

# HUMBUG VALLEY PLANNING UNIT

## Feather River Watershed

### Existing Conditions & Uses

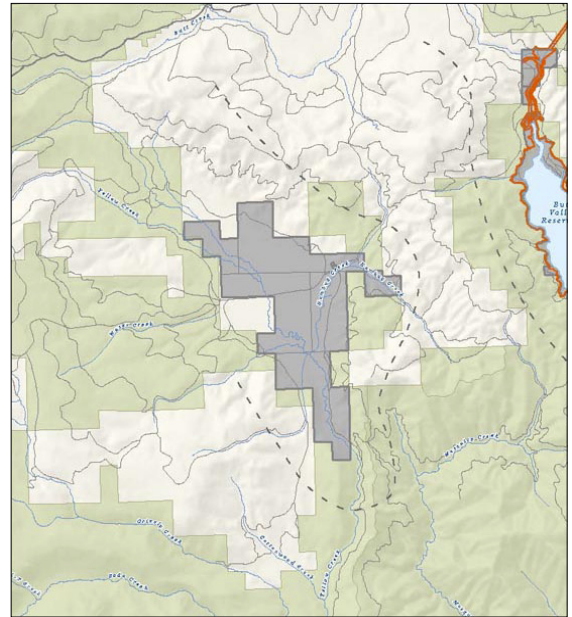
#### Overview

- Scenic mountain meadow and stream surrounded by conifer forest, with diverse biological and cultural resources
- 2,326 acres in Plumas County; no FERC lands
- Planning unit is outside any FERC boundary; however, it is associated with Rock Creek-Cresta Project (FERC #1962) as an off-site fish and wildlife habitat mitigation area

Humbug Valley is unique among the planning units in the Feather River Watershed in the scope and diversity of both biological and cultural resources. The heart of Humbug Valley is a montane meadow, located at 4,300 feet in elevation. As depicted in Figure FR-7, the meadow is bisected by spring-fed Yellow Creek and a tributary, Humbug Creek, and is surrounded by second-growth mixed conifer and pine stands. The PG&E lands were grazed by cattle until 2001. PG&E operates a primitive campground alongside Yellow Creek and an historic site/day use area. The valley is about a seven-mile drive southwest of Lake Almanor and Highway 89 via unpaved roads.



Humbug Valley & willow flycatcher habitat



Humbug Valley Planning Unit  
Plumas County

The USFS, DFG, and CalTrout have collaborated with PG&E on resource management in the valley for decades, particularly in the protection and restoration of Yellow Creek. Since 2000, management of the valley has occurred in consultation with the Rock Creek-Cresta Project Ecological Resources Committee (ERC) and the USFS, as agreed to in the Rock Creek-Cresta Project Settlement Agreement, Appendix B. The Feather River Coordinated Resource Management (FRCRM) Group, which includes several members of the ERC, has also been active in the management of resources in the valley.

#### Fish, Plant, and Wildlife Habitat

The meadow, springs, streams, and associated riparian area provide a diverse range of habitats for wildlife, fish, and plants. While biological surveys have not been conducted since grazing practices ceased, there is potentially suitable habitat for a variety of special status plant species. Four rare plant species have been recorded in and near the area, and several special status bird species are known to occur in the valley, including breeding willow flycatchers, sandhill cranes, and northern goshawks. In addition, the USFS has designated spotted owl



# Humbug Valley Planning Unit Existing Conditions

- PG&E Lands Preliminary Designated for Retention
- PG&E Lands Preliminary Designated for Disposition
- BIA
- BLM
- BOR
- DOD
- NPS
- Other/NGO
- State
- USFS
- Federal Wilderness

- Boat Launch
- Campground
- Dam
- Day Use
- Fishing
- Fish Barrier Dam
- Gate
- Parking
- Powerhouse
- Private Camp
- Ranch

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

- Primary Roads
- Secondary Roads
- OHV Roads
- Trail

All symbols may not appear on the map

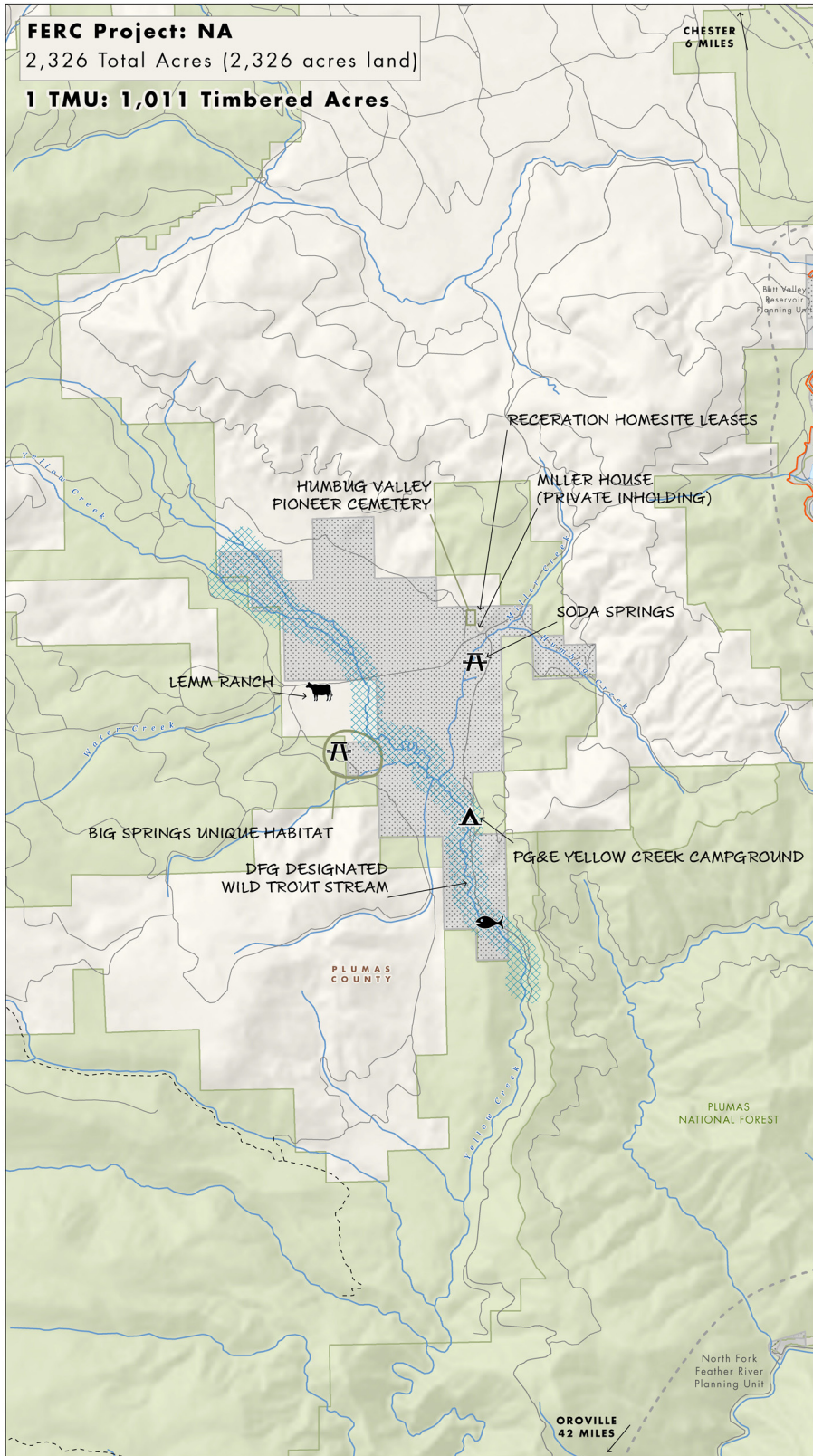
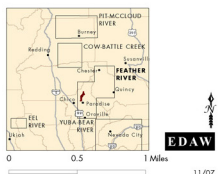


Figure FR-7

# HUMBUG VALLEY PLANNING UNIT

## Feather River Watershed

Protected Activity Centers (PACs) and identified potential willow flycatcher habitat adjacent to the planning unit.

Yellow Creek is a DFG-designated wild trout fishery that is protected by special fishing regulations. Its year-round flows are maintained by the cold water flowing from Big Springs near the western edge of the planning unit. Several naturally carbonated soda springs exist on the east side of the valley.

Downcutting of the stream channel has been identified by the groups participating in management of the valley as a continuing issue to be addressed with future restoration actions. The FRCRM Group reports that the aquatic and riparian habitats have been improving within the upper section of Yellow Creek (above Humbug Road) since 2001, while erosion and transport of sediment associated with the downcutting has stabilized. They have also reported “tremendous improvement” in general resource conditions, and PG&E has developed a GIS-based monitoring program to track recovery of the valley. Discussions continue within the ERC and FRCRM Group about alternatives for restoration, and a Draft Humbug Valley Management Plan was submitted to PG&E for review in 2006. The Rock Creek-Cresta Project Settlement Agreement provides funding for habitat restoration work in the valley, which is scheduled to begin in 2011.

### Open Space

Humbug Valley is mostly undeveloped open space with no facilities or infrastructure, with the exception of gravel roads, two small public recreation facilities, two private cabins, and an old vacant cabin. A few residences and other structures are scattered at the east and west edges of the meadow, on private in-holdings. Protection of open space values may be particularly important given the presence of the large block of private land on the west side of the valley near Big Springs, and large areas of private forest land to the north and south, all of which is relatively close to the growing Chester and West Lake Almanor resort and residential areas.

### Outdoor Recreation

Recreation use of Humbug Valley, primarily angling and camping, is light, but the wild trout fishery is a highly valued resource. PG&E provides 11 campsites at the semi-primitive Yellow Creek Campground. One of the historic potable soda springs, edged with rocks and protected by a wooden shade structure and fence, is the focus of the Soda Springs Historic Site and Day Use Area. The area is also used by hunters, OHV drivers, and bicyclists. It is highlighted on USFS and Plumas County-designated scenic backcountry driving tour routes. Evidence of unauthorized off-road vehicle use and some impacts to the meadow and cultural sites are apparent; in addition, camping and angling use are causing impacts on the banks and streamside vegetation of Yellow Creek. Two cabins exist on recreational homesite lease lots.

### Forest Resources

The planning unit includes nearly 1,000 acres of timbered land in a single PG&E Timber Management Unit (TMU) surrounding the meadow. Some fire salvage and restoration work has occurred in the limited area affected by the 2000 Storrie fire. PG&E performs meadow enhancement by removing encroaching trees and brush, compliant with PG&E’s Recreation and Sustainable Timber management prescription that has been applied to Humbug Valley. Under this approach, forest management in the vicinity of



Humbug Valley meadow habitat & lodgepole pines

# HUMBUG VALLEY PLANNING UNIT

## Feather River Watershed



Deep bedrock mortars

designated recreational areas is limited to fuels reduction, hazard tree removal, and improving aesthetics. Outside of designated recreational areas (i.e., those areas not visible from the roads and meadow), Sustainable Timber Management is emphasized. This management approach sets timber management as the highest and best use while placing an emphasis on protecting water quality, wildlife and fisheries habitat, soils, carbon sequestration, and cultural resources.

### Agricultural Uses

The meadow was historically grazed under a PG&E lease for nearly 100 years. Cattle were removed in 2001 as part of habitat mitigation measures associated with the Rock Creek-Cresta FERC relicensing. Cattle continue to graze on a 200-acre block of private land on the west side of the valley, known as Lemm Ranch. The USFS has placed the adjacent West Humbug Range Allotment (the area around Big Springs) into “non-use” status, due to resource concerns associated with drought and the Storrie fire, through 2007, after which it will be re-evaluated under National Environmental Policy Act guidelines.

### Historic Resources

Humbug Valley contains many widespread and varied historic and cultural resources and is an important location for several Maidu tribes.

Pioneer resources include a vacant old cabin along Humbug Road near the center of the valley; the century-old Miller house, now used as a recreational cabin, on a small in-holding; and a cemetery. The valley also contains Native American bed rock mortars, soda springs, ceremonial and spiritual sites, a cemetery, and Native American ethnobotanical resources. Most of these resources are currently unprotected, and some have been vandalized. The Native American community is actively using parts of Humbug Valley for ceremonial gatherings.

## Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at Humbug Valley be preserved and enhanced by focusing on the importance and value of the fish, wildlife, and plant habitat and the cultural resources that exist here. In presenting the Recommended Concept provided here (see Figure FR-8), our objective is to preserve the valuable cultural resources of this valley, preserve and enhance the diverse habitats present, and contribute to the maintenance of a healthy forest. Management of the valley is intended to occur in consultation with the Rock Creek-Cresta Project ERC, the USFS, and the FRCRM Group, as under current agreements.<sup>1</sup>



Rock-framed soda spring

# HUMBUG VALLEY PLANNING UNIT

## Feather River Watershed

**Objective: Preserve and enhance biological and cultural resources, enhance sustainable forestry management, and evaluate the potential for low-intensity grazing opportunities.**

As shown in Table FR-4, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for Humbug Valley. Additional detail and background regarding these potential measures can be found in the Supporting Analysis for Recommendations, provided under separate cover. These measures are intended to be illustrative in nature, not prescriptive, and will be amended, deleted, or augmented over time in coordination with future land owners and managers to best meet the objective for this planning unit.

### Fish, Plant, and Wildlife Habitat

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

Humbug Valley has long been recognized as having high habitat values associated with its meadows, streams, and springs. However, specific biological data are lacking, particularly since the removal of cattle in 2001. In order to preserve and enhance the habitat and resources found here, the Stewardship Council recommends development of baseline studies to assess and gain an understanding of stream, meadow, and sensitive species habitats and resources in Humbug Valley. Baseline studies would support ongoing restoration efforts and would supplement monitoring initiated by the current management participants, and such studies will likely be followed by management plans to ensure implementation of preservation and enhancement measures for specific resources. Additionally, we recommend measures to protect habitat from ongoing vehicle, trespassing cattle, and



Sandhill cranes in Humbug Valley

vandalism damage. Our expectation is that future management of Humbug Valley biological resources will include a focus on restoring the hydrologic function of the meadow to improve meadow ecology and riparian zones.<sup>2</sup>

Management of the property to preserve and enhance habitat would also include addressing noxious weeds; the Stewardship Council therefore recommends development of a noxious weed management plan, incorporating traditional ecological knowledge<sup>3</sup> and control methods to the extent feasible.

### Open Space

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

This concept would preserve open space values by limiting new construction to minor additions of educational site facilities, as well as through permanent conservation easements. The meadow setting would remain primarily undeveloped and primitive in character. Conservation easements would describe all prohibited uses to maintain open space values, including the level of uses allowed and the requirement to maintain scenic qualities. Additionally, to enhance open space values, the Stewardship Council recommends

# HUMBUG VALLEY PLANNING UNIT

## Feather River Watershed

removing remaining non-functional fence posts and other unusable structural remnants.

### Outdoor Recreation

**Objective: Enhance recreational and education opportunities in order to provide outdoor experiences consistent with the special cultural and biological resources present.**

Although recreational use in the valley is currently light, its proximity to developed and developing areas around Lake Almanor may lead to increased use in the future. The Stewardship Council looks to enhance recreation opportunities by recommending measures that recognize and protect sensitive natural and cultural resources. Therefore, recommended measures include development of a recreation management plan and an interpretation and education plan. These plans would include the development of recreation and educational elements and enhancements that increase opportunities for youth education and recreation, and retain the primitive character of Humbug Valley, while protecting ecological and cultural resources. These plans should be developed in coordination with the ERC, agencies, and Native American entities.



Cattle graze on Lemm Ranch property

### Sustainable Forestry

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

The meadows of the Humbug Valley Planning Unit are surrounded by over 1,000 acres of pine and mixed conifer timberlands. The Stewardship Council recommends that future care and management of the land include developing a long-term vision for forest management in the area, addressing silvicultural practices, holistic watershed management, fuels management, and fire management and response. The fire management and response, fuels, and forest management plans should be developed in conjunction with the noxious weed and wildlife and habitat management plans, as well as in coordination with relevant county plans and adjacent USFS management and practices as appropriate.

### Agricultural Uses

**Objective: Assess the potential use of cattle grazing in order to maintain meadow habitat.**

Although grazing leases and allotments were removed from Humbug Valley by a coalition of agencies and stakeholder groups due to impacts to sensitive wildlife and riparian habitats, carefully managed grazing may have value as a tool for meadow management in Humbug Valley. The Stewardship Council recommends that grazing be evaluated as one element of a natural resource management plan. Prior to reintroduction, a baseline conditions report and evaluation would be conducted to inform future management, as well as identify measures for protection and monitoring of the unique and sensitive resources in the valley. Any measures to reintroduce grazing would have to be closely coordinated with the ERC, the USFS and other participating agencies, as well as Native Americans entities.

# HUMBUG VALLEY PLANNING UNIT

## Feather River Watershed

### Preservation of Historic Values

**Objective: Identify and manage cultural resources, incorporating traditional Native American uses and management of ethnobotanical resources, in order to ensure their protection.**

Humbug Valley has unique and multifaceted cultural value to local Native Americans, as an important ethnobotanical gathering area as well as an important spiritual, ceremonial, and archeological area. Pioneer history is represented by several features in the area as well. The Stewardship Council aims to support an increased understanding of these resources and ensure they are appropriately protected. To meet this objective, we recommend that cultural resource studies be conducted to understand the resources found at Humbug Valley, that appropriate management plans be developed and implemented, and that opportunities to support public education regarding cultural resources be considered. When developing a plan that affects religious or sacred places, special effort will be undertaken to consult with spiritual religious leaders of the tribes.

Throughout all of these efforts, the Stewardship Council recommends close coordination with Native American entities. In particular, Maidu organizations and individuals have expressed a strong desire to have a greater role in improved protection of cultural resources in the valley. Recognizing the unique character of the cultural resources and this interest, we recommend the development of opportunities for Maidu ecological/ethnobotanical management and use of plant resources, as ecologically appropriate and with consideration of sensitive habitats. This would support ongoing cultural use of the area as well as the continued ecological recovery of meadow and riparian areas. Specific aspects of ecological/ethnobotanical management would need to be developed in close coordination with the resource management plan being developed cooperatively among the several agencies and groups with existing agreements.



Big Springs wetland

### Endnotes

<sup>1</sup> The commitments made by PG&E in the 2000 Rock Creek-Cresta Settlement Agreement for restoration activities in Humbug Valley are contained in Appendix B because they do not address lands or resources within or affected by the FERC Project. As such, the commitments are not monitored or enforced by FERC. However, Humbug Valley restoration activities are monitored by the ERC, which was established by a condition of the 2001 Rock Creek-Cresta Project FERC License. This oversight would continue.

<sup>2</sup> The draft Humbug Valley Resource Management Plan details future enhancement activities to be considered, including additional stream channel improvements and targeted plantings of riparian vegetation.

<sup>3</sup> The Maidu Stewardship Project involving local Maidu groups is demonstrating traditional management techniques on several thousand acres of Plumas National Forest land. This project has been in existence for several years and may serve as a model and source of support for Maidu management in Humbug Valley.

HUMBUG VALLEY PLANNING UNIT  
**Feather River Watershed**

This page intentionally left blank.



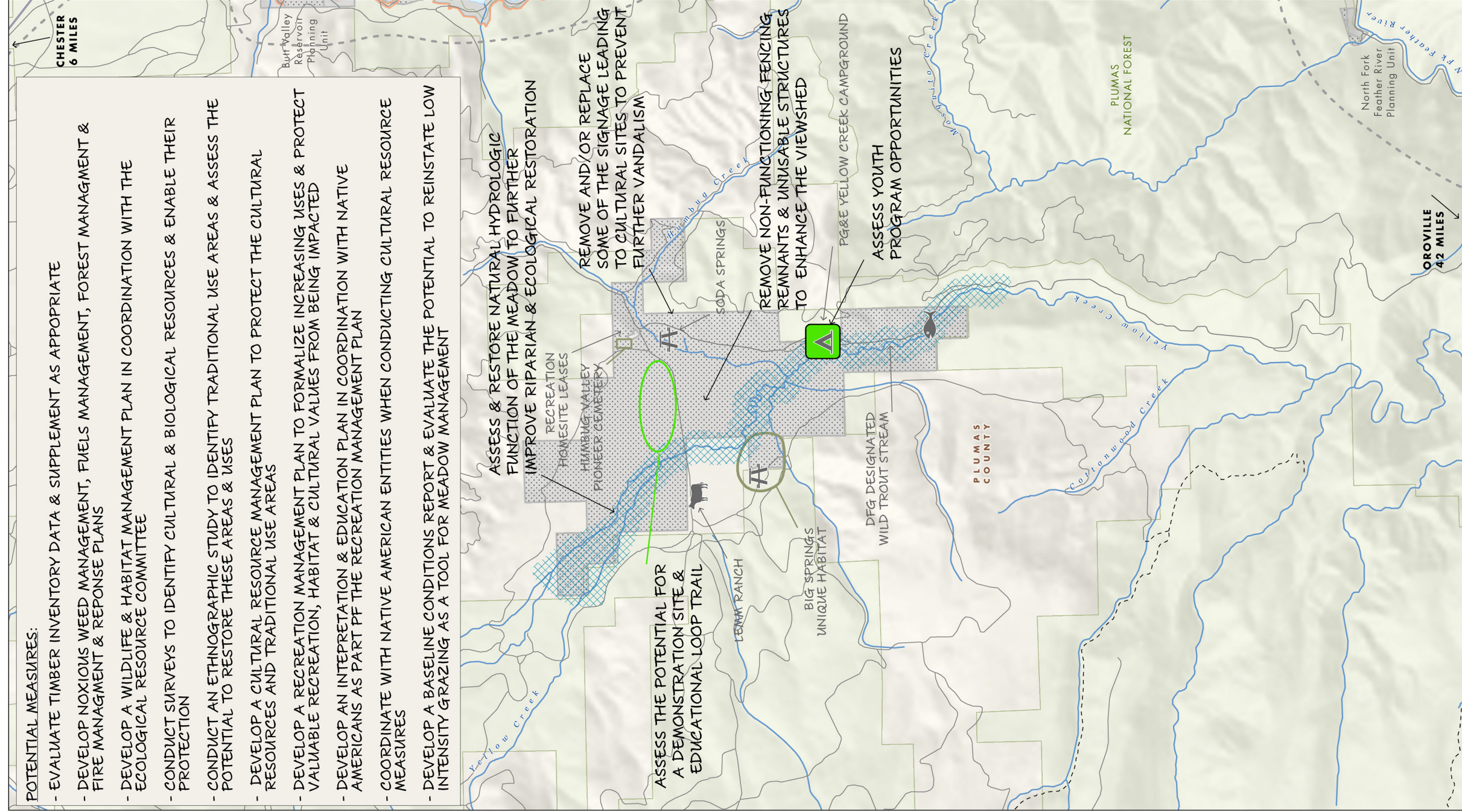
**Table FR-4 Objectives to Preserve and/or Enhance – Recommended Concept**

Planning Unit Objective: Preserve and enhance biological and cultural resources, enhance sustainable forestry management, and evaluate the potential for low-intensity grazing opportunities.		
Beneficial Public Value	Objective	Potential Measures to Preserve and/or Enhance BPVs – Not Requirements*
Protection of the Natural Habitat of Fish, Wildlife, and Plants	<b>Preserve and enhance habitat in order to protect special biological resources.</b>	<ul style="list-style-type: none"> <li>• Conduct surveys of the planning unit to identify biological resources and enable their protection.</li> <li>• Develop a noxious weed management plan.</li> <li>• Develop a wildlife and habitat management plan in coordination with the Ecological Resource Committee.</li> <li>• Assess and restore hydrologic function of the meadow to improve riparian zones and ecological restoration.**</li> </ul>
Preservation of Open Space	<b>Preserve open space in order to protect natural and cultural resources and the undeveloped recreation setting.</b>	<ul style="list-style-type: none"> <li>• Apply permanent conservation easements to ensure a higher level of open space protection.</li> <li>• Remove non-functional fencing remnants and unusable structures to enhance the viewshed.**</li> </ul>
Outdoor Recreation by the General Public	<b>Enhance recreation and education opportunities in order to provide outdoor experiences consistent with the special cultural and biological resources present.</b>	<ul style="list-style-type: none"> <li>• Develop a recreation management plan (RMP) to formalize increasing uses and protect valuable recreation, habitat, and cultural values from being impacted.</li> <li>• Develop an interpretation and education plan in coordination with local Native Americans as part of the RMP.</li> <li>• Assess the potential for a demonstration site and educational loop trail for area visitors.**</li> <li>• Assess youth program opportunities at Yellow Creek Campground.**</li> </ul>
Sustainable Forestry	<b>Develop and implement forestry practices in order to contribute to a sustainable forest, preserve and enhance habitat, as well as to ensure appropriate fuel load and fire management.</b>	<ul style="list-style-type: none"> <li>• Evaluate timber inventory data and supplement as appropriate.</li> <li>• Develop a forest management plan for the planning unit to promote wildlife habitat and structural and physical diversity in the surrounding forests for long-term ecological, social, and cultural benefits.</li> <li>• Develop a fire management and response plan for the planning unit to ensure fire preparedness.</li> <li>• Develop a fuels management plan for the planning unit to ensure long-term forest health and reduce loading and fire hazards.</li> </ul>
Agricultural Uses	<b>Assess the potential use of cattle grazing in order to maintain meadow habitat.</b>	<ul style="list-style-type: none"> <li>• Develop a baseline conditions report that describes agricultural, physical, and overall biological conditions of the area, including current uses and state of improvement.</li> <li>• Evaluate the potential to reinstate low intensity grazing as a tool for meadow management within the planning unit.</li> </ul>
Preservation of Historic Values	<b>Identify and manage cultural resources, incorporating traditional Native American uses and management of ethnobotanical resources, in order to ensure their protection.</b>	<ul style="list-style-type: none"> <li>• Conduct surveys of the planning unit to identify cultural resources and enable their protection.</li> <li>• Conduct an ethnographic study to identify traditional use areas and assess the potential to restore these areas and uses.</li> <li>• Develop a cultural resource management plan to protect cultural resources and traditional use areas.</li> <li>• Remove and/or replace some of the signage leading to cultural sites to prevent further vandalism.**</li> <li>• Coordinate with Native American entities when conducting cultural measures.</li> </ul>

\* This is a set of recommended possibilities for the preservation and enhancement of BPV's, and is not intended to be a set of requirements for future land management.

\*\* Denotes site specific measure.

# Humbug Valley Planning Unit Recommended Concept



- PG&E Lands Prelimarily Designated for Retention
- PG&E Lands Prelimarily Designated for Disposition
- BIA
- BLM
- BOR
- DOD
- NPS
- Other/NGO
- State
- USFS
- Federal Wilderness
- Concept Features
  - Modify Existing Feature
  - New Feature
  - Trail
- Existing Features
  - Boat Launch
  - Campground
  - Dam
  - Day Use
  - Fishing
  - Fish Barrier Dam
  - Gate
  - Parking
  - Powerhouse
  - Private Camp
  - Trailhead
  - Ranch
- FERC Boundary
- Stream / River
- Canal / Ditch
- Pipeline
- Highly Valued Stream
- Primary Roads
- Secondary Roads
- OHV Roads
- Trail

All symbols may not appear on the map

**PRELIMINARY SET OF RECOMMENDED POSSIBILITIES -NOT REQUIREMENTS**

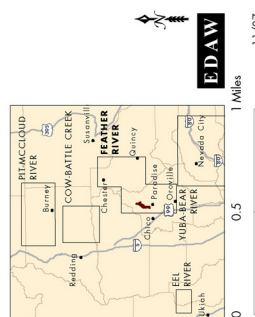


Figure FR-8

## **Humbug Valley Planning Unit**

### **Fish, Plant, and Wildlife Habitat**

#### **Potential Measure:**

- *Conduct surveys of the planning unit to identify biological resources and enable their protection.*

The Stewardship Council recommends measures to protect habitat from ongoing vehicle, trespassing cattle, and vandalism damage, including vehicle barriers and fencing where impacts have been observed. These habitat protection measures would also protect cultural resources. Habitat values would be enhanced through assessment of stream, meadow, and sensitive species habitats in Humbug Valley and support of restoration efforts. The objective of these measures is to enhance the habitat potential of the resources in Humbug Valley and ensure the continuation of long-standing restoration efforts.

#### **Potential Measures:**

- *Develop a wildlife and habitat management plan in coordination with the Ecological Resource Committee.*
- *Assess and restore hydrologic function of the meadow to improve riparian zones and overall ecological conditions.*

Areas of emphasis would be meadow areas where the hydrology has been altered by drainage activities to benefit grazing, as well as willow riparian habitat. Management would include assessing and restoring the hydrologic functions of the meadow to improve riparian zones and overall ecological conditions. The draft Humbug Valley Resource Management Plan details future enhancement activities to be considered in Humbug Valley such as additional stream channel improvements, targeted plantings of riparian vegetation, focused fencing to minimize negative human impacts in sensitive or high use areas, added recreational use signage, and improved monitoring and notification procedures dealing with the presence of trespass cattle. Management of the valley is intended to occur in consultation with the Rock Creek-Cresta Project Ecological Resources Committee (ERC), the USFS, and the Feather River Coordinated Resource Management (FRCRM) Group, as under current agreements. (Requirements related to hydropower operations and FERC license requirements do not apply to this planning unit.) The commitments made by PG&E in the 2000 Rock Creek-Cresta Settlement Agreement for restoration activities in Humbug Valley are contained in Appendix B because they do not address lands or resources within or affected by the FERC Project. As such, the commitments are not monitored or enforced by FERC. However, Humbug Valley restoration activities are monitored by the ERC, which was established by a condition of the 2001 Rock Creek-Cresta Project FERC License. This oversight would continue.

#### **Potential Measure:**

- *Develop a noxious weed management plan.*

The amount and distribution of noxious weeds are currently unknown within the planning unit; however, former grazing and ongoing recreational uses have likely introduced and spread noxious weeds within the planning unit. The Stewardship Council recommends development of a noxious weed management plan that would incorporate traditional ecological knowledge as applied by

local Native Americans in the nearby Maidu Stewardship Project. For example, removal would be done by hand pulling and grubbing with hand tools as much as possible.

## **Preservation of Historic Values**

Continued ecological recovery of meadow and riparian areas would be supported through Maidu ecological/ethnobotanical management and use of plant resources, as ecologically appropriate with consideration of sensitive habitats (such as for the willow flycatcher). This management would include measures such as controlled burning to enhance meadow conditions, pruning of willows to stimulate young growth, removal of exotic plant species and planting of native species, and harvest of certain plant materials. Specific actions and other aspects of ecological/ethnobotanical management would be addressed in a wildlife and habitat management plan in conjunction with a future restoration and resource management plan developed cooperatively among the several agencies and groups with existing agreements. This plan would be preceded by a thorough assessment of current conditions.

### **Potential Measures:**

- *Conduct surveys of the planning unit to identify cultural resources and enable their protection.*
- *Conduct an ethnographic study to identify traditional use areas and assess the potential to restore these areas and uses.*
- *Remove and/or replace some of the signage leading to cultural sites to prevent further vandalism.*

Measures to protect historic and archeological sites include: installation of signage, additional vehicle barriers such as boulders and rail fences, and fencing to exclude trespassing cattle from sensitive areas, and a potential on-site monitor presence to discourage vandalism. (The California Archaeological Site Stewardship Program [CAASP] regularly trains local citizens to monitor archaeological sites, mostly on BLM lands. They may be able to do the same for monitors in Humbug Valley.) These measures are in response to observations of impacts, particularly at the soda springs and to rock mortars, and the lack of barriers or inadequate barriers. Impacts to the cemeteries and Big Springs have not been observed, but their importance as spiritual and ceremonial sites as well as Big Springs' rare habitat and source of flows in Yellow Creek suggest that proactive measures to protect these sites should be considered. There is a high likelihood of additional cultural sites, and the Stewardship Council recommends conducting surveys and an ethnographic (and ethnohistoric) study to identify cultural resources and enable their protection. Documentation efforts should be coordinated with the Native American entities.

### **Potential Measure:**

- *Develop a cultural resource management plan to protect cultural resources and traditional use areas.*

Based on the findings of the surveys and recommended ethnographic study and to provide a framework for the protective measures of known sites, the Stewardship Council recommends developing a cultural resources management plan. The plan would include appropriate measures for the identification, evaluation, and treatment of cultural resources (archaeological and historical), as well as traditional use areas. Treatment measures would include guidance on avoidance, specific protective measures (e.g., fencing), site monitoring, and methods to preserve,

restore, or enhance cultural resource values through conservation easements, management agreements, or through public interpretation and education programs.

**Potential Measure:**

- *Coordinate with Native American entities when conducting cultural measures.*

Development of the cultural resources management plan and all other cultural resource enhancement measures should be coordinated with the local Native American community, as Maidu organizations and individuals are interested in having a greater role in improved protection of cultural resources in the valley. When developing a plan that affects religious or sacred places, special effort will be undertaken to consult with spiritual religious leaders of the tribes. They have also expressed a desire and interest in transmitting knowledge of traditional practices focused on enhancement and use of plants for traditional crafts and foodstuffs, and medical, spiritual, and ceremonial practices. The Stewardship Council recommends providing an opportunity to introduce youth groups to Maidu cultural practices, resource management, and education. Nearby, the Maidu Stewardship Project involving local Maidu groups is demonstrating traditional management techniques on several thousand acres of Plumas National Forest land. This project has been in existence for several years and may serve as a model and source of support for Maidu management in Humbug Valley.

**Outdoor Recreation****Potential Measure:**

- *Develop a recreation management plan (RMP) to formalize increasing uses and protect valuable recreation, habitat, and cultural values from being impacted.*

Due to the proximity to growing development areas around Lake Almanor and the anticipated related increase of recreation use in the area, the Stewardship Council recommends developing a recreation management plan (RMP) with focus on retaining the primitive character of Humbug Valley and protecting ecological and cultural resources. This RMP should be developed in coordination with the ERC, agencies, and Native American entities to formalize current and future recreation use and thus protect the sensitive ecological and cultural values. To formalize and guide rather than increase recreation use, recommended measures are mostly programmatic and related to the interpretation and education of ecological and cultural values. Physical recreation enhancements would thus be mostly limited to the already-developed camping and historic site facilities. Other suggested elements of an RMP include developing a recreation monitoring program, evaluating recreation needs (e.g., ADA facilities, alternative camping facilities, etc.), developing a dispersed recreation use management component, and developing an operations and maintenance program. It should also coordinate law enforcement and seek to coordinate patrol of the area to reduce unauthorized uses. Management of unauthorized OHV and snowmobile use would also be addressed in the dispersed recreation use management component of the plan.

**Potential Measure:**

- *Develop an interpretation and education plan in coordination with local Native American entities as part of the RMP.*

Along with creating an RMP, the Stewardship Council recommends developing an interpretation and education plan in coordination with local Native American entities. Interpretation and

education are important components of the recreation experience and can offer new knowledge to visitors on many topics, guide their behavior, and foster stewardship. Due to its immense wealth of natural and cultural resources, the planning unit offers a range of opportunities to educate visitors, especially about the cultural, terrestrial, and aquatic resources. Suggested elements of an interpretation and education plan include: evaluating the potential for educational sites in the valley; developing consistent information and directional signage; developing educational programs with local schools, groups (4-H, Boy Scouts, etc.), and Native American entities; and developing interpretation programs and materials focused on traditional use of the area, ethnobotanical resources and plant identification, meadow hydrology, special status species, and appropriate recreation use.

#### **Potential Measures:**

- *Assess the potential for a demonstration site and educational loop trail for area visitors.*
- *Assess youth program opportunities at Yellow Creek Campground.*

Stewardship Council recommendations also include the assessment of educational sites – a demonstration site and loop trail – near the access roads, which would provide the potential to facilitate Maidu and others' education of school groups and other youth program activities. Many of the cultural and ethnobotanical resources in the valley (such as wild potato and willows) are close to existing gravel roads and would be accessible for educational purposes. The Yellow Creek Campground would be assessed as a base for youth program activities, for example for camping trips with an educational focus. In summary, the existing recreation opportunities would continue, though enhanced through educational features, and greater efforts would be made to exclude illegal vehicle access to sensitive cultural and ethnobotanical sites.

## **Open Space**

#### **Potential Measures:**

- *Apply permanent conservation easements to ensure a higher level of open space protection.*
- *Remove non-functional fencing remnants and unusable structures to enhance the viewshed.*

The Stewardship Council recommends preserving open space values through permanent conservation easements and thus protect Humbug Valley from development pressures. It includes only minor additions of educational site facilities, and the meadow setting would remain primarily undeveloped and primitive in character. To enhance open space, remaining non-functional fence posts and other unusable structural remnants would be removed. Protection of open space values may be particularly important given the presence of the large block of private land on the west side of the valley near Big Springs, and large areas of private forest land to the north and south, all of which are relatively close to the growing Chester and West Lake Almanor resort and residential areas.

## **Agricultural Uses**

### **Potential Measures:**

- *Develop a baseline conditions report that describes agricultural, physical, and overall biological conditions of the area, including current uses and state of improvement.*
- *Evaluate the potential to reinstate low intensity grazing as a tool for meadow management within the planning unit.*

Grazing leases and allotments were removed from Humbug Valley by a coalition of agencies and stakeholder groups due to impacts on sensitive wildlife and riparian habitats. The valley may retain potential for cattle grazing or other agricultural uses in the future, but any renewed grazing (e.g., for meadow maintenance) would need to be carefully managed and monitored to protect the unique and sensitive resource values present, including cultural sites. Because of resource concerns, the Stewardship Council does not propose re-establishing the grazing leases that ended in 2001. In the future, however, carefully managed and controlled grazing may have value as a tool for future meadow management. Any use of grazing would require a baseline conditions report and careful evaluation. Measures to protect the fragile ecosystem would require re-establishment of fencing to exclude cattle from riparian areas, springs, and cultural resource areas and development of cattle fords where creek crossing is necessary. Any measures to reinstate grazing would have to be closely coordinated with the ERC, the USFS and other participating agencies, and Native Americans entities.

## **Sustainable Forestry**

### **Potential Measures:**

- *Evaluate timber inventory data and supplement as appropriate.*
- *Develop a forest management plan for the planning unit to promote wildlife habitat and structural and physical diversity in the surrounding forests for long-term ecological, social, and cultural benefits.*
- *Develop a fire management and response plan for the planning unit to ensure fire preparedness.*
- *Develop a fuels management plan for the planning unit to ensure long-term forest health and reduce loading and fire hazards.*

The Stewardship Council recommends developing a forest management plan for the planning unit through the evaluation of existing forest inventory data and supplemental information, when appropriate. In addition to supporting natural forest development, the forest management plan would promote holistic watershed management, supporting the enhancement of other BPVs over the long term. In coordination with the local Native Americans, Maidu Stewardship Project management measures (such as fuels management) would be included in the plan as applicable. The forest management plan would be compatible with current habitat connectivity, recommended habitat and cultural resource protection, and current viewsheds. Encroaching lodgepole pine would be removed from the meadow as part of habitat restoration and protection efforts but would be low in volume. Special consideration would be given to historic, archeological, and cultural resource protection when conducting thinning, salvage, or other work. Where applicable, forest management would also be closely coordinated with the Lassen National Forest to consistently promote forest connectivity and late successional habitat. The fuels

management plan would be incorporated in the forest management plan and both plans would be coordinated with relevant county plans. Also, a fire management and response plan, detailing exit strategies for visitors and fire fighting response would be prepared in coordination with Plumas County, the USFS, and other interested agencies.