

WISHON RESERVOIR PLANNING UNIT

Kings River Watershed

Existing Conditions & Uses

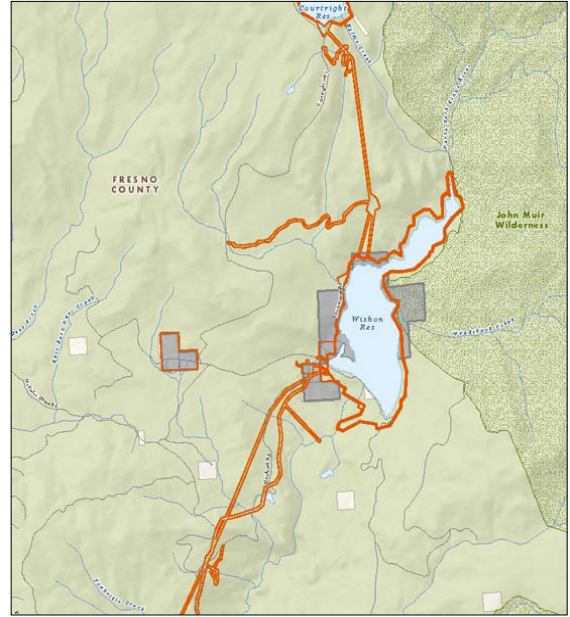
Overview

- High elevation reservoir surrounded by granitic terrain and adjacent to wilderness
- Includes a housing area for PG&E employees and a meadow wildlife mitigation area
- 1,361 acres in Fresno County; 435 acres outside FERC boundaries and 926 acres inside FERC boundaries
- Includes partially overlapping portions of the Haas-Kings River Project (FERC #1988), New License issued 2001; and the Helms Pumped Storage Project (FERC #2735), License Amendment in 1989

The Wishon Reservoir Planning Unit is located within the Sierra National Forest in Fresno County, approximately 60 miles northeast of the City of Fresno. The planning unit includes a large portion of the Wishon Reservoir and the entire Helms housing area and wildlife habitat management area (or wildlife mitigation area), also known as Hall Meadow, approximately three miles west of the reservoir (see Figure KR-1). The area is on the western slope of the Sierra Nevada, within the North Fork Kings



Wishon Reservoir surrounded by granitic rock



Wishon Reservoir Planning Unit
Fresno County

River drainage at elevations ranging from about 6,350 to 7,200 feet above mean sea level. The terrain is mountainous, with many granitic outcrops and steep-walled forested valleys. The area is characterized by cool, wet winters with significant snowfall and warm, dry summers. The planning unit is surrounded by the Sierra National Forest and is sparsely populated with fewer than 100 permanent residents, most of whom are employees of PG&E or their dependents. The closest community, Shaver Lake, is approximately 30 miles to the west.

The planning unit lies within the upstream portion of the Haas-Kings River Project (FERC #1988) and the majority of the Helms Pumped Storage Project (FERC #2735). About 68% of the planning unit is within a FERC Project boundary. The portion outside the FERC boundaries is primarily on the hillslope above the west and east sides of the reservoir. The Helms Pumped Storage Project was originally licensed in 1976; a License Amendment in March 1989 added a PG&E employee housing development consisting of 30 home sites and an 80-acre wildlife habitat management area. A New License for the Haas-Kings River Project was issued in March 2001. As part of the License, six plans were submitted to FERC during the past several years.¹ As part



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of the pumped storage project, Wishon Reservoir is subject to varying water surface levels.² An inactive rock quarry, a remnant from dam construction, is near the Wishon Reservoir boat ramp.

Fish, Plant, and Wildlife Habitat

The planning unit area provides summer and winter habitat for a variety of wildlife species. Special status wildlife species that occur in the area include mountain yellow-legged frog, bald eagle, golden eagle, goshawk, osprey, peregrine falcon, prairie falcon, spotted owl, and willow flycatcher. The USFS has mapped Protected Activity Centers (PACs) for the California spotted owl in surrounding late successional habitat. Historic accounts of species such as Pacific fisher, American marten, great gray owl, Sierra Nevada red fox, and wolverine, have been recorded within the region. PG&E assisted DFG with monitoring for furbearers (fishers, martens, and wolverines) at snow survey locations during the 2005/2006 winter season as recommended by the Helms Project Wildlife Management Team. The reservoir and area streams support a coldwater fishery consisting of brown, rainbow, and brook trout, but no special status species.

One special status plant species is located within the planning unit; Bolander's clover has been mapped within the Helms housing parcel area (Hall Meadow). Prescriptions for the management of Hall Meadow until 2027 are detailed in the 1991 Wildlife Habitat Management Plan that is part of the Helms Pumped Storage FERC Project License Amendment. Measures in the plan include tree and shrub planting and other vegetation management, vehicle exclusions, transmission line modifications, and an Environmental Awareness Program for PG&E employees.

Open Space

The rugged undeveloped shoreline lands within the planning unit, as well as Hall Meadow, provide open space and viewshed values for

visitors and residents in this scenic high elevation landscape.

Outdoor Recreation

The reservoir provides boating and fishing opportunities and is a staging area for trips to the surrounding wilderness, in particular the John Muir Wilderness to the east. A paved road provides public access to Wishon Reservoir in the summer, and recreation facilities are located mostly on the west and south sides of the reservoir and below the dam. PG&E manages most of the recreation facilities, including a boat ramp and several fishing access and day use areas on the shoreline, and a campground immediately downstream of the reservoir.³ The only facility within the Wishon Reservoir area that is managed by the USFS is the Woodchuck trailhead, which provides access into the John Muir Wilderness and is located below the dam (see Figure KR-1).

The upland areas around the reservoir, outside the FERC boundaries, are inaccessible due to the rugged terrain. The area south of Lily Pad Campground, below the reservoir, is used as a spray-field and is equally difficult to access. The Hall Meadow parcels are only accessible to PG&E employees housed there and the Helms Project Wildlife Management Team that oversees the wildlife habitat management area. Other recreational facilities in the area include Wishon



Penstemon growing near Wishon Reservoir

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Wishon Reservoir Dam sign

Village, a privately-owned RV park, located just west of Wishon Reservoir. Total recreational use in the area was estimated at 15,500 visitor days per year.

Forest Resources

Forestry is one of the main land uses of the surrounding area and there is one PG&E Timber Management Unit (TMU) in the planning unit. The Wishon Reservoir TMU consists of 126 timbered acres. Forest species within the planning unit include red fir, white fir, Jeffrey pine, sugar pine, and lodgepole pine. The TMU is managed under a Salvage prescription, meaning that timber management activities are restricted to mitigating for watershed and forest health issues, including emergency salvage harvesting following insect attack or a catastrophic event. The Helms housing and wildlife mitigation area parcels are not part of a TMU.

Agricultural Uses

Grazing opportunities around the Wishon Reservoir are limited due to poor soil condition. However, three USFS grazing allotments of approximately 690 acres each cover the entire area around Wishon Reservoir and beyond. According to the USFS and PG&E, grazing allotments in the project vicinity will be reviewed before being renewed in 2007.

Historic Resources

Several cultural sites are present in the planning unit, mostly within the Hall Meadow parcels. Seven archaeological sites have been identified within or adjacent to the housing area. Two subgroups of the Western Mono Tribe historically occupied portions of the North Fork Kings River basin. Although a recent ethnographic investigation of the Haas-Kings River Project area did not identify any specific cultural sites associated with the Western Mono that would be eligible for NRHP listing, the study and comments from tribe members indicate that the Western Mono consider the North Fork Kings River drainage as part of their traditional territory.

Traditional botanical and wildlife resources also exist within the FERC boundaries. The areas outside the FERC boundaries may hold additional resources as they have not been surveyed. As part of the Haas-Kings River Project Cultural Resources Management Plan (CRMP), PG&E proposed including representatives of the Western Mono in any archeological research and interpretation programs involving Native American history occurring within the FERC boundaries. PG&E lists an old mining claim to the east of Wishon Reservoir as a cultural resource (outside the FERC boundary).



Rocky west shore waterfront

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Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at the Wishon Reservoir Planning Unit be preserved and enhanced by focusing on the need to provide ongoing protection for natural and cultural resources. In presenting the Recommended Concept provided here, our objective is to protect biological and cultural resources, ensure appropriate fuel load management, and assess trail opportunities. The number of recommended enhancement measures is relatively low due to the numerous plans and actions to protect and enhance resources that have already been stipulated in the existing FERC Licenses. The recommended measures are intended to compliment these existing plans and actions. We encourage close coordination with PG&E, the USFS, the Helms Project Wildlife Management Team, and others engaged in implementation of FERC license required management and monitoring plans.

Objective: Preserve and enhance biological and cultural resources, enhance recreation opportunities and fuels management.

As shown on Table KR-1, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Wishon Reservoir 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.



Juniper snag on the west shore

Fish, Plant, and Wildlife Habitat

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

The planning unit provides high elevation terrestrial and aquatic habitat for a variety of special status species. Additionally, 80 acres of the Hall Meadow area are designated as a wildlife habitat management area. In order to preserve and enhance the habitat and resources found here, the Stewardship Council recommends that baseline studies and plans be developed to gain a clear understanding of the resources (particularly outside FERC boundaries where little information is currently available). These studies will likely be followed by management plans to ensure implementation of preservation and enhancement measures for specific resources. Management of the property to preserve and enhance habitat will also include addressing noxious weeds. The Stewardship Council encourages close coordination with the USFS, Helms Project Wildlife Management Team, and other resource-

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focused organizations working in the region. All planning should be considered in conjunction with the fuels management plan and should be consistent with relevant FERC license required management and monitoring plans.

Open Space

Objective: Preserve open space in order to protect natural and cultural resources, viewsheds, and the wilderness character of the region.

The open space resource at Wishon Reservoir is an important component of the natural viewshed for the lightly developed reservoir and the surrounding wilderness areas. This concept would preserve open space 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: Assess trail opportunities in order to provide additional recreation opportunities and enhance site connectivity.

Wishon Reservoir provides opportunities for boating, fishing, and shoreline recreation in a



Fishing & relaxing at Wishon Reservoir

beautiful high country setting. The potential to enhance recreation values is limited, as the surrounding lands are mostly inaccessible and planning unit recreation facilities are in the process of being updated and have been shown to meet demand. However, as shown in Figure KR-2, the Stewardship Council looks to enhance recreation opportunities by recommending assessment of the potential for a scenic vista trail on the upland area above the western shore of the reservoir. The trail would connect existing fishing and day use areas on the shore. The rugged granite hillside may be too steep for a trail, but if feasible, it would provide scenic views and enhance the opportunity to actively experience the high country. A portion of the potential trail would cross USFS land, thus planning and implementation would have to be coordinated with the USFS.

Sustainable Forestry

Objective: Develop and implement forestry practices in order to ensure appropriate fuel load management.

Though forest resources within the planning unit are sparse, they surround some recreation facilities and the Helms housing area. Due to the presence of recreation and residential developments in the area, the Stewardship Council recommends that future care and management of the land include developing a fuels management plan. The fuels management plan should be developed in conjunction with the noxious weed and wildlife and habitat management plans. We expect that all of these plans would be developed in coordination with USFS management and practices as appropriate.

Preservation of Historic Values

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

There are several known cultural sites within FERC boundaries, and areas outside the boundaries likely contain additional cultural

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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 in the Wishon Reservoir Planning Unit (particularly outside the FERC boundaries where less information is available), and that appropriate management plans be developed and implemented. Throughout this effort, the Stewardship Council recommends close coordination with Native American entities. Development of the cultural resources management plan should be consistent with the existing Haas-Kings River Project CRMP.

Endnotes

¹ In 2002, the following five plans were submitted: Visual Resources Plan, Fisheries Monitoring Plan, Wildlife Mitigation Plan, Hazardous Substance Plan, and a Transportation System Management Plan. An associated Recreation Plan was approved by FERC in May 2004.

² Flow is diverted from Courtright Reservoir through a tunnel to the power plant that generates electricity during peak power demand, and discharges water into Wishon Reservoir. During periods of low power demand, reversible turbines pump water from Wishon Reservoir to Courtright Reservoir.

³ All PG&E managed recreation facilities are located within the Haas-Kings River Project FERC boundary and are addressed in the 2004 Recreation Plan, which identified the type and layout of recreation facilities to be constructed at Wishon Reservoir as required by the New License. These include fishing platforms, a pathway accessible to persons with disabilities, an open-air visitor information center, improved signage, and the development of a Wishon Visitor Information Service. According to consultation meeting documents, the implementation process is ongoing.



Face of Wishon Reservoir Dam

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Table KR-1 Objectives to Preserve and/or Enhance – Recommended Concept

Planning Unit Objective: Preserve and enhance biological and cultural resources, enhance recreation opportunities and fuels management.		
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.	- Conduct surveys of lands outside the FERC boundaries to identify biological resources and enable their protection. - Develop a wildlife and habitat management plan for the planning unit, consistent with the Helms-Pumped Storage and Haas-Kings River management plans. - Develop a noxious weed management plan for the planning unit.
Preservation of Open Space	Preserve open space in order to protect natural and cultural resources, viewsheds, and the wilderness character of the region.	Apply permanent conservation easements to ensure a higher level of open space protection.
Outdoor Recreation by the General Public	Assess trail opportunities in order to provide additional recreation opportunities and enhance site connectivity.	Assess developing a scenic vista loop trail on the upland area of the western shore of Wishon Reservoir that would connect the picnic area with the fishing access.**
Sustainable Forestry	Develop and implement forestry practices in order to ensure appropriate fuel load management.	Develop a fuels management plan to ensure long-term forest health and reduce fuel loading and fire hazard throughout the planning unit.
Agricultural Uses		None proposed.
Preservation of Historic Values	Identify and manage cultural resources in order to ensure their protection.	- Conduct surveys of lands outside the FERC boundaries to identify cultural resources and enable their protection. - Develop a cultural resources management plan for the area not included in the Haas-Kings River Project CRMP. - 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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Wishon Reservoir Planning Unit
Recommended Concept

- POTENTIAL MEASURES:
- DEVELOP A WILDLIFE & HABITAT MANAGEMENT PLAN FOR THE PLANNING UNIT, CONSISTENT WITH THE HELMS-PUMPED STORAGE & HAAS-KINGS RIVER MANAGEMENT PLANS
 - DEVELOP NOXIOUS WEED MANAGEMENT & FUELS MANAGEMENT PLANS
 - CONDUCT SURVEYS OF LANDS OUTSIDE THE FERC PROJECT BOUNDARIES TO IDENTIFY BIOLOGICAL & CULTURAL RESOURCES & ENABLE THEIR PROTECTION
 - DEVELOP A CULTURAL RESOURCES MANAGEMENT PLAN FOR THE AREA NOT INCLUDED IN THE HAAS-KINGS RIVER PROJECT CULTURAL RESOURCES MANAGEMENT PLAN
 - COORDINATE WITH NATIVE AMERICAN ENTITIES WHEN CONDUCTING CULTURAL RESOURCE MEASURES

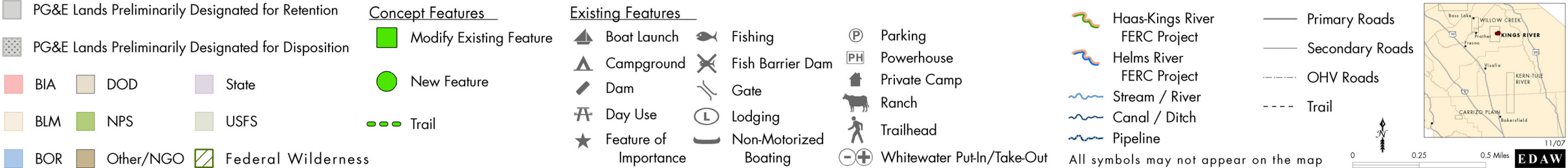
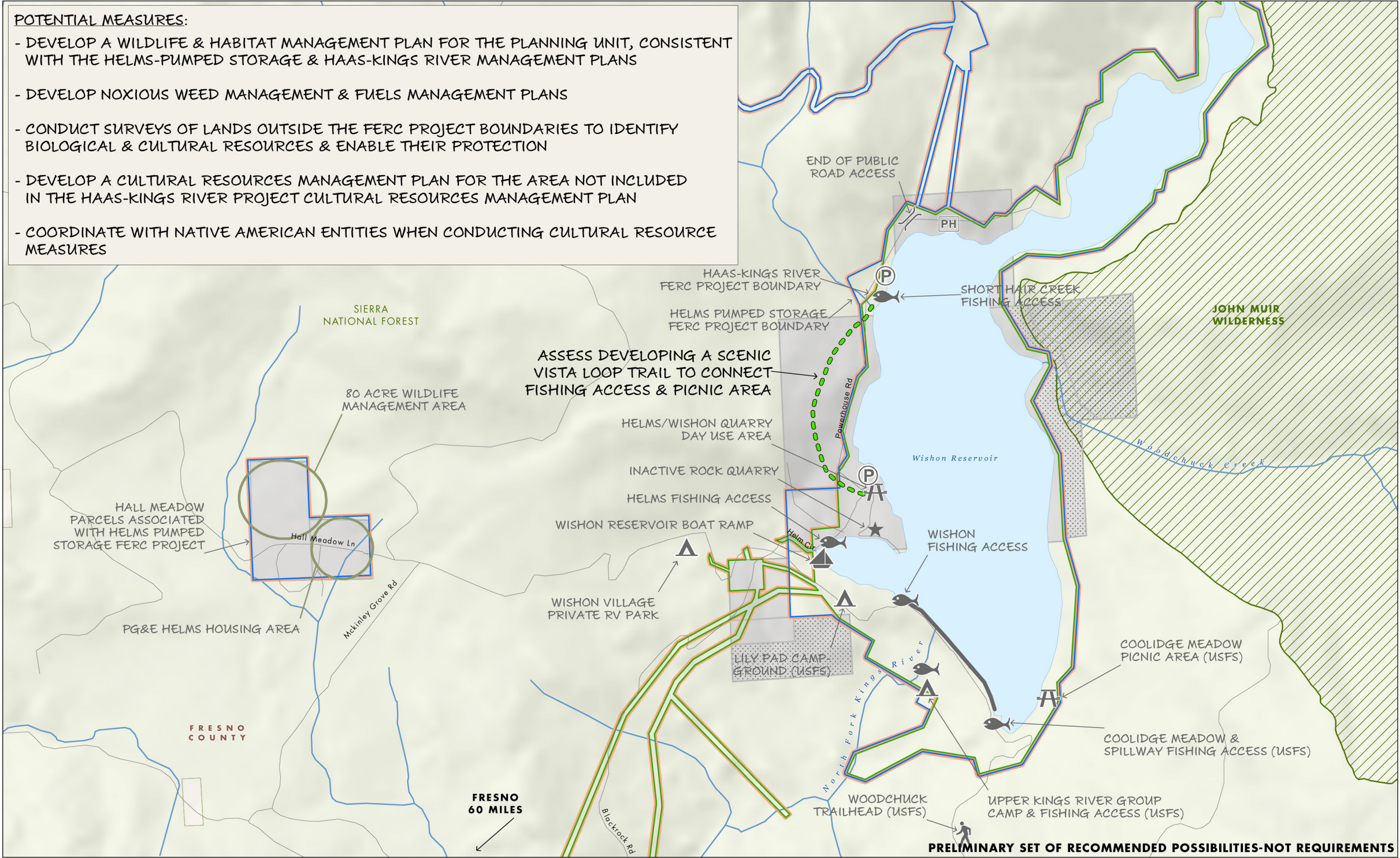


Figure KR-2

Wishon Reservoir Planning Unit

Preservation of Historic Values

Potential Measures:

- *Conduct surveys of lands outside the FERC boundaries to identify cultural resources and enable their protection.*
- *Develop a cultural resources management plan for the area not included in the Haas-Kings River Project CRMP.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

There are few known cultural sites immediately around Wishon Reservoir; however, only the shoreline that lies within the FERC boundary was surveyed for cultural resources. Prehistoric sites were also recorded within the Helms-Pumped Storage FERC boundary (Hall Meadow); however, they do not appear to be subject to a cultural resources management plan or other formal protection. These lands are within the territory of the Western Mono, who are concerned about treatment of archeological resources and prefer minimal disturbance to prehistoric sites. In addition to surveying the land for cultural resources, the Stewardship Council recommends developing a cultural resources management plan for the area not included in the Haas-Kings River Project Cultural Resources Management Plan (CRMP). Development of the cultural resources management plan should be consistent with the Haas-Kings River Project CRMP and should be coordinated with Native American entities. No measure is recommended for the potentially historic mining claim on the eastern slope of Wishon Reservoir, unless surveys show a need for protection.

Fish, Plant, and Wildlife Habitat

There is some specific knowledge of biological resources in the area, especially regarding special status species such as the willow flycatcher, which is found in the area southwest of the Wishon Dam and Hall Meadow parcels. Eighty acres of the Hall Meadow area are designated as a wildlife habitat management area. Prescriptions for the management of this area until 2027 are detailed in the 1991 Wildlife Habitat Management Plan that is part of the Helms Pumped Storage FERC Project License Amendment. The plan includes new plantings of oaks and shrubs which have been fenced for protection from grazing or other disturbances. Further measures in the plan include increasing the cover and species diversity at the edges of forest, meadows, and streams by planting willow, alder, aspen, and dogwood; and increasing the density of conifer snags. Maintenance consists of supplemental watering, periodic pruning or thinning, and additional planting to achieve planting goals. Other measures in the plan pertain to the transmission lines that traverse the parcel; these needed to be redesigned and constructed to protect raptors from electrocution, and the transmission line right-of-way was closed to any vehicular use, except for maintenance. The plan also requires an Environmental Awareness Program for PG&E employees, which has been well received by the employees. Other related plans that may provide a basis for additional measures are the Wildlife Mitigation, Visual Resources, and Fisheries Monitoring Plans of the Haas-Kings River FERC Project.

Potential Measures:

- *Conduct surveys of lands outside the FERC boundaries to identify biological resources and enable their protection.*
- *Develop a wildlife and habitat management plan for the planning unit, consistent with the Helms-Pumped Storage and Haas-Kings River management plans.*
- *Develop a noxious weed management plan for the planning unit.*

The Stewardship Council recommends surveying lands outside the FERC boundaries to identify biological resources and enable their protection. Areas within the FERC boundaries that have not been previously surveyed could also be included in the recommended surveys. Furthermore, appropriate prescriptions to enhance biological resources would be developed and captured in a wildlife and habitat management plan consistent with the existing FERC license required management and monitoring plans. The Stewardship Council recommends developing a noxious weed management plan for planning unit lands that are not already included in existing FERC prescriptions to control existing infestations of noxious weeds where possible and implement preventative actions to minimize the spread of weeds in the future. This plan would provide for consistency in management of noxious weeds with adjacent management and should be coordinated with the USFS. These measures would ensure that habitat-enhancing prescriptions would be similarly extended to include all lands within and outside the FERC boundaries.

Outdoor Recreation

Potential Measure:

- *Assess developing a scenic vista loop trail on the upland area of the western shore of Wishon Reservoir that would connect the picnic area with the fishing access.*

The potential to enhance recreation opportunities is limited, as the lands outside the FERC boundary are mostly inaccessible and according to the 2003 Recreation Monitoring Report, recreation facilities at the project are adequate. Also, the recreation facilities within the planning unit are in the process of being updated, and the need for further enhancement in the area is low. However, the Stewardship Council recommends developing a scenic vista trail to allow enhanced public access to lands outside the FERC boundaries above the reservoir. The trail is suggested as a 2.4-mile loop trail between the parking lots of the Helms/Wishon Quarry Picnic Area and the Short Hair Creek Fishing Access along the western side of the reservoir. The rugged granite hillside may be too steep for a trail, but if feasible, it would provide scenic views and enhance the opportunity to actively experience the high country. Adequate parking would be available at both locations and allow for an alternate pedestrian connection between the two recreation facilities. A portion of the potential trail near the Short Hair Creek Fishing Access would cross USFS land, thus planning and implementation would have to be coordinated with the USFS.

Sustainable Forestry

Potential Measure:

- *Develop a fuels management plan to ensure long-term forest health and reduce fuel loading and fire hazard throughout the planning unit.*

Forest resources in the planning unit's Timber Management Unit (TMU) make up only about 10% of the planning unit. Most other lands around the reservoir are sparsely vegetated,

inaccessible, and/or are part of the reservoir's viewshed; thus, there is low potential to enhance or increase management. The most densely timbered lands in the planning unit are in the Hall Meadow/Helms housing area; however, those parcels are not part of a TMU because they are managed for other uses (residential and wildlife habitat mitigation). To ensure appropriate long-term forest health and reduce fuel loading and fire hazard, the Stewardship Council recommends developing a fuels management plan consistent with USFS fuels reduction projects to ensure consistent management and maintenance of habitat connectivity.

Open Space

Potential Measure:

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

Open space protection would be addressed through conservation easements, although there is little threat of development at present. There are no plans to increase recreation development within the planning unit and surrounding lands are managed by Sierra National Forest for their viewshed and habitat value. Nevertheless, conservation easements would limit future development and preserve open space in the planning unit.

Agricultural Uses

None recommended.