

LOWER BEAR AREA PLANNING UNIT

Upper Mokelumne River Watershed

Existing Conditions & Uses

Overview

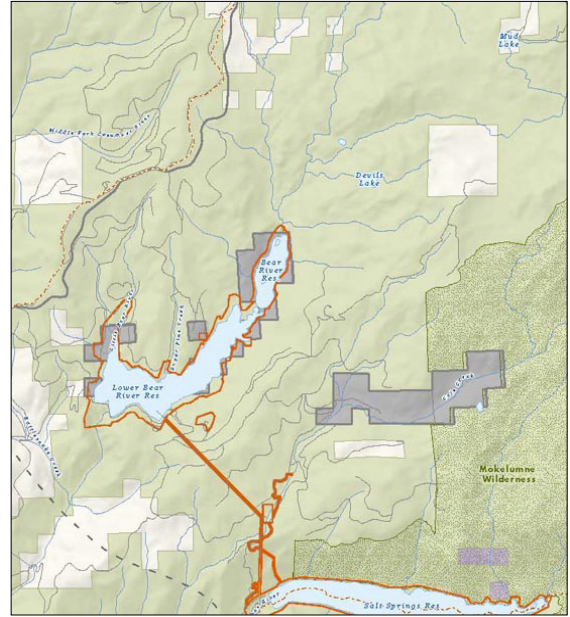
- Scenic reservoir shoreline with a popular boating resort and valuable habitat
- 1,795 acres in Amador County; 1,277 acres outside the FERC boundary and 518 acres inside the FERC boundary
- Part of the Mokelumne River Project (FERC #137); New License issued October 2001

Located at an approximate elevation range of 5,900 to 7,000 feet, the Lower Bear Area Planning Unit includes portions of Lower and Upper Bear River Reservoirs and land bordering a portion of Cole Creek (see Figure UM-3). This planning unit is almost completely surrounded by Eldorado National Forest, managed by the USFS. The eastern Cole Creek parcel is bounded on three sides by the USFS-managed Mokelumne Wilderness and is located within the Wilderness Boundary. Private timber companies own lands southwest of Lower Bear River Reservoir. The planning unit is located 35 miles northeast of Jackson.

Lower Bear River Reservoir is accessible by a paved road, Bear River Road, off of Highway 88.



Lower Bear River Reservoir from Hwy 88 overlook



Lower Bear Area Planning Unit
Amador County

Upper Bear River Reservoir is accessible by boat portaging from Lower Bear River Reservoir and by a hiking trail on the western side. The Cole Creek parcels are mostly inaccessible by vehicle; however, the western portion is accessible by four-wheel drive vehicle.

There is interest by the Amador Water Agency in gravity feeding water from Lower Bear River Reservoir for water supply in the future, potentially requiring expanding the reservoir storage capacity. The Bear River Reservoirs provide water supply for five counties as well as many agencies and other users.¹ Lower Bear River Reservoir has been identified as a future water supply for Amador County, Calaveras County and East Bay Municipal Utilities District areas. A feasibility study of raising Lower Bear Reservoir Dam to increase storage for future water supply will be completed by early 2008.

Fish, Plant, and Wildlife Habitat

Habitat for several special status species is located by Upper and Lower Bear River Reservoirs, including the Federal candidate mountain yellow-legged frog, and various bird species including willow flycatcher, bald eagle,

Lower Bear Area 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
- State
- USFS
- Federal Wilderness

- Boat launch
- Campground
- Dam
- Day Use
- Fishing
- Fish Barrier Dam
- NonMotorized Boating
- Parking
- Private Camp

- FERC Boundary
- Stream / River
- Canal / Ditch
- Pipeline
- Highly Valued Stream

- Primary Roads
- Secondary Roads
- OHV Roads
- Trail

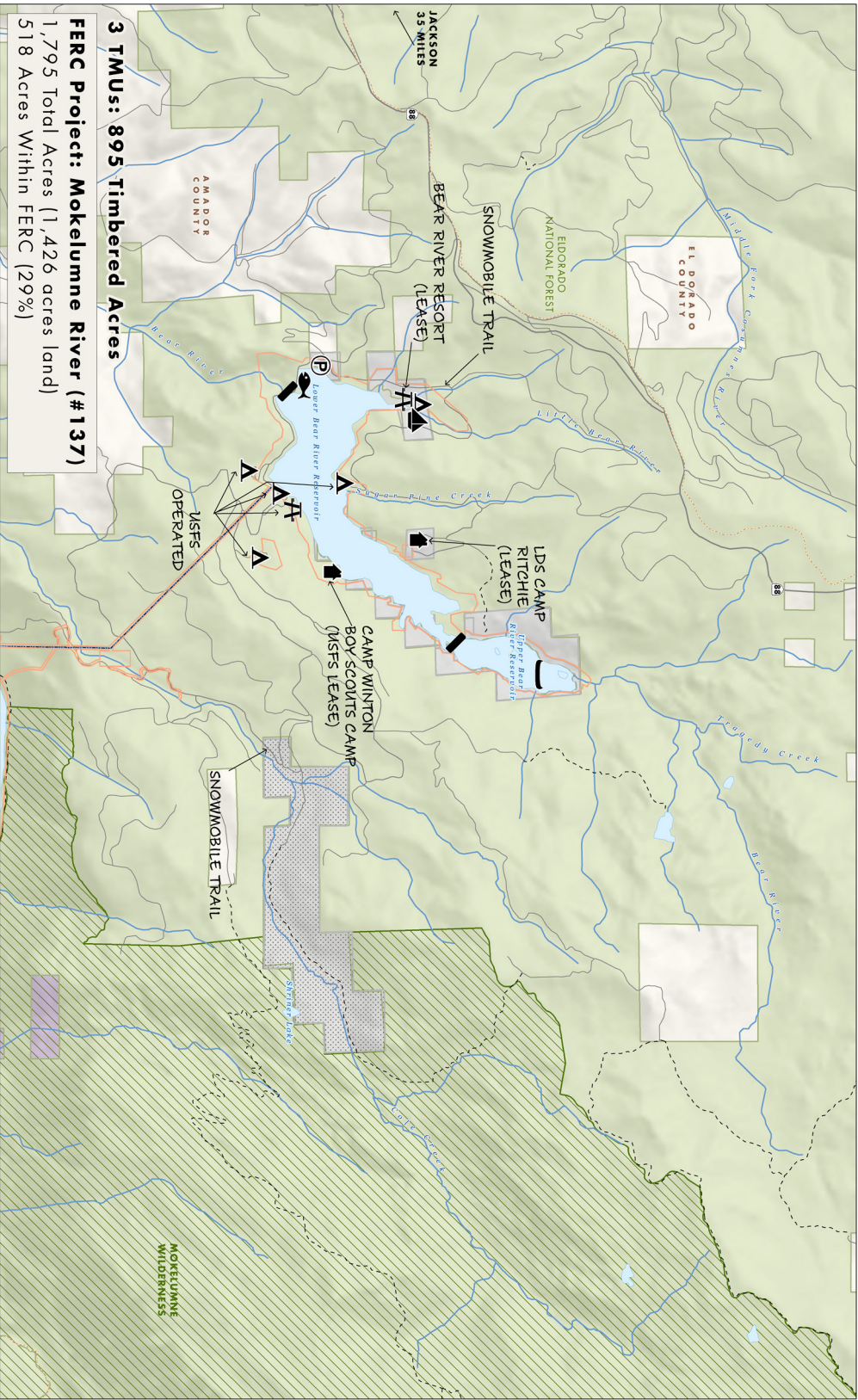


Figure UM-3

LOWER BEAR AREA PLANNING UNIT

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and California spotted owl. USFS spotted owl Protected Activity Centers (PACs) are located north of the Bear River Resort as well as south and east of Lower Bear River Reservoir. Summer range for the Salt Springs deer herd is located throughout the planning unit. The Sierra Nevada snowshoe hare, American marten, and sharp-shinned hawk are likely to be present in this planning unit. Upper and Lower Bear River Reservoirs provide habitat for a variety of coldwater fish species, including rainbow trout, brown trout, and tui chub.

The Cole Creek parcels may contain habitat for species including California spotted owl, mountain yellow-legged frog, forest carnivores (e.g., Pacific fisher), and northern goshawk. Areas next to Cole Creek contain some wetland/meadow habitat and about three miles of floodplain. The Cole Creek parcels are managed for native trout and mountain yellow-legged frog populations by Eldorado National Forest.

Open Space

The planning unit provides open space, including an inholding and other lands adjacent to the Mokelumne Wilderness, as well as viewshed values for several camps, campgrounds, and a resort situated by Lower Bear River Reservoir. The planning unit also provides scenic views from a Highway 88 pull-out. Highway 88 is a designated Scenic Highway in the National Highway System.

Outdoor Recreation

The planning unit provides many outdoor recreational opportunities, including fishing, boating, swimming, camping, hiking, and OHV use. All of the campgrounds and day use areas at Lower Bear River Reservoir are operated by the USFS; however, PG&E made many improvements to these facilities as part of the recent FERC relicensing as they are located within the Mokelumne River Project FERC boundary.² Lower Bear River Reservoir is annually stocked with rainbow and brown trout

and is known to be an exceptional northern California trout fishery. Rainbow trout are also stocked in Upper Bear River Reservoir. The Silver Bear Snowmobile Trail is located adjacent to Lower Bear River Reservoir and provides 20 to 55 miles of popular trails during the winter recreation season. The western parcel at Lower Bear River Reservoir was used as a parking and staging area for the snowmobile trail; however, the resort is currently closed during the winter months.

The Bear River Resort is located on the western side of Lower Bear River Reservoir and is operated under a PG&E lease. Many of the area's recreational opportunities are provided by this lessee, including summer boat rentals. The resort also provides a store, restaurant, 126 campsites (including 30 trailers), and a marina. Camp Ritchie, which PG&E leases to the Church of Jesus Christ of Latter Day Saints (LDS), is operated as a 120-person per session summer camp for girls. The USFS has issued a Special Use Permit for the Camp Winton Boy Scouts Camp adjacent to the planning unit on the eastern side of Lower Bear River Reservoir.

Forest Resources

The Lower Bear Area Planning Unit contains three PG&E Timber Management Units (TMUs) for a total of 895 timbered acres. The TMU located by Upper Bear River Reservoir contains 68 timbered acres and is managed under a



Bear River Resort boat dock

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Lower Bear River Reservoir

Recreation and Sustainable Timber Management prescription, meaning that recreation in this area is compatible with timber management. Forest management in designated recreation areas is limited to fuels reduction, hazard tree removal, and improvement of aesthetics. Outside of designated recreation areas, sustainable timber management is emphasized.

The TMU located by Lower Bear River Reservoir contains 273 timbered acres and is managed under a Multiple-Use prescription, meaning that protection and uses of other resources and facilities may preclude sustained timber management as the highest and best use of portions of the TMU. The Cole Creek parcels contain 554 timbered acres and are managed under a Sustainable Timber Management prescription, meaning that sustained timber production is regarded as the highest and best use of the land while also placing an emphasis on protecting water quality, wildlife and fisheries habitat, soils, carbon sequestration, and cultural resources. The western one-third of the Cole Creek parcels have valuable timber resources, and future timber harvests are planned in this area.

Fire danger is a major concern in the Bear River Reservoir area and by the Cole Creek parcels. The “Power Fire” occurred just south of this planning unit in 2004, burning 16,800 acres and causing evacuation of the Bear River Reservoir area.

Agricultural Uses

Although PG&E does not currently have any grazing leases in this planning unit, the Lower Bear Area Planning Unit is located within the USFS Bear River and Pardoe grazing allotments. Grazing occurs on adjacent USFS and private lands, and may also occur on planning unit lands. PG&E has not granted permission for grazing on their lands, but due to the lack of fencing in the area, it is possible for cattle to graze on planning unit lands.

Historic Resources

PG&E is in the process of completing a Heritage Resources Management Plan (HRMP) for this area as part of the recent FERC relicensing process. Much of the area surrounding Upper and Lower Bear River Reservoirs was surveyed as part of the relicensing process. At least six prehistoric sites near Lower Bear River Reservoir and six archeological sites within the Cole Creek parcels have been identified. This planning unit is within traditional territory of the Northern Sierra Miwok, which extends from the Sierra foothills and mountains as far north as the Consumnes River, and includes the drainages of the Mokelumne and Calaveras Rivers.



Scenic rock by Lower Bear River Reservoir

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Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at the Lower Bear Area Planning Unit be preserved and enhanced by focusing on enhanced recreation facilities, while protecting the unique cultural resources, habitat values, and sensitive species present. We recommend this effort be conducted in close coordination with PG&E and the Amador Water Agency. Recommendations would need to be re-evaluated if the Amador Water Agency develops concrete plans to expand Lower Bear River Reservoir Dam and thereby raise the reservoir level (the 2006 Mokelumne Amador Calaveras Integrated Regional Water Management Plan identifies the reservoir as a future water supply).

Objective: Preserve and enhance biological and cultural resources, enhance public access, recreation opportunities, and sustainable forestry management, and evaluate the potential for grazing opportunities.

As shown on Table UM-2, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Lower Bear Area 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.



Lower Bear River Reservoir & dam

Fish, Plant, and Wildlife Habitat

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

The Lower Bear Area provides terrestrial and aquatic habitat for many species, including a variety of special status species, and is a popular recreational fishery. The Stewardship Council recognizes the importance of this resource for public recreation and access, but intends to see that the wilderness beauty of the area and the habitat resources found here are protected. 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



Bear River Resort boat dock & picnic table

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the resources (particularly outside the FERC boundary 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.

Of specific note, unauthorized OHV trails may need to be altered to further protect habitat resources from inappropriate recreation use. We encourage close coordination with the USFS, Upper Mokelumne River Watershed Authority and other resource-focused organizations working in the area. Habitat preservation and enhancement measures should be consistent with FERC license requirements and all planning should be considered in conjunction with the fuels and forest management plans.

Open Space

Objective: Preserve open space in order to protect natural and cultural resources, viewsheds, and the recreation setting.

This concept would preserve open space by limiting construction to minor additions of recreation facilities, as well as through permanent conservation easements. The Stewardship Council specifically recommends that Cole Creek parcels be managed to complement surrounding wilderness values, as a portion of this land is located within the Wilderness Boundary. Conservation easements would describe all



Bear River Resort sign

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 additional public access, and education and recreation opportunities.

The planning unit provides recreation facilities that support fishing, boating, swimming, camping, hiking, and OHV use. Additionally, one large resort and private camp provide recreational opportunities and facilities. As shown in Figure UM-4, the Stewardship Council looks to enhance these opportunities by recommending facilities at Lower Bear River Reservoir while maintaining the primitive recreation experience at Upper Bear River Reservoir. We recommend enhancements focus on a new day use/fishing site, additional public recreation access, increased opportunities for youth education and recreation, and review of resort uses for potential enhancement possibilities. Any improvements would need to be planned and sited to minimize disturbance to sensitive natural and cultural resources. We further recommend that future recreation planning be closely coordinated with Amador Water Agency's efforts to study the potential enlargement of the Lower Bear Reservoir.

Sustainable Forestry

Objective: Develop and implement forestry practices in order to contribute to a sustainable forest, preserve and enhance habitat, enhance surrounding wilderness values, as well as to ensure appropriate fuel load and fire management.

The Lower Bear Area Planning Unit provides valuable forest resources in a fire-prone area. The Stewardship Council recommends that future care and management of the land include developing a long-term vision for forest management in the area, addressing silvicultural practices, holistic

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watershed management, fuels management, fire management and response, and surrounding wilderness values. The fuels, fire management and response, and forest management plans 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 adjacent landowners, USFS, and lessee management and practices as appropriate.

Agricultural Uses

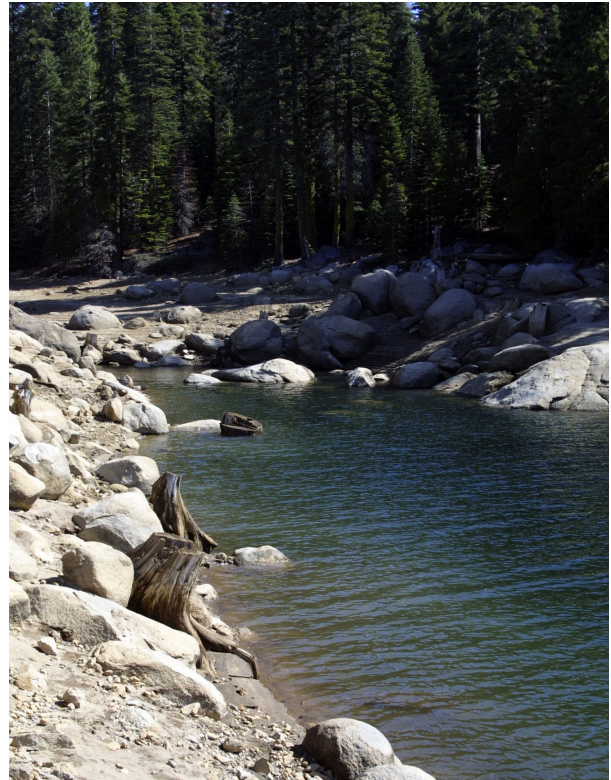
Objective: Identify potential grazing opportunities in order to enhance agricultural resources and related economic benefits.

Though the lands in the planning unit are steep and somewhat disconnected, there is some potential for grazing use. The Stewardship Council looks to enhance agricultural opportunities and associated important economic uses as part of the long-term management of the Lower Bear Area Planning Unit. To support this effort, we recommend evaluating grazing potential in coordination with adjacent USFS allotments. If grazing is determined to be feasible in the planning unit, the Stewardship Council recommends developing a rangeland management plan to guide this activity.

Preservation of Historic Values

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

At least 12 cultural sites have already been identified in the planning unit and there is a high likelihood additional sites are present. 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 Lower Bear Area Planning Unit (particularly outside the FERC cultural resource study area where less information is available),



Inlet to Bear River Reservoir from Little Bear River

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 FERC license required HRMP.

Endnotes

¹ The Bear River Reservoirs are a water supply source for Alameda, Contra Costa, San Joaquin, Amador, and Calaveras Counties, Jackson Irrigation District, Amador Water Agency, North San Joaquin Water Conservation District, Woodbridge Irrigation District, East Bay Municipal Utility District, and senior appropriators.

² Improved facilities include: South Shore Campground, Pardoes Point Campground and picnic area, Bear River Group Campground, and Sugar Pine Point Campground.

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

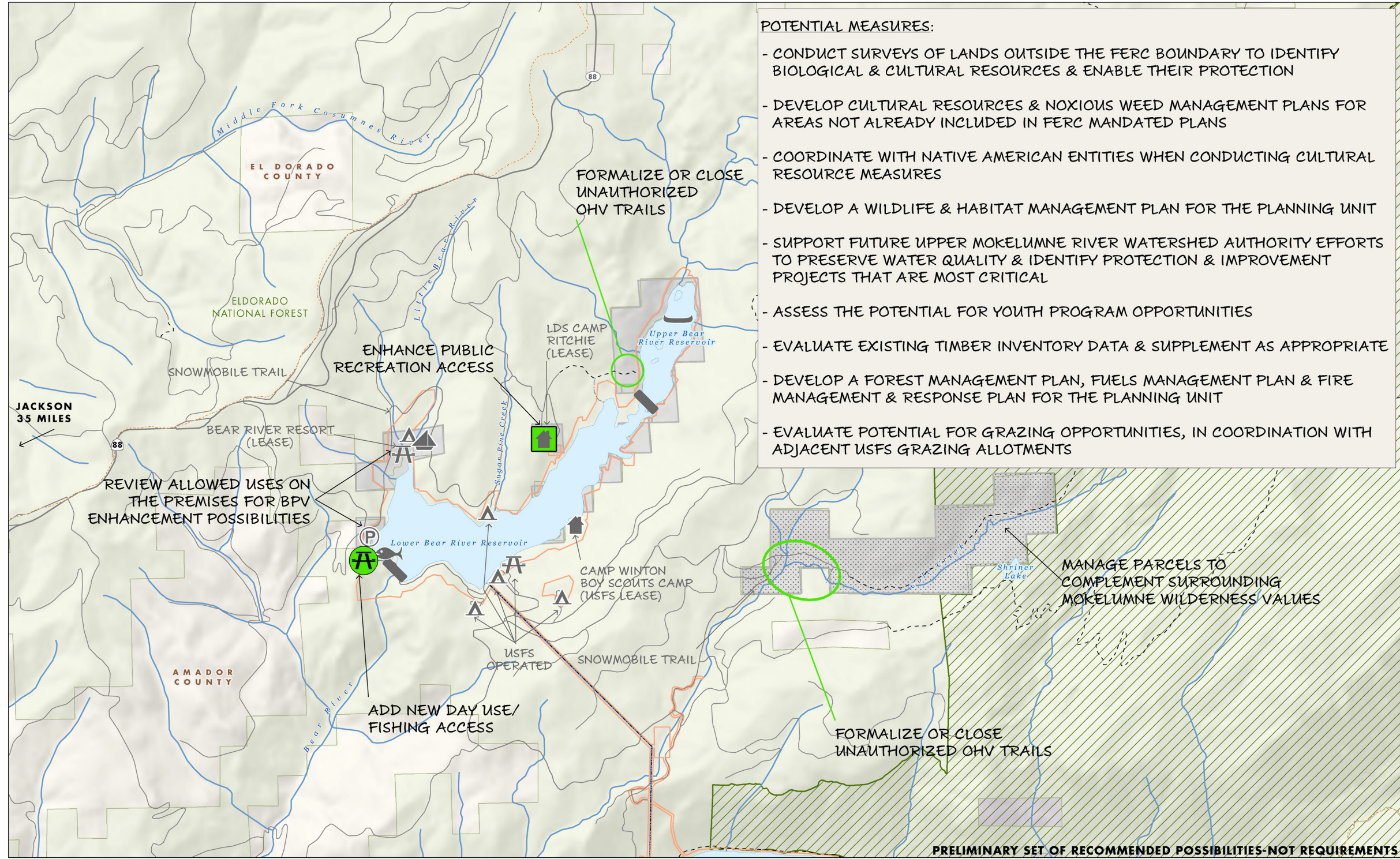
| Planning Unit Objective: Preserve and enhance biological and cultural resources, enhance public access, recreation opportunities, and sustainable forestry management, and evaluate the potential for grazing opportunities. | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 and wilderness values. | <ul style="list-style-type: none"> • Conduct surveys of lands outside the FERC boundary to identify biological resources and enable their protection. • Develop a wildlife and habitat management plan for the planning unit. • Develop a noxious weed management plan for areas not included in the FERC-mandated Noxious Weed Plan. • Support future Upper Mokelumne River Watershed Authority efforts to preserve water quality and identify protection and improvement projects that are most critical. • Manage Cole Creek parcels to complement surrounding Mokelumne Wilderness values.** • Formalize or close unauthorized OHV trails to protect biological resources.** |
| Preservation of Open Space | Preserve open space in order to protect natural and cultural resources, viewsheds, and the recreation setting. | <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 public access, and education and recreation opportunities. | <ul style="list-style-type: none"> • Add new day use/fishing access by the dam at Lower Bear River Reservoir.** • Assess the potential for youth program opportunities. • Enhance public recreation access at the LDS camp.** • Review allowed uses on the premises at the Bear River Resort for BPV enhancement possibilities.** |
| Sustainable Forestry | Develop and implement forestry practices in order to contribute to a sustainable forest, preserve and enhance habitat, enhance surrounding wilderness values, 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 fuels management plan to ensure long-term forest health and reduce fuel loading and fire hazard throughout the planning unit. • Develop a fire management and response plan for the planning unit to ensure fire preparedness. |
| 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 USFS grazing allotments. |
| Preservation of Historic Values | Identify and manage 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. • Develop a cultural resources management plan for areas not already included in the FERC-mandated HRMP. • Coordinate with Native American entities when conducting cultural resource measures. • Formalize or close unauthorized OHV trails to protect cultural resources.** |

* 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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Lower Bear Area Planning Unit
Recommended Concept



- POTENTIAL MEASURES:
- CONDUCT SURVEYS OF LANDS OUTSIDE THE FERC BOUNDARY TO IDENTIFY BIOLOGICAL & CULTURAL RESOURCES & ENABLE THEIR PROTECTION
 - DEVELOP CULTURAL RESOURCES & NOXIOUS WEED MANAGEMENT PLANS FOR AREAS NOT ALREADY INCLUDED IN FERC MANDATED PLANS
 - COORDINATE WITH NATIVE AMERICAN ENTITIES WHEN CONDUCTING CULTURAL RESOURCE MEASURES
 - DEVELOP A WILDLIFE & HABITAT MANAGEMENT PLAN FOR THE PLANNING UNIT
 - SUPPORT FUTURE UPPER MOKELUMNE RIVER WATERSHED AUTHORITY EFFORTS TO PRESERVE WATER QUALITY & IDENTIFY PROTECTION & IMPROVEMENT PROJECTS THAT ARE MOST CRITICAL
 - ASSESS THE POTENTIAL FOR YOUTH PROGRAM OPPORTUNITIES
 - EVALUATE EXISTING TIMBER INVENTORY DATA & SUPPLEMENT AS APPROPRIATE
 - DEVELOP A FOREST MANAGEMENT PLAN, FUELS MANAGEMENT PLAN & FIRE MANAGEMENT & RESPONSE PLAN FOR THE PLANNING UNIT
 - EVALUATE POTENTIAL FOR GRAZING OPPORTUNITIES, IN COORDINATION WITH ADJACENT USFS GRAZING ALLOTMENTS

| | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> PG&E Lands Preliminarily Designated for Retention PG&E Lands Preliminarily Designated for Disposition BIA BLM BOR DOD NPS Other/NGO State USFS Federal Wilderness | <p>Concept Features</p> <ul style="list-style-type: none"> Modify Existing Feature New Feature Trail | <ul style="list-style-type: none"> Boat Launch Campground Dam Day Use Fishing Fish Barrier Dam Non-Motorized Boating Parking Private Camp | <ul style="list-style-type: none"> FERC Boundary Stream / River Canal / Ditch Pipeline Highly Valued Stream Primary Roads Secondary Roads OHV Roads Trail |
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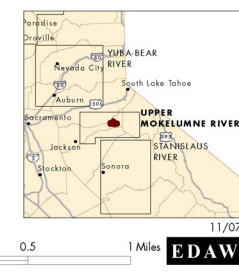


Figure UM-4

Lower Bear Area Planning Unit

Recommendations would need to be re-evaluated if the Amador Water Agency develops concrete plans to expand Lower Bear River Reservoir Dam and thereby raise the reservoir level (the 2006 Mokelumne Amador Calaveras Integrated Regional Water Management Plan identifies the reservoir as a future water supply).

Fish, Plant, and Wildlife Habitat

There is a potential for protection and enhancement of biological resources, particularly outside the FERC boundary where less focus has been given during the recent relicensing process. Recommended measures further enhance habitat protection and habitat quality through the use of sustainable forestry management techniques, continuity of management with adjacent landowners, and possible habitat restoration and enhancement opportunities.

Potential Measure:

- *Conduct surveys of lands outside the FERC boundary to identify biological resources and enable their protection.*

Though many biological resource studies were conducted for the Mokelumne Project FERC relicensing, these studies likely focused only on resources within the FERC boundary and did not include the entire planning unit. Therefore, the Stewardship Council recommends conducting surveys outside the FERC boundary to identify biological resources and enable their protection.

Potential Measure:

- *Develop a wildlife and habitat management plan for the planning unit.*

The Stewardship Council also recommends using biological resource survey data to create a wildlife and habitat management plan. The planning unit contains potential habitat for several special status species including mountain yellow-legged frog, willow flycatcher, northern goshawk, American marten, and California spotted owl, and recommended surveys may reveal additional special status plants and wildlife. Once recommended surveys are completed, potential habitat enhancements and restoration opportunities can be identified and developed into a comprehensive plan describing goals and objectives for habitat and species, as well as measures needed to enhance and protect habitat for both wildlife and plant species. This plan would specifically emphasize continuity of management with adjacent USFS spotted owl Protected Activity Centers (PACs), deer summer range habitat connectivity, and management for northern goshawk. Identifying and protecting late successional stands for the purpose of habitat enhancement for spotted owl would be one component of providing continuity with adjacent management. This plan would also include the continued management of Cole Creek for native trout and mountain yellow-legged frog populations in coordination with existing USFS management efforts. Monitoring of species and/or habitats would also be developed as a component of the plan. The wildlife and habitat management plan should be developed in conjunction with the noxious weed, forest, and fuels management plans. Recommended habitat protection measures would also protect cultural resources.

Potential Measure:

- *Develop a noxious weed management plan for areas not included in the FERC-mandated Noxious Weed Plan.*

Preparation and implementation of a Noxious Weed Plan was mandated as part of the Mokelumne Project FERC License Order for the FERC project area. This plan was prepared in 2002 and approved by Eldorado National Forest. The noxious weed survey area included USFS land inside the FERC boundary as well as adjacent planning unit lands. The Stewardship Council recommends preparation and implementation of a noxious weed management plan for those areas of the planning unit not covered by the FERC license required Noxious Weed Plan. This measure is recommended to eradicate existing populations of noxious weeds where possible and implement preventative measures to minimize the spread of weeds in the future. This plan would also provide for more consistent management of noxious weeds with adjacent management and should be coordinated with PG&E and the USFS. This plan should be developed in conjunction with the fuels, forest, and wildlife and habitat management plans.

Potential Measure:

- *Support future Upper Mokelumne River Watershed Authority efforts to preserve water quality and identify protection and improvement projects that are most critical.*

The Stewardship Council also recommends supporting future Upper Mokelumne River Watershed Authority (UMRWA) efforts to preserve water quality, water supply, and the environment in the Upper Mokelumne River Watershed. The UMRWA Project developed a water quality database to establish a baseline for a watershed water quality assessment of the Upper Mokelumne River and identified management measures for agencies to implement to maintain and improve source water quality in the watershed.

Potential Measure:

- *Manage Cole Creek parcels to complement surrounding Mokelumne Wilderness values.*

The Stewardship Council recommends managing inholding areas as well as areas bordering on the Mokelumne Wilderness by Cole Creek to complement surrounding wilderness values. The Cole Creek parcels have three unique aspects: they are within and adjacent to the Mokelumne Wilderness, they are not encumbered by the FERC boundary, and they include special status species habitat. It is recommended that this area be managed to complement the surrounding wilderness values of the Mokelumne Wilderness and to protect the existing high value resources that the site provides. This would include managing recreation as primitive, not allowing motor vehicle use, protecting cultural resources, maintaining a visual quality of preservation (e.g., any trails and other related improvements should be designed to be as obscure as possible), maintaining the natural condition of timber stands, and generally preserving the wilderness character of the land.

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 Stewardship Council recommends developing a forest management plan for the planning unit through the evaluation of existing forest inventory data and supplemental information, when appropriate. In addition to supporting natural forest development, the forest management plan would promote watershed management, supporting the enhancement of other BPVs over the long term. The forest management plan would be compatible with both current and recommended recreation uses, areas of biological and cultural importance, as well as wilderness values surrounding the Cole Creek parcels. Identifying and designating late successional stands for the purpose of habitat enhancement for the spotted owl would also be incorporated into forest management practices. The forest management plan should be developed in conjunction with the fuels, noxious weed, and wildlife and habitat management plans.

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. In addition to utilizing PG&E's uneven-age selection harvest system, harvesting practices and a monitoring program would be included to protect watercourses and lakes and promote the restoration and conservation of natural forests. Post-harvest, a monitoring plan would be developed to ensure that forest management and the proposed harvesting schedule would be consistent with the forest management plan, promoting natural forest development in perpetuity.

Potential Measure:

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

Management of fuels is very important in reducing high fire risk in this planning unit. Therefore, the Stewardship Council recommends developing a fuels management plan for this planning unit. The fuels management plan would ensure long-term forest health and reduce fuel loading and fire hazard throughout the planning unit. Coordination with adjacent landowners and USFS management would promote an integrated approach to management of the forest, habitat, and recreation resources in this area. This plan should be developed in conjunction with the noxious weed, forest, and wildlife and habitat management plans.

Potential Measure:

- *Develop a fire management and response plan for the planning unit to ensure fire preparedness.*

Although the Lower Bear Area Planning Unit is remote, many recreationists use the area, particularly at the Bear River Resort. This area also has a recent history of fire and was evacuated during the "Power Fire" in 2004. Therefore, the Stewardship Council recommends developing a fire management and response plan to ensure fire preparedness and enhance fire prevention. The plan would outline appropriate actions to take when a fire occurs as well as reporting procedures. The fire management and response plan should be coordinated with any existing fire preparedness plans in the area, particularly with the USFS (who manages most of the adjacent lands and recreation facilities).

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 and management of inholding and other lands bordering the Mokelumne Wilderness to complement adjacent wilderness values. Conservation easements would describe all prohibited uses throughout the planning unit to maintain open space values, including the level of uses allowed. Recommendations include only minor additions of recreation facilities and are not expected to decrease the scenic quality of the viewsheds.

Agricultural Uses

Potential Measure:

- *Evaluate the potential for grazing opportunities within the planning unit, in coordination with adjacent USFS grazing allotments.*

The planning unit is predominantly steep and consists of disconnected parcels; however, there is some potential for grazing within this planning unit in coordination with adjacent grazing allotments. The USFS Bear River and Pardoe grazing allotments are located in this area. Informal grazing may already be occurring within the planning unit from adjacent allotments due to the lack of fencing. This measure would evaluate the potential to formalize this use. Therefore, the Stewardship Council recommends evaluating the potential for grazing on the planning unit lands in coordination with adjacent USFS grazing allotments. Although the amount of acreage needed to graze cattle is dependent on available forage and overall allotment condition, grazing at higher elevations typically requires substantial amounts of land. Generally, a minimum of about 20,000 acres is needed at a 5,000-6,000 foot elevation in the Sierra Nevada to graze a herd of about 100-200 cattle. Thus, any grazing would need to be in coordination with an existing adjacent grazing allotment.

Grazing within the planning unit may necessitate the use of fencing to better manage livestock distribution and keep cattle out of sensitive areas. As Lower Bear River Reservoir is a drinking water supply source, care would also need to be taken to avoid the potential for reservoir water contamination related to livestock use. If grazing is determined to be feasible within the planning unit, a rangeland management plan should be developed that includes goals and objectives and a monitoring and adaptive management strategy, and specifies grazing practices that may address topics including soil and water conservation, erosion control, pest management, nutrient management, vegetation management, and habitat protection.

Preservation of Historic Values

Potential Measures:

- *Conduct surveys outside the FERC Project APE to identify cultural resources and enable their protection.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

It is likely that cultural resource surveys conducted for relicensing efforts were limited to the FER Project Area of Potential Effects (APE), generally defined as all lands within the FERC boundary. Therefore, lands outside the APE were likely not surveyed. There is a high likelihood of cultural sites outside the APE, and therefore the Stewardship Council recommends conducting surveys outside the APE to identify cultural resources and enable their protection. This would particularly include the parcels by Cole Creek, which are located completely outside the FERC boundary. Documentation of cultural sites should be coordinated with Native American entities.

Potential Measures:

- *Develop a cultural resources management plan for areas not already included in the FERC-mandated HRMP.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

Although a Heritage Resources Management Plan (HRMP) is being developed as part of FERC relicensing, this plan will only include measures to avoid and mitigate impacts to resources within the APE. Assuming that recommended surveys identify additional cultural sites within the planning unit, the Stewardship Council recommends developing a cultural resources management plan for areas not included in the FERC license required HRMP to ensure that all cultural resources are provided adequate protection in the future. The plan would include appropriate measures for the identification, evaluation, and treatment of cultural resources (archaeological and historical), as well as traditional use areas. Treatment measures could include avoidance, specific protective measures (e.g., fencing), site monitoring, and methods to preserve, restore, or enhance cultural resource values through conservation easements, management agreements, or through public interpretation and education programs. Development of the cultural resources management plan should be consistent with the FERC license required HRMP and should be coordinated with Native American entities.

Outdoor Recreation

Under Stewardship Council recommendations, existing recreation opportunities would continue, and several new and enhanced recreation opportunities are recommended. Continued recreation uses would include allowing ongoing access for the Silver Bear Snowmobile Trail. The trail is a very popular winter recreation activity in the area and is mostly on adjacent USFS lands; however, it crosses planning unit lands in several places.

Potential Measure:

- *Add new day use/fishing access by the dam at Lower Bear River Reservoir.*

Measures to enhance the recreation experience in the Lower Bear Area Planning Unit include the addition of a formal day use/fishing access area at Lower Bear River Reservoir. Fishing from the dam and shoreline at Lower Bear River Reservoir is a popular activity. This measure would provide day use amenities (including picnic tables) to enhance the fishing experience. Prior to implementation, studies would be completed to evaluate the need for such a facility as well as determine if a suitable location exists. Additionally, the recommended location for a day use/fishing access area is within a parcel that is currently leased by the Bear River Resort. It would need to be determined if modification to the Bear River Resort lease would be possible to use a portion of the parcel for the recommended facility.

Upper Bear River Reservoir is currently a low use primitive recreation area. It is recommended that recreation activity remain concentrated at Lower Bear River Reservoir and for Upper Bear River Reservoir to maintain low use levels to protect riparian and terrestrial habitat values. The Federal candidate mountain yellow-legged frog is found at Upper Bear River Reservoir, making additional access and recreation use in this sensitive area potentially inadvisable. Potential issues associated with additional use in this area include increased sedimentation along the shore zone and potential disturbance of egg masses. Mountain yellow-legged frogs are generally associated with undisturbed streams, pools, and lake shores.

Potential Measure:

- *Assess the potential for youth program opportunities.*

Due to the existing recreation facilities, outstanding opportunities to see and learn about wildlife, cultural resources, and proximity to the Mokelumne Wilderness, there are excellent opportunities to educate youth from nearby towns such as Jackson and Pioneer on a variety of topics within the planning unit. Two youth camps currently exist along Lower Bear River Reservoir (Camp Ritchie and Camp Winton), indicating that this area is a suitable and well-liked location for youth activities. In particular, the Cole Creek parcels could be used as a wilderness gateway opportunity for students and could be used as an outdoor classroom; however, difficult access and unmaintained trails may hinder this opportunity. Therefore, the Stewardship Council recommends assessing the potential for youth program opportunities within the planning unit. Programs could educate youth on topics such as wildlife and botanical resources, including threatened and endangered species, cultural resources, wilderness, and the history of fire and subsequent restoration in the area. Youth program opportunities could educate students on the outstanding resources in their local area and hopefully encourage a sense of pride and protection of these resources.

Potential Measure:

- *Enhance public recreation access at the LDS camp.*

The Church of Jesus Christ of Latter Day Saints' (LDS) Camp Ritchie provides excellent camp facilities on the north side of Lower Bear River Reservoir for use by their members. The Stewardship Council recommends enhancing public access to Camp Ritchie. The LDS camp is considered to be an exclusive use because it is only opened to a small portion of the general population.

Potential Measure:

- *Review allowed uses on the premises at the Bear River Resort for BPV enhancement possibilities.*

The Bear River Resort is open to the general public at a reasonable fee and provides a marina, boat rental, camping, day use, and OHV use. Although the Bear River Resort is available to the public, the Stewardship Council recommends reviewing allowed uses on the Bear River Resort premises for BPV enhancement possibilities. Though there are 30 trailer sites available for rent by the public from the resort lessee, it appears that more permanent use is occurring at some of these sites, making these sites unavailable to the public on a year-round basis.

Potential Measures:

- *Formalize or close unauthorized OHV trails to protect biological resources.*

- *Formalize or close unauthorized OHV trails to protect cultural resources.*

Recommended measures include additional management of existing recreation uses. Unauthorized OHV trails in this planning unit cross from PG&E to USFS lands, and therefore decisions to either formalize or close these trails should be made jointly. The USFS has not yet made decisions regarding formalizing or closing unauthorized OHV routes on USFS lands, so the Stewardship Council recommends coordinating with the USFS on any OHV route decisions to create consistency in management. If it is determined that unauthorized OHV trails are to be closed, vehicles should be restricted to established roads, and damaged areas should be revegetated. Measures should be taken to continue to manage unauthorized uses through the use of gates, bouldering, and revegetating closed trails. Management of unauthorized OHV trails would reduce potential sources of road sediment and thereby protect water quality, biological resources, and cultural resources.