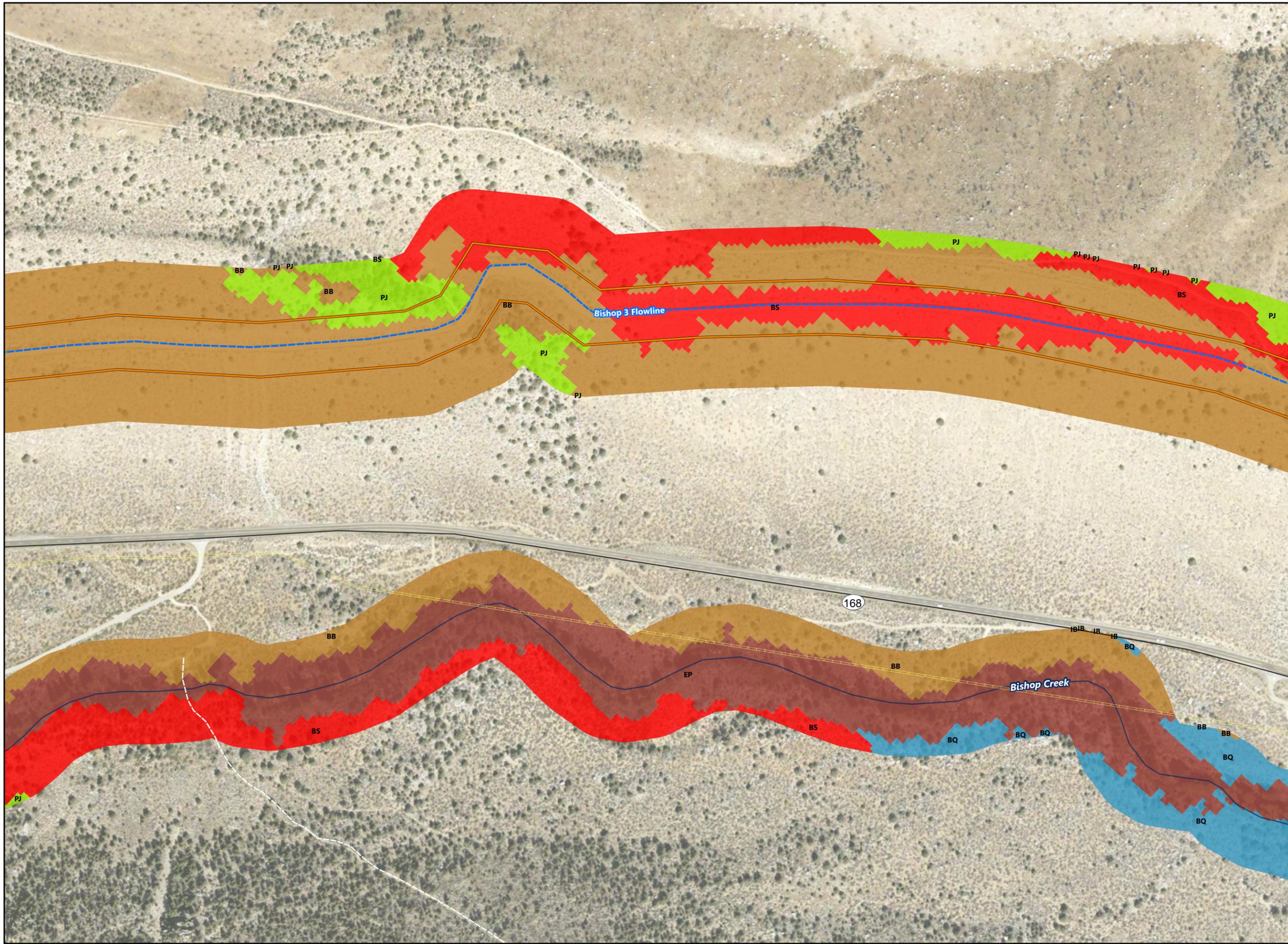
Vegetation & Wetland Classifications

Map No. 3 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 250 500 Feet



- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

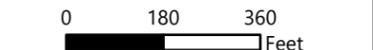


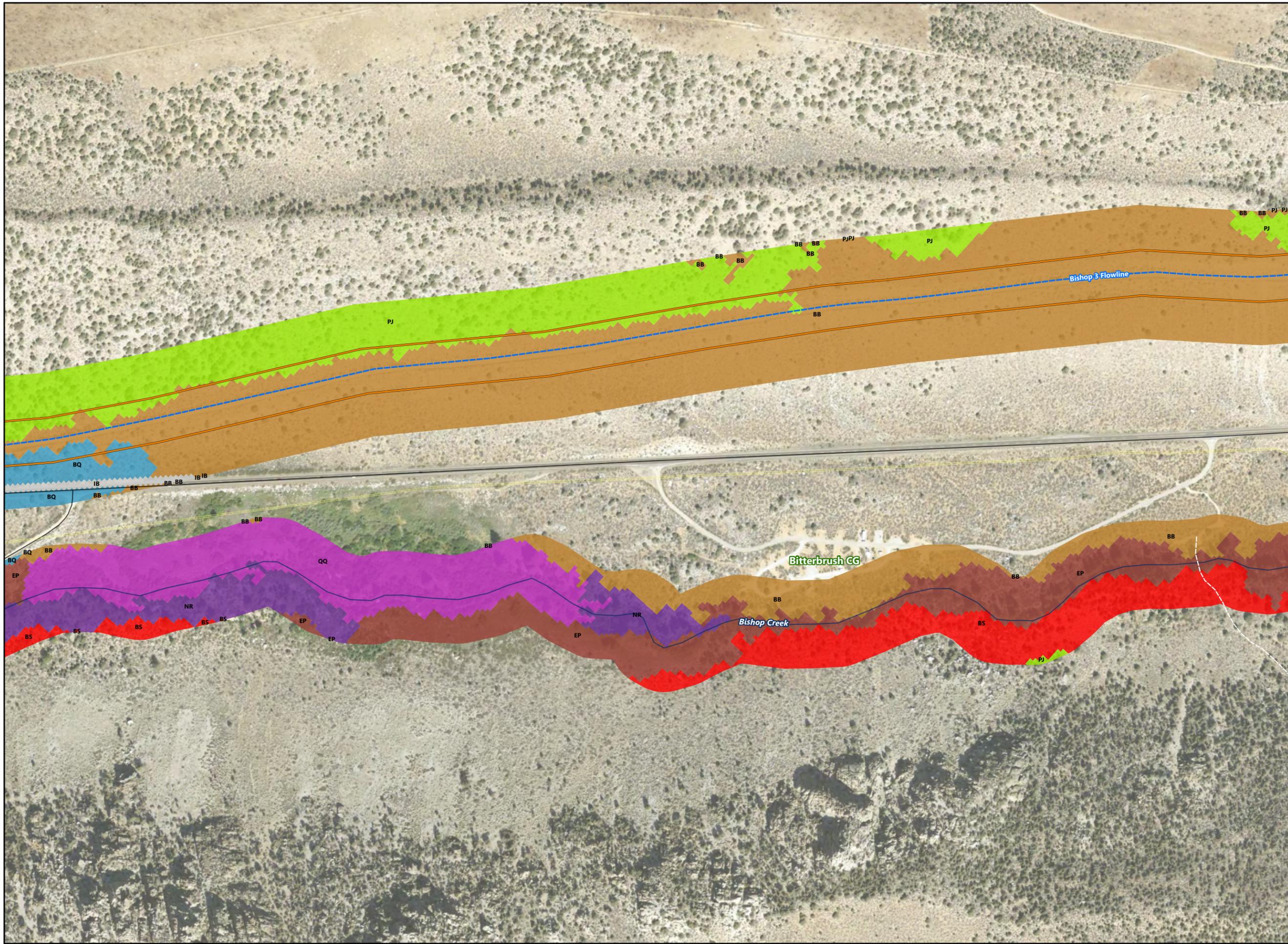
Vegetation & Wetland Classifications

Map No. 4 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- NR - Riparian Mixed Hardwood
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



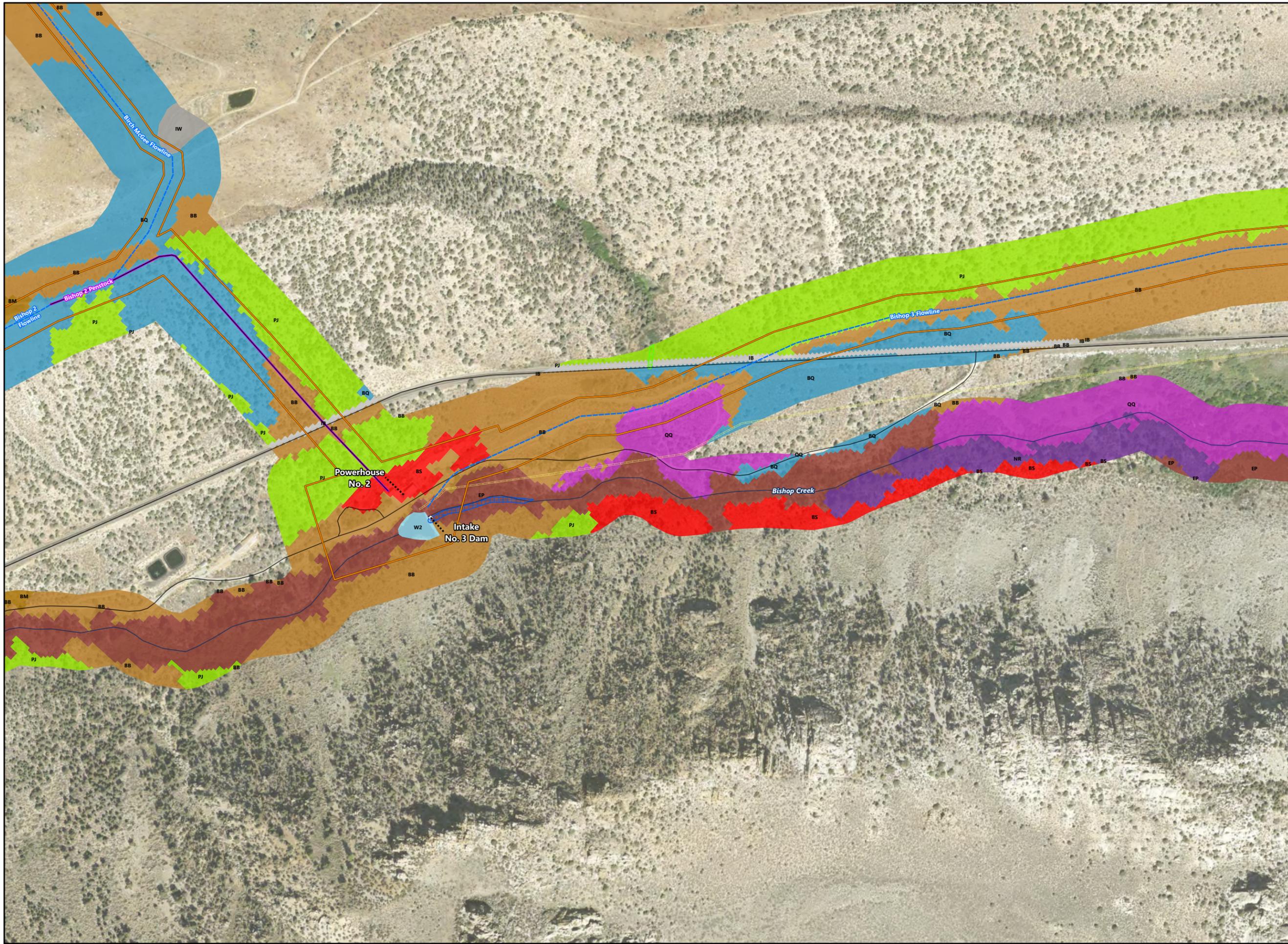
Vegetation & Wetland Classifications

Map No. 5 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BM - Curlleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- IW - Urban or Industrial Impoundment
- NR - Riparian Mixed Hardwood
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

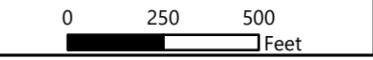


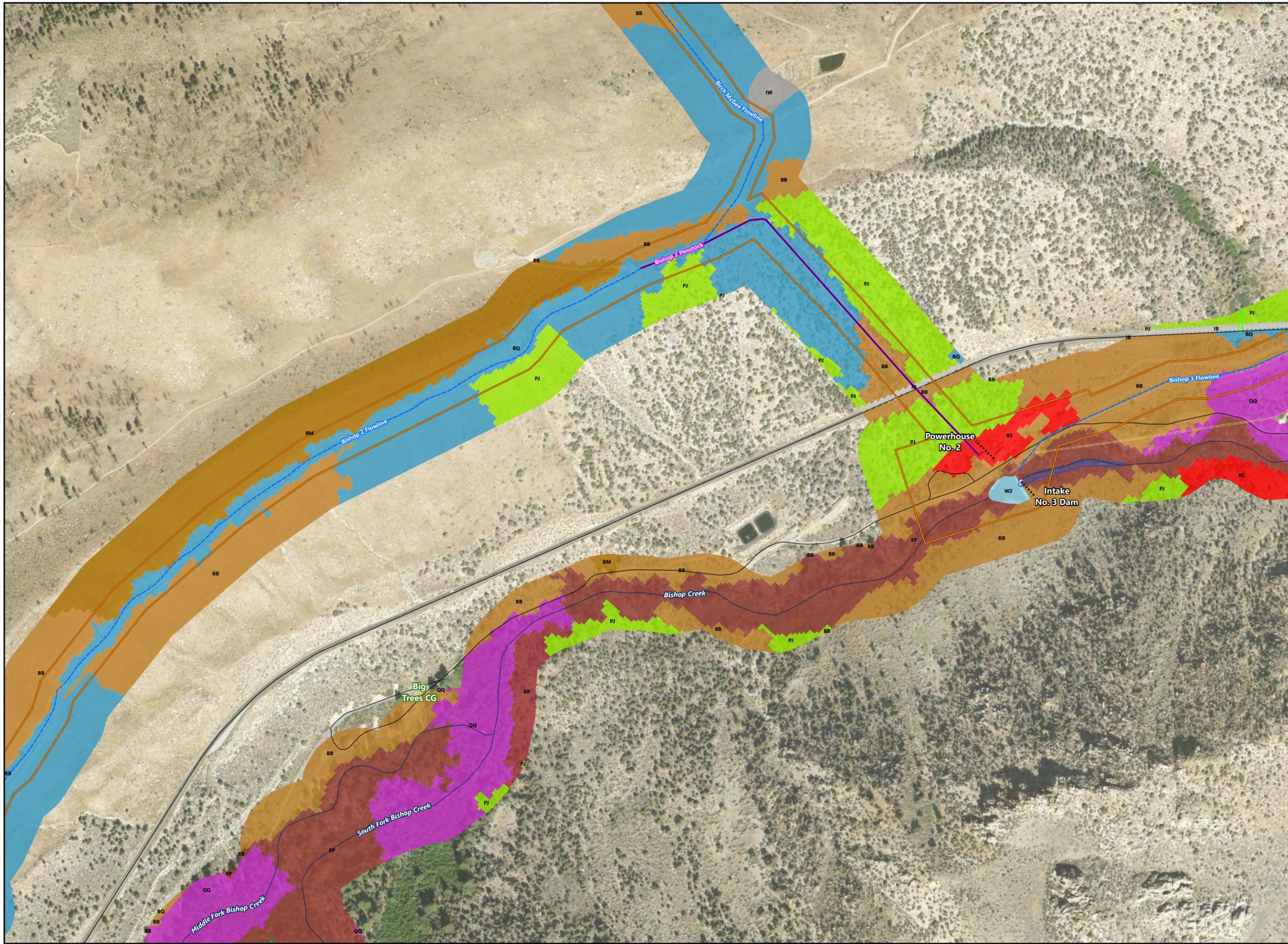
Vegetation & Wetland Classifications

Map No. 6 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BR - Rabbitbrush
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- IW - Urban or Industrial Impoundment
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

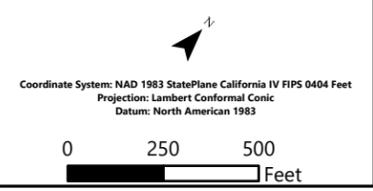
Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

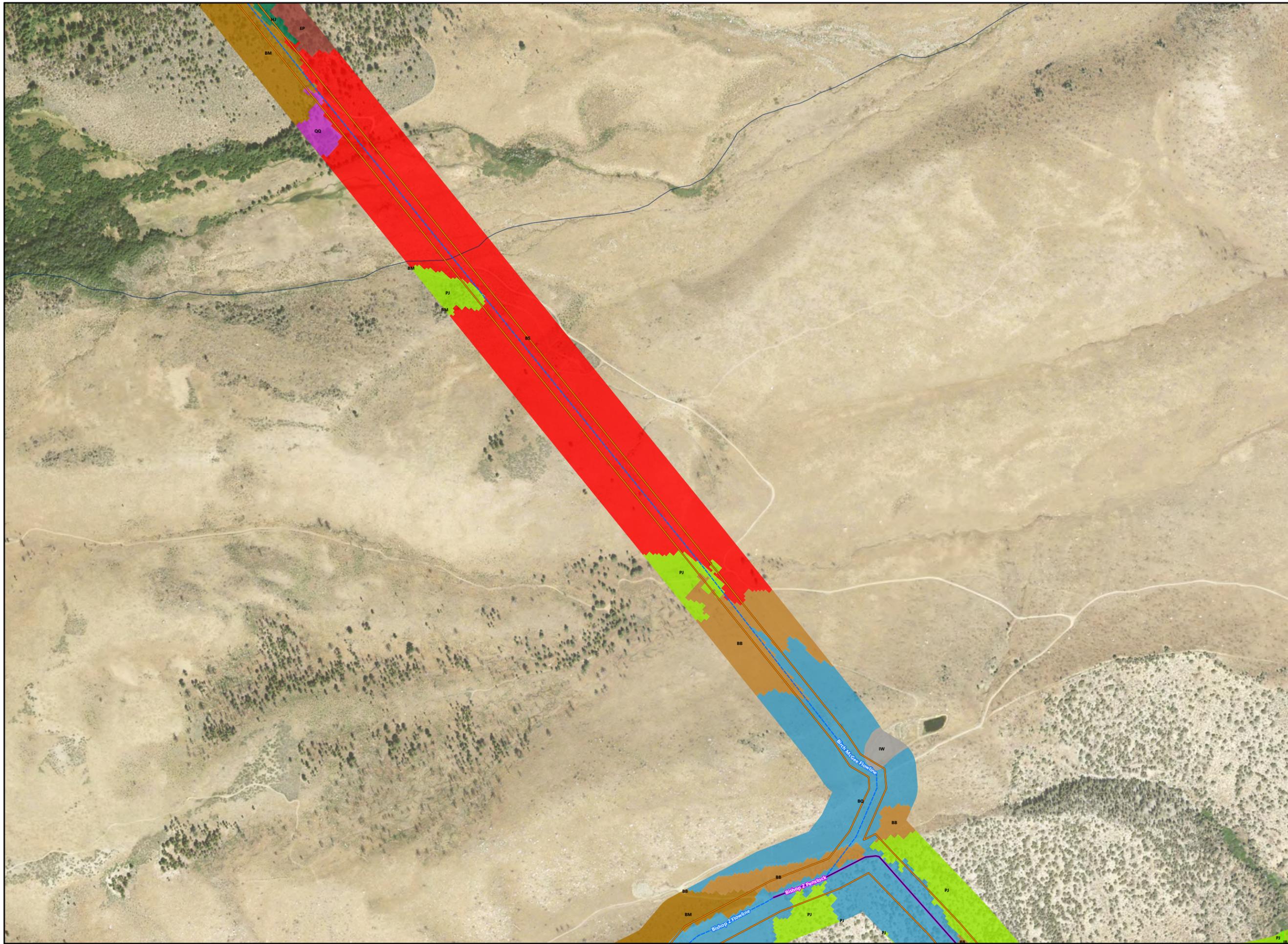


Vegetation & Wetland Classifications

Map No. 7 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- HJ - Wet Meadows
- IB - Urban-related Bare Soil
- IW - Urban or Industrial Impoundment
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen

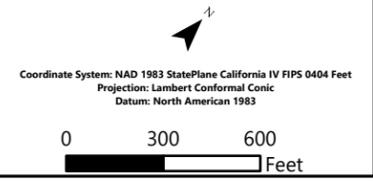
Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

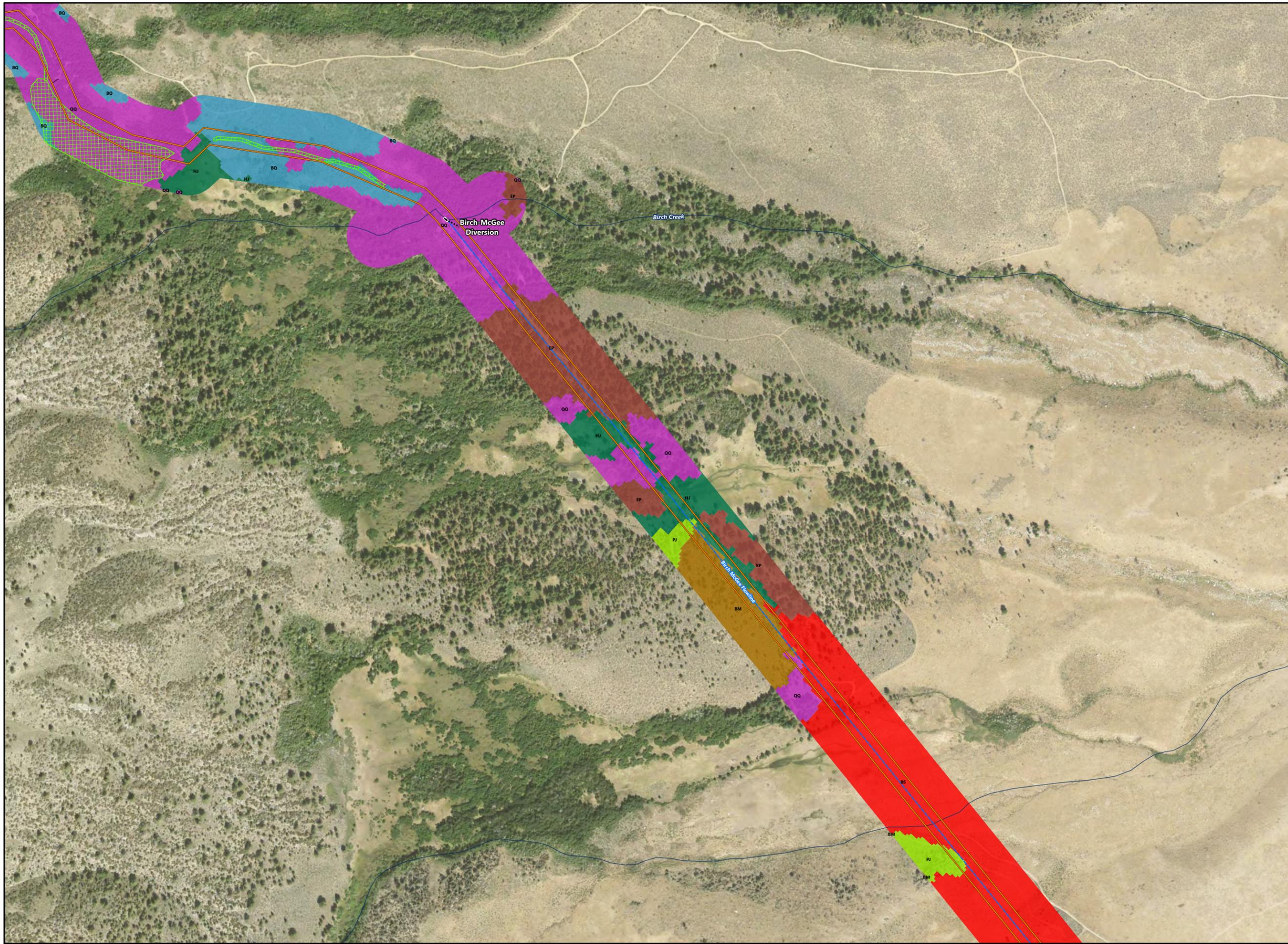


Vegetation & Wetland Classifications

Map No. 8 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BM - Curlleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- HJ - Wet Meadows
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

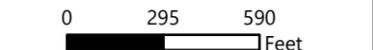


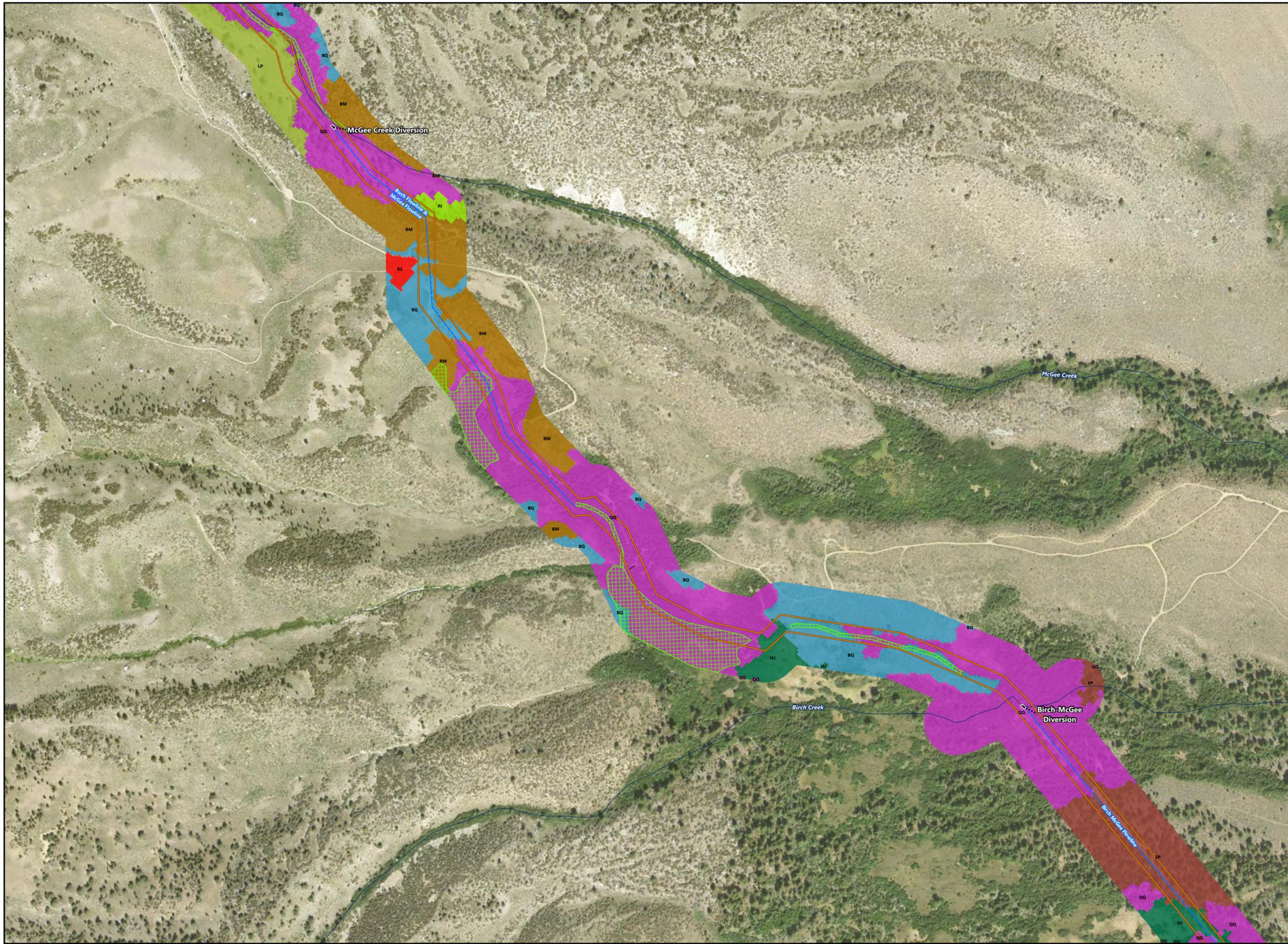
Vegetation & Wetland Classifications

Map No. 9 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BM - Curlleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- HJ - Wet Meadows
- LP - Lodgepole Pine
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

See Map 1 for details.

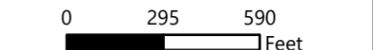


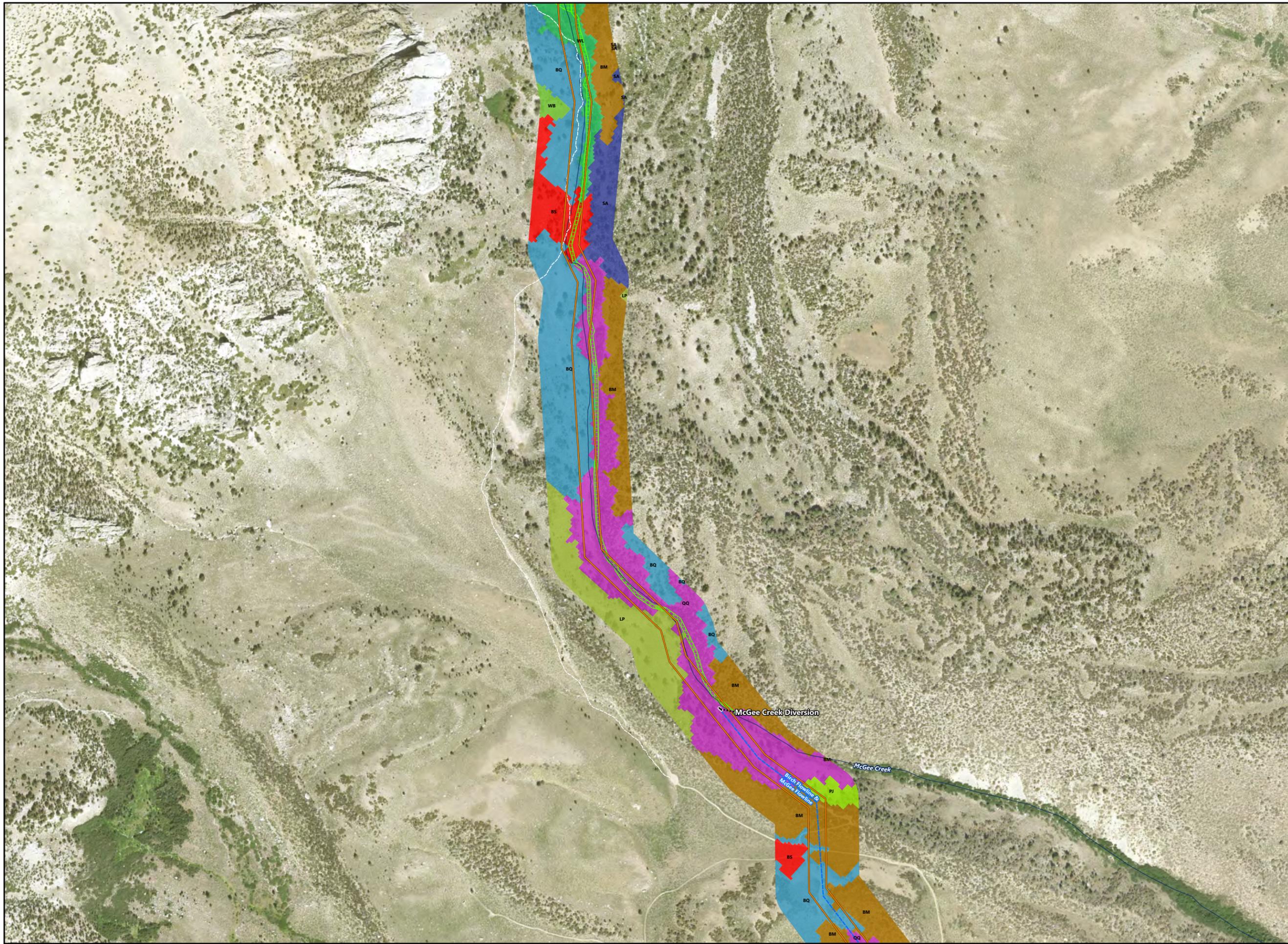
Vegetation & Wetland Classifications

Map No. 10 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

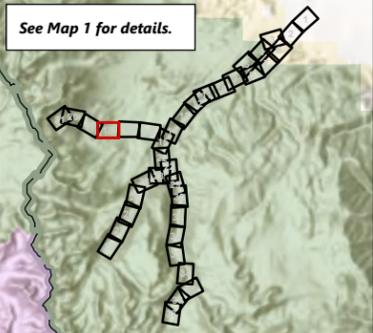




- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BM - Curlleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- LP - Lodgepole Pine
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- WB - Whitebark Pine
- WL - Willow (Shrub)

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

See Map 1 for details.

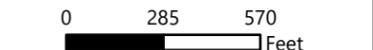


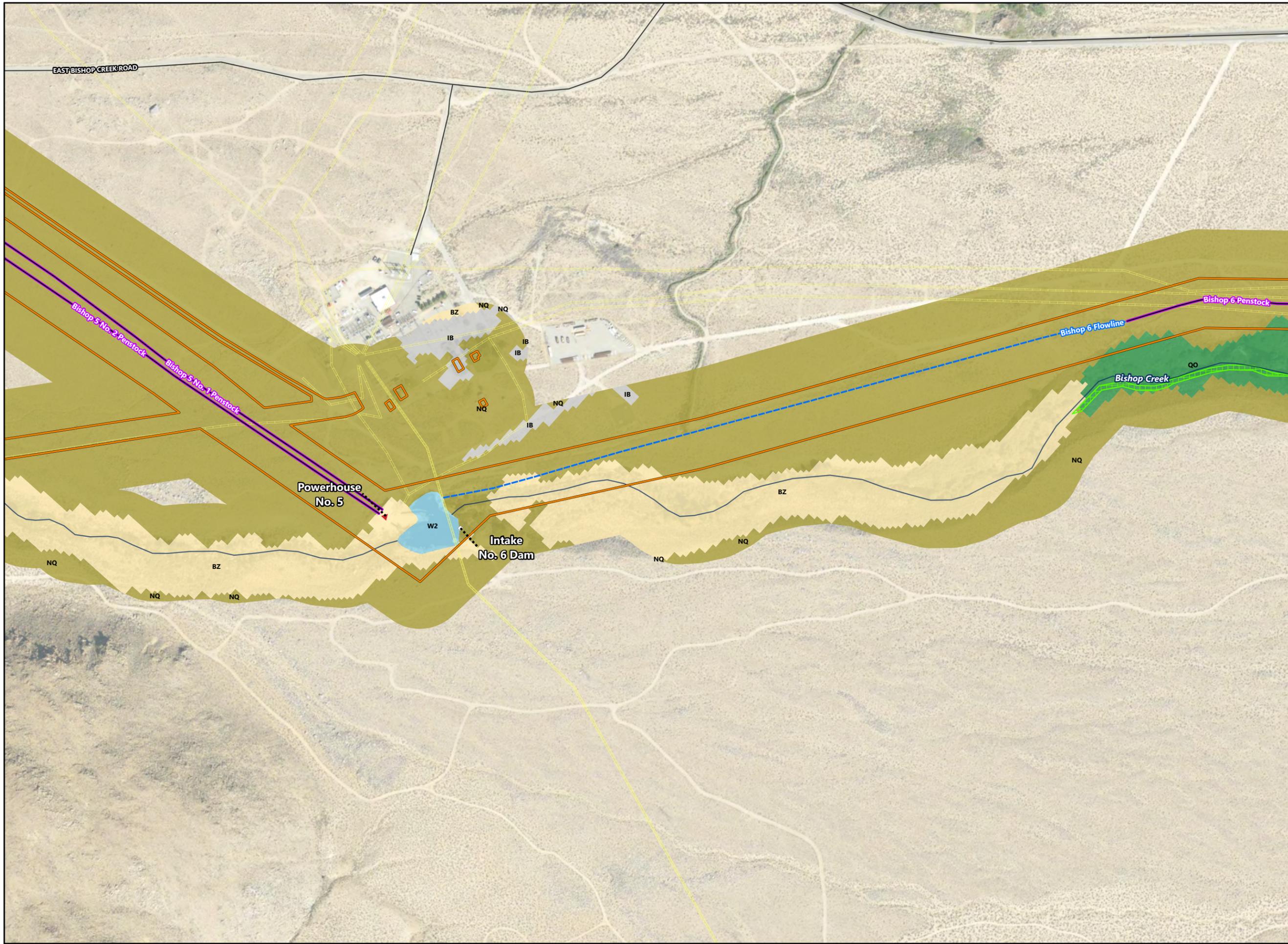
Vegetation & Wetland Classifications

Map No. 11 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- ▬ Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- - - Flowline
- Penstock/Tunnel
- - - Transmission Line
- NWI Wetland Type**
- ▬ Freshwater Forested/Shrub Wetland
- ▬ Riverine
- CALVEG Type (in current extent)**
- BZ - Great Basin - Desert Mixed Scrub
- IB - Urban-related Bare Soil
- NQ - High Desert Mixed Scrub
- QO - Willow
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



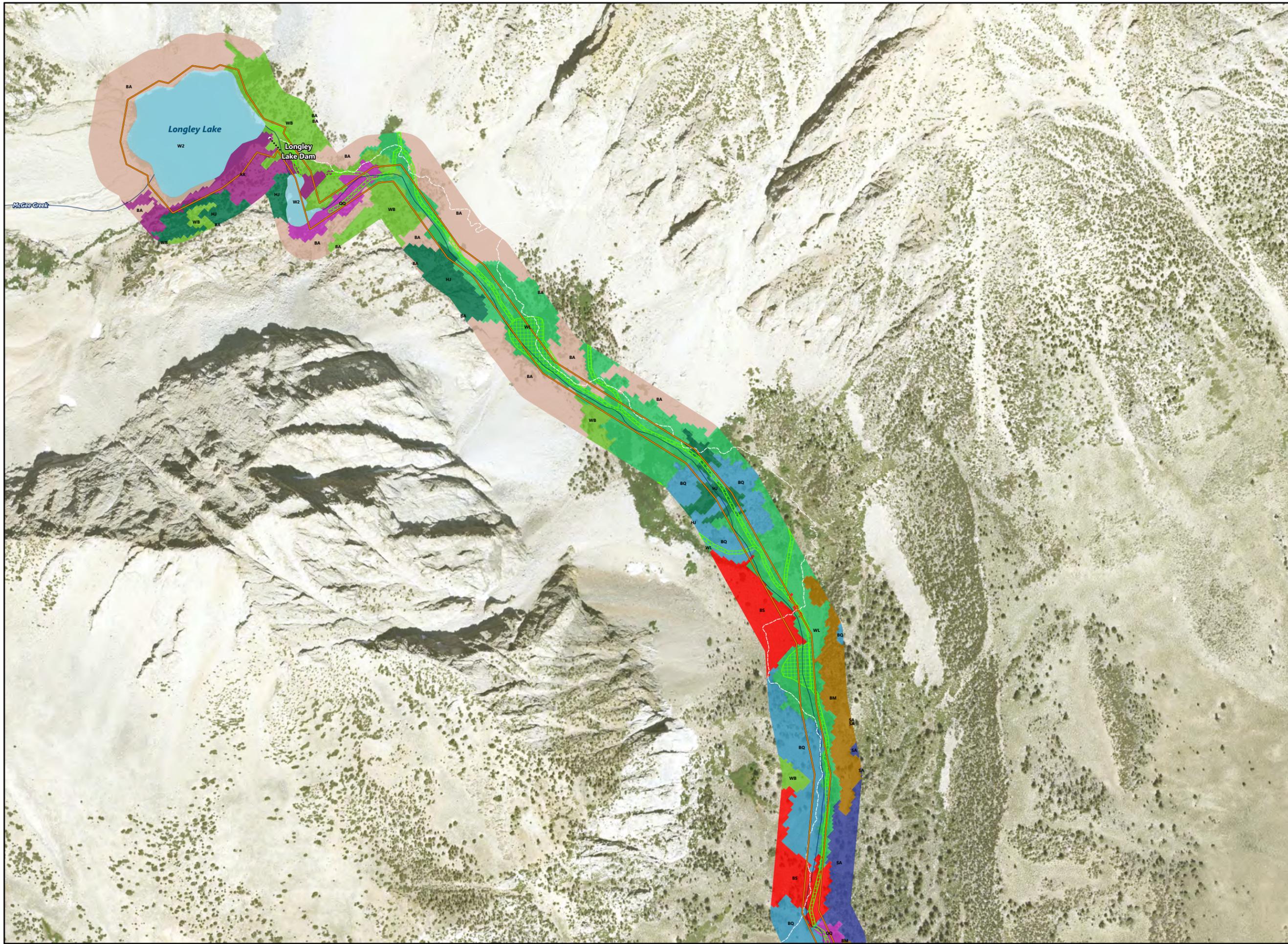
Vegetation & Wetland Classifications

Map No. 12 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 195 390
 Feet



- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- AX - Alpine Mixed Scrub
- BA - Barren
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- HJ - Wet Meadows
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- W2 - Perennial Lake or Pond
- WB - Whitebark Pine
- WL - Willow (Shrub)

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



Vegetation & Wetland Classifications

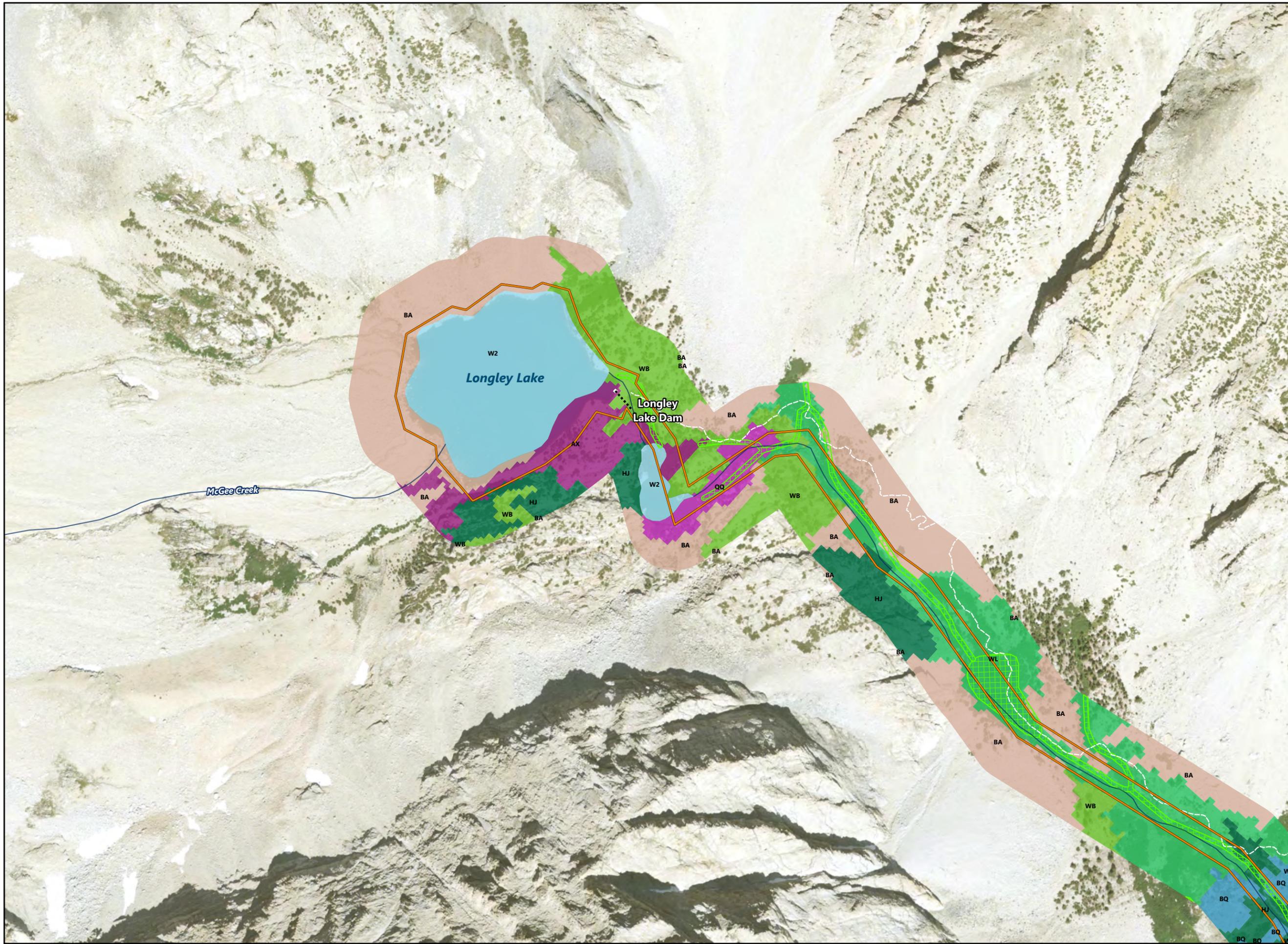
Map No. 13 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

↑

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

0 300 600
Feet



- ▬ Project Boundary
- ▲ Powerhouse
- Dam
- ▬ Diversion
- ▬ Flowline
- ▬ Penstock/Tunnel
- ▬ Transmission Line
- NWI Wetland Type**
- ▬ Freshwater Forested/Shrub Wetland
- ▬ Riverine
- CALVEG Type (in current extent)**
- ▬ AX - Alpine Mixed Scrub
- ▬ BA - Barren
- ▬ BQ - Great Basin Mixed Scrub
- ▬ HJ - Wet Meadows
- ▬ QQ - Quaking Aspen
- ▬ W2 - Perennial Lake or Pond
- ▬ WB - Whitebark Pine
- ▬ WL - Willow (Shrub)

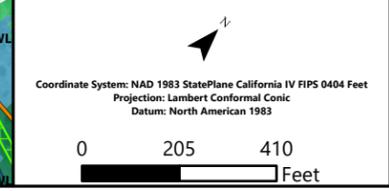
Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

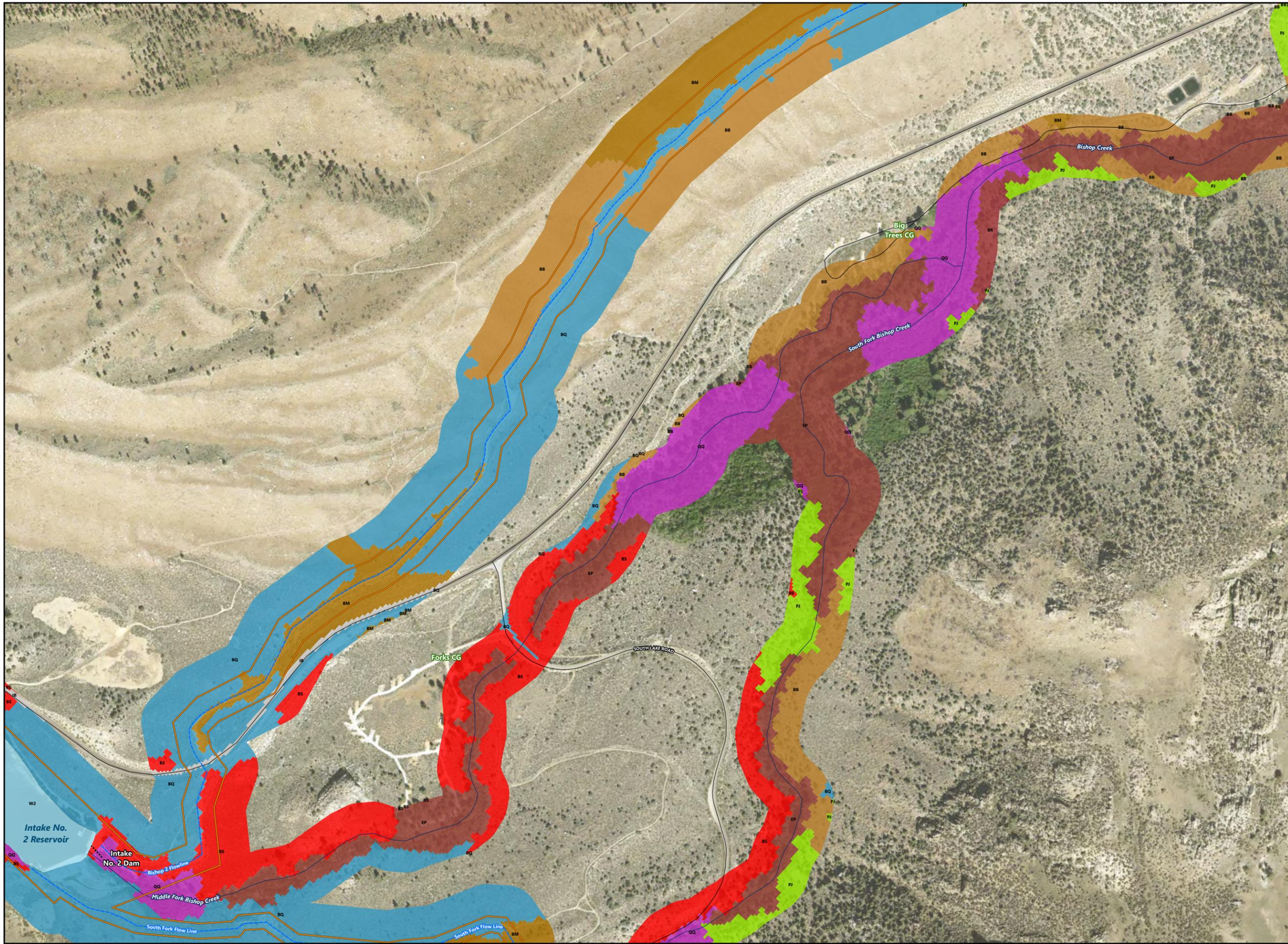


Vegetation & Wetland Classifications

Map No. 14 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BR - Rabbitbrush
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



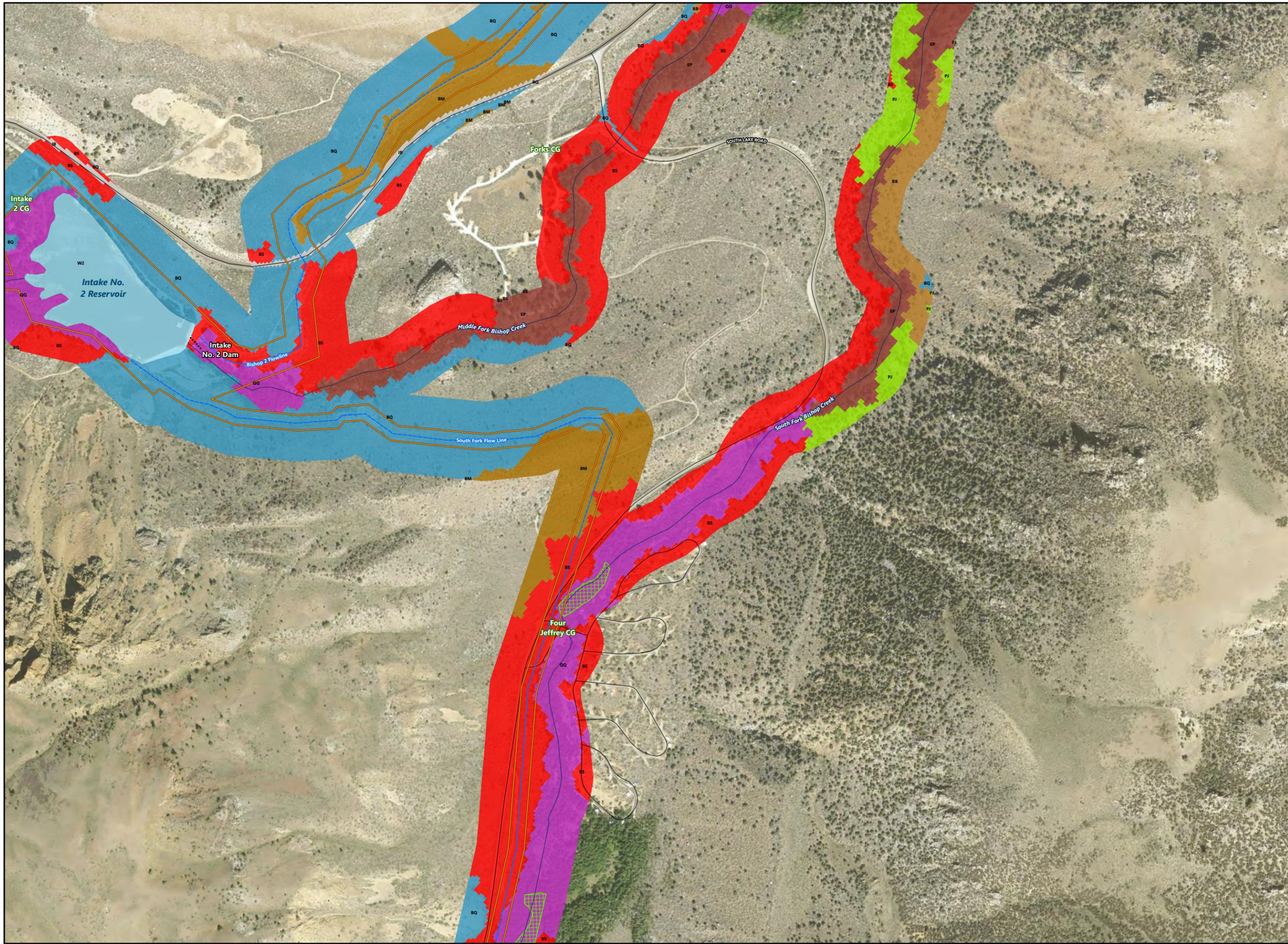
Vegetation & Wetland Classifications

Map No. 15 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

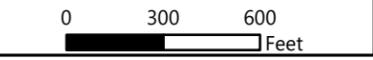


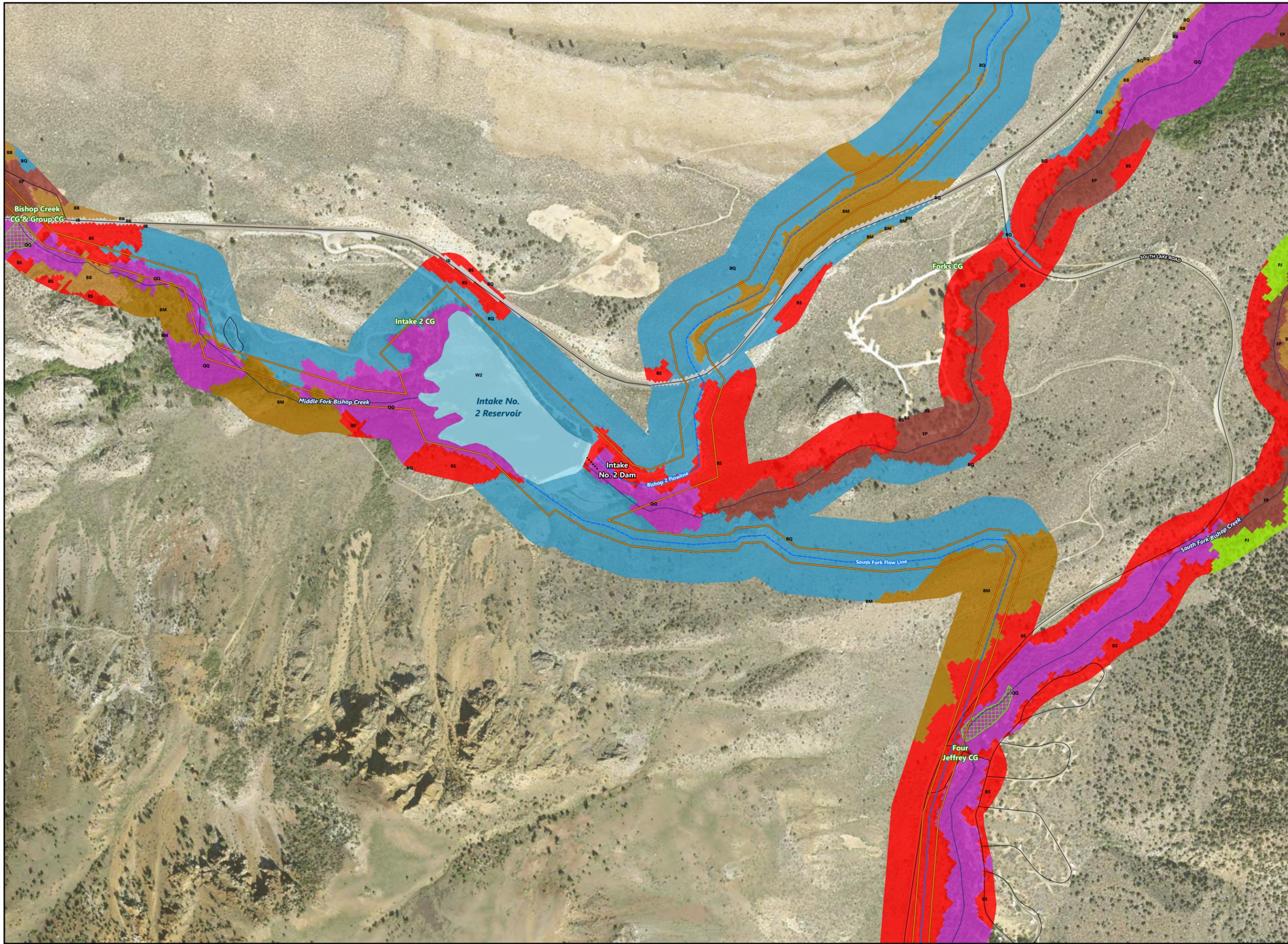
Vegetation & Wetland Classifications

Map No. 16 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



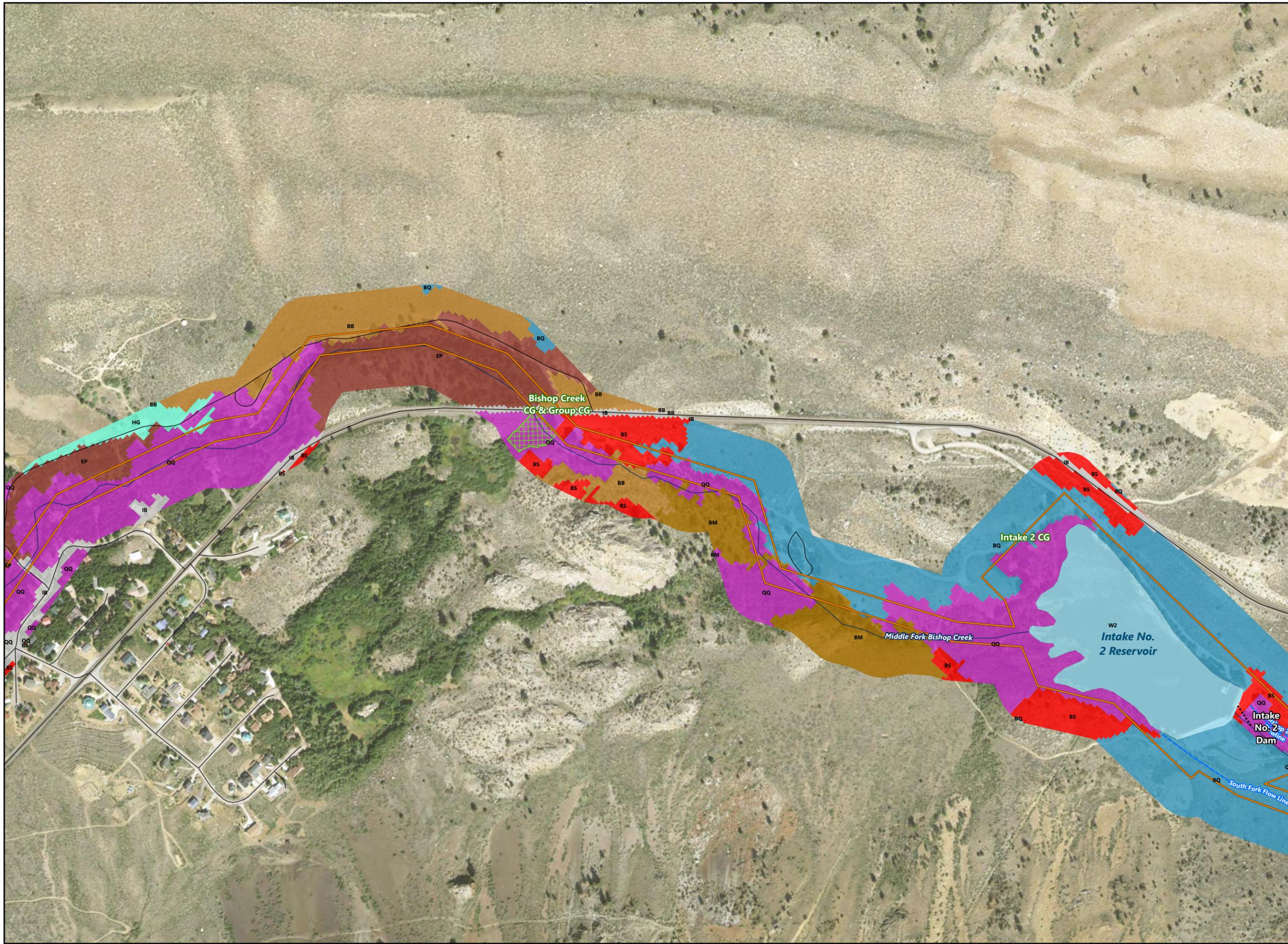
Vegetation & Wetland Classifications

Map No. 17 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





— Project Boundary
▲ Powerhouse
 Dam
— Diversion
— Flowline
— Penstock/Tunnel
— Transmission Line
NWI Wetland Type
■ Freshwater Forested/Shrub Wetland
■ Riverine
CALVEG Type (in current extent)
■ BB - Bitterbrush
■ BM - Curlleaf Mountain Mahogany
■ BQ - Great Basin Mixed Scrub
■ BS - Basin Sagebrush
■ EP - Eastside Pine
■ HG - Annual Grasses and Forbs
■ IB - Urban-related Bare Soil
■ QQ - Quaking Aspen
■ W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



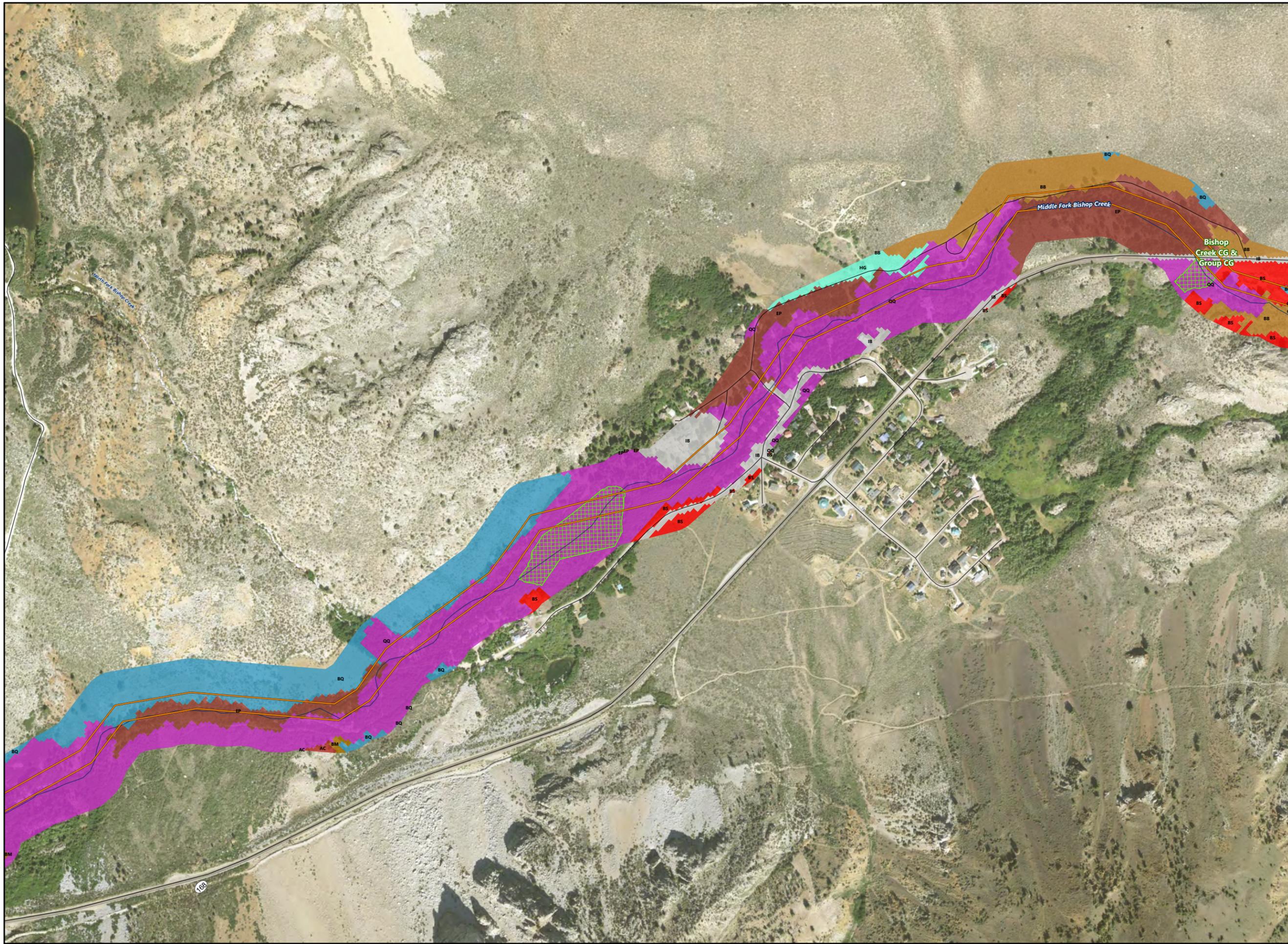
SOUTHERN CALIFORNIA
EDISON
Energy for What's AheadSM

Vegetation & Wetland Classifications
Map No. 18 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 237.5 475
Feet



— Project Boundary
▲ Powerhouse
 Dam
— Diversion
— Flowline
— Penstock/Tunnel
— Transmission Line
NWI Wetland Type
■ Freshwater Forested/Shrub Wetland
■ Riverine
CALVEG Type (in current extent)
■ AC - Alpine Grasses and Forbs
■ BB - Bitterbrush
■ BM - Curleaf Mountain Mahogany
■ BQ - Great Basin Mixed Scrub
■ BS - Basin Sagebrush
■ EP - Eastside Pine
■ HG - Annual Grasses and Forbs
■ IB - Urban-related Bare Soil
■ QQ - Quaking Aspen

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



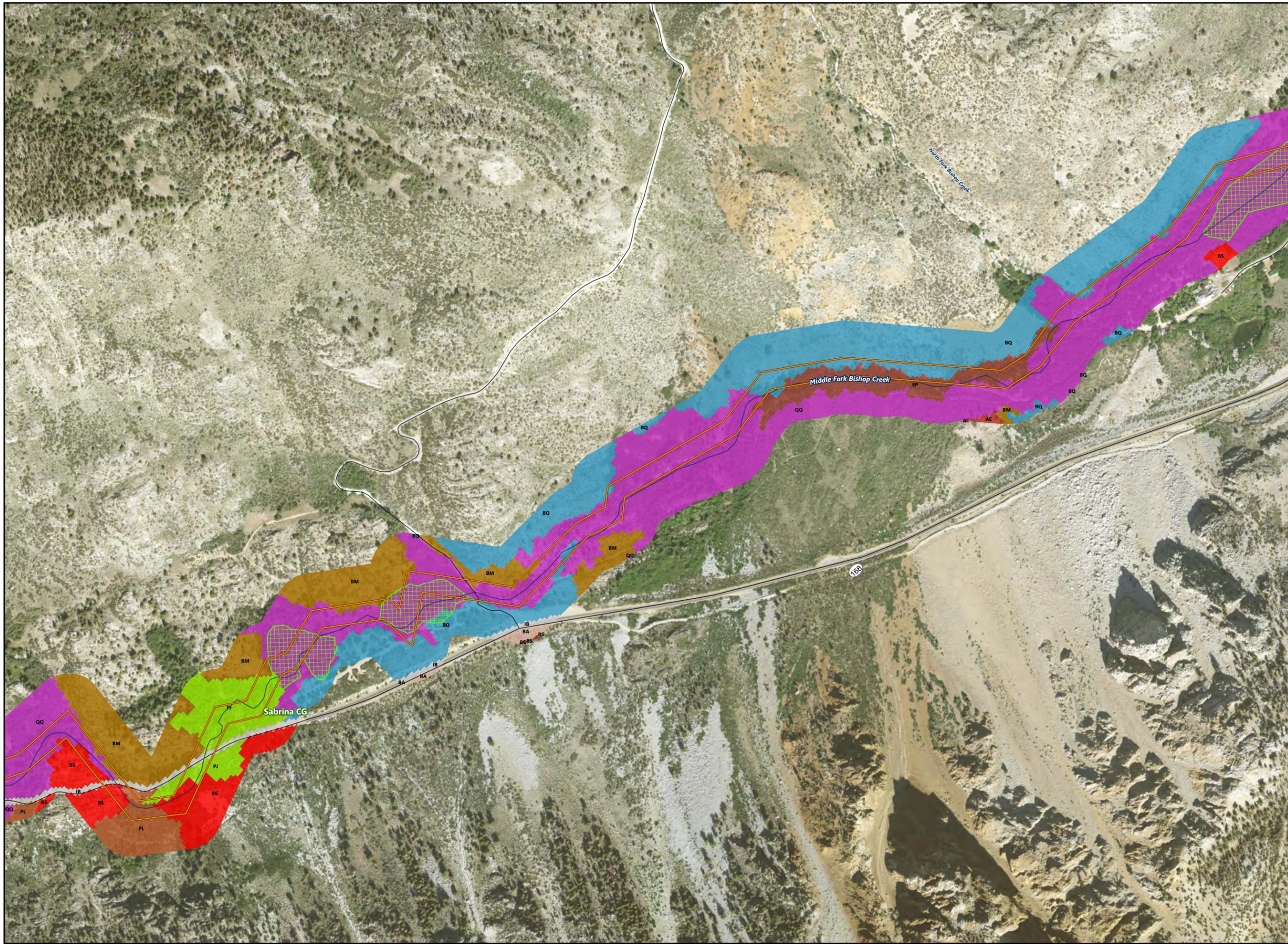
Vegetation & Wetland Classifications

Map No. 19 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 285 570
 Feet



- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- AC - Alpine Grasses and Forbs
- BA - Barren
- BM - Curlleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- PL - Limber Pine
- QQ - Quaking Aspen

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



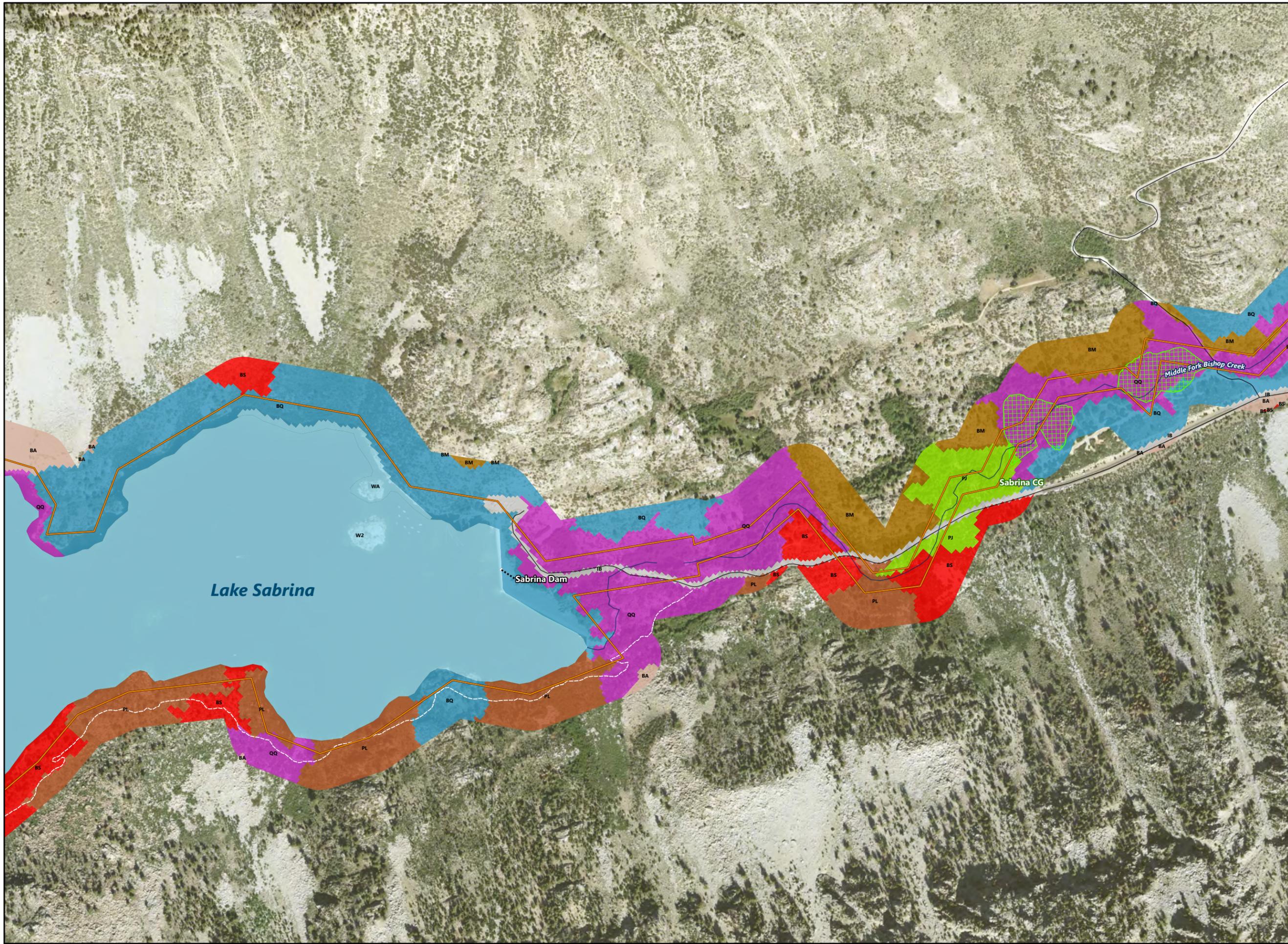
Vegetation & Wetland Classifications

Map No. 20 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

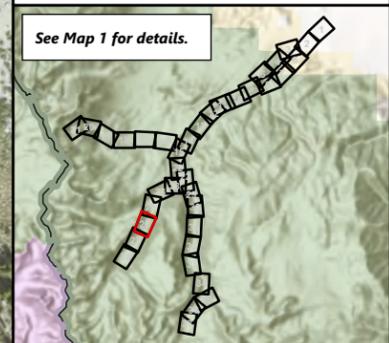
Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BA - Barren
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- IB - Urban-related Bare Soil
- PJ - Singleleaf Pinyon Pine
- PL - Limber Pine
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

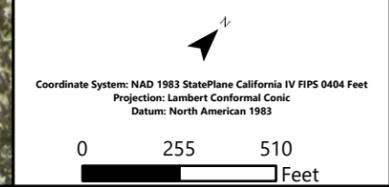
Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

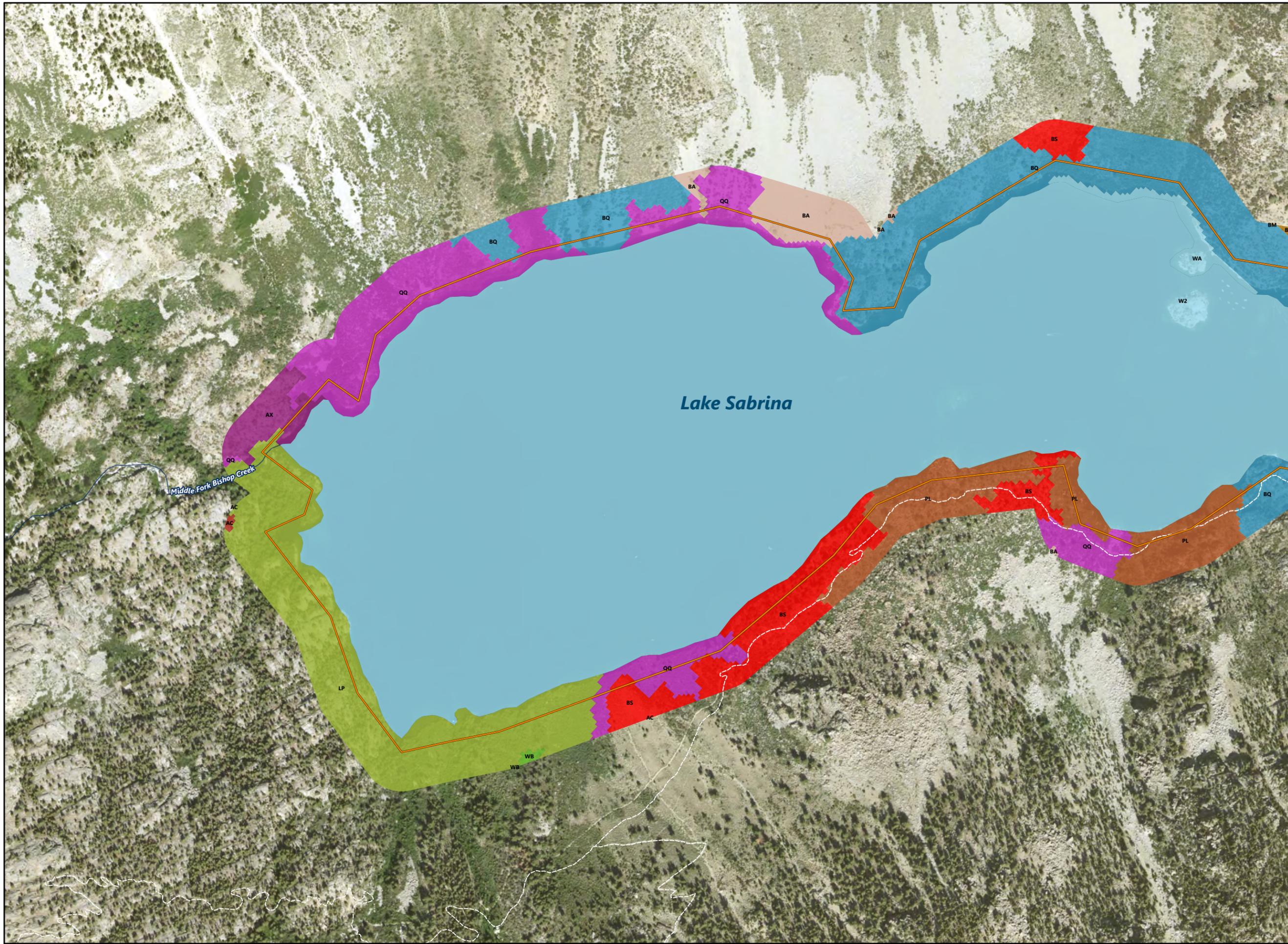


Vegetation & Wetland Classifications

Map No. 21 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**





— Project Boundary
▲ Powerhouse
 Dam
— Diversion
— Flowline
— Penstock/Tunnel
— Transmission Line
NWI Wetland Type
— Freshwater Forested/Shrub Wetland
— Riverine
CALVEG Type (in current extent)
■ AC - Alpine Grasses and Forbs
■ AX - Alpine Mixed Scrub
■ BA - Barren
■ BM - Curleaf Mountain Mahogany
■ BQ - Great Basin Mixed Scrub
■ BS - Basin Sagebrush
■ LP - Lodgepole Pine
■ PL - Limber Pine
■ QQ - Quaking Aspen
■ W2 - Perennial Lake or Pond
■ WB - Whitebark Pine

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

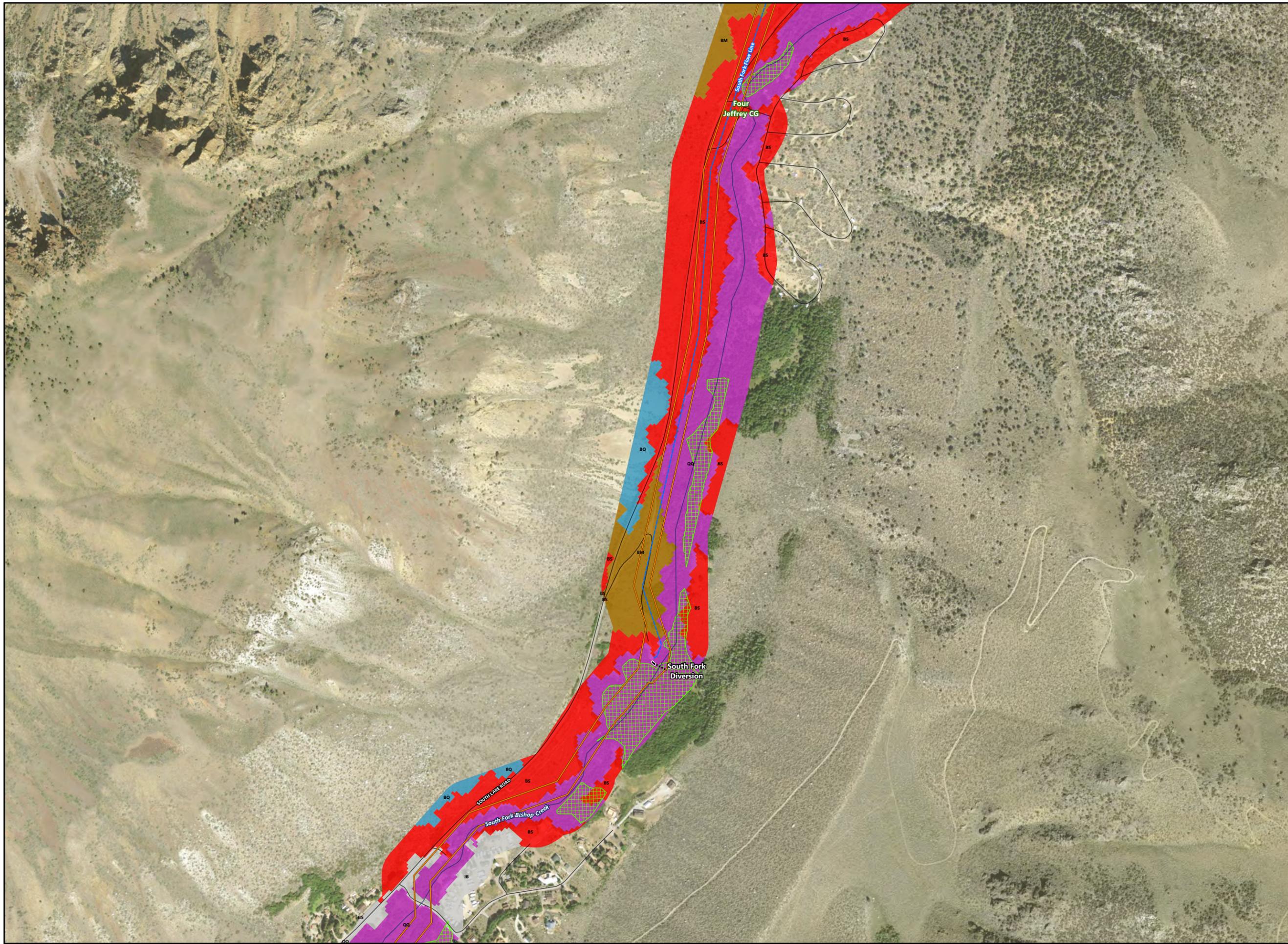


Vegetation & Wetland Classifications

Map No. 22 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983
 0 237.5 475
 Feet



- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BM - Curlleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- IB - Urban-related Bare Soil
- QQ - Quaking Aspen

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



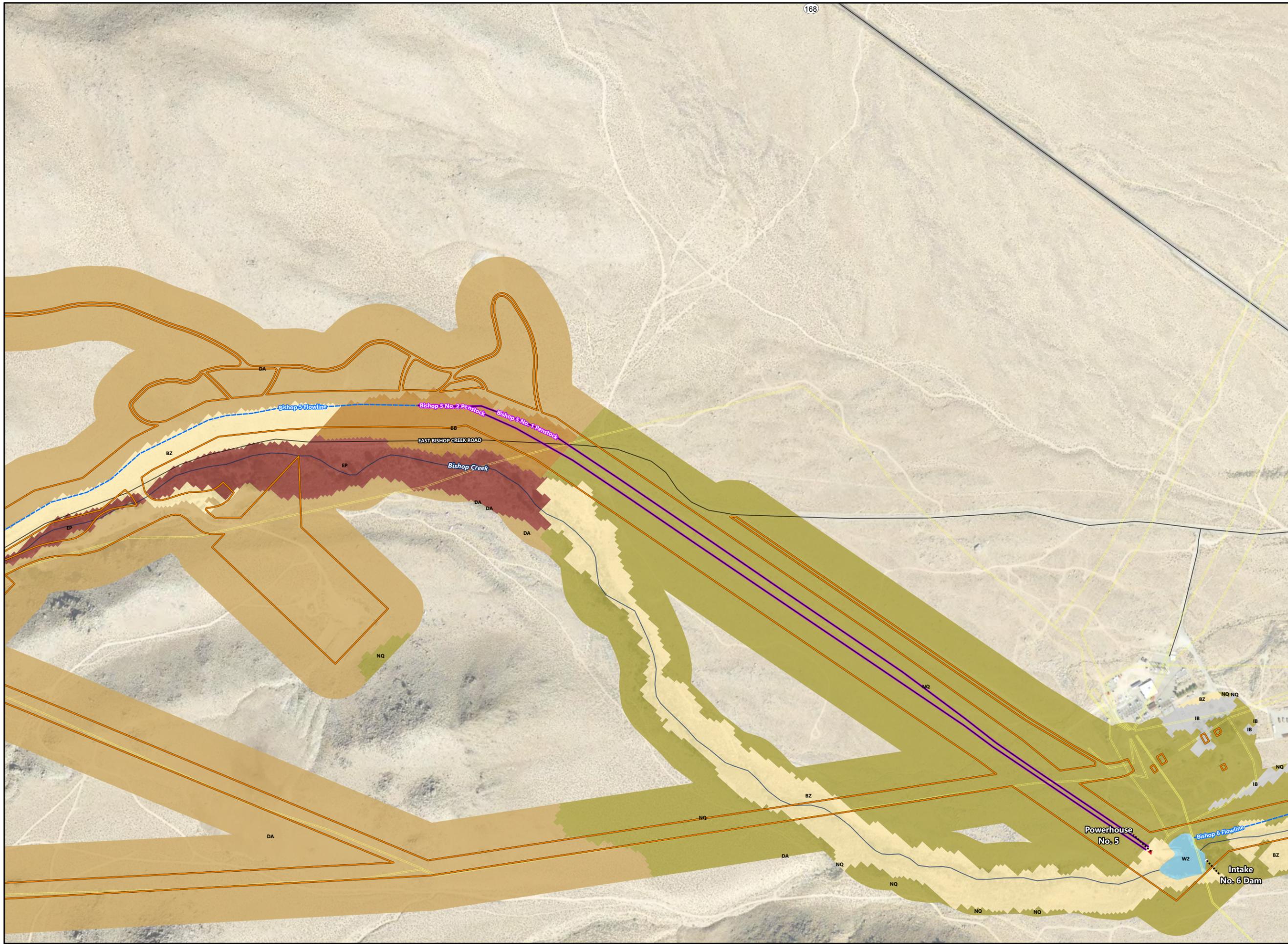
Vegetation & Wetland Classifications

Map No. 23 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





168

- ▬ Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- ▬ Freshwater Forested/Shrub Wetland
- ▬ Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- NQ - High Desert Mixed Scrub
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

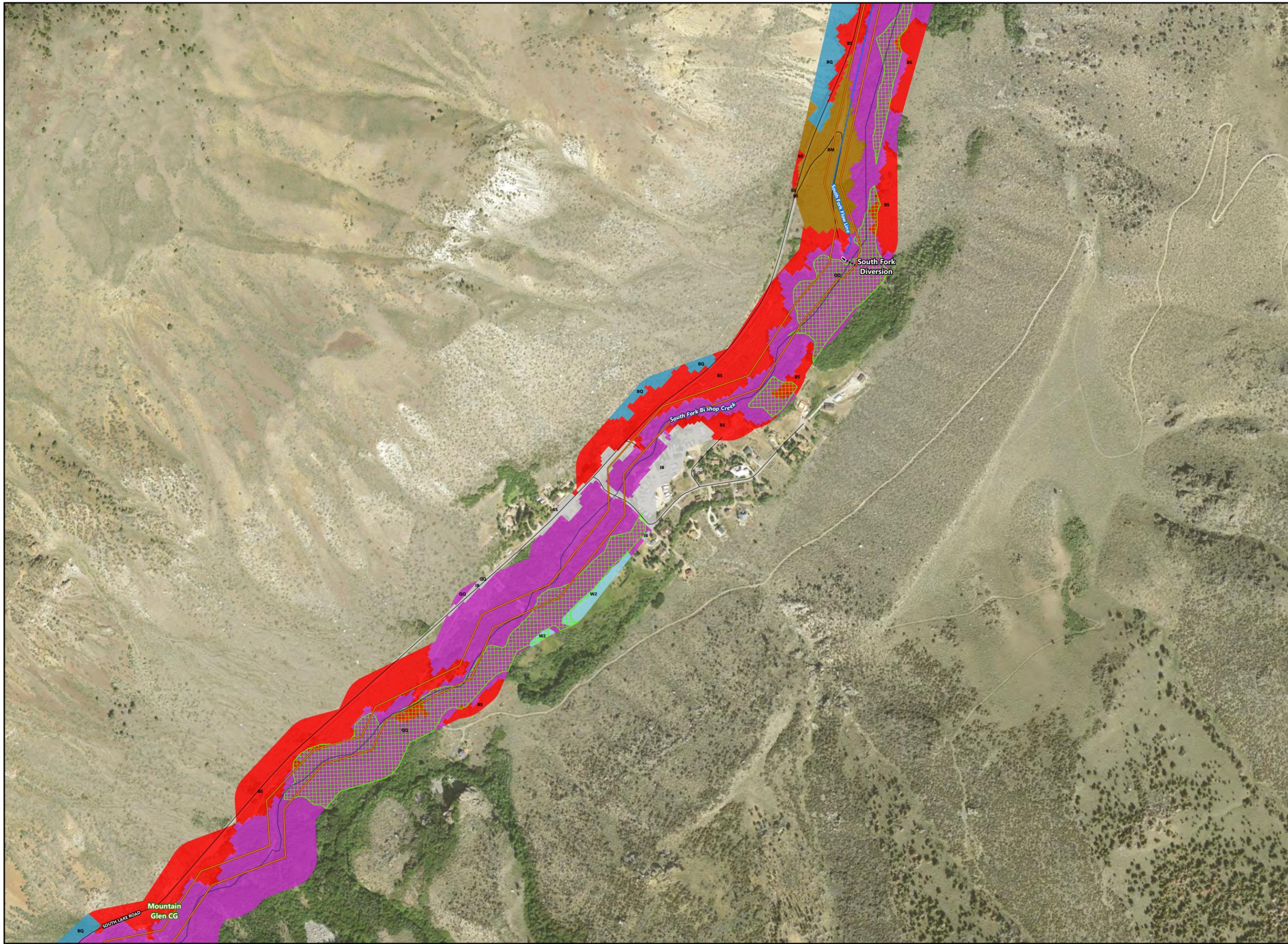


Vegetation & Wetland Classifications

Map No. 24 of 38

BISHOP CREEK HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983



- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- IB - Urban-related Bare Soil
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



Vegetation & Wetland Classifications

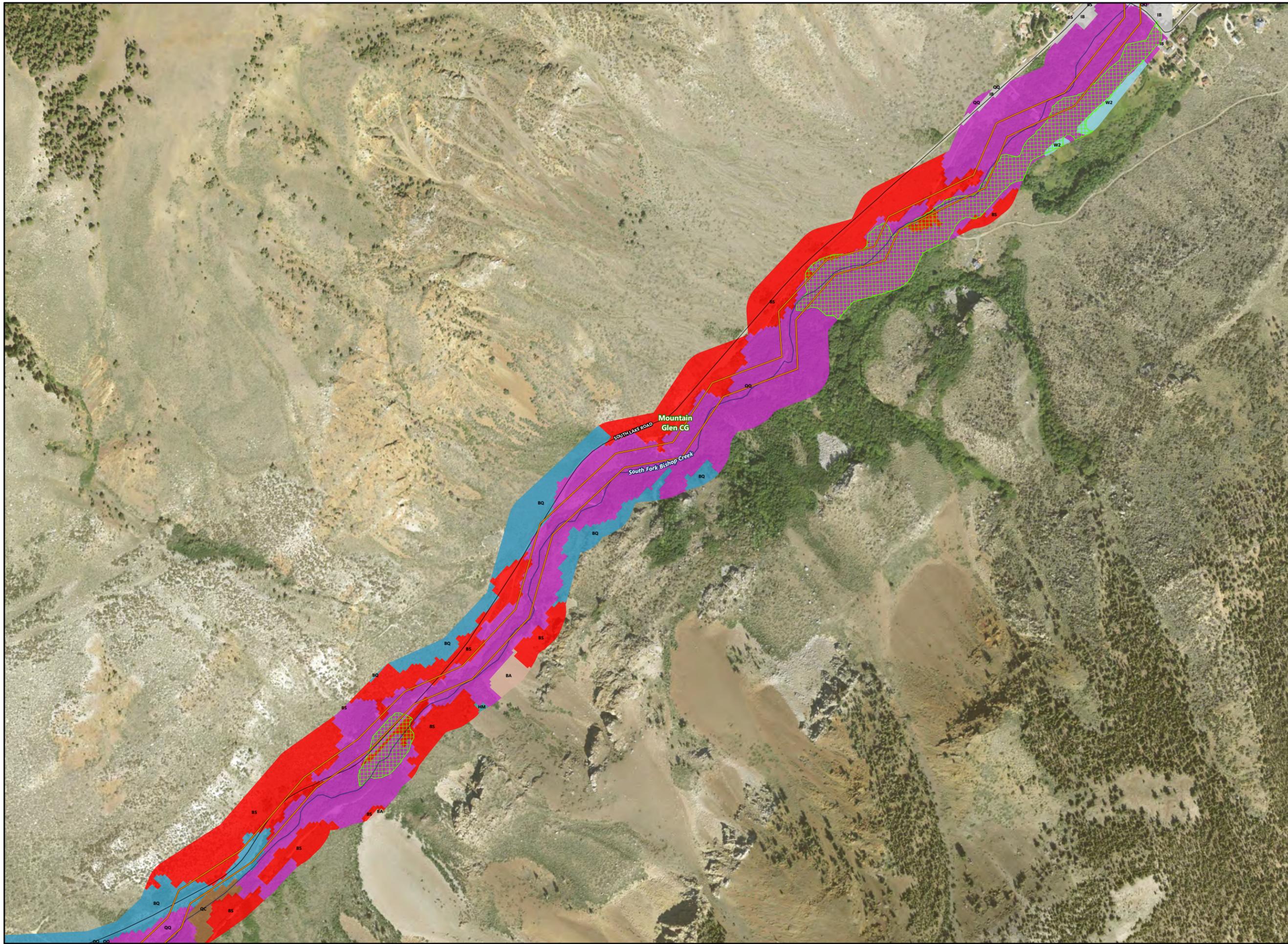
Map No. 25 of 38

**BISHOP CREEK HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

↑

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 300 600
 Feet



Project Boundary

- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line

NWI Wetland Type

- Freshwater Forested/Shrub Wetland
- Riverine

CALVEG Type (in current extent)

- BA - Barren
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- HM - Perennial Grasses and Forbs
- IB - Urban-related Bare Soil
- QC - Canyon Live Oak
- QQ - Quaking Aspen
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



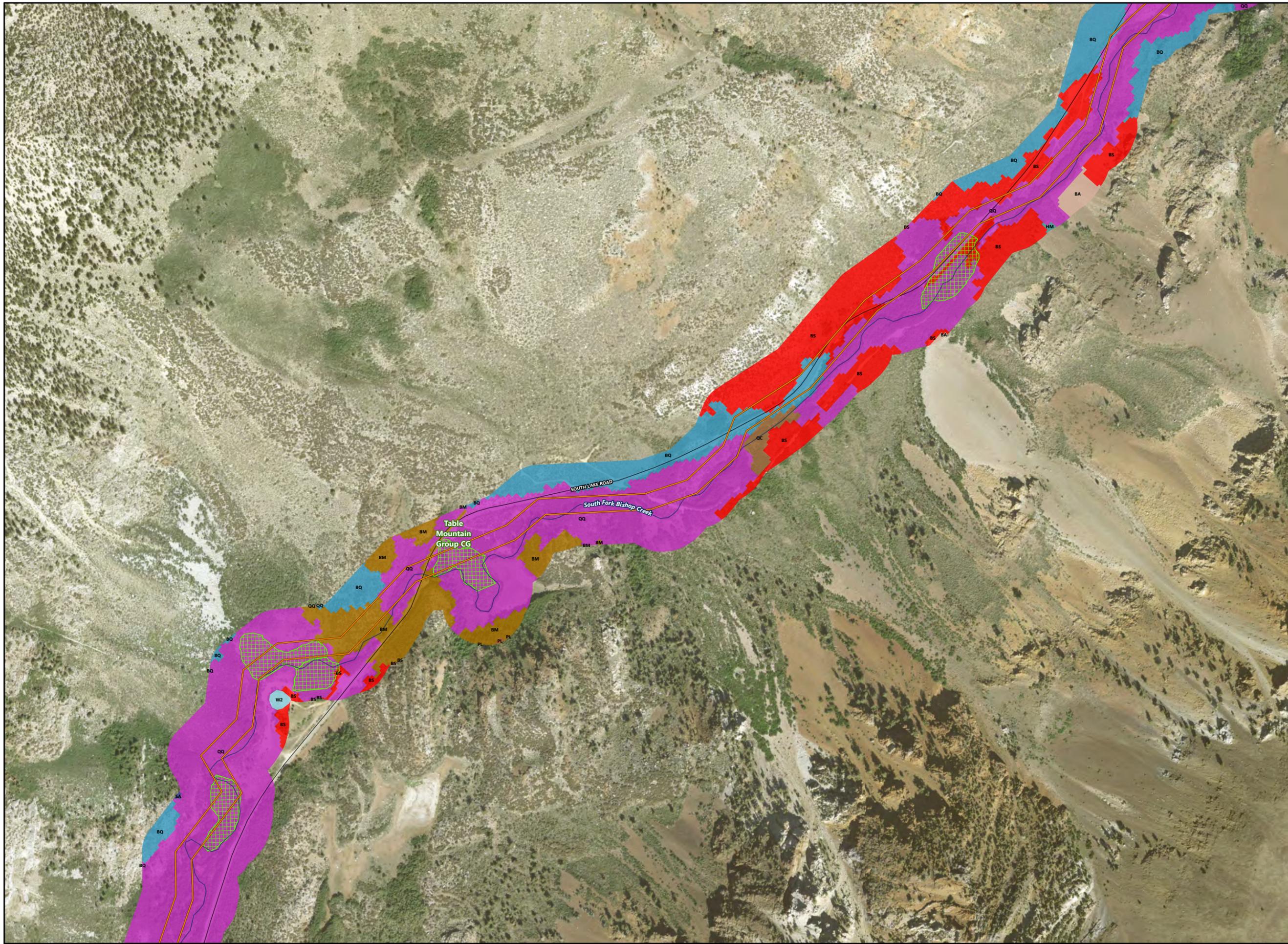
Vegetation & Wetland Classifications

Map No. 26 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 295 590 Feet



- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BA - Barren
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- HM - Perennial Grasses and Forbs
- PL - Limber Pine
- QC - Canyon Live Oak
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



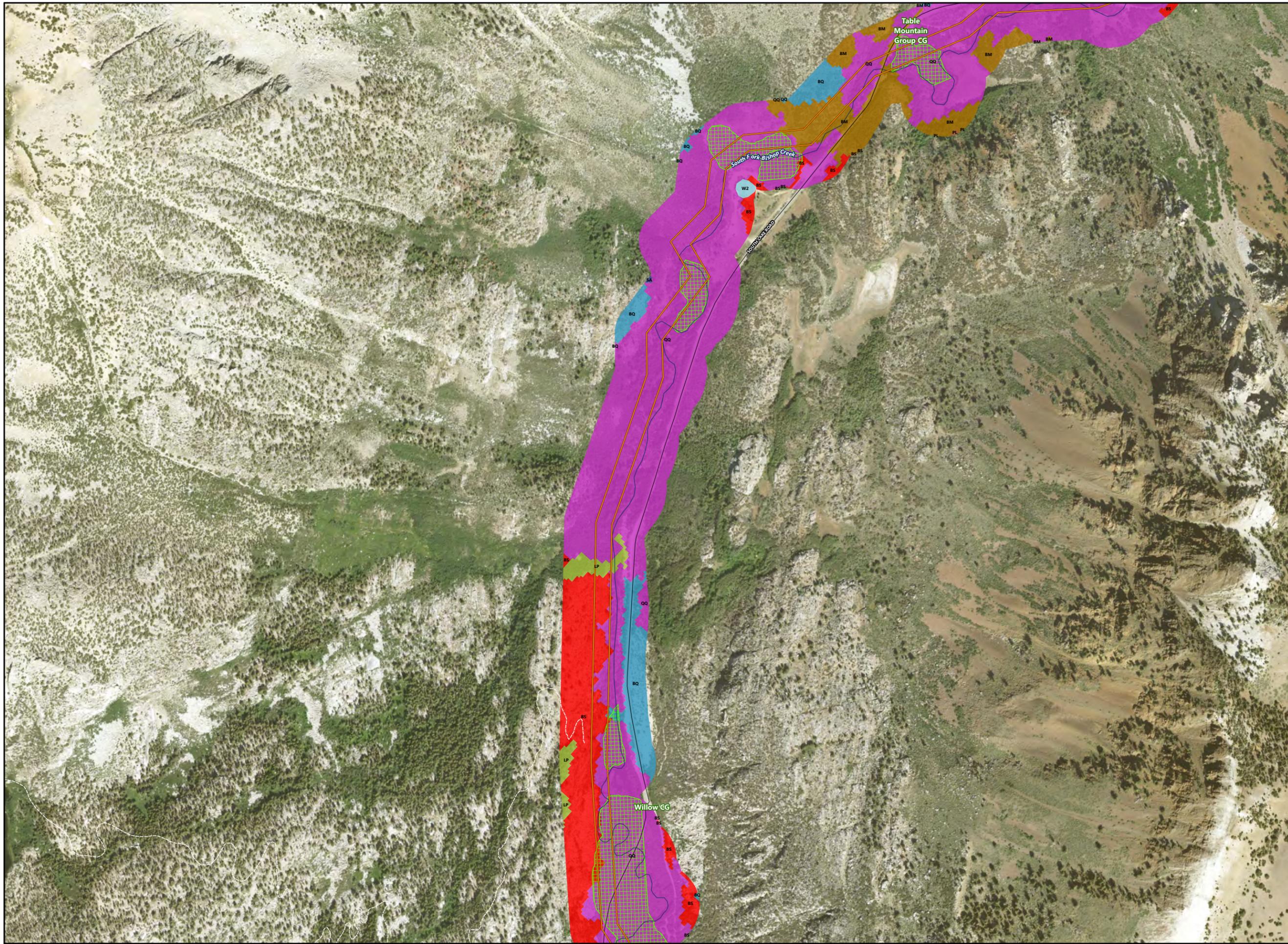
Vegetation & Wetland Classifications

Map No. 27 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

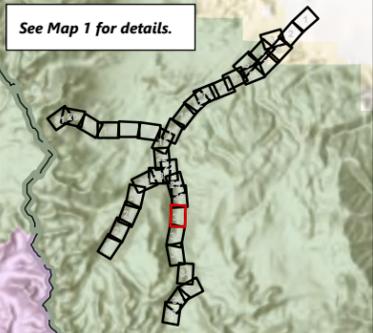
Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BM - Curleaf Mountain Mahogany
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- LP - Lodgepole Pine
- PL - Limber Pine
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- WZ - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



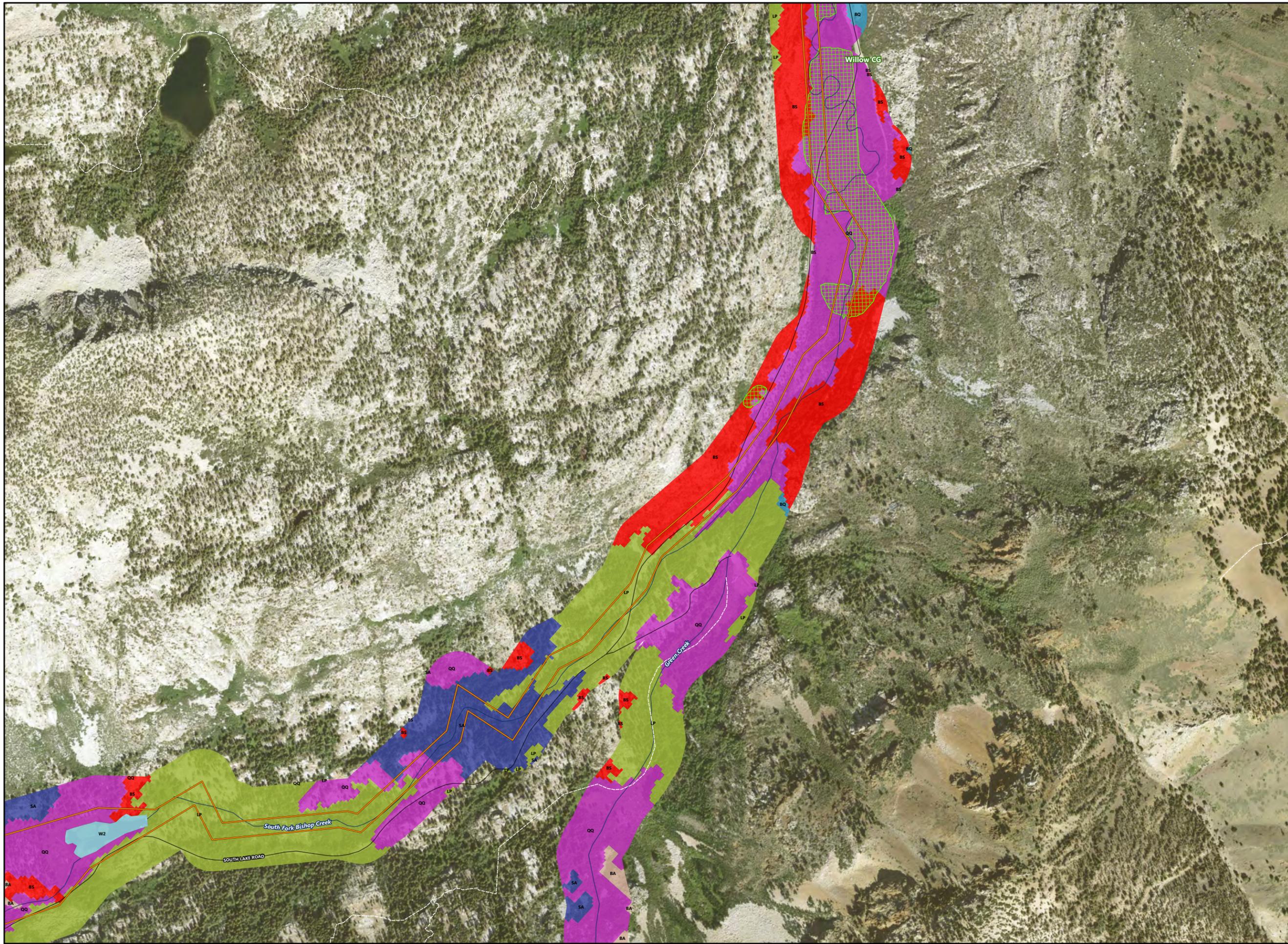
Vegetation & Wetland Classifications

Map No. 28 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BA - Barren
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- LP - Lodgepole Pine
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



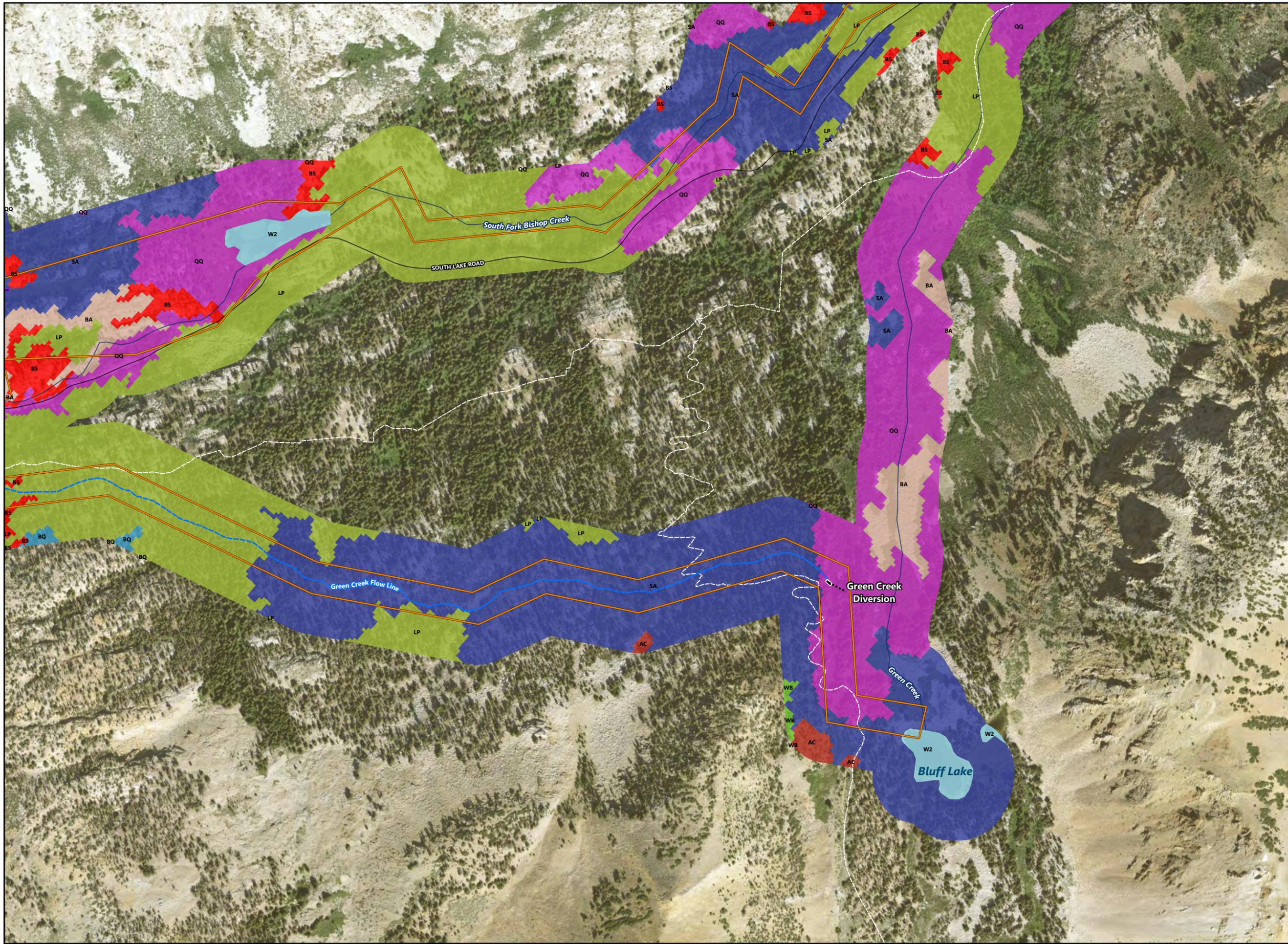
Vegetation & Wetland Classifications

Map No. 29 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- AC - Alpine Grasses and Forbs
- BA - Barren
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- LP - Lodgepole Pine
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- W2 - Perennial Lake or Pond
- WB - Whitebark Pine

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



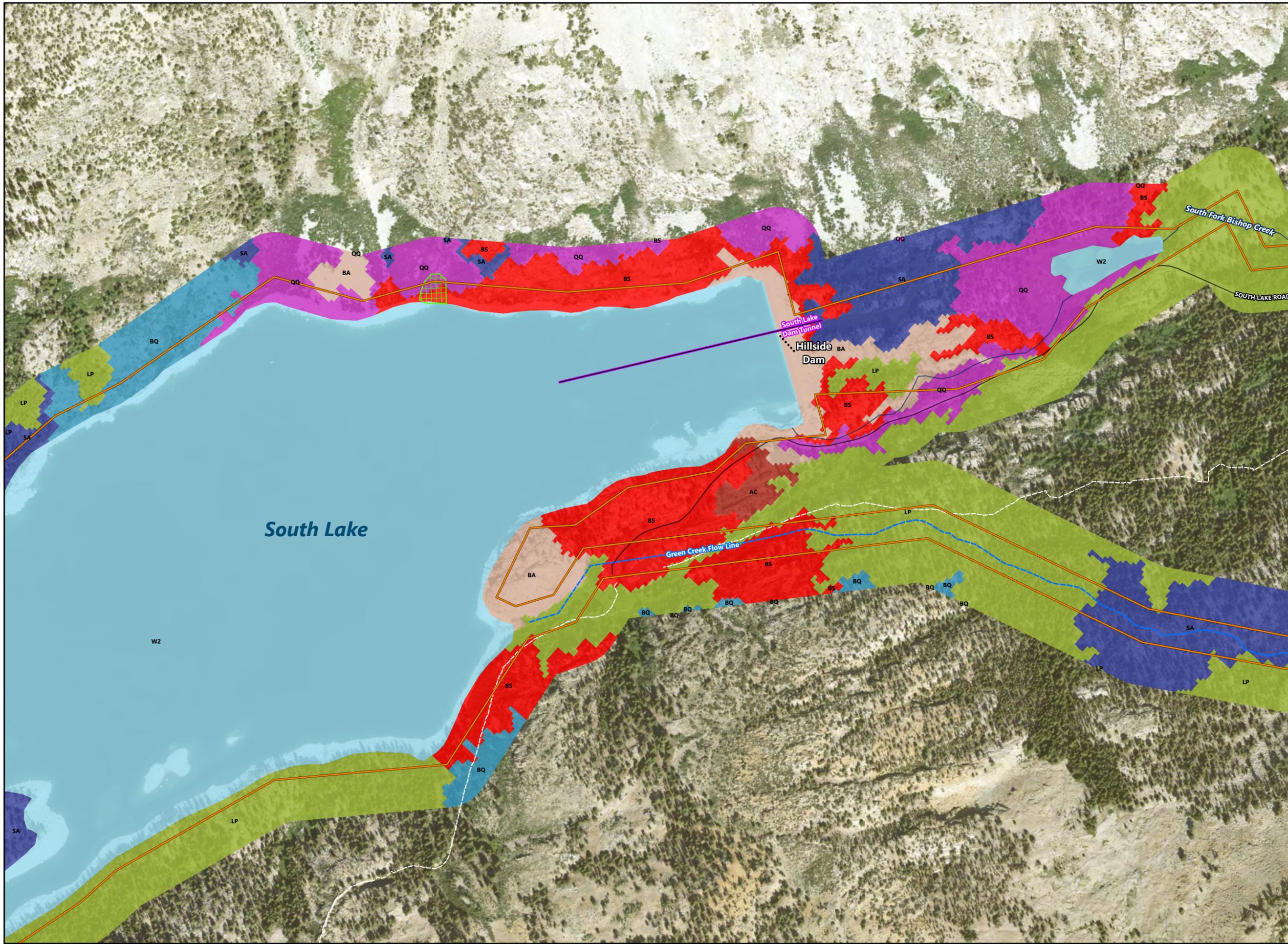
Vegetation & Wetland Classifications

Map No. 30 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- AC - Alpine Grasses and Forbs
- BA - Barren
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- LP - Lodgepole Pine
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



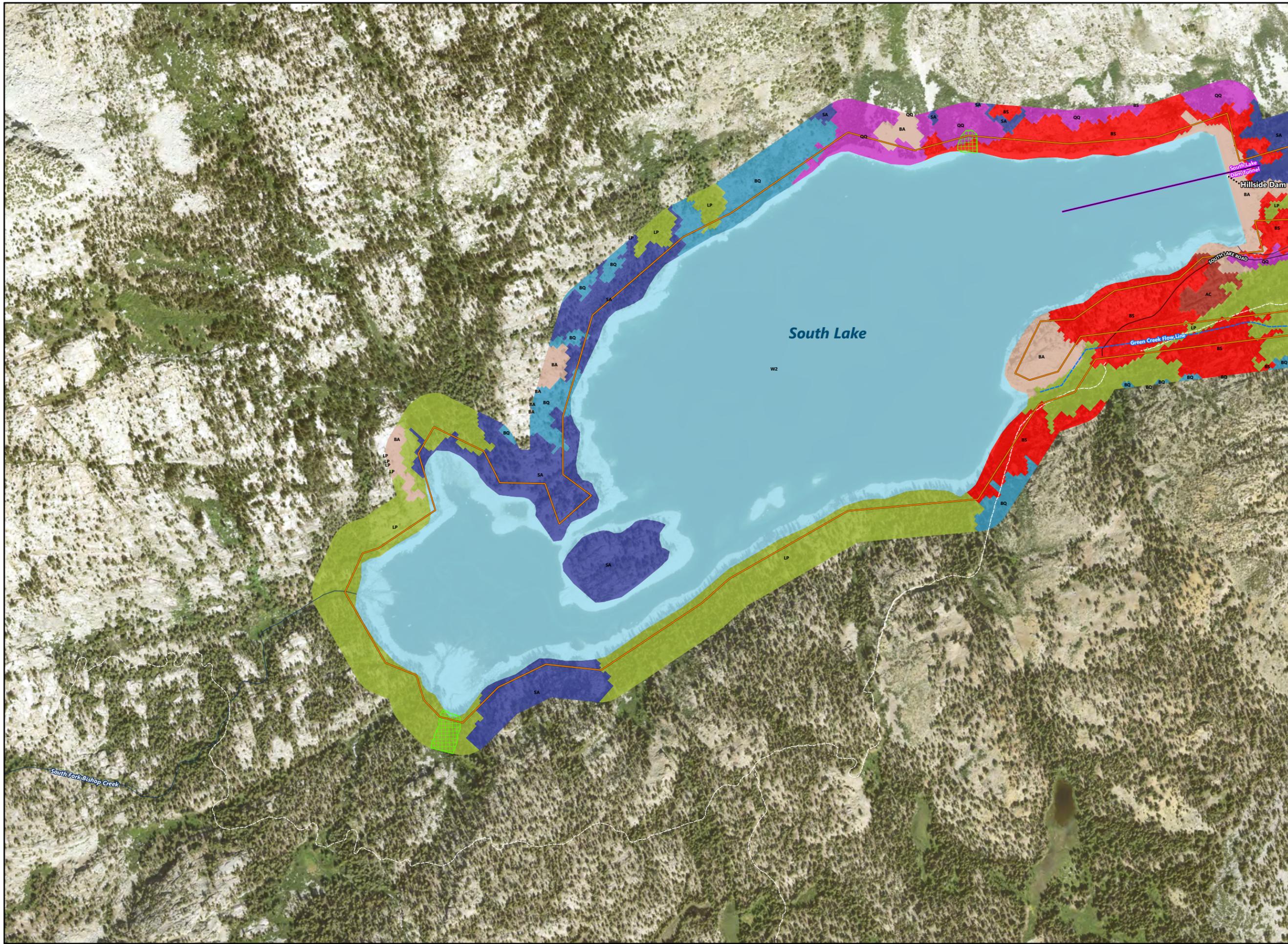
Vegetation & Wetland Classifications

Map No. 31 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- AC - Alpine Grasses and Forbs
- BA - Barren
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- LP - Lodgepole Pine
- QQ - Quaking Aspen
- SA - Subalpine Conifers
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

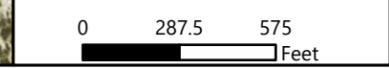


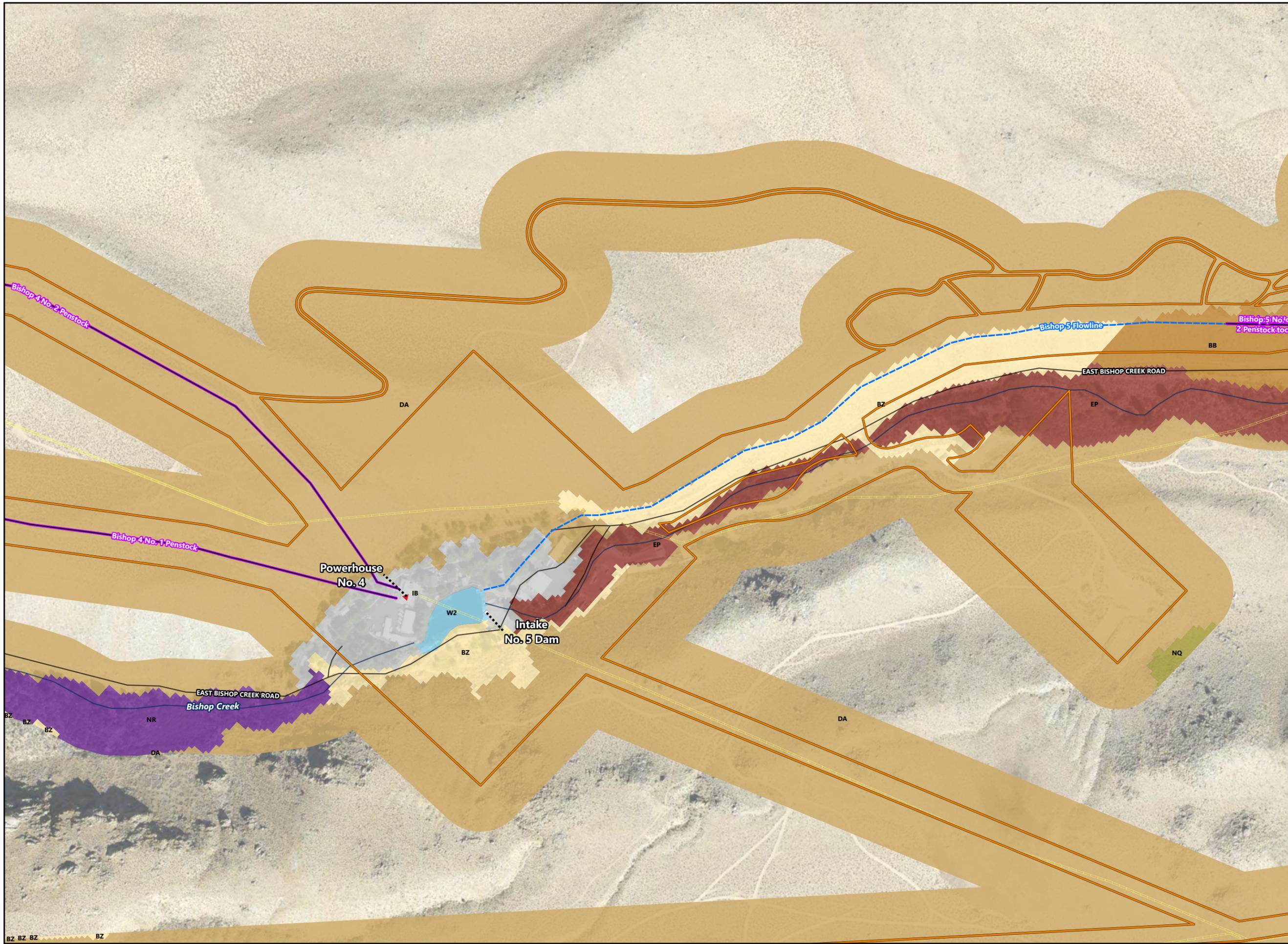
Vegetation & Wetland Classifications

Map No. 32 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line

NWI Wetland Type

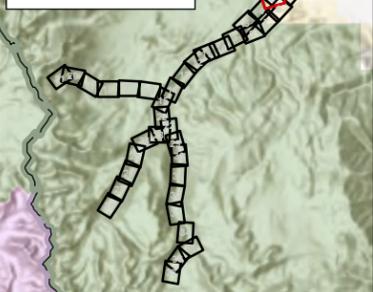
- Freshwater Forested/Shrub Wetland
- Riverine

CALVEG Type (in current extent)

- BB - Bitterbrush
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- NQ - High Desert Mixed Scrub
- NR - Riparian Mixed Hardwood
- W2 - Perennial Lake or Pond

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

See Map 1 for details.



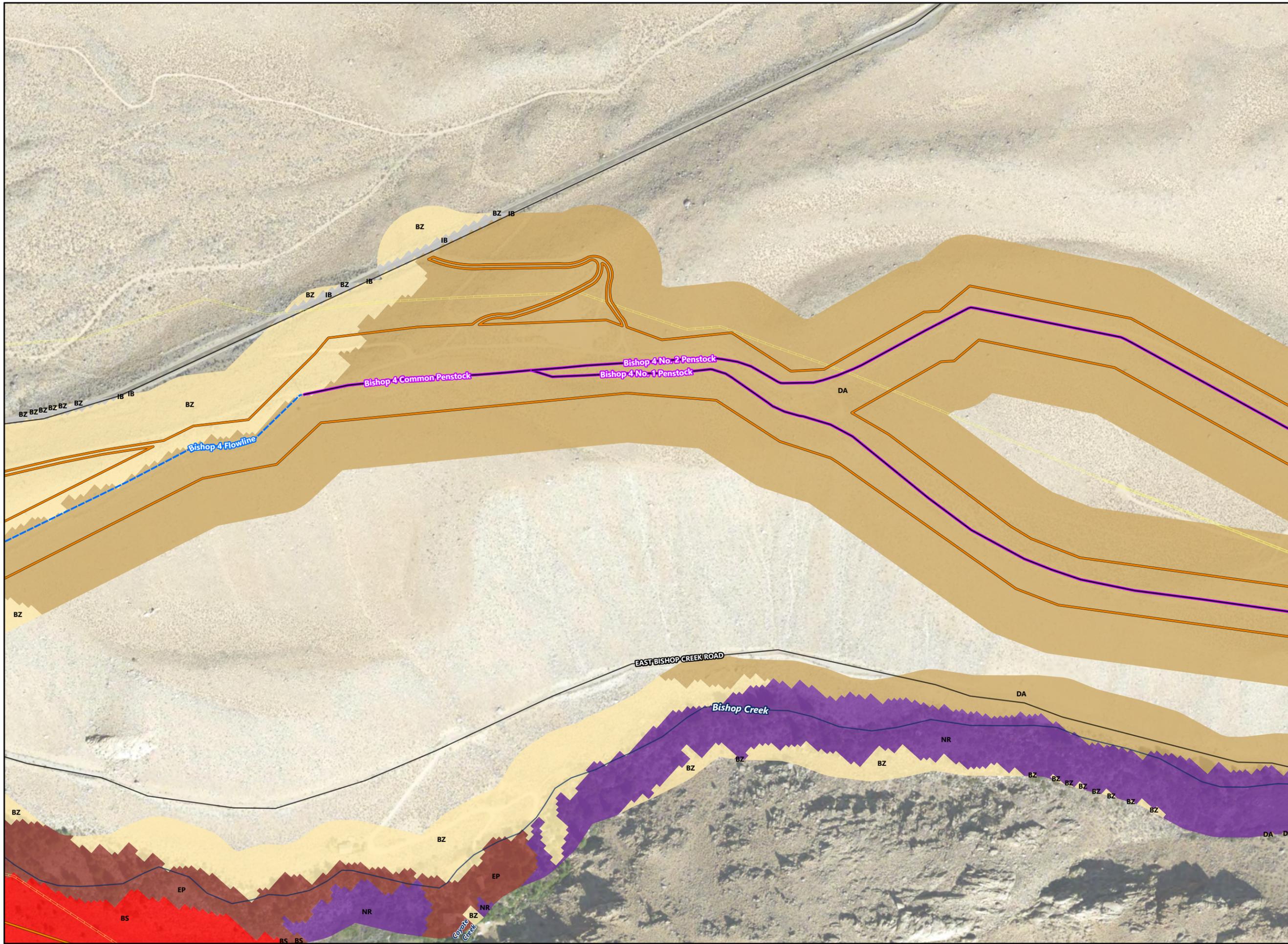
Vegetation & Wetland Classifications

Map No. 33 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- ▲ Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BS - Basin Sagebrush
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- NR - Riparian Mixed Hardwood

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



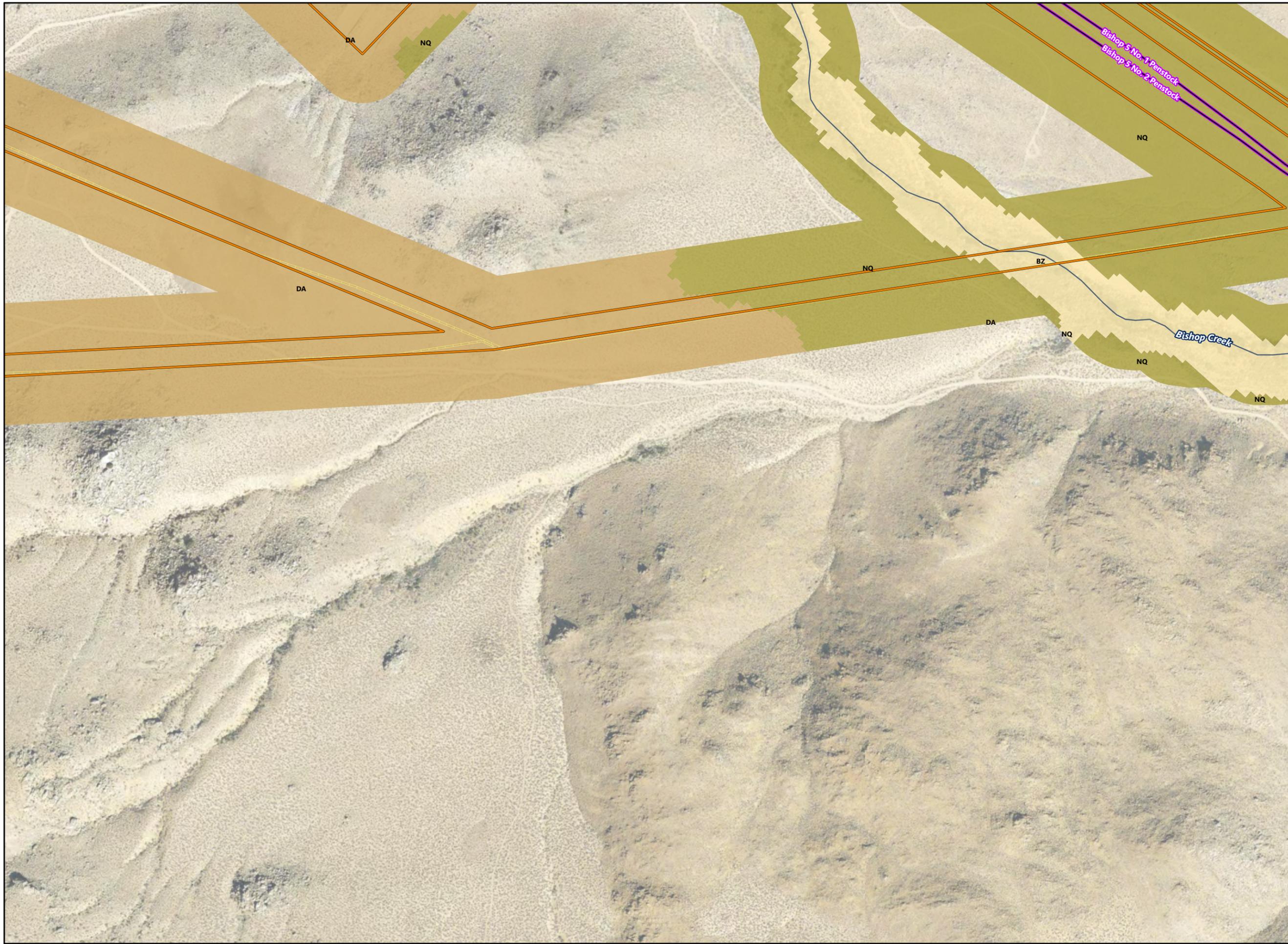
Vegetation & Wetland Classifications

Map No. 34 of 38

BISHOP CREEK HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 187.5 375 Feet



- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- NQ - High Desert Mixed Scrub

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



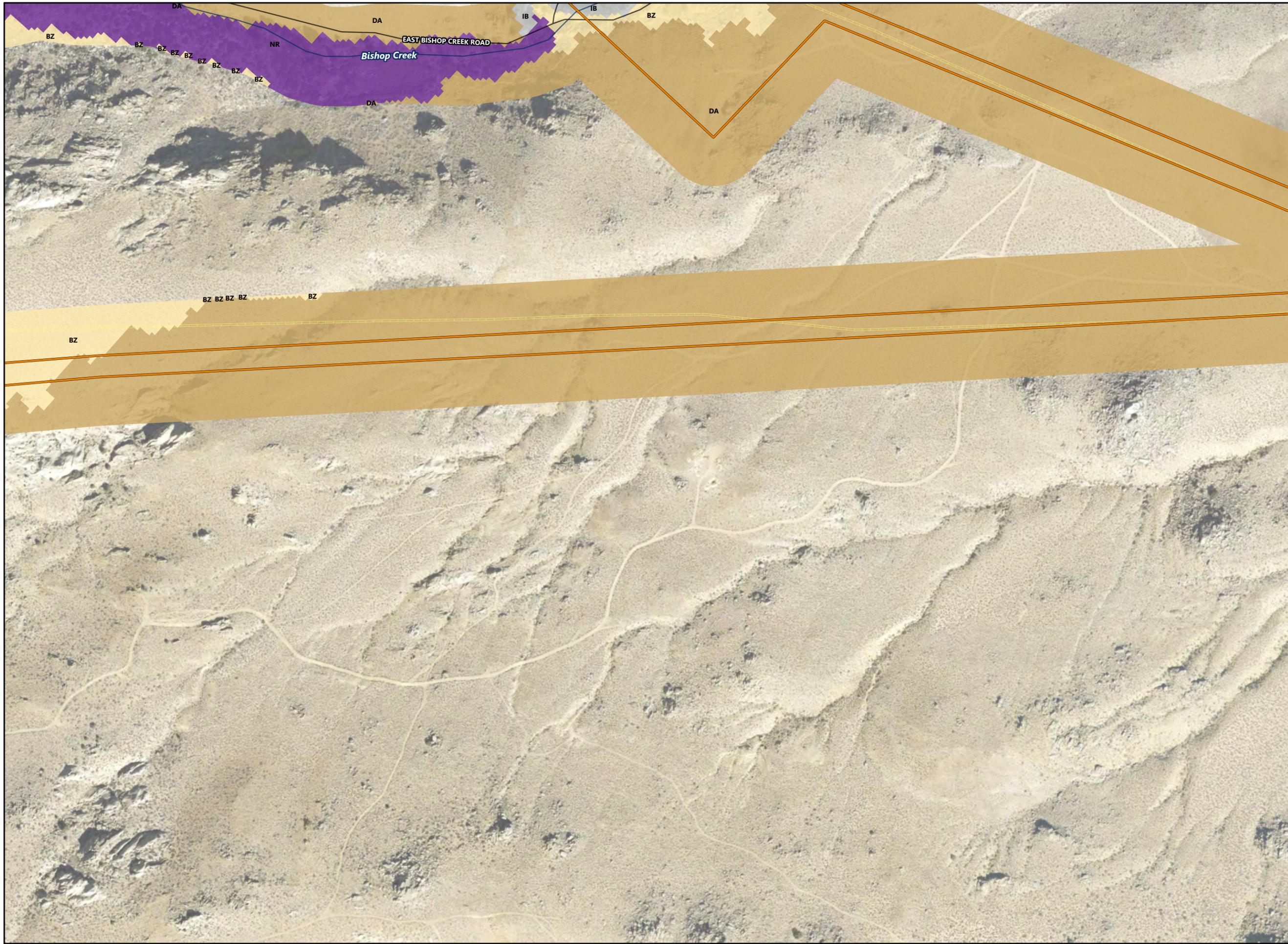
Vegetation & Wetland Classifications

Map No. 35 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983

0 190 380
 Feet



- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- IB - Urban-related Bare Soil
- NR - Riparian Mixed Hardwood

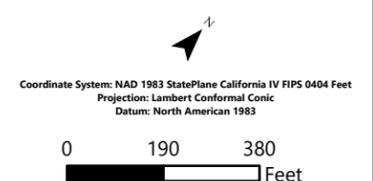
Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.

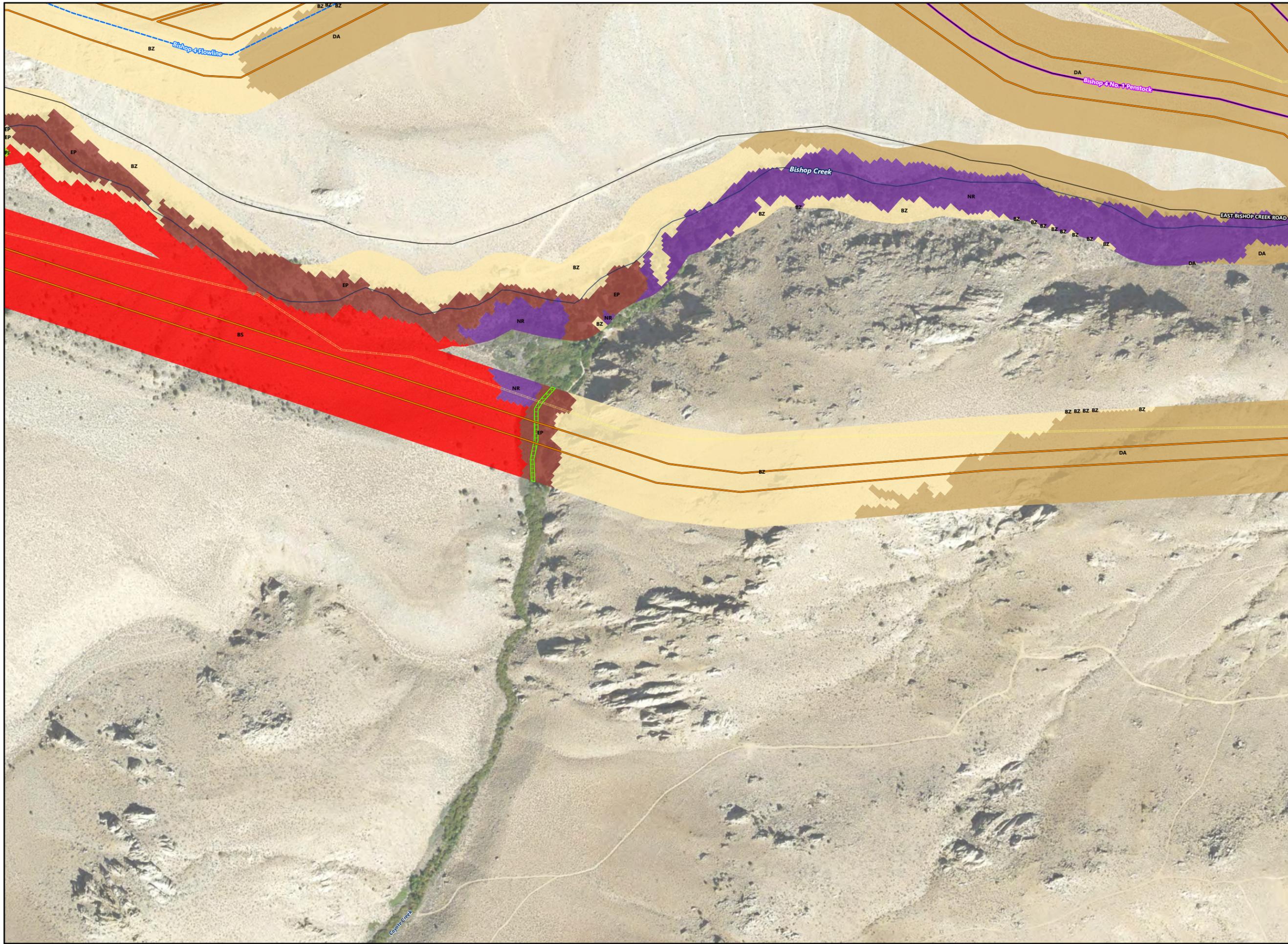


Vegetation & Wetland Classifications

Map No. 36 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine

- CALVEG Type (in current extent)**
- BS - Basin Sagebrush
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- EP - Eastside Pine
- NR - Riparian Mixed Hardwood
- PJ - Singleleaf Pinyon Pine

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



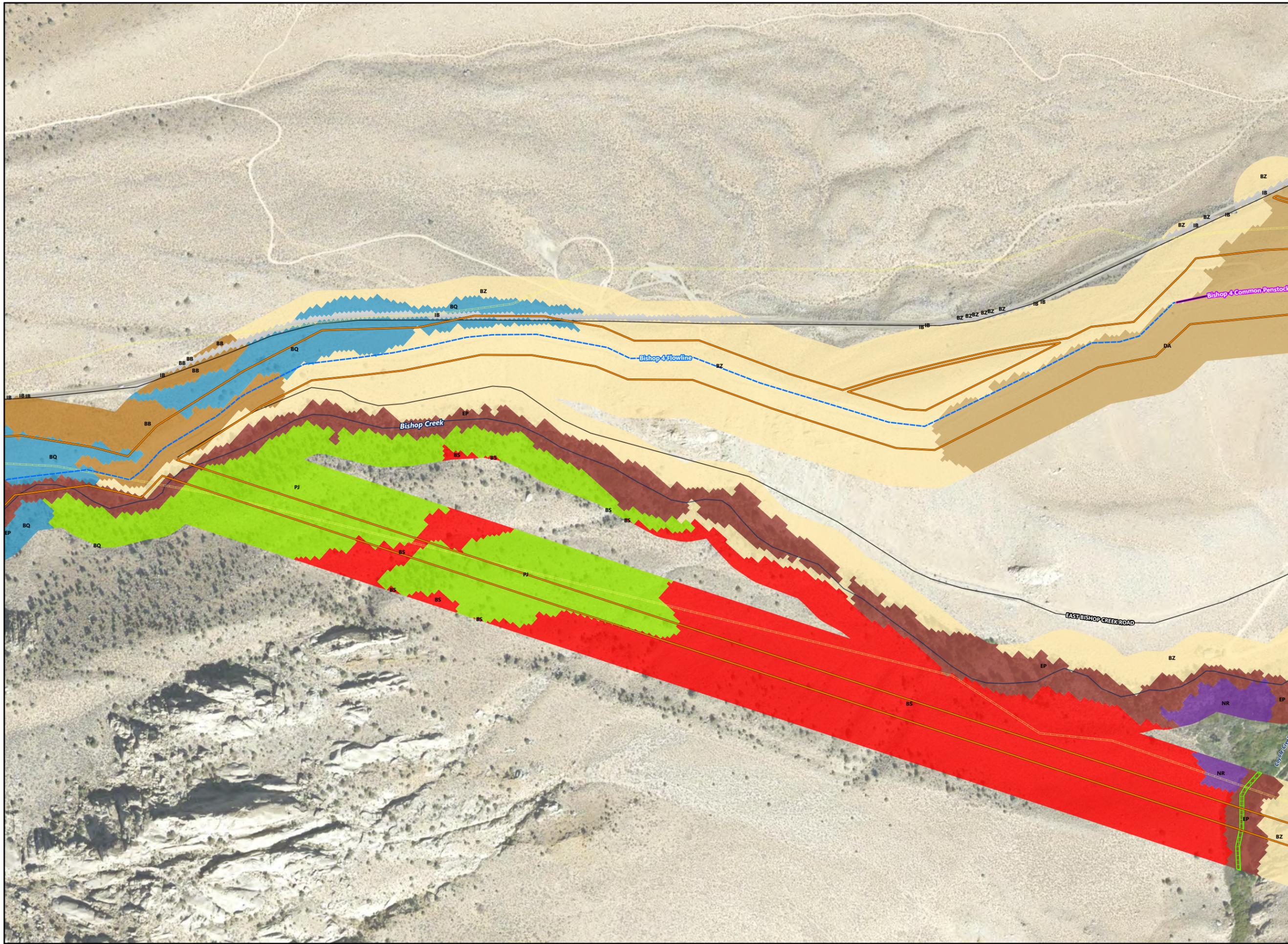
Vegetation & Wetland Classifications

Map No. 37 of 38

**BISHOP CREEK
HYDROELECTRIC PROJECT
FERC PROJECT NO. 1394**

Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983





- Project Boundary
- Powerhouse
- Dam
- Diversion
- Flowline
- Penstock/Tunnel
- Transmission Line
- NWI Wetland Type**
- Freshwater Forested/Shrub Wetland
- Riverine
- CALVEG Type (in current extent)**
- BB - Bitterbrush
- BQ - Great Basin Mixed Scrub
- BS - Basin Sagebrush
- BZ - Great Basin - Desert Mixed Scrub
- DA - Blackbush
- EP - Eastside Pine
- IB - Urban-related Bare Soil
- NR - Riparian Mixed Hardwood
- PJ - Singleleaf Pinyon Pine

Note: Both CALVEG and NWI datasets are shown clipped to a 200 foot buffer around the Project boundary and selected creeks. Both datasets originated predominantly from the analysis of satellite imagery and thus may not reflect vegetation communities or wetland environments found beneath tree canopies. Therefore, a margin of error is inherent in the use of the data until a detailed field inspection and verification may be performed.



Vegetation & Wetland Classifications

Map No. 38 of 38

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