

BEAR RIVER PLANNING UNIT

Yuba-Bear River Watershed

Existing Conditions & Uses

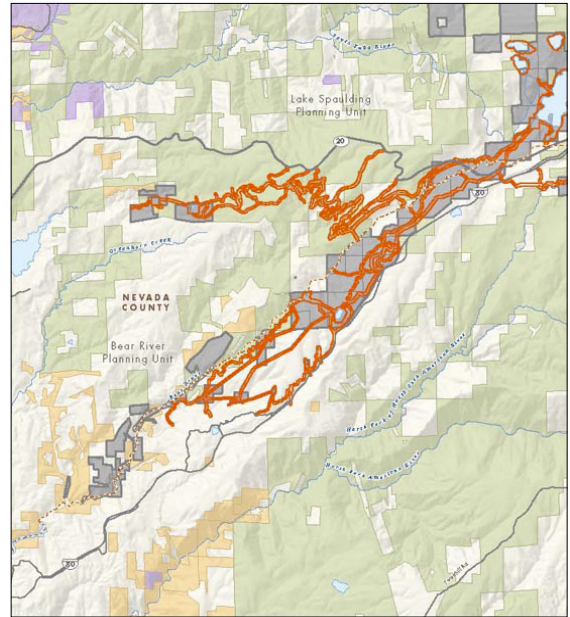
Overview

- Forestlands in the Sierra Nevada extending from the montane meadow of Bear Valley to the densely forested slopes of Bear Canyon
- 6,758 acres in Nevada and Placer Counties; 6,141 acres outside the FERC boundary and 617 acres inside the FERC boundary
- Part of the Drum-Spaulding Project (FERC # 2310); License expires in 2013, relicensing expected to begin in 2007

As shown in Figure YB-5, the Bear River Planning Unit parallels the Interstate 80 corridor, crossing a montane meadow, densely forested canyons, and a landscape transformed by historic hydraulic gold mining. With an elevation range of 2,400 to 5,200 feet, the Bear River Planning Unit is located 20 miles north of the historic mining city of Auburn. This planning unit is within the FERC Drum-Spaulding Project and contains several hydropower facilities, including six powerhouses (two of which are owned and operated by the Nevada Irrigation District), and associated infrastructure such as canals and flumes. The Bear River Planning Unit is



Bear Valley meadow



Bear River Planning Unit
Nevada & Placer Counties

primarily surrounded by a mixture of private, BLM, and USFS lands.

Fish, Plant, and Wildlife Habitat

The Bear River Planning Unit offers a diversity of habitat for flora and fauna. Sierra Nevada mixed conifer forest dominates the planning unit from Bear Canyon to the slopes of Bear Valley. The montane meadow of Bear Valley offers stunning seasonal displays of native wildflowers and a high diversity of butterfly species. Within Bear Valley, both the meadow and wetlands provide potentially suitable habitat for special status species such as the willow flycatcher and mountain yellow-legged frog. Additionally, the river and stream systems of the planning unit provide potential habitat for the foothill yellow-legged frog. Both special status frog species occur in the region.

North of Bear Valley, there are four scenic and biologically important glacial ponds surrounded by old-growth ponderosa pines. Wildlife observed at these ponds include western pond turtle, night hawk, and mountain lion.

As shown in Figure YB-5, the Bear River runs the length of the planning unit and provides

Bear River Planning Unit Existing Conditions

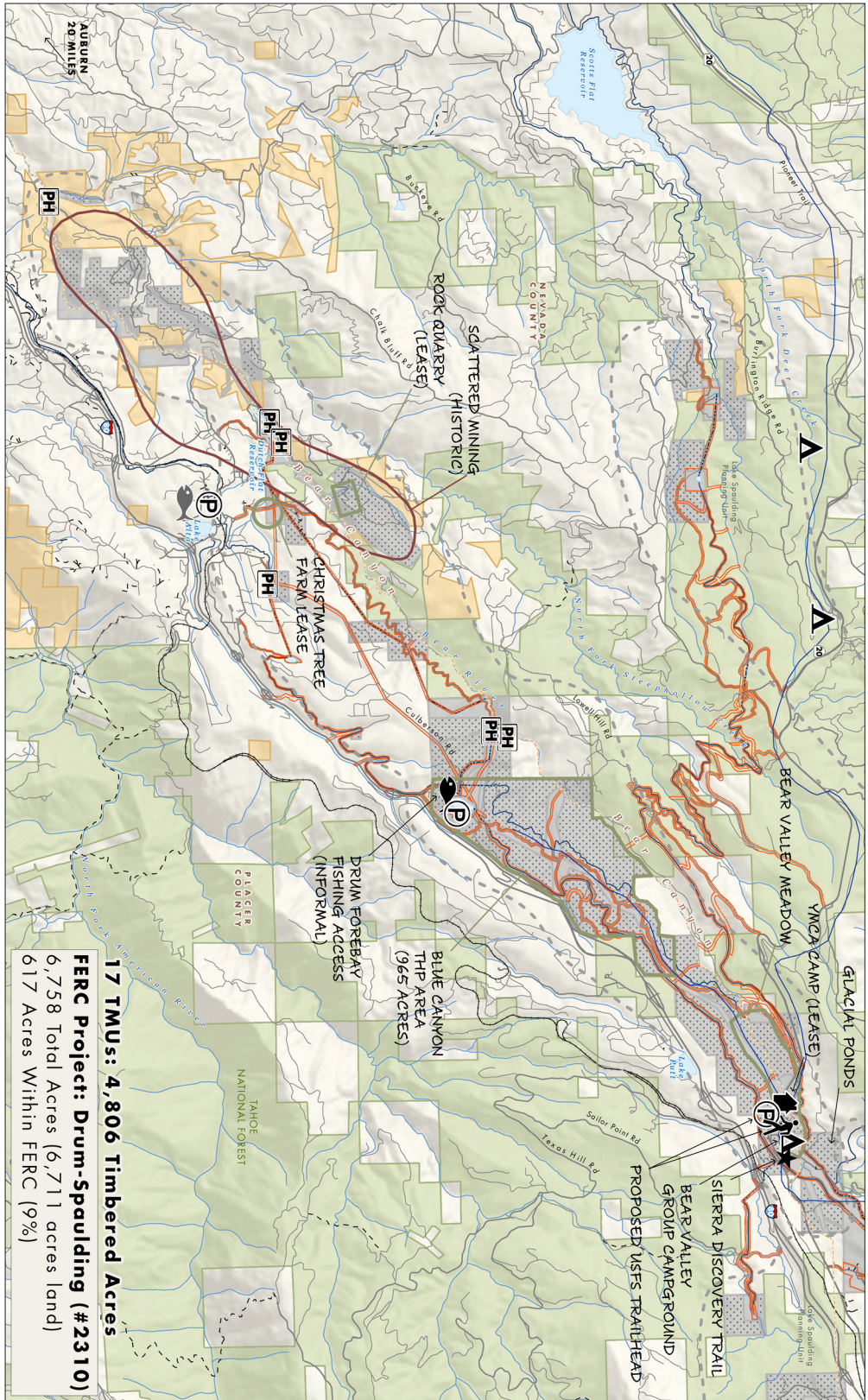
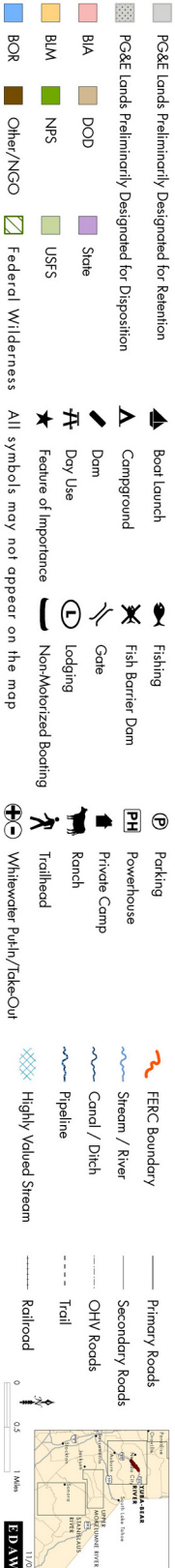


Figure YB-5

BEAR RIVER PLANNING UNIT

Yuba-Bear River Watershed

coldwater stream habitat for rainbow trout in the meadow reach and both rainbow and brown trout in the Bear Canyon reach. Much of the land within the Bear River Planning Unit serves as a migratory corridor and winter range for regional deer populations. Additionally, the forestlands of the planning unit offer potential habitat for California spotted owl. The USFS has mapped California spotted owl Protected Activity Centers (PACs) southwest of Bear Valley and this special status species may also use adjacent planning unit forestlands.

While extensive surveys for biological resources have not been conducted within the planning unit, a number of special status plant and wildlife species have been recorded. The two recorded special status plant species are Sheldon's sedge and simple androsace and the two recorded wildlife species are Button's Sierra sideband snail and coast horned lizard. Other special status species that have the potential to occur in the planning unit include Brandegee's clarkia, elongate copper-moss, peregrine falcon, northern goshawk, and osprey.

The non-profit organization Granite Bay Flycasters has worked to improve riparian habitat along Bear River, in cooperation with DFG and with the support of PG&E. Restoration activities included capturing sediment loads, re-establishing an oxbow, and planting native vegetation, such as willows, alders, and sedges, to recolonize the riparian corridor.

Open Space

The relatively remote character of Bear Canyon, the rocky, densely forested canyon that bisects the planning unit, and the montane meadow and wetlands of Bear Valley have helped maintain the open space value of the area and surrounding lands.

Outdoor Recreation

As shown in Figure YB-5, the majority of the recreation facilities in this planning unit

are located near the montane meadow of Bear Valley. The PG&E Bear Valley group campground offers a site for 100 day use and 50 overnight visitors. Facilities at the camp include a volleyball area, horseshoe pits, group fire ring, a large covered kitchen prep area, and two large grills. Further south, one informal fishing access with parking is found at Drum Forebay.

Nearby, the Sierra Discovery Trail, an interpretive 0.7-mile loop trail, snakes through the forest along the Bear River, leading to a small waterfall. A covered kiosk with large educational panels provides visitors with information on such topics as the Gold Rush, local Native Americans, and conservation. Along the trail, illustrated placards identify native flora and fauna, providing opportunities for visitors to familiarize themselves with the surrounding environment. Picnic sites, restroom facilities, and a small amphitheater are also found at the Sierra Discovery Trail facility.

Additional recreation activities can be found near Bear Valley. The USFS Pioneer Trail extends from the Lake Spaulding area to Nevada City, crossing the Bear River Planning Unit near the PG&E Bear Valley group campground. The trail is open to horseback riding, hiking, jogging, and mountain biking. It is closed to motorized vehicles, but there have been reports that unauthorized OHV use has occurred along this trail and within the Bear Valley meadow. OHV enthusiasts can utilize Lowell Hill Road for off-road riding.



Larkspur & grasses in Bear Valley meadow

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Bear Valley meadow & mixed conifer forest

As shown in Figure YB-5, PG&E manages four leases within the Bear River Planning Unit. In Bear Valley, Nevada Irrigation District (NID) holds a lease for a caretaker home. In the Dutch Flat Reservoir area, there are two leases, one for a Christmas tree farm and another for a rock quarry. The fourth lease is for the Bear Valley Camp, operated by the YMCA of Greater Sacramento.

Forest Resources

Years of fire suppression have generated a landscape heavily stocked with forest resources. PG&E has divided 4,806 timbered acres into 17 Timber Management Units (TMUs). These lands are managed under both Multiple-Use and Sustainable Timber Management prescriptions. Under the Multiple-Use prescription, sustained timber production is balanced with the goal of protecting and using other resources and facilities in the TMU, which may preclude timber harvesting as the primary focus. Under the Sustainable Timber Management prescription, the principal activity is timber extraction with an emphasis on protecting water quality, wildlife and fisheries habitat, soils, carbon sequestration, and cultural resources.

The majority of the Drum-Spaulding FERC Project area, which includes the Bear River Planning Unit, has been harvested within the last 15 years. Most recently, under the Blue Canyon Timber Harvesting Plan, prepared in 2001, 965

acres of timber was extracted¹ (see Figure YB-5). Appropriate measures were taken to ensure forest regeneration and protection of wildlife habitat.

Agricultural Uses

Currently, there is no grazing use within the Bear River Planning Unit. About 500 to 600 acres of meadowlands in Bear Valley were once grazed by cattle from the 1930s to the early 1990s. PG&E discontinued these leases and has since focused on restoration of the area, which has led to improved species diversity and habitat.

Historic Resources

The imprint of Native American culture is evident in the Bear River Planning Unit. The Maidu, Washoe, and Nisenan-Southern Maidu groups are historic inhabitants of the area and have expressed interest in the lands of the Drum-Spaulding FERC Project. Cultural resources found in the planning unit include petroglyphs and lithic scatters.

California's pioneer past and historic mining activities are also apparent in the planning unit. Wide swaths of land in the southern portion of the planning unit have been altered by large-scale hydraulic mining operations, resulting in a landscape strewn with massive piles of rock and mining debris.

Though cultural resource survey coverage is incomplete, a total of 16 archaeological sites have been found in the vicinity of the planning unit. Half of the sites are prehistoric and half are historic. The majority of the historic sites are related to the rich mining and pioneer history that facilitated development of the area, such as the Emigrant Gap.

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Yuba-Bear River Watershed

Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at the Bear River Planning Unit be preserved and enhanced by focusing on sustainable forestry, biological and cultural resource protection, public access, and recreation. In presenting the Recommended Concept provided here, our objective is to preserve and enhance habitat, open space, recreation, and cultural resources while also protecting and preserving important forest resources. We recommend this effort be conducted in close coordination with PG&E and the upcoming FERC relicensing efforts for the area.

Objective: Preserve and enhance biological and cultural resources, as well as enhance recreation opportunities and sustainable forestry management.

As shown on Table YB-3, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Bear 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.

Fish, Plant, and Wildlife Habitat

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

The Bear River Planning Unit offers diverse and high value habitat within its thickly forested

canyons, montane meadows, reservoirs, glacial ponds, and riparian corridor. 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 the relicensing study area where little information is currently available or will be provided by relicensing studies). 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 recommends supporting Bear Valley meadow and riparian restoration efforts and encourages close coordination with the USFS and other resource-focused organizations working in the region. All planning should be considered in conjunction with the fuels, forest, and recreation management plans, as well as future FERC license required plans.

Open Space

Objective: Preserve open space in order to protect natural and cultural resources, the wilderness character of the region, and continued low intensity recreation experiences.



Stewardship Council Board Members in Bear Valley

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This concept would preserve open space by limiting the construction of human-made features to low impact recreation improvements, 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 in this unique location in the Sierra Nevada.

Outdoor Recreation

Objective: Enhance recreational facilities in order to provide additional education and recreation opportunities.

Recreation opportunities in this scenic setting include camping, fishing, horseback riding, mountain biking, and hiking. Located near the Tahoe National Forest and with easy access from Interstate 80, this planning unit has the potential to provide additional recreation facilities. As shown in Figure YB-6, the Stewardship Council looks to enhance these opportunities by recommending additional day use facilities, educational opportunities, and enhanced management of recreation uses. We recommend enhancements focused on additional fishing and wildlife viewing facilities, increased opportunities for youth education and recreation, and enhanced recreation and unauthorized use management. We recommend these enhancements be considered in close cooperation with PG&E as well as upcoming FERC relicensing efforts and related recreation planning.

Sustainable Forestry

Objective: Develop and implement forestry practices in order to contribute to and promote sustainable forestlands, preserve and enhance habitat, as well as to ensure appropriate fuel load and fire management.

The Bear River Planning Unit is heavily forested and has nearly 5,000 acres of managed

forestlands, much of which are located in the Bear River Canyon. The Stewardship Council recommends that future care and management of the property include developing a long-term vision for forest management in the area which addresses silvicultural practices, holistic watershed management, habitat connectivity, fuels management, and fire management and response. Additionally, the Stewardship Council recommends assessing the potential to develop a demonstration forest to promote sustainable forestry research and management. The fuels, fire management and response, and forest management plans should be developed in conjunction with the noxious weed, recreation, and wildlife and habitat management plans, as well as future FERC license required plans. We expect that all of these plans would be developed in coordination with management and practices of the USFS and Placer and Nevada Counties, as appropriate.

Preservation of Historic Values

Objective: Identify and manage cultural resources in order to ensure their protection, as well as to support opportunities for public education.

Native Americans and early California pioneers were once inhabitants of the area and various cultural resources have been found within the Bear River Planning Unit. The Stewardship Council aims to support an increased understanding of these resources and ensure



Rock quarry lease site

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they are appropriately protected. To meet this objective, we recommend that cultural resource studies be conducted to understand the resources found at the Bear River Planning Unit (particularly outside the relicensing study area where less information is available or will be provided by relicensing studies), and that appropriate management plans be developed and implemented. The Stewardship Council recommends that opportunities to support public education regarding cultural resources be considered, including development of a cultural kiosk at the Bear Valley Day Use Area. Throughout this effort, the Stewardship Council recommends close coordination with Native American entities, as well as PG&E and upcoming FERC relicensing efforts.

Endnote

¹ The Blue Canyon Timber Harvesting Plan extracted timber on six TMUs managed under a Multiple-Use prescription, primarily from areas of gentle slope (<30%) in second-growth Sierra Nevada mixed conifer forest. This harvest included a fuel break between Interstate 80 and the transmission lines that run adjacent to the Drum Canal.

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Table YB-3 Objectives to Preserve and/or Enhance – Recommended Concept

Planning Unit Objective: Preserve and enhance biological and cultural resources, as well as enhance recreation opportunities and sustainable forestry 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.	<ul style="list-style-type: none"> • Conduct surveys outside the relicensing study area to identify biological resources and enable their protection. • Develop a wildlife and habitat management plan in coordination with adjacent landowners. • Develop a noxious weed management plan in coordination with noxious weed abatement efforts. • Support efforts to restore meadow and riparian areas of Bear Valley in coordination with interested stakeholders.
Preservation of Open Space	Preserve open space in order to protect natural and cultural resources, the wilderness character of the region, and continued low-intensity recreation experiences.	<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 additional education and recreation opportunities.	<ul style="list-style-type: none"> • Develop a recreation management plan for lands outside the FERC boundary. • Develop a day use area with fishing access and a wildlife viewing platform in Bear Valley.** • Assess the potential for youth program opportunities. • Identify and disclose unauthorized uses and develop strategies to address future management and/or eradication. • Expand and integrate the trail network in the area to enhance recreation opportunities in coordination with the USFS.
Sustainable Forestry	Develop and implement forestry practices in order to contribute to and promote sustainable forestlands, preserve and enhance habitat, as well as to ensure appropriate fuel load and fire management.	<ul style="list-style-type: none"> • Evaluate existing timber inventory data and supplement as appropriate. • Develop a forest management plan for the planning unit to promote natural forest development and structural and physical diversity in forests for long-term ecological, economic, social, and cultural benefits. • Develop a fire management and response plan for the planning unit in coordination with adjacent landowners to ensure fire preparedness. • Develop a fuels management plan for the planning unit to ensure long-term forest health and reduce fuel loading and fire hazard. • Assess the potential to develop a demonstration forest for sustainable forestry research and management.
Agricultural Uses		None proposed.
Preservation of Historic Values	Identify and manage cultural resources in order to ensure their protection, as well as to support opportunities for public education.	<ul style="list-style-type: none"> • Conduct surveys outside the relicensing study area to identify cultural resources and enable their protection. • Develop a cultural resources management plan for the planning unit. • Install a cultural kiosk at the Bear Valley day use area to promote Native American culture and history.** • 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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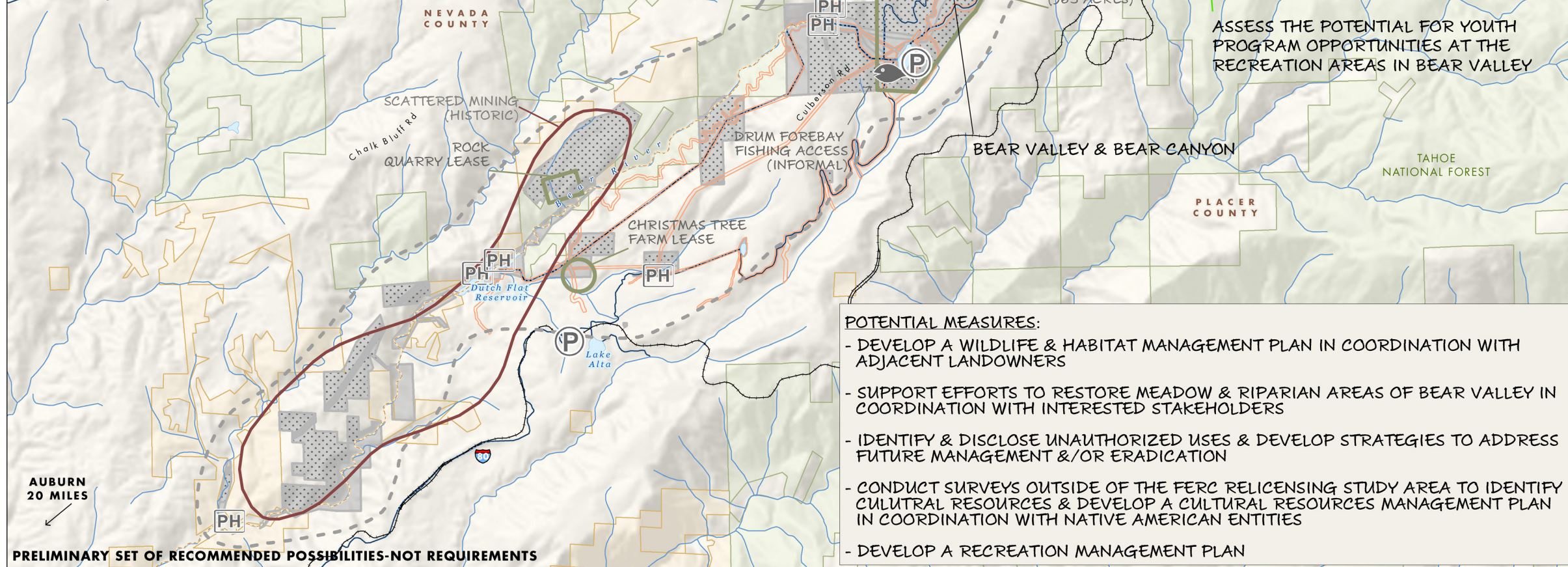
Bear River Planning Unit Recommended Concept

- POTENTIAL MEASURES:**
- EVALUATE EXISTING TIMBER INVENTORY DATA & SUPPLEMENT AS APPROPRIATE
 - DEVELOP A FOREST MANAGEMENT PLAN TO PROMOTE NATURAL FOREST DEVELOPMENT & STRUCTURAL & PHYSICAL DIVERSITY IN FORESTS
 - DEVELOP A FUELS MANAGEMENT PLAN, FIRE MANAGEMENT & RESPONSE PLAN & NOXIOUS WEED MANAGEMENT PLAN
 - PROMOTE FOREST CONNECTIVITY IN COORDINATION WITH ADJACENT LANDOWNERS, ESPECIALLY ABUTTING USFS SPOTTED OWL PROTECTED ACTIVITY CENTERS
 - ASSESS THE POTENTIAL TO DEVELOP A DEMONSTRATION FOREST FOR SUSTAINABLE FORESTRY RESEARCH & MANAGEMENT
 - CONDUCT SURVEYS OUTSIDE THE FERC RELICENSING STUDY AREA TO IDENTIFY BIOLOGICAL RESOURCES & ENABLE THEIR PROTECTION
 - EXPAND & INTEGRATE TRAIL NETWORK IN THE AREA TO ENHANCE RECREATION OPPORTUNITIES IN COORDINATION WITH THE USFS

INSTALL CULTURAL KIOSK AT THE BEAR VALLEY DAY USE AREA TO PROMOTE NATIVE AMERICAN CULTURE & HISTORY

DEVELOP A BEAR VALLEY DAY USE AREA WITH FISHING ACCESS & WILDLIFE VIEWING PLATFORM

ASSESS THE POTENTIAL FOR YOUTH PROGRAM OPPORTUNITIES AT THE RECREATION AREAS IN BEAR VALLEY



- POTENTIAL MEASURES:**
- DEVELOP A WILDLIFE & HABITAT MANAGEMENT PLAN IN COORDINATION WITH ADJACENT LANDOWNERS
 - SUPPORT EFFORTS TO RESTORE MEADOW & RIPARIAN AREAS OF BEAR VALLEY IN COORDINATION WITH INTERESTED STAKEHOLDERS
 - IDENTIFY & DISCLOSE UNAUTHORIZED USES & DEVELOP STRATEGIES TO ADDRESS FUTURE MANAGEMENT &/OR ERADICATION
 - CONDUCT SURVEYS OUTSIDE OF THE FERC RELICENSING STUDY AREA TO IDENTIFY CULTURAL RESOURCES & DEVELOP A CULTURAL RESOURCES MANAGEMENT PLAN IN COORDINATION WITH NATIVE AMERICAN ENTITIES
 - DEVELOP A RECREATION MANAGEMENT PLAN

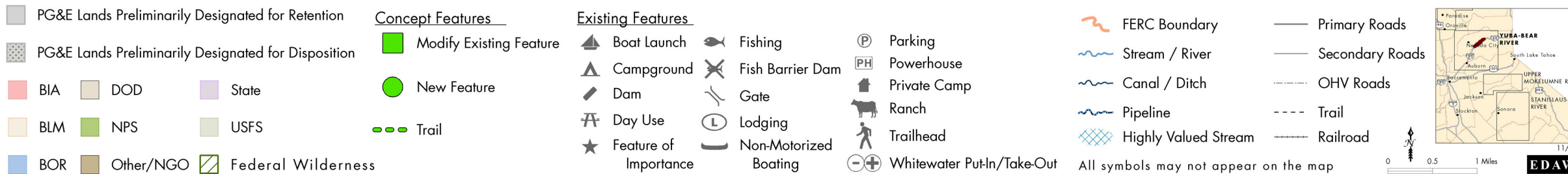


Figure YB-6
YB-28 LCP Volume II

Bear River Planning Unit

Above all, the Stewardship Council recommends close coordination with the upcoming relicensing effort to ensure consistency with proposed studies and subsequent actions to avoid any inconsistency or duplication of efforts. Given the wide range of biological, recreation, and cultural studies to be conducted and the study area boundaries, it is expected that most information needs on lands inside the FERC boundary will be met. Recommended additional study efforts or assessments are intended to provide only information that may not be obtained by relicensing studies and are considered necessary to fully support the LCP.

Fish, Plant, and Wildlife Habitat

Potential Measures:

- *Conduct surveys outside the relicensing study area to identify biological resources and enable their protection.*
- *Develop a wildlife and habitat management plan in coordination with adjacent landowners.*

The Stewardship Council recommends promoting the protection and enhancement of habitat values by conducting surveys outside the relicensing study area to identify biological resources. Due to the diversity of flora and fauna identified in previously studied areas of the planning unit, such as special status species, the Stewardship Council recommends developing a wildlife and habitat management plan. This plan would be coordinated with adjacent landowners, such as the USFS, to ensure consistent management. Forest connectivity would be promoted through coordinated protection of lands adjacent to the many USFS California spotted owl Protected Activity Centers (PACs). Wildlife corridors would be identified and enhanced through the development of buffers to enhance species recovery and reduce the potential impact of habitat fragmentation. Consistent with the forest management plan, harvesting would not occur in areas determined critical and important for special status species or sensitive habitats such as late successional forest.

Potential Measure:

- *Support efforts to restore meadow and riparian areas of Bear Valley in coordination with interested stakeholders.*

The wildlife and habitat management plan would also include measures to support restoration efforts in the riparian and meadow habitats of Bear Valley. The Stewardship Council recommends supporting the restoration efforts of Bear Valley in coordination with interested stakeholders, such as agencies (DFG and USFS) and local non-profit organizations like the Granite Bay Flycasters. Supporting such efforts would help ensure the long-term health and promotion of habitat and diversity in this riparian area. Possible enhancement measures would include the creation of additional stream meanders or oxbows and restoring the riparian corridor with vegetation to afford a diversity of habitats. Similarly, restoration of the montane meadow of Bear Valley would enhance this fragile ecosystem. Restoration could include such activities as removing encroaching trees from the meadow and creating a plan to exclude invasive species and promote native species.

Potential Measure:

- *Develop a noxious weed management plan in coordination with noxious weed abatement efforts.*

Additionally, an inventory of noxious weeds throughout the planning unit would be performed to determine the threat of invasive species. As noxious weeds have been previously identified in the planning unit, the Stewardship Council recommends developing a noxious weed management plan to eradicate and control them. This plan would be coordinated with the proposed noxious weed abatement effort in Placer County.

Open Space

Potential Measure:

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

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. Recommendations include only minor new development and are therefore not expected to decrease the scenic quality of these biologically and culturally rich lands of the Sierra Nevada.

Outdoor Recreation

Potential Measure:

- *Develop a recreation management plan for lands outside the FERC boundary.*

Recreation uses on lands within the FERC boundary are managed under the existing Recreation Plan for the Drum-Spaulding Project, which may be updated as part of relicensing. However, there is no management guidance for recreation occurring on lands outside of the FERC boundary, which includes approximately 90% of the planning unit. Therefore, the Stewardship Council recommends developing a recreation management plan for lands outside the FERC boundary. Suggested elements of the recreation management plan include developing a recreation monitoring program, evaluating recreation needs, developing a dispersed recreation use management component, and developing an operations and maintenance program for any facilities developed outside of the FERC boundary. The recreation management plan should also coordinate law enforcement and seek to increase patrol of the area to reduce illegal and unauthorized uses. Development of the recreation management plan should be coordinated with relicensing efforts and any future FERC license required measures and plans.

Potential Measure:

- *Identify and disclose unauthorized uses and develop strategies to address future management and/or eradication.*

The Stewardship Council also recommends determining the magnitude of existing unauthorized uses in this planning unit. The Stewardship Council will work with PG&E to identify and disclose unauthorized uses, and develop strategies to address future management and/or eradication of those uses during the development of the disposition packages in Volume III of the LCP.

Potential Measure:

- *Develop a day use area with fishing access and a wildlife viewing platform in Bear Valley.*

Based on significant public interest, developing a day use area in Bear Valley is recommended. Although the precise location of the day use area would be determined in coordination with PG&E, adjacent landowners and other interested stakeholders, the Bear Valley area has good road access and would be able to provide a fishing access that meets ADA requirements. The recommended Bear Valley day use area would include picnic tables, parking, restroom facilities, and an ADA fishing platform. Additionally, a wildlife viewing platform would be installed for visitors to enjoy the scenic vistas and special status species found in this area such as the golden eagle, great grey owl, and willow flycatcher. The recommended enhancements would be coordinated with those made during relicensing to avoid a duplication of recreation improvements. Additionally, all recreation enhancements would be developed in close coordination with PG&E to ensure compatibility between hydropower operations and the recreation experience.

Potential Measure:

- *Expand and integrate the trail network in the area to enhance recreation opportunities in coordination with the USFS.*

Another recommended recreation enhancement is the expansion and integration of the area's trail network in coordination with the USFS. The USFS and their partners have proposed the addition of a trailhead, staging area, and associated parking, for the eastern portion of the Pioneer Trail in Bear Valley. This trailhead and staging area would provide additional equestrian access for the Pioneer Trail, a multiple-use trail that serves equestrians, mountain bikers, and hikers. The proposed enhancement would provide increased access for the Pioneer Trail as well as other recreation opportunities in the vicinity. An easement on planning unit lands would be necessary to carry out the development of this proposed trailhead.

Potential Measure:

- *Assess the potential for youth program opportunities.*

The Bear Valley area offers many recreation and educational opportunities for local school and youth programs. The Stewardship Council recommends assessing the potential for youth program opportunities in the planning unit. The recommended Bear Valley day use area, the Sierra Discovery Trail, and the Bear Valley group campground offer ideal day and overnight use opportunities for various activities. Educational activities could include observing and studying nature, wildlife resources, native plants, and California history while the recreation activities could include camping, hiking, fishing, picnicking, and horseback riding.

Sustainable Forestry

Potential Measures:

- *Evaluate existing timber inventory data and supplement as appropriate.*
- *Develop a forest management plan for the planning unit to promote natural forest development and structural and physical diversity in forests for long-term ecological, economic, social, and cultural benefits.*

The joint history of mining and fire suppression has left the forests of the Bear River Planning Unit densely stocked and vulnerable to pests, diseases, fire, and invasive species. The Stewardship Council recommends developing a forest management plan through the evaluation of existing forest inventory data and supplemented with additional information, when appropriate. This baseline information would be used to determine appropriate forest management practices as well as forest monitoring and timber extraction goals. In addition to supporting natural forest development, the forest management plan would promote holistic watershed management, compatible with recommended enhancements, such as the wildlife and habitat management plan and the noxious weeds management plan to ensure consistent and complementary actions.

In areas where timber extraction is consistent with the forest management plan, timber harvesting techniques would be promoted that maintain mosaics of forest stands of different age, size, and rotation period. Timber harvest equipment would be selected to ensure the least residual damage to forest stands and adjacent waterways. In coordination with the forest management plan, sustained timber harvesting would be utilized as a tool to actively enhance habitat where applicable. Silvicultural prescriptions and related harvesting actions would include a management focus on the enhancements of soils, water quality, riparian cover, and biological diversity. For example, in the Blue Canyon THP, a “Group Selection” was used that extracted a large proportion of mature forests. It would be recommended in future THPs that these areas be extracted less heavily or via the “Selection” method that harvests individual trees to minimize the proportion of mature forest removed, fostering natural regeneration and maintaining a larger percentage of habitat for species that depend upon mature forest. Similarly, large snags would be left in forest stands to provide habitat for northern goshawks, other raptors, and species such as the California spotted owl. Large woody debris would be left near watercourses for wildlife habitat, and wider riparian buffers, beyond the thresholds of the California Forest Practice Rules, would be essential to minimize sedimentation and water quality issues.

All forest extraction areas would be monitored post-harvest to ensure little to no significant detrimental impacts to forests at the stand or landscape level. Any impacts that do occur would be monitored to ensure the long-term health of plant and wildlife species and their associated habitat. Finally, post-harvest monitoring would ensure long-term consistency with the forest management plan.

Potential Measure:

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

The Stewardship Council recommends developing a fuels management plan to determine the necessary amount of forest thinning to be achieved through timber harvesting, or other measures to minimize fuel accumulation such as pruning and the design of fire breaks. Fire suppression efforts, similar to that of USFS-managed forests in the Sierra Nevada, require management to reduce the possibility of large, high intensity fires. In some cases, current stands are highly susceptible to severe crown-fires, and an adequate fuels management plan would determine the necessary actions to avoid fire hazards throughout the planning unit, especially in areas with an urban interface or high property values. Forest diversity, regeneration, and structure would also be desired objectives of the fuels management plan. Furthermore, the Stewardship Council recommends that land management be coordinated with the USFS and other fire and vegetation management plans to provide forest connectivity. Currently, the USFS is managing adjacent lands for fire management to reduce fire hazard and improve wildlife habitat and viewshed.

Coordination with USFS management would promote an integrative approach to forest resources in this area.

Potential Measure:

- *Develop a fire management and response plan for the planning unit in coordination with adjacent landowners to ensure fire preparedness.*

Additionally, the Stewardship Council recommends developing of a fire management and response plan for the planning unit, especially for lands that are developed or located at the urban interface. The fire management and response plan would include fire prevention measures designed to promote public awareness about fire danger as well as provide the provisions and staff for an appropriate response to fire.

Potential Measure:

- *Assess the potential to develop a demonstration forest for sustainable forestry research and management.*

The Stewardship Council also recommends assessing the potential for the development of a demonstration forest to promote sustainable forest management and research. This demonstration forest would represent forests of the northern Sierra Nevada area and include a variety of forest types found in the Bear River Planning Unit. Research could focus on developing best management practices for themes such as biodiversity conservation, soil conservation, habitat protection, and fire management consistent with the natural fire regime. Management would also include monitoring, silvicultural practices to promote habitat and biological diversity, and studies related to carbon sequestration. The development of a demonstration forest would be consistent with the goals and objectives of the forest management plan for the planning unit.

Preservation of Historic Values

Potential Measures:

- *Conduct surveys outside the relicensing study area to identify cultural resources and enable their protection.*
- *Develop a cultural resources management plan for the planning unit.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

The historic component of the recommendations would promote the protection and identification of cultural resources in the Bear River Planning Unit. The Stewardship Council recommends conducting surveys to identify prehistoric and historic resources outside the relicensing study area. Rock art and cultural artifacts have already been uncovered in the area, and it is likely that additional cultural resources have yet to be found. To protect cultural resources, the Stewardship Council recommends developing a cultural resources management plan in coordination with Native American entities, interested stakeholders, and Federal agencies. The cultural resources management plan would also include an interpretive element that would be coordinated with the recreation management plan to include a one-mile interpretive trail in the recommended Bear Valley day use area and educational signage at non-sensitive cultural sites. The latter measure would be taken only after consultation with archeologists and law enforcement officers to determine the best strategy for protecting cultural sites and ensuring that these artifacts are preserved without threat of disruption or possible damage. Additional measures to protect

cultural resources include the installation of signage, monitoring, and barriers such as boulders and rail fences around sensitive areas. All cultural resource measures should be coordinated with Native American entities.

Potential Measures:

- *Install a cultural kiosk at the Bear Valley day use area to promote Native American culture and history.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

Additionally, a kiosk would be installed at the Bear Valley day use area to promote the cultural legacy of Native Americans in the area. Modeled after the interpretive displays found at the Sierra Discovery Trail, this kiosk would contain a display of replica cultural artifacts and rock art, information on Native Americans in the area, and educational panels that demonstrate traditions and rituals. Visitors to the Bear Valley day use area, as well as local school groups and youth, would learn about the cultural footprint of the historic inhabitants of the area. Development of information for the kiosk would be coordinated with Native American entities, cultural resources specialists, and interested stakeholders. Additionally, the development of the cultural resources kiosk would be coordinated with the early California history kiosk in the Lake Spaulding Planning Unit to provide a breadth of interpretive information related to cultural resources in the area.

Agricultural Uses

None recommended.