

KERN RIVER PLANNING UNIT

Kern-Tule River Watershed

Existing Conditions & Uses

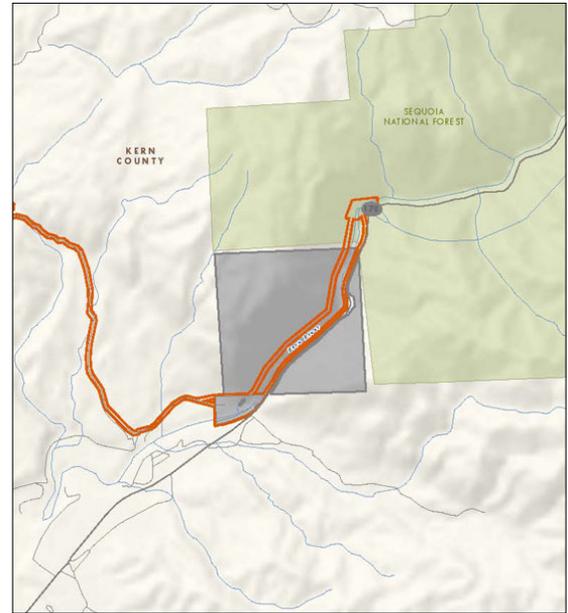
Overview

- Mouth of the dramatic Kern River Canyon with steep canyon walls characterized by granite boulders and sparse vegetation
- 653 acres in Kern County; 598 acres outside the FERC boundary and 55 acres inside the FERC boundary
- Part of the Kern Canyon Project (FERC #178); Original License expired April 2005, awaiting New License

The Kern River Planning Unit is located on the lower Kern River in Kern County, approximately 15 miles northeast of downtown Bakersfield. The Kern River and the parallel Highway 178 traverses the planning unit (see Figure KT-3). Two distinct landscapes are represented in the planning unit: canyon and grassland. The upstream portion of the planning unit is within the Kern River Canyon, characterized by steep, partially grass-covered, rocky slopes rising as much as 1,800 feet above the river. The dramatic canyon walls and rocky features rise quickly from either side of the Kern River. The canyon is located in the southern Sierra Nevada foothills and is in a transitional zone between the Sierra



Mouth of Kern River Canyon



Kern River Planning Unit
Kern County

Nevada to the east and the San Joaquin Valley to the west. The Kern Canyon Powerhouse is located downstream, just below the mouth of the canyon, where the landscape changes to open, rolling grasslands. The Sequoia National Forest adjoins the planning unit to the north and east and the unit is 32 miles downstream of Lake Isabella, a U.S. Army Corps of Engineers-operated reservoir.

The planning unit encompasses most of the Kern Canyon Project (FERC #178), consisting of a diversion dam (just upstream of the planning unit), tunnel, penstock, and the Kern Canyon Powerhouse. Below the dam is a 1.8-mile long bypass reach. The powerhouse releases water to a small forebay created by the Rio Bravo Project diversion dam, which is immediately downstream of the planning unit and is operated by the Olcese Water District. The current FERC License expired in April 2005. PG&E filed an application for a New License in 2003 and FERC issued a Final Environmental Assessment (EA) in September 2005.

Kern River Planning Unit Existing Conditions



- PG&E Lands Preliminary Designated for Retention
- PG&E Lands Preliminary Designated for Disposition
- BIA
- BIM
- BOR
- DOD
- NPS
- Other/NGO
- Federal Wilderness
- Boat Launch
- Campground
- Dam
- Day Use
- Feature of Importance
- Fishing
- Fish Barrier Dam
- Gate
- Lodging
- Non-Motorized Boating
- Parking
- Powerhouse
- Private Camp
- Ranch
- Trailhead
- Whitewater PutIn/Take-Out
- FERC Boundary
- Stream / River
- Intermittent Stream / River
- Canal / Ditch
- Pipeline
- Primary Roads
- Secondary Roads
- OHV Roads
- Trail

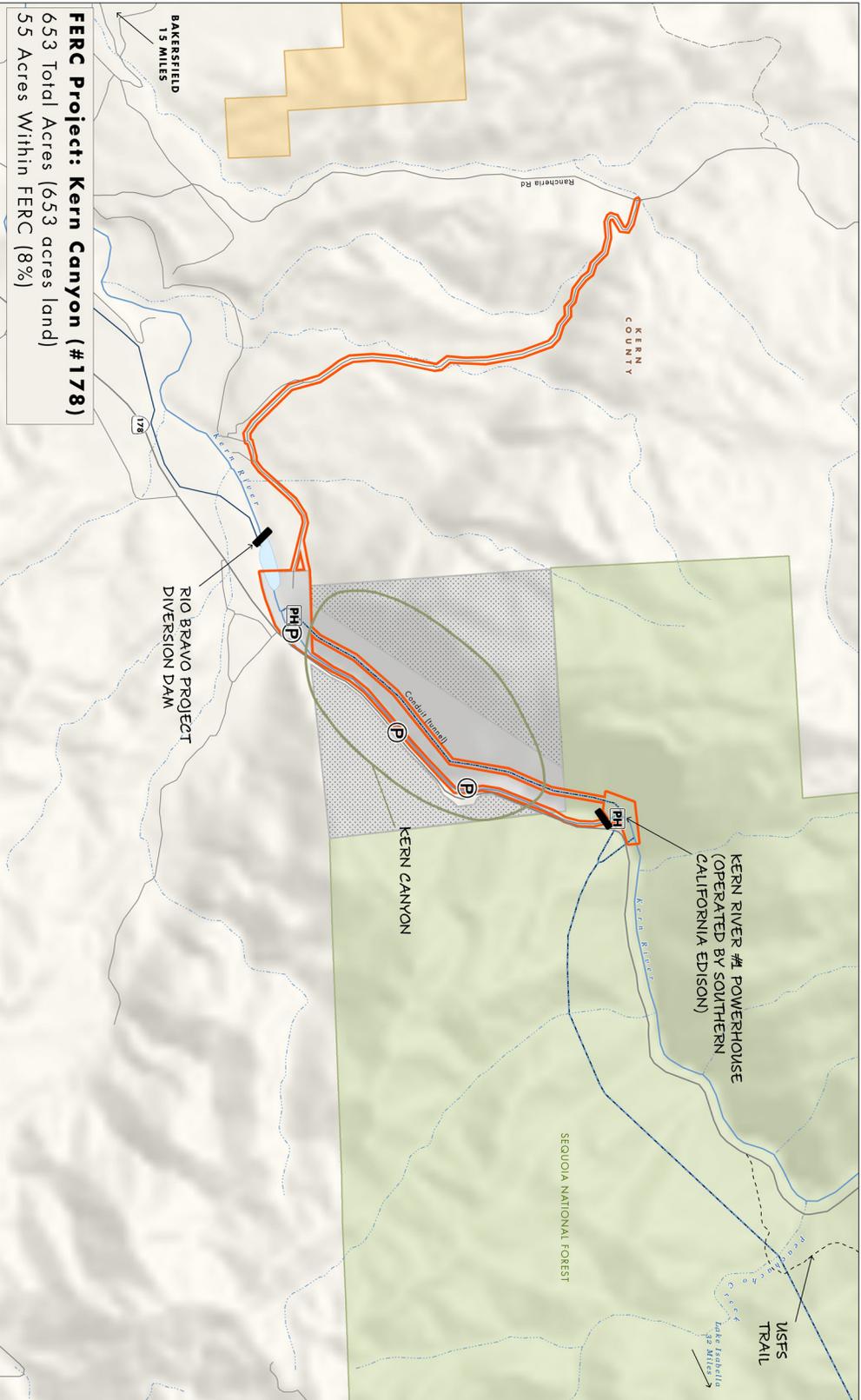


Figure KT-3

KERN RIVER PLANNING UNIT

Kern-Tule River Watershed

Fish, Plant, and Wildlife Habitat

Three major plant communities are found in the project area: Sierra-Tehachapi saltbush scrub, annual grasslands, and Valley foothill riparian woodlands. Saltbush scrub habitat occurs primarily in the vicinity of the Kern Canyon Powerhouse. Annual grassland is the dominant plant community in the planning unit and is found along the ridge-top above the canyon and on the foothills below the canyon mouth. Riparian woodland and wetland habitat is primarily confined to the narrow margins of the river channel.

These habitat and vegetation types support a range of wildlife, including special status species. Within the FERC Project area, valley elderberry longhorn beetle, Kern County larkspur, Shevock's golden-aster, and Bakersfield cactus are known to occur. Bakersfield cactus is a rare cactus known to occur only in Kern County, and is listed as both a Federal and State Endangered plant. Other special status species that may potentially occur include the Kern Canyon slender salamander, yellow-sideblotched salamander, and Coast horned lizard. The planning unit is also within the critical habitat range for San Joaquin kit fox. PG&E has proposed a minimum flow regime for the Kern River bypass reach to provide optimal flows for smallmouth bass and hardhead minnow.¹

Open Space

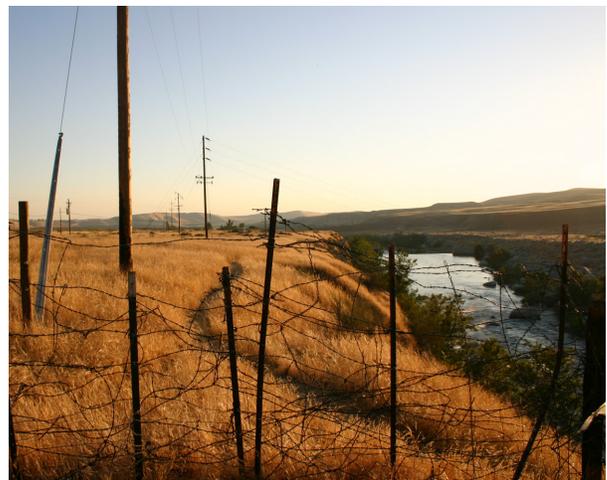
Due to limited development, steepness of the area, and lack of recreation facilities, open space values can be found throughout the planning unit.

Outdoor Recreation

There are no formal recreation facilities within this planning unit; however, limited recreation does occur along the Kern River, including fishing, swimming, wading, kayaking, picnicking, and rock climbing. Two vehicle turn-out areas are located on planning unit land along Highway

178, one at the canyon mouth directly across from the Kern Canyon Powerhouse and the other one mile upstream of the canyon mouth. Each turn-out accommodates approximately eight vehicles, but relicensing studies indicate that they rarely reach capacity. The turn-out at the canyon mouth has an informal, steep trail leading to the Kern River and Rio Bravo Forebay. This partially eroded trail runs down a rocky riverbank about 100 feet high. The upstream informal turn-out provides direct access to the river for swimming, wading, and fishing. An additional area along the shoulder of the highway where vehicles may park is about three-fourths of a mile upstream of the canyon mouth and also provides informal parking and easy access to the Kern River. It appears that some recreation use occurs at all three locations.

The lower Kern River is a fast-flowing and steep river where numerous drownings have occurred, and some whitewater guidebooks consider the flows through the bypass reach (on the planning unit) to be impassable. Never-the-less, the bypass reach does provide a rarely utilized 1.8 mile expert level Class V/VI whitewater run, usually referred to as the KR1 run that has received more notice from boaters in recent years. It is believed that kayakers exit the river opposite the Kern Canyon Powerhouse and use the user-created trail up the steep river bank to reach the informal parking area on Highway 178. The run is much shorter than upstream runs, and whitewater boating assessments conducted for project relicensing indicate that lower flows and difficult



User-created trail along river bluff at Highway 178

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and unsafe access decrease the desirability of whitewater boating in the reach.

Kern River County Park, a 1,000-acre recreation complex four miles downstream of the planning unit, includes Lake Ming and the Kern River Campground. The park offers a boat launch, parking, day use areas, playgrounds, restrooms, and an adjacent golf course.

Forest Resources

Forest resources are not present within the planning unit.

Agricultural Uses

There are no agricultural uses in the planning unit. There is, however, a 9,300-acre year-round grazing allotment within the Sequoia National Forest that borders the planning unit to the north. This allotment supports about 3,800 animal unit months (AUMs). While planning unit lands above the canyon, and adjacent to this allotment, have some potential for grazing, the majority of the lands are inaccessible due to the steep canyon terrain.

Historic Resources

The Kern River Planning Unit is within the ancestral territory of the Yawelmani Yokuts tribe, who had a village called Shiko (meaning wind place) near the mouth of the canyon. While historic and prehistoric sites have been identified within the planning unit, including prehistoric milling stations, only the 55 acres within the FERC boundary and 10% of lands outside the FERC boundary have been surveyed. No sites identified in cultural resource surveys have qualified for listing on the NRHP; however, an Historic Properties Management Plan (HPMP) was developed by PG&E to manage cultural resources.

Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at the Kern River Planning Unit be preserved and enhanced by focusing on habitat values, public access, and cultural resources. In presenting the Recommended Concept provided here, our objective is to protect habitat and cultural resources, identify grazing opportunities, and increase user safety. We recommend this effort be conducted in close coordination with PG&E and the FERC relicensing efforts for the area.

Objective: Preserve and enhance biological and cultural resources, enhance public safety, and evaluate the potential for grazing opportunities.

As shown on Table KT-2, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Kern River Planning Unit. Additional detail and background regarding these potential measures can be found in the Supporting Analysis for Recommendations, provided under separate cover. These measures are intended to be illustrative in nature, not prescriptive, and will be amended, deleted, or augmented over time in coordination with future land owners and managers to best meet the objective for this planning unit.



View of Kern Canyon from Highway 178

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Fish, Plant, and Wildlife Habitat

Objective: Preserve and enhance habitat in order to protect special biological resources.

Canyon and grassland habitats within the planning unit support a range of wildlife and plants, including several special status species. In order to preserve and enhance the habitat and resources found here, the Stewardship Council recommends development of a wildlife and habitat management plan. Management of the property to preserve and enhance habitat will also include addressing noxious weeds. The Stewardship Council also recommends applying protection measures developed during FERC relicensing for Shevock's golden aster to lands outside the FERC boundary to provide habitat connectivity and consistent protection of this special status species. We encourage close coordination with the USFS and other resource-focused organizations working in the area, and all planning should be consistent with relevant FERC license required management and monitoring plans and measures.

Open Space

Objective: Preserve open space in order to protect natural and cultural resources and viewsheds.

This concept would preserve open space by limiting new development to signage and fencing, as well as through permanent conservation easements. Conservation easements would describe all prohibited uses to maintain open space values, including the level of uses allowed and the requirement to maintain scenic qualities.

Outdoor Recreation

Objective: Enhance recreational facilities in order to provide safe and appropriate recreation use.

The Kern River Planning Unit provides canyon access for whitewater boating, fishing,



View from canyon mouth pullout to Rio Bravo Dam

swimming, rock climbing, and picnicking, though water-related recreation can be hazardous. As shown in Figure KT-4, the Stewardship Council looks to increase user safety by recommending parking area enhancements. We recommend enhancements focused on installing fencing and signage at road turn-outs, as well as closing and rehabilitating user-created trails, to limit access to these unsafe routes and notify visitors of potential hazards.

Agricultural Uses

Objective: Identify potential grazing opportunities in order to enhance agricultural resources and related economic benefits.

Though there is currently no agricultural use within the planning unit, there is a 100-acre area on a ridge-top that may be suitable for grazing in conjunction with an adjacent grazing allotment. The Stewardship Council looks to enhance agricultural opportunities and associated important economic uses as part of the long-term management of the Kern River Planning Unit. To support this effort, we recommend evaluating grazing potential in coordination with the adjacent USFS grazing allotment. If grazing

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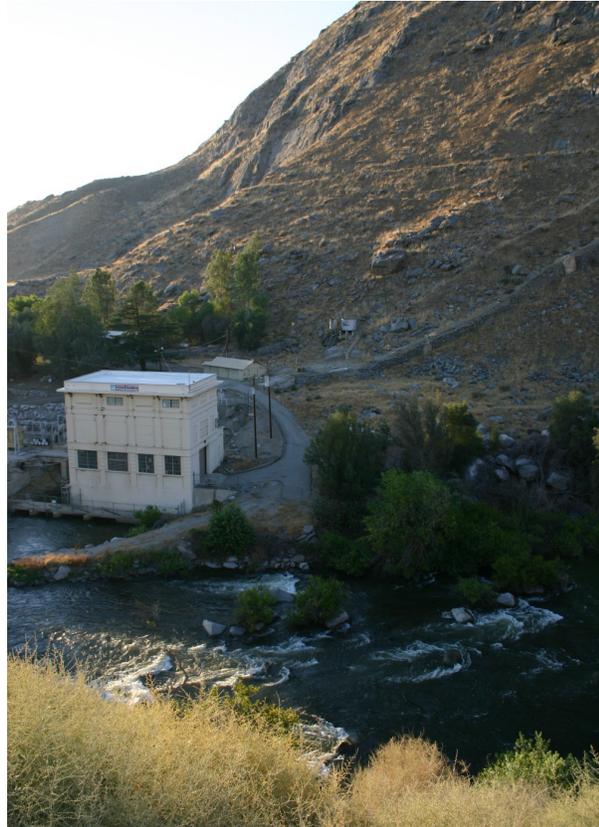
Kern-Tule River Watershed

is determined to be feasible in the planning unit, the Stewardship Council recommends developing a rangeland management plan.

Preservation of Historic Values

Objective: Identify cultural resources in order to ensure their protection.

Very little of the planning unit has been subjected to cultural resource studies, though there is a high likelihood of the presence of cultural resources. The Stewardship Council aims to support an increased understanding of these resources and ensure they are appropriately protected. To meet this objective, we recommend that cultural resource studies be conducted to understand the resources found at the Kern River Planning Unit (particularly outside the FERC cultural resource study area, where less information is available). The Stewardship Council recommends that conservation easements include cultural resource protection measures to preserve any cultural resources found during surveying or in the future. These measures would describe the process for addressing any cultural materials found during ground-disturbing activities. Throughout this effort, the Stewardship Council recommends close coordination with Native American entities.



Kern Canyon Powerhouse from Highway 178

Endnote

¹ PG&E has proposed to provide continuous minimum year round flows in the bypass reach of 25 cfs to sustain fish habitat.

Table KT-2 Objectives to Preserve and/or Enhance – Recommended Concept

Planning Unit Objective: Preserve and enhance biological and cultural resources, enhance public safety, and evaluate the potential for grazing opportunities.		
Beneficial Public Value	Objective	Potential Measures to Preserve and/or Enhance BPVs – Not Requirements*
Protection of the Natural Habitat of Fish, Wildlife, and Plants	Preserve and enhance habitat in order to protect special biological resources.	<ul style="list-style-type: none"> • Develop a noxious weed management plan for the planning unit consistent with relevant future FERC-required plans. • Develop a wildlife and habitat management plan for the planning unit. • Extend protection measures developed for Shevock’s golden aster onto lands outside the FERC boundary.
Preservation of Open Space	Preserve open space in order to protect natural and cultural resources and viewsheds.	<ul style="list-style-type: none"> • Apply permanent conservation easements to ensure a higher level of open space protection.
Outdoor Recreation by the General Public	Enhance recreational facilities in order to provide safe and appropriate recreation use.	<ul style="list-style-type: none"> • Install signage and fencing at turn-out parking areas.** • Remove and rehabilitate user-created trails at turn-out parking areas.**
Sustainable Forestry		None proposed.
Agricultural Uses	Identify potential grazing opportunities in order to enhance agricultural resources and related economic benefits.	<ul style="list-style-type: none"> • Evaluate the potential for grazing opportunities within the planning unit, in coordination with adjacent grazing operations and the Sequoia National Forest.
Preservation of Historic Values	Identify cultural resources in order to ensure their protection.	<ul style="list-style-type: none"> • Conduct surveys outside the FERC Project APE to identify cultural resources and enable their protection. • Incorporate cultural resource protection measures in conservation easements to protect any cultural resources found in the future. • Coordinate with Native American entities when conducting cultural resource measures.

* This is a set of recommended possibilities for the preservation and enhancement of BPV’s, and is not intended to be a set of requirements for future land management.

** Denotes site specific measure.

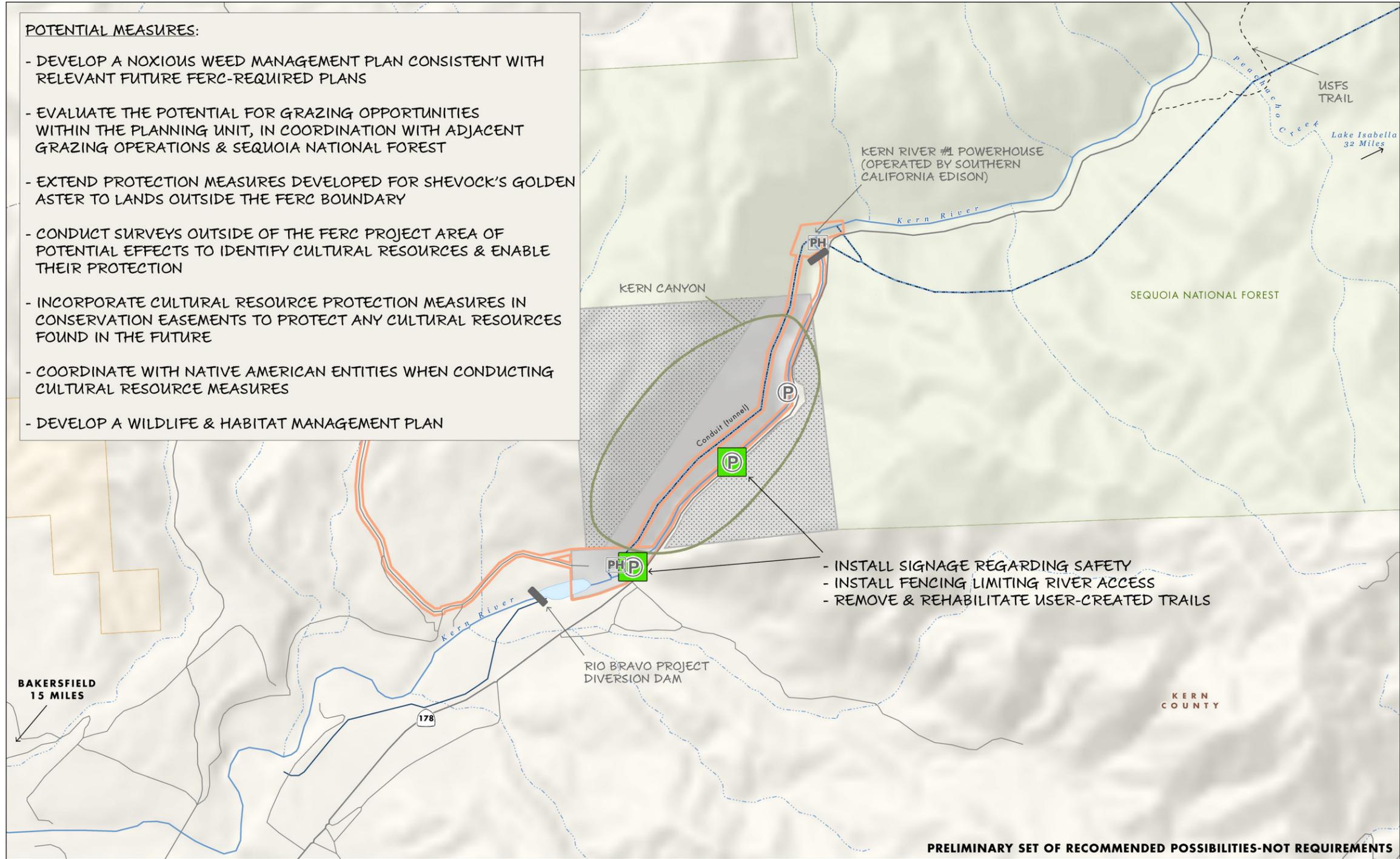
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Kern River Planning Unit Recommended Concept

POTENTIAL MEASURES:

- DEVELOP A NOXIOUS WEED MANAGEMENT PLAN CONSISTENT WITH RELEVANT FUTURE FERC-REQUIRED PLANS
- EVALUATE THE POTENTIAL FOR GRAZING OPPORTUNITIES WITHIN THE PLANNING UNIT, IN COORDINATION WITH ADJACENT GRAZING OPERATIONS & SEQUOIA NATIONAL FOREST
- EXTEND PROTECTION MEASURES DEVELOPED FOR SHEVOCK'S GOLDEN ASTER TO LANDS OUTSIDE THE FERC BOUNDARY
- CONDUCT SURVEYS OUTSIDE OF THE FERC PROJECT AREA OF POTENTIAL EFFECTS TO IDENTIFY CULTURAL RESOURCES & ENABLE THEIR PROTECTION
- INCORPORATE CULTURAL RESOURCE PROTECTION MEASURES IN CONSERVATION EASEMENTS TO PROTECT ANY CULTURAL RESOURCES FOUND IN THE FUTURE
- COORDINATE WITH NATIVE AMERICAN ENTITIES WHEN CONDUCTING CULTURAL RESOURCE MEASURES
- DEVELOP A WILDLIFE & HABITAT MANAGEMENT PLAN



- INSTALL SIGNAGE REGARDING SAFETY
- INSTALL FENCING LIMITING RIVER ACCESS
- REMOVE & REHABILITATE USER-CREATED TRAILS

PRELIMINARY SET OF RECOMMENDED POSSIBILITIES-NOT REQUIREMENTS

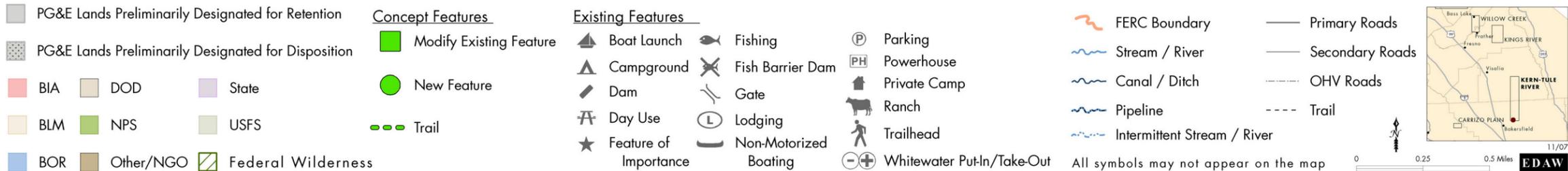


Figure KT-4
KT-18 LCP Volume II

Kern River Planning Unit

Agricultural Uses

Potential Measure:

- *Evaluate the potential for grazing opportunities within the planning unit, in coordination with adjacent grazing operations and the Sequoia National Forest.*

A 100-acre area located on a ridge-top in the northwest portion of the main parcel is adjacent to the Sequoia National Forest. This rolling grassland area is similar in character to the adjacent USFS grazing allotment. The 100-acre area would unlikely be commercially viable for grazing by itself due to the parcel's size, access issues, and limited forage; however, with an adjacent, year-round USFS grazing allotment abutting PG&E property, the potential exists to allow grazing to expand onto planning unit lands. The USFS Oak Flat allotment is grazed by one rancher who owns an adjacent ranch. Opportunity to enlarge the adjacent USFS grazing allotment would be assessed in coordination with the Sequoia National Forest and the current allotment holder. Using grazing as a vegetation management tool could also provide additional benefits for fuel load and habitat management.

Fish, Plant, and Wildlife Habitat

Potential Measures:

- *Develop a noxious weed management plan for the planning unit consistent with the FERC-recommended weed management and vegetation management plan.*
- *Develop a wildlife and habitat management plan for the planning unit.*
- *Extend protection measures developed for Shevock's golden aster onto lands outside the FERC boundary.*

With FERC relicensing nearing completion, numerous assessment studies have been completed on lands within the FERC boundary. In addition, a number of monitoring plans, plant and wildlife surveys, and endangered species protection measures are recommended by FERC to protect native plant and wildlife species. Two measures recommended for the 55 acres within the FERC boundary would be expanded to include the remaining 598 acres of the planning unit. The FERC-recommended weed management and vegetation management plan will address the treatment of noxious weeds within the FERC boundary, which means there is currently no management of noxious weeds outside the FERC boundary. To protect native species, the Stewardship Council recommends developing a noxious weed management plan for lands outside the FERC boundary within the planning unit. This plan will be consistent with the FERC-recommended weed management and vegetation management plan. The second recommended measures would extend protection measures for Shevock's golden aster to the entire planning unit. In addition, the Stewardship Council recommends developing a wildlife and habitat management plan for the planning unit to enhance protection of native plant and wildlife species.

Outdoor Recreation

Potential Measure:

- *Install signage and fencing at turn-out parking areas.*

The fast-flowing waters of the lower Kern River are responsible for numerous drownings. Although even expert boaters are at risk, search and rescue personnel warn, in particular, about swimmers being caught off-guard by the river due to ignorance about the strength of the river and underwater barriers that can trap them. Accident reports describe waders and floaters on tubes being suddenly washed away from what seemed to be safe shallows near shore. Therefore, the Stewardship Council recommends updating infrastructure to enhance safety and limit river access at the two informal turn-out parking areas in the canyon. Installing additional signs, fences, or other barriers would limit river access for potentially dangerous activities such as swimming, wading, or tubing. Signage would warn of safety hazards associated with swift flows while fencing or other barriers would discourage river access. Whitewater boaters generally access this river segment by portaging around the Kern River Powerhouse diversion dam, and thus would continue to have access to the run.

Potential Measure:

- *Remove and rehabilitate user-created trails at turn-out parking areas.*

The relatively few expert boaters that use the Kern River 1 (KR1) whitewater run use informal take-out locations on both sides of the river near the Kern Canyon Powerhouse. Take-outs are found at the roadside parking area along Highway 178 and on the opposite bank immediately below the powerhouse, which is accessed by Rancheria Road. It is believed that the majority of kayakers take-out along Highway 178 by climbing the steep, rocky bank on the user-created switchback trail. The trail is eroding due to its steepness and lack of standard trail design features and is not safe to use. Its presence may encourage sightseers and swimmers to clamber down to the river from the roadside pull-out. The north river bank below the powerhouse is considerably lower and less steep than the south river bank below the Highway 178 parking area. The Stewardship Council recommends closing and rehabilitating the trail, which would require kayakers to utilize the opposite bank take-out below the powerhouse or to continue downstream to the Rancheria Road bridge. Boaters continuing downstream would need to portage around the Rio Bravo Diversion Dam and portage around a brush-choked area about one mile downstream. The river between the Rio Bravo Diversion Dam and the Rio Bravo Powerhouse, two miles downstream, may not be boatable during low flow periods, requiring boaters to take-out at the Kern Canyon Powerhouse.

Preservation of Historic Values

Potential Measures:

- *Conduct surveys outside the FERC Project APE to identify cultural resources and enable their protection.*
- *Incorporate cultural resource protection measures in conservation easements to protect any cultural resources found in the future.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

It is likely that cultural sites exist outside the FERC Project Area of Potential Effects (APE); therefore, the Stewardship Council recommends conducting surveys outside the APE to identify cultural resources and enable their protection. The Stewardship Council also recommends protecting cultural resources through permanent conservation easements that include cultural resource protection measures. Documentation of cultural sites and development of appropriate cultural resource protection measures would be coordinated with Native American entities.

Open Space

Potential Measure:

- *Apply permanent conservation easements to ensure a higher level of open space protection.*

Finally, the Stewardship Council recommends preserving open space values through permanent conservation easements. Conservation easements would describe all prohibited uses to maintain open space values, including the level of uses allowed. No new developments are recommended; therefore, the scenic quality of the river valley and canyon would be protected.

Sustainable Forestry

None recommended.

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