



United States Department of Agriculture

# Black Butte Wild and Scenic River including Cold Creek

## Comprehensive River Management Plan



Forest Service

Mendocino National Forest

Covelo Ranger District

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# Contents

|   |    |
|---|----|
| Background .....  | 1  |
| Purpose .....   | 1  |
| Wild and Scenic River Location and Boundary .....                                     | 1  |
| Wild and Scenic River Classifications, Including Segments .....                       | 1  |
| Regional River Setting .....  | 4  |
| Historic Flooding .....   | 4  |
| Water Quality and Beneficial Uses .....   | 4  |
| Land Use .....  | 5  |
| Special Uses .....  | 6  |
| General Access .....  | 6  |
| Wild and Scenic River Emphasis and Values .....                                       | 6  |
| Wild and Scenic River Management Area Emphasis .....                                  | 6  |
| Outstandingly Remarkable Values .....   | 7  |
| Cultural or Heritage .....  | 7  |
| Fish .....  | 8  |
| Geology .....   | 9  |
| Relationship to Laws, Regulations, Directives and the Forest Plan .....               | 9  |
| Wild and Scenic Rivers Act .....  | 9  |
| Forest Service Manual- Comprehensive River Management Plan .....                      | 10 |
| Forest Plan and Forest Plan Amendment .....   | 10 |
| Management Direction .....  | 11 |
| Standards and Guides .....  | 11 |
| Prescription 10 (pp IV76-77, USDA Forest Service 1995) .....                          | 11 |
| Key Watersheds (pp. IV-41, USDA Forest Service 1995) .....                            | 12 |
| Strategic Management Approaches .....   | 13 |
| Implementation Plan .....   | 13 |
| Monitoring Plan .....   | 15 |
| References .....  | 17 |
| Appendix A: Visitor Capacity Analysis for the Black Butte Wild and Scenic River ..... | 19 |
| Introduction .....  | 19 |
| Background .....  | 19 |
| Management Guidance .....   | 20 |
| Recreation Opportunity Spectrum .....   | 20 |
| Current Conditions in the Wild and Scenic River .....                                 | 21 |
| Human Uses and River Values .....   | 21 |
| Outstandingly Remarkable Values .....   | 22 |
| Visitor Capacity .....  | 24 |
| Capacity Estimates for Designated River Segments .....                                | 26 |
| Indicators, Thresholds, Potential Management Actions, and Monitoring Plan .....       | 30 |
| Future Recreation Demand and Trends .....   | 33 |
| Background: Past and Current Use .....  | 33 |
| Future Demand .....   | 34 |
| References .....  | 34 |
| Appendix B: Resource Assessment .....   | 37 |
| Introduction .....  | 37 |
| Resource Assessment .....   | 37 |
| Outstandingly Remarkable Values .....   | 37 |
| Findings and Discussion of Values .....   | 38 |

|                                     |    |
|-------------------------------------|----|
| Cultural – History .....            | 38 |
| Cultural – Prehistory .....         | 40 |
| Cultural - Traditional Use .....    | 41 |
| Ecology/Botany.....                 | 43 |
| Fish.....                           | 45 |
| Geology.....                        | 47 |
| Hydrology .....                     | 50 |
| Recreation .....                    | 51 |
| Scenery.....                        | 52 |
| Wildlife .....                      | 53 |
| 2011 Resource Assessment Team ..... | 55 |
| 2017 Resource Assessment Team ..... | 55 |

### List of Tables

|  |    |
|--|----|
| Table 1. Actions most likely to be proposed within the wild and scenic river corridor .....            | 14 |
| Table 2. Possible monitoring items and their locations in the wild and scenic river and corridor ..... | 15 |
| Table 3. Thresholds, indicators, potential management actions .....                                    | 31 |
| Table 4. Capacity estimates for wild and scenic river segments.....                                    | 32 |
| Table 5. Monitoring plan .....   | 33 |

### List of Figures

|   |    |
|---|----|
| Figure 1. Location of the Black Butte River and Cold Creek on the Mendocino National Forest .....   | 2  |
| Figure 2. Segment map; scenic segment colored in yellow and wild segment is colored in light blue .....   | 3  |
| Figure 3. Recreation opportunity spectrum, Black Butte Wild and Scenic River .....  | 21 |
| Figure 4. Site of the Portal river sub-segment .....  | 27 |
| Figure 5. River sub-segment .....   | 27 |
| Figure 6. Campground layout .....   | 27 |
| Figure 7. Campground sub-segment .....  | 27 |
| Figure 8. Typical terrain along Cold Creek segment. ....  | 30 |
| Figure 9. Keller Cabin.....   | 38 |
| Figure 10. Petroglyph rock along Black Butte River.....   | 40 |
| Figure 11. Split Rock at Black Butte .....  | 41 |
| Figure 12. Variation of plants along Black Butte corridor.....  | 43 |
| Figure 13. Boulder pocket fish habitat.....   | 45 |
| Figure 14. Rock outcrops on the southwest flank of Black Butte; the fissure through the center of the knob on the skyline was formed by landslide movement. Photo 9184, taken 7-26-17 by JdlF.. | 47 |
| Figure 15. Black Butte River upstream of Cold Creek confluence.....   | 50 |
| Figure 16. Pool within the Black Butte River .....  | 51 |
| Figure 17. Typical scenery along the Black Butte River .....  | 52 |
| Figure 18. Foothill yellow-legged frog.....   | 53 |
| Figure 19. Interdisciplinary team members on the banks of the river .....   | 56 |

# Background

## Purpose

This comprehensive river management plan for the Black Butte and Cold Creek Wild and Scenic River establishes programmatic management direction for the wild and scenic river corridor. It has been developed to implement the direction of the Wild and Scenic Rivers Act of 1968 as amended in the 2006 Northern California Coastal Wild Heritage Wilderness Act (Public Law 109-362) to include 19.5 miles of the Black Butte River and 1.5 miles of Cold Creek.

The Wild and Scenic Rivers Act established a system for preserving outstanding free-flowing rivers. Section 1(b) of the act directs that:

“certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreations, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations” (Public Law 90-542, 1968).

The Wild and Scenic Rivers Act requires the Forest Service to develop a comprehensive wild and scenic river management plan for the Black Butte River and Cold Creek to protect and enhance the outstandingly remarkable values. These values have been identified as cultural (prehistory and traditional use), fish, and geology.

The management plan will guide all development, management, and restoration activities in the wild and scenic river corridor. It includes standards and guidelines from the proposed action (alternative 2), an implementation plan with a list of possible projects, and a monitoring plan. The standard and guidelines are a statement of the plan’s management direction; however, the potential projects from the implementation plan are estimates and depend on site-specific National Environmental Policy Act analysis and the agency’s budgeting process.

## Wild and Scenic River Location and Boundary

The wild and scenic river is located in Mendocino County, less than 10 miles northeast of the town Covelo, California in portions of:

T23N, R11W, sections 27, 28, 34, 35, 36

T22N, R11W, sections 1, 12

T22N, R10W, sections 6, 7, 8, 15, 16, 17, 21, 22, 26, 27, 35, 36

T21N, R10W, sections 1, 2, 12, 13, 24

T21N, R9W, sections 5, 6, 20, 29

The final boundary approximates a ¼-mile distance on each side of the river.

## Wild and Scenic River Classifications, Including Segments

The wild and scenic river is 21 miles long, with a corridor averaging 320 acres per mile (see figure 1 and figure 2) The wild and scenic river segments were classified based on an eligibility study approved in the 1995 Mendocino National Forest Land and Resource Management Plan (1995 Forest Plan) using the following criteria from the Wild and Scenic Rivers Act: accessibility, developments along the shoreline, presence or absence of impoundments, and water quality. Results of the

eligibility study are summarized in the final environmental impact statement for the 1995 Forest Plan, appendix L (USDA Forest Service 1995).

The wild segment of the Black Butte River spans 16 miles from the Mendocino County line to its confluence with Jumpoff Creek. The 1.5 miles of Cold Creek run from the Mendocino County line to its confluence with Black Butte River. The first 3.5 miles of the Black Butte River are designated as scenic from its confluence with Middle Eel River to the confluence at Jumpoff Creek.



Figure 1. Location of the Black Butte River and Cold Creek on the Mendocino National Forest



# Black Butte River Wild and Scenic River Mendocino National Forest

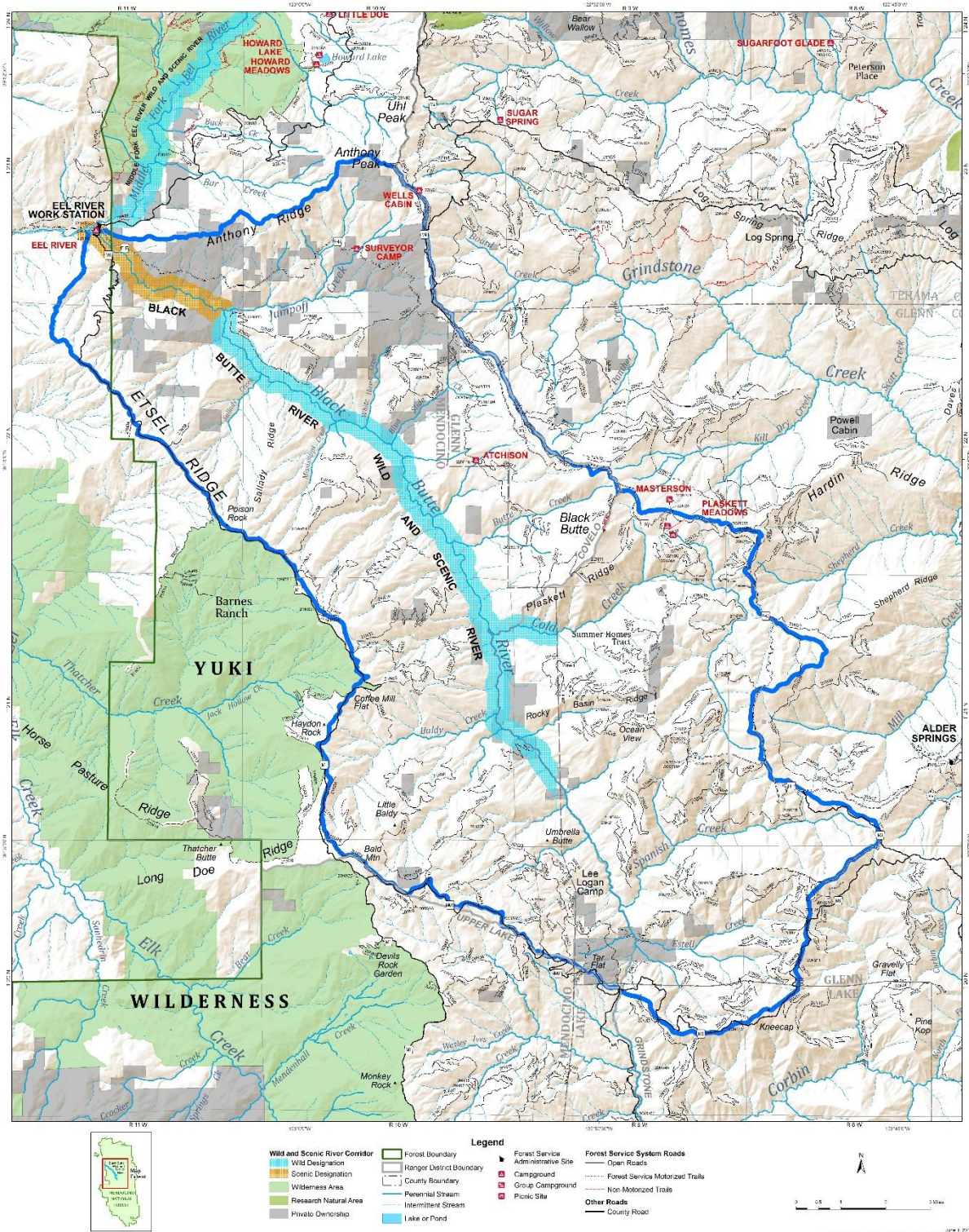


Figure 2. Segment map; scenic segment colored in yellow and wild segment is colored in light blue

## Regional River Setting

The total drainage area of the Black Butte River watershed is approximately 103,593 acres or roughly 162 square miles. In general, the climate of the Black Butte watershed is mild, with cool, occasionally cold, wet winters and hot, dry summers (generally referred to as a Mediterranean climate). There is some coastal influence but little to no summer fog. Winter low temperatures near the mouth of the Black Butte River are generally above 20 degrees Fahrenheit, while summer high temperatures are usually just above 100 degrees Fahrenheit, with occasional extremes outside this range. During the summertime, within the protected valleys along its course, the temperatures sometimes reach 100 degrees Fahrenheit and above.

Average annual precipitation is about 60 inches a year, ranging from 38 inches at the mouth of the Black Butte River to over 70 inches near Bald Mountain. Over 80 percent of the seasonal rainfall occurs between November 1 and April 1. Snow occasionally falls below 2,500 feet, but it seldom builds up any significant snowpack below 5,000 feet. Most of the major valleys are free of snow year round. June, July, and August are typically very dry.

The waters of the Black Butte River are often turbid, particularly during seasonally high runoff. Late-season runoff can extend into April, May, and June. The stream flow is unregulated by any dams or diversions, and the river responds quickly to snowmelt and rainstorms.

The topography within, and adjacent to, the Black Butte and Cold Creek Wild and Scenic River segments consists of a series of ridges running southwest to northeast, with slopes varying from nearly level to greater than 30 percent. The inner canyon of the Black Butte River is challenging to explore. The general trend of the canyon is roughly parallel to the San Andreas Fault that shapes much of California's topography, and this major fault zone of the earth lies about forty miles to the west of the Black Butte River. The inner canyons and gorges are often narrow and with steep sides. The erosive waters carry higher rates of suspended sediments than most rivers of the world. It is characteristic of the entire Eel River system. These high rates are due to a combination of factors, including very high annual rainfall, easily eroded sedimentary rocks in the basin, and many landslides into the river.

## Historic Flooding

A U.S. Geological Survey stream gage (#11472900) was in service between 1958 and 2005 about one half mile above the mouth of the Black Butte where it flows into the Middle Fork of the Eel River. A severe flood in 1955 (25,000 cubic feet per second) was followed by a worse flood in December 1964 (29,000 cubic feet per second), when much of the riparian vegetation below Butte Creek was stripped from the banks of the Black Butte River. Almost all large woody debris disappeared from the Black Butte channel below Butte Creek. The flood of December 22, 1964 is still the largest recorded stream flow on the Black Butte River in recent history. The 1964 flood is thought to be the primary cause of the warm water temperatures in the Black Butte River because it stripped away most trees along the riverbanks that would have provided shade (USDA Forest Service 1996; Wannan et al. 1971).

## Water Quality and Beneficial Uses

Water quality in the project area is managed under the North Coast Regional Water Quality Control Board Basin Plan (May 2011) and the Middle Fork Eel River total maximum daily load. The Basin



Plan (NCRWQCB 2011) designates the beneficial uses and water quality objectives. The designated beneficial uses for the Black Butte River hydrologic subarea are:

- municipal and domestic supply;
- agricultural supply;
- industrial service supply;
- freshwater replenishment;
- navigation;
- hydropower generation;
- water contact recreation;
- non-contact water recreation;
- commercial and sport fishing;
- warm freshwater habitat;
- cold freshwater habitat;
- wildlife habitat;
- rare, threatened or endangered species;
- migration of aquatic organisms; and
- spawning, reproduction, early development, or some combination of those things

Potential uses identified are industrial process supply and aquaculture.

Water quality objectives listed in the Basin Plan are mostly narrative but some have numeric limits designed to protect beneficial uses of water. The Basin Plan prohibits turbidity increases of more than 20 percent above background levels and temperature increases of 5 degrees for any water body that is listed as providing cold freshwater habitat.

The Middle Fork Eel River total maximum daily loads for sediment and temperature were established in accordance with Section 303(d) of the Clean Water Act because the State of California has determined the water quality standards for the Middle Fork Eel River are not met due to the excessive sediment and temperature.

For sediment, the Basin Plan requires that “amounts shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.” More specific requirements are included in the Middle Fork Eel River total maximum daily load for both natural and management-related sediment. However, allocations for sediment do not differ from current sediment loading values (Environmental Protection Agency 2003; page 40, table 6 and page 44, table 7) for the Black Butte subwatershed.

“This is due to the fact that the Black Butte subwatershed has a high natural load relative to current management loading, and setting the total maximum daily load at 105 percent of natural loading would have allowed an increase in management-related loading. Therefore, the total maximum daily load is set at the existing loading, or 740 tons per square mile per year. The Environmental Protection Agency considers this appropriate because the Black Butte subwatershed was significantly affected by the 1964 flood and has not sufficiently recovered even during the four decades” (EPA 2003).

Temperature total maximum daily load is set at 100 langley per day, or an average of 74 percent shade, for the Upper Black Butte subarea. Current conditions of the Upper Black Butte suggest 72 percent shade.

## Land Use

National Forest System lands comprise 75 percent (approximately 7.7 square miles or 4,975 acres) of the wild and scenic corridor; private lands make up the other 25 percent (approximately 2.5 square miles or 1,603 acres). According to Mendocino County records, these private lands are commonly

zoned for rangeland, forestland, or timberland production. Within the corridor, there is one Forest Service campground (Eel River Campground) at the confluence of the Black Butte River and Middle Fork Eel River. This campground includes amenities such as potable water and vault toilets. The Eel River Workstation is adjacent to the campground.

Within the corridor, there are 9.8 miles of National Forest System roads, although 7.75 miles are classified as level 1 (basic custodial care, closed). There are about 2 miles of County road in the corridor and 0.57 miles of identified private roads. However, the length of private roads may not be accurate since there is no reporting requirements.

## Special Uses

There is one active grazing allotment overlapping the Black Butte Wild and Scenic River corridor: the Etsel allotment. The boundary of this allotment covers only the western side of the Black Butte River. There are no active grazing allotments within the Cold Creek Wild and Scenic River corridor. Three other allotments (Middle Fork, Twin Rocks, and Alder Springs) are within the designated corridor, though they are vacant with no permittees. There are no active mining claims within the boundary of the wild and scenic river corridor. Recreation use in the corridor is fairly limited and is primarily associated with deer hunting and dispersed camping during hunting season. There are no special use permits for outfitter guides in this area. As of 2017, there is one special use permit for a water transmission line near the confluence of Jumpoff Creek and the Black Butte River.

## General Access

The Black Butte River is easily accessed near its mouth at the Eel River Campground, where Forest Road M-1 and Forest Highway 7 allow access into the area. People are often seen swimming and sunbathing in this area, especially during the summer months. Primitive four-wheel-drive roads approach the corridor in several locations, though only 20N22 crosses the river at the Basin (headwaters of the Black Butte, outside of the wild and scenic river corridor). This is similar for Cold Creek; several roads approach the corridor, but there is no direct access.

The interior parts of the river usually require a hike into the canyon area. Although two nonmotorized trails used to exist within the corridor (Pedro Trail and Government Trail), they are no longer National Forest Service System trails and are largely grown over. Beyond this, the Black Butte River and Cold Creek are not easily accessible by the public; there are no other road or trail access points.

# Wild and Scenic River Emphasis and Values

## Wild and Scenic River Management Area Emphasis

Management emphasis in the designated wild and scenic river corridor is to protect and preserve the free-flowing conditions, water quality, and outstandingly remarkable values. The Wild and Scenic Rivers Act specifies that designated rivers, and the outstandingly remarkable values they possess, will be “protected for the benefit and enjoyment of the present and future generations.”

Within the 1995 Forest Plan, Management Prescription #10 (wild and scenic river) was specifically developed to preserve the free-flowing condition and water quality and protect the outstandingly

remarkable values for which the Black Butte River and Cold Creek were congressionally designated. Management activities that are inconsistent with these objectives will not be permitted.

## Outstandingly Remarkable Values

The Wild and Scenic Rivers Act requires that each river possess one or more outstandingly remarkable values to qualify for designation. The three identified outstandingly remarkable values are cultural or heritage, fish, and geology. In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the spectrum of resources that may be considered is broad, all values should be directly river related. A resource assessment was started in 2011 to evaluate which resources within the designated corridor qualify as an outstandingly remarkable value. This assessment was revisited and completed in August 2017 to support development of this comprehensive river management plan. The resource assessment is included in this document in appendix B.

### Cultural or Heritage

Criteria: Prehistory – The river, or area within the river corridor, contains a site or sites where there is evidence of occupation or used by Native Americans. Sites must have unique or rare characteristics or exceptional human interest value or values. Sites may have national or regional importance for interpreting prehistory; may be rare and represent an area where a culture or cultural period was first identified and described; and may have been used concurrently by two or more cultural groups; may have been used by cultural groups for rare sacred purposes, or both. Many such sites are listed on the National Register of Historic Places, which is administered by the National Park Service.

**Finding: The cultural prehistory values of the Black Butte and Cold Creek are considered to be outstandingly remarkable within the region of comparison.** The values identified are all river related; the high concentration of sites and their pristine nature contribute to the designation of this resource as an outstandingly remarkable value. Some of these sites may still be used for traditional purposes today.

Criteria: Traditional Uses – The river or area within the river corridor contains regionally unique location(s) of importance to Native American Tribes (religions activities, fishing, hunting, or gathering). Locations may have unusual characteristics or exceptional cultural value being integral to continued pursuit of such activities. Locations may have been associated with treaty rights on ceded lands or activities unprotected by treaty on ceded lands or in traditional territories outside ceded lands.

**Finding: The traditional use of the Black Butte River and Cold Creek Wild and Scenic corridor is an outstandingly remarkable value.** River-related resources of the river, including hydrology, fisheries, and prehistoric and current use, relate to Native American history.

Current uses of the watershed and adjacent areas by the Round Valley Indian Tribes involve hunting, fishing, gathering, and employment. Cultural and sacred aspects of the land are also important, with each feature and element of the watershed invested with unique significance. Peaks and high places within this watershed are believed to be spiritually significant. To Native Americans, hunting, fishing, and gathering are not purely recreational, as might be perceived by non-Natives. Neither are they solely the means to acquire food or materials. Rather, these traditions are sacred cultural practices which are an integral part of their way of life.

Gathering is very important to the Round Valley Indian Tribes, although the amount of gathering occurring in the watershed today is low compared to the pre-Euro-American era. Many traditional gathering places are close to roads; often these roads were preceded by Indian trails. Plants are gathered for food, basketry, and medicinal purposes. Black oak acorns and pennyroyal tea are gathered as traditional food sources, and riparian-associated species, such as sedge, willow, red dogwood, and redbud, are of particular interest for basketry. Secrecy regarding the location of gathering sites is important to members of the tribes.

## Fish

Criteria: Population – The river is nationally or regionally an important producer of resident fish species, anadromous fish species, or both. Of particular significance is the presence of wild stocks considered to be unique; populations of federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

Criteria: Habitat – The river provides exceptionally high-quality habitat for fish species indigenous to the region of comparison. Of particular significance is the presence of wild stocks considered to be unique; populations of federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable. Also considered is habitat that may provide a critical link in habitat conditions for federally or State-listed (or candidate) threatened, endangered, or sensitive species.

**Finding: The fish populations of Black Butte River and Cold Creek are an outstandingly remarkable value** because of the presence of the federally listed threatened northern California steelhead trout and the federally listed threatened California coastal Chinook salmon.

**The fish habitat of Black Butte River and Cold Creek are also an outstandingly remarkable value** because they provide designated critical habitat for northern California steelhead and California coastal Chinook salmon.

The upper reaches, including Cold Creek, provide some of the better spawning and rearing habitat for winter steelhead, rainbow trout, and Chinook salmon within the Middle Fork Eel River drainage. The upper mainstem of the Black Butte River and many of its tributaries (that is, Cold Creek) have been identified as important habitat for the recovery of northern California steelhead trout and California coastal Chinook salmon. The 2015 multi-species recovery plan identified the Black Butte River system as important holding and rearing habitat for winter steelhead trout and fall Chinook salmon.

California Department of Fish and Wildlife has prohibited fishing within the Black Butte watershed. The wild and scenic river corridor is an important contribution towards steelhead recovery under the Endangered Species Act.

This is a Tier 1 key watershed. Key watersheds are one of four components of the aquatic conservation strategy as described in the Northwest Forest Plan. Tier 1 key watersheds are drainage systems with at-risk salmonid populations that are vital to the recovery of a species. These watersheds require management objectives designed to protect the fish population and their habitat. Tier 2 key watersheds are drainage systems with high water quality; therefore, these watersheds have management objectives designed to protect water quality.

Refugia are important components of most species conservation strategies. They are areas that provide, or are expected to provide, high-quality habitat, serving as a refuge network for salmon and other fish species. As part of the aquatic conservation strategy, key watersheds were identified and designated to serve this purpose. Key watersheds that are currently in good condition serve as anchors for the potential recovery of depressed fish stocks, while watersheds characterized by having low-quality habitat and high potential for restoration can serve as future refuge areas (USDA and USDI 1994). The key watersheds are spatially distributed to ensure refugia areas are widely distributed across the landscape. The Tier 1 key watersheds have been identified as contributing directly to the conservation of at-risk salmonids. Because key watersheds were identified as having a high value to native salmonids, they serve as focus areas for Bureau of Land Management and Forest Service watershed analysis and watershed restoration.

## **Geology**

**Criteria:** The river, or the area within the river corridor, contains one or more examples of a geologic feature, process, or phenomenon that is rare, unusual, or unique to the region of comparison. The features(s) may be in an unusually active stage of development, represent a “textbook” example, represent a unique or rare combination of geologic features (erosional, volcanic, glacial, or other geologic structures), or some combination of these things.

**Finding: The geologic features and characteristics of the Black Butte River and Cold Creek constitute outstandingly remarkable values in the context of the Northern California Interior Coast Range area.**

The Black Butte watershed is a textbook example of a tectonically active and landslide-driven landscape. The uplifting, faulted and folded Central Belt Franciscan rock is a major control on development of the river. The Black Butte River cuts through weak, altered, and deformed Franciscan marine sedimentary rocks and around massive rock blocks of greenstone and greywacke. This directly results in complex landslides that can be massive in scale from stream bank to ridge top. Landslides significantly influence fluvial morphology with significant input of large woody debris; sediment; and impressively large, stream-altering boulders. These factors have likely forced fish to adapt to exist in a rapidly developing river system with unique, geologically defined habitat. In addition, unique talus and tension crack caves within Black Butte Creek and the watershed are the direct result of landslide processes. Caves are closely linked to cultural resources and wildlife habitat. The high-elevation glacial features of Black Butte Mountain have likely influenced broad-scale morphology of the eastern part of the watershed, with landforms that are landslide prone and important for groundwater storage. Groundwater helps maintain summer flows into Black Butte River. For these reasons, geologic features and characteristics in the Black Butte watershed are outstandingly remarkable values that directly control watershed function.

## **Relationship to Laws, Regulations, Directives and the Forest Plan**

### **Wild and Scenic Rivers Act**

The Wild and Scenic Rivers Act of 1968 preserves selected rivers and their immediate environments in free-flowing conditions to protect them for the benefit and enjoyment of present and future generations. These rivers may possess outstandingly remarkable scenic, recreational, geologic, fish

and wildlife, historic, cultural, or similar values. The Wild and Scenic Rivers Act states rivers should be classified, designated, and administered as wild, scenic, or recreational. Wild rivers are “those rivers or sections of river that are free of impoundments and generally inaccessible except by trail, which watershed or shorelines essentially primitive and water unpolluted.” Scenic river areas are “those rivers or sections of rivers that are free of impoundments, with shorelines or watershed still largely primitive and shorelines largely undeveloped, but accessible in places by road.”

The Wild and Scenic Rivers Act requires the administering agency to establish a detailed river corridor boundary of an average of not more than 320 acres per river mile and to prepare a comprehensive river management plan for those areas

## **Forest Service Manual- Comprehensive River Management Plan**

Forest Service Manual 2350 provides additional information on the requirements for completing a comprehensive river management plan. Additional guidance on the suggested contents of a comprehensive river management plan is found in the “Wild and Scenic River Management Responsibilities”, a technical report of the Interagency Wild and Scenic Rivers Coordinating Council (2002). The suggested contents include a description of the river setting and resource values, planning context, coordination with others, management direction, management actions, and monitoring strategies.

## **Forest Plan and Forest Plan Amendment**

The Mendocino Land and Resource Management Plan (1995 Forest Plan) identified and proposed wild and scenic river corridors on the Mendocino and provided management direction for activities within the designated corridors. As part of the planning process, the Mendocino assessed all rivers that were included in the Nationwide Rivers Inventory for suitability for inclusion in the Wild and Scenic Rivers System. The planning process also addressed all rivers flowing wholly or partially on National Forest System lands, as directed by Forest Service Handbook 1909.12, chapter 8 (USDA Forest Service 2015). As such, the final environmental impact statement for the 1995 Forest Plan evaluated the eligibility of the Black Butte River and Cold Creek as a wild and scenic river.

The Black Butte River and Cold Creek tributary segments are located within the Grizzly management area (Management Area 17), Twin Rocks (Management Area 26), and Brushy Mountain (Management Area 39). Under the Northwest Forest Plan, the Grizzly management area is within the late successional reserve land use allocation.

Pursuant to the Northern California Coastal Wild Heritage Wilderness Act, the 1995 Forest Plan was amended in 2007 (amendment 2007-001) to incorporate the newly designated wild and scenic river. The following is disclosed in the amendment:

“There are no National Environmental Policy Act analysis or decision documents supporting this amendment, as the changes in the management direction are compelled by the higher authority of the Act.”

The amendment to the 1995 Forest Plan changes the management direction for the Black Butte River and Cold Creek to Management Prescription 10 – Wild and Scenic River (1995 Forest Plan, p. IV76-77).

**Forest goals** for wild and scenic rivers are to:

Manage Wild and Scenic Rivers to preserve the qualities which contributed to their inclusion in the Wild and Scenic Rivers System. Provide for the recreational use of these Rivers to the extent such use is consistent with protection of the Wild River values.

**Desired future conditions** are as stated in the 1995 Forest Plan for wild and scenic rivers. The addition of the Black Butte River and Cold Creek into the Wild and Scenic River System dictates that their desired future conditions follow those stated in the 1995 Forest Plan:

“Little change from the present is expected in the corridors along the Middle Fork of the Eel River, Balm of Gilead Creek, or the Middle Fork of Stony Creek. Management of these areas will be governed by the guidelines of Wild and Scenic Rivers and the management direction for the Yolla Bolly-Middle Eel and Snow Mountain Wildernesses. Suitability studies will be completed for the Black Butte River, Cold Creek, and Thomes Creek. These rivers and streams will either be added to the Wild and Scenic River System, or managed for other multiple-uses.”

## Management Direction

The standard and guidelines were designed to meet Wild and Scenic Rivers Act and Forest Service requirements to provide a long-term management strategy for protecting and enhancing the river’s free-flowing condition, water quality, and outstandingly remarkable values. These criteria (prescription 10 and key watersheds) come from the 1995 Forest Plan that places priority on protecting and enhancing wild and scenic river values during the planning and implementation of resource management activities in the river corridor. **Designation of wild and scenic rivers neither prohibits development nor gives the Federal government control over private property.**

Site-specific National Environmental Policy Act environmental analysis will be done for actions proposed on National Forest System lands in the wild and scenic river corridor. All proposed projects would be checked for consistency with the wild and scenic river management plan during the site-specific analysis. Any proposed water resources projects would have to be reviewed under section 7 of the Wild and Scenic Rivers Act.

## Standards and Guides

### **Prescription 10 (pp IV76-77, USDA Forest Service 1995)**

These management directions attempt to balance protection of natural resources with protection of recreational opportunities:

1. Conduct fire management activities to minimize landscape alteration and land disturbance.
2. Pursue acquisition of private lands through exchange or other means.
3. Acquire easements for public access and to prevent degradation of scenic quality, or incompatible private development.
4. Allow no common variety mineral extraction and pursue mineral withdrawal for National Forest lands within the river corridors.
5. Existing use by livestock may be allowed to continue commensurate with protection of wild and scenic river values. No new allotments or permits will be approved.

6. Provide for recreation in a primitive setting which offers considerable physical challenge and requires well developed outdoor skills.
  - a. Provide inconspicuous facilities (outside wilderness) where needed for safety and sanitation. b) Permit overnight use of undeveloped areas, establish and enforce occupancy rules as needed. c) Construct or improve trails, and post travel routes as needed to properly disperse recreation use and promote safe travel in the area.
  - b. Increase public understanding of the management direction for wild and scenic rivers through the use of brochures, signs, and other media.
7. Permit felling and/or removal of timber outside wilderness only where necessary to maintain or enhance user safety and scenic quality, or to prevent insect or disease epidemic.
8. Meet a visual quality objective of retention.
9. Control or prevent erosion that damages scenic quality or endangers water quality or fishery resources. Establish ground cover on denuded areas capable of supporting vegetation.
10. Implement recommendations contained in the Summer Steelhead Management Plan for protecting and improving anadromous fish habitat within the Middle Fork of the Eel River.
11. Coordinate management of the anadromous and resident fisheries resources of the Middle Fork of the Eel River with the California Department of Fish and Game (now California Department of Fish and Wildlife).
12. Address attainment of aquatic conservation strategy objectives when developing wild and scenic river management plans (FSEIS ROD p. C-34).
 

\*Adoption of this comprehensive river management plan would be consistent with aquatic conservation strategy objectives.

### **Key Watersheds (pp. IV-41, USDA Forest Service 1995)**

Since the Black Butte watershed was identified as a key watershed in the 1995 Forest Plan, the following standard and guidelines apply, in addition to prescription 10:

1. Prohibit road construction in remaining unroaded portions of inventoried (RARE II) roadless areas within key watersheds.
2. Reduce existing system and non-system road mileage within key watersheds and outside or roadless areas. Road closure with gates or barriers do not qualify as a reduction in road mileage. If funding is insufficient to implement reductions, permit no net increase in amount of roads in key watersheds.
3. Assign key watersheds the highest priority for watershed restoration.
4. Conduct watershed analysis prior to management activities, except minor activities such as those categorically excluded under the National Environmental Policy Act with the exception of timber harvesting. Require watershed analysis prior to timber harvesting.



## Strategic Management Approaches

Strategic management approaches have been created to help further direct standard and guidelines to achieve purposes of the Wild and Scenic Rivers Act.

1. Management activities outside the designated corridor, but within the 5<sup>th</sup>-field Black Butte watershed (hydrologic unit code 1801010401), should avoid effects to the values of the wild and scenic river corridor (section 10 of the act).
2. Designation neither prohibits development nor gives the Federal government control over private property. Acquisition of lands within the wild and scenic corridor will follow those rules set forth in section 6 of the Wild and Scenic Rivers Act.
3. Follow thresholds and capacity guidelines as described in the visitor capacity analysis (appendix A) to ensure recreation activities do not negatively affect river values.
4. New range improvements should be designed to provide additional protection of river values.
5. Adjust grazing management necessary to protect Wild and Scenic River values through allotment management decisions and Annual Operating Plans.
6. Fish habitat improvement projects and structures that do not adversely affect the free-flowing condition of the river or its outstandingly remarkable values would be allowed, following a section 7 (Wild and Scenic Rivers Act) determination.
7. Caves will be protected in accordance with the Federal Cave Resource Protection Act of 1988.
8. Inventory National Forest System roads to prioritize storm proofing and road stabilization projects in order to reduce sedimentation into the watershed.
9. Continue to follow fish recovery plans set forth by National Oceanic and Atmospheric Administration (NOAA).

## Implementation Plan

The implementation plan contains those actions considered technically, physically, and economically feasible that address specific issues, concerns, or opportunities and would implement the management direction from the preferred alternative. These actions are considered possible and will require site-specific National Environmental Policy Act analysis for implementation. The project-level National Environmental Policy Act process will include development of issues and alternatives, analysis of effects of each alternative, and public involvement. In addition, implementation of site-specific projects is dependent upon budget and national, regional, or local priorities. This document identifies actions that are most likely to be proposed within the wild and scenic river corridor.

This list of possible actions does not include every possible action or method that could be used to implement a specific standard or guideline. Additional actions or alternative methods may be identified in the future. Furthermore, environmental conditions in the wild and scenic river corridor

may change due to wildfire, flood, or other events. If conditions change, new actions may be developed to protect and enhance wild and scenic river values.

**Table 1. Actions possibly to be proposed within the wild and scenic river corridor. These actions will require separate additional environmental review under the National Environmental Policy Act.**

| <b>Location</b>  | <b>Issue to Address</b>   | <b>Possible Actions likely to be Proposed</b>   |
|--|---|---|
| Eel River Campground   | Lack of wild and scenic river information and heritage interpretation   | Signage for heritage interpretation and warnings about looting and vandalism  |
| Throughout corridor  | No centralized, effective means of communicating rules, regulations, and information to public  | Construct kiosks at Eel River Campground and other appropriate locations.<br>Create sign or entry portal "You are now entering the Black Butte Wild and Scenic River"   |
| Throughout corridor  | Lack of recreation opportunities in Black Butte watershed; for example, the unused historic cabin (Keller) and potential for old road going down to river as trail. | Make necessary repairs and upgrades to Keller Cabin to turn it into a rental. Look at converting old road down to river to a trail. Find partnerships to bring back trails that once existed.   |
| Throughout corridor and Black Butte Watershed, including private lands within corridor | Roads that are inadequately designed leading to erosion problems in the Black Butte River and Cold Creek.   | Prioritize storm proofing or decommissioning roads to reduce sedimentation on National Forest System roads. Under section 11 of the Wild and Scenic Rivers Act, provide technical assistance to private landowners within the corridor to improve road drainage when appropriate. |
| Throughout corridor, including entire Black Butte watershed                            | Heavy fuels throughout the watershed. A severe wildfire could have negative downstream effects to the Black Butte   | Treatments of fuels that may include glades, brush, and timber.   |
| Throughout corridor, including entire Black Butte watershed                            | Environmental damage to water quality associated with illegal cannabis-growing operations   | As sites are identified and neutralized by law enforcement, acquire funding to remediate these sites once they are safe to enter.   |
| Throughout corridor  | Heritage sites are eroding into the river   | Stabilize cutbanks and other threatened parts of sites by planting native grasses, willows, etc.  |
| Throughout corridor  | Unknown cultural site conditions  | Finish archaeological surveys for the rest of the river corridor  |
| Throughout corridor  | Undocumented geologic features  | Inventory for caves and other unique geologic areas   |
| Foraging locations for cattle within corridor  | Cows causing loss of streamside vegetation, introduction of non-native/invasive plants, extensive soil erosion  | Construct fencing to restrict cows into riparian and denuded areas. Manually remove invasive plants and plant native vegetation in denuded areas.   |
| Administrative   | Recreation Opportunity Spectrum should reflect on proper Wild and Scenic River management   | Current ROS for majority of corridor is semi-primitive motorized. Consider changing this to semi-primitive non-motorized during forest plan revision process.   |

# Monitoring Plan

The Forest Service carries out different types of monitoring actions. The Forest Service will collect baseline data as needed to assess existing conditions. This is important in order to measure changes cause by projects. Implementation monitoring will be done to verify that a project was carried out as planned. Effectiveness monitoring will gauge whether or not the project met its goals. In other words, did the results and effects match expectations? Validation monitoring will identify whether there is a need to change the overall direction in planning or implementing projects. For example, validation monitoring may be applied at a broader scale to reexamine whether the management direction in the Black Butte River and Cold Creek Wild and Scenic River management plan (and 1995 Forest Plan) is still relevant and appropriate.

Most of the possible monitoring items listed in table 2 will be evaluated and refined as needed during project-level planning and analysis. The following table lists the location; type of measurement, and method of monitoring that will most likely be used in the wild and scenic river corridor. Monitoring design is based upon past, current, and anticipated future funding levels, along with staffing level and other Covelo Ranger District priorities. Adding more monitoring actions or increasing the extent, intensity, or frequency of monitoring would not be feasible. The monitoring actions selected are those that address areas of highest concern, similar to items addressed in the implementation plan. District personnel will evaluate data periodically so course corrections can be made as needed.

**Table 2. Possible monitoring items and their locations in the wild and scenic river and corridor**

| Location                                      | Issue  | Possible Monitoring  |
|---|--|--|
| Black Butte River, its tributaries, or both   | Water temperature                                | Monitor water temperature in the Black Butte River   |
| Throughout the corridor                       | Unknown heritage site conditions                 | Document new heritage sites while monitoring known heritage sites for damages.   |
| Black Butte watershed                         | Fuels conditions                                 | Monitor changes to fuel loading pre and post project   |
| Throughout the corridor                       | Landslides                                       | Monitor landslide movement using World View Imagery, InSAR, and LiDAR as imagery becomes available. Initiate after landslide-producing precipitation events.   |
| Throughout the corridor                       | Potential impacts from visitor use               | Follow monitoring plan detailed in visitor capacity analysis (appendix A)  |
| Foraging locations for cattle within corridor | Erosion and degradation of streamside vegetation | Monitor streambanks and document erosion and areas with denuded vegetation due to grazing using methods such as Proper Function Conditions (PFC), Multiple Indicator Monitoring (MIM), Best Management Practices (BMPs) or others applicable methods |



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# Appendix A: Visitor Capacity Analysis for the Black Butte Wild and Scenic River

## Introduction

The purpose of this report is to help determine the types and levels of visitor use that can occur within the Black Butte Wild and Scenic River corridor while still protecting and enhancing the outstandingly remarkable values for which the wild and scenic river was designated.

## Background

The Wild and Scenic Rivers Act was signed into law in 1968 (Wild and Scenic Rivers Act, Public Law 90-542). The act protects the free-flowing waters of many of the Nation's most spectacular rivers and safeguards the special character of these rivers, while also recognizing the potential for appropriate use and development. The act purposefully strives to balance river development with permanent protection for the country's most outstanding free-flowing rivers.

To accomplish this, the act prohibits Federal support for actions that would adversely affect the river's free flow or outstanding values, such as the construction of dams or other instream activities. Designation neither prohibits development nor gives the Federal government control over private property. The act specifically:

- prohibits dams and other federally assisted water resource projects that would adversely affect river values;
- protects outstanding natural, cultural, or recreational values;
- ensures water quality is maintained; and
- requires the creation of a comprehensive river management plan that addresses resource protection, development of lands and facilities, user capacities, and other management practices necessary to achieve the purposes of the act.

The Northern California Coastal Wild Heritage Wilderness Act (Public Law-109-362) designated the Black Butte Wild and Scenic River in the following manner:

- **Wild River:** The 16 miles of Black Butte River from the Mendocino County line to its confluence with Jumpoff Creek and the 1.5 miles of Cold Creek from the Mendocino County line to its confluence with Black Butte River.
- **Scenic River:** The 3.5 miles of Black Butte River from its confluence with Jumpoff Creek to its confluence with Middle Eel River.

The act defines these classifications:

- **Wild river areas:** Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- **Scenic river areas:** Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.

## Management Guidance

The 1995 Forest Plan provides management direction for designated wild and scenic river corridors. The Black Butte River and Cold Creek segments are located within the Grizzly management area (Management Area 17), Twin Rocks (Management Area 26), and Brushy Mountain (Management Area 39). The management area direction requires that the Mendocino National Forest:

“Provide protection to the outstandingly remarkable values found along the Black Butte River pending determination of the suitability of the Black Butte River for inclusion in the National Wild and Scenic River System” (Forest Plan, page IV-150).

The 1995 Forest Plan was amended in 2007 (amendment 2007-01) to incorporate the newly designated Black Butte River and Cold Creek segments. That amendment also changed the management direction for the segments of the Black Butte River and Cold Creek to Management Prescription 10 – Wild and Scenic River (Forest Plan, pages IV-76 to IV-77). The purpose of this prescription is “to preserve the free flowing condition of designated Wild and Scenic Rivers and their outstanding river values” (Forest Plan, page IV-76).

Forest plan management direction for the wild and scenic river corridor applies only to National Forest System lands and does not apply to other Federal, State, or private lands. The responsible Federal agency works cooperatively with other willing partners using cooperative agreements and other means to facilitate development of voluntary management strategies for these other lands that will protect and enhance river values consistent with law, regulation, and policy.

## Recreation Opportunity Spectrum

The Forest Service uses the recreation opportunity spectrum to classify and describe a range of recreation opportunities available. The recreational settings are described on a continuum ranging from primitive to urban (USDA Forest Service 1982).

The recreation opportunity spectrum is a system of classifications based on a range of recreation settings and probable activities that contribute toward the goal of providing a variety of outdoor recreation opportunities. A recreation opportunity spectrum setting is defined as the combination of physical, biological, social, and managerial conditions that give value to a place. By combining variations in these conditions, it is possible to provide a diversity of recreational settings for visitors to enjoy.

The 1995 Forest Plan designates the area, including the wild and scenic river corridor, as roaded natural and semi-primitive motorized (see figure 3). In a roaded natural setting, the area is characterized by predominately natural-appearing environments with moderate evidence of the sights and sounds of people. The frequency of contact with others is moderate to high on roads, developed sites, and trails and moderate away from developed sites. In a semi-primitive motorized setting, the environment is largely natural appearing. Concentration of users is low, with some evidence of others and low to moderate contact frequency.<sup>1</sup>

A USDA recreation opportunity spectrum for river management white paper (2003)<sup>2</sup> provides additional guidance. For a roaded natural river, the recreation opportunity spectrum characterization

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<sup>1</sup> [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5277167.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5277167.pdf)

<sup>2</sup> <http://www.reclink.us/page/us-forest-service-ros-for-river-management>



Appendix A: Visitor Capacity Analysis for the Black Butte Wild and Scenic River

for social settings prescribes moderate use—contact with others is expected and occasionally continual, with some chance for isolation. There is some evidence of other users.

For a semi-primitive motorized river, the expected conditions are few contacts with other users, primarily at rapids and access points. There should be little, but some, evidence of other users. A small party size is the expected situation.

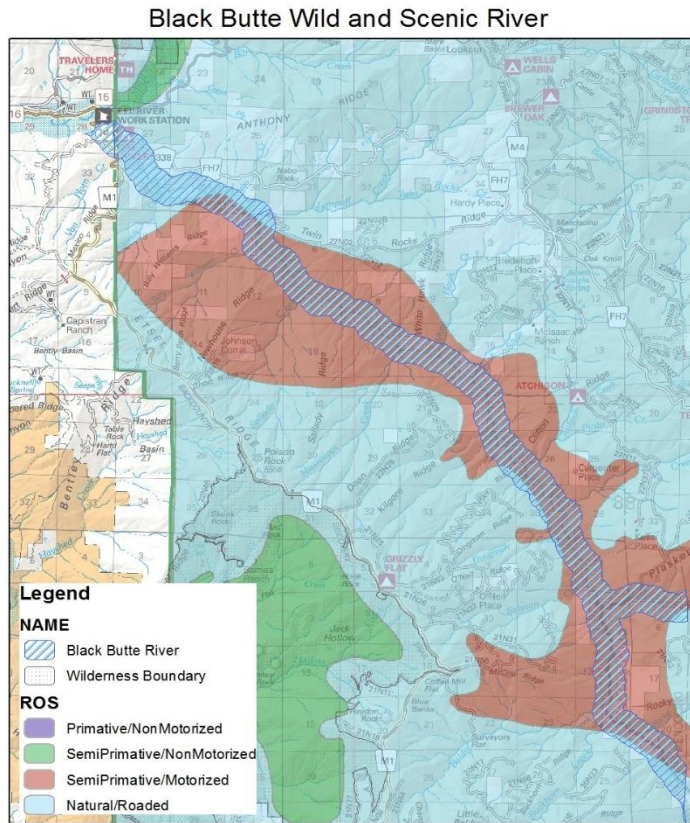


Figure 3. Recreation opportunity spectrum, Black Butte Wild and Scenic River

## Current Conditions in the Wild and Scenic River

The most critical problems within the Black Butte River watershed are sedimentation, high water temperatures, and high risk of catastrophic fire. A critical problem external to the watershed which impacts conditions within the watershed is the overall decline of anadromous fish populations throughout their range (USDA Forest Service 1996). Appendix L of the 1995 Forest Plan states that water quality ranges from good to poor due to seasonal stream flow characteristics and unstable side slopes. Water quality in the Cold Creek segment is good. Water quality degrades in the mainstem as it moves downstream and is poor at the confluence of the Middle Fork Eel River. This is due to lack of riparian vegetation and gravel substrate not human uses (USDA Forest Service 1995).

## Human Uses and River Values

River Value: Free-flowing condition.

A free-flowing river, or section of a river, moves in a natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway (Wild and Scenic Rivers

Act, section 16). Human uses on National Forest System lands are not affecting this value. Private land uses could be causing some modifications.

River Value: Water quality

Water quality was discussed in the watershed assessment (noted above). Human uses are not affecting this value. Private land uses may be affecting water quality.

## **Outstandingly Remarkable Values**

The foundation for planning for wild and scenic rivers is to clearly articulate outstandingly remarkable values, water quality, and free-flowing condition of designated rivers, so the combined river values can be protected and enhanced in accordance with the mandate of the Wild and Scenic Rivers Act.

The Interagency Wild and Scenic Rivers Coordinating Council has issued criteria for identifying and defining these outstandingly remarkable values. The values must be river-related, and they must be rare, unique, or exemplary in a regional or national context. The outstandingly remarkable values for the Black Butte Wild and Scenic River are fish, cultural or heritage, and geology.

### **Fish Outstandingly Remarkable Value**

The fish populations of Black Butte and Cold Creek are an outstandingly remarkable value because of the presence of the federally listed threatened steelhead trout and the federally listed threatened Chinook salmon. The wild and scenic river includes designated critical habitat for both species. No fishing is allowed on the river.

#### *Consistent and Inconsistent Human-Related Uses*

The following are examples of uses consistent with protection of the fish outstandingly remarkable value:

- stream restoration
- installation of scientific monitoring equipment with negligible impacts
- consolidation, removal, relocation, or maintenance of roads, trails and campsites to protect riparian areas
- vegetation management that meets all other direction and protects streamside shade, streambanks, and provides for long term wood input
- low impact recreation that does not increase sediment

The fish outstandingly remarkable value could be adversely affected by the following conflicting uses:

- Introduction of fish which affect native population genetics or introduce disease (for example, invasive or non-native fish escape from Plaskett Lake).
- Activities which alter channel morphology.
- Removing or cutting instream wood.
- Driving vehicles through the channel.
- Bridge or culvert installations which destabilize streambanks.

Appendix A: Visitor Capacity Analysis for the  
Black Butte Wild and Scenic River

- Adding riprap along streambanks.
- Activities which consistently contribute sediment beyond natural inputs.
- Vegetation management which removes future instream wood, causes erosion, or reduces streamside shade.
- Wildfire suppression techniques which cause more damage to the river's water quality and riparian areas than direct and indirect wildfire effects. Examples are safety zones, fire camps or drop points in riparian areas or hydrologically connected areas, or dozer lines or fire lines in riparian areas or hydrologically connected areas that lead to excessive erosion.
- Activities which could pollute the river.
- Fire retardant or a retardant mixing plant that could contaminate the river.
- Herbicides or other chemicals which are not safe for aquatic use.
- Stock use (hoof punching, bank shear, soil compaction, vegetation trampling, and vegetation removal from grazing).
- Road and trail construction, informal trailing, or both. Effects from these activities include soil compaction, decreased sheet flow, reduced infiltration and percolation, increased surface routing and flow velocities, and vegetation composition changes.

### Cultural or Heritage Outstandingly Remarkable Value

When considering human uses, in general cultural values are more often affected by the type of use rather than the quantity of use. Cultural resources can be particularly sensitive to depreciative behavior by a small minority of users (for example, graffiti, vandalism, theft of artifacts by souvenir seekers, etc.); however, in the Black Butte Wild and Scenic River, cultural resources are more susceptible to erosion and sedimentation rather than visitor use.

Very little of the designated area has been systematically surveyed for cultural resources and patterns. The sites that have been recorded are excellent examples of Yuki settlement. Due to the remoteness of the river, the sites have retained high integrity and scientific value. Though infrequent, there have been a few documented instances of intentional human-caused damage to sites.

### *Consistent and Inconsistent Human-Related Uses*

The following are examples of uses consistent with protection of the cultural or heritage outstandingly remarkable value:

- low impact recreation
- education and interpretation of cultural and traditional history
- monitoring, surveys, and approved research
- installation of scientific monitoring equipment with negligible impacts

The cultural or heritage outstandingly remarkable value could be adversely affected by activities which cause damage, looting, or erosion to cultural sites, including prehistoric sites, culturally significant sites, or areas important for culturally significant foods. This could include camping or development of facilities or trails.

## Geology Outstandingly Remarkable Value

The Black Butte watershed is a tectonically active and landslide-driven landscape. The uplifting, faulted and folded Central Belt Franciscan rock is a major control on development of the river. The Black Butte River cuts through weak, altered and deformed Franciscan marine sedimentary rocks and around massive rock blocks of greenstone and greywacke. This directly results in complex landslides that can be massive in scale from stream bank to ridge top. Landslides significantly influence fluvial morphology with significant input of large woody debris; sediment; and impressively large, stream-altering boulders. These factors have likely forced adaptations to fish in order to exist in a rapidly developing river system with unique, geologically-defined habitat. In addition, unique talus and tension crack caves within Black Butte Creek and the watershed are the direct result of landslide processes. The high-elevation glacial features of Black Butte Mountain have likely influenced broad-scale morphology of the eastern part of the watershed with landforms that are landslide prone and important for groundwater.

On National Forest System lands, there are no human uses known to be affecting the geology outstandingly remarkable value. Uses occurring on private lands could be affecting this outstandingly remarkable value.

Due to the protections in place in the wild and scenic river, it is not expected that most human uses would affect this outstandingly remarkable value. Should monitoring indicate cave exploration is occurring, a cave management plan should be prepared to mitigate potential affects to resources, as well as to provide for human safety.

## Visitor Capacity

Visitor capacity is defined as “a component of visitor use management consisting of the maximum amounts and types of visitor use that an area can accommodate while sustaining desired resource conditions and visitor experiences consistent with the purpose for which the area was established.” (Interagency Visitor Use Management Council 2016)

Visitor capacity, as applied to this capacity analysis, can be defined as the maximum amounts and kinds of public use a wild and scenic river, collectively or by analysis area, can accommodate without degrading river values. At a minimum, this discusses the maximum number of people that can be received on lands in the river corridor controlled by the river manager.

Often, visitor capacity is an estimate not a precise number. This is particularly true in situations where the amount of use is low and does not threaten desired conditions or river values. In these situations, capacity estimates yield visitor use numbers far higher than current amounts of use; thus, decisions about capacity do not result in near-term management actions to regulate use levels. The amount of investment devoted to determining visitor capacity needs to be commensurate with the consequence of the potential decisions to be made about managing visitor use. Such is the case for the majority of the Black Butte Wild and Scenic River. However, monitoring will still occur, and more precise numbers will be developed if trends suggest river values could be threatened. Changes in management, including land exchanges or additional guidance for management of the Middle Fork Eel River, would also necessitate reviewing and updating this capacity analysis.

## River Segments

For this capacity analysis, the wild and scenic river has been divided into three segments, based on public access: Portal, mainstem, and Cold Creek.

The Portal segment includes the confluence with the Middle Eel River to the private property upstream, which effectively blocks public access. This segment is approximately half a mile in length. This segment also includes the 15-site Eel River Campground.

The mainstem includes the rest of the Black Butte River included in the wild and scenic river. Due to topography and private land boundaries, there is effectively no legal access to the wild and scenic river.

The Cold Creek segment includes the entirety of the Cold Creek tributary included in the Black Butte Wild and Scenic River. This segment is only accessed through private land; there is no legal public access.

## Units of Use

User capacities are typically organized into three primary units of use: overnight, day, and administrative.

- **Overnight use:** This category would include dispersed and developed camping and the numbers that could be accommodated in the corridor. In the majority of the wild and scenic river (with no road access and limited legal boating potential), it would only include travel by foot. The exception is the Eel River Campground, which is accessed by paved road.
- **Day use:** Day-use capacities represent the maximum number of day users who can be accommodated in the river corridor or segment at one time. Day users spend all or part of a day in the corridor but then spend the night outside the corridor. In most situations, day-use levels typically reach a peak during mid-day.
- **Administrative use:** This category includes activities by Forest Service employees, concessioners, and contractors in support of Mendocino National Forest operations and programs. Other Mendocino National Forest partners and volunteers are also included in this use category.

## Existing Visitor Use

**Access:** The Black Butte River is accessed near its mouth at the Eel River Campground (a Forest Service campground) where Forest Road M-1 (a National Forest System road) and Forest Highway 7 allow easy access into the area. The major road access on the west side is the dirt Forest Road M-1, which uses the top of Etsel Ridge to parallel the Black Butte River; however, private land prohibits hiking down from this road. The Black Butte River and Cold Creek are not easily accessible from any other point; there are no other road or trail access points. All designated river segments are located on National Forest System lands on the Mendocino National Forest. Approximately half a mile upriver from the campground, public access is blocked by private property that spans the river.

**Day use:** The designated segments of the Black Butte River and Cold Creek are difficult to float due to lack of access, shallow water, and topography. No legally authorized commercial guides use these segments. No recreation special uses are proposed or anticipated based on the access and topography. All day use occurs in the Portal segment and includes picnicking, wading, and viewing scenery.

**Overnight use:** No dispersed campsites have been documented in the public land in any segment (evidence of camping has been documented on private land near the Blue Slides tributary). This is likely due to steep terrain in the Cold Creek segment, no legal public access along much of the wild and scenic river, and no flat sites except for transient gravel bars in much of the legal area. To travel

along much of the wild and scenic river, people would have to walk in the river or cross it numerous times to reach gravel bars. Travel along the banks is impeded by vegetation; steep, crumbling hillsides; and mostly by the presence of private land.

Should any of these factors change, there would be a limited supply of camping opportunities in a semi-primitive setting even during peak seasons. These would be restricted by terrain to gravel bars. Although the river falls within a motorized recreation opportunity spectrum, there are no motorized uses considered appropriate due to lack of road access, instability of soils, and potential for erosion.

The Eel River Campground provides rustic, overnight camping with toilets and picnic tables. It is lightly used.

Illegal use: Various online reports of whitewater kayaking the 24 miles of the mainstem have been found (see the more detailed discussion below in that section).

### Other Types of Uses

Administrative use is very limited and could include fish surveys or archeological surveys. Historically, administrative use has been limited to 1 to 2 people every few years in the entire wild and scenic river corridor. Campground personnel occasionally visit the Portal area to patrol for trash and to contact visitors.

Portions of the Etsel grazing allotment fall within the wild and scenic river corridor, but due to topography, cattle do not typically graze within the corridor. Less than 23 percent of the land in the corridor is identified as suitable for grazing. Any cattle use would likely be transitory to reach other forage locations outside the corridor.

Numerous private lands occur in the wild and scenic river corridor. Uses of these lands has largely not been documented.

## Capacity Estimates for Designated River Segments

### Portal

For this analysis, the Portal segment was divided into two sub-segments: day use by the river itself and overnight use in the campground. This was due to the difference in potential impacts to river values from the types of visitor uses in each area. The entire segment runs from the confluence with the Eel River and half a mile downstream to private property. The recreation opportunity spectrum is roaded natural, and the designation is scenic in the entire segment.

The river sub-segment (see figure 4 and figure 5) has the only current legal access to the river itself and is limited to day use. The main day-use visitors are people who are staying overnight in the nearby campground. Two steep and eroded trails lead down to the river in this location. While the trails are not long, the grade and tread probably prohibit use by some visitors. The trails are also not accessible (as defined by the Americans with Disabilities Act) and are not maintained; they are user-created routes. This sub-segment includes the corridor immediately southwest of the fence that delineates the developed facility, including the trail access.

Occasional high stream flows from flood events raise the river, but there is no consistent flow or season for boating in this segment. There is a wide gravel bar in this location (subject to seasonal river flows) and visitors can spread out for a short distance.

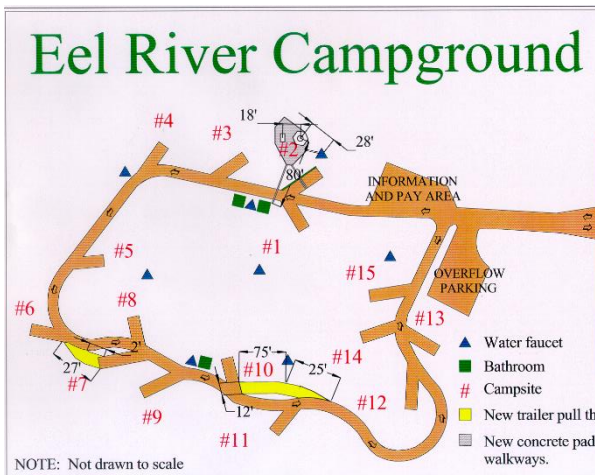


**Figure 4. Site of the Portal river sub-segment**



**Figure 5. River sub-segment**

The campground sub-segment is bounded by the actual facility (figure 6 and figure 7), located on the bank above the river trail descent. It has 15 sites and only rarely fills to capacity. Data from July 2017, the busiest month, documents approximately 70 visitor use days. Winter use is very low and in some years, snow levels prohibit vehicles from reaching the campground. Services are only provided April through December.



**Figure 6. Campground layout**



**Figure 7. Campground sub-segment**

Visitors to both sub-segments of the Portal area are limited by parking and campsite availability. Reports from Mendocino National Forest personnel indicate very few visitors are seen near the river itself, mostly in small groups of four or less. There is no evidence of trails leading upriver from this area.

The maximum use that could occur in this area is based on parking and camping availability. If all campsites were full, based on four people per car, a total of 60 people (15 groups) could potentially visit the wild and scenic river Portal area at one time. Additional visitors could park at the store and walk through the campground to the river, though this use is estimated to be very occasional. Current use levels do not approach the 60 people at one time estimate, and the actual capacity based on impacts to resource values may be less (see capacity discussion below).

Future use in this area is not expected to increase substantially. There is limited availability to enlarge the campground or to increase parking.

### *Relationship of User Capacity to River Values and the Recreational Experience*

The river values in the Portal segment are not currently affected by visitor use, but they could be sensitive to use levels. Fish outstandingly remarkable values, water quality, and free flow would be the values affected most by visitor use, particularly activities that change the flow of the river, such as building rock dams, excessive wading, and creating social trails along the banks that contribute to sediment reaching the river. The outstandingly remarkable values of geology and cultural or heritage are not expected to be affected by visitors in this segment.

### *Portal Capacity Estimate*

Research undertaken on the Merced River has shown visitors prefer about 19 people per viewscape (about 10 feet of beachfront per person), while acceptability was 52 to 54 people (about 3 feet of beachfront per person), and “displacement” was about 86 people (about 2 feet of beachfront per person) (Whitaker and Shelby 2012).

While recreation is not an outstandingly remarkable value of the Black Butte Wild and Scenic River, these findings can still be used to determine a reasonable capacity estimate. People at one time is used as an indicator of quality for sites whose experiential destinations are areas in which visitors linger (Manning et al. 1996). Examples of such destinations are viewing platforms and beaches. In these locations, it is assumed the number of other people sharing a space bears a strong relationship to feelings of crowding and freedom, important elements of experiential quality in parks and outdoor recreation (Manning et al. 1996). If several groups were on the river at one time, it is reasonable to assume each would wish to create separation between themselves. This can lead to social trailing and wading across the river to reach the other side away from other parties. In addition, if one group decides to build a rock pool in which to sit, this behavior could be seen as acceptable by other groups (adoption of norms). All of these things could affect the fish outstandingly remarkable value.

Existing use counts are anecdotal, collected by field staff while performing campground duties. They indicate no more than two groups are in the river sub-segment at one time. If a party size of four is used, this would be approximately 8 people at one time at the river itself. The majority of visitors to the river sub-segment would not travel more than an eighth of a mile (660 feet) downstream due to the difficulty of walking in the corridor.

Visitors to the river sub-segment appear to expect and prefer a more remote experience than a highly developed one. A range of 20 to 32 people at one time at the river (half of the campground capacity) would ensure the recreational experience and river values are not compromised. This is an increase of about 25 percent over the current situation and allows for a modest growth in visitor use.

The campground sub-segment is limited by the lack of space to expand. This area’s capacity is fixed at 60 people at one time. There is little room to accommodate larger groups than four people per campsite. If the current situation were to change to include larger groups, visitors would likely move elsewhere, since the recreation experience they are seeking would be compromised. It is also anticipated that the facility capacity would be inadequate, particularly the toilet facilities.



## Mainstem Black Butte River

This segment comprises the rest of the Black Butte Wild and Scenic River excluding Cold Creek. The designations are scenic (approximately 3 miles) and wild for this segment. The recreation opportunity spectrum is roaded natural and semi-primitive nonmotorized.

### *Current Visitor Use*

There is no legal access to this segment; however, the occasional visitor may reach it through trespass from Forest Highway 7 or by crossing the private property upstream of the Portal. This would mostly be for hunting. This use is expected to be very minor.

There are online reports of kayaking on the mainstem during the spring months, as well as advertisements of the potential for this activity. This use appears to be limited to a few highly skilled paddlers per year due to the rapids and obstacles encountered (reports detail it as a Class IV+ whitewater kayak destination) and involves either trespass or permission to cross private property to access the river at the put-in. It is likely there is some illegal guiding taking place as well. Should this use ever become legal through permitting and increased access, capacity would be very limited due to the short length of the float (2 to 3 days) and the lack of campsite availability on public land.

### *Other Human Uses*

Administrative use is very limited. An occasional resource survey may occur; this is not more than one per year with groups of 1 to 5.

With no legal access to this segment, a capacity estimate was not prepared; however, indicators and thresholds were developed to monitor for any changes to the existing situation.

Should access change, management of the area would continue to focus on primitive and low-density recreation opportunities, consistent with the wild classification. Research pertaining to low-density wilderness use suggests encounter rates should be less than 5 per day to provide a similar experience in this segment of the river corridor (Vaske et al. 1986). Levels of 3 or fewer groups per day (of no more than 5 people per group) are expected to be consistent with this standard. Due to lack of campsite availability, this could even be less for overnight use (1 party per day).

## Cold Creek Segment

### *Current Visitor Use*

There is no legal access to this segment. Access is controlled by a block of private land. This segment cannot be seen from any road. Any existing use would only be from the private landowner.

### *Administrative Use*

No administrative use occurs on this segment with the exception of resource specialist surveys for the comprehensive river management plan.

With no legal access to this segment, no capacity estimate is needed. Due to the short length, steep topography of the segment, and difficulty of walking along it (figure 8), capacity for overnight use would likely be very low if there were legal access. Day use would be possible with a greater capacity; however, the lack of a real destination or draw would limit this use more than capacity. Indicators and thresholds were developed to monitor for any changes to the existing situation.



**Figure 8. Typical terrain along Cold Creek segment.**

## **Indicators, Thresholds, Potential Management Actions, and Monitoring Plan**

To monitor each river value, one or more key indicators are selected that will allow managers to keep attuned to changes in the ecosystem or social setting. For each key indicator, a threshold is set. This value determines the amount of change desired or that will be accepted before river management objectives are no longer being met. In this manner, indicators and thresholds provide managers with information to determine if the resource values, and opportunities they are managing, are actually being provided. The standards serve as triggers that cause predetermined management actions to be implemented when the limit is being approached. For each indicator and standard, a “potential management actions” column lists the likely action that would be triggered if a particular threshold is reached. Sampling methods provide an example of how the indicator might be measured, but these sample methods can, and should, be changed as better means become available.

Appendix A: Visitor Capacity Analysis for the  
Black Butte Wild and Scenic River

**Table 3. Thresholds, indicators, potential management actions**

| <b>Segment</b>                             | <b>River Value</b>    | <b>Indicator</b>                                   | <b>Trigger</b>  | <b>Threshold</b>  | <b>Potential Management Action</b>  | <b>Justification</b>  |
|--|-----------------------|--|---|---|---|---|
| Portal, river sub-segment                  | Free flowing          | Rock dams built in river for sitting pools         | Documentation of people building dams   | No more than one dam noted per year   | Remove rock dams. Provide education at campground (posters at fee booth) Volunteer host.  | Interrupts free flow of the river   |
| Portal, river sub-segment                  | Water quality or fish | Social trails on riverbanks                        | One trail of any length observed on either bank between bridge and private land | No more than two new trails reported in one year  | Rehabilitate or close unauthorized trails. Consider providing river access trails where appropriate.  | Slopes in the area are loose and prone to sliding. Sediment load a concern                                      |
| Portal, river, and campground sub-segments | Recreation experience | People at one time                                 | Documented increase over baseline more than 2 times outside of holidays         | No more than 32 people at one time 80 percent of the main use season or river sub-segment; no more than 60 people at one time in campground | Trail development to disperse visitors; more group campground gathering places; use study; consider restrictions on number of people in each site | Too many people at one time will change the remote, undeveloped experience                                      |
| Portal, river sub-segment, and mainstem    | Water quality or fish | People walking in river or river crossing evidence | Increased access to river if land ownership changes                             | No more than 2 groups per year observed walking in river or more than one documented trail crossing the river                               | Develop public-use trail in durable area and direct use away from river   | If access increases along with visitation, enough people in the river can affect water quality and fish habitat |
| Mainstem                                   | Cultural or heritage  | Disturbance to cultural sites (looting, vandalism) | Increased access to areas with known sites due to changes in land ownership     | No more than one incident   | Conduct damage assessment and develop treatment or mitigation plan to eliminate sources of loss. Visit sensitive sites at least annually          | Zero tolerance for cultural site disturbance  |

Appendix A: Visitor Capacity Analysis for the  
Black Butte Wild and Scenic River

| Segment    | River Value           | Indicator                       | Trigger  | Threshold   | Potential Management Action  | Justification  |
|------------|-----------------------|---------------------------------|--|---|--|--|
| Cold Creek | Fish or water quality | Social trails paralleling creek | Increased access to creek due to changes in land ownership | No more than one recognizable trail that is causing erosion | Remove trail or build a sustainable trail to replace the existing trail. Restrict access through indirect methods (parking lot size) or direct (quota) | Slopes in area are loose and prone to sliding; erosion in creek can affect water quality and fish habitat. |

**Table 4. Capacity estimates for wild and scenic river segments**

| Segment                        | Measure                                | Existing Use   | Estimated Capacity                      | Justification  |
|--------------------------------|--|--|---|--|
| Portal, river sub-segment      | People or groups at one time           | 4 to 8 people (two groups)   | Up to 32 people at one time or 4 groups | 15 sites or 4 people per car; limiting attribute is parking. Large gravel bar and ½ mile to distribute use. Remote setting; recreation opportunity spectrum of low to moderate encounters. |
| Portal, campground sub-segment | People or groups at one time           | Less than 70 people per month in the busiest month; estimate 12 to 16 people (3 to 4 groups) | up to 60 people at one time (15 groups) | This represents the full design capacity of the campground. Remote setting, recreation opportunity spectrum of low to moderate encounters.   |
| Mainstem                       | People at one time or people overnight | Illegal use—estimate 1 to 2 parties per year (2 to 3 people each)                            | Not applicable                          | No legal access; reassess if access changes  |
| Cold Creek                     | People at one time                     | 0  | Not applicable                          | No legal access; reassess if access changes  |

Appendix A: Visitor Capacity Analysis for the  
Black Butte Wild and Scenic River

**Table 5. Monitoring plan**

| Monitoring Item   | Frequency                                 | Comments   |
|---|---|--|
| People at one time at Portal (both areas)   | Monthly or when fees are collected        | Note number of groups in river sub-segment as seen from campground and bridge area; note number of people in the campground and group size |
| Rock dams at Portal   | Prior to Memorial Day and after Labor Day | Note if any are present; determine management action   |
| Social trails besides the two established ones from the campground at Portal; trails crossing river               | Yearly in May (after spawning season)     | GPS locations; check sediment load if trail persists; determine management action  |
| Areas without legal access: new trails or roads on National Forest System lands leaving from Forest Road 7        | Prior to Memorial Day and after Labor Day | GPS locations. These trails and roads likely trespass through private land; notify landowners  |
| Changes in land ownership   | Whenever this occurs                      | Determine length and area of corridor affected; develop capacity estimate  |
| Changes in management or design (new trails or roads on National Forest System lands, or paving of Forest Road 7) | Prior to occurrence                       | Determine length and area of corridor affected; develop capacity estimate  |
| Reported or documented illegal use (outfitting)   | Ongoing as reported or found documented   | Consult with landowners and note if permission was granted for access; survey for campsites; contact business advertising the service      |

## Future Recreation Demand and Trends

Recreation demand is the estimated number of people projected to participate in a particular recreation activity at some predetermined future time and location. Demand may also be expressed as the estimated percent of increase or decrease for a particular recreation opportunity from some baseline.

The purpose of estimating demand within the wild and scenic river corridor is to help ensure the supply of recreation opportunities desired by the public is met while protecting and enhancing outstandingly remarkable values for which the wild and scenic river was established. Estimating demand helps focus monitoring efforts and helps identify current and need for possible future management actions.

### Background: Past and Current Use

Estimated use and trends are based on the 1996 watershed assessment and appendix L from the 1995 Forest Plan and observations made from local managers.

Roads and trails that used to provide closer access to the river system have now overgrown or pass through private property where public use is not allowed. Roads on National Forest System lands have also been closed where they were contributing to sedimentation or were on unstable soils. Due to more access in the past, the 1995 Forest Plan stated use in the corridor was light to moderate. The

semi-primitive motorized recreation opportunity spectrum classification in place for most of the wild and scenic river was most likely based upon the presence of the then-open roads. Today the core of the wild and scenic river would probably be designated as semi-primitive nonmotorized.

Use today is much lower; the campground is rarely full, and few groups are seen in the Portal area of the wild and scenic river. The current opportunities appear to be meeting demand for this type of recreation (overnight camping and day use).

Various websites list the Black Butte mainstem as a world-class kayaking destination; this likely attracts a few people each year. The sites do not mention the lack of legal access and the fact that groups would be trespassing on private property. The challenge and risk of this type of trip likely limits use; however, if a private landowner were to grant access for some type of outfitted activity, demand could increase. Due to the variability of river flows and short season, a guided business would not be viable if it depended on this river segment as the only source of revenue. Campsite availability would severely limit the number of groups that could be accommodated.

## Future Demand

Due to the remoteness of the area, it is not likely a large increase in demand for access or in existing use will occur in the wild and scenic river. If a hiking trail were built near the campground, it is probable it would see some use from campers, but this would not be a destination for other visitors. There are nearby wilderness areas that are more of a draw than the wild and scenic river. Private land parcels near the river will continue to limit access for visitors. The nature of the river, which becomes very shallow and warm in the summer months, prohibits most watercraft or swimming.

The main changes to capacity would occur if private land parcels exchanged hands and fell under Federal ownership or if private landowners would grant easements for travel to the river. If Highway 7 were paved, this could increase recreational visitor traffic to the wild and scenic river via the campground. Should any of these occur, capacity would need to be revisited for the wild and scenic river. Due to the length of the main wild segment, it is anticipated several groups (15 to 30) could recreate in the corridor at one time. This would be highly dependent on their activity and the potential for erosion from trails and campsites. Since private property checkerboards the area, dispersion of groups could be limited, and travel could require walking in the river itself. This could negatively affect the fish outstandingly remarkable value. Capacity would also be affected by the presence of, and potential impact to, cultural sites. For example, managers may need to discourage or indirectly regulate use in particularly sensitive areas. This would affect capacity for the entire corridor.

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Appendix A: Visitor Capacity Analysis for the  
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# Appendix B: Resource Assessment

## Introduction

An interdisciplinary team from the Mendocino National Forest began a resource assessment in 2011. The purpose of the assessment is to identify river-related outstandingly remarkable values, which help guide the focus of a river management plan. River-related values could also be identified as “significant” which means they contribute substantially to the rivers character and may need varying levels of protection and consideration during the river management planning process. The assessment work was interrupted due to changing forest priorities and wildfires. The assessment was resumed, and final changes were incorporated in 2017.

## Resource Assessment

The resource assessment is important to guide the preparation of a comprehensive river management plan for the Black Butte River and Cold Creek, to protect river values. The assessment must take into consideration all features which are directly river-related, and it helps provide a holistic approach to investigating the relationship of river features. There are three components to the resource assessment process: 1) the identification of outstandingly remarkable values, 2) the identification and determination of significance levels for river-related values which contribute to its overall character, and 3) the confirmation of outstandingly remarkable values set forth for the river in the legislative history of its designation.

An interdisciplinary team was convened in April 2011 to begin this process. Members of the team included specialists in hydrology, geology, fisheries, scenery management, wildlife biology, archeology, recreation management, and ecology. The assessment was reinitiated in March 2017 and completed in August 2017.

## Outstandingly Remarkable Values

The term “outstandingly remarkable value” has never been precisely defined, but criteria have been described in “The Wild and Scenic River Study Process” which is a technical report of the Interagency Wild and Scenic Rivers Coordinating Council (1999) and Forest Service Handbook 1909.12 (82.73a) (USDA Forest Service 2015). The resource assessment is based on the professional judgment of the interdisciplinary team and documents objective, scientific, analysis based on reviews of available literature, consultation with experts, and field work. The region of comparison for Black Butte River and Cold Creek is generally the Northern California Interior Coast Range area.

Outstandingly remarkable values are commonly such things as scenery, recreation, geology, fisheries, wildlife, prehistory, history, hydrology, or botany. To be considered river related, a value should be located in the river or its immediate environment (generally within ¼ mile on either side), contribute substantially to the functioning of the river ecosystem, owe its existence to the presence of the river, or some combination of these things.

River-related values must be rated for level of significance. Levels include:

- Outstandingly remarkable - Unique, rare, or exemplary feature that is significant at a comparative regional or national scale.
- Significant (not outstandingly remarkable) - Values which still contribute substantially to the river's character. These values may still need varying levels of protection and consideration during river planning process.
- Insufficient information - If the level of existing data is insufficient to make a determination of significance, then it must be identified what is needed to get sufficient data. The value needs to be protected as outstandingly remarkable until more information is gathered.

The following significant and outstandingly remarkable values were identified for the Black Butte River and Cold Creek:

- outstandingly remarkable values
  - ◆ fish – population and habitat
  - ◆ cultural – prehistory and traditional use
  - ◆ geology
- significant
  - ◆ cultural – history

## Findings and Discussion of Values

### Cultural – History



Figure 9. Keller Cabin

### Criteria for Outstandingly Remarkable

The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare, unusual, or one of a kind in the region. A historic site, feature, or both in most cases is 50 years old or older. Of particular significance are sites or features listed in, or eligible for inclusion in, the National Register of Historic Places.

### Finding

The historical resources in the Black Butte and Cold Creek corridor are significant but not outstandingly remarkable. The primary historical use of the corridor area includes homesteading, grazing, hunting, and logging. Although significant on a local scale, they are not of outstanding regional or national importance or rarity.

### Discussion of Values – Rationale for Conclusion

The historical use of the Black Butte River began in the mid-19<sup>th</sup> century with Euro-American “hide hunters” as the area was rich in faunal resources and lacking in mineral resources. Bear, deer, and other fur-bearing animals were still prevalent in large numbers due in large part to the remote setting of the canyon. Deer, in particular, were the target for not only fresh meat but for buckskin clothing and gloves. By the 1870s, trails began to dot the landscape connecting various homesteads to these hunting grounds. At least 25 homestead claims were filed on land parcels within the half-mile-wide wild and scenic river corridor in the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Cattle and sheep grazing became a focus also in the 1870s. As roads improved, ranchers were able to haul their sheep and cattle onto the national forest to graze during the summer months. The early 20<sup>th</sup> century saw limited private logging, primarily for small homesteads. It was not until the mid-20<sup>th</sup> century that logging on the Mendocino National Forest became important. Under Forest Service management, trails were an integral part of transportation within the Black Butte River watershed as few roads existed. Trail systems were utilized to connect Forest Service facilities (Twin Rocks Ranger Station, Black Butte Fire Lookout, etc.) down secondary ridges to the river. Many of these trails were established on road systems built by homesteaders at the turn of the century.

While the Black Butte River watershed held a significant number of homesteads at one time, very little of that history remains intact. Remnants of old orchards associated with former cabins remain in some locations; however, few structures remain. The rehabilitated and restored caretaker’s cabin at the Keller Place retains significant local and regional historical value, although the old resort itself has been removed. The old homesteads in the canyon were joined by trails bringing various homesteaders into contact with each other, but this is not unique in California. As most historic sites in the watershed are largely destroyed, their historical remains are not pristine and likely are not eligible for the National Register of Historic Places.

## Cultural – Prehistory



**Figure 10. Petroglyph rock along Black Butte River**

### Criteria for Outstandingly Remarkable

The river or area within the river corridor contains a site or sites where there is evidence of occupation or use by Native Americans. Sites must have unusual characteristics or exceptional human interest value(s). Sites may have national or regional importance for interpreting prehistory, may be rare and represent an area where a culture or cultural period was first identified and described, may have been used concurrently by two or more cultural groups, or may have been used by cultural groups for rare or sacred purposes. Of particular significance are sites or features listed in, or eligible for inclusion in, the National Register of Historic Places.

### Finding

The prehistory of the Black Butte River and Cold Creek Wild and Scenic corridor is an outstandingly remarkable value. The values identified by the resource assessment are all river related; the high concentration of sites and their pristine nature contribute to the designation of this resource as an outstandingly remarkable value. Some of these sites may still be used for traditional purposes today.

### Discussion of Values – Rationale for Conclusion

The Black Butte River drainage is situated in territory held by the Huititno'm Yuki at the time of Euro-American contact. The Huititno'm Yuki are hypothesized to have lived in the general vicinity for perhaps the past 4,000 years, and their population is estimated to have been about 400. They probably lived along the Black Butte River during the winter and traveled to the higher elevations in the spring, summer, and fall in the pursuit of game or to gather plant resources.

Numerous significant archaeological resources have been identified along the lower and upper reaches of the Black Butte River. Many of these sites represent long-term habitation and some contain structural remains. Some have been identified as ethnographic villages associated with the Huititno'm Yuki. The remoteness and undeveloped character of the river are the major contributors to the pristine quality of these sites. The information potential of these sites, coupled with their excellent integrity, make these archaeological resources exceptional compared to many other regions within the North Coast Ranges.

## Cultural - Traditional Use



Figure 11. Split Rock at Black Butte

### Criteria for Outstandingly Remarkable

The river or area within the river corridor contains a regionally unique location or locations of importance to Native American Tribes (religious activities, fishing, hunting, or gathering). Locations may have unusual characteristics or exceptional cultural value being integral to continued pursuit of such activities. Locations may have been associated with treaty rights on ceded lands or activities unprotected by treaty on ceded lands or in traditional territories outside ceded lands.

### Finding

The traditional use of the Black Butte River and Cold Creek Wild and Scenic corridor is an outstandingly remarkable value. River-related resources of the river including hydrology, fisheries, and prehistoric and current use relate to Native American history.

### Discussion of Values – Rationale for Conclusion

California Indians settled in the area of the watershed approximately 2,750 years ago based on archaeological evidence of the few sites tested in the watershed. The area probably has a considerably older prehistoric past; however, more archaeological evidence would be needed to support that assertion. The home area of the *Huititno'm* (Middle Ridge People) subgroup of the Yuki closely followed the extent of the Black Butte watershed. Highest populations were likely reached shortly prior to Euro-American contact (G. Greenway, pers. comm.). The *Huititno 'm* population in the watershed was estimated at approximately 400 persons. Settlement in the watershed may have been influenced by an abundance of deer (McCarthy et al. 1982). The world view of the *Huititno 'm* was likely centered on their territory and the resources within it; their knowledge of the watershed must have been extensive.

California Indians used a vast array of local resources for a wide variety of spiritual, cultural, and livelihood purposes. Virtually every resource in the watershed was utilized in some way (G.

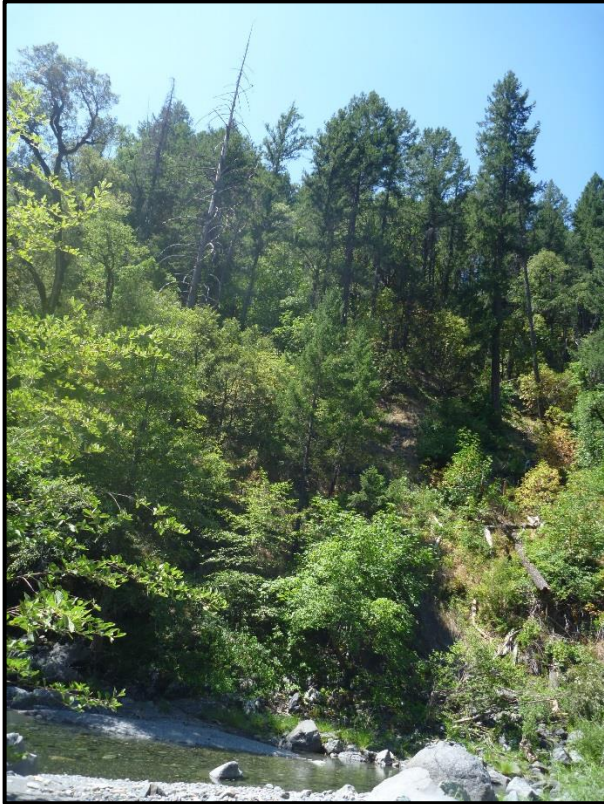
Greenway, pers. comm.). V. K. Chestnut (1902), documented both Yuki and Pomo uses of plants in Mendocino County, included numerous species collected for each of the following uses: food, drink, forage, clothing, ornament, housing, heating, cooking, tinder, fuel, tools, hunting, fishing, poisons, harvesting, travel, transportation, war, amusements, ceremonies, religion, medicine, and art. For example, approximately 20 plant species were used for the nets, ropes, traps, and other materials necessary for fishing alone. Fish were a primary resource for the Yuki; the Black Butte River fishery, like the Eel's, was a valuable resource.

Approximately 4,994 people are enrolled today as members of the Round Valley Indian Tribes. Of these, approximately half reside on, or adjacent to, the Round Valley Indian Reservation. Members of the Yuki, Pit River, Achomawi, Little Lake, Pomo, Concow, Wylacki, Nomlaki, and Wintun are among the tribes (G. Azbill, pers. comm.). There are no treaty rights within the watershed. However, it contains numerous Yuki cultural sites and has been important to the Round Valley Indian Tribes for over a century.

Current uses of the watershed and adjacent areas by the Round Valley Indian Tribes involve hunting, fishing, gathering, and employment. Cultural and sacred aspects of the land are also important, with each feature and element of the watershed invested with unique significance. Peaks and high places within this watershed are believed to be spiritually significant. To Native Americans, hunting, fishing, and gathering are not purely recreational, as might be perceived by non-Natives. Neither are they solely the means to acquire food or materials. Rather, these traditions are sacred cultural practices which are an integral part of their way of life.

Gathering is very important to the Round Valley Indian Tribes, although the amount of gathering occurring in the watershed today is low compared to the pre-Euro-American era. Many traditional gathering places are located close to roads; often these roads were preceded by Indian trails. Plants are gathered for food, basketry, and medicinal purposes. Black oak acorns and pennyroyal tea are gathered as traditional food sources, and riparian-associated species, such as sedge, willow, red dogwood, and redbud, are of particular interest for basketry. Secrecy regarding the location of gathering sites is important to members of the Tribes.

## Ecology/Botany



**Figure 12. Variation of plants along Black Butte corridor**

### Criteria for an Outstandingly Remarkable Value

The river or area within the river corridor contains nationally or regionally important populations of indigenous plant species. Of particular significance are species considered to be unique; populations of federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. When analyzing vegetation, additional factors, such as diversity of species, numbers of plant communities, and cultural importance of plants, may be considered.

### Finding

The ecological and botanical values of Black Butte River and Cold Creek are not considered to be significant or outstandingly remarkable. Although the botanical diversity of the designated corridor has not been thoroughly surveyed or documented, site visits to the corridor did not find threatened, endangered, or sensitive plant species or especially rich botanical communities. Much of the corridor outside the immediate riparian zone is infested with nonnative species, particularly annual grasses. There is likely some suitable habitat for riparian threatened, endangered, or sensitive species within the corridor, especially in the upstream portions, but overall, the botanical resources are not outstandingly remarkable.

## Discussion of Values – Rationale for Conclusion

### *Threatened, Endangered, and Sensitive Plant Species*

There are no federally threatened or endangered or Region 5 sensitive plant species documented in the designated wild and scenic river corridor. However, no full floristic botanical surveys have been recorded within the corridor, likely due to very limited access and a lack of previous project work in the area. The only federally listed plant species on the Mendocino National Forest, *Howellia aquatilis* (water howellia), is found in shallow ponds and is highly unlikely to occur in the steep drainages of the designated corridor. Although riparian vegetation is also limited by the steep canyon, there is potentially suitable habitat for two sensitive species: *Ophioglossum pusillum* (northern adder's tongue) and *Peltigera gowardii* (veined water lichen). *Ophioglossum pusillum* can be found in riparian areas, although it is more likely to be in wetlands. *Peltigera gowardii* is found growing on rocks submerged in streams. Both species are quite rare, but even future possible detections of these species within the corridor would not be sufficient to elevate botanical resources to an outstandingly remarkable value.

### *Survey-and-Manage Plant Species*

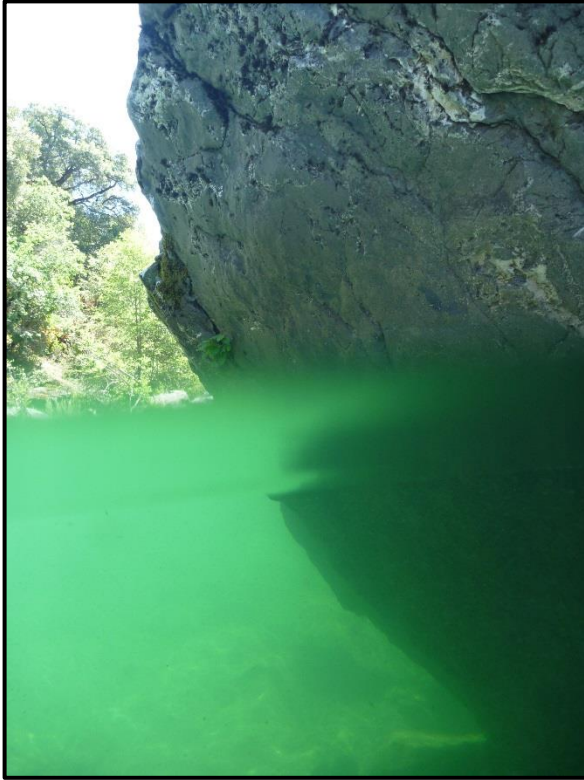
While there are no survey-and-manage plant species documented within the designated corridor, there are several documented occurrences of two orchid species within the watershed—*Cypripedium fasciculatum* (clustered lady's slipper) and *Cypripedium montanum* (mountain lady's slipper)—and the corridor is within one half mile of some of the occurrences near Cold Creek. This suggests there may be suitable habitat within the designated corridor for one or both of these species. However, these two species are the most frequently documented survey-and-manage species on the Mendocino National Forest, and their presence in the corridor would not make botanical resources outstandingly remarkable.

### *Nonnative Invasive Plant Species*

The narrow strip of riparian vegetation in the designated corridor appears to be largely free of invasive plant species. It is dominated by alders, willows, and, in some places, cottonwoods. The remainder of the corridor hosts a large number of nonnative species, particularly annual grasses such as *Cynosurus echinatus* (hedgehog dogtail grass) and *Avena* ssp. (wild oats). Areas with closed-canopy (conifer) forest generally host fewer invasive species, but the understory of open areas with sparse oak trees are dominated by weedy annuals. The corridor does have a reasonably diverse spring wildflower display, but it is not outstandingly remarkable, especially coupled with the abundance of nonnative species.



## Fish



**Figure 13. Boulder pocket fish habitat**

### Criteria for an Outstandingly Remarkable Value

Fisheries values should be judged on the relative merits of fish populations, habitat, or a combination of these river-related conditions.

#### *Populations*

The river is nationally or regionally an important producer of resident fish species, anadromous fish species, or both. Of particular significance is the presence of wild stocks considered to be unique; populations of federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. Diversity of species is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

#### *Habitat*

The river provides exceptionally high-quality habitat for fish species indigenous to the region of comparison. Of particular significance is habitat for wild stocks considered to be unique; populations of federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable. Also considered is habitat that may provide a critical link in habitat conditions for federally or State-listed (or candidate) threatened, endangered, or sensitive species.

## Finding

The fish populations of Black Butte River and Cold Creek are an outstandingly remarkable value because of the presence of the federally listed threatened northern California steelhead trout and the federally listed threatened California coastal Chinook salmon.

The fish habitat of Black Butte River and Cold Creek is also an outstandingly remarkable value because it provides designated critical habitat for northern California steelhead trout and California coastal Chinook salmon.

## Discussion of Values – Rationale for Conclusion

**Species name:** Northern California steelhead (*Oncorhynchus mykiss*)

**Listing status:** Threatened

**Date listed:** June 7, 2000 (65 FR 36074), listing reconfirmed in a Final Rule published January 5, 2006 (71 FR 834).

**Critical habitat designated:** Sept. 2, 2005 (70 FR 52488).

**Species name:** California coastal Chinook salmon (*Oncorhynchus tshawytscha*)

**Listing status:** Threatened

**Date listed:** September 16, 1999 (64 FR 50394) and listing reconfirmed in a Final Rule published June 28, 2005 (70 FR 37160).

**Critical habitat designated:** Sept. 2, 2005 (70 FR 52516).

The upper reaches, including Cold Creek, provide some of the better spawning and rearing habitat for winter steelhead, rainbow trout, and Chinook salmon within the Middle Fork Eel River drainage. The upper mainstem of the Black Butte River and many of its tributaries (for example, Cold Creek) have been identified as important habitat for the recovery of northern California steelhead trout and California coastal Chinook salmon. The multi-species recovery plan (2015), identified the Black Butte River system as important holding and rearing habitat for winter steelhead trout and fall Chinook salmon.

The California Department of Fish and Wildlife has prohibited fishing within the Black Butte watershed. The wild and scenic river corridor is an important contributor towards steelhead recovery under the Endangered Species Act.

This is a Tier 1 key watershed. Key watersheds are one of four components of the aquatic conservation strategy as described in the Northwest Forest Plan. Tier 1 key watersheds are drainage systems with at-risk salmonid populations that are vital to the recovery of a species. These watersheds require management objectives designed to protect the fish population and their habitat. Tier 2 key watersheds are drainage systems that have high water quality; therefore, these watersheds have management objectives designed to protect water quality.

Refugia are important components of most species conservation strategies. They are areas that either provide, or are expected to provide, high-quality habitat, serving as a refuge network for salmon and other fish species. As part of the aquatic conservation strategy, key watersheds were identified and designated to serve this purpose. Key watersheds that are currently in good condition serve as anchors for the potential recovery of depressed fish stocks, while watersheds characterized by having low-quality habitat and high potential for restoration can serve as future refuge areas (USDA and USDI 1994). The key watersheds are spatially distributed to ensure refugia are widely distributed

across the landscape. The Tier 1 key watersheds have been identified as contributing directly to the conservation of at-risk salmonids. Because key watersheds were identified as having a high value to native salmonids, they serve as focus areas for Bureau of Land Management and Forest Service watershed analysis and watershed restoration.

**Literature cited:**

National Marine Fisheries Service. 2015. Public draft coastal multispecies recovery plan. National Marine Fisheries Service, West Coast Region. Santa Rosa, California.

U.S. Department of Agriculture and U.S. Department of Interior (USDA and USDI). 2004. Record of decision for amending management plans for seven Bureau of Land Management Districts and Land and Resource Management Plans for nineteen forests within the range of the northern spotted owl: decision to clarify provisions relating to the aquatic conservation strategy. Forest Service and Bureau of Land Management. Portland, Oregon.

**Geology**



**Figure 14. Rock outcrops on the southwest flank of Black Butte; the fissure through the center of the knob on the skyline was formed by landslide movement. Photo 9184, taken 7-26-17 by JdIF**

**Criteria for an Outstandingly Remarkable Value**

The river or the area within the river corridor contains one or more examples of a geologic feature, process, or phenomenon that is rare, unusual or unique to the region of comparison. The feature or features may be in an unusually active stage of development, represent a “textbook” example, represent a unique or rare combination of geologic features (erosional, volcanic, glacial, or other geologic structures), or some combination of these things.

## Finding

The geologic features and characteristics of the Black Butte River and Cold Creek constitute outstandingly remarkable values in the context of the Northern California Interior Coast Range area.

1. **Large deep-seated landslides** dominate the landscape and play major role in geomorphic processes which operate there. This includes high sediment loads delivered to the river and the direct delivery of huge boulders to the channel. The landslides produce unique hummocky landforms with many closed basins which often contain meadows, ponds, or lakes (such as Keller Lake). They also create complex patterns of groundwater flow.
2. **Prominent rock knobs** occur across the landscape. These blocks consist of erosion-resistant bedrock of various types, and examples include Nebo Rock and Twin Rocks. They form a unique part of the ecosystem, particularly where they contain caves.
3. **Glacial landforms** have been identified in the Black Butte and Plaskett Meadows area and also around Anthony Peak. Such features are relatively rare in the Coast Ranges.
4. **Caves** occur in a variety of settings across the watershed, including landslide fissures in bedrock, in talus at the base of landslide scarps and other types of bluffs, and along the river between huge boulders delivered there by landslides.
5. **Invertebrate fossils** have been identified along the river near its junction with Nebo Creek. They are characterized as megafossils but have not been identified. They are likely mollusks.
6. **Waterfall** - A waterfall in Cold Creek is mentioned in the Black Butte River project files, but its existence and location have not been verified.

## Discussion of Values – Rationale for Conclusion

The initial resource assessment for Black Butte River began in 2011, and a geologist was not available to be on the interdisciplinary team. The initial conclusion of that team was that the geologic characteristics and features of the watershed qualified as significant but not outstandingly remarkable. In 2017, the resource assessment was resumed, and geologists were added to the team. This resulted in the addition of caves, fossils, and glacial features to the list of geologic values at hand. After reviewing existing data and conducting some limited field reconnaissance, the geologists concluded the geologic features and characteristics in the Black Butte watershed were, in fact, outstandingly remarkable values.

**Summary:** The Black Butte watershed is a textbook example of a tectonically active and landslide-driven landscape. The uplifting, faulted and folded Central Belt Franciscan rock is a major control on development of the river. The Black Butte River cuts through weak, altered and deformed Franciscan marine sedimentary rocks and around massive rock blocks of greenstone and greywacke. This directly results in complex landslides that can be massive in scale from stream bank to ridge top. Landslides significantly influence fluvial morphology with significant input of large woody debris, sediment, and impressively large, stream-altering boulders. These factors have likely forced adaptations to fish in order to exist in a rapidly developing river system with unique, geologically defined habitat. In addition, unique talus and tension crack caves within Black Butte Creek and the watershed are the direct result of landslide processes. Caves are closely linked to cultural resources and wildlife habitat. The high-elevation glacial features of Black Butte Mountain have likely influenced broad-scale morphology of the eastern part of the watershed with landforms that are landslide prone and important for groundwater storage. Groundwater helps maintain summer flows into Black Butte River. For these reasons, geologic features and characteristics in the

Black Butte watershed are outstandingly remarkable values that directly control watershed function. The unique geologic features and characteristics include the following:

1. **Large Deep-Seated Landslides** - Large earthflows and slump-earthflow complexes occupy about 80 percent of the watershed. These landslides produce hummocky terrain with closed basins which often collect water and form meadows, ponds, or lakes such as Keller Lake. Parts of these landslide deposits are active and deliver large volumes of sediment to the river. Earthflows in Blue Slides Creek and elsewhere have remained continuously active over the past 60 years or longer and are characterized by grass-covered glades with scattered trees, dissected by streams with raw inner gorges. Many of the large earthflows deliver rocks up to 50 feet in diameter to the river, forming unique fish habitat as well as shallow caves. Some of the landslides develop amphitheater-shaped head scarps, such as on the southwest flank of Black Butte, and tension cracks and fissures in the rock above the scarp form small caves.
2. **Prominent Rock Knobs** occur across the landscape and range from a few hundred feet to more than 1,000 feet in diameter, with nearly vertical margins up to 200 feet high. In some areas within the Franciscan Complex, they are referred to as “knockers”. These blocks consist of erosion-resistant bedrock of various types; examples include Nebo Rock and Twin Rocks. They form a unique part of the ecosystem, particularly where they contain caves and likely have cultural significance.
3. **Glacial Features** - Glacial landforms have been identified in the area around Black Butte and Plaskett Meadows and also in the Anthony Peak area. A small glacial moraine forms the dam on the lake at Plaskett Meadows. This dam has been raised to increase the size of the lake.
4. **Caves** occur in a variety of settings across the watershed, including landslide fissures in bedrock, in talus at the base of landslide scarps and other types of bluffs, and along the river between huge boulders delivered there by landslides. These caves provide habitats for a variety of flora and fauna, and, if large enough, could have been used by humans for shelter or other purposes. There are historical accounts of human use of such caves along Black Butte River. A cave inventory has not been conducted in this watershed.
5. **Invertebrate fossils** have been identified along the river near its junction with Nebo Creek. They are characterized as megafossils but have not been identified; they are likely mollusks.
6. **Waterfall** - A waterfall in Cold Creek is mentioned in the Black Butte River project files but its existence and location have not been verified.
7. **Plate Boundary Observatory** - Though not a geological resource per se, the Earth Scope Project has a high-resolution GPS installation in the Black Butte watershed which is part of the Plate Boundary Observatory. This project is sponsored by the National Aeronautics and Space Administration (NASA) the National Science Foundation (NSF), and UNAVCO, and it collects data for analyzing seismic and volcanic activity in the Pacific Northwest. UNAVCO is a non-profit, university-governed consortium that facilitates geoscience research and education using Geodesy, which is the science of accurately measuring and understanding the Earth's geometric shape, orientation in space, and gravity field.

## Hydrology



**Figure 15. Black Butte River upstream of Cold Creek confluence**

### Criteria for an Outstandingly Remarkable Value

The river or the area within the river corridor contains one or more examples of a hydrologic feature, process, or phenomenon that is rare, unusual, or unique to the region of comparison. The features(s) may be in an unusually active stage of development, represent a “textbook” example, represent a unique or rare combination of hydrological features (for example, channel morphology, flow regime, streambank or stream bed erosion, and water-created features such as waterfalls, sinks, caverns, wetlands or springs), or some combination of these things. The river water itself is one of the best examples of clarity, purity, glacial “milk,” etc. or the combination of water chemistry and temperature supports life forms nationally unique or unique to the physiographic region.

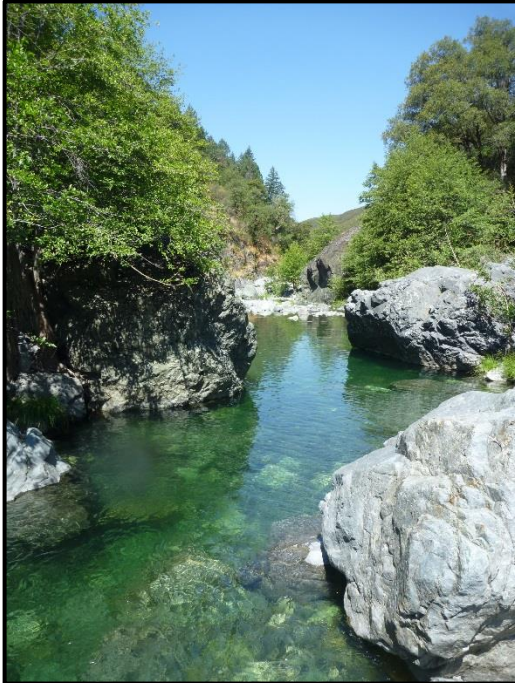
### Finding

The hydrological values of Black Butte and Cold Creek are not considered to be significant or outstandingly remarkable. While the channel floodplain morphology explains the river’s seasonal flashiness and high sediment yield, these values are not exemplary in the region of comparison.

### Discussion of Values – Rationale for Conclusion

River-related features include high annual bedload and sediment yield, flashy (seasonal) system, and a confined transport channel. However, these features are not unique, especially when compared to the rest of the Eel River system.

## Recreation



**Figure 16. Pool within the Black Butte River**

### Criteria for an Outstandingly Remarkable Value

Recreational opportunities are, or have the potential to be, popular enough to attract visitors from throughout or beyond the region of comparison or are unique or rare within the region. Visitors are willing to travel long distances to use the river resources for recreational purposes. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating. Interpretive opportunities may be exceptional and attract, or have the potential to attract, visitors from outside the region of comparison. The river may provide, or have the potential to provide, settings for national or regional usage or competitive events.

### Finding

The recreation resources of the Black Butte River and Cold Creek, some of which are river related, are not considered to be significant or outstandingly remarkable. Limited access to most stretches of the river, along with a scarcity of developed recreation sites and facilities, contributes to this finding. One recreation facility exists along the designated section of the river, but the recreation opportunities here are not exemplary within the region of comparison.

### Discussion of Values – Rationale for Conclusion

Recreation use along these corridors is light to moderate. This is due to lack of access points available to the public; there are currently no Forest Service roads or trails that access the river. Thus, this allows for the ultimate solitude and primitive experience, though not a unique feature within the Mendocino National Forest as other places provide the same experience. There is one public facility open to the public year round: Eel River Campground at the confluence between Black Butte River and the Middle Fork Eel River.

Primitive four-wheel-drive roads approach the corridor in several locations, though only 20N22 crosses the river at the Basin. This is similar for Cold Creek; there are several roads that approach the corridor but no direct access.

At higher elevations in the watershed, use is limited to spring, summer, and fall. At lower elevations, the river is accessible year round. Dispersed recreation experiences, such as hunting, hiking, horseback riding, and wading, are common in the Black Butte watershed, as well as other parts of the Mendocino National Forest. Fishing is not allowed within the watershed. Hunting is popular at the headwaters of the river in the Basin area. The majority of hunters are from the northern California area.

## Scenery



Figure 17. Typical scenery along the Black Butte River

### Criteria for an Outstandingly Remarkable Value

The landscape element forms of landform, vegetation, water, color, and related factors result in notable or exemplary visual features, attractions, or both. When analyzing scenic values, additional factors—such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed—may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segment.

### Finding

The scenic resources of Black Butte River and Cold Creek are not considered to be significant or outstandingly remarkable. While the climate, topography, and geology along the river corridor provide a harsh, stark, but beautiful landscape, the scenery is not exemplary within the region of comparison. The frequent occurrence of landslides in the corridor adds to the dramatic scenery, though the frequency is not outstanding within the region of comparison.

### Discussion of Values – Rationale for Conclusion

Visual quality is rated as variety class B for the majority of the stream corridor. At the headwater (the Basin), outside the designated corridor, the river is rated variety class A.



Variety classes are obtained by classifying the landscape into different degrees of variety. This determines those landscapes which are most important and those which are of lesser value from the standpoint of scenic quality. There are three variety classes which identify the scenic quality of the natural landscape: class A – distinctive, class B – common, or class C – minimal. The visual quality for most of the Black Butte River stream corridors is rated as variety class B.

Class B variety class refers to those areas where features contain variety in form, line, color, and texture or combinations thereof but which tend to be common throughout the character type and are not outstanding in visual quality.

Class A variety refers to those areas where features of landform, vegetative patterns, water forms, and rock formations are of unusual or outstanding visual quality. They are usually not common in the character type.

The Black Butte River can be seen from tops from travel routes in the background. Within the corridor, the streambanks are heavily vegetated, limiting views to the immediate stream corridor. In the lower reaches, foreground views may contain dramatic rock outcrops; middle and background views are of oak chaparral hillsides and some distant mountains. Cold Creek passes through a steep canyon with numerous large boulders. The extremely steep, heavily timbered side slopes limit the view to the immediate stream corridor. Landslides are common; the stream passes over numerous drops and large pools.

The landscape within the Black Butte River and Cold Creek are similar to that of many other locations along the Eel River, thus excluding it from the classification of outstandingly remarkable.

## Wildlife

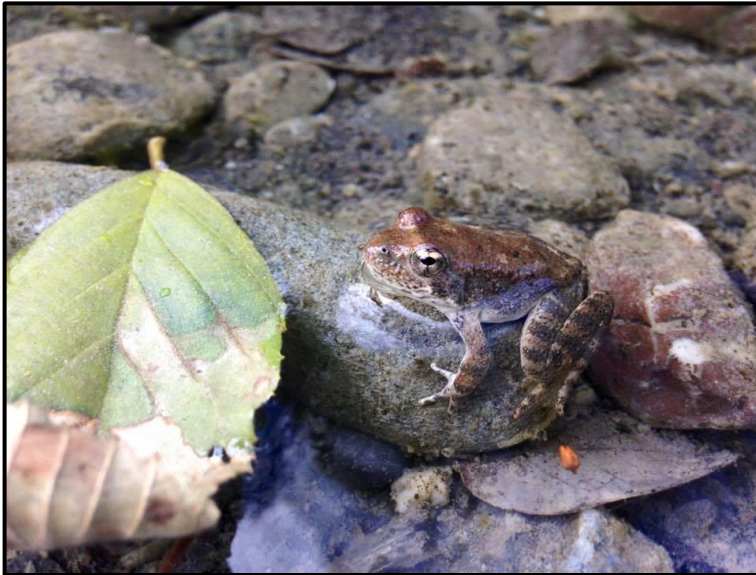


Figure 18. Foothill yellow-legged frog

### Criteria for an Outstandingly Remarkable Value

Wildlife values should be judged on the relative merits of either terrestrial or aquatic wildlife populations, habitat, or a combination these things.

### *Populations*

The river or area within the river corridor contains nationally or regionally important populations of indigenous wildlife species. Of particular significance are species considered to be unique; populations of federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. Diversity of species is an important consideration and could, in itself, lead to a determination of “outstandingly remarkable.”

### *Habitat*

The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance; may provide unique habitat or a critical link in habitat conditions for federally or State-listed (or candidate) threatened, endangered, or sensitive species; or both. Contiguous habitat conditions are such that the biological needs of the species are met. Diversity of habitats is an important consideration and could, in itself, lead to a determination of outstandingly remarkable.

### **Finding**

Wildlife populations and habitat within the Black Butte River and Cold Creek corridor are not considered to be outstanding. While bald eagles benefit from river-related wintering habitat within the corridor, no nests have been found for the species. The wildlife values are not exemplary within the region of comparison.

### **Discussion of Values – Rationale for Conclusion**

#### *Wildlife Populations*

Wildlife in this area are common for the Coastal Range. The river corridor lies within key winter range for deer. Goshawk habitat is found along the middle of the river particularly on the southern side of Black Butte River. Goshawk habitat is also located along the south side of Cold Creek. Historically, spotted owls have inhabited this area, and there have been numerous recorded spotted owl sightings. Pine martin sightings have been recorded along the river corridor.

The Black Butte River corridor may currently support nesting northern spotted owls as it has in the past. The current status of northern spotted owls within the Black Butte River corridor is unknown.

Other wildlife that may occur in the Black Butte River corridor are pallid bats, Townsend’s big-eared bats, fishers, fringed myotis, foothill yellow-legged frogs, and western pond turtles. These species are on the Forest Service sensitive species list for the Mendocino National Forest.

There is suitable habitat types for the wolverine and Karin’s checkerspot butterfly, but it is unlikely these species occur in the Black Butte River corridor.

#### *Wildlife Habitat*

There is a variety of habitat for wildlife, from annual grasslands to late-successional Sierran mixed conifer. There may be cliffs and rock faces along the Black Butte river that would be suitable for peregrine falcons and bat species.

There is no critical habitat located within the Black River Wild and Scenic River corridor, but there is northern spotted owl critical habitat within the Black Butte watershed.

Portions of the Black Butte River corridor are key winter range for black-tailed deer.

Habitat for wildlife within the Black Butte corridor and the river itself do not provide exceptionally high quality habitat for wildlife species that may be of national or regional significance.

## **2011 Resource Assessment Team**

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## **2017 Resource Assessment Team**

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Shannon Pozas, Forest engineer

Katy Rich, Forest recreation officer

Bob Weaver, Upper Lake/Covelo archaeologist



**Figure 19. Interdisciplinary team members on the banks of the river**

**Errata Sheet (July 9, 2018)**

Project and Analysis Area, Page 5. What is in the EA is the ~~strikeout language below~~. What should be in the plan is the language below the ~~strikeout~~.

The legal description of the project area is:

~~T23N, R11W, sections 27, 28, 34, 35, 36~~

~~T22N, R11W, sections 1, 12~~

~~T22N, R10W, sections 6, 7, 8, 15, 16, 17, 21, 22, 26, 27, 35, 36~~

~~T21N, R10W, sections 1, 2, 12, 13, 24~~

~~T21N, R9W, sections 5, 6, 20, 29~~

**Parcel “A”**

A strip of land lying 1/4 mile each side of the ordinary high water mark along the Black Butte River. More particularly described as follows:

That portion of Sections 27, 28, 33, 34, 35, and 36 of Township 23 North, Range 11 West, Sections 1, 2, and 12 of Township 22 North, Range 11 West, Sections 6, 7, 8, 9, 15, 16, 17, 18, 21, 22, 26, 27, 34, 35, and 36 of Township 22 North, Range 10 West, Sections 1, 2, 11, 12, 13, and 24 of Township 21 North, Range 10 West, and Sections 20, and 29 of Township 21 North, Range 9 West, Mount Diablo Meridian, located within the County of Mendocino, State of California.

The sidelines of said strip of land shall be extended or shortened to begin at the easterly County line of said County, and the Southwesterly High Water Mark of Middle Eel River.

**Parcel “B”**

A strip of land lying 1/4 mile each side of the ordinary high water mark along the Cold Creek. More particularly described as follows:

That portion of Sections 1, and 12 of Township 21 North, Range 10 West, and Sections 5 and 8 of Township 21 North, Range 9 West, Mount Diablo Meridian, located within the County of Mendocino, State of California.

The sidelines of said strip of land shall be extended or shortened to begin at the easterly County line of said County, and the easterly high water mark of the Black Butte River.

Appendix 1: Comprehensive River Management Plan page 1. What is in the CRMP is the ~~strikeout language below~~. What should be in the plan is the language below the ~~strikeout~~.

~~The wild and scenic river is located in Mendocino County, less than 10 miles northeast of the town Covelo, California in portions of:~~

~~T23N, R11W, sections 27, 28, 34, 35, 36~~

~~T22N, R11W, sections 1, 12~~

~~T22N, R10W, sections 6, 7, 8, 15, 16, 17, 21, 22, 26, 27, 35, 36~~

~~T21N, R10W, sections 1, 2, 12, 13, 24~~

~~T21N, R9W, sections 5, 6, 20, 29~~

~~The final boundary approximates a ¼ mile distance on each side of the river.~~

**Parcel “A”**

A strip of land lying 1/4 mile each side of the ordinary high water mark along the Black Butte River. More particularly described as follows:

That portion of Sections 27, 28, 33, 34, 35, and 36 of Township 23 North, Range 11 West, Sections 1, 2, and 12 of Township 22 North, Range 11 West, Sections 6, 7, 8, 9, 15, 16, 17, 18, 21, 22, 26, 27, 34, 35, and 36 of Township 22 North, Range 10 West, Sections 1, 2, 11, 12, 13, and 24 of Township 21 North, Range 10 West, and Sections 20, and 29 of Township 21 North, Range 9 West, Mount Diablo Meridian, located within the County of Mendocino, State of California.

The sidelines of said strip of land shall be extended or shortened to begin at the easterly County line of said County, and the Southwesterly High Water Mark of Middle Eel River.

**Parcel "B"**

A strip of land lying 1/4 mile each side of the ordinary high water mark along the Cold Creek. More particularly described as follows:

That portion of Sections 1, and 12 of Township 21 North, Range 10 West, and Sections 5 and 8 of Township 21 North, Range 9 West, Mount Diablo Meridian, located within the County of Mendocino, State of California.

The sidelines of said strip of land shall be extended or shortened to begin at the easterly County line of said County, and the easterly high water mark of the Black Butte River.