

LAKE BRITTON PLANNING UNIT

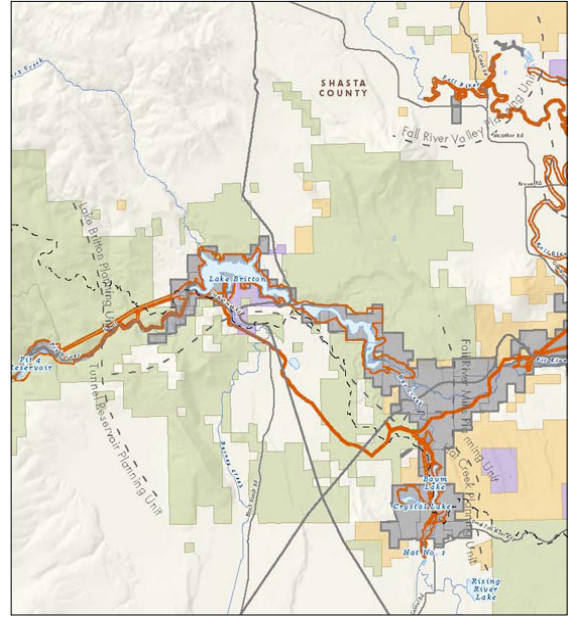
Pit-McCloud River Watershed

Existing Conditions & Uses

Overview

- Adjacent to and part of McArthur-Burney Falls Memorial State Park; 5,663 acres in Shasta County
- Extensive habitat resources, important recreation area, and part of an Archeological District
- 3,311 acres outside the FERC boundary; 2,352 acres inside
- Part of the Pit 3, 4, 5 Project (FERC #233), New License issued July 2007

The Lake Britton Planning Unit is located in Shasta County, 46 miles northeast of Redding and less than 10 miles north of Burney. The planning unit contains the 1,293-acre Lake Britton and portions of the Pit River and Hat Creek (see Figure PM-9). The planning unit contains lands that are part of the Pit 3, 4, 5 FERC Project (#233) as well as associated hydropower infrastructure. PG&E was issued a New License for the Pit 3, 4, 5 Project on July 2, 2007. Lake Britton is primarily surrounded by USFS land, State Park land, and private property. The Hat Creek and Pit River



Lake Britton Planning Unit
Shasta County

lands are primarily surrounded by USFS land and a few BLM parcels.

Lake Britton is generally discussed as two areas, lower and upper Lake Britton,¹ due to the distinct difference in character and level of development between the two areas. The lower lake is more reservoir-like and developed heavily for recreation, while the upper lake is more narrow and river-like with little recreation development.

Fish, Plant, and Wildlife Habitat

Lake Britton provides valuable habitat resources and has been identified as a Significant Natural Area by DFG. The 8-mile long Lake Britton provides habitat for both recreational and native fisheries. Lower Lake Britton supports a warmwater fishery for introduced game species such as bass, black crappie, green sunfish, and bluegill. The shallower upper Lake Britton contains higher concentrations of native fish species such as hardhead, Sacramento pikeminnow, and Sacramento sucker. Lake Britton also contains rough sculpin, bigeye marbled sculpin, and Pit roach. Northwestern pond turtles, as well as several mollusks and bi-valve aquatic



Pit River

Lake Britton Planning Unit Existing Conditions

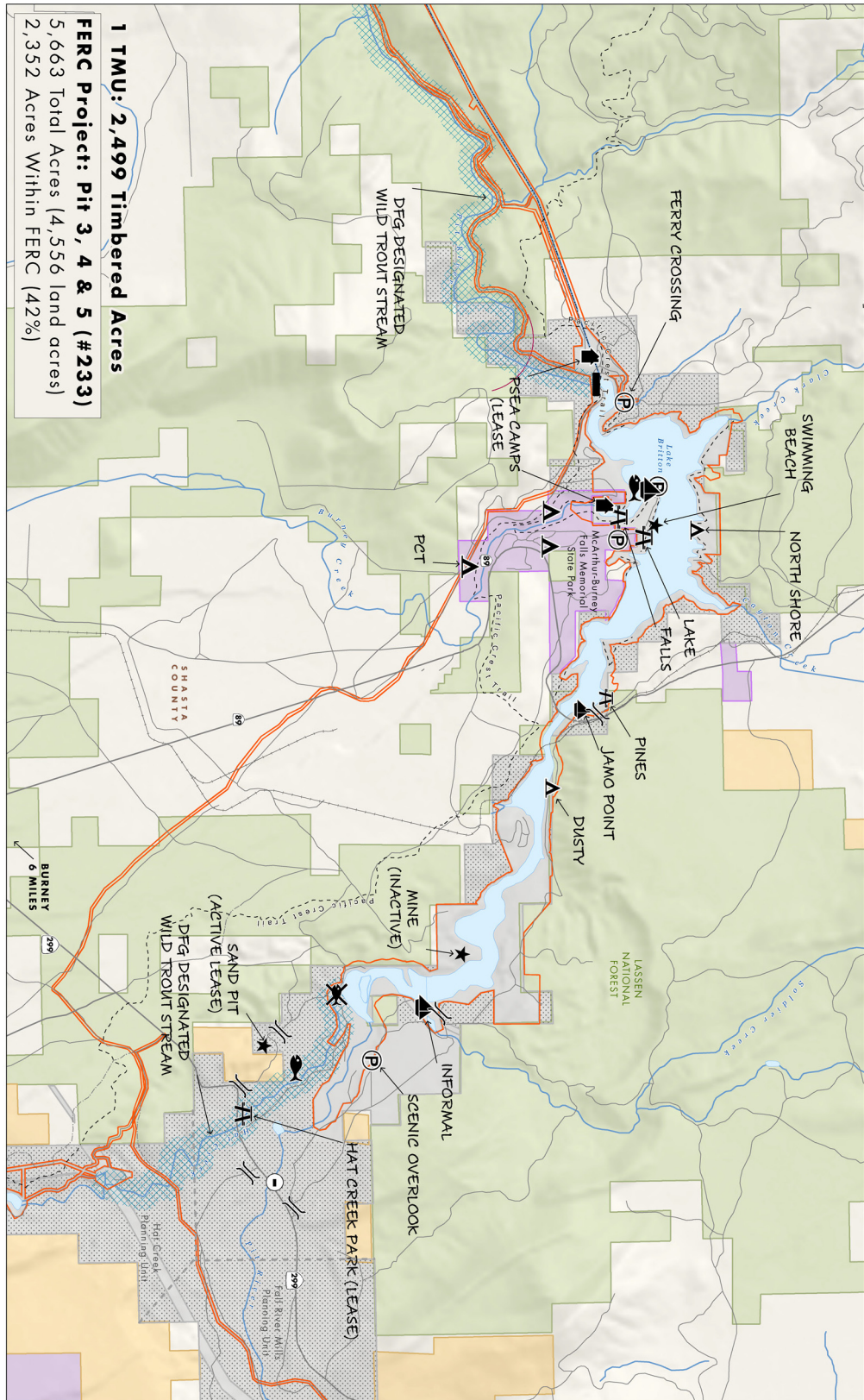
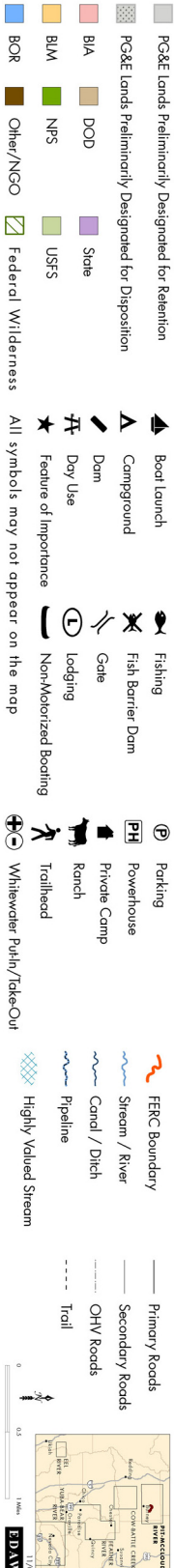


Figure PM-9

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species, were also frequently documented around Lake Britton during FERC relicensing studies.

Previous fisheries enhancement efforts in Lake Britton included the construction of the Hat Creek fish barrier dam, located at the confluence of Hat Creek and Lake Britton. This dam was constructed in 1969 to prevent introduced fish species within Lake Britton from entering and impacting the designated Hat Creek Wild Trout area. The Hat Creek Wild Trout area extends from the fish barrier dam upstream to Hat Creek #2 Powerhouse (located within the Hat Creek Planning Unit).

Terrestrial habitat within the planning unit provides for a wide range of species. The area adjacent to Lake Britton and the Pit River has one of the largest populations of bald eagles within the contiguous United States, and the Pit River System is one of the most important bald eagle nesting areas in California. Seven pairs of bald eagles nest within the planning unit, and wintering bald eagles can also be seen in the planning unit. Eight bank swallow colony complexes have been documented along Lake Britton with 30 to over 2,000 nesting burrows at each colony. Additionally, three osprey nests, a probable new peregrine falcon breeding site, potential breeding habitat for willow flycatcher, and habitat for the valley elderberry longhorn beetle were also identified during FERC relicensing studies. The Lake Britton area is also within the range of the northern spotted owl, and the adjacent USFS Chalk Mountain Late Successional Reserve (LSR) contains five spotted owl Protected Activity Centers (PACs). The Lake Britton area also provides habitat for several special status plants and six species of noxious weeds. Many habitat-related enhancements and plans are required in the New License.²

Open Space

The Shasta County General Plan recognizes that rivers, creeks and associated riparian corridors, and floodplains within the county are major open space resources. Lands within the planning unit provide open space and scenic viewsheds for McArthur-Burney Falls Memorial State Park,

Highway 299, and Highway 89, which has been designated as part of the Volcanic Legacy Scenic Byway.

Outdoor Recreation

Lake Britton is a popular recreation area for angling, swimming, hiking, picnicking, boating, camping, wildlife viewing, and hunting. Most of the recreation facilities are found in the lower Lake Britton area at McArthur-Burney Falls Memorial State Park. The park leases 182 acres of shoreline lands from PG&E. McArthur-Burney Falls Memorial State Park is one of the oldest and most popular State Parks in California; it contains Burney Falls, a National Landmark, along with several campgrounds, trails, and two day use areas. These popular day use areas are located at Burney Falls and along the lakeshore.

The lakeshore day use area contains a beach, marina, picnic area, designated swim area, and boat rental. In addition, lower Lake Britton contains a campground (North Shore), boat launch, day use area, two private camps, and a moderately used informal recreation area. There are also 20 recreation trails found in the lower portion of Lake Britton. A number of recreation enhancements are required in the New License under the recreation management plan, and focus on enhancing both facilities and the user experience in the lower lake area.³ Additionally, a bridge replacement and relocation of Highway 89 planned in the lower



Marina at Lake Britton

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Fishing platform on Lake Britton

Lake Britton area will improve highway access from the boat launch and picnic area on the east side of the lake.

The upper Lake Britton area provides a more primitive recreation setting. There are only two developed recreation sites - a campground and day use area. Most recreation use is dispersed, and fishing is the primary recreation activity. The day use area, Hat Creek Park, is located on Hat Creek and Highway 299 and is leased and managed by Shasta County. Hat Creek is a catch-and-release wild trout fishery that is very popular with anglers. The upper lake area also contains an informal scenic overlook on the Pit River off Highway 299, an informal boat launch near the scenic overlook, and a whitewater take-out at the Highway 299 Bridge for the Pit River run. A short road and parking area are provided for boaters at the take-out. There are 39 trails in the upper lake area, primarily used for fishing access. Additional recreation enhancements for upper Lake Britton are required in the New License under the recreation management plan.⁴

Unauthorized OHV use is known to occur in the area. PG&E has closed, gated, and bouldered many roads in the upper lake area to limit vehicle access and reduce unauthorized OHV use. These measures have been very successful and have helped reduce impacts to habitat and cultural resources. Also included within the Lake Britton Planning Unit are two former project construction camps, Camp Britton and Camp Shasta, now leased by Pacific Service Employees Association

(PSEA). There are a total of four recreational leases within the planning unit, including McArthur-Burney Falls Memorial State Park, Camp Britton, Camp Shasta, and Hat Creek Park.⁵

Forest Resources

The planning unit contains one Timber Management Unit (TMU) that includes 2,499 acres of timber, consisting of second-growth mixed conifer and eastside pine stands. There are no plantations within the TMU, but there is a possibility of late seral stage stands. The area near the Pit River confluence with Lake Britton may contain some remnant apple orchard trees, along with oaks and incense-cedar. The Lake Britton TMU is currently managed by PG&E for Multiple-Uses, 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. Forestland in the southwest portion of the planning unit, adjacent to the USFS Chalk Mountain LSR, was harvested in the early 1990s.

Much of the forestland within the planning unit is surrounded by USFS lands managed under a late successional prescription. This prescription strives to provide diversity through maintenance and protection of old-growth ecosystems that serve as habitat for late successional and old-growth forest-related species, such as the northern spotted owl. Fire management is a concern in the planning unit; small fires are fairly common at Lake Britton. In



Habitat in peninsula area along Pit River

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fact, seven of the nine large fires in the project vicinity between 1911 and 2001 were located around Lake Britton.⁶

Agricultural Uses

Grazing was discontinued on lands within the FERC boundary in the late 1980s to protect sensitive resources and water quality.⁷ Lands outside the FERC boundary appear to have low potential to support grazing activities due to the presence of sensitive species.

Historic Resources

Lake Britton is located on land formerly occupied by an extensive ancient lake. Human use of the Lake Britton area dates back to the Paleoindian period over 7,500 years ago. The planning unit is within the Pit River Tribe's ancestral territory. The entire shoreline of Lake Britton was Federally designated an archaeological district in 1975 with over 90 archaeological sites including 20 prehistoric villages contained within the district. Cultural resource surveys as part of the Pit 3, 4, 5 FERC Project identified 102 ethnographic locations and recorded 66 sites in the vicinity of Lake Britton, which include shell middens, lithic scatters, housepits, cairns, and historic cairns, a railroad, homesteads, roads, and ditches. Ethnobotanical resources have also been identified in the Pit 3, 4, 5 Project area such as hazel and redbud, which are of special importance to Native Americans for art, medicine, basketry, and cultural use.

In relicensing, the Pit 3, 4, 5 Hydroelectric System was determined to be eligible for listing in the NRHP as an historic district. Some system components within the planning unit are also individually eligible for inclusion on the NRHP including the Pit 3 Dam and Lake Britton, Camp Shasta, and Camp Britton. Vandalism and shoreline erosion were affecting many cultural sites; however, limits on boat speed in upper Lake Britton, bouldering and closure of roads, and seasonal gate closures have reduced vandalism and impacts to cultural sites. Many sites impacted by



Pit River Overlook

fluctuating water levels in Lake Britton have been stabilized and/or documented. PG&E currently has a Memorandum of Understanding with the Pit River Tribe for tribal use of two spiritual sites within the planning unit. The New License requires developing a final historic properties management plan (HPMP) including monitoring and protection of sites.

Stewardship Council Recommendations

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

Objective: Preserve and enhance biological and cultural resources, as well as enhance public access, educational opportunities, the recreation experience and sustainable forestry management.

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As shown on Table PM-5, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Lake Britton 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 Lake Britton Planning Unit offers diverse and high value terrestrial habitat as well as important aquatic resources such as Lake Britton, Hat Creek and the Pit River. 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 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. Management of the property to preserve and enhance habitat will also include addressing noxious weeds, and compliance with the USFWS Biological Opinion, outside the FERC boundary as applicable. Bald eagle nesting habitat improvements on the north side of the lake are also recommended. The Stewardship Council encourages close coordination with the USFS and other resource-focused organizations working in the region. All planning should be considered in conjunction with fuels and forest management plans as well as relevant FERC license required plans.

Open Space

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

The Lake Britton Planning Unit provides important open space and viewsheds for major recreation areas and highways. This concept would preserve open space by limiting the construction of human-made features to recreation improvements within existing developed areas, as well as through permanent conservation easements. Conservation easements would describe all prohibited uses to maintain open space values, including the level of uses allowed and the requirement to maintain scenic qualities.

Outdoor Recreation

Objective: Enhance recreational facilities in order to provide additional public access and educational opportunities, as well as to enhance the recreation experience.

The Lake Britton Planning Unit is a popular recreation destination, primarily for water-based recreation such as boating, swimming, and fishing. The planning unit offers a variety of experiences ranging from very developed to dispersed and primitive. As shown in Figure PM-10, the Stewardship Council looks to enhance recreation



Meadow habitat along Pit River

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opportunities by recommending improvements to existing recreational facilities as well as the creation of new trail features and interpretive programs. We recommend enhancements focused on assessment of the potential for additional trail connections, installation and improvement of directional and interpretive signage, enhancement of public access at the PSEA camps, designation of OHV routes, evaluation of the potential to relocate the Pacific Crest Trail campground, and development of additional interpretive programs. We recommend coordinating with the development of FERC license required plans and working closely with Shasta County, the Department of Parks and Recreation, USFS, USFWS, and the Pit River Tribe regarding recreation enhancements.

Sustainable Forestry

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

The Lake Britton Planning Unit contains almost 2,500 acres of forestland adjacent to late successional habitat 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 watershed management, fire management and response, and fuels management. The forest, fire management and response, and fuels management plans should be developed in conjunction with noxious weed and wildlife and habitat management plans as well as with relevant FERC license required plans. We expect that all of these plans would be developed in coordination with adjacent landowners, lessees, and USFS management and practices as appropriate.



Hat Creek Park

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 and traditional uses.

With the entire shoreline of Lake Britton designated an archaeological district and numerous documented archaeological and historic sites, the Lake Britton Planning Unit is an important cultural resource area. The Stewardship Council aims to support an increased understanding of these resources and ensure they are appropriately protected. To meet this objective, we recommend that cultural resource studies be conducted to understand the resources found at Lake Britton (particularly outside the FERC cultural resource study area where less information is available). The Stewardship Council recommends that appropriate management plans be developed and implemented, and that opportunities to support public education regarding cultural resources be considered. Additionally, removal of signs of unauthorized recreation use at cultural sites is recommended to further discourage unauthorized use and protect cultural resources. Throughout this effort, the Stewardship Council recommends close coordination with Native American entities. Development of the cultural resources management plan should be consistent with relevant FERC license required plans and recommended habitat enhancement measures.

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Endnotes

¹ The lower Lake Britton area includes lands from the Pit 3 Dam (in the west) to Highway 89 (in the east). Upper Lake Britton includes lands from Highway 89 (in the west) to Highway 299 (in the east).

² Measures required in the New License regarding habitat include: a western pond turtle monitoring plan, updating of the Interagency Bald Eagle Management Plan, a vegetation and invasive weed management plan, a valley elderberry longhorn beetle protection plan, a northern spotted owl protection plan, fish population trend and condition monitoring in Project reservoirs and river reaches, a Biological Resource Program Technical Review Group, and a terrestrial wildlife mitigation and monitoring plan.

³ The New License requires several recreation enhancements for the lower lake area under the recreation management plan. These enhancements include: improvements at North Shore Campground, measures to address management of the informal use area called the North Ferry Crossing; boating, parking, and day use enhancements at the Jamo Point Boat Ramp; increased camping and day use capacity; maintaining and upgrading existing trails around Lake Britton; pedestrian signage at the Pit 3 Dam; and development of a reservoir water surface zoning plan, an information, education, and interpretation plan, and a recreation monitoring and reporting plan (all three of which would cover the lower and upper Lake Britton areas). The New License also requires development of a visual management plan and a sign plan.

⁴ The New License also requires several recreation enhancements for the upper lake area under the recreation management plan. These enhancements include: a plan for public access to lower Hat Creek; camping, swimming, and ADA access improvements at the campground; improvements to the car-top boat ramp; parking closures; and an OHV and vehicle management plan as a component of the road and facilities management plan (which would cover the upper and lower Lake Britton areas).

⁵ There is also a lease for a sand quarry located north of Hat Creek Park.

⁶ The New License requires developing a fire management and response plan for the project area.

⁷ Grazing was discontinued in accordance with the previous Pit 3, 4, 5 FERC Project Cultural Resources Management Plan.



Riparian habitat along Hat Creek

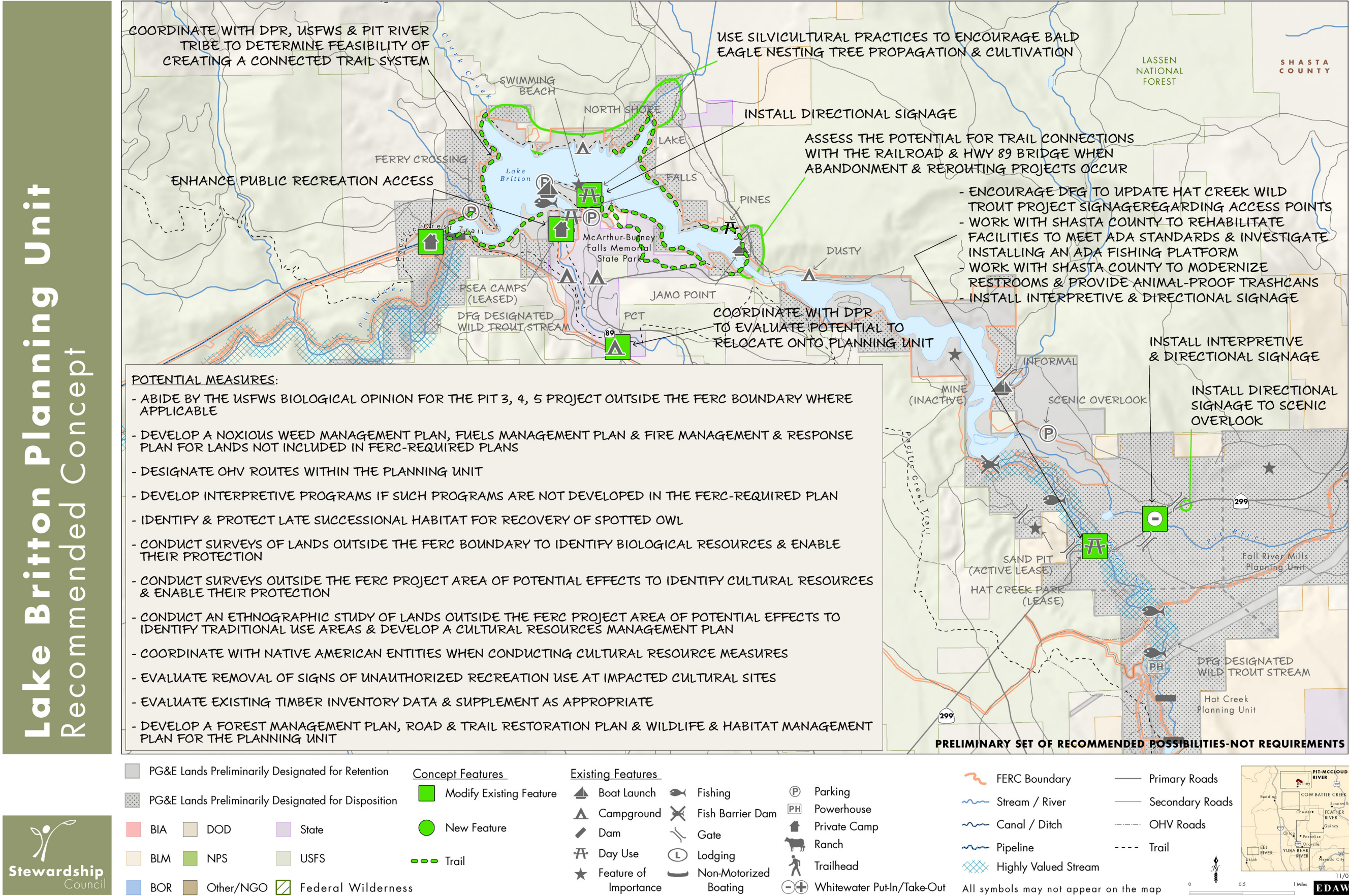
Table PM-5 Objectives to Preserve and/or Enhance – Recommended Concept

Planning Unit Objective: Preserve and enhance biological and cultural resources, as well as enhance public access, educational opportunities, the recreation experience 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 of lands outside the FERC boundary to identify biological resources and enable their protection.• Develop a road and trail restoration plan consistent with relevant FERC-required plans.• Abide by the USFWS Biological Opinion for the Pit 3, 4, 5 Project outside the FERC boundary where applicable.• Develop a noxious weed management plan for lands not included in the FERC-required vegetation and invasive weed management plan.• Use silvicultural practices to encourage bald eagle nesting tree propagation and cultivation in the North Shore nesting territory.**• Develop a wildlife and habitat management plan for the planning unit.
Preservation of Open Space	Preserve open space in order to protect natural and cultural resources 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 educational opportunities, as well as to enhance the recreation experience.	<ul style="list-style-type: none">• Coordinate with DPR, USFWS, and the Pit River Tribe to determine feasibility of creating a connected trail system around lower Lake Britton consistent with relevant FERC-required plans.**• Designate OHV routes within the planning unit in coordination with adjacent landowners and relevant FERC-required plans.• Install directional signage at the McArthur-Burney Falls Memorial State Park lakeshore day use area and on Highway 299 for wildlife viewing at the scenic overlook if not developed as part of the FERC-required information, education, and interpretation plan.**• Install interpretive and directional signage for recreation sites outside the FERC boundary (Hat Creek Park, Pit River whitewater take-out) consistent with relevant FERC-required plans.**• Encourage DFG to update Hat Creek Wild Trout Project signage at Hat Creek Park regarding access points.**• Enhance public recreation access at the PSEA camps.**• Coordinate with DPR to evaluate the potential to relocate the Pacific Crest Trail campground onto planning unit lands.**• Develop interpretive programs to be conducted at appropriate recreation sites if such programs are not developed in the FERC-required information, education, and interpretation plan.• Work with Shasta County to modernize restrooms at Hat Creek Park and replace existing trash cans with animal-proof trash cans.**• Work with Shasta County to rehabilitate facilities at Hat Creek Park to meet current ADA standards and investigate installing an ADA fishing platform.**• Assess the potential for trail connections with the railroad and Highway 89 bridge if abandonment and rerouting projects occur.**
Sustainable Forestry	Develop and implement forestry practices in order to contribute to a sustainable forest, 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 lands not included in the FERC-required plan to ensure fire preparedness.• Develop a fuels management plan for lands not included in the FERC-required fire management and response plan to ensure long-term forest health and reduce fuel loading and fire hazard.• Identify and protect late successional habitat for management and recovery of the northern spotted owl.
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 and traditional uses.	<ul style="list-style-type: none">• Conduct surveys outside the FERC Project APE to identify cultural resources and enable their protection.• Conduct an ethnographic study of lands outside the FERC Project APE to identify traditional use areas.• Develop a cultural resources management plan for lands outside the FERC Project APE and include impacted sites not treated under the FERC-required Pit 3, 4, 5 Project final HPMP.• Evaluate removal of signs of unauthorized recreation use (fire rings, trash, etc.) at impacted sites within the planning unit to further protect cultural sites and discourage unauthorized recreation use.• 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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Lake Britton Planning Unit

Fish, Plant, and Wildlife Habitat

Potential Measure:

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

Though many studies were conducted for the Pit 3, 4, 5 Project relicensing effort, often these studies focused only on resources within the FERC boundary. Therefore, the Stewardship Council recommends conducting surveys of lands outside the FERC boundary to identify biological resources and thus gain a broader knowledge of the wildlife, plants, and habitats located within the Lake Britton Planning Unit and enable their protection.

Potential Measure:

- *Develop a road and trail restoration plan consistent with relevant FERC-required plans.*

There are many roads and trails within the planning unit – some are used, some are closed, and some are redundant with other facilities; all are not needed. Unnecessary roads and trails may have erosion issues and are fragmenting habitat and possibly leading to vehicle travel in sensitive biological and cultural areas. PG&E has closed many roads into sensitive areas; however, continued presence of the roads can lead to continued detrimental habitat impacts and impacts to cultural resources as well as encourage unauthorized OHV use. An inventory of project roads and a road and facilities management plan are required in the New License for the Pit 3, 4, 5 Project and will map roads, identify provisions to restrict vehicular access to designated roadways and prohibit off-road activities within the project area (including potentially revegetating roads), and develop measures to protect soil and control erosion. A recreation management plan is also required and will identify measures to maintain and upgrade trails within the Lake Britton area.

Restoration of unnecessary roads and trails would provide greater habitat continuity, less enticement for unauthorized OHV use, enhance cultural resource protection, and reduce impacts to habitat resources. Therefore, the Stewardship Council recommends developing a road and trail restoration plan consistent with relevant FERC license required plans. The restoration plan would identify roads and trails that are causing detrimental impacts to habitat and cultural resources and could be restored if they are not already identified in the FERC license required plans for maintenance, restoration, or upgrading. Use of traditionally important plants in restoration would also be addressed in the plan. Development of the restoration plan should also be coordinated with the wildlife and habitat management plan and forest management plan.

Potential Measure:

- *Abide by the USFWS Biological Opinion for the Pit 3, 4, 5 Project outside the FERC boundary where applicable.*

The USFWS Biological Opinion contains a condition that specifically requires any easement holders or owners of land previously owned by PG&E to abide by the Biological Opinion for the Pit 3, 4, 5 Project. FERC addressed this in the Final Environmental Impact Statement (EIS) for the Pit 3, 4, 5 Project and indicated that this condition appeared to apply to PG&E lands outside the FERC boundary, which are beyond FERC jurisdiction. To ensure species protection, the

Stewardship Council recommends that easement holders or fee title owners of lands in the planning unit outside the FERC boundary abide by the USFWS Biological Opinion for the Pit 3, 4, 5 Project where applicable.

Potential Measure:

- *Develop a noxious weed management plan for lands not included in the FERC-required vegetation and invasive weed management plan.*

Six species of noxious weeds were found in the planning unit area during relicensing; with the high level of recreation use, there is potential for the spread of these weeds throughout the planning unit. Noxious weeds within the FERC boundary will be addressed in the vegetation and invasive weed management plan required in the Pit 3, 4, 5 Project New License. FERC also suggested in their Final EIS for the Pit 3, 4, 5 Project that PG&E implement weed control measures on its adjacent non-project lands to reduce the risk of the spread of weed infestations. Therefore, the Stewardship Council recommends developing a noxious weed management plan for lands not included in the FERC license required plan. Development of the noxious weed management plan should be coordinated with existing PG&E noxious weed efforts, and the wildlife and habitat, fuels, and forest management plans, and should be consistent with the FERC license required plan.

Potential Measure:

- *Use silvicultural practices to encourage bald eagle nesting tree propagation and cultivation in the North Shore nesting territory.*

There are currently two bald eagle nests in the North Shore area, one on either side of the campground. The planning unit is part of an area that contains one of the largest populations of bald eagles within the contiguous United States. The Pit 3, 4, 5 Project License Application states that nest trees in the North Shore nesting area are becoming scarce. To continue providing bald eagle nesting habitat, the Stewardship Council recommends using silvicultural practices to encourage bald eagle nesting tree propagation and cultivation in the North Shore nesting territory.

Potential Measure:

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

The Lake Britton Planning Unit provides habitat for a variety of species, including many special status species. Additionally, the planning unit may provide several opportunities for restoration of roads and trails. To provide a comprehensive vision for habitat protection and enhancement within the planning unit, the Stewardship Council recommends creating a wildlife and habitat management plan. Once recommended biological resource surveys are completed, potential habitat enhancements can be identified and developed into a comprehensive plan describing habitat and species goals and objectives, as well as measures needed to enhance and protect habitat for plant and wildlife species. 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 noxious weed, forest, and fuels management plans as well as habitat enhancement and protection measures already described herein. The wildlife and habitat management plan should also be consistent with relevant plans required by FERC in the New License.

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 recreation development and some restoration and are therefore not expected to decrease the scenic quality of the viewsheds.

Outdoor Recreation

Potential Measure:

- *Coordinate with DPR, USFWS, and the Pit River Tribe to determine feasibility of creating a connected trail system around lower Lake Britton consistent with relevant FERC-required plans.*

There are currently several developed trails that access or follow the lower Lake Britton shoreline. It may be possible to connect these trails around the lower lake, thus enhancing trail opportunities by providing longer trail opportunities and enhancing site connectivity and accessibility by non-motorized means of travel. There are bald eagle nests and other sensitive biological resources as well as numerous cultural sites around the lake that may hinder trail development or restrict trail locations. Therefore, the Stewardship Council recommends coordinating with California Department of Parks and Recreation (DPR), USFWS, and the Pit River Tribe to determine the feasibility of creating a connected trail system around lower Lake Britton. This effort should be consistent with the recommended wildlife and habitat management plan as well as relevant FERC license required plans, such as the recreation management plan and road and facilities management plan.

Potential Measure:

- *Designate OHV routes within the planning unit in coordination with adjacent landowners and relevant FERC-required plans.*

The Lake Britton area receives significant OHV use on many roads and trails. This use, however, can be detrimental to biological and cultural resources, and therefore PG&E has bouldered and/or closed many roads. Despite these efforts, unauthorized OHV use still occurs, particularly in the upper lake area. To inform OHV users of acceptable routes and focus OHV use in acceptable areas, the Stewardship Council recommends designating OHV routes within the planning unit in coordination with adjacent landowners, such as the U.S. Forest Service (USFS), as routes may cross ownership boundaries. Designation should also be coordinated with the road and trail restoration plan and relevant FERC license required plans, including the road and facilities management plan.

Potential Measure:

- *Install directional signage at the McArthur-Burney Falls Memorial State Park lakeshore day use area and on Highway 299 for wildlife viewing at the scenic overlook if not developed as part of the FERC-required information, education, and interpretation plan.*

The lakeshore day use area at McArthur-Burney Falls Memorial State Park is the most popular shoreline day use area at the lake and contains several facilities including an ADA fishing platform, boat launch, marina, picnic area, and swimming beach. There is little to no signage guiding visitors to the facilities from the parking area. Likewise, there is no signage along Highway 299 guiding visitors to the informal scenic overlook on the Pit River. The Stewardship Council recommends installing directional signage at the lakeshore day use area and on Highway 299 indicating wildlife viewing at the scenic overlook if such signage is not developed as part of the FERC license required information, education, and interpretation plan. These signs would enhance the recreation experience by reducing time spent attempting to find facilities.

Potential Measure:

- *Install interpretive and directional signage for recreation sites outside the FERC boundary (Hat Creek Park, Pit River whitewater take-out) consistent with relevant FERC-required plans.*

The FERC license required information, education, and interpretation plan will only address interpretation needs at recreation sites within the FERC boundary. There are, however, recreation sites outside the FERC boundary that could benefit from interpretive and/or directional signage, such as the whitewater take-out on Highway 299 and Hat Creek Park (there is no directional signage on Highway 299 indicating the location of the whitewater take-out). Therefore, the Stewardship Council recommends installing interpretive and directional signage for recreation sites outside the FERC boundary consistent with relevant FERC license required plans. Consistent signage regarding themes, format, and display would provide continuity to the area and prevent duplicative signage or inconsistent message. Recommended signage would enhance the recreation experience through additional information and education as well as less time and energy spent attempting to locate recreation sites. The recommended additional signage facilities should be included in an appendix (non-jurisdictional) to the FERC license required information, education, and interpretation plan to ensure consistent message, format, and maintenance of signage both within and outside the FERC boundary.

Potential Measure:

- *Encourage DFG to update Hat Creek Wild Trout Project signage at Hat Creek Park regarding access points.*

The Stewardship Council recommends encouraging DFG to update the existing Hat Creek Wild Trout Project signage at Hat Creek Park. The signage contains a map that displays parking and road locations that are no longer correct due to closures. This signage should also be included in an appendix (non-jurisdictional) to the FERC license required information, education, and interpretation plan to ensure consistent message, format, and maintenance of signage both within and outside the FERC boundary.

Potential Measure:

- *Enhance public recreation access at the PSEA camps.*

There are two historic camps currently leased to the PSEA. The Stewardship Council recommends enhancing public access to these camps by allowing public recreation access at the Pacific Service Employees Association (PSEA) camps. The camps are currently open only to a small portion of the general population (PSEA members only). To provide a benefit for the general public, it is recommended that use of Camps Shasta and Britton be extended to the public. The existing leases with the PSEA camps would likely need to be amended to allow for this change, and it would need to be determined how to balance existing uses of the facility with additional public access.

Potential Measure:

- *Coordinate with DPR to evaluate the potential to relocate the Pacific Crest Trail campground onto planning unit lands.*

The existing campground designated at McArthur-Burney Falls Memorial State Park for use by Pacific Crest Trail users contains six campsites and is located on Burney Creek. The State Park's General Plan mentions conducting a regional study to evaluate alternative sites for the Pacific Crest Trail campground away from Burney Creek with a better water source. It is unknown if this study has been completed. If not, the Stewardship Council recommends coordinating with DPR and the USFS to evaluate the potential to relocate the Pacific Crest Trail campground onto planning unit lands as the trail crosses planning unit lands just east and west of the State Park. If an appropriate location on planning unit lands is found for the campground, the campground should be included in either the FERC license required recreation management plan or in an appendix (non-jurisdictional) if an appropriate site is located outside the FERC boundary.

Potential Measure:

- *Develop interpretive programs to be conducted at appropriate recreation sites if such programs are not developed in the FERC-required information, education, and interpretation plan.*

Lake Britton receives heavy day use during the recreation season, with some sites reaching carrying capacity several days. The area attracts a large and diverse audience that could be further educated on many topics such as cultural resources, threatened and endangered species, and appropriate recreation behavior. Interpretive programs could not only educate users, but enhance their recreation experience as well. Due to the large audience that could be reached at Lake Britton in very concentrated locations, the Stewardship Council recommends developing interpretive programs, potentially including walks (which could take advantage of potential new trails) and campground talks. These programs would be conducted at appropriate recreation sites if such programs are not developed as part of the FERC license required information, education, and interpretation plan. Coordination with the USFS and DPR would be necessary when developing such programs. Coordination with the Pit River Tribe would also likely be necessary, both on program content and potential interest in conducting programs. Potential cultural resource programs could include discussion of Native American history in the area and ethnobotanical plants and uses.

Potential Measures:

- *Work with Shasta County to modernize restrooms at Hat Creek Park and replace existing trash cans with animal-proof trash cans.*
- *Work with Shasta County to rehabilitate facilities at Hat Creek Park to meet current ADA standards and investigate installing an ADA fishing platform.*

Hat Creek Park provides a picnic area on the Wild Trout stream portion of Hat Creek off of Highway 299 and is currently leased to Shasta County. It is a fairly old park with old facilities and very limited ADA access. Due to its location on a highway and a renowned trout stream, there is potential to enhance recreation facilities and the recreation experience at this park. The Stewardship Council recommends working with Shasta County to modernize the restrooms and replace the existing trash cans with animal-proof trash cans. This would provide the park with new, updated facilities that would function more effectively.

The Stewardship Council also recommends working with Shasta County to rehabilitate facilities at Hat Creek Park to meet current ADA standards and investigate installing an ADA fishing platform. These measures would provide facilities for a greater range of visitors and may also enhance use for current visitors. Prior to facility development or rehabilitation, impacts to other resources would need to be identified. Hat Creek Park is outside the FERC boundary and would therefore likely not be included within the FERC license required recreation management plan or information, education, and interpretation plan. Thus, appendices (non-jurisdictional) to the appropriate FERC license required plans should be created to reflect changes to Hat Creek Park and ensure long-term management, maintenance, and monitoring of use of Hat Creek Park as well as provision of consistent interpretation and education facilities both within and outside the FERC boundary.

Potential Measure:

- *Assess the potential for trail connections with the railroad and Highway 89 bridge if abandonment and rerouting projects occur.*

Currently, a railroad line runs through the Lake Britton area and may be abandoned soon. Similarly, Highway 89 is proposed for rerouting, which would entail development of a new bridge over Lake Britton, possibly leaving the old bridge in place. If both of these projects are accomplished, there may be potential to link trails in the Lake Britton area to both the old railroad line and Highway 89 bridge and provide non-motorized access to facilities around the lake. However, as both facilities are owned by other entities, the future of these facilities is uncertain. Therefore, the Stewardship Council recommends assessing the potential for trail connections (and potentially also related trailhead parking facilities) with the railroad and Highway 89 bridge when abandonment and rerouting projects occur and more details are available. If trail connections are feasible, the trails should be included in either the FERC license required recreation management plan or in an appendix (non-jurisdictional) if the trails are located outside the FERC boundary.

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 planning unit currently contains one PG&E timber management unit that is managed for Multiple-Uses and may include some late successional habitat. However, there is no overall documented vision for the timber management unit and the variety of forest habitats within the planning unit. Therefore, 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 holistic watershed management, supporting the enhancement of other BPVs over the long term. The forest management plan would be compatible with adjacent Late Successional Reserve (LSR) management where appropriate to maintain habitat connectivity. Development of the forest management plan should be coordinated with development of the wildlife and habitat, noxious weed, and fuels management plans as well as relevant FERC license required 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, the Stewardship Council recommends developing harvesting practices and a monitoring program 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 fire management and response plan for lands not included in the FERC-required plan to ensure fire preparedness.*

Since 1981, 60% of small fires reported in the Pit 3, 4, 5 Project vicinity were at Lake Britton. Additionally, seven of the nine large fires in the project vicinity between 1911 and 2001 were located around Lake Britton. As the Final EIS for the Pit 3, 4, 5 Project states, the high number of small fires indicates that ignition sources are present; however, favorable conditions and presence of people to extinguish the fires have kept the number of large fires low. The New License requires development of a fire management and response plan that will enable compiling of various agencies' information to facilitate procedures throughout the area and facilitate fire prevention. To increase fire preparedness and enhance fire prevention, the Stewardship Council recommends developing a fire management and response plan for lands not included in the FERC license required plan. The fire management and response plan would include fire prevention measures designed to promote public awareness about fire danger and provide the provisions and staff for an appropriate response to fire. The fire management and response plan should be consistent with the FERC license required plan.

Potential Measure:

- *Develop a fuels management plan for lands not included in the FERC-required fire management and response plan to ensure long-term forest health and reduce fuel loading and fire hazard.*

As previously mentioned, the Final EIS states that the high number of small fires indicates the presence of ignition sources. Therefore, management of fuels is very important in reducing fire risk. The New License requires a fire management and response plan that will contain fire hazard reduction measures; however, this plan would only apply to lands within the FERC boundary. Therefore, the Stewardship Council recommends developing a fuels management plan for lands not included in the FERC license required fire management and response plan to ensure long-term forest health and reduce fuel loading and fire hazard. The fuels management plan could include a controlled fire component that could reduce wildfire danger and enhance deer winter range. FERC suggested that PG&E consider such actions for adjacent non-project lands, but these actions would need to be weighed against potential negative effects on other resources. The

fuels management plan would identify when and where controlled fire would be an appropriate fuel reduction technique. Development of the fuels management plan should be coordinated with the forest, noxious weed, and wildlife and habitat management plans and should be consistent with the FERC license required plan.

Potential Measure:

- *Identify and protect late successional habitat for management and recovery of the northern spotted owl.*

The planning unit possibly contains late seral stage stands and is adjacent to late successional USFS lands that contain spotted owls. To enhance development of late successional habitat within the planning unit, the Stewardship Council recommends identifying and protecting late successional habitat for management and recovery of the northern spotted owl. If habitat is found adjacent to USFS late successional areas, management of planning unit lands should be consistent with adjacent management to provide greater habitat connectivity. Management of planning unit lands containing late successional habitat for the recovery of the spotted owl would be included as a component of both the forest management plan and wildlife and habitat management plan, and should be coordinated with the FERC license required northern spotted owl protection plan.

Agricultural Uses

None recommended.

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.*

Many cultural resource investigations have been conducted at Lake Britton, and 64 sites have been identified in the FERC boundary, as well as two sites outside the FERC boundary, but within the archaeological district boundary. Though the area within the Pit 3, 4, 5 Project Area of Potential Effects (APE, generally the area within the FERC boundary and 25 feet on either side of project roads) has been thoroughly documented, it is unclear the extent to which the area outside the APE has been studied. There is a high likelihood of cultural sites in the Lake Britton area outside the APE, and therefore the Stewardship Council recommends conducting surveys outside the Pit 3, 4, 5 Project APE to identify cultural resources and enable their protection. Documentation efforts should be coordinated with Native American entities.

Potential Measures:

- *Conduct an ethnographic study of lands outside the FERC Project APE to identify traditional use areas.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

Ethnographic studies were conducted in 1984 and identified 102 ethnographic locations within the Pit 3, 4, 5 Project APE. The Pit River Tribe requested that PG&E conduct additional ethnographic studies, covering dance areas, fasting areas, and other traditional practices and land

use. The new ethnographic study identified additional Traditional Cultural Properties, including traditional plant gathering locations, within the Pit 3, 4, 5 Project APE. However, traditional use areas outside the APE are not being studied, and the planning unit contains significant acreage outside the APE, including the tribally important area called the “peninsula” where Hat Creek and the Pit River join Lake Britton. Thus, the Stewardship Council recommends conducting an ethnographic study of lands outside the Pit 3, 4, 5 Project APE to identify traditional use areas. The ethnographic study should be coordinated with Native American entities.

Potential Measures:

- *Develop a cultural resources management plan for lands outside the FERC Project APE and include impacted sites not treated under the FERC-required Pit 3, 4, 5 Project final HPMP.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

There are at least a dozen identified cultural sites that are eligible for the National Register of Historic Places (NRHP) within the Pit 3, 4, 5 Project APE that are being impacted by a variety of uses; however, impacts are not related to the FERC Project, and therefore PG&E did not propose treatment for these sites in the Cultural Resources Management Plan (part of the License Application). Uses such as logging, trails, vehicles, roads, grazing (stray cattle from USFS lands), and general recreational use are impacting cultural sites. Additionally, there are likely cultural resources on lands within the planning unit outside the FERC boundary.

To preserve cultural resources, the Stewardship Council recommends developing a cultural resources management plan for the lands outside the FERC Project APE as well as any impacted sites that are not proposed for treatment under the FERC license required Pit 3, 4, 5 Project final Historic Properties Management Plan (HPMP). 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. Exploring the potential for development of a cultural resource center could also be addressed in the plan. Development of the cultural resources management plan should be consistent with the FERC license required Pit 3, 4, 5 Project final HPMP and should be coordinated with Native American entities.

Potential Measures:

- *Evaluate removal of signs of unauthorized recreation use (fire rings, trash, etc.) at impacted sites within the planning unit to further protect cultural sites and discourage unauthorized recreation use.*
- *Coordinate with Native American entities when conducting cultural resource measures.*

Several sites proposed for treatment in the Pit 3, 4, 5 Project License Application are being impacted by unauthorized recreation use such as camping on top of housepit areas. Proposed treatment consists of posting signage describing the area as a “Sensitive Resource Area.” However, further action could be taken to remove signs of unauthorized recreation use and therefore discourage additional unauthorized use and enhance protection of cultural sites. Therefore, the Stewardship Council recommends evaluating the removal of signs of unauthorized recreation use (fire rings, trash, etc.) at impacted sites. It would need to be determined if the cultural sites could tolerate, and would not be impacted by, attempts to remove signs of

unauthorized use. Removal of signs of unauthorized recreation use should be coordinated with the recommended cultural resources management plan, the FERC license required Pit 3, 4, 5 Project final HPMP, Native American entities, as well as development of the recommended road and trail restoration plan.