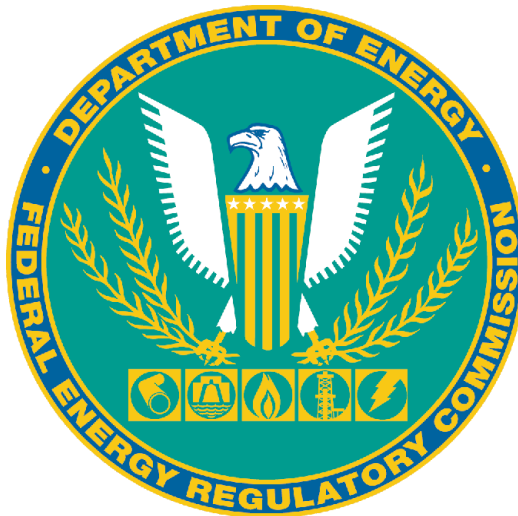


**ENVIRONMENTAL ASSESSMENT  
FOR DECOMMISSIONING OF PROJECT FEATURES AND  
SURRENDER OF PROJECT LICENSE**

Borel Hydroelectric Project—FERC Project No. 382-108

California



Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Administration and Compliance  
888 First Street, NE  
Washington, D.C. 20426

July 2024

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## ACRONYMS

Advisory Council	Advisory Council on Historic Preservation
USDA	U.S. Department of Agriculture
Auxiliary Dam	Lake Isabella Auxiliary Dam
APE	Area of Potential Effect
BA	Biological Assessment
BLM	U.S. Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
Closure Plan	Closure Plan for Fish Ladders at the Fairview Dam
Commission or FERC	Federal Energy Regulatory Commission
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
dBA	weighted decibel
DEA	Draft Environmental Assessment
DFW	Department of Fish and Wildlife
District	Palegewan Heartland District
DO	dissolved oxygen
EA	Environmental Assessment
EJSCREEN	Environmental Justice screen
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
Forest Service	U.S. Forest Service
FPA	Federal Power Act
FR	Federal Register
FSS	Forest Service Sensitive Species
FWS	U.S. Fish and Wildlife Service
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
KCF	Kern Canyon Fault
KR1	Kern River No. 1 Hydroelectric Project
KR3	Kern River No. 3 Hydroelectric Project
kW	Kilowatts
MOA	Memorandum of Agreement
msl	mean sea level
MW	Megawatts
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NAVD 88	North American Vertical Datum of 1988

NEPA	National Environmental Policy Act
NFS	National Forest Service
NHPA	National Historic Preservation Act
NNIP	Non-native invasive plants
NRCS	Natural Resources Conservation Service
OHV	Off-highway vehicle
OPP	Office of Public Participation
SCE	Southern California Edison Company
Section 7	Section 7 of the Endangered Species Act
Section 106	Section 106 of the National Historic Preservation Act
SHPO	State Historic Preservation Office
SR 178	State Route 178
SSC	species of special concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCL	Traditional Cultural Landscape
TCP	Traditional Cultural Properties
VegCAMP	Vegetation Classification and Mapping Program
WEAP	Worker Environmental Awareness Program
WQC	Water Quality Certification under Section 401 of the Clean Water Act

## 1.0 INTRODUCTION

Application:	Surrender of License and Decommissioning
Date Filed:	May 1 and 2, 2023, and supplemented May 16, 2023
Applicant:	Southern California Edison Company
Name of Project:	Borel Hydroelectric Project
Water body:	Kern River
County and State:	Kern County, California
Federal Lands:	The project occupies federal land administered by the U.S. Forest Service, U.S. Army Corps of Engineers, and the Bureau of Land Management

### 1.1 Background

On May 1 and 2, 2023, as supplemented on May 16, 2023, Southern California Edison Company (licensee or SCE), licensee for the Borel Hydroelectric Project No. 382 (Borel Project or project), filed an application to surrender the project license and decommission the project features.<sup>1</sup> The project is located on the North Fork of the Kern River and the main stem of the Kern River in Kern County, California (Figure 1).<sup>2</sup> The project occupies federal lands within the Sequoia National Forest administered by the U.S. Forest Service (Forest Service) and other federal lands administered by the U.S. Army Corps of Engineers (Corps), and the Bureau of Land Management (BLM).

The Borel Project began operating in 1905. The Commission issued the original license for the Borel Project on February 28, 1925, with a term expiring on February 28, 1975, fifty years from the expiration of the original license.<sup>3</sup> As licensed, the Borel Project used the project's diversion dam in the North Fork of the Kern River (just upstream from where it joins the South Fork to form the mainstem Kern River) to divert flows into the Borel canal. Project operations changed in 1950 when the Corps, for

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<sup>1</sup> *Southern California Edison Company*, 115 FERC ¶ 62,187 (2006).

<sup>2</sup> All figures and tables are included in Appendices A and B, respectively.

<sup>3</sup> Fifth Annual Report of the Federal Power Commission 183 (1925). It was relicensed on September 7, 1979 (*Southern California Edison Company* 3 FERC ¶ 61,260) and May 17, 2006 (*Southern California Edison Company*, 115 FERC ¶ 62,187).

purposes of flood control and irrigation, constructed the two-part Isabella Dam (Main dam and Auxiliary dam) on the Kern River, between the project's headworks and powerhouse. The two Corps dams created Lake Isabella, which has a surface area of 11,200 acres and a gross capacity of 570,000 acre-feet. The lake inundates approximately 4.2 miles of the upper portion of the Borel canal and the diversion headworks, shortening the bypassed reach to approximately seven miles. The solution the Corps negotiated with SCE was to rebuild the diversion structure, canal, and trestles within the inundation zone in concrete, replace the trestle across the Kern River main fork with a siphon, and construct the Lake Isabella Auxiliary Dam as the Borel intake (except when the lake is below the level of the canal). At that time, the Corps thought Lake Isabella would be drawn down to minimal levels each year, which was not the case. Consequently, when the canal was exposed, such as during drought years, the canal required sediment excavation and other repairs to make it serviceable.<sup>4</sup>

When Lake Isabella impounds more than 110,000 acre-feet of water, the Corps released water from the lake into SCE's intake structure at the Auxiliary dam.<sup>5</sup> The water was carried through the lower seven miles of Borel canal and then to the project's powerhouse. In dry years, when Lake Isabella levels are lower than 110,000 acre-feet, the diversion structure and upper portion of the Borel canal are exposed, and SCE uses them to divert water from the river through the entire 11.2 miles of canal. The canal led to the project powerhouse, on the shore of the Kern River below the forks' confluence and bypassed almost 14 miles of the North Fork/mainstem Kern River.

In 2017, the Corps implemented a safety modification to the Lake Isabella Auxiliary Dam (Auxiliary Dam) for which the Corps condemned 10.7 acres of private and public land associated with the Borel Project and sealed off a section of the Borel conduit that passed through the Auxiliary Dam by filling it with concrete and discarding

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<sup>4</sup> See 9 FPC 953 (1950).

<sup>5</sup> Contract No. DA-04-167-eng-161, signed January 2, 1950, between SCE and the Corps. Under the contract, the Corps releases flows equivalent to the licensee's entitlement, which is the entire flow of the North Fork up to 605 cfs, from Lake Isabella into the Borel canal. The contract can be found in Exhibit 1 of SCE's "Request for Rehearing of the Order Establishing Minimum Flow Release for the Borel Project," filed with the Commission on October 29, 1997.

it in place rendering the project unusable.<sup>6</sup> Therefore, SCE is seeking to surrender the project license.

This EA is being issued to address the proposed surrender and decommissioning and any changes to the environment that may have occurred since the project application for a new license was analyzed in a 2005 Environmental Assessment (2005 EA).<sup>7</sup> Commission staff addresses the effects of the proposed action on geology and soils, water resources, fisheries and aquatics, terrestrial and botanical resources, special-status species, recreation and land use, cultural and historic resources, Tribal resources, and environmental justice.

## **1.2 Project Description**

### **1.2.1 Existing Project Facilities**

The Borel Project consists of: (1) a 158-foot-long, 4-foot-high concrete diversion dam with fishway; (2) a 61-foot-long intake structure with three 10-by-10-foot radial gates; (3) a canal inlet structure consisting of a canal intake, trash racks, and a sluice gate; (4) a flowline with a combined total length of 1,985 feet of tunnel, 1,651 feet of steel Lennon flume, 3,683 feet of steel siphon, and 51,835 feet of concrete-lined canal; (5) four steel penstocks—penstocks 1 and 2 are 526 feet long and 565 feet long, respectively, with varying diameters between 42 and 60 inches; penstocks 3 and 4 each have a 60-inch-diameter and extend 622 feet at which point they wye together to form a single 84-inch-diameter, 94-foot-long penstock; (6) a powerhouse with two 3,000-kilowatt (kW) generators and a 6,000-kW generator for a total installed capacity of 12 megawatts (MW); and (7) other appurtenant facilities. The project has no storage capability and relied on water releases from Lake Isabella directed by the Corps.

### **1.2.2 Project Operation**

The water rights entitlement of the Borel canal is 605 cfs. Prior to the condemnation by the Corps, water for power was diverted from the North Fork Kern River or later through the Auxiliary Dam when Lake Isabella inundated the project diversion and conduit. Lake Isabella and the Auxiliary Dam are operated by the Corps

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<sup>6</sup> The Corps' National Environmental Policy Act documents with decision documents are available online at: <http://www.spk.usace.army.mil/Missions/Civil-Works/Isabella-Dam/>.

<sup>7</sup> Draft Environmental Assessment for Multiple Projects, Southern California Edison Borel Hydroelectric Project (P-382-026) and Kern Canyon Project (178-017). Issued March 22, 2005.



and are not part of the project. The Corps historically managed the releases of water from the Auxiliary Dam into Borel Canal.

### **1.3 Purpose and Need for Action**

The Commission must decide whether to approve the licensee's proposed surrender and decommission and what conditions should be in any surrender order issued. In addition to power and development under the Federal Power Act (FPA), the Commission must give equal consideration to the purposes of energy conservation; the protection, mitigation of damage to and enhancement of fish and wildlife (including related spawning grounds and habitat); the protection of recreational opportunities; and the preservation of other aspects of environmental quality.

This EA is being prepared to satisfy the Commission's responsibilities under the National Environmental Policy Act of 1969 (NEPA),<sup>8</sup> the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 C.F.R. 1500-1508), and the Commission's implementing regulations under 18 C.F.R. 380. This EA assesses the effects of the proposed surrender and decommission, evaluates alternatives to the proposed action, and recommends whether to approve the licensee's surrender application, and if approved, recommends conditions to become part of any order issued.

The EA examines the affected environment, including any changes since the 2005 EA, and the environmental effects of the proposed action and the No-Action Alternative (today's status quo). Unless otherwise noted, the information contained in this EA comes from the licensee's May 1 and 2, 2023 application for amendment of license and its applicant prepared EA, included in the application, to surrender the project license and decommission the project's facilities.

## **2.0 PROPOSED ACTION AND ALTERNATIVES**

### **2.1 Description of Proposal**

#### **2.1.1 Proposed Action**

The SCE is proposing to surrender the existing Borel Project license and decommission the project's facilities. Given the variety of facility types, land ownership, and topography, the proposal includes several decommissioning strategies, including the removal of facilities, abandoning facilities in place, and abandoning facilities with modifications.

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<sup>8</sup>42 U.S.C. §§ 4321 *et seq.*

The decommissioning of Borel Project facilities is organized into 11 major segments (Figure 2). Segments are ordered upstream to downstream and are based on land ownership, access, location, and other common conditions. Segments 1 through 4 are located upstream from the Auxiliary Dam (Upper Borel) and entirely within the limits of Lake Isabella and subject to inundation when the water surface elevation of the reservoir is at an approximate elevation of 2,550 ft mean sea level (msl) or higher. Access to these segments and decommissioning actions would be dependent upon water year and lake levels. Segment 5 is located partially within the reservoir and partially downstream of the Auxiliary Dam. Segments 6 through 11 are located downstream from the Auxiliary Dam (Lower Borel), and access is not affected by reservoir operations. Unless otherwise noted, unpaved access roads may require temporary grading and other improvements prior to use by construction vehicles during construction. Roads that are improved for access would be abandoned in the improved condition. Roads developed for the sole purpose of construction activities would be graded back to pre-construction conditions upon completion of work.

**Segment 1** (Diversion dam and intake structure to Tilley No.1 Concrete Flume) is approximately 1,970 feet. The diversion dam and intake structure to the Overflow Dam at Settling Basin are on property owned by SCE. The intake structure, canal inlet structures, and storehouse are on Forest Service lands. Proposed work includes abandoning the diversion dam and intake structure in place. No work is proposed along the Overflow Dam at Settling Basin, which is upstream from the canal inlet structure, as the area has naturally revegetated. The canal inlet structure is proposed to be abandoned in place with modifications, such as backfilling the structure and removing steel racks, gates, actuators, and fencing. The proposed plan for the concrete-lined canal is to abandon with modification; the concrete canal would be backfilled with imported soil to limit ground disturbance. If necessary, the canal would be dewatered prior to fill placement. The storehouse, fencing, and material stored in the yard would be demolished and hauled off-site to an approved facility, and the foundation would be left in place. The utility poles and lines, which are outside the storehouse yard, would be protected in place to maintain service to adjacent parcels and only the service drop would be disconnected. The road used to access the storehouse, canal inlet structures, and concrete-lined canal would likely be improved for construction access.

**Segment 2** (Tilly No. 1 Concrete Flume to Tilley No. 3 Concrete Flume) is approximately 3,615 feet. All features within Segment 2 are on property owned by SCE. Proposed work includes abandoning all three concrete flumes and backfilling with imported soil. The concrete-lined canal would be abandoned in place or abandoned with modification and backfilled with imported soil to limit ground disturbance. To minimize habitat disturbance, SCE would work with the Forest Service to access the Borel Project

area generally following the existing public access roads but would likely use the roadways that are most prominent at the time of construction.

**Segment 3** (Tilley No. 3 Concrete Flume to end of SCE land) is approximately 7,285 feet. All project facilities within Segment 3 are on property owned by SCE, while access roads are located on Forest Service lands. Proposed work in the concrete-lined canal includes abandoning with modification and backfilling with imported soil, as well as demolishing and burying sections of the concrete-lined canal. The steel bridge would also be demolished and hauled off-site to an approved recycling facility. The Refugio Concrete Box Flume is proposed to be demolished and buried along with the abutments, transitions, and foundations. Piers and footings would be removed to a depth of 2 feet below existing grade. Concrete would be processed and buried in adjacent portions of the canal. Bailey Bridge would no longer be needed and would be abandoned in place at the request of the Forest Service. To minimize habitat disturbance, SCE would work with the Forest Service to access the Borel Project using roadways that are most prominent at the time of construction.

**Segment 4** (End of SCE land to the Auxiliary Dam) is approximately 11,280 feet. The upper 6,815 feet of the segment is on Forest Service land, and in the lower 5,165 feet of the segment is on SCE-owned land. Proposed work includes abandoning two sections of concrete-lined canal and backfilling with imported soil to limit ground disturbance. The rest of the concrete-lined canal in the segment would be demolished and buried. The left bank of the lined canal would be excavated after removal of the upper portion of the liner and the existing rock slope protection on the outboard slope (rock slope protection would be put back in place after the completed bank). Excavated material would be blended with processed liner material on the right side of the canal to extend the bank into the reservoir bottom. The Sawmill Bridge would also be removed and demolished. The concrete would be processed and buried with clean fill within the adjacent canal. The Rich Gulch Concrete Siphon and Kern River Concrete Siphon would be abandoned in place with a concrete slurry/plug placed at the entry and exit. Any fencing, exposed steel, or metal safety hazards would be removed. The existing wingwalls would be buried with clean fill and graded to conform to the adjacent topography. To minimize habitat disturbance, SCE would work with the Forest Service to access the Borel Project using roadways that are most prominent at the time of construction.

**Segment 5** (Auxiliary Dam) is approximately 2,420 feet. Segment 5 is within land administered by the Corps and has no proposed action. An estimated 900 feet of canal upstream and 600 feet of canal downstream of the Corps' Auxiliary Dam have been filled by the Corps. The canal intake works at the Auxiliary Dam have been removed, destroyed, and filled as part of Corps seismic upgrades.

**Segment 6** (Auxiliary Dam to Alta Sierra Avenue) is approximately 10,045 feet. All lands within Segment 6 are owned by SCE. Proposed work includes demolishing the entire concrete-lined canal, processing the concrete before mixing with native soil, and using it as backfill material. The canal underneath the vehicle bridges would be backfilled with lightweight concrete in lieu of earthen fill to minimize loading on the existing bridge foundations. The entire concrete liner would remain in place beneath the bridges to a distance of 20 feet on both sides to provide protection to the canal slope. The Lakeland Walk Bridge would remain in its current condition. Fill would be placed within School House Cut to the top of the rectangular channel, with a high point near the middle and the fill graded to drain north and south. The School House No. 1 Concrete Flume and School House Cut Flume would be demolished; and the concrete would be processed mixed with native soil and used to backfill the canal and reconstruct the bank of the drainage crossings. An existing access road parallel to the School House Cut that follows the historic alignment of the flume is outside the Borel Project boundary. The road has historically been used by SCE for regular maintenance under easement with private landowners and would be used for access during construction. Following construction activities, the road would be scarified, hydroseeded, and abandoned in place. Borel Project access through this corridor for post-construction operation and maintenance activities would be on SCE land.

**Segment 7** (Alta Sierra Avenue to Erskine Steel Flume) is approximately 5,275 feet. Property within Segment 7 is owned by private parties, SCE, or administered by BLM. Decommissioning of the existing canal on public lands would be consistent with Segment 6. On private parcels, the concrete-lined canal would be removed, processed, mixed with native soils, then used to backfill canal reaches on SCE land. Native soils would be used to backfill the canal and regrade the area to conform to the adjacent topography. The School Pedestrian Bridge would be removed and recycled while the County Emergency Vehicular Bridge would be protected in place, and the canal beneath would be filled and graded. Erskine Steel Flume would be demolished, and the materials would be hauled off site. The foundations and piers would be removed to a depth of 2 feet below grade and disposed of offsite. An unpaved portion of Commercial Avenue used to access the Borel Project at the Erskine Steel Flume may be upgraded for construction purposes.

**Segment 8** (Erskine Steel Flume to Bodfish Siphon) is approximately 5,509 feet. Property within Segment 8 is owned by private parties, SCE, or administered by BLM. On the private parcels, the proposed work includes demolishing the concrete-lined canal and grading to promote drainage to Erskine Creek. The remainder of the canal on BLM or SCE land would be demolished, processed as backfill, and buried. The area would be graded to drain toward Bodfish Siphon, which would be abandoned in place with modifications. The wingwalls would be demolished, and the headwalls would be protected in place. The siphon would be filled with concrete slurry, and the gauging

station and concrete vaults used to dewater the siphon would be demolished to allow for conveyance and release of drainage flow into Bodfish Creek. The existing culvert under Lake Isabella Boulevard would be replaced to accommodate stormwater flows that exceed the capacity of the biofiltration basin. The culvert would discharge into a biofiltration swale on the SCE property (east of Lake Isabella Boulevard). The swale would treat and ultimately convey stormwater into Bodfish Creek. Primary access to the canal is anticipated to be from the access road at the upstream end of Segment 8 via Commercial Avenue and the road accessing the canal at Station 477+00 (mid-segment). A 3.0-acre parcel adjacent to Bodfish Canyon Road would be utilized for staging of construction trailers only. Access to the staging area would be via Lake Isabella Boulevard and/or Bodfish Canyon Road at Station 503+00.

**Segment 9** (Bodfish Siphon to Pioneer Steel Siphon) is approximately 4,250 feet. Most land within Segment 9 is owned and administered by the BLM, except for the canal segment upstream of Tunnel No. 1 (SCE) and the last 240 feet of Pioneer Steel Siphon (Forest Service). Proposed work includes demolishing and burying the concrete-lined canal as previously described. Tunnel No. 1 would be abandoned with modification and backfilled with a mixture of debris and flowable fill material. The headwalls would remain, and the area would be backfilled and graded. Pioneer Steel Siphon would be demolished and hauled off site. Lead remediation for Pioneer Steel Siphon would be determined following testing and verification of the levels of contaminants present. Appurtenant facilities, including the gauging station building and siphon, drainpipe, and concrete energy dissipation structure, would be removed and hauled away. It is expected that the Frontier-owned overhead communications lines that run parallel to the canal would be removed.

**Segment 10** (Pioneer Steel Siphon to Forebay Structure) is approximately 7,995 feet long. All lands within Segment 10 are administered by the Forest Service. The concrete liner of the canal would be removed to a depth of approximately one-foot below finished grade on both sides of the canal, and the materials would be processed to be suitable as backfill. The right bank of the canal would be excavated and processed as fill material. Tunnel Nos. 1 1/2, 2, and 3 would be abandoned with modification, as described for Tunnel No. 1 in Segment 9 above. Flume No. 623 and Profanity Steel Flume would be demolished, and the materials would be hauled off site. Existing concrete footings would remain in place to minimize ground disturbance. It is expected that the Frontier-owned overhead communications lines that run parallel to the canal would be removed. The gated road loop located above Tunnel No. 1 1/2 is steep and narrow. Grading in this area would not be allowed and access across this point would be limited, and large equipment would require transport around this area using Kern River Canyon Road and the access road near STA 585+00. Upon completion of construction, the gated road loops would be scarified (surficial), hydroseeded, and abandoned. A 0.21-acre staging area, which may

extend beyond the project boundary, has been identified adjacent to Tunnel No. 3 and Borel Road. If developed, it is expected that the staging area would require a temporary construction easement and would be graded back to pre-construction conditions upon completion of work.

**Segment 11** (Forebay structure to the powerhouse and tailrace) is approximately 1,035 feet and includes features that would generally be demolished. All lands within Segment 11 are administered by the Forest Service. Access to the forebay structure is limited to a short section of Kern Canyon Road. All features of the forebay structure would be demolished and hauled off site, including existing electrical and lighting equipment, stairs, handrails, intake screens, and others. Concrete not used as backfill in the immediate area would be hauled to other areas of the canal to be used as backfill. The penstocks, anchors blocks, and footings would be removed to existing grade. The powerhouse would be demolished and hauled off site, with lead and/or asbestos remediation performed as needed, leaving only the foundation in place. Three auxiliary buildings to the powerhouse (storage building, restroom, and pumphouse) would be demolished to grade and disposed of offsite. The tailrace tunnel would be demolished and backfilled with a blend of native material and processed concrete. After grading, clean riprap would be placed on the finished surface at a slope that conforms to the adjacent contours. Ground disturbance due to construction activities near Borel Project features in Segment 11 would be re-graded and hydroseeded and/or revegetated. No action is proposed for the natural spillway channel. Once construction is complete, the paved access road to the powerhouse site would be left in place while it is expected that the remaining unpaved access roads and staging area in the segment would be graded, scarified, and hydroseeded unless otherwise needed by SCE for access to non-project distribution or transmission lines.

### **2.1.2 Proposed Environmental Measures**

The licensee proposes to incorporate the following environmental measures into the proposed surrender and decommissioning to reduce or eliminate adverse effects:

- **Permits:** SCE would consult with the applicable federal, state, and local agencies to obtain necessary permits and would comply with these permits during all decommissioning activities;
- **Footprint:** Work area footprints would be marked and confined as reasonably practicable. Parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities would be confined, to the greatest extent possible, to previously disturbed areas. Fences and flagging would be installed to identify habitats and other sensitive areas to be avoided. On Forest Service lands,

the Forest Service would approve the final proposed work area prior to commencement of work;

- Garbage and micro trash: Work areas would be kept clear of garbage, including micro trash. Trash and food would be stored in closed containers and removed daily. Upon completion of a decommissioning activity, the work site would be inspected to ensure it is free of garbage and micro trash;
- Construction timing: Effects to the community would be minimized, to the extent possible, through the use of seasonally appropriate construction windows;
- Speed limits: All construction equipment and vehicles would drive no faster than 15 miles per hour within the project boundary. Vehicles would stay on designated roads to the extent reasonably possible. Construction truck trips would be minimized, particularly in the community and on the grade between Bakersfield and Lake Isabella;
- Hazardous materials: All work-related materials would be properly stored and secured. Materials that are in any type of liquid or powder form would be stored in sealed leak-proof containers. In addition, all parked vehicles/equipment would be kept free of leaks, particularly antifreeze;
- Hazardous liquids: Any proposed use of herbicides on Forest Service land would require approval of Forest Service. If used, information on herbicides would be documented and provided to the Sequoia National Forest botanist;
- Invasive weeds: Use certified weed-free straw or rice straw for all construction, erosion control, or restoration needs. Use gravel and sand from local and weed-free sources where possible. Whenever possible, dispose of any spoils on site, graded to match local contours, and use fill collected on site. On Forest Service lands, SCE would coordinate with the Forest Service on buffers around invasive weed occurrences during construction and conduct a year of post-construction monitoring for invasive weeds within the active work and work-related areas. Additionally, work would generally follow Forest Service Manual 2903 for invasive plant management, as practicable, on Forest Service lands;
- Construction plans: The contractor would be required to follow a traffic control plan, a staging and haul route plan, a materials handling plan, a construction safety plan, a specific fire safety plan, a dewatering plan, and a Stormwater Pollution Prevention Plan (SWPPP);
- Use of local materials: Construction supplies would be purchased from local businesses to the extent practicable;

- Clean fill: Imported fill would be minimized to the extent possible. All imported fill would come from clean sites (soils would be chemically tested as needed) and be weed-free;
- Modern vehicles: On-road heavy duty truck fleet to comply with California Title 13 CCR § 2025 which requires that older vehicles be replaced by modern, emission-controlled trucks;
- Worker Environmental Awareness Program (WEAP): A WEAP would be established and implemented prior to the start work activities in the field and cover biological and cultural resources. The program would be presented by a qualified biologist and a qualified archaeologist to all construction crew members. The WEAP would cover special-status wildlife species, their legal protection, penalties for violating federal laws, reporting requirements, Borel Project mitigation measures, and measures to implement in the event that the species is found during activities. For cultural resources, the WEAP would cover the existence of and potential for cultural and Tribal resources in the vicinity, and contractor roles/responsibilities in the case of an inadvertent discovery during construction;
- Endangered Species Act (ESA)-listed birds: No work activities would take place upstream of the canal inlet structure to prevent potential effects to ESA-listed bird habitat and other sensitive natural communities;
- Biological monitor: A biological monitor would be on site during all ground-disturbing and vegetation removal activities in areas of sensitive vegetation communities, ESA-listed species habitat, or known special-status species occurrences. On Forest Service lands, a biological monitor would be present when work occurs near a known non-native invasive plant (NNIP) occurrence;
- Pre-construction surveys: Prior to the start of activities that may affect biological resources, pre-construction surveys for sensitive habitats and sensitive species, including ESA-listed species and special-status plants on Forest Service Lands, would be conducted by qualified biologists. On Forest Service lands, the designated Forest Service botanist would be consulted for specific types of data and mapping needed. Pre-construction surveys would also document non-native invasive species on Forest Service lands;
- Revegetation: Upon completion of work activities, temporarily disturbed areas would be revegetated with native plant species. A revegetation plan would be developed that includes proposed non-native invasive species management and monitoring for one year following construction. On Forest Service lands, any hydroseeding would follow Forest Service prescribed rules;



- Wildlife reporting: SCE would report any instances of injured, notably diseased, or deceased wildlife to the appropriate jurisdictional agency(ies);
- Active bird nesting: To protect native breeding birds, work activities would avoid to the extent possible the general avian breeding season of February 1 through September 15. If decommissioning activities cannot be avoided during this period, a focused survey for active nests within the area proposed for work would be conducted prior to the commencement of activities. If no nests are located, work may proceed as planned. If nesting activity is detected, a protective buffer would be established, as determined by a qualified biologist;
- Bat exclusion and surveys: The year prior to the proposed start of the removal of facilities with suitable bat habitat, humane exclusion devices would be placed on all facilities that would be removed/filled and have known bat occupation, signs of bat occupation, or potential bat habitat. Surveys would be completed by a qualified biologist to ensure all bats have left before permanent exclusion devices are installed;
- Special-status species: If special-status species are detected, those individuals would be allowed to move from the area of their own volition. If special-status species cannot be avoided, the agency(ies) with jurisdiction would be consulted and any necessary permits or approvals would be acquired. Damage or injury to special-status species would be reported immediately to the agency(ies) with jurisdiction;
- Excavations: If excavations are to be left open and unattended for more than 12 hours, they would either be covered, surrounded with exclusion fencing, or an escape ramp would be constructed to the bottom of the pit with less than a 2:1 slope, to provide an escape route to prevent small wildlife species (e.g., lizards, rodents) in the area from getting trapped in the excavation. To the extent feasible, excavations would not be left open at the end of the day and would be covered after confirming absence of trapped individuals. Prior to commencement of work activity each day, staff would check excavations to ensure no animals are trapped. Before backfilling or permanently closing any excavation, it would be checked to ensure no wildlife are present within the excavated area. If wildlife has become trapped, it would be removed prior to closure or backfilling;
- Riparian vegetation: Riparian vegetation removal and trimming would be limited to the amount necessary to successfully complete all activities. Orange barrier fencing, or flagging, would be erected to clearly define the habitat to be avoided. The Forest Service would be consulted on the protection of elderberry shrubs

located on Forest Service lands outside of riparian areas. The shrubs would not be afforded extra protections on non-Forest Service lands;

- Special-status plants: Tracy's *eriastrum* and Kern Canyon *clarkia* occurrences, or other special-status plants on Forest Service lands, would be flagged and avoided to the extent feasible. If work is completed during reproductive life stages, a biological monitor would be present periodically to determine if there is damage or removal of the Tracy's *eriastrum* and Kern Canyon *clarkia* due to work activities. New occurrences and/or damage or injury to special-status species would be reported immediately to the agency(ies) with jurisdiction. If there is damage, the occurrence would be resurveyed after the completion of work to determine extent;
- Biologist: A designated qualified biologist would review final plans, designate areas that need temporary fencing, and monitor construction activities within and adjacent to areas with aquatic or other sensitive habitats. The biologist would check construction barriers or exclusion fencing and provide corrective measures to the contractor;
- Equipment cleaning: Prior to the first time any vehicles and equipment, including hand tools, enter a work area, a qualified biologist would perform an inspection for NNIP. Equipment would be decontaminated and cleaned. Vehicles and equipment that perform work in known NNIP occurrences during work activities would be cleaned before leaving the site. The Forest Service would be notified at least five working days prior to equipment being moved on to Forest Service lands;
- ESA-listed birds: No work activities would take place within approximately 0.5 mile of any of the mapped potential nesting habitat patches for least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo during the avian breeding season (February 1–September 1);
- Drainage: Natural landscape drainage patterns would be maintained to the extent practicable;
- Aquatic habitat avoidance: Effects to delineated aquatic resources, outside of the Borel Canal, would be limited to the amount necessary to successfully complete all work activities;
- SWPPP: SCE or the contractor would develop a SWPPP in accordance with the State Water Resources Control Board General Construction Permit and local regulations. The SWPPP would include measures to reduce or eliminate construction effects to stormwater runoff. On Forest Service lands, Forest Service

personnel would be present and work alongside the contractor's Qualified SWPPP Developer/Qualified SWPPP Practitioner;

- Lake elevation: Work in Lake Isabella would be completed during dry conditions when the lake elevation is at 2,535 feet msl or below;
- Cultural resource protection: Ground disturbance near unevaluated or NRHP-eligible archaeological sites, Traditional Cultural Properties (TCPs), and Traditional Cultural Landscapes (TCLs) would be avoided to the extent possible. A qualified archaeologist would review final plans and, in coordination with the appropriate land-managing agency, would designate areas that need temporary exclusion fencing, signage, flagging, barriers, or other avoidance and exclusion measures. Of particular note are the historic-era mining features located both upslope and downslope from the canal near Pioneer Siphon. Prior to any ground disturbance, these features would be relocated and designated for avoidance;
- Footings: Footings would be left in place at siphons, flumes, and penstocks to minimize ground disturbance to the extent possible;
- Tribal consultation: Analysis and consultation with Tribes and agencies would continue to accurately characterize the extent of Tribal resources and assess effects of decommissioning activities on previously recorded or newly documented TCPs and TCLs;
- Cultural and Tribal monitoring: On-site cultural monitoring by a qualified archaeologist would be necessary near all unevaluated and NRHP-eligible archaeological sites during decommissioning-related ground disturbance. Tribal monitoring would likely be necessary in any area deemed culturally sensitive by the Tribe(s). Identification of these areas would be borne out of the ongoing consultation effort;
- Treatment of historic properties: Development of an agreement document to resolve adverse effects; agreement document would outline appropriate mitigation to resolve adverse effects. Effects to the Borel Hydroelectric Historic District would include documentation of the district via Historic American Building Survey/Historic American Engineering Record (HABS/HAER) documentation and/or equivalent; and
- Inadvertent discovery: Develop a Project Inadvertent Discovery and Monitoring Plan that details the protocols to be implemented when necessary, including any specific requirements of the Sequoia National Forest and BLM, in the case of an inadvertent discovery of previously unrecorded archaeological resources. These

protocols would include the necessary compliance and reporting requirements for the discovery of human remains on both federal and non-federal lands.

## **2.2 No-Action Alternative**

Under the No-Action Alternative, the project would remain under the Commission's jurisdiction and the licensee would be required to operate and maintain the project. However, because the project was condemned by the Corps and rendered inoperable, the no-action alternative is not a valid option. Under the No-Action Alternative, the environmental resources in the project area would remain the same as they currently exist today and are the basis for the existing environment sections in this EA. The no-action alternative is the baseline from which to compare the proposed action.

## **3.0 STATUTORY AND REGULATORY COMPLIANCE**

This amendment request for the project would be subject to numerous requirements under the Federal Power Act and other applicable statutes. The major regulatory and statutory requirements are described in Appendix A: *Statutory and Regulatory Requirements*.

## **4.0 PRE-FILING CONSULTATION AND PUBLIC INVOLVEMENT**

### **4.0 Pre-filing Consultation**

The SCE conducted stakeholder consultation including meetings with private landowners, Native American Tribes, federal and state agencies under section 106 of the National Historic Preservation Act (NHPA) and section 7 of the ESA, Kern County, utilities, and local organizations. Due to the COVID-19 pandemic, most stakeholder consultation was conducted virtually throughout the surrender application process.

In April 2021, SCE began public outreach by holding virtual meetings with private landowners within and/or adjacent to the project boundary. Outreach continued with a virtual Town Hall, launch of a public-facing dedicated Borel Project website, informational hotline in English and Spanish, emails, radio public service announcements, and social media posts. Except for the private landowner meetings, these communications were available to anyone interested in the Borel Project and the surrender application process. During the public comment period for the draft Application of Surrender of License (December 14, 2022 – February 1, 2023), stakeholders were notified by email and Borel Project website updates about the availability of the document for review and how to provide comments. The hotline was also updated to include information on the draft Surrender Application and public comment period.

The SCE hosted three virtual meetings with private landowners, and one virtual Town Hall. It also hosted telephone calls with private landowners. A virtual Town Hall meeting was held on May 13, 2021, through the Webex platform. In advance of the meeting, SCE emailed informational postcards to 430 area residents and mailed 1,767 informational postcards via U.S. Postal Service to residents of Lake Isabella notifying them of the proposed surrender application, the virtual town hall, and additional information.

The SCE maintains two websites to facilitate communications with stakeholders and provide Borel Project information. The websites are accessible at the SCE Hydro Relicensing webpage at <https://www.sce.com/regulatory/hydro-licensing/borel> and through a dedicated Borel Project website at <https://www.borelhydro.com>.

The licensee consulted with federal and state resource agencies via online virtual meetings and in-person meetings, and via email with points-of-contact in each resource agency. Federal agencies consulted include the Forest Service, BLM, and the U.S. Fish and Wildlife Service (FWS), state agencies consulted include California Department of Fish and Wildlife (California DFW) and California State Water Resources Control Board (California SWRCB), California State Historic Preservation Office (California SHPO), and Kern County. The licensee also met with the Tübatulabal Tribe. The application included documentation of consultation on a draft of the surrender application and provided evidence of how the comments were addressed in the application.

#### **4.1 Public Notice and Comments**

On June 13, 2023, Commission staff issued a public notice of the proposed action soliciting comments, motions to intervene, and protests. The deadline for filing comments was July 13, 2023. On July 12, 2023, BLM filed comments expressing concerns about how Segment 8 was proposed for removal and its concern for residents located directly below this segment. On July 13, 2023, the Forest Service filed a motion to intervene in the proceeding but did not provide any comments. No other comments were filed in response to the public notice.

### **5.0 ENVIRONMENTAL ANALYSIS**

#### **5.1 General Description**

The Kern River and its tributaries lie within the Tulare Lake Drainage Basin. This basin comprises the Central Valley drainage area south of the San Joaquin River Basin. In years of extreme rainfall, surface water from the basin drains north into the San Joaquin River; otherwise, there is no surface drainage to the San Joaquin River, and the Tulare Lake Drainage Basin may be referred to as "closed." The Tulare Lake Drainage Basin covers approximately 10.5 million acres and includes the entire area drained by the

Kern River. The Tulare Lake Drainage Basin is considered one of the most important agricultural centers in the world, with petroleum production and refining the next largest industry in the region.

The Kern River drains a rugged mountainous area through a highly-developed drainage system composed of two principal streams: the main stem of the Kern River (North Fork) and the South Fork. Both streams flow generally southward and converge in Lake Isabella. A high north-south mountain range (near 10,000 feet) separates the North Fork from the South Fork. The North Fork comprises approximately 85 percent of the total flow into Lake Isabella.

The total drainage area of the Kern River encompasses 2,324 square miles. The drainage area of the Kern River at Isabella Dam is 2,074 square miles. The historical average annual runoff of the Kern River at Isabella Dam is approximately 736,000 acre-feet (1954 through 2000 average). Typically, approximately two-thirds of the annual runoff occurs during the April through July snowmelt period.

The Kern River, the southernmost river in the Tulare Lake Drainage Basin, is located in the Sierra Nevada Mountains. The Kern River Valley is relatively flat, ranging from 2,300 to 3,500 feet. The Sierra Nevada Mountains range in elevation from the valley floor to approximately 2,500 feet near Lake Isabella Dam and approximately 14,000 feet near Mount Whitney. Approximately 80 percent of the Kern River watershed tributary to Lake Isabella is above 5,000 feet in elevation. The Borel Project area ranges in elevation between 2,366 to 2,689 msl.

SCE constructed and operates two other hydroelectric plants on the Kern River: Kern River No. 1 (KR1) Project No. 1930, built between 1904 and 1907 (the KR1 intake is located at Democrat Dam downstream from Powerhouse and the KR1 Powerhouse is located near the mouth of Kern Canyon), and Kern River No. 3 (KR3) Project No. 2290, completed in 1921 (the KR3 intake is located at Fairview Dam and the KR3 Powerhouse is located just upstream from Kernville).

Lake Isabella is administered and operated by the Corps. The lake is formed behind two dams referred to as the Isabella Main Dam and the Isabella Auxiliary Dam and has a maximum storage capacity of 570,000 acre-feet. Lake Isabella is operated as a multipurpose reservoir. Its primary function is flood control but flows out of the reservoir are also managed by the Kern Watermaster to meet water supply demands of downstream users, principally those of agricultural interests, and to accommodate reservoir recreation.

During summer, nearly all of the water released from the Lake Isabella Project is used to irrigate approximately 1 million acres of Kern County land in the San Joaquin Valley. Water use on the Kern River between Lake Isabella and SCE's Kern River No. 1

Project (KR1) Powerhouse includes hydropower generation, recreation, and aquatic habitat. Waters downstream of the KR1 Powerhouse also include municipal, industrial, and agricultural water supply as well as groundwater recharge. However, surface water supply is generally inadequate to support the existing level of agriculture and other development in the Tulare Lake Drainage Basin, so groundwater sources are also used to satisfy demand.

Urban development in the Tulare Lake Drainage Basin is confined to the foothill and eastern valley floor areas, including Bakersfield, Fresno, Porterville, Hanford, Tulare, and Visalia. Project facilities are situated on private land that is under Kern County's jurisdiction, and on federal lands administered by the Corps, Sequoia National Forest, and BLM.

Major land uses in the project vicinity include recreation, grazing, and minor population centers. The Borel Project is located in a rural, semi-arid region with scattered minor population centers and an economy highly influenced by recreation. Lands managed by the Forest Service and BLM in the project vicinity are used for agriculture and grazing as well as recreation. Private lands are mostly residential, commercial, or vacant. In addition to agriculture and recreation, lands in Kern County are also used for mineral and petroleum resources.

## **5.2 Scope of Cumulative Effects Analysis**

According to the CEQ's regulations for implementing NEPA, a cumulative effect is an effect on the environment that results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant actions, occurring over a period of time that includes hydropower and other land and water development activities.

Based on our review of the proposed action, the project record, information in this EA, and consultation conducted to date, no resources have the potential to be cumulatively affected by the Borel Project license surrender and decommissioning of its project facilities.

## **5.3 Resource Areas**

### **5.3.1 Geology and Soils**

#### ***Affected Environment***

The project area is broadly composed of plutonic and metamorphic rocks forming the adjacent hills and mountains, while valley fill is composed of sedimentary deposits of

the Kern River and its tributaries. The Kern Canyon fault (KCF) bisects the valley, roughly parallel to the canal alignment.

The project area is underlain by Mesozoic, predominantly granitic bedrock with elevations ranging from 2,560 feet msl at the historic intake facilities under Lake Isabella to 2,280 feet above msl at the powerhouse. These rocks form the surrounding mountains of the Kern River Valley and include the Granite of Kern River, Granodiorite of Alto Sierra, Granodiorite of Waggy Flat, the Granite of Bodfish Canyon, and the Olivine Gabbro of Bodfish Canyon. The Fairview Metasedimentary and Metavolcanic belt and Long Canyon Metasedimentary Belt cut across these units, oriented roughly northwest-southeast, and are offset right-laterally by the KCF. The southwestern portion of the Borel Canal, including the powerhouse, are founded in the Granodiorite of Waggy Flat.

The Kern River Valley, containing Lake Isabella, Dam, and Borel Canal, is filled with quaternary marine and nonmarine sedimentary rocks of the Pleistocene-Holocene age. These deposits encompass unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits. The majority of the Borel Canal is founded in these deposits. The fluvial deposits are discontinuous in nature and appear to represent at least two different depositional regimes. The fluvial materials currently being deposited by the river are thin, relatively fine-grained, and moderately well sorted. The construction of Lake Isabella in 1953 cut off a significant portion of the sediment supply to the downstream portion of the Kern River. This has presumably resulted in a reduced volume of transportable materials and a reduction in the size of materials being transported through the river channel. Borings completed for the Borel Project encountered sandy deposits with gravel and trace clay.

The Borel Project facilities are located in a seismically active region that is influenced by three major physiographic and geologic provinces: Sierra Nevada, Great Central Valley, and, to a lesser extent, Coast Ranges. The active faults with the highest potential to affect the Borel Project area include the KCF, located under the right abutment of the Auxiliary Dam on the western side of Hot Spring Valley; the White Wolf fault, 40 miles to the southwest; the Garlock fault, 55 miles to the south; the Owens Valley fault, 60 miles to the northeast; and the San Andreas fault, 90 miles to the west. According to the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), major earthquakes (magnitude 5.0 or greater) occurred in the Borel Project Vicinity in 1952 and 1995, and numerous other earthquakes have occurred within the past 200 years.

The KCF is associated with a significant linear trend of accurately located epicenters of magnitude 2.0 or greater. As described above, this ancient fault line bisects the Borel Project area, running north and south, under the Auxiliary Dam.



The north-striking KCF is a primary geologic structure within the southern Sierra Nevada, extending for more than 87 miles from the Walker Basin on the south to the Kings-Kern Divide on the north. Until recently, the KCF was thought to be inactive, based on early interpretations that a 3.5-million-year-old basalt flow (located approximately 37 miles north of Isabella Dam) is not displaced by the fault. However, the KCF is associated with prominent geomorphic expression, and initial findings documented geomorphic evidence of displacement within the past approximately 15,000 years. The KCF is now judged as a capable fault per Corps criteria (e.g., ground deformation within the past 35,000 years), and an active fault per California Division of Safety of Dams criteria. The Corps classifies the Isabella Dam in Dam Safety Action Class 1, which is the highest rating, based on a high probability of failure and severe consequence from failure.

According to the California Department of Conservation California Earthquake Hazards Zone Application, the Borel Project area is not located in a mapped earthquake hazard zone. However, the Borel Project area has not been evaluated for liquefaction or landslides.

In its comments, BLM states that the Borel Canal in this area runs on a hillside above a low-income community and SCE's Stormwater Drainage Report, Volume II, Appendix A, does not provide detail as to the effects of the proposed modifications on the inhabited area located directly below the canal. It appears that the canal forms a barrier between stormwater runoff from the hill and the homes below. The BLM requests further data be provided directly addressing the potential for landslides, continuing maintenance of the site and access roads, as well as detailing any future maintenance responsibilities and to whom they may fall.

### ***Environmental Effects***

The Borel project is located within a seismically active area with areas of steep slopes that is prone to landslides. To minimize soil disturbances, work area footprints would be confined as much as reasonably practicable. All parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities would be confined to previously disturbed areas. Fences and flagging would be installed to avoid sensitive areas and habitats by personnel on foot and operating heavy equipment. On Forest Service lands, the Forest Service would approve the final proposed work area prior to commencement of work.

To prevent excess dust, vehicles would be required to stay on designated roads to the extent practicable. Construction truck trips would be minimized, particularly in the community and on the grade between Bakersfield and Lake Isabella.

Natural landscape drainage patterns would be maintained, to the extent practicable. Upon completion of work activities, temporarily disturbed areas would be revegetated with native plant species. The licensee would develop a revegetation plan that addresses revegetating disturbed areas and would detail any proposed non-native invasive species management and monitoring. Monitoring would occur for a year following construction as part of the revegetation plan. Restoration of disturbed areas would use locally grown native plants, weed and pathogen free, and species and seeds purchased from a verified weed-free native seed nursery. On Forest Service lands, any hydroseeding would follow Forest Service prescribed rules.

The SCE or the contractor would develop an SWPPP in accordance with the State Water Resources Control Board General Construction Permit and local regulations. The SWPPP would include best management practices to reduce or eliminate construction effects to stormwater runoff. On Forest Service lands, Forest Service personnel would be present and work alongside the contractor's Qualified SWPPP Developer/Qualified SWPPP Practitioner.

During project decommissioning, construction vehicles, and the removal of project features could increase the potential for erosion. However, these effects, with the proposed mitigation measures discussed above, would be minimal and short-term.

As pointed out by the BLM there is a community located directly below Segment 8 of the canal (which is located on lands administered by BLM). Section 6.2 of the Commission's regulations (18 C.F.R. 6.2) requires a licensee for a project located on federal lands to restore the lands to a condition satisfactory to the department having supervision over such lands. The SCE would be required to work with BLM to ensure that Segment 8 of the canal is restored to the satisfaction of BLM and protects the community below.

### **5.3.2 Water Quantity**

#### ***Affected Environment***

The Borel Canal upstream of the Auxiliary Dam (Upper Borel) extends approximately 24,000 feet from the Diversion Dam and Intake Structure to the condemned Canal Inlet Structures at the Auxiliary Dam. Historic operation of Upper Borel was dependent on the water levels in Lake Isabella. When water levels were high (i.e., above an approximate elevation of 2,550 feet North American Vertical Datum of 1988 [NAVD 88]), the canal was submerged in the lake and could not be used for conveyance. Lake Isabella storage would control flow through the Isabella Auxiliary Dam structure and into the Borel Intake.

When the lake levels were low (i.e., below an approximate elevation of 2,550 feet NAVD 88), the canal was exposed and would be used to convey Kern River water diverted into the canal through the diversion dam and intake structure. Water resources or overland runoff that entered the exposed Borel Reservoir passed underneath the canal through a series of flumes.

The Borel Project downstream of the Auxiliary Dam (Lower Borel) historically conveyed water from the Auxiliary Dam to the powerhouse. The Corps' Isabella Dam Safety Modification Project has rendered the Borel Project non-operational and as such, water is no longer conveyed in the canal for generation. In several locations, stormwater runoff is intercepted by the Borel Canal. Historically, this water would have been additive to flows in the canal and continue downstream to the powerhouse and discharge to the Kern River. Currently, stormwater runoff that is captured by the canal eventually evaporates.

The total contributing area that drains toward the Borel Project downstream of Lake Isabella is approximately 60 square miles, the majority of which drains without impediment along the project alignment because conveyance facilities (e.g., siphons, flumes and tunnels) were designed to pass these flows. The natural ground cover in these drainage areas is primarily chaparral and woodland, with residential or commercial landscaping in the urban areas. The runoff from the surrounding hillside slopes and upper drainage basins flows toward the valley floor until reaching the Kern River.

Of the total 60 square miles, drainage from approximately 50 square miles crosses the existing project alignment unimpeded and continues along the two principal drainages, Erskine and Bodfish Creeks. Flow from Erskine and Bodfish Creeks continues past the project alignment along their natural course until reaching the Kern River. The Borel Canal flows over Erskine Creek in an above-ground flume. Bodfish Creek flows over the project alignment in a section where flow is contained in a siphon.

### ***Environmental Effects***

Compared to current conditions, the proposed decommissioning actions for the Borel Canal and facilities within the Upper Borel area would have no effect on water quantity to the reservoir. Lower Borel intercepts stormwater runoff draining from east and south of the project alignment, effectively acting as a drainage facility. The proposed reconfiguration and grading of the project would continue to intercept storm runoff from the eastern portion of the contributing drainage basins. The licensee is proposing to convert the current conveyance canal into a series of linear detention basins, which would

reduce the amount of impervious area within the watershed and detain and infiltrate intercepted stormwater runoff.

The proposed plan includes the removal of two flumes in Lower Borel, as well as sealing a siphon structure. The larger of the two flumes and the siphon structure were used to convey canal flows across the two largest cross drainage features (Erskine and Bodfish Creeks, respectively). The second flume was used to convey flow across another, smaller, cross drainage feature near the Scovern Hot Springs toward Oak Meadow Road. The function of these drainages, Erskine and Bodfish Creeks, and the small feature near Oak Meadow Road, would not change, since these were designed to allow stormwater at these drainages to cross the project alignment unimpeded.

The proposed decommissioning actions between the Corps' Isabella Auxiliary Dam and the Borel powerhouse leave the hydrologic conditions of the lower Kern River fundamentally unchanged. Flow through the lower Kern River is controlled primarily by Lake Isabella operations of the Isabella Main Dam. Because the Borel Project is currently non-operational, the Borel Canal does not discharge flow into the Kern River at the powerhouse. In its current condition, the canal intercepts stormwater runoff and functions similar to the proposed condition except the infiltration of the intercepted rainfall runoff would be improved with the proposed decommissioning actions. The proposed actions incorporate linear detention/infiltration basins, significantly reducing the amount of impervious area within the project boundary. These proposed features would contain sediment and higher temperature surface runoff locally and reduce the amount of stormwater runoff that directly discharges into the Kern River, which would improve downstream water quality.

The licensee proposes to remove the Erskine Steel Flume at Erskine Creek. Removal of the existing structure would have negligible effect on the Kern River for small rainfall events. The piers of the flume create drag on the Erskine Creek water flowing below the existing flume structure. This has the potential to impede flow, slow down the water, and increase water surface elevations on the upstream side of the structure. However, the flume piers are a fraction of a percent of the cross-sectional area. Therefore, the change would be negligible. The proposed action to fill the Bodfish Siphon underneath Bodfish Creek with a concrete slurry, would not affect Kern River flows.

For Borel Canal segments located downstream of Bodfish Creek, the canal's concrete liner would be removed and backfilled. Structures such as siphons, culverts, and flumes would be demolished and removed. The rain runoff previously intercepted by this section of Borel Canal would make its way to the Kern River. Because the amount of this runoff is negligible relative to Kern River flows, Commission staff concludes that this additional rain runoff into the Kern River would not affect water resources.

### 5.3.3 Water Quality

#### *Affected Environment*

The Kern River between the Corps' Main Dam and SCE's KR-1 powerhouse is classified as both warm- and cold-water habitat. Coldwater species include trout, which have an optimal temperature range of 55 to 65°F. However, water temperatures in Lake Isabella during summer exceed the upper limit of the range for trout. Therefore, water released into this reach are not capable of supporting a self-sustaining trout population regardless of the volume of water released from Lake Isabella. Water temperatures in this reach are more suitable for warm- or cool-water fish species such as hardhead, pikeminnows, and suckers, which have an optimal range of 66°F to 72°F.

Lake Isabella is listed on the State's Clean Water Act Section 303(d) List as impaired for DO, pH, and mercury. The Kern River is not listed as impaired for any segment.

Historical water temperature profiles for Lake Isabella generally show only minor changes in temperature with depth and weak stratification. Lake Isabella temperature profiles suggest that the reservoir stratifies irregularly and mixes completely from the surface to the bottom many times and in all seasons of the year. However, DO concentrations have been found to decrease to approximately 2 milligrams per liter near the bottom in late summer.

Historical phytoplankton studies performed by the Corps in Lake Isabella have shown that the phytoplankton community is highly dynamic, and the reservoir is considered mesotrophic, or of intermediate trophic status.

Water quality studies were also performed to support Borel Project relicensing prior to license issuance in 2006, including a comprehensive water quality study in 2001 in Lake Isabella and the Kern River, a limnology survey of Lake Isabella, and a non-point source pollution evaluation for the project area. In general, the results indicated that water quality in the Kern River and Lake Isabella is good and comparable to other Sierra Nevada streams and rivers. However, turbidity and concentrations of lead, zinc, and dissolved oxygen often failed to meet the objectives in the Basin Plan. With few exceptions, the other water quality parameters consistently conformed to the objectives.

Article 406 of the License required SCE to complete 5 years of water temperature monitoring during May to assess compliance with the water temperature objectives of the Tulare Basin Plan. May is an important month for spawning and rearing of principal fish

species such as trout, hardhead, pikeminnows, and suckers in the lower Kern River, and temperature monitoring in May 2001 found that the bypassed reach experienced temperature increases up to 9.4°F from upstream to downstream within the reach.

Water temperature was measured during May 2007 through 2011 immediately below the Isabella Main Dam and just upstream of the powerhouse. The upstream site below the dam is more exposed with less riparian vegetation, providing more opportunity for daytime warming as compared to the downstream site. Results of the study showed that the Basin Plan temperature standard of 5°F warming above natural receiving waters was exceeded several times and is related to periods of low flows and high air temperatures.

The results of the study showed May water temperatures downstream of Isabella Main Dam, warming is positively related to air temperature and negatively related to flows. It was determined that flows greater than 100 cfs in the bypassed reach and air temperatures less than 75°F are likely required to prevent downstream warming from exceeding the Basin Plan standard of 5°F difference from natural receiving waters. If flows approach 50 cfs in the reach, air temperatures likely need to remain below 65°F to prevent downstream warming greater than 5°F. However, May experiences increased solar radiation and varying temperatures between days in the same year and across years. Flows also vary widely between years.

### ***Environmental Effects***

Decommissioning would be performed in accordance with Basin Plan water quality standards for Lake Isabella or the Kern River reach affected by the project. Work in Lake Isabella would be completed during dry conditions when the lake elevation is at 2,535 feet msl or below, preventing the need for in-water work and potential effects to water quality.

As the Borel Project is no longer operational, intercepted stormwater from off-site watersheds poses the only effect to water quality in the Kern River. The project appears to have historically affected DO in the Kern River because it transferred low DO water from the reservoir to the river downstream of the powerhouse. As indicated above, the release of water from the powerhouse during summer appears to have resulted in a minor depression of DO in the reach below the powerhouse, a result that would be eliminated by decommissioning.

Turbidity could be temporarily increased in areas where erosion occurs as a result of decommissioning activities. Eroded sediment has the potential to enter the Kern River directly during construction or through stormwater runoff. However, the linear

detention/infiltration basins that SCE is proposing would improve water quality in the watershed by detaining and infiltrating stormwater runoff locally, which reduces the amount of stormwater runoff that directly discharges into the Kern River. The SWPP would also reduce construction related erosion. Effects to water quality in Lake Isabella and the lower Kern River would not occur due to the implementation of the protection proposed protection measures.

#### **5.3.4 Aquatic Resources**

##### ***Affected Environment***

A mixture of native and introduced fish species inhabit Lake Isabella and the Kern River in the project area. Lake Isabella fisheries include a mixture of native and stocked fish. Native species in Lake Isabella include Sacramento sucker (*Catostomus occidentalis*) and Sacramento pikeminnow (*Ptychocheilus grandis*), while other species have been planted as forage and game fish, such as centrarchids (sunfishes), catfish, rainbow trout (*Oncorhynchus mykiss*) and chinook salmon (*Oncorhynchus tshawytscha*).

The native species in the lower Kern River include three species: Sacramento sucker, Sacramento pikeminnow, and hardhead (*Mylopharodon conocephalus*), which typically dominate undisturbed western Sierra Nevada streams at the altitude of the Borel Project. Hardhead has been classified by the California DFW as a Species of Special Concern (SSC) and by the Forest Service as a Sensitive Species (FSS). In addition to native species, several introduced species are found there, including smallmouth bass (*Micropterus dolomieu*), along with stocked coldwater species, such as rainbow trout. Hatchery-reared rainbow trout were last stocked in the Borel Project reach of the Kern River in 1993 but continue to be annually stocked in the river downstream of the powerhouse.

Historically, the Kern River rainbow trout (*Oncorhynchus mykiss gilberti*), a California DFW SSC and FSS, seasonally resided in the lower Kern River. However, this fish no longer occurs in the Kern River downstream of Lake Isabella or in the upstream reaches within 10 or more miles of the reservoir. Introduction of hatchery rainbow trout are thought to be one of several factors originally responsible for the demise of the Kern River rainbow trout in the lower Kern River. The Kern River No. 3 (Fairview) Diversion Dam helps to protect the genetic integrity of the Kern River rainbow trout from the naturalized hatchery trout through implementation of the Closure Plan for Fish Ladders at the Fairview Dam (Closure Plan) in 1997. The Closure Plan placed steel barriers at the upstream and downstream ends of the dam's fish ladders to deny upstream migration to predatory Sacramento pikeminnow and non-native rainbow and brown trout (*Salmo trutta*).

Mussels are not known to be common in the project vicinity in the lower Kern River. In the North Fork Kern River, western pearlshell mussels (*Margaritifera falcata*), a California SSC, have recently been observed near the Kern River No. 3 Project. The western ridge mussel (*Gonidea angulata*) and the western pearlshell mussel have historically been present in Lake Isabella and the lower Kern River but are thought to no longer be present in the Borel Project area. Three special-status aquatic species have the potential to occur in the project area: the foothill yellow-legged frog (*Rana boylei*), the northwestern pond turtle (*Emys marmorata*), and hardhead.

### ***Environmental Effects***

Decommissioning activities would not have a negative effect on aquatic habitats. As the Borel Project is not operational, it does not modify flows or affect aquatic habitat in the lower Kern River. At present, flows in the lower Kern River are affected only by releases managed by the Corps at the direction of the Kern Watermaster, and by other downstream water users for agricultural uses and flood control. Decommissioning of the Borel Project would not change how flows are discharged into the lower Kern River.

The Borel Canal is an artificial concrete-lined structure with no shade, no riparian vegetation, and no natural features such as riffles or cascades. Associated facilities also do not provide aquatic habitat, but there is habitat in Lake Isabella and in other delineated aquatic resources within or near the project boundary. Riprap in Lake Isabella that currently protects the outer bank of the Borel Canal from wave erosion would be retained in the same general vicinity and would continue to provide aquatic habitat structure. Additionally, the decommissioning has been designed to reduce and control runoff from upslope areas that is currently intercepted and conveyed by the Borel Canal, which would affect water quality and subsequently fish and aquatic resources in the lower Kern River.

Native aquatic species, including special-status species, would not be negatively affected by decommissioning activities. Work in the lake would be done in the dry when lake elevation is at 2,535 feet msl or below, such that fish and other aquatic species won't be present in the area. As the project is no longer operational, water does not flow through the sections of the canal outside of Lake Isabella except during and directly after rain events. Decommissioning activities along these areas of the canal would also be done, to the extent possible, in the dry. No fish or other aquatic species are anticipated to be present in the canal that would require relocation.

However, the area of the tailrace may require installation of a cofferdam to minimize potential for sedimentation or turbidity effects to the Kern River and associated aquatic species. Short-term disturbances to aquatic species in this area may include



noise, but species would move out of the area temporarily of their own volition if present. Because the Borel Project does not provide aquatic habitat or currently alter the flow regime into the Kern River, the decommissioning would have no long-term effect on aquatic species.

### 5.3.5 Terrestrial Resources

#### *Affected Environment*

The Borel Project area supports vegetation typical of the southern Sierra Nevada, with influences from the Mojave Desert to the east and the San Joaquin Valley to the west. Borel Project facilities are located within the southern Sierra Nevada Foothill subregion of the California floristic province. The project area is entirely located within one ecological unit: the lower granitic foothills subsection. The flora of this region is primarily Sierra Nevada-like but is strongly influenced by the inclusion of species associated with the San Joaquin Valley to the west and the Mojave Desert to the southeast.

In 2021 and 2022, land within the project boundary was mapped using the Vegetation Classification and Mapping Program (VegCAMP) classifications.<sup>9</sup> The project area contains about 86 acres (23.6%) tree-dominated habitats, 13 acres (3.6%) shrub-dominated habitats, 58 acres (16.1%) herbaceous-dominated, 206 acres (56.7%) non-vegetated habitat.

The non-vegetated areas include built-up and urban disturbances (roads, highways, buildings, parking areas, residential and commercial areas, campgrounds, landscaping associated with those areas, active construction areas, and canals), perennial streams, reservoir, river, lacustrine flats, and streambeds.

Forty-five plant species, considered by the state of California or the Forest Service to be special-status species, known or with the potential to occur in the project vicinity, were identified. Of those, only four species have been documented within the project vicinity. These species included Kern Canyon clarkia (*Clarkia xantiana* ssp. *parviflora*), rose-flowered larkspur (*Delphinium purpusii*), Shevock's golden-aster (*Heterotheca shevockii*), and Sierra monardella (*Monardella candicans*). The latter two species were found outside of the project boundary. Occurrences of Kern River daisy (*Erigeron*

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<sup>9</sup> VegCAMP is a statewide vegetation mapping and classification program that is based on the National Vegetation Classification System and conforms to the Manual of California Vegetation.

*multiceps*), California alkali grass (*Puccinellia simplex*), alkali marsh aster (*Almutaster pauciflorus*), alkali mariposa lily (*Calochortus striatus*) and Kern River evening-primrose (*Camissonia integrifolia*) have also been recorded within the vicinity.

Surveys were also conducted for non-native invasive species. Five species were identified within the project boundary, including: tree of heaven, cheat grass, giant reed, white horehound, and black locust. Cheat grass was found throughout the project boundary. Tree of heaven, cheat grass, and white horehound were found on Forest Service and BLM lands, while black locust was only found on Forest Service lands.

Wildlife species common to the slopes above the powerhouse and along the canal south of the community of Bodfish include western fence lizard, coachwhip, common kingsnake, western rattlesnake, acorn woodpecker, northern flicker, mourning dove, scrub jay, California quail, several species of warblers, finches and sparrows, red-tailed hawk, turkey vulture, Audubon's cottontail, California ground squirrel, coyote, and bobcat. Disturbed areas between the Auxiliary Dam and State Route 178 (SR 178) are inhabited by common garter snake, common raven, European starling, brown-headed cowbird, Brewer's blackbird, western meadowlark, brush rabbit, black-tailed jackrabbit, California ground squirrel, coyote, and badger. Many of the wildlife species that inhabit the upland habitats are also present in the riparian areas. Additionally, western toad, Pacific chorus frog, common garter snake, alligator lizard, southwestern pond turtle, black phoebe, and raccoon are common to this habitat type. Bullfrogs, an invasive non-native frog, are abundant all along the Kern River.

The SCE determined that there are 29 special-status wildlife species known to occur or with the potential to occur within the project boundary, including: Monarch Butterfly (*Danaus plexippus*), Kern County slender salamander (*Batrachoseps simatus*), yellow-blotched salamander (*Ensatina eschscholtzii croceator*), Southern Sierra legless lizard (*Anniella campi*), Southern California legless lizard (*Anniella stebbinsi*), coast horned lizard (*Phrynosoma blainvillii*), Kern red-winged blackbird (*Agelaius phoeniceus aciculatus*), tricolored blackbird (*Agelaius tricolor*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle (*Aquila chrysaetos*), short-eared owl (*Asio flammeus*), long-eared owl (*Asio otus*), redhead (*Aythya americana*), Swainson's hawk (*Buteo swainsoni*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), American peregrine falcon (*Falco peregrinus anatum*), bald eagle (*Haliaeetus leucocephalus*), loggerhead shrike (*Lanius ludovicianus*), summer tanager (*Piranga rubra*), purple martin (*Progne subis*), yellow warbler (*Setophaga petechia*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillii*), Yuma myotis

(*Myotis yumanensis*), ring-tailed cat (*Bassaricus astutus*), San Diego desert woodrat (*Neotoma lepida intermedia*), southern grasshopper mouse (*Onychomys torridus ramona*), and American badger (*Taxidea taxus*).

In October 2021, qualified biologists conducted bat habitat assessment surveys at 25 Borel Project structures (e.g., buildings, tunnels, bridges, flumes). Sixteen of the 25 facilities assessed had suitable habitat for bats, of these, there were signs of bat use in ten structures. The other six structures with potentially suitable habitat showed no sign of bat use. The remaining nine structures had no suitability for bat roosting.

### ***Environmental Effects***

Decommissioning activities include the removal of existing facilities, including the fill and regrading of sections of the canal, regrading and improvement of unpaved roads, access facilities, development of staging and lay down areas, and other ground-disturbing activities. These activities would disturb all or most of the existing vegetation communities within the project boundary. These communities include five alliances that are designated as a Sensitive Natural Community<sup>10</sup> and cumulatively occupy a total of approximately 20.6 acres (or 5.7 percent of the Borel project boundary). Some decommissioning activities may affect these areas by way of grading or more temporary disturbance.

#### **5.3.6 Threatened and Endangered Species**

Federally listed wildlife species that could occur in the project area include the threatened: Yellow-billed cuckoo (*Coccyzus americanus*) – western distinct population segment, delta smelt (*Hypomesus transpacificus*), and California red-legged frog (*Rana draytonii*). Federally listed endangered species include: Tipton kangaroo rat (*Dipodomys nitratooides nitratooides*), southwestern willow flycatcher (*Empidonax traillii extimus*), California condor (*Gymnogyps californianus*), Bakersfield cactus (*Opuntia treleasei*), fisher (*Pekania pennanti*), least Bell's vireo (*vireo bellii pusillus*), and San Joaquin kit fox (*Vulpes macrotis mutica*).

Some species were removed from further consideration based on species range, absence of suitable habitat, or because the species did not occur on site. The SCE eliminated delta smelt from further consideration because this species does not occur in the project vicinity. California red-legged frog and San Joaquin kit fox were eliminated

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<sup>10</sup> Sensitive Natural Communities are those that are listed to the California DFW's California Natural Diversity Database due to the rarity of the community in the state or throughout its entire range.

because the Borel Project is not within the current or historical range of the species. Tipton kangaroo rat was removed from further consideration because the project is not within their range, and the open valley habitat necessary for this species does not occur. Bakersfield cactus was eliminated because its elevation range of up to 500 feet is well below the Borel's minimum elevation of 2,366 feet, and the species was not located during botanical surveys. The fisher was eliminated from further consideration because suitable habitat, which includes mature forest with heavy canopy cover and snags over a large area, is not present within the project boundary or other areas potentially affected by the decommissioning.

Although the nearest occurrence is more than 34 miles away, California condors may fly high over the Borel Project. No California condor nests or roosts are known to occur within the project boundary. However, locations of natural foraging are unpredictable and could occur in open areas near the project. There would be no alteration of habitat due to decommissioning activities that would limit foraging, except for short periods in the exact locations where activities are occurring. However, this would not cause more than a minor reduction in foraging during that time.

Qualified biologists performed a habitat assessment on May 25 and 26, 2021. All potential nesting habitat, including stream crossings and riparian vegetation areas, within 25 feet of the project boundary were evaluated for species composition, tree canopy structure, proximity to water, habitat patch width and vegetation density. In total, three separate habitat patches were mapped as potentially suitable nesting habitat for least Bell's vireo and one habitat patch was mapped as potentially suitable for yellow-billed cuckoo, southwestern willow flycatcher, and least Bell's vireo.

There is no critical habitat for yellow-billed cuckoo within the project boundary, and the nearest critical habitat is approximately 7 miles east of the Borel Project, near the town of Weldon, California. The species is closely associated with open, deciduous woodlands where there is dense, low cover and nearby water. There are no verified occurrences of yellow-billed cuckoo within the project boundary. However, there are numerous documented observations of breeding pairs in the area from the 1970s through 1990s, with the last reported pair recorded during the 2014 breeding season. Although these occurrences do not have specific location data, they are all centered around the riparian habitat located where the South Fork Kern River enters Lake Isabella, approximately 3 miles east of the project boundary. No decommissioning activities are planned within 0.34 mile of the habitat suitable for yellow-billed cuckoo. Yellow-billed cuckoo potentially affected by decommissioning activities would be limited to individuals flying through or foraging.

There is no critical habitat designated within the project boundary for southwestern willow flycatcher. The nearest designated critical habitat is located

approximately three miles east of the Borel Project, where the East Fork Kern River enters Lake Isabella. There are no verified occurrences of southwestern willow flycatcher within the project boundary. There are verified observations from 2016 of breeding southwestern willow flycatcher in the riparian area located where the South Fork Kern River enters Lake Isabella. The nearest part of this riparian area is located approximately 4 miles east of the Borel FERC Project boundary. There was one area of suitable southwestern willow flycatcher nesting habitat within the project boundary. No decommissioning activities are planned within 0.34 mile of this habitat patch. Effects to southwestern willow flycatcher would be limited to individuals flying through or foraging.

There is no critical habitat in the project boundary for least Bell's vireo. The nearest designated critical habitat is located approximately 80 miles south of the project in the Santa Clara River. There are no verified observations of least Bell's vireo within the project boundary. There were three verified occurrences to the east of the Borel Project, where the South Fork Kern River enters Lake Isabella. The nearest of those three occurrences is located approximately three miles from the project boundary. There are four areas of suitable nesting habitat for least Bell's vireo defined within the Borel Project boundary. No decommissioning activities are planned within 0.34 mile of habitat patch #1 and 0.57 mile of habitat patch #2. The canal inlet is within 0.23 mile of habitat patch #3 and is directly adjacent to habitat patch #4. The canal inlet structure would be backfilled with imported, clean fill to eliminate fall hazards, and hazardous steel and fencing would be removed from the facility and hauled off site. Additionally, the start of the concrete-lined canal is within 0.01 mile of habitat patch #4 and 0.24 mile of habitat patch #3. Clean fill would be imported for placement in the concrete-lined canal, which would otherwise be left in place. There would be no ground-disturbing activities at the canal inlet or in this area of the concrete-lined canal. Outside of the suitable nesting habitat patches, effects to least Bell's vireo would be limited to individuals flying through or foraging.

Proposed environmental measures, found in section 2.1.2, would be put in place for the protection of ESA-listed species, including least Bell's vireo, such as the implementation of activity restrictions within 0.5 mile of all mapped potential nesting habitat for ESA-listed birds during general avian breeding season, avoidance of the area above the canal structure, minimization of riparian vegetation removal and effects to delineated waters and wetlands, minimization of the Borel Project footprint, worker training, pre-construction surveys for sensitive species, biological monitoring, garbage clean-up, vehicle speed limits, revegetation, and reporting on ESA-listed species if seen.

As part of its application, SCE prepared a Draft EA (DEA) to serve as its Biological Assessment (BA), evaluating the potential effects of the proposed action on yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, and the California condor. Commission staff reviewed the DEA and adopted the DEA as our BA. There have been no verified observations of any of these species at the project and the licensee is proposing to avoid those areas where suitable habitat might be present. Therefore, Commission staff determined that the proposed action would have no effect on the California condor. However, the proposed action may affect, but is unlikely to adversely affect, yellow-billed cuckoo, southwestern willow flycatcher, and least Bell's vireo. On October 12, 2023, Commission staff sent a letter to FWS requesting informal section 7 consultation asking for concurrence on staff's determinations. In a letter filed January 24, 2024, FWS concurred with our determination.

### **5.3.7 Recreation Resources**

#### ***Affected Environment***

There are no licensed recreational facilities associated with the Borel Project. The reservoir upstream of the powerhouse, Lake Isabella, is operated by the Corps and is not part of the Borel Project. The recreation facilities in the project vicinity are managed by the Forest Service, BLM, and private entities.

The diversion dam and intake structure and first five miles of flowline are situated within Lake Isabella (Figure 3). The other facilities are located on, or adjacent to, the lower Kern River, downstream of Lake Isabella (Figure 4).

Day and overnight uses occur at numerous developed recreation areas situated at various locations around Lake Isabella. Lake Isabella provides recreation opportunities such as camping, flatwater boating, water skiing, jet-skiing, fishing, swimming, wading, and nature viewing. To facilitate these activities, a number of overnight campsites, marinas, and boat launches have been constructed along the lake's shore. With the exception of a few private parcels, most of the shoreline surrounding Lake Isabella consists of public Sequoia National Forest-managed lands. The Sequoia National Forest allows dispersed day and overnight use on most of these lands. Numerous trails and unpaved pioneered roads are present along large portions of the shoreline and provide access for dispersed recreation. There are several opportunities to launch both motorized and hand-carry boats on Lake Isabella. Boat access is available at three marinas and six public boat launches. Each of the marinas is open seven days per week during spring, summer, and fall, and on a limited basis during winter. All three marinas rent fishing and pleasure boats, pontoon boats, personal watercraft, ski boats and rowboats. Additionally,

the marinas offer gas, motor repairs, moorings, slips, bait, food, and beverages. Each of the marinas includes slips, which are available for long- and short-term mooring.

Other recreation facilities surround Lake Isabella, including a target range, a golf course, a small park located in Wofford Heights, and a visitor center. The Kern River Preserve is located along the South Fork of the Kern River, near the eastern end of Lake Isabella. The Kern River Preserve is managed by the National Audubon Society. It covers 1,127 acres of riparian forest, meadow, and wetlands. It is open year-round, from dawn to dusk, and is popular for bird watching and nature viewing. The South Fork Wildlife Area, also located on the South Fork of the Kern River at its confluence with Lake Isabella, provides recreational opportunities such as fishing, hunting, canoeing, hiking, and birdwatching. It is considered one of the most extensive riparian woodlands in California. More than 315 bird species have been observed using the area, including a large number of neotropical migratory birds, birds of prey, and waterfowl.

The lower Kern River is also a popular recreation destination. The following recreation activities occur along the lower Kern River within the project vicinity: whitewater boating, fishing, hiking, biking, horseback riding, camping, nature and/or scenery viewing, picnicking, recreational mining, swimming and wading, and off-highway vehicle (OHV) use. Water-dependent activities, such as whitewater boating and fishing, are particularly popular in the lower Kern River.

Seven recreation areas are located on the lower Kern River within 0.5 mile of the project boundary. These include two developed campgrounds, managed by a concessionaire under permit from the Sequoia National Forest and referred to as Main Dam and Sandy Flat; three developed day use areas on federal land administered by BLM, called Slippery Rock, BLM South, and BLM North; and three dispersed recreation areas, called Keysville Special Management Area, BLM south, and BLM at Keysville Bridge.

Access to the lower Kern River between Lake Isabella and Democrat Dam is relatively limited. The river parallels SR 178, but road access from the highway is difficult due to the steep terrain and distance between the river and highway. Additionally, aside from the parking at the designated day-use and overnight facilities discussed previously, there is no legal parking for access to the river. Unimproved and secondary roads provide access to the river from the Old Kern Canyon Road to the river, southwest of Bodfish. Both day- and overnight-dispersed use is allowed on most of the public BLM- and Sequoia National Forest-managed lands, but overnight camping is not allowed within 100 feet of a freshwater source.

From the powerhouse downstream, where the river traverses the Sequoia National Forest, the Old Kern Canyon Road provides the best access to the Kern River. The Old Kern Canyon Road parallels SR 178 on the southern side of the Kern River and can be accessed near Democrat Station, near the powerhouse, and from the western end of Bodfish. Several small roads and trails lead from the Old Kern Canyon Road to a few river access points and trailheads that are used for dispersed recreation. Two trails traverse the project vicinity. These trails are used by hikers, mountain bikers, and equestrians, and are maintained by the Sequoia National Forest and BLM.

Whitewater boating is a popular recreation activity on the lower Kern River. Boaters generally access the lower Kern River between Isabella Dam and Democrat Dam via six designated sites, established by the BLM and Sequoia National Forest. The location of these sites are generally referred to as: (1) Slippery Rock, (2) BLM South, (3) BLM at Keysville Bridge (BLM North), (4) Sandy Flat, (5) Miracle Hot Springs, and (6) Delonegha. Democrat Beach, located approximately one mile upstream of Democrat Dam, is used as a designated take-out. The lower Kern River between the uppermost launch site, Slippery Rock, and the take-out at Democrat Beach is 18.7 miles long. With the exception of one portage, Royal Flush, the entire river from Slippery Rock to Democrat Beach is boatable, depending on flow. The reach between Slippery Rock and the powerhouse (the bypassed reach) is generally easier to boat than the not-bypassed reach downstream of the powerhouse. The local boaters rate the bypassed reach Class II to III and the not-bypassed reach Class IV, with a mandatory portage at Royal Flush.

The Kern River is boated both privately and commercially. Presently, four commercial outfitters operate on the lower Kern River under Special Use Permit. The commercial outfitters commonly run 2-day trips on the lower Kern River, with camping overnight. As such, the Forest Service has assigned four large camping areas along the lower Kern River to the commercial outfitters.

The lower Kern River between Lake Isabella and Democrat Dam is runnable in kayaks at flows greater than approximately 400 cfs and in rafts at flows ranging from approximately 700 to 5,000 cfs. According to the BLM, rafters need a minimum of 1,000 cfs to put-in at Slippery Rock and boat the upper 2 miles of the river. Flows above 400 cfs are typically present year-round during wet and average water years, and from March through August during dry years, both upstream and downstream of the powerhouse, due to releases from Lake Isabella. Downstream of the powerhouse, rafting flows (greater than 1,000 cfs) are typically present year-round during average and wet years.

The lower Kern River is a popular fishing destination and is open to anglers in the Borel Project area year-round. A creel census and angler survey were conducted from



June 2001 through May 2002 which collected information by interviewing anglers in the Borel Project area and examining their catches. The anglers were questioned concerning: (1) hours fished; (2) fishing method; (3) county of residence; (4) number and size of fish caught and kept, by species; and (5) number and estimated sizes of fish released, by species. Results of the angler creel survey indicated fishing pressure in the Borel Project area was primarily focused on the Borel Canal (1,161 angler hours) and sites below the powerhouse (1,179 angler hours). Fishing pressure in the Borel Project reach was much lower (162 angler hours).

Rainbow trout were the most abundant species caught in the three survey sections, but catch rates were highest in the canal and below the powerhouse. The total numbers of rainbow trout caught were 674 below the powerhouse, 289 in the canal, and only 9 in the bypassed reach. As indicated above, anglers fished much less in the bypassed reach than in the other survey sections. Channel catfish were second in numbers caught and were harvested almost exclusively in the canal (118 fish), while largemouth bass were taken in small numbers in the canal (14 fish) and downstream of the powerhouse (10 fish). Ten Sacramento suckers were caught within the Borel Project reach.

### ***Environmental Effects***

There are no Commission-approved recreation facilities associated with the Borel Project. The SCE does not operate or maintain any recreation facilities at Lake Isabella or the lower Kern River. Recreation use associated with the facilities in the project vicinity are managed by a combination of the Sequoia National Forest, BLM, and private entities. Both developed and semi-developed recreation areas are heavily used, particularly during summer weekends and holidays.

The Borel Project does not draw recreation visitors to the Kern River or Lake Isabella, although the canal was popular for fishing when it carried water. However, as the project is no longer operational, water is not present in the canal in the same way as it was before, so it was not the same draw for recreational fishing.

Because the project does not induce recreation use or increase recreational opportunities, its presence has no effect on existing recreation facilities. Decommissioning of the Borel Project would not affect current or future recreational opportunities or uses in the area. Therefore, no long-term effects to recreation would occur.

However, there are six recreation sites located near the Borel Project or access roads that would be temporarily affected by decommissioning construction traffic noise and dust: Tillie Creek Campground located near the project boundary access road; Tillie

Creek Boat Launch; Boulder Gulch Campground located near the project boundary access road; French Gulch Campground located near proposed access roads; Pioneer Point Campground located near proposed access roads; and a boat launch located near the project boundary access road.

Proposed environmental measures, found in section 2.1.2, would be put in place to minimize effects to recreation facilities. All construction equipment and vehicles would drive no faster than 15 miles per hour on access roads and anywhere within the project boundary for reasons of public safety, avoidance of wildlife collisions, and to prevent excess dust. Vehicles would stay on designated roads to the extent reasonably possible. Construction truck trips would be minimized, particularly in the community, and on the grade between Bakersfield and Lake Isabella.

The construction contractor would be required to follow plans that are not limited to: a traffic control plan, a staging and haul route plan, a materials handling plan, a fire safety plan, a dewatering plan, and a SWPPP. Any disturbed areas would be restored after construction. Any effects to recreational activities would be minor and temporary.

### **5.3.8 Cultural and Historic Resources**

#### ***Affected Environment***

In January 2024, HDR Engineering, Inc, on behalf of SCE, prepared a Cultural Resources Study Report (report) which discussed the cultural resources studies for the proposal, which includes records searches, archival research, tribal engagement, and field studies to identify historic properties that may be adversely affected. The report discusses the results of the archaeological and environmental study, and identifies Traditional Cultural Properties (TCP), Traditional Cultural Landscapes (TCL), and other tribal resources that may be affected by the proposal.

The report also addresses the previous surveys conducted in 1928, 1929, 1970, 1973, 1976, 1978, and 1984, and states that despite the level of inventory relatively few sites have been tested or excavated within the proposed area. Therefore, intensive archaeological and historic built environment field surveys within the project's area of potential effect (APE) were conducted in October and November 2021 and identified 42 archeological sites and historic-era roads, both previously recorded and newly recorded, during the pedestrian survey. The historic built environment survey identified 12 resources, all associated with the Borel Hydroelectric System. Those include: the Diversion Dam and Intake Structure, the Earth Fill Dike, Borel Canal (including the inlet structure and associated facilities, flumes, siphons, associated bridge crossings, tunnels, and lined canal segments), Borel Forebay, Borel Penstocks, the Borel Powerhouse, Borel Switchyard, the Borel-Havilah-Monolith-Walker Basin 66kV Transmission Line, the

Borel-Isabella-Kern River No. 3-Lakegen-Weldon 66kV Transmission Line, Borel Tailrace, Borel Restroom, and Borel Maintenance Building, which combined were assessed for potential historic district eligibility as the potential Borel Hydroelectric System Historic District.

The SCE identified 29 archaeological sites, both previously recorded and newly discovered, during a pedestrian survey of the APE, and these include 5 archaeological precontact sites, 11 historic-era archaeological sites, 2 mixed-component sites, and 11 historic-era roads. The collection of built environment resources was also considered for its National Register of Historic Places (National Register) eligibility as a historic district. The SCE also identified two previously recorded but National Register-ineligible transmission lines (Borel-Havilah-Monolith-Walker Basin and Borel-Isabella-Kern River No. 3-Lakegen-Weldon 66 kV lines) and another 10 built environment resources associated with the Borel Hydroelectric System within the APE. The collection of built environment resources was also considered for its National Register eligibility as a historic district.

The five archaeological precontact sites within the APE all consist of bedrock milling sites. All five of the precontact sites, including two not relocated during the survey, are evaluated as eligible for the NRHP as contributing elements of the Palegewan Heartland District for their contributing significance for Tübatulabal peoples. Based on an analysis of the proposed design measures and the segment specific modifications at each of the recorded and mapped site locations, SCE states that all the precontact archaeological sites can be avoided by ground-disturbing activity associated with decommissioning the canal.

Multicomponent site P-15-000410/-000411 is a pre-contact/ethnohistoric archaeological site associated with the 1863 Massacre of Native Americans by the U.S. Cavalry. The site was previously determined a National Register-eligible historic property with TCP significance for its association with the massacre. The cultural and Tribal studies recommend that the site is also individually eligible. Multicomponent site P-15-000681 consists of multiple pre-contact milling features and associated artifacts, and an extensive historic-era refuse scatter. The precontact component is recommended individually eligible for the National Register. Both sites are contributing elements of the Palegewan Heartland District as well.<sup>11</sup> Based on an analysis of the proposed design

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<sup>11</sup> The Palegewan Heartland District was formerly referred to as the “Tubatulabal Cultural Landscape District,” and it and its four contributing elements were evaluated by the Corps and determined eligible for listing on the National Register at the individual and district level. The California SHPO provided concurrence on the determination on

measures, SCE states that both sites can be avoided by activity associated with decommissioning the Borel Project. Both sites are on Sequoia National Forest managed lands and would remain under federal agency management after the license surrender.

A total of 11 previously recorded and newly discovered historic-era archaeological sites were documented within the APE. These sites are generally associated with mining, transportation, and residential use of the area and include the archaeological component in and around the extant powerhouse (recorded separately as a historical built environment resource), partially representing the remains of the residential worker housing at the facility in addition to the site's industrial use. Ten of the 11 sites are recommended not eligible for the National Register, and pending concurrence from California SHPO, would not be subject to Borel license surrender effects. The final historic-era site, HDR-Borel-Site-05, is unevaluated for National Register eligibility and is likely a component element of a larger historic-era mining landscape. However, SCE states that the site, as well as any adjacent features, can be avoided by activity associated with decommissioning the Borel Project due to the segment specific design modification at the site's location within the APE and additional avoidance and protection measures.

A total of 11 previously unrecorded historic roads were documented at least partially intersecting with the APE. HDR-Borel-Site-01 is the eastern terminus of the original Glennville – Kernville Road. The road is recommended eligible as one of the earliest transportation routes into the Greenhorn Mountains. However, SCE states that since it proposes no changes, alterations, or modifications, the resource would not be adversely affected due to the proposed surrender.

Site HDR-Borel-Site-11 is a short segment of the original Kern Canyon Road (also called the Old Kern River Canyon Road). This site is recommended eligible for the NRHP for its association with the early 20th century growth and development of the Kern River Canyon area. However, the segment of the road that passes through the APE is a modern, paved, two-lane, Kern County-maintained road and would only be used by vehicle traffic to access the Borel system. Therefore, SCE states that no changes, alterations, or modifications are proposed, and the resource would not be subject to license surrender effects.

Site HDR-Borel-Site-15 consists of two segments of the 19th century Old Isabella – Old Kernville Road. The remainder of the road has been either obscured by lake sediments or eroded away. The road has significance under for its role in the development of Isabella and Kernville but lacks integrity and is recommended ineligible

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August 5, 2021. The four contributing elements identified by the Corps are not within the Borel APE.

for the National Register. HDR-Borel-Site-17 is an unnamed road segment and possible original alignment of old Keysville Road. It is recommended eligible as a contributing element to the Palegewan Heartland District for its association with the 1863 Massacre but is individually National Register not eligible. The remaining seven roads lack historical significance and are all recommended ineligible for the National Register.

In total, 12 individual historical built environment resources and one potential historic district were identified within the APE, all of which are associated with the Borel Hydroelectric System. Those include: the diversion dam and intake structure, an earth fill dike, the Borel Canal (including the inlet structure and associated facilities, flumes, siphons, associated bridge crossings, tunnels, and lined canal segments), forebay, penstocks, the powerhouse, switchyard, the Borel-Havilah-Monolith-Walker Basin 66kV Transmission Line, the Borel-Isabella-Kern River No. 3-Lakegen-Weldon 66kV Transmission Line, tailrace, restroom, and maintenance building, which combined were assessed for potential historic district eligibility as the potential Borel Hydroelectric System Historic District (Borel Historic District).

The HDR analysis of the system concluded that the segment of the canal between Pioneer Siphon and Borel Forebay retains sufficient integrity to be considered NRHP eligible as a contributing resource of the Borel Historic District. The powerhouse is recommended individually eligible for listing on the NRHP. The powerhouse is also recommended eligible as a contributing element of the Borel Historic District. Finally, the Borel Historic District is recommended as eligible for the National Register and is comprised of the two contributing elements – the canal segment between Pioneer Siphon and Borel Forebay and the powerhouse.

Demolition of the Canal (between Pioneer Siphon and Borel Forebay) and powerhouse would constitute an adverse effect as defined in 36 C.F.R. § 800.5. Resolution of an adverse effect, as defined in 36 C.F.R. § 800.6, requires notifying the Advisory Council on Historic Preservation; consulting with the California SHPO, Native American Tribes, and land managing agencies; and developing a Memorandum of Agreement that states how the adverse effect would be mitigated.

The remaining 10 historical built environment resources located within the APE do not meet the significance and/or integrity threshold necessary for individual listing in the National Register, are not contributing elements to the Borel Historic District, and have no potential to be adversely affected by the Borel license surrender.

## *Environmental Effects*

As a result of the cultural resource study summarized above, SCE identified a total of 14 archaeological and built environment resources within the APE that are either unevaluated or eligible for National Register eligibility, or a contributing element of a National Register-eligible district. Of the 14 resources within the APE, six are individually-National-eligible resources, including: two mixed component archaeological sites (P-15-000410/P-15-000411 and P-15-000681); two historic-era roads (HDR-Borel-Site-01 and HDR-Borel-site-11); one historic built environment resource (the powerhouse); and the Borel Historic District. Also within the APE are five precontact archaeological sites (P-15-000413, P-15-001686, P-15-001687, P-15-015660, and HDR-Borel-Site-08) that are unevaluated individually for the NRHP, but are contributing elements to the National Register-eligible Palegeewan Heartland District; one historic-era road (HDR-Site-Borel-17) that is not eligible individually but is also a contributing element to the Palegeewan Heartland District; and one historic built environment resource – a segment of the Borel Canal – that is individually not eligible for the National Register, but is a contributing element of the Borel Historic District. Finally, one historic-era mining site (HDR-Borel-Site-05) is unevaluated but would be avoided during decommissioning activity by implementing the proposed avoidance, protection, and minimization measures. HDR-Borel-Site-05 is likely a component element of a larger historic-era mining landscape consisting of a variety of associated mining features located on both sides of the Borel Canal.

Based on the type and nature of the resource constituents, geography, surrender activity near each resource, and site-specific modifications to the Decommissioning Plan, the analysis concluded that effects to 11 of the 14 unevaluated or National Register-eligible resources can be avoided. However, several measures have been recommended to ensure avoidance. These include narrowing the working limits of the construction zone, abandoning the canal in place, infilling in specific areas, exclusion fencing, and environmental monitoring. With the inclusion and implementation of these measures, these 11 resources would not be affected by the license surrender.

Of the remaining three resources, the powerhouse is recommended individually eligible for listing in the National Register as a contributing element to the Borel Historic District and for the distinctive characteristics of a type, period, or method of construction. A segment of the Borel Canal is recommended as a contributing element to the Borel Historic District but is not recommended individually eligible. The Borel Historic District itself is also recommended eligible.

In an October 18, 2023 letter, the California SHPO states it received the consultation letter from SCE, on behalf of the Commission, for the proposed surrender and to decommission the project. SCE requested California SHPO to review and

comment on the adequacy of the APE, determinations of eligibility for 42 archaeological sites and historic-era roads, 12 built environment resources, and the Palegewan Heartland District, and the Borel Hydroelectric System Historic District, and the finding of adverse effect.

Drafts of the Cultural Resources and Tribal Study Reports summarizing the results of all studies were provided by SCE to participating Tribes, Forest Service, and BLM on February 2, 2023. A meeting to present the updated results was held on February 22, 2023, with a request for comments by March 6, 2023. Comments were received and incorporated into the reports and distributed to the participating parties on May 2, 2023. Shortly after the submittal, SCE learned that recent cultural and Tribal studies conducted by the Corps overlapped and required updates to SCE cultural and Tribal reports. Therefore, SCE submitted updated version of the cultural and Tribal reports to the Commission and interested parties on September 20, 2023, which were provided to California SHPO with SCE's consultation letter. As a result of the identification efforts, SCE identified 13 archaeological resources outside of the APE, and 18 archaeological resources, 11 historic-era roads, and 12 built environment resources within the APE. SCE has also proposed the incorporation of the Tübatulabal Cultural Landscape District into the Palegewan Heartland District and has identified the Borel Hydroelectric System Historic District as a new district within the APE.

The California SHPO made the following recommendations in the October 18, 2023 letter: (1) revise the APE to include the entirety of the Borel Hydroelectric System and to include the thirteen archaeological resources recorded outside of the APE; and (2) provide additional representative photographs of all built environment resources as required by 36 C.F.R. § 800.11. Further, the California SHPO stated that it determined it would withhold comments on determinations of eligibility and finding of effect since the current documentation supporting historic property identification and evaluation is incomplete.

Demolition of the eligible segment of the canal and/or powerhouse would constitute an adverse effect on a historic property. Resolution of an adverse effect would likely require developing an agreement document (e.g., a Memorandum of Agreement (MOA)) among the section 106 consulting parties to resolve adverse effects. The MOA would detail any treatment measures, like implementing Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) documentation and would be developed in consultation with consulting parties. Pending additional consultation between SCE, federal land-managing agencies, Tribes, and Commission staff, additional mitigation may be required and would also be memorialized in the MOA.

Proposed environmental measures would be put in place to minimize effects to cultural and historic resources. A WEAP would be established and implemented prior to

the start of decommissioning activities and cover biological, cultural, and Tribal resources. The program would be presented by a qualified biologist, Tribal representative, and a qualified archaeologist to all construction crew members. The canal would be abandoned in place and infilled at specified locations to avoid adverse effects to unevaluated and National Register-eligible cultural and Tribal resources. Exclusionary fencing would be installed to delineate all cultural resources that have been determined eligible for the National Register or are unevaluated including along the access road segments that pass-through P-15-000410/P-15-000411, P-15-000681, and HDR-Borel-Site-08. Restricting ground disturbance and installing exclusion fencing along the access road that passes through HDR-Borel-Site-05, and coordinate with the appropriate land-managing agency on additional protective measures for historic-era mining features upslope and downslope from the canal. An archaeological and Tribal monitor would be on site during all ground-disturbing and vegetation removal activities associated with this decommissioning.

The SCE would also develop a Borel Project Inadvertent Discovery and Monitoring Plan that details the protocols to be implemented when necessary, including any specific requirements of the Sequoia National Forest and BLM, in the case of an inadvertent discovery of previously unrecorded archaeological resources. These protocols would include the necessary compliance and reporting requirements for the discovery of human remains on both federal and non-federal lands.

Commission staff concludes that the proposed action would adversely affect cultural resources; however, the proposed measures described above and the MOA that SCE is currently developing in consultation with the California SHPO, Tribes, and other consulting parties would mitigate any adverse effects to cultural resources.

### **5.3.9 Tribal Resources**

#### ***Affected Environment***

In support of the Borel Project license surrender, SCE contacted the Native American Heritage Commission (NAHC) in 2019 and again in 2020 to obtain a list of Tribes and Tribal individuals who may have an interest in the Borel Project, and to request a search of the NAHC's Sacred Lands File for a list of any known sacred lands that might exist within the existing APE. Including the contact list provided by the NAHC, and augmented by previous SCE consultation the area, the following Tribes were invited by SCE in a letter dated March 9, 2021, to consult under section 106 for the license surrender: Big Pine Paiute of the Owens Valley; Kern Valley Indian Community; Kitanemuk & Yowlumne Tejon Indians; San Manuel Band of Mission Indians; Santa Rosa Rancheria Tachi Yokut Tribe; Tejon Indian Tribe; Tubatulabals of Kern County; Kawaiisu Tribe; Lone Pine Paiute-Shoshone Tribe; Kern Valley Indian Community;



Chumash Council of Bakersfield; Fernandeno Tataviam Band of Mission Indians; Tule River Indian Tribe; Wuksache Indian Tribe / Eshom Valley Band; Yak títʷu yak títʰini – Northern Chumash Tribe; Fort Independence Community of Paiute Indians; and the White Blanket Allotment.

To support the consultation effort for the license surrender, a section 106 kick-off meeting was held on March 17, 2021, to provide interested stakeholders with information and background on the license surrender and decommission process, initiate consultation regarding the proposed APE, and discuss proposed field studies and timelines. Consultation with individual Native American stakeholders regarding the identification of unrecorded Tribal resources and assessing project-related effects was conducted via both onsite and telephone interviews, and regular email exchanges between 2021 and 2023. Additional section 106 meetings were held with Native American Tribes and federal agencies on October 6, 2022, and on February 22, 2023, to provide summaries and updates on the historic property identification effort.

The Corps is completing the Isabella Dam Safety Modification Project (Corps project #COE100825A). During efforts to comply with Section 106 of the NHPA for their project, the Corps identified the NRHP eligible Tübatulabal Cultural Landscape District, eligible under Criterion A, through archaeological and ethnographic research.<sup>14</sup> The contributing elements include a habitation site dating from approximately 2100 to 400 YBP (archaeologically designated CA-KER-12); a plant processing site that includes 17 mortars on six separate boulders across from the habitation site (archaeologically designated CA-KER-11210); a site with two pictographs (archaeologically designated CA-KER-2528); and a rock art site consisting of a cupule boulder with 19 cupules (archaeologically designated CA-KER-9954).

Through information shared by traditional Tübatulabal knowledge bearers and information from ethnographic, ethnohistoric, and archival sources, the Palegevan Heartland District is identified as a place of traditional religious and cultural importance that corresponds to the National Register historic district with TCL significance. This property can functionally be characterized as a “component landscape” of the larger Tübatulabal ancestral land/waterscape and encompasses the previously evaluated TCP. The historical significance and ongoing integrity of association, location, setting, and feeling the Tübatulabal people have to the Palegevan Heartland District are defined most directly through living practices and beliefs rooted in Tübatulabal history, traditional practices, and the roles the Palegevan Heartland District’s functionally interconnected and holistic traditional cultural land/waterscape plays in helping to sustain and maintain the identity and lifeways of Tübatulabal peoples.

The Palegewan Heartland District extends on both sides of the Kern River between Miracle Hot Springs in the Kern River Canyon and the northern end of this Project near Wofford Heights. At Wofford Heights it extends west into the Greenhorn Mountains. The Palegewan Heartland District is inclusive of a variety of historically and functionally interconnected natural and cultural resources, including several culturally important places on both sides of the North Fork Kern River. A total of 72 specific culturally important and interconnected places, including the land/waterscape that help produce and sustain integrity of location, setting, feeling, and association have been identified as contributing elements of the Palegewan Heartland District.

A total of 76 specific culturally important and interconnected places, including the land/waterscape of the District that help produce and sustain integrity of location, setting, feeling, and association have been identified as contributing elements of the District. The previously determined eligible contributing elements of the Tübatulabal Cultural Landscape District (Tübatulabal District) have been incorporated into the current augmented and expanded District as contributing elements, as is the site of the 1863 Keyesville Massacre. The 1863 Keyesville Massacre an event that caused the loss of life not only for local Tübatulabal, but also neighboring Kawaiisu, Yokuts, and Owens Valley Paiute people. The killing of virtually the entire adult male population of the Palegewan band of Tübatulabal peoples in the 1863 massacre prompted abandonment of much of the area, and intermarriage, which took people away from the Palegewan heartland. Stories about the event are contained within the oral history of all these groups. By letter dated March 25, 2004, the California SHPO concurred with the evaluation that the group of sites referred to as the 1863 Massacre TCP is a TCP eligible for the National Register.

As noted below, seven of the 76 identified Tübatulabal ancestral places (P-15-000413, P-15-000681, P-15-000410/P-15-000411, P-15-001686, P-15-001687, P-15-015660, and HDR-Borel-Site-08) and the portion of the historic road between Keyesville and the massacre site (recorded archaeologically as HDR-Borel-Site-17) are also identified as archaeological sites and are contributing elements of the District. The 1863 Keyesville Massacre site and the adjacent village (P-15-000410/P-15-000411) and a pictograph panel representing what is thought to be a line of soldiers on horseback (CA-KER-19, which is not within the APE) are also recognized as contributing elements of the District. In the evaluation of the district, it has been determined that it retains the integrity of location, setting, feeling, and association, and is eligible for the National Register. A property is eligible if it is associated with the lives of persons significant in our past, “our” referring to the people who regard the property as significant. Per information provided by Tübatulabal Chairman, the District is eligible for individuals who served as community historians, documentarians, cultural practitioners, knowledge bearers, and shamans who offered rare experiential insights into and recordings of the

interconnected and holistic traditional cultural land/waterscape of the Tubatulabal District and of the events surrounding the 1863 Keysville Massacre.

### ***Environmental Effects***

Project-related effects to a National Register-eligible Tribal resource would constitute an adverse effect as defined in 36 C.F.R. § 800.5. As a result of the Tribal resource study, SCE identified three individually-National Register-eligible resources within the APE, including: the Palegewan Heartland District (a historic district); pauwita/kathinapalaz az-hani-liz also known as the 1863 Massacre Site Traditional Cultural Property (including the site designated archaeologically as P-15-000410/P-15-000411); and a Tribal ancestral place and contributing element of the District with a mixed component archaeological site designation (P-15-000681). Also within the APE are five Tribal ancestral places with archaeological precontact designations (P-15-000413, P-15-001686, P-15-001687, P-15-015660, and HDR-Borel-Site-08) and one historic-era road (HDR-Borel-Site-17) associated with the 1863 massacre and have been determined to be environmental sensitive.

SCE proposes the following actions to either minimize, avoid, or mitigate tribal resources for the proposed surrender. During decommissioning activities, the work areas will be reduced to the smallest possible footprint. All parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities will be confined, to the greatest extent possible, to previously disturbed areas and will avoid any area designated as environmentally sensitive. Additionally, the Borel Project footprint/area will be clearly defined and marked to avoid working in areas outside of the approved area. Fences and flagging will be installed by the contractor in a manner that does not affect resources to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. A WEAP will be established and implemented prior to the start of decommissioning activities and cover biological, cultural, and Tribal resources. The program will be presented by a qualified biologist, Tribal representative, and a qualified archaeologist to all construction crew members. If new employees join the crew, they will receive formal, approved training prior to working on site. Upon completion of the orientation, employees will sign a form stating they attended the program and understand all protection measures. SCE would also prepare and distribute a fact sheet containing the presented information. SCE would also abandon the canal in place and infill at specified locations to avoid adverse effects to tribal resources eligible for the National Register. Entry and egress locations must be outside environmentally sensitive areas. SCE also states it would install exclusionary fencing, as necessary, to delineate environmentally sensitive areas from project works and access roads. In addition, a tribal would be on-site during all ground-disturbing and vegetation removal activities associated with the decommission in areas designated as environmentally

sensitive. Lastly, in coordination with the consulting parties, SCE would develop an Inadvertent Discovery and Monitoring Plan.

Commission staff concludes that the proposed action would adversely affect tribal resources; however, the proposed measures described above and the Memorandum of Agreement (MOA) that SCE is currently developing in consultation with the California SHPO, Tribes, and other consulting parties would mitigate any adverse effects to cultural resources.

### **5.3.10 Land Use and Aesthetic Resources**

#### ***Affected Environment***

Agriculture is an important land use in Kern County; it is the third largest agricultural county in the state. Kern County produces more than 250 different crops, as well as lumber, nursery stock, livestock, poultry, and dairy. Mineral and petroleum resources are also fundamental parts of Kern County's economy and land use. Lake Isabella and the Kern River are bordered mostly by BLM- and Forest Service-administered land, which is used for recreation or grazing. There are several minor population centers in the Borel Project Vicinity: Kernville, Wofford Heights, Mountain Mesa, Lake Isabella, and Bodfish. There are also scattered housing units outside these communities. Wofford Heights and Lake Isabella, which have better access to the lake, have developed recreation facilities.

The landscape of the Borel Project area is mottled, created by the variety of vegetation and rock formations. The project facilities are located in the foothills of the Sierra Nevada Mountains, at elevations ranging from 2,366 and 2,689 feet msl. The facilities have been in place since 1904. The facilities generally have a utilitarian appearance consistent with similar hydropower facilities in other rural areas across California. The powerhouse, forebay structure, and penstocks are visible from SR 178 and are judged to have high adverse effects because of the relatively high contrast in line, form, texture, and color with the surrounding landscape.

#### ***Environmental Effects***

Decommissioning of the Borel Project would have no effect on the agricultural or mining industries because none occur within the project boundary. There may be short-term and minor effects on recreation and land use during decommissioning activities; however, no long-term effects would occur because recreational access would not be impeded, and no non-project land uses would be modified. Noise levels in this type of remote area are typically in the range of 25 to 45 A-weighted decibel (dBA).

Short-term effects of decommissioning on nearby land uses and aesthetic resources include construction traffic, noise, and dust. Approximately 1,000 truck trips would be required during deconstruction activities (65 for Upper Borel and 935 for Lower Borel). The majority of truck trips would be required for work in Segments 9 through 11. The estimated 1-hour average sound level at 50 feet for trucks traveling at 25 miles per hour would be 58 dBA (based on the Federal Highway Administration [FHWA] traffic noise prediction model FHWA-RD-77-108). However, the potential effects of construction vehicle traffic would be minimized using the measures described in section 2.1.2 Proposed Environmental Measures.

All project facilities visible from SR 178 are proposed to be removed (powerhouse, forebay structure, and penstocks). Scenic resources would be generally improved as facilities are removed and landscape is rehabilitated to match natural conditions. All work areas and areas where facilities are removed would be graded to conform to natural topography and rehabilitated/revegetated to match adjacent areas. Certain areas would be noticeably barren until revegetation takes hold, particularly the area where the penstocks are planned to be removed above the powerhouse, which is visible from SR 178.

The Borel Canal is visible from the local communities of Lake Isabella and Bodfish and other smaller rural developments. With the exception of the diversion dam, intake structure, and overflow dam at the settling basin upstream of the canal inlet structures, which are all proposed to be abandoned in place, the Borel Canal would be abandoned with modification (e.g., bridges, siphons, tunnels), demolished and buried or backfilled, or demolished and hauled off site (e.g., penstocks, flumes). Construction to decommission the canal would include removal of the concrete lining of the canal segments, removal of flume structures, backfilling the canal, and grading to conform to natural topography. All disturbed areas would be rehabilitated and revegetated to match the existing nearby conditions. Decommissioning of the canal would cause temporary short-term effects to aesthetic resources of local communities through construction vehicle traffic, dust, and staging areas. However, restoration of the canal areas would be a positive long-term permanent effect to the aesthetics of local communities.

### **5.3.11 Environmental Justice**

#### ***Introduction***

In conducting NEPA reviews of proposed actions at hydroelectric projects, the Commission follows Executive Orders 12898 and 14906, which direct federal agencies to identify and address disproportionate and adverse human health or environmental effects

of their actions on environmental justice communities.<sup>12</sup> Executive Order 14008 also directs agencies to develop “programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative effects on disadvantaged communities, as well as the accompanying economic challenges of such impacts.”<sup>13</sup> Environmental justice is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”<sup>14</sup> The term “environmental justice community” includes disadvantaged communities that have been historically marginalized and overburdened by pollution.<sup>15</sup>

Commission staff used *Promising Practices for EJ Methodologies in NEPA Reviews (Promising Practices)*<sup>16</sup>, which provides methodologies for conducting environmental justice analyses throughout the NEPA process for this proposed action.

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<sup>12</sup> Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb 11, 1994.); Exec. Order No. 14,096, 88 Fed. Reg. 25251 (Apr. 21, 2023).

<sup>13</sup> Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7629 (Jan. 27, 2021).

<sup>14</sup> See EPA, EJ 2020 Glossary (Feb. 2024), <https://www.epa.gov/system/files/documents/2024-02/ej-2020-glossary.pdf>. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. *Id.* Meaningful involvement of potentially affected environmental justice community residents means: (1) people have an appropriate opportunity to participate in decisions about a proposed activity that may affect their environment and/or health; (2) the public’s contributions can influence the regulatory agency’s decision; (3) community concerns will be considered in the decision-making process; and (4) decision makers will seek out and facilitate the involvement of those potentially affected. *Id.*

<sup>15</sup> *Environmental justice communities include, but may not be limited to minority populations, low-income populations, or indigenous peoples. See EPA, EJ 2020 Glossary (Feb. 2024), <https://www.epa.gov/system/files/documents/2024-02/ej-2020-glossary.pdf>.*

<sup>16</sup> Federal Interagency Working Group on Environmental Justice & NEPA Committee, *Promising Practices for EJ Methodologies in NEPA Reviews* (Mar. 2016) (*Promising Practices*), [https://www.epa.gov/sites/default/-files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/default/-files/2016-08/documents/nepa_promising_practices_document_2016.pdf).

Commission staff used EJScreen<sup>17</sup>, EPA’s environmental justice mapping and screening tool, as an initial step to gather information regarding minority and/or low-income populations; potential environmental quality issues; environmental and demographic indicators; and other important factors.

### ***Meaningful Engagement and Public Involvement***

In addition to the information provided above, CEQ’s Environmental Justice Guidance Under the National Environmental Policy Act (CEQ, 1997) and *Promising Practices* recommend that federal agencies provide opportunities for effective community participation in the NEPA decision-making process by: identifying potential effects and mitigation measures in consultation with affected communities; improving accessibility of public meetings, crucial documents, and notices; and using adaptive approaches to potential barriers to effective participation. In addition, Executive Order 13985 and Executive Order 14096, strongly encourage independent agencies to “consult with members of communities that have been historically underrepresented in the Federal Government and underserved by, or subject to discrimination in, federal policies and programs,”<sup>18</sup> and “provide opportunities for the meaningful engagement of persons and communities with environmental justice concerns who are potentially affected by Federal activities.”<sup>19</sup>

As discussed in section 4.0 *Prefiling Consultation and Public Involvement* of this EA, there have been opportunities for public involvement during the Commission’s environmental review process, although the record does not demonstrate that these opportunities were targeted at engaging environmental justice communities. The Commission’s communication and involvement with the surrounding communities began when a Notice of Application for Surrender of License, Soliciting Comments, Motions to Intervene, and Protests was issued on June 13, 2023, which established a 30-day comment period and intervention deadline. In its comments, dated July 12, 2023, BLM pointed out that there was a low-income community located directly below Segment 8.

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<sup>17</sup> EPA, *Purposes and Uses of EJScreen* (Jan. 9, 2024), <https://www.epa.gov/ejscreen/purposes-and-uses-ejscreen> (“Screening tools should be used for a ‘screening-level’ look. Screening is a useful first step in understanding or highlighting locations that may be candidates for further review.”).

<sup>18</sup> Exec. Order No. 13985, 86 Fed. Reg. at 7009 (Jan. 20, 2021).

<sup>19</sup> Exec. Order No. 14096, 88, Fed. Reg. 25254 (Apr. 21, 2023).

All documents that form the administrative record for these proceedings, with the exception of privileged or critical energy infrastructure information, are available to the public electronically through the internet on FERC's the Commission's website ([www.ferc.gov](http://www.ferc.gov)). Anyone may comment to the Commission about the proceeding, either in writing or electronically. Commission staff has consistently emphasized with the public that all comments receive equal weight by Commission staff for consideration in the EA.

Regarding future engagement and involvement, in 2021, the Commission established the Office of Public Participation (OPP) to support meaningful public engagement and participation in Commission proceedings. OPP provides members of the public, including environmental justice communities, landowners, Tribal citizens, and consumer advocates, with assistance in Commission proceedings – including navigating Commission processes and activities relating to the proposed action. For assistance with interventions, comments, requests for rehearing, or other filings, and for information about any applicable deadlines for such filings, members of the public are encouraged to contact OPP directly at 202-502-6592 or [OPP@ferc.gov](mailto:OPP@ferc.gov) for further information. OPP staff can help the public more fully participate in Commission proceedings generally but does not act in a decisional capacity on the merits of any particular case.

### ***Identification of Environmental Justice Communities***

According to CEQ's *Environmental Justice Guidance and Promising Practices*, minority populations are those groups that include: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Following the recommendations set forth in *Promising Practices*, the Commission uses the 50 percent and the meaningfully greater analysis methods to identify minority populations. Using this methodology, minority populations exist when either: (a) the aggregate minority population of the block groups in the affected area exceeds 50 percent; or (b) the aggregate minority population in the block group affected is 10 percent higher than the aggregate minority population percentage in the county. The aforementioned guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Using *Promising Practices'* low-income threshold criteria method, low-income populations are identified as census block groups where the percentage of low-income population in the identified block group is equal to or greater than that of the county. Here, Commission staff selected Kern County, California, in which the proposed action is located, as the comparable reference community to ensure that affected environmental justice communities are properly identified.

According to the current U.S. Census Bureau information, minority and low-income populations exist within the proposed action area, as discussed further below.



Table 1 identifies the minority populations (by race and ethnicity) and low-income populations within Kern County, the county affected by the proposed surrender, and U.S. census block groups<sup>20</sup> within vicinity of the proposed action site. For this project proposed action, staff chose a 1-mile radius around areas affected by the surrender (i.e., proposed project action area). Commission staff found that a 1-mile radius is the appropriate unit of geographic analysis given the limited scope of the proposed action and concentration of project-related effects near the proposed action area.<sup>21</sup> For this project proposed action we used U.S. Census American Community Survey File #B03002 for the race and ethnicity data and Survey File #B17017 for poverty data at the census block group level.<sup>22</sup>

Commission staff found that seven census block groups within the geographic scope of the proposed action meet the criteria for an environmental justice community (Table 1). All seven of these block groups have a low-income population greater than the county (Census Tract 005205 Block Group 1, Block Group 2, and Block Group 3, Census Tract 005206 Block Group 1, Block Group 2, and Block Group 3, and Census Tract 005208 Block Group 2). Commission staff identified no census block groups in which the population qualifies as an environmental justice community with a minority population meaningfully greater than the minority populations within their surrounding communities. A geographic representation of these communities relative to the area affected by the proposed amendment can be found in Appendix B-Figure 5.

## ***Effects***

*Promising Practices* provides methodologies for evaluating environmental justice effects related to human health or environmental hazards; the natural physical environment; and associated social, economic, and cultural factors. Consistent with

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<sup>20</sup> U.S. Census block groups are statistical divisions of census tracts that generally contain between 600 and 3,000 people. U.S. Census Bureau. 2022. Glossary: Block Group. Available online at: [https://www.census.gov/programs-surveys/geography/about/glossary.html#par\\_textimage\\_4](https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_4) (October 19, 2022).

<sup>21</sup> Removal of the dam, and ancillary structures, would require the use of standard construction equipment with noise levels detailed in section 5.3.10.

<sup>22</sup> U.S. Census Bureau, American Community Survey 2021 ACS 5-Year Estimates Detailed Tables, File #B17017, *Poverty Status in the Past 12 Months by Household Type by Age of Householder*, <https://data.census.gov/cedsci/table?q=B17017> (Sept. 13, 2023); File #B03002 *Hispanic or Latino Origin by Race*, <https://data.census.gov/cedsci/table?q=b03002> (Sept. 13, 2023).

*Promising Practices*, Executive Order 12898, and Executive Order 14096, we reviewed the proposed action to determine if resulting effects would be disproportionate and adverse on minority and low-income populations and whether effects would be significant.<sup>23</sup> *Promising Practices* provides that agencies can consider any of a number of conditions in this determination and the presence of any of these factors could indicate a potential disproportionate and adverse effect. For this proposed action, a disproportionate and adverse effect on an environmental justice community means the adverse effect is predominantly borne by such population. Relevant considerations include the location and the natural physical environment of Project facilities and the proposed action's human health and environmental effects, including associated social, economic, or cultural direct, indirect, and cumulative effects, on identified environmental justice communities.

As described in section 2.0 *Proposed Action and Alternatives*, the licensee proposes surrender its license and decommission the project's facilities. Depending on the facility types, land ownership, and topography, the proposal includes several decommissioning strategies, including the removal of facilities, abandoning facilities in place, and abandoning facilities with modifications.

The licensee's construction schedule predicts that decommissioning and restoration would take about four years. Project decommissioning would require up to three crews working simultaneously in different areas. Each crew would consist of 5 to 10 workers, depending on the work (i.e., flume dismantling will require a larger crew). In total, 10 to 20 workers are expected to be required at any one-time during decommissioning. These workers may be local and reside in Kern County or adjacent counties, in which case they would commute to the project area for work daily. Workers may also temporarily relocate to the project area during decommissioning activities, which are expected to take approximately three years. Temporary workers may reside in the several motels, recreational vehicle parks, or campgrounds in the project vicinity or available nearby rental properties.

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<sup>23</sup> See *Promising Practices* at 33 (stating that "an agency may determine that impacts are disproportionately high and adverse, but not significant within the meaning of NEPA" and in other circumstances "an agency may determine that an impact is both disproportionately high and adverse and significant within the meaning of NEPA"); see also *Promising Practices* at 45-46 (explaining that there are various approaches to determining whether an impact will cause a disproportionately high and adverse impact). We recognize that CEQ and EPA are in the process of updating their guidance regarding environmental justice and we will review and incorporate that anticipated guidance in our future analysis, as appropriate.

The number of additional workers needed for the decommissioning would not cause a significant increase in population and strain the housing market or other public services, such as education, healthcare, and emergency services. There appears to be sufficient temporary housing in the Lake Isabella area for the limited number of potential temporary workers. Additional accommodations are also available in the city of Bakersfield, approximately 40 miles from the Borel Project area, should it be necessary.

Several communities, schools, churches, medical facilities, senior living facilities, businesses, and residencies are located adjacent to the Borel Canal, within the one-mile buffer. The Borel Canal would be graded to conform to natural topography, and drainage features would be designed to prevent potential flooding to local properties and parcels. During decommissioning, these communities and adjacent parcels would experience short-term, temporary, localized effects such as increased construction vehicle traffic, noise, and dust. Long-term effects to local communities, population, and housing values would not occur.

SCE would utilize mitigation measures such as a SWPPP and methods to reduce traffic, noise, and dust and to prioritize public safety. These measures include erosion and dust control and reseeding and restoring disturbed areas. For example, work areas would be reduced to the smallest possible footprint to keep community disturbance at a minimum. Air pollution would be mitigated using modern, emission-controlled, on-road heavy duty trucks and construction vehicles. Additionally, SCE intends to prepare a traffic control plan, a staging and haul route plan, a materials handling plan, a fire safety plan, a dewatering plan, and a SWPPP to reduce effects to the community. Construction schedules would be designed to reduce effects to sensitive areas such as churches and schools to the extent practicable, such as performing work on the Borel Canal, when school is not in session. All construction equipment and vehicles would drive no faster than 15 miles per hour on access roads and anywhere within the project boundary for reasons of public safety and to prevent excess dust.

Potential effects on the natural and human environment are identified and discussed throughout this document. Factors that would affect environmental justice communities include: geology and soils (section 5.3.1), recreation resources (section 5.3.7), and land use and aesthetic resources (section 5.3.10). Potential effects are addressed in greater detail in the associated sections of this EA. Potential effects on environmental justice communities are not present for other resource areas such as water quantity, water quality, aquatic resources, vegetation resources, wildlife resources, threatened and endangered species, and cultural resources.

### Geology and Soils

As pointed out by BLM there is an environmental justice community located directly below Segment 8 of the canal. This community is located in Census Tract 005206 Block Group 2. If Segment 8 were to be abandoned in place with no restoration work, failure of the canal or a landslide would adversely affect this community. However, by requiring decommissioning of this canal SCE would be required to work with BLM to ensure that Segment 8 of the canal is restored to the satisfaction of BLM<sup>24</sup> and protects the community below thus mitigating any environmental justice effects to this community.

### Recreational Resources

As discussed in section 6.9 *Recreation Resources*, the project does not support any Commission approved recreation nor does it draw recreation visitors to the Kern River or Lake Isabella. Decommissioning of the Borel Project would not affect current or future recreational opportunities or uses in the area. Therefore, no long-term effects to environmental justice communities would occur.

However, there are four campgrounds and two boat launches sites located near the project or access roads that would be temporarily affected by decommissioning construction traffic noise and dust. Because of the large recreational value of the surrounding area there are six campgrounds and eight other boat launches in the immediate project area that would be available to recreationists.

Proposed environmental measures, found in section 2.1.2, would be put in place to minimize effects to recreation facilities. All construction equipment and vehicles would drive no faster than 15 miles per hour on access roads and anywhere within the project boundary for reasons of public safety, avoidance of wildlife collisions, and to prevent excess dust. Vehicles would stay on designated roads to the extent reasonably possible. Construction truck trips will be minimized, particularly in the community, and on the grade between Bakersfield and Lake Isabella.

The construction contractor would be required to follow plans that are not limited to, a traffic control plan, a staging and haul route plan, a materials handling plan, a fire safety plan, a dewatering plan, and a SWPPP. Any disturbed areas would be restored after construction. Any effects to recreational activities would be minor and temporary. Therefore, during construction activities, the effects to identified environmental justice communities would not be significant, as effects would be temporary and minor.

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<sup>24</sup> 18 C.F.R. 6.2.

When construction is complete, the proposed action would have long-term beneficial effects to recreation within the project vicinity because the removal of the project features would restore the area to a more natural environment and could encourage additional recreation.

#### *Land Use and Aesthetic Resources*

As discussed in section 5.3.10 *Land Use and Aesthetic Resources*, the proposed construction activities would have limited visibility to the public but would cause short-term adverse effects to noise-sensitive receptors in the vicinity. Because of the site's remote location, the proposed action would not cause significant adverse noise effects on the surrounding area. The powerhouse, forebay structure, and penstocks which are visible from SR 178, and are judged to have high adverse visual effects with the surrounding landscape, would be removed and restored to a more natural landscape. While revegetation is reestablishing, these cleared areas would be noticeable, but these effects would be temporary and short term. Construction noise would be more noticeable around those homes located along the main access roads. However, these effects would be short-term. The proposed action would have no effect on land use in the project area. On completion of the restoration process the aesthetic environment would be more natural. Therefore, during construction activities, the effects to identified environmental justice communities would not be significant, as effects would be temporary and minor.

#### ***Determination of Disproportionate and Adverse Impacts on Environmental Justice Communities***

Based on the above findings regarding geology and soils, recreation, land use, and aesthetics, Commission staff concludes that any adverse effects of the proposed action to members of environmental justice communities, residing nearby or visiting the area, would be temporary and not significant. Although, for the community immediately below Segment 8 of the canal would experience disproportionately high impacts, these impacts would be minimized and over the long-term reduce the potential for adverse effects caused by a landslide. In consideration of the included census data, and the limited and temporary scope of construction activities, Commission staff conclude that the proposed surrender would not result in disproportionate and adverse effects on environmental justice communities.

## **6.0 CONCLUSIONS AND STAFF RECOMMENDATIONS**

### **6.1 Conclusion**

The SCE is proposing to surrender the existing Borel Project license and decommission the project's facilities. Given the variety of facility types, land ownership, and topography, the proposal includes several decommissioning strategies, including the

removal of facilities, abandoning facilities in place, and abandoning facilities with modifications. The segments located upstream from the Auxiliary Dam are entirely within the limits of Lake Isabella and subject to inundation. The SCE proposes multiple protection and enhancement measures that would restore the project area to a more natural environment.

Based on our independent review of the application, comments we received, and our review of the environmental effects of the proposed action, we find that the surrender of the Borel license and decommissioning of the project facilities with SCE's recommended mitigation measures listed in section 2.1.2 *Proposed Environmental Measures* is the preferred alternative.

The licensee's mitigation measures include: limiting construction footprint, using seasonally appropriate construction windows, speed limits, proper hazardous material storage, controlling invasive weeds, traffic control plan, staging and haul route plan, fire safety plan, dewatering plan, SWPPP, worker awareness program, biological monitor, revegetation plan, wildlife avoidance measures, bat exclusion devices, covering excavated areas, and avoiding riparian areas. Cultural resource protection measures include: avoiding unevaluated or NRHP-eligible archaeological sites, TCPs, and TCLs; a qualified archaeologist would monitor and review final plans and designate areas that need avoidance and exclusion measures; the historic-era mining features located both upslope and downslope from the canal near Pioneer would be relocated and designated for avoidance; footings would be left in place to minimize ground disturbance; continue to consult with Tribes to assess effects of decommissioning activities on previously recorded or newly documented TCPs and TCLs; allow Tribal monitoring in any area deemed culturally sensitive by the Tribe(s); develop an MOA to resolve adverse effects to the Borel Hydroelectric Historic District would include documentation of the district via HABS / HAER documentation and/or equivalent; and develop a Project Inadvertent Discovery and Monitoring Plan that details the protocols for an inadvertent discovery of previously unrecorded archaeological resources.

While limited, temporary construction-related effects may occur during project activities, long-term positive effects would occur as a result of the proposed action. These long-term benefits include returning the project area to a more natural habitat improving the aesthetic and recreational value of the project area landscape.

We recommend this alternative because: (1) it would prevent the continued decay of the abandoned project features; (2) it would restore the area to a more natural condition; and (3) the recommended measures would protect and enhance aquatic, terrestrial, cultural, and Tribal resources and threatened and endangered species at the project.

## **6.2 Finding of No Significant Impact**

If the proposed surrender, that would include the decommissioning of Borel Project features, is approved with SCE's proposed protection measures the project would return to a more natural environmental condition with long-term benefits. The proposed action would not constitute a major federal action significantly affecting the quality of the human environment.

## **Appendix A Statutory and Regulatory Requirements**

### **A-1 Restoration of Federal Lands**

The project contains lands of the United States under the jurisdiction of the U.S. Forest Service, U.S. Bureau of Land Management, and the U.S. Army Corps of Engineers for which Southern California Edison Company has acquired rights for project purposes. Section 6.2 of the Commission's regulations (18 C.F.R. 6.2) requires a licensee for a project located on federal lands to restore the lands to a condition satisfactory to the Department having supervision over such lands and annual charges would continue until such restoration has been satisfactory completed.

### **A-2 Clean Water Act**

Under section 401(a)(1) of the Clean Water Act (CWA),<sup>25</sup> any applicant for a federal license or permit to conduct activities that may result in a discharge into United States waters, must obtain either a water quality certification (WQC or certification) from the appropriate state pollution control agency verifying that any discharge from the project would comply with applicable provisions of the CWA or a waiver of such certification. If the state "fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such a request," then certification is deemed waived.

SCE has agreed to work with the California SWRCB to apply for a WQC in conjunction with its requirements under the California Environmental Quality Act.

### **A-3 Endangered Species Act**

Section 7 of the Endangered Species Act of 1973 (ESA)<sup>26</sup> requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened or endangered species or result in the destruction or adverse modification of the critical habitat of such species. Commission staff determined that the project is outside the range for California red-legged frog, San Joaquin kit fox, Tipton kangaroo rat, and Bakersfield cactus. The project area also does not support suitable habitat for the fisher and delta smelt has not been found in project waters. Because the project site lacks suitable habitat or is outside the range of these species, Commission staff have determined that the proposed action would have no effect on these species. In addition, the nearest nest for California condor is over 34 miles from the project, the

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<sup>25</sup> 33 U.S.C. § 1341(a)(1).

<sup>26</sup> 16 U.S.C. § 1536(a).



species could fly overhead. However, no changes to existing habitat would occur with the proposed action so Commission staff determined that there would be no effect to California condor.

SCE prepared a Draft EA (DEA) that would serve as its Biological Assessment (BA), evaluating the potential effects of the proposed action on yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, and the California condor. Commission staff reviewed the DEA and adopted the DEA as our BA. Commission staff determined that the proposed action may affect, but is unlikely to adversely affect, yellow-billed cuckoo, southwestern willow flycatcher, and least Bell's vireo. On October 12, 2023, Commission staff sent a letter to FWS requesting informal section 7 consultation asking for concurrence on staff's determinations. In a letter filed January 24, 2024, FWS concurred with our determination.

#### **A-4 National Historic Preservation Act**

Under section 106 of the National Historic Preservation Act (NHPA),<sup>27</sup> and its implementing regulations,<sup>28</sup> federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (National Register), defined as historic properties, and afford the Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation officer (SHPO) or, where a project would be located on Tribal lands, the Tribal Historic Preservation Officer, to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

On December 16, 2020, SCE filed a request with Commission to be designated as the Commission's non-federal representatives to consult with the California SHPO, applicable Native American Tribes, and Borel Hydroelectric Project – Vol III Applicant-Prepared Draft EA FERC Project No. 382 Introduction Copyright 2023 by Southern California Edison Company May 2023 | 7 other appropriate consulting parties pursuant to the regulations at 36 C.F.R. § 800.2(c)(4), implementing Section 106 of the NHPA. By a letter dated December 17, 2020, the Commission designated SCE as their non-Federal representative for day-to-day Section 106 consultation.<sup>3</sup> SCE held three Section 106 consultation meetings with Tribes, Federal agencies, and consulting parties on March 17, 2021, December 6, 2022, and February 22, 2023.

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<sup>27</sup> 54 U.S.C. § 306108.

<sup>28</sup> 36 C.F.R. pt. 800 (2021).

To identify historic properties, SCE prepared a Cultural Resources Study Report and a Tribal Resources Study Report documenting the archival research, resource surveys, Tribal interviews, National Register eligibility determinations, and effects assessments. No adverse effects to any archeological or Tribal resource were identified. The studies did find that there would be an adverse effect to the proposed Borel Hydroelectric System Historic District, its contributing elements, and the Borel Powerhouse (Powerhouse), recommended individually. Demolition of these facilities would constitute an adverse effect to historic properties. Therefore, SCE states the resolution of adverse effects, including all proposed mitigation, will follow the NHPA regulations detailed in 36 C.F.R. § 800.6 (Resolution of Adverse Effects).

In an October 18, 2023 letter, the California SHPO, made the following recommendations in the October 18, 2023 letter: (1) revise the APE to include the entirety of the Borel Hydroelectric System and to include the thirteen archaeological resources recorded outside of the APE; and (2) provide additional representative photographs of all built environment resources as required by 36 C.F.R. § 800.11. Further, the California SHPO stated that it determined it would withhold comments on determinations of eligibility and finding of effect since the current documentation supporting historic property identification and evaluation is incomplete. Commission staff recommends SCE address the California SHPO's comments, and file documentation of consultation with the consulting parties.

Further, Commission staff concludes that the proposed action would adversely affect cultural resources; however, the proposed measures described above and the MOA that SCE is currently developing in consultation with the California SHPO, Tribes, and other consulting parties would mitigate any adverse effects to cultural resources. Commission staff recommends that SCE file a draft MOA with documentation of consultation with the California SHPO and consulting parties for review and comment.

#### Area of Potential Effect

Pursuant to section 106 of the NHPA, the Commission must take into account whether any historic property could be affected by the issuance of a license within a project's APE. The APE is determined in consultation with the SHPO and is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.<sup>29</sup>

The existing project boundary covers approximately 363 acres of land. Within the total acreage, 188.71 acres are federal lands, with 159.24 acres of National Forest lands managed by the Forest Service, 29.47 acres of land administered by the BLM and 10.7

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<sup>29</sup> 36 C.F.R. 800.16(d).

acres managed by the Corps. Under 36 C.F.R. 800.16(d), the area of potential effect (APE) is defined as “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historical properties, if any such properties exist.” The proposed decommissioning of the Borel Project facilities is organized into 11 major segments, which are organized based upon landownership, access, location, and other common condition. Segments 1 through 4 (Upper Borel) are located upstream from the auxiliary dam and entirely within the limits of Lake Isabella and subject to the inundation when the water surface elevation of the reservoir is at elevation 2,550 or higher. SCE states that access to these segments and decommissioning activities would be dependent upon water year and lake levels. Segment 5 is located partially within the reservoir and partially downstream of the auxiliary dam (Lower Borel). However, since segments 6 through 11 are located downstream from the Lower Borel, the access would not be affected by reservoir operations.

The proposed archaeological, Tribal, and built environment resource APE for the license surrender and associated decommissioning activity is horizontally defined as the Borel Project boundary plus a 25-foot buffer, inclusive of all ancillary areas, such as staging and access, that extend or are located outside of the project boundary. The vertical APE is variable and ranges from 0 feet below current grade in areas where the canal would be infilled to a maximum depth of approximately 10 feet below current grade where the canal would be fully deconstructed. The APE excludes the portion of the Borel Project boundary that traverses lands managed by the Corps in Segment 5 as no SCE activity associated with the license surrender would occur on those lands.

## **A-5 Executive Orders 12898 and 14008**

The Commission follows Executive Order 12898, which directs federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of their actions on minority and low-income populations (i.e., environmental justice communities).<sup>30</sup> Executive Order 14008 also directs agencies to develop “programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on

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<sup>30</sup> Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Feb. 1, 2021). The term “environmental justice community” includes disadvantaged communities that have been historically marginalized and overburdened by pollution. Id. § 219, 86 Fed. Reg. 7619, 7629. The term also includes, but may not be limited to, minority populations, low-income populations, or indigenous peoples (EPA, 2021a).

disadvantaged communities, as well as the accompanying economic challenges of such impacts.”<sup>31</sup>

Environmental justice is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (EPA, 2021b).

Staff identified seven census block groups that qualify as environmental justice communities within a 1-mile radius of the project boundary and considered how the communities may be affected by the proposed surrender and decommissioning. Our analysis of the project’s impacts on these communities are presented in section 5.3.11, *Environmental Justice*. We conclude that decommissioning the project, as proposed, would not result in disproportionate and adverse impacts on the identified environmental justice population.

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<sup>31</sup> Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Feb. 1, 2021). The term “environmental justice community” includes disadvantaged communities that have been historically marginalized and overburdened by pollution. *Id.* § 219, 86 Fed. Reg. 7619, 7629. The term also includes, but may not be limited to, minority populations, low-income populations, or Indigenous peoples (EPA, 2022).

## Appendix B Figures

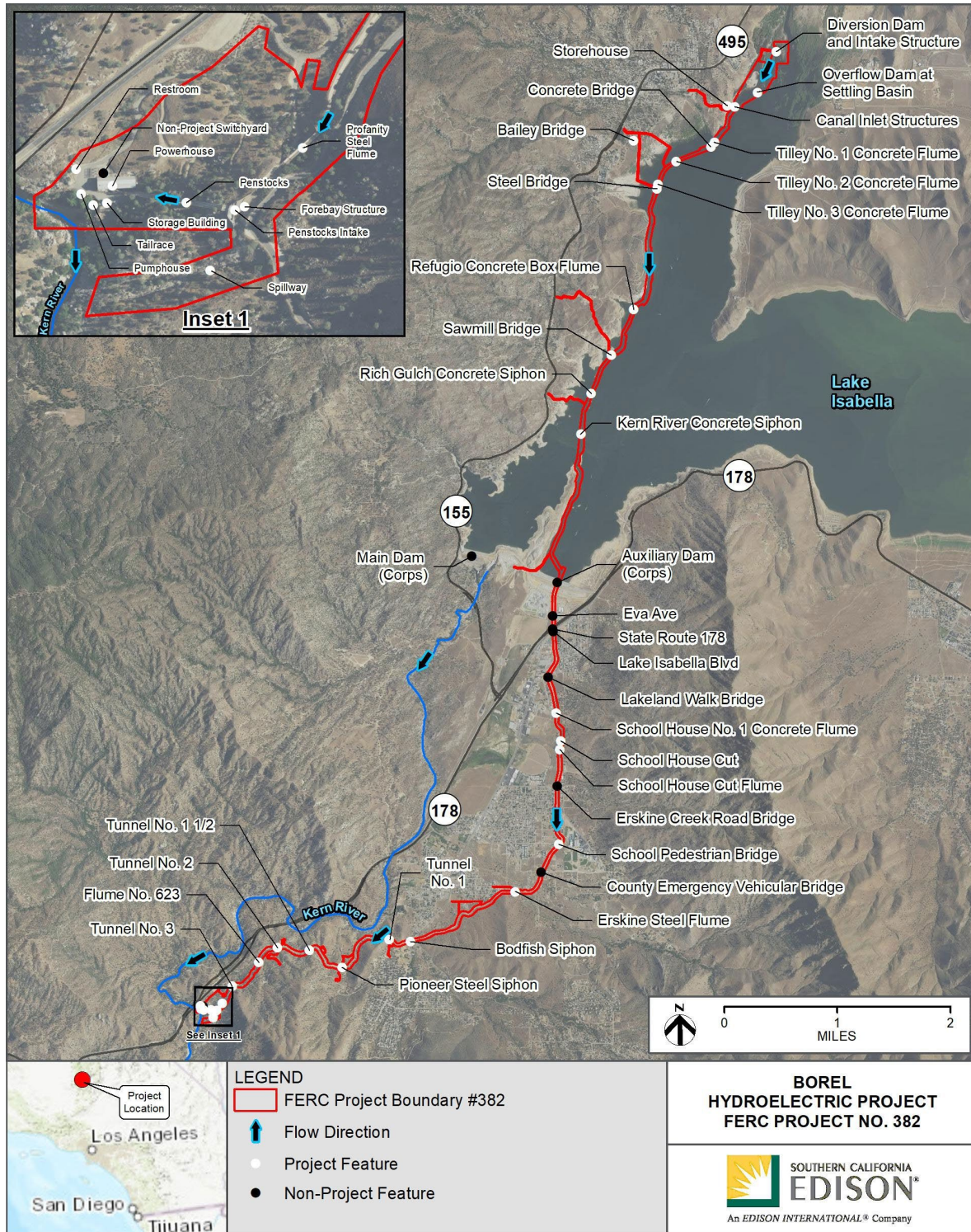


Figure 1. Location of Borel Project. (Source: Licensee's Application).



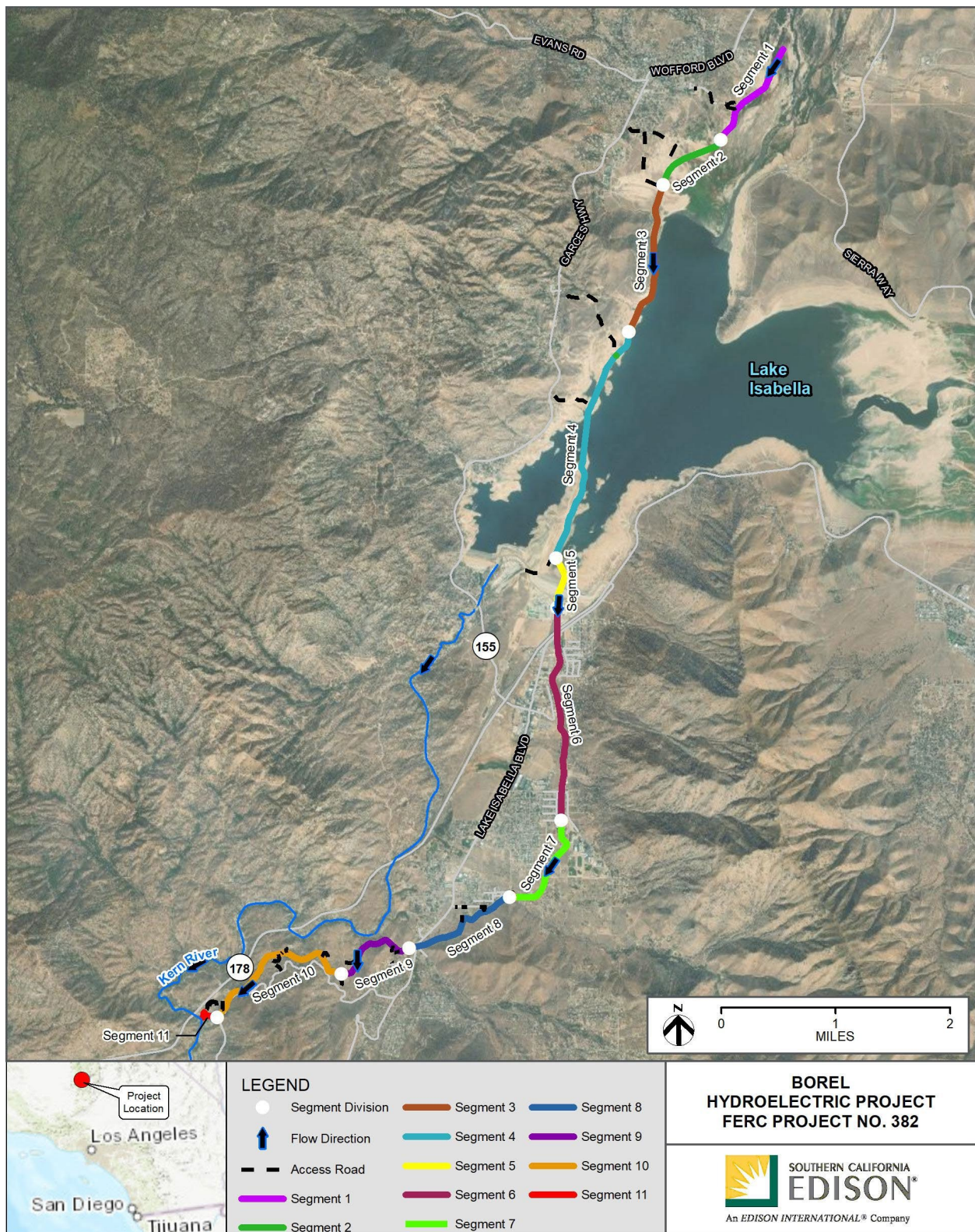


Figure 2 Borel Project Decommissioning Segments (Source: Licensee's Application).



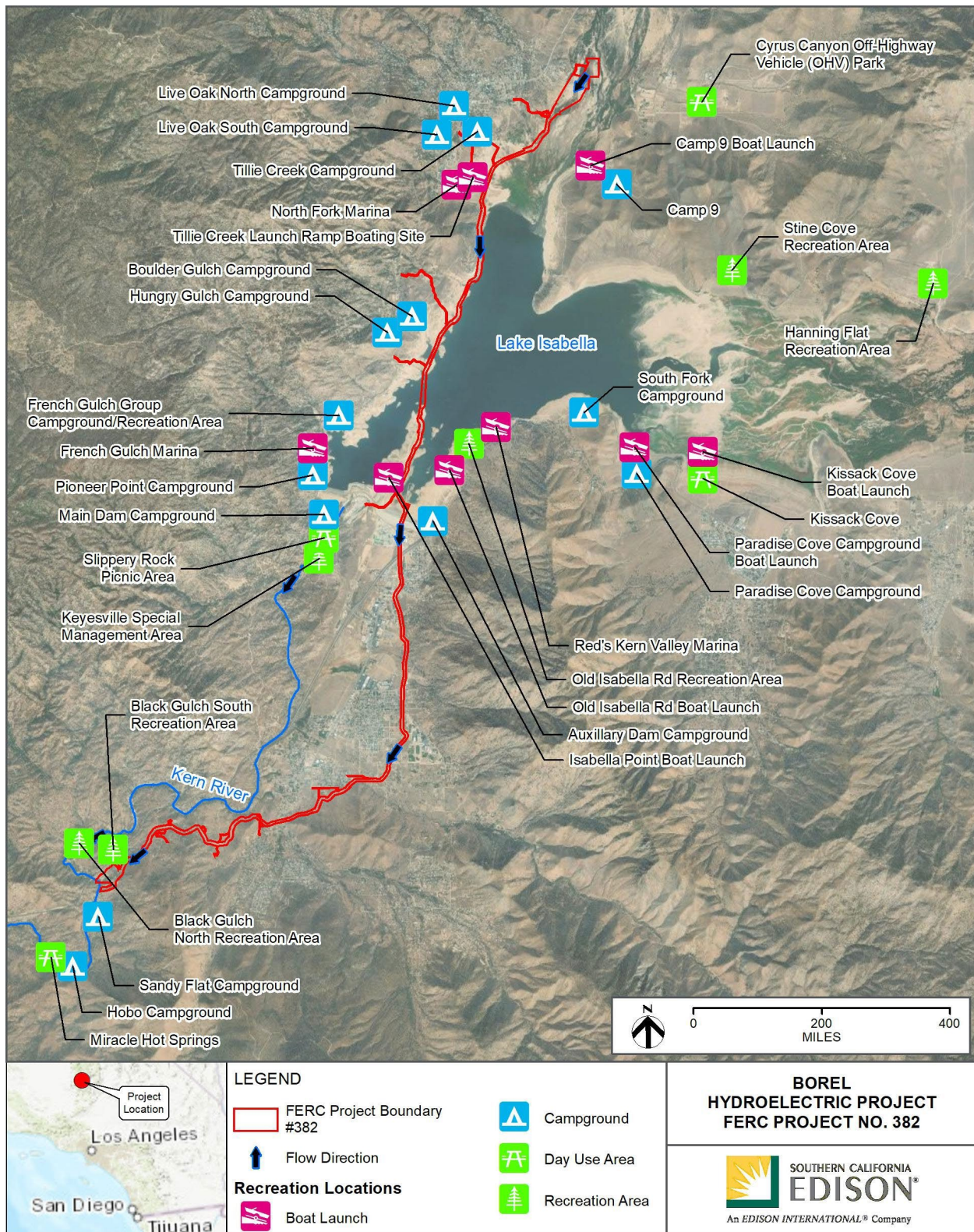


Figure 3. Lake Isabella Recreation (Source: Licensee's Applicant Prepared EA).



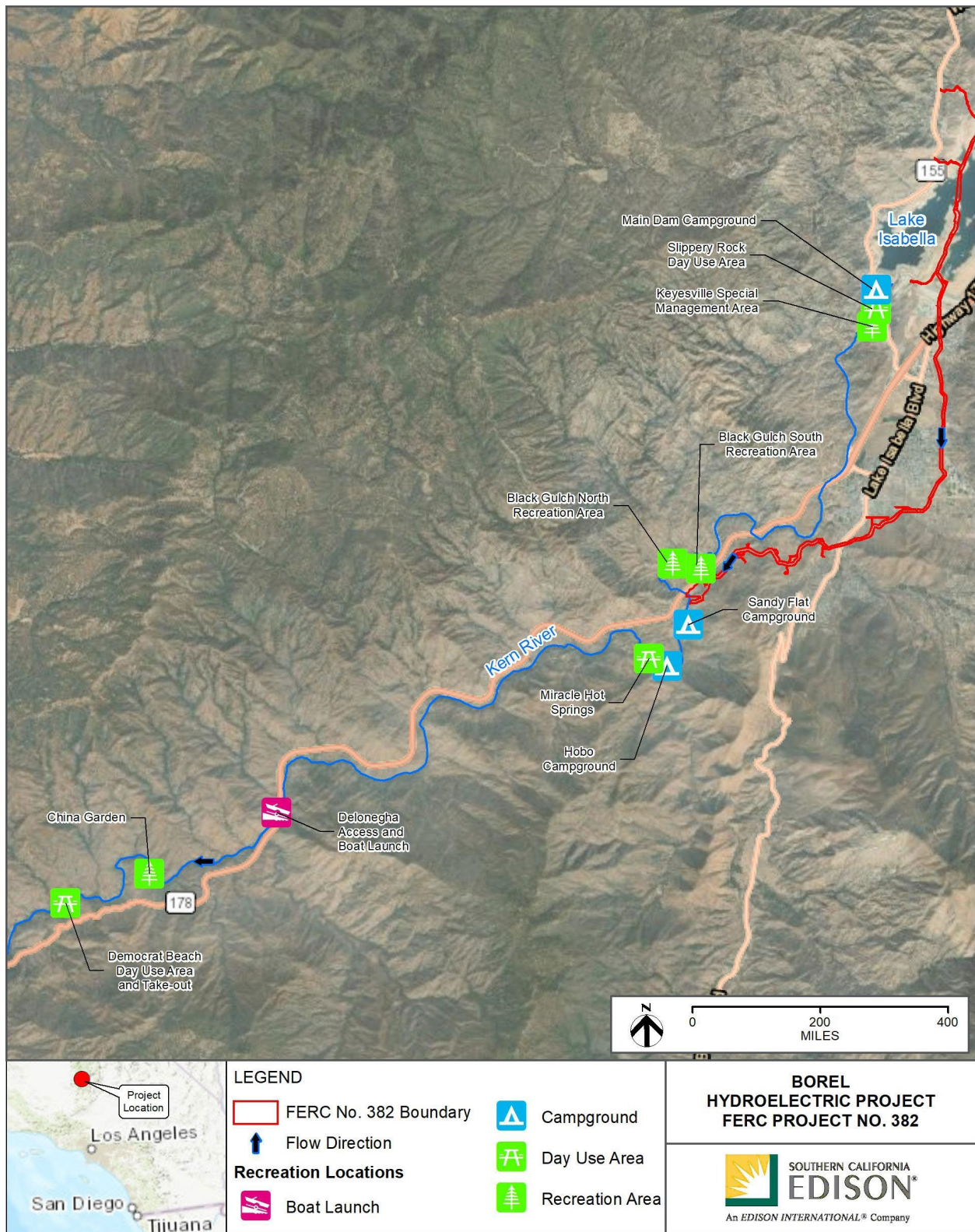
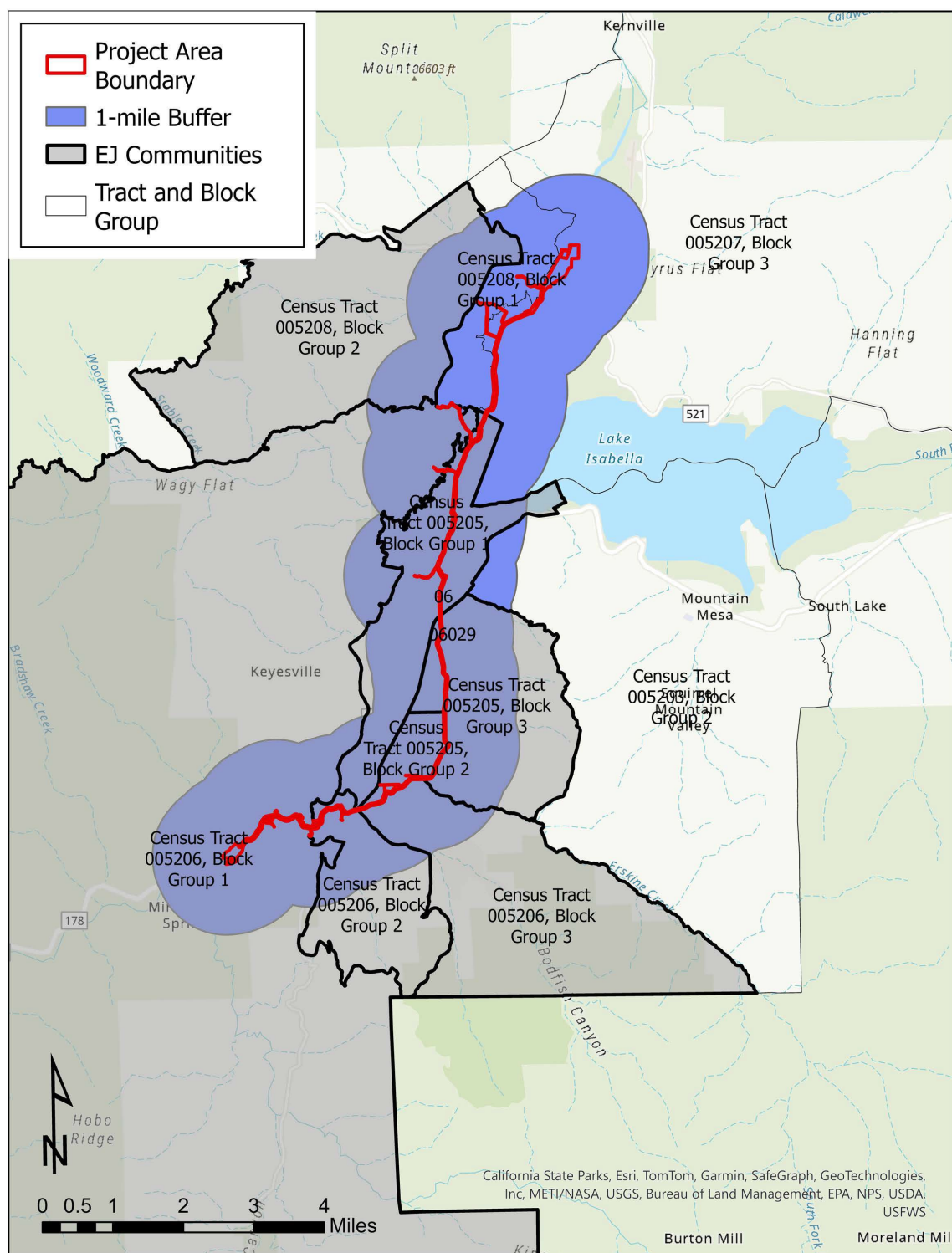


Figure 4. Kern River Recreation (Source: Licensee's Applicant Prepared EA)





## Appendix C Tables

Table 1. Minority populations by race and ethnicity and low-income populations within one-mile of the project boundary.

Demographic Composition within the Project Area											
State/County/Census Tract and Block Group	Race and Ethnicity Columns										Low Income Column
	Total Population	White Alone, not Hispanic or Latino <sup>a</sup>	Black or African-American <sup>a</sup>	American Indian and Alaska Native <sup>a</sup>	Asian <sup>a</sup>	Native Hawaiian & Other Pacific Islander <sup>a</sup>	Some Other Race <sup>a</sup>	Two or More Races <sup>a</sup>	Hispanic or Latino (any race) <sup>a</sup>	Total Minority Population <sup>c</sup>	Households Below Poverty Level <sup>b</sup>
California	39,356,104	35.2%	5.3%	0.3%	14.9%	0.3%	0.4%	3.8%	39.7%	64.8%	11.8%
Kern county, CA	906,883	31.5%	4.9%	0.4%	4.8%	0.1%	0.4%	2.7%	55.3%	68.5%	18.2%
Census Tract 005203, Block Group 2	1,676	97.3%	0.5%	0.0%	0.7%	0.0%	0.0%	0.3%	1.1%	2.7%	14.8%
Census Tract 005205, Block Group 1	847	78.9%	0.0%	7.0%	0.0%	0.0%	0.0%	0.0%	14.2%	21.1%	30.8%*
Census Tract 005205, Block Group 2	1,969	58.4%	0.5%	0.0%	1.7%	0.0%	0.0%	10.7%	28.7%	41.6%	28.3%*
Census Tract 005205, Block Group 3	898	95.4%	0.0%	0.0%	0.8%	0.0%	0.0%	2.3%	1.4%	4.6%	23.6%*
Census Tract 005206, Block Group 1	751	67.0%	3.3%	0.0%	0.0%	0.0%	0.0%	6.5%	23.2%	33.0%	40.5%*
Census Tract 005206, Block Group 2	859	73.9%	0.0%	5.2%	0.0%	0.0%	0.0%	9.1%	11.8%	26.1%	26.4%*
Census Tract 005206, Block Group 3	911	75.2%	0.0%	0.0%	0.0%	0.0%	0.0%	14.7%	10.1%	24.8%	39.4%*
Census Tract 005207, Block Group 3	295	69.5%	0.3%	0.0%	7.5%	0.0%	2.4%	0.3%	20.0%	30.5%	17.4%
Census Tract 005208, Block Group 1	619	86.3%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	10.8%	13.7%	0.0%
Census Tract 005208, Block Group 2	1,624	89.5%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	9.7%	10.5%	28.2%*
A blue shaded cell with an * denotes a qualifying value for inclusion as an environmental justice community.											
<sup>a</sup> U.S. Census Bureau, 2022a.											
<sup>b</sup> U.S. Census Bureau, 2022b.											

## Appendix D Literature Cited

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## **Appendix E List of Preparers**

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