



El Dorado Irrigation District

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING FOR THE **SILVER LAKE DAM REPLACEMENT PROJECT**

In accordance with the provisions of the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations, Title 15, Section 15000 et seq., the El Dorado Irrigation District (District) will be preparing a Draft Environmental Impact Report (EIR) for its proposed Silver Lake Dam Replacement Project (Proposed Project). The purpose of this Notice of Preparation (NOP) is to provide an opportunity for the public, interested parties, and public agencies to comment on the scope and proposed content of the Draft EIR. If you are a Responsible or Trustee Agency with jurisdiction by law over natural resources held in public trust, the District needs to know what environmental information germane to your statutory responsibilities should be included in the Draft EIR.

The District proposes to replace the Silver Lake Dam (Dam) located near Kirkwood, CA, to comply with applicable dam safety requirements of the California Division of Safety of Dams and the Federal Energy Regulatory Commission. The primary benefit of the Proposed Project is to provide safe and reliable operation of the Dam and Reservoir. The replacement Dam and appurtenances would be constructed at the location of the existing Dam and surrounding areas.

The District has determined that the Proposed Project may result in potentially significant environmental effects, and consequently, an EIR is required; therefore, an Initial Study will not be prepared. The Draft EIR will address the full range of potentially significant environmental effects and feasible alternatives to the Proposed Project that meet CEQA requirements.

Document Review and Availability: The public review period begins on November 15, 2024 and ends on December 20, 2024. A copy of the NOP and additional information is available for public review at 2890 Mosquito Road, Placerville, CA 95667, or online at www.eid.org/ceqa.

Public Scoping Meeting: The District is conducting a public scoping meeting to inform interested parties about the Proposed Project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the Draft EIR. These comments will assist the District with identifying the range of potential alternatives, mitigation measures, and any potentially significant effects associated with the Proposed Project. Meeting attendants will be given the opportunity to speak and ask questions regarding the Proposed Project.



The public scoping meeting will be conducted virtually and will be open to in-person attendance on **Wednesday, December 11, 2024 at 5:30 p.m.**

Join in-person:

District Headquarters
2890 Mosquito Road
Placerville, CA

Join the meeting from your computer or mobile device:

Click the following join link or copy and paste into your browser: <https://us06web.zoom.us/j/85975836675>

If the device being used is equipped with a microphone and speaker, participants may view the presentation live and listen to meeting audio. You may address the meeting during the comment period by clicking the "raise a hand" button. If the device being used is not equipped with a microphone, participants may view the presentation live and use the telephone instructions above to address the meeting during public comment period.

Join the meeting by telephone only:

This option will allow participants to listen to meeting audio and address the meeting during public comment period by pressing *9 on the telephone keypad.

Dial 1 (669) 900-6833 and enter Meeting ID: **859 7583 6675** when prompted.

Provide Comments on the Notice of Preparation: Written and email comments must be received by **5:00 p.m. on December 20, 2024**. If you wish to comment on the contents of the Proposed Project's Draft EIR, please send your comments (including, if applicable, the name of a contact person in your agency) to:

El Dorado Irrigation District
ATTN:
Doug Venable, Environmental Review Analyst
2890 Mosquito Road
Placerville, CA 95667

E-mail: SilverLakeDam@eid.org

Comments provided by email should include the name and mailing address of the commenter in the body of the email and include **"NOP Silver Lake Dam Replacement Project"** in the subject line.

In accordance with the Americans with Disabilities Act (ADA) and California law, it is the policy of the El Dorado Irrigation District to offer its public programs, services and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation for this meeting, please contact the EID ADA coordinator at (530) 642-4045 or e-mail at ADACoordinator@EID.org at least 72 hours prior to the meeting. Advance notification within this guideline will enable the District to make reasonable accommodations to ensure accessibility.



El Dorado Irrigation District

PROJECT DESCRIPTION AND PROBABLE ENVIRONMENTAL EFFECTS TO BE
ADDRESSED IN THE DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE
SILVER LAKE DAM REPLACEMENT PROJECT

This Notice of Preparation (NOP) is intended to provide sufficient information to the public, interested parties, and public agencies to enable them to make a meaningful response regarding the scope of issues that should be addressed in the Silver Lake Dam Replacement Project (Project or Proposed Project) Draft Environmental Impact Report (EIR), consistent with California Environmental Quality Act (CEQA) Guidelines Section 15082(a)(1). This NOP contains a description of the Project, Project location, and identification of probable environmental effects to be addressed in the Draft EIR.

PROJECT OVERVIEW

The El Dorado Irrigation District (EID or District) proposes to replace the Silver Lake Dam (Dam) to comply with applicable dam safety requirements of the California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC). The primary benefit of the Proposed Project is to provide safe and reliable operation of the Dam and Silver Lake Reservoir (Reservoir). The Dam is owned and operated by EID as part of the El Dorado Hydroelectric Project - FERC License No. 184 (Project 184) and provides both drinking water supplies and water for generation of clean hydroelectric power to the residents of El Dorado County while also supporting seasonal recreation opportunities in and around the Reservoir. The Proposed Project involves the removal of the existing Dam, spillway, and appurtenances and the construction of a replacement Dam, spillway, and appurtenances at the location of the existing Dam and surrounding areas. The District anticipates the duration of the Project's construction activities will be approximately 18 months with the majority of activities affecting water supply, power generation, and recreation activities to occur within the first construction season and final completion activities to carry into the second season.

PROJECT LOCATION

Silver Lake is located in Amador County, approximately 19 miles south of Lake Tahoe, California, near the community of Kirkwood as shown in **Figure 1**. Silver Lake Reservoir is formed by the Dam at its northwest end and is located adjacent to State Route (SR) 88/Carson Pass Highway. Releases from the Dam are conveyed to the Silver Fork American River (Silver Fork), a tributary to the South Fork American River (SFAR).

PROJECT BACKGROUND

Silver Lake Dam and Reservoir were originally constructed in 1876. The Dam and Reservoir are owned and operated by EID as part of the El Dorado Hydroelectric Project and licensed by FERC as Project 184. Project 184 includes Silver Lake, Lake Aloha, Echo Lake, and Caples Lake, a diversion dam on the SFAR, a 22-mile conveyance (e.g., canals, flumes, siphons, and tunnels), and a forebay, penstock, and powerhouse. The Dam is also regulated by the California DSOD as CA Dam ID 53-12. Silver Lake is the second largest reservoir of Project 184 and provides municipal, industrial, and agricultural water supplies as well as hydroelectric power generation while also supporting instream flows and recreation uses.

The Dam does not meet current dam safety standards, has exceeded its service life, and requires replacement. The Dam's long-term reliability and integrity are compromised by voids developing due to rotting interior logs encapsulated as fill as part of the original rock and soil-filled timber crib structure constructed in 1876. In addition, the upstream gunite face of the Dam is at the end of its useful life and lacks long-term reliability. Defects in the gunite face facilitate leakage through the Dam and may create more voids within the Dam caused by soil particle migration (i.e., piping). Lastly, the spillway does not have adequate capacity to pass the Probable Maximum Flood (PMF) as required under FERC regulations and is susceptible to damage from loading occurring during an earthquake.

PROJECT OBJECTIVES

Silver Lake Reservoir is critically important to the District's water supply operations and reliability. The primary objectives of the Proposed Project are to comply with applicable dam safety requirements of the DSOD and FERC and ensure the safe and reliable operation of the Dam and Reservoir.

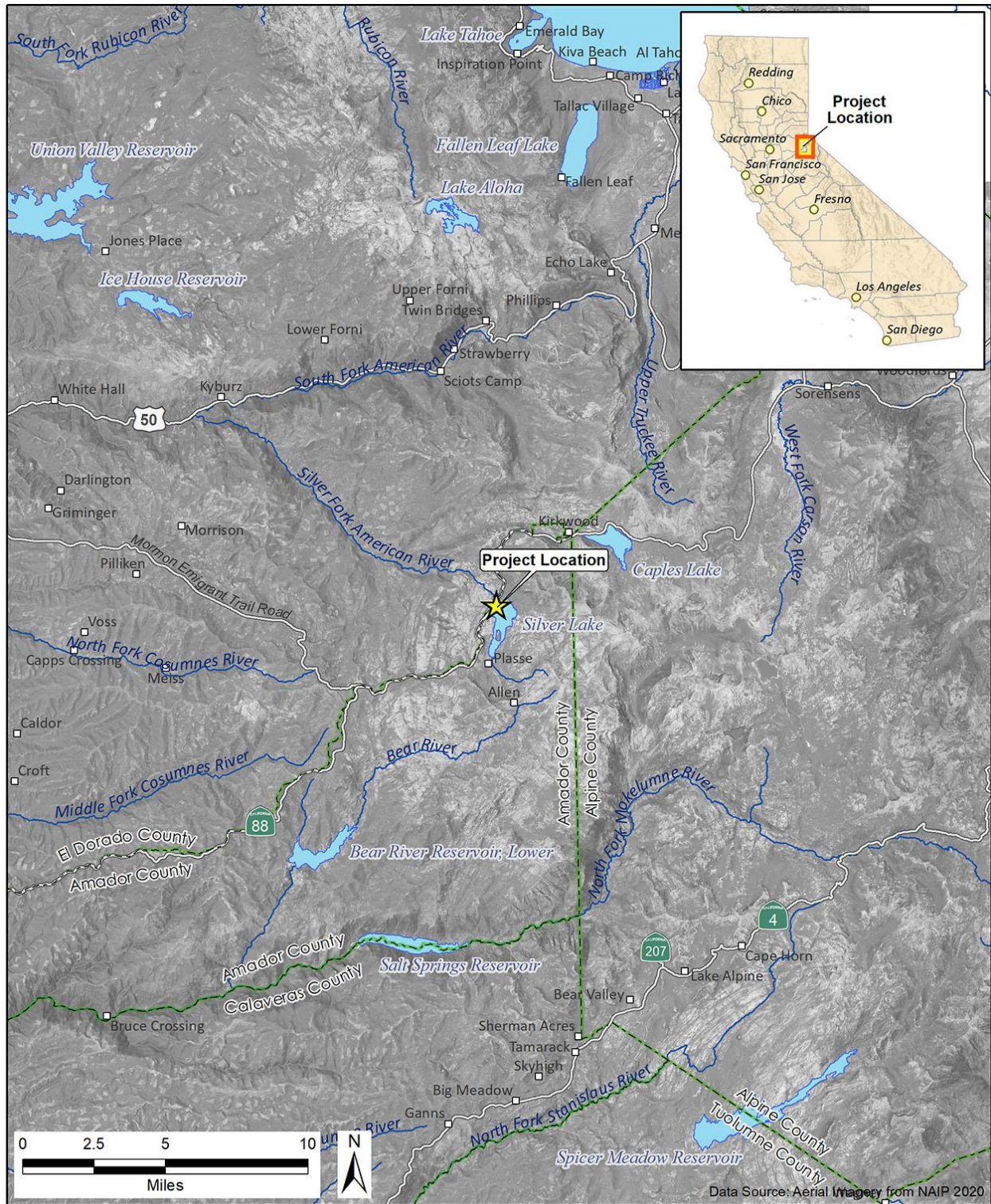


Figure Source: GEI Consultants, Inc. 2024.

Z:\Projects\2203973_EID_SilverLakeDam\G005_2203973_EID_SLD_ProjectLocation_20240723.mxd
22Jul2024 SI

Figure 1. Project Location

PROJECT COMPONENTS AND CHARACTERISTICS

The Project is comprised of the following components:

- Removal of the existing Dam, spillway, and appurtenances
- Construction of the replacement Dam, spillway, and appurtenances, including:
 - Combined replacement gravity dam and spillway structure, including labyrinth weir, stilling basin, wing dikes on the left and right abutments, cutoff wall, low-level outlets, spillway access and bridge, and grading and bank stabilization
- Raising a section of Kit Carson Road to avoid overtopping during PMF conditions
- Relocation and establishment of utilities to support dam operations and continued phone service in the area

Each of the Project components is described below in this section.

PROJECT COMPONENTS

Removal of the Existing Dam, Spillway, and Appurtenances

Following establishment of water control through installation of a temporary cofferdam, the existing Dam, spillway, and appurtenances would first be demolished and removed.

Appurtenances removed include an abandoned fish ladder, the steel outlet tower in the Reservoir, crib walls, a concrete walkway, and an existing monitoring building adjacent to the Reservoir upstream of the existing Dam. Pavement on portions of Kit Carson Road and the access road to the right dam abutment would also be removed.

Replacement Dam, Spillway, and Appurtenances

The new structure would include a combined gravity dam and overflow spillway to replace the existing Dam and spillway, as shown in **Figure 2**. A 780-foot-long and 34-foot-high conventionally vibrated concrete gravity dam would be constructed at the location of the existing Dam. The Dam includes a 169.5-foot-wide overflow spillway structure including a 7-foot-tall labyrinth weir wall. The labyrinth weir has a crest equal to the existing normal maximum water surface elevation of the Reservoir resulting in no change to the maximum reservoir level following construction. Renderings of the combined replacement Dam and spillway structure are provided in **Figure 3**.

The combined replacement Dam and spillway structure would include the following appurtenances and characteristics:

- Wing dikes on each abutment of the combined Dam and spillway structure, to tie into high ground to provide necessary containment of Reservoir water and freeboard during extreme flood conditions.
- Flows passing over the labyrinth weir crest would drop over the sloped downstream face of the spillway and into a conventional concrete stilling basin. The stilling basin provides

a means to absorb or dissipate energy from the spillway discharge, before water enters the Silver Fork, and protects the spillway area from erosion and undermining. Downstream of the spillway and the stilling basin, the Silver Fork stream channel would be excavated and graded in the existing granitic bedrock to create downstream gradient where necessary.

- The combined replacement Dam and spillway structure includes primary and auxiliary low-level outlets at the same elevation as the low-level outlet at the existing Dam resulting in the same minimum reservoir level following construction. The primary outlet would be used to release water from the Reservoir to provide minimum downstream streamflow in the Silver Fork, regular Reservoir operations, and emergency releases. The auxiliary outlet would be used to increase release capacity during large inflows, provide operational redundancy if the primary outlet is damaged or out of service, and manage reservoir elevation to reduce spill frequency.
- An all-season surface, including a prefabricated modular bridge, would be constructed across the combined Dam and spillway structure to provide maintenance access for District vehicles and public pedestrian access along the Dam crest.
- A seepage cutoff wall would extend underground from the new dam's right abutment to Kit Carson Road (approximately 200 lineal feet total).
- A layer of riprap would be placed on the exposed backfill slopes of the wing dykes of the concrete dam where erosion protection is necessary.

Kit Carson Road Improvements

The northern rim of Silver Lake has a low area along Kit Carson Road that is only a few feet above the maximum Reservoir level at its lowest point. To help avoid the potential for overtopping during extreme flood events, as part of the Project, the District would raise this section of Kit Carson Road as shown in **Figure 2** to the same elevation/height as the crest of the proposed replacement Dam, which would be approximately 7 feet above the labyrinth weir crest. This improvement would prevent the Reservoir from overtopping the roadway during the most extreme flood events.

Utility Relocation and Installation

A new underground power service line would be constructed from an existing Kirkwood Meadows Public Utility District power line on the opposite/west side of SR 88 to the new primary outlet valve house, as shown in **Figure 2**. The power service would be used during construction and operation. Existing buried Volcano Communications telecom lines that extend through the project area, including along the lakebed, would be relocated onto the combined replacement Dam and spillway structure.

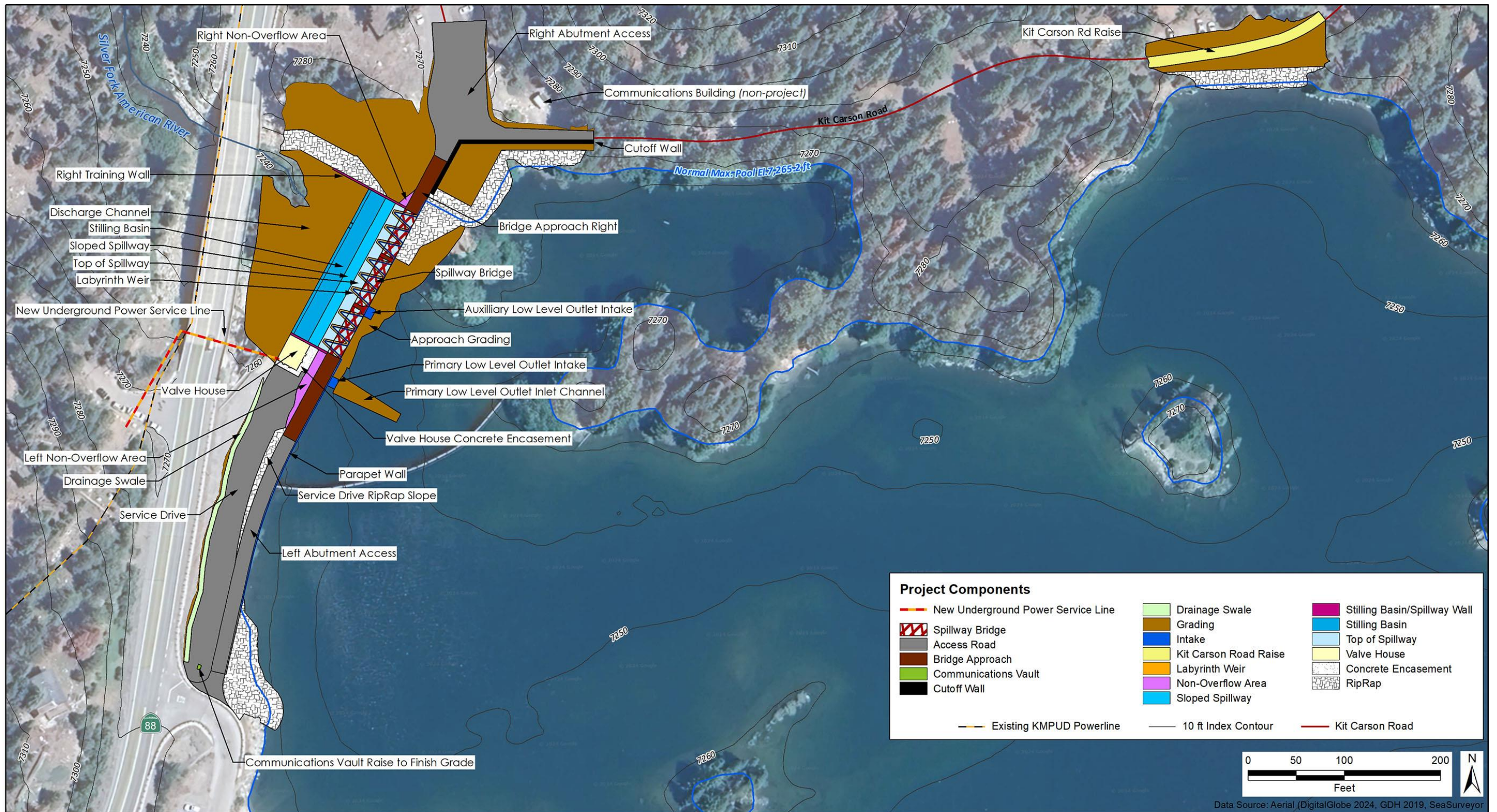
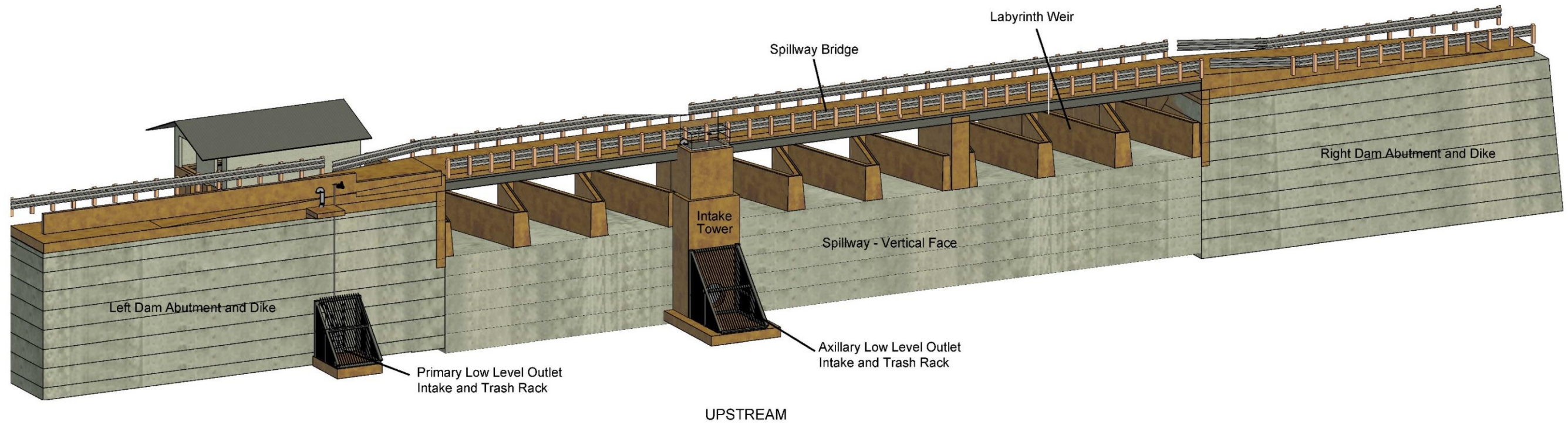
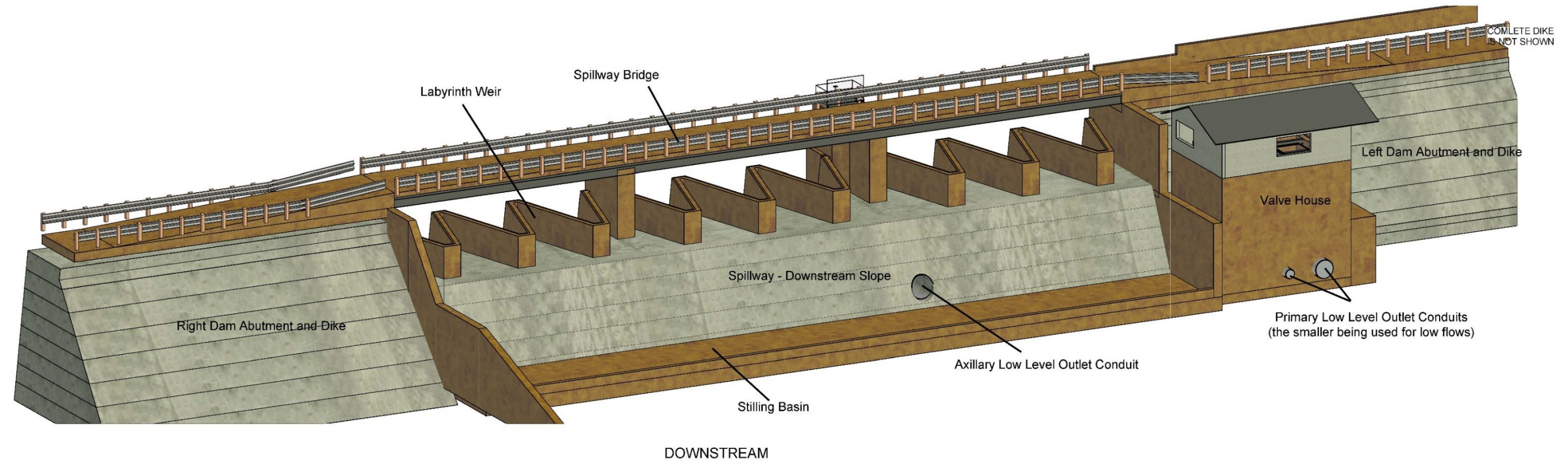


Figure Source: GEI Consultants, Inc. 2024.

26Jul2024 SI Z:\Projects\2203973_EID_SilverLakeDam\G003_2203973_EID_SLD_Project_Components_20240723.mxd

Figure 2. Proposed Replacement Dam, Spillway, and Appurtenances



Source: GEI Consultants, Inc 2024.

Figure 3. Renderings of the Combined Replacement Dam and Spillway Structure

PROJECT CONSTRUCTION

This section describes construction of the Proposed Project including site access, construction and staging areas, construction methods including water control systems, and schedule.

Site Access, Construction and Staging Areas

Site access, construction and staging areas are shown in **Figure 4**. The Project site is accessible directly from SR 88 on the west via the boat ramp parking lot and from the east via Kit Carson Road. Project access would be coordinated with Caltrans, California Highway Patrol, El Dorado County Department of Transportation, Amador County Department of Transportation and Public Works, Kit Carson Lodge, and U.S. Forest Service. A traffic control plan would be developed to ensure acceptable levels of traffic flow and continuous emergency vehicle access are maintained during the construction period.

The primary staging areas for use during construction are located adjacent to both abutments of the combined replacement Dam and spillway structure and in dry areas within the Reservoir. An EID-owned parcel on the west side of SR 88 across from the main construction area may also be used for staging during construction.

Construction Methods

The Proposed Project will require blasting, reuse, export, and import of materials, and installation of water control systems during construction.

Blasting would be used to help remove approximately 16,000 cubic yards of hard granitic rock for the development of the left portion of the spillway and stilling basin, the primary outlet works, valve house, and the discharge channel. It is estimated that blasting would be conducted during approximately 12 to 15 days of construction. To ensure public safety, SR 88 would be closed for durations of up to 15 minutes during each blast and would involve prior approval and close coordination with Caltrans. After blasting, rock would be removed, likely primarily by excavator, and transported to the staging area for processing into usable rockfill or riprap products or would be hauled offsite for disposal/recycling.

The Project would involve the reuse, export, and import of materials. The Project requires a total excavation of approximately 34,000 cubic yards of material from granitic bedrock, soils, and volcanic sediments. Excavated materials would be stockpiled and processed within Project staging areas onsite and reused, if suitable, for engineered fill material in the abutments and Kit Carson Road improvements, riprap, bedding for erosion protection layers, and other fill materials during grading.

Additionally, material from the existing Dam, spillway, abandoned fish ladder, other appurtenances, pavement, and other materials that are removed and not reused would be

hauled offsite. It is estimated 32,000 cubic yards of materials would be removed and hauled from the Project site to a licensed construction refuse facility in South Lake Tahoe or in the Jackson/Ione area. The surplus soil, rock, and all other solid waste from the project would be disposed of in accordance with all applicable regulations.

Import of aggregate materials from offsite commercial sources would include gravel and sand materials to be used as filter and drainage media, aggregate materials for concrete, and aggregate base for access road surfacing. Other bulk materials to be imported include cement, pozzolan, bentonite, hot mix asphalt, and miscellaneous materials. Cementitious materials (cement and pozzolan) and aggregates (sand, gravel) would be sourced from South Lake Tahoe. A batch plant would be developed onsite within the designated staging areas to mix these materials with water into a concrete mixture that would form the Dam. The replacement Dam requires approximately 9,100 cubic yards of concrete. Each cubic yard of concrete requires approximately 3,000 pounds of aggregate and 650 pounds of cementitious materials.

Water control systems would be required during construction to maintain a construction pool for making minimum streamflow releases, dewatering the construction site and routing flows around or through the construction site to the Silver Fork, managing potential stormwater inflows, and controlling the introduction of groundwater into the construction site. Water control systems may use a variety of structures, including, but not limited to, cofferdams, sumps, pumps/hoses, ditches, berms, sedimentation basins or tanks, and temporary wells. Water control systems would be designed to discharge either back into the Reservoir or to the Silver Fork channel downstream of the existing/replacement Dam and spillway.

Schedule

The Project is planned to be constructed within 18 months and is tentatively scheduled to begin in the winter of 2027. Construction of the Dam embankment is anticipated to be completed within one construction season. The early months of a second construction season would likely be needed to complete some of the structural, mechanical and electrical components of the new facilities, but Project impacts on the Reservoir level during the second season would be minimal or limited to the spring months if snow melt occurs in a normal manner at approximately the typical time period and there are no unforeseen Project delays

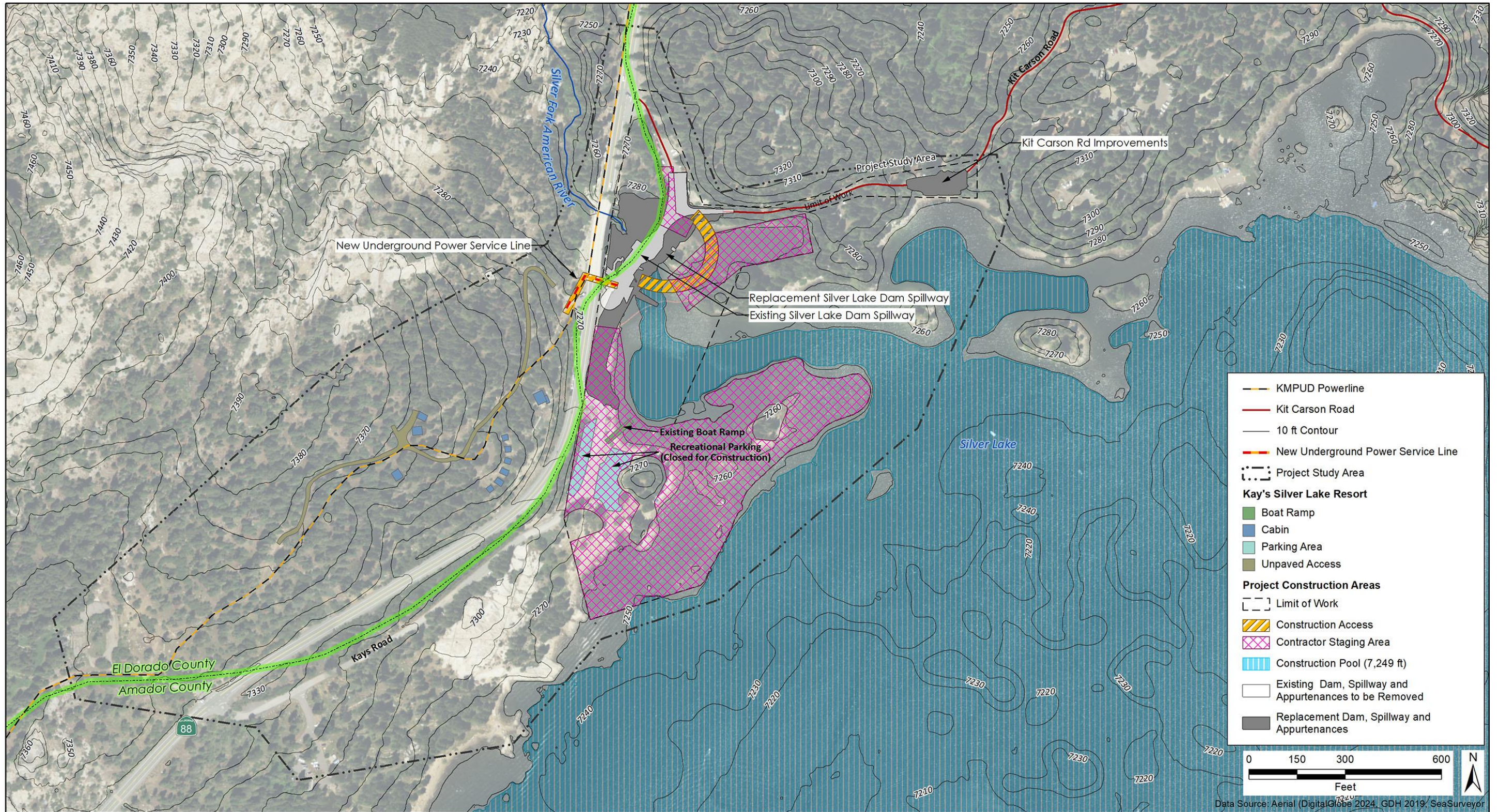


Figure Source: GEI Consultants, Inc. 2024.

Figure 4. Construction Areas and Access

RESERVOIR OPERATIONS DURING CONSTRUCTION

The amount of water that can be safely stored will be limited during construction of the Project. The Reservoir water level would be maintained at a level to enable safe construction of the Dam, while still providing a limited pool for recreation use during the late spring and summer months and for maintaining minimum instream flows throughout the duration of construction. With the use of cofferdams, the Reservoir would be maintained at an approximate elevation of 7,249 feet (referred to as the “construction pool”), which is a gage height of approximately 6.5 feet and equates to approximately 1,900 acre-feet or 21% of the Reservoir’s active storage. The approximate perimeter of the construction pool relative to the full Reservoir is shown in **Figure 5**. The construction pool is the maximum Reservoir level that can be maintained without extending the Project’s construction schedule that would impact two summer recreation and water supply seasons.

The construction pool is anticipated to diminish in late summer and fall as a result of maintaining instream flows, loss from the natural leakage from the Reservoir into Oyster Creek, surface evaporation, and naturally diminished inflows. Due to these factors that will affect the water available from the construction pool, temporary pumps may be used to access the natural storage of Silver Lake in the event additional water is needed to maintain minimum instream flows until fall rains occur and the reservoir level increases. The natural storage of Silver Lake that exists below the Dam’s outlet works is estimated to be approximately 4,800 acre-feet.

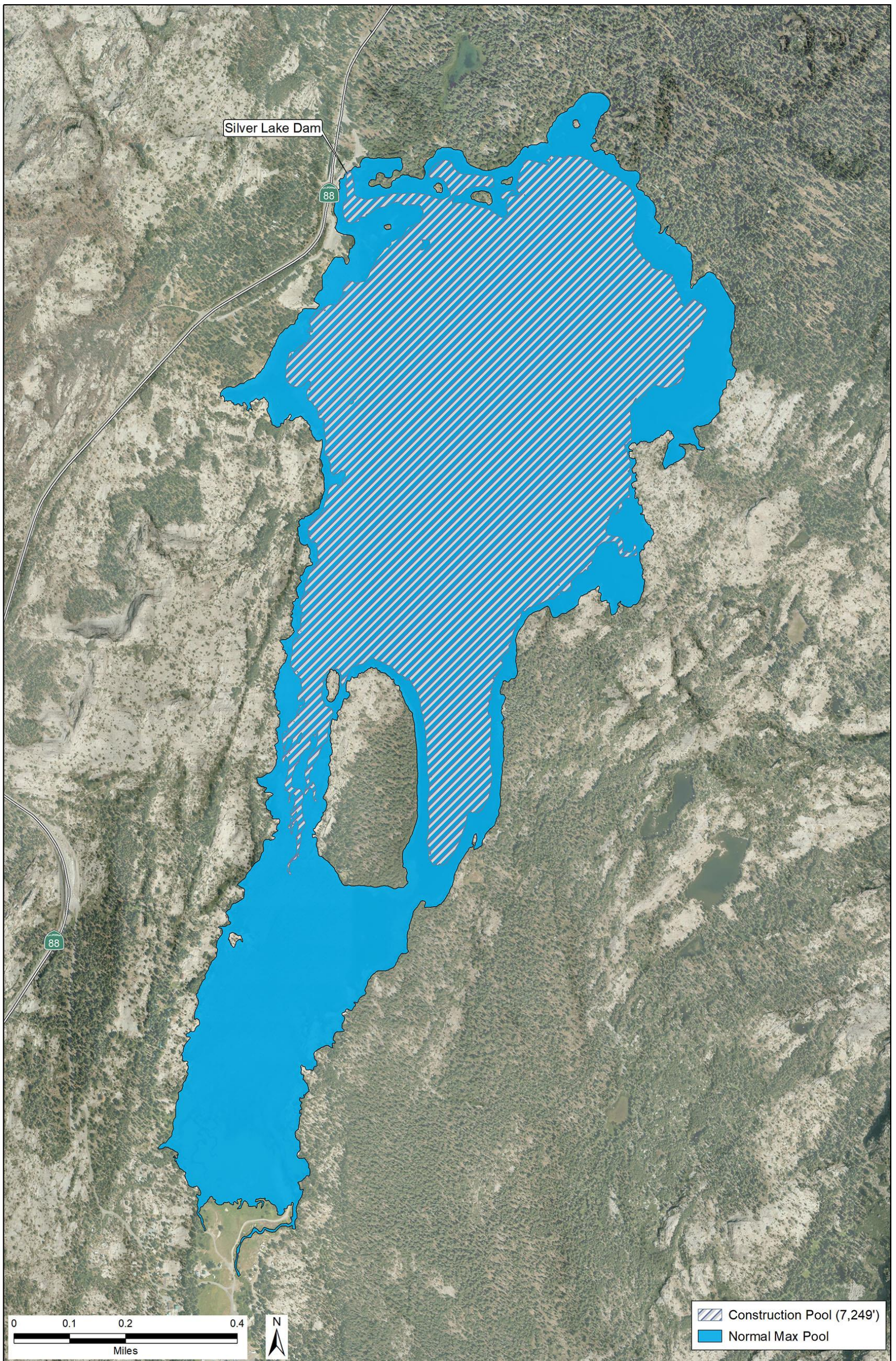


Figure Source: GEI Consultants, Inc. 2024.

01Aug2024 SI Z:\Projects\2203973_EID_SilverLakeDam\G013_2203973_EID_SLD_NormalPool_vsConstPool_20240801.mxd

Figure 5. Maximum Reservoir Level During Construction (Construction Pool)

PROJECT 184 FERC LICENSE REQUIREMENTS AND POTENTIAL VARIANCES

The Proposed Project would require temporary variances to some operational commitments specified in the Project 184 FERC license, Project 184 Settlement Agreement, and the League to Save Sierra Lakes Agreement. Potential variances include temporary modification to minimum streamflow requirements, target lake levels, recreation requirements, and other operational commitments.

Due to the need to maintain lower Reservoir levels during construction, variances to minimum lake levels specified in the Project 184 FERC license for Silver Lake may be required. In the license lake level targets for Silver Lake that are greater than the level provided by the construction pool are specified for September and November.

EID is also required to maintain specified minimum stream flows or natural flow, whichever is less, year-round at two locations - the Silver Fork below the Dam and the Silver Fork below Oyster Creek. Oyster Creek enters the Silver Fork approximately 0.9 miles downstream of the Dam. The minimum stream flow requirement is 4 cubic feet per second (cfs) or natural flow in the Silver Fork below the Dam under all conditions and varies between 8 and 100 cfs or natural flow for the Silver Fork below Oyster Creek depending on month and water year type.

Minimum stream flows below the Dam are met with releases from the Dam outlet as measured at stream gage A-9. Minimum stream flows for the Silver Fork below Oyster Creek are met with the combination of releases from the Dam, leakage from the Lake into Oyster Creek, and the natural flows in Oyster Creek. Leakage from the Lake into Oyster Creek and the natural flows in Oyster Creek are measured at stream gage A-24. Compliance with the minimum stream flow requirements in the Silver Fork below Oyster Creek is determined by the combined stream gage totals from stream gages A-9 + A-24.

The amount of leakage from the Lake into Oyster Creek varies with the Lake elevation (i.e., the leakage amount is higher when the Lake level is higher and vice versa). The maximum Lake water surface elevation during construction would be approximately 16.2 feet below the normal maximum water surface elevation of the Lake. With the reduced Lake elevation there would be a corresponding reduction in leakage flows that contribute to meeting the minimum stream flow in the Silver Fork below Oyster Creek. Therefore, a variance from the Silver Fork below Oyster Creek minimum stream flow requirements specified in the Project 184 FERC license would be needed.

The reduction in stream flows in the Silver Fork below Oyster Creek would also result in reductions in flow in the SFAR downstream of the Silver Fork confluence. EID is required to maintain specified minimum stream flows in the SFAR below Kyburz Diversion ranging from 15 to 240 cfs depending on month and water year type. Minimum stream flows in the SFAR below Kyburz Diversion are met with unimpaired flows within the SFAR and Silver Fork as well as from

releases from storage from Project No. 184 reservoirs (e.g., Caples Lake, Silver Lake, Echo Lake, and Lake Aloha). There may be the need to make non-discretionary releases from storage above minimum flow requirements from one or more of these reservoirs to compensate for reduced Silver Fork flows to meet minimum stream flows at the SFAR below Kyburz and consumptive water demands of pre-1914 water rights by the District's customers. These additional non-discretionary releases of stored water would likely primarily come from Caples Lake, the largest Project No. 184 reservoir. These additional releases may affect EID's ability to meet license specified target lake-levels for Caples Lake, which vary by water year during the months of June, July, August, and September, and with a target minimum pool in all water year types of 10,000 acre-feet. Therefore, variances from Caples Lake target lake levels specified in the Project 184 FERC license may be required. Reliance on releases from Caples Lake to meet minimum stream flows at the SFAR below Kyburz may also require variances to pulse flow releases from Caples Lake specified in the Project 184 FERC license. Pulse flow releases are required in all but critically dry water year types. A temporary modification to pulse flow requirements may help conserve storage in Caples Lake for later release to help compensate for reduced Silver Fork flows and/or improve likelihood of that Caples Lake storage is recovered in the year following construction. A variance to minimum stream flow requirements specified in the Project 184 FERC license by water year type for the SFAR below Kyburz could also be requested to be integrated into a temporary streamflow regime under certain conditions to mitigate impacts to reservoir storage necessary to provide minimum instream flow needs as a result of the Project.

The Project 184 FERC license also specifies requirements for maintaining and operating recreation facilities at and around Silver Lake. Temporary closure of some of these facilities may be needed during construction to provide for access and staging and to protect public safety during construction.

The District is evaluating the full extent of potential variances that may be required to help facilitate construction of the Proposed Project.

PROJECT OPERATIONS AND MAINTENANCE

Minimum downstream releases, target lake levels, and other operational commitments that are part of EID's Project 184 FERC license and third-party agreements would remain unchanged during normal operations after construction of the Project is completed.

Existing inspection activities would continue for the replacement Dam. Due to the old age of the existing Dam facility, routine and significant maintenance has been required in recent decades. The Project would provide a new, modern dam and spillway structure, resulting in significant reductions in maintenance and improved capability for remote monitoring and

operation.

The operation of the existing spillway and outlet gates is primarily performed manually by an EID operator that travels to the site. The new outlet works would include more controls and reliable equipment that could be operated remotely from EID's operations facility and not require an operator presence.

REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

EID, as the CEQA lead agency, has the principal authority for approving and carrying out the Proposed Project and for ensuring that CEQA requirements are satisfied. A summary of other permits and approvals that are anticipated for the Proposed Project are identified in **Table 1** along with the agency issuing the permit and approval and relevant project activities.

Table 1. Anticipated Project Permits, Approvals, and Consultations

Permit or Approval	Permitting or Approval Authority	Project Activities
Federal		
Project 184 License Amendment	Federal Energy Regulatory Commission U.S. Forest Service State Water Resources Control Board	Replacement of the existing Dam, Spillway, and appurtenances with new facilities
Project 184 Variance to FERC License Requirements	Federal Energy Regulatory Commission U.S. Forest Service State Water Resources Control Board Project 184 Ecological Resource Committee	Changes in Project 184 operations during the construction period
Clean Water Act Section 404 Permit	U.S. Army Corps of Engineers	Placement of dredge and fill materials into waters of the U.S., including the Reservoir and Silver Fork
ESA Section 7 Consultation	U.S. Fish and Wildlife Service	Construction activities with the potential to affect ESA listed species
National Historic Preservation Act Section 106 Consultation	State Office of Historic Preservation	Activities with the potential to affect to cultural resources
State		
Repair or Alteration of Dams and Reservoirs Permit	California Division of Safety of Dams	Replacement of the existing Dam, Spillway, and appurtenances with new facilities
Clean Water Act Section 401 Water Quality Certification	State Water Resources Control Board	Water quality certification for placement of dredge and fill materials into waters of the U.S./state

Permit or Approval	Permitting or Approval Authority	Project Activities
NPDES General Construction Activity Permit Coverage	Central Valley Regional Water Quality Control Board	Disturbance totaling more than 1 acre or more of soil
NPDES Dewatering and Other Low Threat Discharges Permit Coverage	Central Valley Regional Water Quality Control Board	Construction dewatering that requires discharge into surface waters, including the Reservoir and Silver Fork American River
Lake and Streambed Alteration Agreement	California Department of Fish and Wildlife	Compliance with California Fish and Game Code Section 1600 et seq. for alteration of the bed and bank of lakes and streams including the Reservoir and Silver Fork American River
Encroachment permit	California Department of Transportation	Development of the new electrical line on the SR 88 bridge soffit and any temporary construction activities within the SR 88 right-of-way
Local		
Grading Permit; Traffic Control on County-maintained road(s)	Amador County	Excavation, fill, and grading activities during construction within Amador County
Grading Permit	El Dorado County	Excavation, fill, and grading activities during construction within El Dorado County

Notes: ESA = Federal Endangered Species Act, NPDES = National Pollutant Discharge Elimination System, SR = State Route,

PROJECT ENVIRONMENTAL EFFECTS

Preparation of Draft EIR

Pursuant to CEQA Guidelines Section 15063(a), the District has determined that an EIR is necessary based on the Proposed Project's potential to result in significant impacts on the environment and an Initial Study will not be prepared. The purpose of the Draft EIR will be to disclose and discuss the potential impacts of the Project on the environment. The Draft EIR will describe existing conditions, evaluate the potential environmental effects, and consider a range of reasonable alternatives, including the no-project alternative. The Draft EIR will address direct, indirect, and cumulative effects of the project. The Draft EIR will also discuss potential growth-inducing impacts and summarize any significant and unavoidable environmental effects. The Draft EIR will identify and discuss feasible mitigation measures to reduce potentially significant project impacts.

Probable Environmental Effects Discussed in the Draft EIR

Pursuant to Section 15082(a)(1)(C) of the State CEQA Guidelines, this NOP identifies the probable environmental effects of the Project. The Draft EIR will address all environmental factors and questions that are relevant to the project's environmental effects in Appendix G of the CEQA Guidelines, as listed below.

The Draft EIR will address all environmental factors and questions that are relevant to the Project's environmental effects in Appendix G of the CEQA Guidelines, as listed below.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils, and Paleontology
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

Aesthetics

The Draft EIR analysis will characterize the visual setting of the Project area including the Dam, spillway, and appurtenances, and scenic resources in the viewshed of State Route 88 and evaluate potential direct and indirect impacts to the surrounding aesthetic of the existing land uses, development, and natural setting. Mitigation measures would be imposed if the project is determined to have significant impacts considering the following questions:

- a) Have a substantial adverse effect on a scenic vista?

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Agriculture and Forestry Resources

The Project is located on lands owned by the District. There are no known active agriculture operations or farmlands within the project area. Mitigation measures would be imposed if the project is determined to have significant impacts considering the following questions:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
- d) Result in the loss of forest land or conversion of forest land to non-forest use?
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Air Quality

The Project is located within the Mountain Counties Air Basin (MCAB). The elevation of MCAB generally increases from west to east in the northern Sierra Nevada. The Project will cause temporary increases in criteria pollutant emissions associated with construction activities and changes in emissions related to operations and maintenance. The Draft EIR analysis will evaluate the Project impacts to the MCAB air quality plan, sensitive receptors, and other air quality factors. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Biological Resources

The Project would have short-term effects on terrestrial and aquatic habitats, including riparian habitat and temporary changes in Reservoir water levels and downstream streamflow during construction. The Draft EIR will evaluate impacts to special status wildlife and botanical species with potential to occur within the Project area, as well as potential impacts to habitat and aquatic resources. Mitigation measures would be imposed if the project is determined to have significant impacts considering the following questions:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Cultural Resources

The ground disturbing activities of the Project will occur within previously disturbed locations in and around Silver Lake. Project activities could potentially disturb or destroy known or unknown historic architectural or archaeological resources during construction activities. The Draft EIR will evaluate the Project area for impacts to cultural and historical resources. Mitigation measures would be imposed if the project is determined to have significant impacts considering the following questions:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?
- c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Energy

The Silver Lake Dam has limited power provided by a small solar array and the Project will establish an electrical service provided by the Kirkwood Meadows Public Utility District (KMPUD) and a backup generator. A temporary generator will be utilized to supply power prior to establishing electrical service from KMPUD. Mitigation measures would be imposed if the project is determined to have significant impacts considering the following questions:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Geology, Soils, and Paleontology

The Project will replace the existing Dam within the same location and raise Kit Carson Road to accommodate the probable maximum flood. The Draft EIR will analyze potential geologic hazards and existing soil profiles to determine the project impacts. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

- ii) Strong seismic ground shaking?
 - iii) Seismic-related ground failure, including liquefaction?
 - iv) Landslides?
- b) Result in substantial soil erosion or the loss of topsoil?
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Greenhouse Gases

Project construction activities, equipment, and worker trips would temporarily increase greenhouse gas emissions. The Draft EIR will analyze the potential impacts to greenhouse gas emissions and compliance with all applicable regulations, plans, or policies. Mitigation measures would be imposed if the project is determined to have significant impacts considering the following questions:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Hazards and Hazardous Materials

Initial review of the Cortese List, including the Department of Toxic Substances Control EnviroStor database and the State Water Resources Control Board GeoTracker database indicated that the Project area is not within an area designated to contain hazardous materials. Construction activities would include the use and transport of hazardous materials such as fuel and lubricants. Hazardous materials stored on-site would have secondary containment and be stored in enclosures. The Draft EIR will analyze the Project location and activities for impacts with respect to hazards and hazardous materials. Mitigation measures would be imposed if the Project is determined to have

significant impacts considering the following questions:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Hydrology and Water Quality

The Project would temporarily reduce the water level in Silver Lake and utilize cofferdams and a bypass system to dewater the construction areas and pass Reservoir releases to the Silver Fork. The Project may require variances to hydrology-related FERC license conditions (e.g., minimum streamflows, target lake levels, pulse flows) at other Project 184 facilities to compensate for reduced flows from Silver Lake during construction. The District anticipates the Project would require permits from the U.S. Army Corps of Engineers (Section 404 of the Clean Water Act), the State Water Resources Control Board (Section 401 of the Clean Water Act), and the CA Department of Fish and Wildlife (Section 1602 of the California Fish and Game Code). Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater

recharge such that the project may impede sustainable groundwater management of the basin?

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i) result in a substantial erosion or siltation on- or off-site;
 - ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv) impede or redirect flood flows?
- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Land Use and Planning

The Project is located on lands owned by the District. Project activities are not anticipated to impact the current land use of the Amador County General Plan. The Draft EIR analysis will determine if the project would impact the existing land use, planning regulations, or policies. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Physically divide an established community?
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Mineral Resources

Project construction activities would excavate the area beyond the depth below ground and footprint of the existing dam. Suitable excavated materials would be reused for various purposes throughout the Project area. The Draft EIR will analyze the potential impacts to known mineral resources in the Project area. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Result in the loss of availability of a known mineral resource that would be a value to the

region and the residents of the state?

- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Noise

The Project would utilize heavy construction equipment, a concrete batch plant, and blasting activities that would temporarily generate increased noise and vibration and may include night-time activities. The Draft EIR will analyze the Project activities for compliance with all applicable noise ordinances and thresholds. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b) Generation of excessive groundborne vibration or groundborne noise levels?
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Population and Housing

Silver Lake Reservoir storage capacity would remain the same and seasonal releases would generally remain the same with the new Dam facilities. The Draft EIR will analyze the potential impacts to population growth and housing. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Public Services

The Project would ensure reliable water storage and operations for consumptive and agricultural water supply, power generation, and recreation. The Draft EIR analysis will determine the impacts of the Project to public services. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following question:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: fire protection, police protection, parks, schools, or other public facilities.

Recreation

The day-use recreation sites at Sandy Cove, Ferguson Point, and the Silver Lake Boat Launch would be partially or completely closed during the Project's construction activities. Reduced Reservoir levels during construction would increase shoreline distances and affect access. Use levels at nearby recreation facilities may increase during times when recreational access in proximity to the Project area is limited. The Draft EIR analysis will evaluate the potential impacts of the Project recreation facilities and public lands. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Transportation

A portion of the Project is located within a Caltrans right-of-way for SR 88 and the Project would require the temporary closure and/or traffic control of SR 88 during blasting operations. A temporary closure and/or traffic control of Kit Carson Road would be necessary during installation of the seepage cutoff trench and raise of the road level at the Saddle area. The Draft EIR analysis will evaluate the impacts of the Project on transportation and traffic. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d) Result in inadequate emergency access?

Tribal Cultural Resources

The ground disturbing activities of the Project will occur within previously disturbed locations in and around Silver Lake. Project activities could potentially disturb or destroy known or unknown Tribal cultural resources during construction activities. The Draft EIR will evaluate the potential for the Project to affect Tribal cultural resources. Mitigation measures would be coordinated with Tribal representatives and imposed if the Project is determined to have significant impacts considering the following questions:

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.
 - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Utilities and Service Systems

Project activities would relocate existing telecommunication lines and establish a new electrical service. The Project would generate solid waste that would be disposed of in accordance with applicable local and regional regulations. The Draft EIR analysis will evaluate the potential impacts of the Project to utilities and water supply systems. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- b) Have sufficient water supplies available to serve the project and reasonably foreseeable

future development during normal, dry and multiple dry years?

- c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Wildfire

Portions of the Project are located within a state responsibility area. The Draft EIR will evaluate the potential impacts of the Project to wildfire factors. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Mandatory Findings of Significance

The Project would replace the existing Dam facilities at Silver Lake to ensure the safe and reliable operation of the Dam and Reservoir. The Draft EIR will evaluate the Project activities to determine if the Project would substantially degrade or impact the environment, humans, fish, wildlife, or plant species. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal

or eliminate important examples of the major periods of California history or prehistory?

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)
- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

OTHER INFORMATION INCLUDED IN THE DRAFT EIR

In addition to the potential significant environmental impacts of the Project and feasible mitigation measures to address those impacts, the Draft EIR will include other information required by CEQA and other applicable regulations.

Significant and Irreversible Environmental Changes

Pursuant to CEQA Guidelines Section 15126.(a), the Draft EIR will identify any significant irreversible environmental changes that would be caused by the Project, giving due consideration to both the short-term and long-term effects.

Effects from Growth

As required by CEQA Guidelines Section 15126.(d), the Draft EIR will evaluate any growth-inducing impacts of the Project.

Alternatives Analysis

As required by CEQA Guidelines Section 15126.(f), the Draft EIR will evaluate a reasonable range of alternatives to the Project that would feasibly attain most of the Project objectives and would avoid or substantially reduce a significant impact of the Project, including the no project alternative.

Effects Found Not to be Significant

Pursuant to CEQA Guidelines Section 15128, the Draft EIR will identify environmental impacts found not to be significant and not addressed in detail in the document. Reasons why each effect is not significant will be briefly discussed.