

IRON CANYON RESERVOIR PLANNING UNIT

Pit-McCloud River Watershed

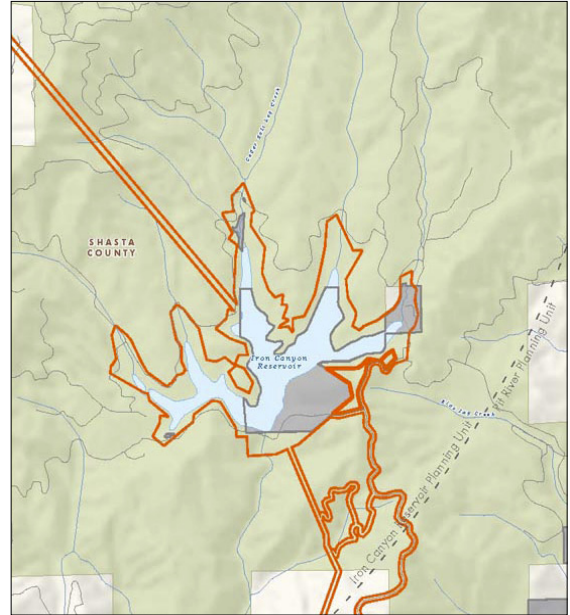
Existing Conditions & Uses

Overview

- Remote reservoir surrounded by steep, forested mountains
- 386 acres in Shasta County; 10 acres outside the FERC boundary and 376 acres inside the FERC boundary
- Part of the McCloud-Pit Project (FERC #2106), currently undergoing relicensing (License expires in 2011)

The Iron Canyon Reservoir Planning Unit is located in Shasta County, 3.9 miles from the town of Big Bend (see Figure PM-15). The site contains Iron Canyon Reservoir, a 500-acre reservoir with 11 miles of shoreline at normal pool elevation. The reservoir is located on Iron Canyon Creek, a tributary of the Pit River, at an elevation of 2,665 feet and is surrounded by mountainous terrain. Five creeks flow into the reservoir to create its five “fingers.”

The planning unit includes only a portion of the reservoir, mainly inundated areas in the central part of the reservoir and up the eastern three fingers. In addition, lands at the tip of the Cedar



Iron Canyon Reservoir Planning Unit
Shasta County

Salt Log Creek and McGill Creek fingers are included within the planning unit, as well as a larger portion of land east and adjacent to the dam. Planning unit lands contain hydropower infrastructure (Iron Canyon Dam) associated with the McCloud-Pit FERC Project (#2106).¹ The Iron Canyon Reservoir area is surrounded almost entirely by the Shasta-Trinity National Forest.

Fish, Plant, and Wildlife Habitat

Iron Canyon Reservoir is located within the Shasta-Trinity National Forest's Iron Canyon Late Successional Reserve (LSR), designated to protect late successional habitat dependent species such as spotted owls. There are 16 designated spotted owl Protected Activity Centers (PACs) within the Iron Canyon LSR. Iron Canyon Reservoir is surrounded by early, mid, and late successional habitat. Two pairs of bald eagles nest at the reservoir; wintering bald eagles have also been seen, and the USFS suspects that a northern goshawk also uses the reservoir area. Many species potentially occur within the planning unit including several types of salamanders, frogs, bats, mollusks, and birds such as hawks and spotted owls. Mammals that may occur in the planning unit include beaver,



Iron Canyon Reservoir

Iron Canyon Reservoir Planning Unit Existing Conditions

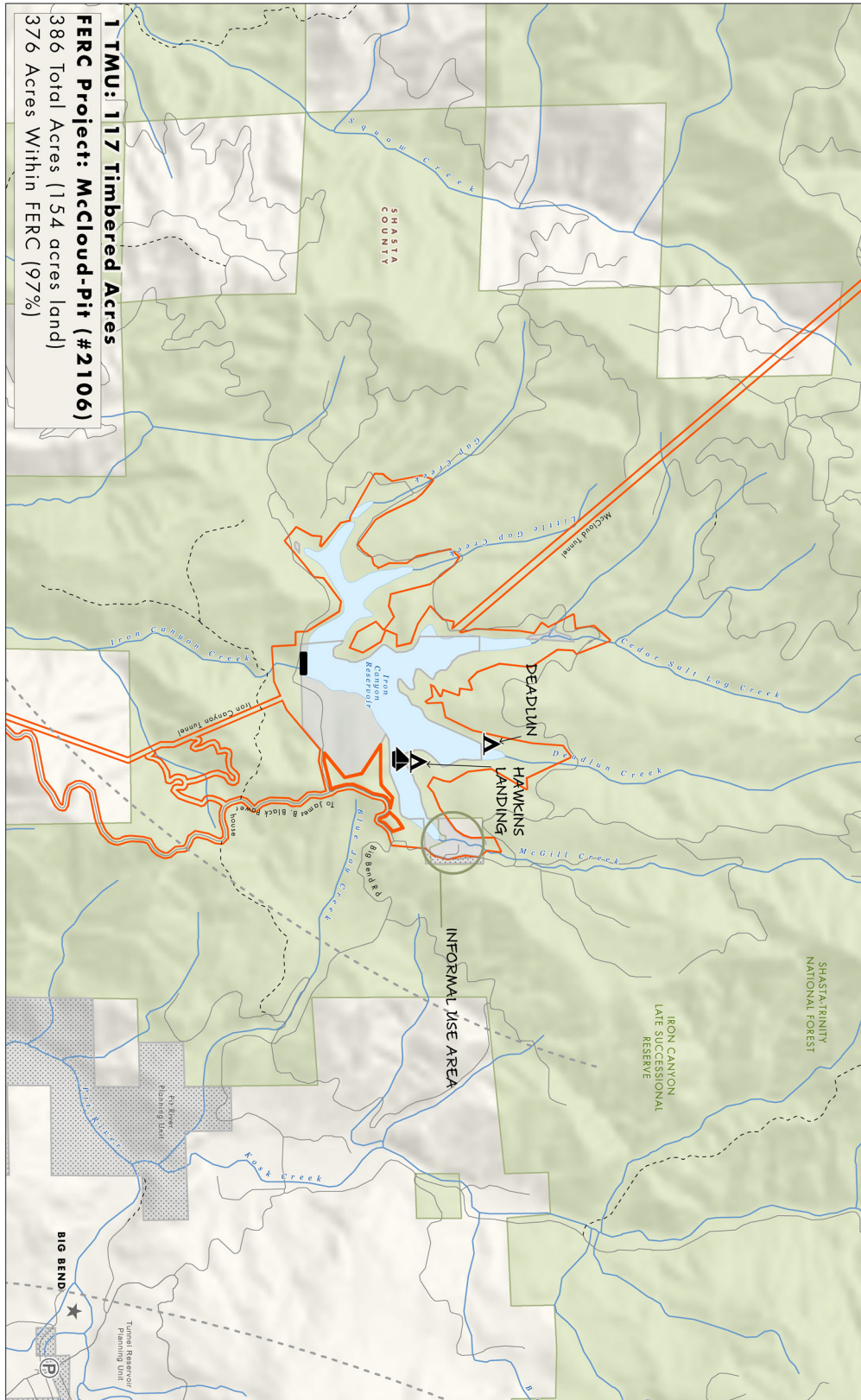
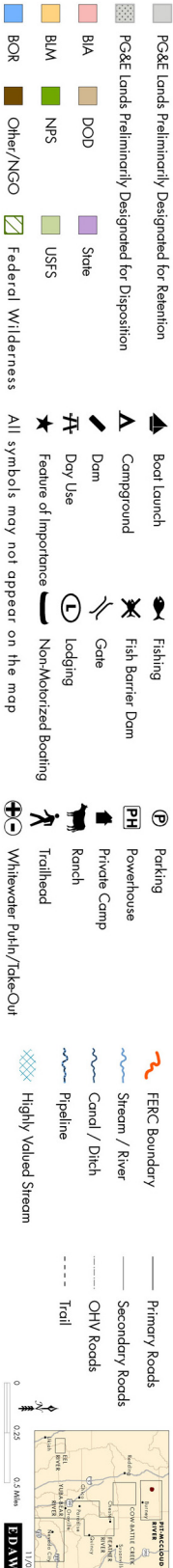


Figure PM-15

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black bear, fox, otter, skunk, and weasel. There are also more than 10 special status plants that are known or likely to occur within the McCloud-Pit FERC Project area. Scattered occurrences of six noxious weeds have been identified at Iron Canyon Reservoir as well.

The McCloud-Pit FERC Project is currently undergoing relicensing, which will provide more specific habitat and species information through proposed studies that include surveys for special status wildlife and plants. In addition, surveys will assess special status raptor use and willow flycatcher habitat, classify and map vegetation community types, and map and assess noxious weed infestations.

The creeks and reservoir provide aquatic and riparian habitat for a variety of fish including rainbow trout (stocked by DFG), brown trout, brook trout, and largemouth and smallmouth bass. In 1978 there was a mapped population of the extremely rare McCloud redband trout in McGill Creek; it is unknown if this population still exists within the creek. The planning unit includes forest, aquatic, and riparian habitat along Cedar Salt Log and McGill Creeks, within the reservoir, and to the east of the dam. A proposed relicensing study will characterize fish populations within the project reservoirs (including Iron Canyon Reservoir) and project-affected stream reaches to provide a better understanding of the fish communities present. Additionally, the USFS is planning on replacing culverts that are barriers to upstream fish migrations on four streams that enter the reservoir and provide spawning habitat for resident rainbow trout and possibly brown trout.

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. The Iron Canyon Reservoir area contains open space around the reservoir and along the creeks that feed into the reservoir. Due to lack of development, steepness of the area, and

limited recreation facilities, open space values can be found throughout the planning unit.

Outdoor Recreation

The reservoir provides an extremely remote recreation experience where quiet and solitude are common. Most recreation use consists of camping, boating, fishing, and hunting, with OHV and trail use on adjacent USFS lands. As shown on Figure PM-15, two campgrounds and a boat ramp are located adjacent to the reservoir on USFS lands.

The reservoir is shallow and contains many underwater obstacles (tree stumps, rocks, etc.); therefore, most boating use is from small, low-speed or non-motorized boats for fishing, although powerboats are allowed on the reservoir. Waterskiing and swimming are allowed, but use is low due to boating hazards and cold water temperature. Iron Canyon Reservoir is a popular fishing spot, with anglers fishing from boats, inflatables, and the shoreline. The road that encircles the reservoir provides easy access to the shoreline, with unimproved trails surrounding the lake for access on foot.

Hunters use the area, primarily hunting for deer, rabbit, quail, squirrel, band-tailed pigeon, and black bear. Iron Canyon Reservoir is mainly used by local residents of Big Bend and Mt. Shasta, and the recreation season is primarily early summer (i.e., May to the first of July) and



View toward McGill Creek area

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Forested slopes of the reservoir

during the fall. Less public use occurs in the southern area of the reservoir where there is less road access and the terrain is steeper and heavily wooded. Several studies regarding recreation are proposed as part of the McCloud-Pit Project relicensing, including studies assessing existing and future recreation demand, assessing recreation supply and recreation use impacts, as well as determining if recreation management, access, or development improvements are needed.

Forest Resources

Forest cover is primarily mixed conifer including ponderosa pine, sugar pine, incense-cedar, Douglas-fir, and white fir. In 1967, PG&E reforested two project borrow pits totaling 40 acres of planning unit lands near the Iron Canyon Dam. The PG&E Timber Management Unit (TMU) for Iron Canyon consists of 117 timbered acres, and current PG&E management activities are restricted to mitigating for watershed and forest health issues, including emergency salvage harvesting following insect attack or a catastrophic event. Surrounding USFS lands have been mapped as having medium to high fire risk. The surrounding Iron Canyon LSR has a high occurrence of lightning fires. More intensive fuel reduction by the USFS is planned around areas of concentrated human use in the LSR, such as Iron Canyon Reservoir, in an effort to reduce the risk of fire.

Agricultural Uses

No agricultural uses occur in this area. The planning unit lands appear to have low potential for grazing due to steep topography and lack of forage.

Historic Resources

Iron Canyon Reservoir is within the ancestral territory of the Pit River Tribe. Less than 40% of the total McCloud-Pit Project FERC cultural resource study area (currently all lands within the FERC boundary) has undergone some cultural resource identification effort in the past. These efforts have documented 74 sites within or adjacent to the study area, at least five of which are located at Iron Canyon Reservoir. Many of the previous surveys are more than 10 years old and do not meet current standards. Two relicensing studies are proposed that would survey and assess archaeological and historic-era properties as well as identify and document traditional cultural properties.²

Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at the Iron Canyon Reservoir Planning Unit be preserved and enhanced by focusing on biological and cultural resource values and sustainable forestry in this remote and biologically diverse region. In presenting the Recommended Concept provided here, our objective is to preserve and enhance habitat and cultural resources while also protecting important forest resources. We recommend this effort be conducted in close coordination with PG&E and FERC relicensing efforts for the area.

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

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As shown on Table PM-8, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Iron Canyon Reservoir Planning Unit. Additional detail and background regarding these potential measures can be found in the Supporting Analysis for Recommendations, provided under separate cover. These measures are intended to be illustrative in nature, not prescriptive, and will be amended, deleted, or augmented over time in coordination with future land owners and managers to best meet the objective for this planning unit.

Fish, Plant, and Wildlife Habitat

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

The Iron Canyon Reservoir Planning Unit offers high value late successional forest habitat and aquatic habitat for recreational fisheries. In order to preserve and enhance the habitat and resources found here, the Stewardship Council recommends encouraging the USFS to install signs prohibiting OHV use in the drawdown zone if such a measure is not required in relicensing. The Stewardship Council encourages close coordination with the USFS and other resource-focused organizations working in the region. All planning be considered in conjunction with the forest management plan and any FERC license required measures developed as part of relicensing.

Open Space

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

This concept would preserve open space through permanent conservation easements. Conservation easements would describe all

prohibited uses to maintain open space values, including the level of uses allowed and the requirement to maintain scenic qualities.

Outdoor Recreation

Objective: Enhance recreation management in order to provide appropriate recreation use.

The Iron Canyon Reservoir Planning Unit provides a remote recreation experience for campers, anglers, and boaters. As shown in Figure PM-16, the Stewardship Council looks to enhance recreation opportunities by recommending recreation management enhancements. We recommend removing fire rings at the informal use area at McGill Creek, if such a measure is not required in relicensing, to discourage unauthorized camping.

Sustainable Forestry

Objective: Develop and implement forestry practices in order to contribute to a sustainable forest and preserve and enhance habitat.

The Iron Canyon Reservoir Planning Unit contains 117 acres of forestland adjacent to late successional habitat in a medium to high fire risk



California black oak near boat ramp

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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, and fuels management. The forest management plan should be developed in conjunction with any relevant FERC license required plans developed as part of the McCloud-Pit Project relicensing. We would expect this plan to be developed in coordination with adjacent landowners and USFS management and practices as appropriate.

Preservation of Historic Values

Objective: Document and manage cultural resources in order to ensure their protection if discovered in the future.

All but 10 acres of the planning unit will likely be studied for cultural resources as part of McCloud-Pit Project relicensing efforts and included in any relevant FERC license required plan. To ensure any other cultural resources found within the planning unit in the future are protected and appropriately managed, we recommend that cultural resource protection measures be incorporated into conservation easements. These measures would describe the process for addressing any cultural materials found during ground-disturbing activities. Throughout this effort, the Stewardship Council recommends close coordination with Native American entities.

Endnotes

¹ The McCloud-Pit FERC Project includes both Iron Canyon and Lake McCloud reservoirs. Water from Lake McCloud (northwest of Iron Canyon) flows through the McCloud Tunnel into Iron Canyon Reservoir; at the other end, water leaves the reservoir through the Iron Canyon Tunnel down to James B. Black Powerhouse on the Pit River (in the Pit River Planning Unit).

² Unless required by the Forest Service on National Forest Lands, PG&E does not propose to conduct eligibility evaluations for previously unevaluated sites. Instead, PG&E proposes to treat all unevaluated sites as if they are eligible for NRHP listing unless avoidance or elimination of potential adverse effects to a particular site is not feasible.



Hawkins Landing Boat Ramp

Table PM-8 Objectives to Preserve and/or Enhance – Recommended Concept

Planning Unit Objective: Preserve and enhance biological resources, preserve cultural resources, as well as enhance 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"> Encourage the USFS to install signs prohibiting OHV use in the drawdown zone if such a measure is not required in relicensing.
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 recreation management in order to provide appropriate recreation use.	<ul style="list-style-type: none"> Remove fire rings at the informal use area at McGill Creek if such a measure is not required in relicensing.**
Sustainable Forestry	Develop and implement forestry practices in order to contribute to a sustainable forest and preserve and enhance habitat.	<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.
Agricultural Uses		None proposed.
Preservation of Historic Values	Document and manage cultural resources in order to ensure their protection if discovered in the future.	<ul style="list-style-type: none"> Incorporate cultural resource protection measures in conservation easements to protect any cultural resources found in the future in coordination with Native American entities.

* 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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Iron Canyon Reservoir Planning Unit Recommended Concept

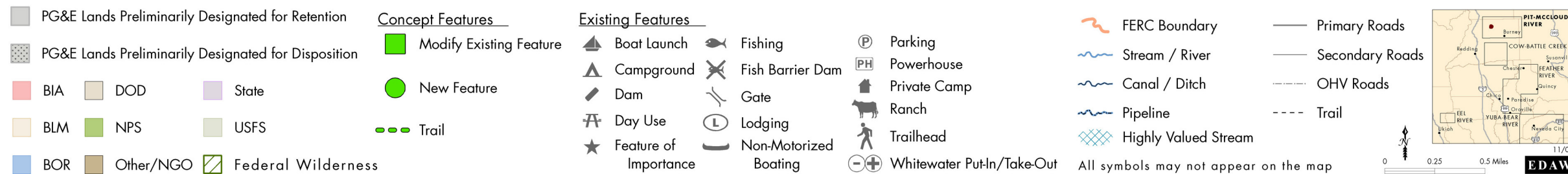
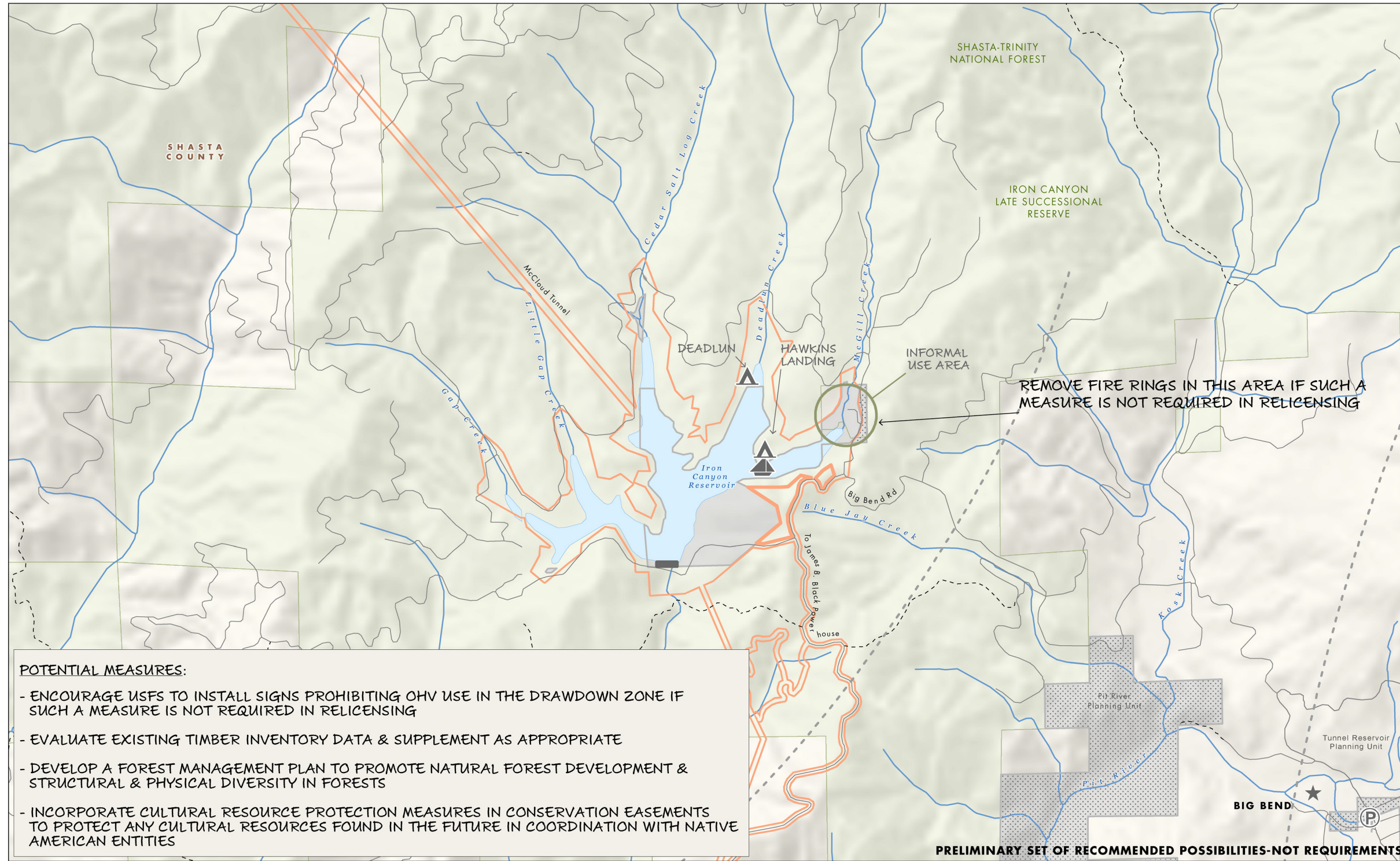


Figure PM-16

Iron Canyon Reservoir Planning Unit

Fish, Plant, and Wildlife Habitat

Potential Measure:

- *Encourage the USFS to install signs prohibiting OHV use in the drawdown zone if such a measure is not required in relicensing.*

Currently, fluctuation in reservoir level often exposes a significant portion of the drawdown zone. At lower water elevation levels, barriers to prevent vehicle access to the shoreline are not effective, resulting in unauthorized OHV use in the drawdown zone that could be causing resource damage. To reduce this use and any potential damage, the Stewardship Council recommends encouraging the USFS to install signs along the high water line informing users that OHV use in the drawdown zone is not allowed, if such a measure is not required as a protection, mitigation, and enhancement measure in relicensing.

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 do not include development of any new sites and are therefore not expected to decrease the scenic quality of the viewsheds.

Outdoor Recreation

Potential Measure:

- *Remove fire rings at the informal use area at McGill Creek if such a measure is not required in relicensing.*

The McGill Creek area is an informally used area. The access roads were once blocked, but are now open. Recreationists drive into the area and sometimes camp (unauthorized) or park near the shoreline. Though the area is fairly clean, campers have left fire rings behind. To discourage unauthorized camping, the Stewardship Council recommends removing fire rings at the McGill Creek area if such a measure is not required as a protection, mitigation, and enhancement measure in relicensing.

Sustainable Forestry

Potential Measures:

- *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.*

- *Evaluate existing timber inventory data and supplement as appropriate.*

Currently, the planning unit contains one Timber Management Unit (TMU) that is managed for emergency salvage harvesting only. However, there is no overall documented vision for the TMU within the planning unit. 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. Forest management practices would also be developed within the plan to protect late successional habitat in coordination with the adjacent USFS LSR designation, as planning unit lands are basically an inholding within the LSR. This would enhance forest connectivity and management consistency, as well as ensure that planning unit forest resources were helping accomplish LSR goals. As this is an area managed under a Salvage prescription, snags and downed, woody debris would be maintained in the planning unit when not deemed a safety, fire, or disease hazard as this is important for wildlife habitat and forest regeneration. Additionally, the forest management plan should be developed in coordination with any relevant plans developed as part of relicensing.

Preservation of Historic Values

Potential Measure:

- *Incorporate cultural resource protection measures in conservation easements to protect any cultural resources found in the future in coordination with Native American entities.*

The Stewardship Council recommends protecting any cultural resources found in the future through permanent conservation easements that include cultural resource protection measures. These measures would describe the process for addressing any cultural materials found during ground-disturbing activities. Development of appropriate cultural resource protection measures would be coordinated with Native American entities.

Agricultural Uses

None recommended.