

1.2 CURRENT AND PROPOSED PROJECT OPERATIONS

1.2.1 Current Operations

The Project begins diverting or impounding water at five points: Green Creek at Bluff Lake, South Fork Bishop Creek at South Lake, Middle Fork Bishop Creek at Lake Sabrina, McGee Creek at Longley Lake, and Birch Creek at Birch-McGee Diversion.

Water from the Green Creek basin flows into Bluff Lake and is released into a ditch that carries the water to the Green Creek Diversion (10,264 feet msl). From this point, water flows through a pipeline to South Lake where it meets flows from the Upper watershed of the South Fork of Bishop Creek. Water is also released from Hillside Dam (9,757.6 feet msl) into South Fork where it meets with the remaining flows from Green Creek that were not diverted. Together this water flows down the South Fork of Bishop Creek to the South Fork Diversion (8,211 feet msl). At the South Fork Diversion structure, a portion of the flow is diverted through a pipeline to Intake No. 2 (8,105 feet msl), as the remainder of the flow continues down the South Fork. Upper watershed areas contributing to the Middle Fork of Bishop Creek drain into Lake Sabrina. Water is released through Lake Sabrina Dam (9,137.9 feet msl) into the Middle Fork of Bishop Creek. Water flows approximately 1 mile before converging with the unimpaired North Fork of Bishop Creek. The combined waters flow to Intake No. 2 Dam (8,104.8 feet msl) which also receives water from the South Fork Diversion flowline. From Intake No. 2 Dam, the water enters a 2.1-mile-long flowline and a 0.5-mile-long penstock which connects to Powerhouse No. 2 sited on Bishop Creek. Water is released below Intake No. 2 Dam and travels down the Middle Fork until its confluence with South Fork just above Intake 3.

Powerhouse No. 2 receives water originating from Longley Lake Dam (McGee Lake) and the upper portions of the Birch Creek watershed. Longley Lake Dam (10,708 feet msl) discharges into McGee Creek where it flows over 1 mile before being intercepted by the McGee Creek Diversion (9,192 feet msl). Water is diverted into a series of pipelines and open channels and delivered to Birch Creek. After entering Birch Creek, the combined water flows approximately 0.5 mile before being diverted again by the Birch-McGee Diversion (8,304 feet msl). At this point, the water enters a pipe where it descends over 1,100 feet in elevation before intercepting the penstock to Bishop Powerhouse No. 2.

From this point on, a portion of the water flows down Bishop Creek and a portion is conveyed through a series of pipes and penstocks connecting Powerhouses Nos. 3, 4, 5, and 6. Each powerhouse and intake controls the portion of water entering Bishop Creek and the portion directed into the pipe and penstock conveyances. After Powerhouse No. 6, Bishop Creek flows to the Bishop community and Owens Valley. In addition, a 1.79-mile ditch (Abelour ditch) carries a water right from the Powerhouse No.6 penstock to the Rocking K subdivision. When Powerhouse No. 6 is offline, there is an alternate take-off below Powerhouse No. 5.

1.2.1.1 Plant Operation and Control

Plant operation is dictated by water availability. The water scheduling priority is based on the requirements of the Chandler Decree with wintertime flows regulated by the Sales Agreement. The next consideration is minimum flow requirements below the dams and intakes. The remaining water is used for generation. Plant operators consider unit availability and capacity and determine the best configuration at each powerhouse.

1.2.1.2 Operations and Maintenance

Routine Project operations and maintenance (O&M) include numerous activities to ensure the safe operation of the Project. Many of these activities are subject to State of California Department of Fish and Game Notification of Lake or Streambed Alteration, pursuant to Section 1600 (et. seq) of the Fish and Game Code. SCE entered into a long-term agreement (LTA) with the California Department of Fish and Wildlife (CDFW) to streamline the permitting process. The LTA describes the following routine activities:

Material Removal: When required, SCE removes material that obstructs the water diversions and operations of hydroelectric generation.

Vegetation Control: SCE controls vegetation growth at or adjacent to its facilities to prevent overgrowth of vegetation that interferes with the flow of water and the measurement of flow through the gaging stations. Methods proposed for vegetation control include selective thinning, selective removal, or mowing.

Facilities Repair: When required throughout the year, SCE routinely makes repairs to structures and facilities and conducts maintenance to retain the functional and structural integrity of facilities. These include:

- ***Measuring Stations and Flumes:*** SCE uses measuring stations and flumes to measure water in waterways. Maintenance work related to measuring stations and flumes include mowing of vegetation to provide access along channel banks and the removal of stream deposit within an area of measuring stations to allow for unobstructed water flow, and the accurate reading of water flow, in waterways.
- ***Intake and Diversion Structures:*** SCE uses intake and diversion structures to divert water from a stream, canal, or intermittent man-made waterway into a canal or intermittent man-made waterway. Stream deposits are removed above and or below intake structures.
- ***Gate Inspection and Maintenance*** are mandated by the Department of Safety of Dams (DSOD). These routine operations do not result in the draining of any ponds, which minimizes impacts to the stream. SCE is required to inspect penstocks, which does involve lowering the ponds to expose the entry point to the penstock.

Stream Deposit Management: Because of the nature of the facilities, stream deposits accumulate behind diversions and other structures and these deposits require regular removal or control. Stream deposits are managed as follows:

- ***Stream Deposit Bypass:*** Historical practice has been to remove one, several or all plants as needed from service in late winter or early spring and reduce creek flows to levels that: (a) are great enough to maintain downstream users' requirements (Chandler Decree) and (b) are small enough to allow all flows to pass through the open drain valves of desired intakes. Normally intakes are left in this state for 24 to 48 hours. This cuts a channel through the stream deposit and gravels that have accumulated in the intake and carries them into the stream below the intake clams. SCE typically performs the necessary material removal in the springtime to augment the natural flows to assist in the removal of sediment and debris.

- **Stream Deposit Removal:** SCE periodically removes sediments and debris not moved by bypass flows from intakes utilizing heavy equipment. Barring extreme climatic events, it is presumed this procedure will be undertaken on a limited basis.
- **Stream Entry:** Several sites require stream entry for maintenance purposes. For all areas listed below, SCE restricts activity in the channel to an area no further upstream or downstream than necessary to do the work.

Included in these protection measures are as needed nesting bird surveys, raptor surveys, other sensitive species surveys, fish protection, restoration for impacts, implementation of best management practices (BMP) for work in and around stream and lakes, and monitoring, and reporting to SCE, CDFG, USFS and other resource agencies, as appropriate. These activities and associated BMPs are described in the following resource management plans for use by Project personnel:

1. Avian Protection Plan and Bird Nesting Guidelines (includes provisions for reporting wildlife and avian interactions with the Project).
2. Historic Properties Management Plan
3. Vegetation Management Operations Manual
4. Invasive Mussel Prevention Plan
5. Fire Suppression Plan (part of the Project's Emergency Action Plan)

Non-Routine Projects: SCE resource specialists are consulted during the preparation of non-routine projects that potentially expands or modifies the Project from the original licensed configuration. In these instances, SCE utilizes an internal Environmental Screening Form (ESF) through its EHSync database to initiate the appropriate environmental or cultural review. In the event of a potential impact on a cultural resource, the Project's Senior Archaeologist will implement procedures and measures identified in the Historic Properties Management Plan. As appropriate, consultation with U.S. Forest Service, BLM, or CDFW is included in the review and permitting process.

1.2.2 Proposed Operations

SCE is not proposing any changes to the way the Project is operated or maintained.