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**Draft Management Plan/Environmental Assessment
for the French Flat Area of Critical Environmental Concern**

Proposed Action: Management of the French Flat Area of Critical Environmental Concern (ACEC).

Type of Statement: Management Plan/Environmental Assessment

Lead Agency: Bureau of Land Management

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Abstract: This EA analyzes (**number here**) alternatives for management of French Flat ACEC. These alternatives were developed by a BLM interdisciplinary team with input from public comments. The issues evaluated were protection of designated ACEC values, recreation, mining, and other land uses.

Alternative A is the No Action alternative which proposes continuing the current limited management of this area. Alternative B proposes maximum protection of designated ACEC values. Alternative C proposes a more recreation oriented approach while conserving ACEC values.

Note: Portions of this draft management plan were copied directly from the Rough and Ready Creek ACEC Draft Management Plan and Environmental Assessment. Only those portions that were completely analogous for both ACECs were included. All other sections were changed to describe the French Flat ACEC. No referenced figures and tables have been included in this first draft.

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D Chapter 1 - Introduction

R Background Information

A Areas of Critical Environmental Concern (ACECs) are some of the most important and sensitive publicly-owned lands managed by the Bureau of Land Management (BLM). The Federal Land Policy Management Act (FLPMA, Public Law 94-579), enacted by Congress in 1976, requires that the BLM give priority to the designation, management and protection of ACECs. Lands designated as ACECs require special management
24 attention to protect and prevent irreparable
Oct damage to important historic, cultural, or
2003 scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards (FLPMA).

Public land designated as an ACEC must meet the criteria of “relevance” and “importance.” An area meets the “relevance” criterion for ACEC designation if it has one or more of the following: significant historic, cultural or scenic values; a fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity); a natural process or system (including but not limited to endangered, sensitive or threatened plants species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features); and natural hazards.

The relevant values or resources identified must also have substantial significance in order to satisfy the “importance” criterion for ACEC designation. This generally means that the identified values, resources, systems,

processes or hazards are characterized by one or more of the following: having more than locally significant qualities which give it special worth, consequence, distinctiveness or cause for concern; having qualities that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened or vulnerable to adverse change; recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA; or having qualities that cause concern or pose threats to public welfare (BLM Manual sec. 1613).

French Flat was identified as a priority site for an ACEC by the Botany 2000 Project in 1989. In 1992, the Nature Conservancy proposed to the Medford District BLM that 792 acres of BLM lands in the French Flat natural area be designated as an ACEC. The request was based on the outstanding botanical, ecological, and geological values in the area and its near pristine condition. The BLM analysis and evaluation of the potential ACEC was conducted using a systematic interdisciplinary (ID) approach. The ACEC ID team concluded that the area met the criteria for relevance and importance, and the site was designated in the Resource Management Plan adopted in 1995. A total of 656 acres were included in the French Flat ACEC designed to protect botanical and wildlife values and other natural systems and processes.

This draft management plan/environmental assessment (EA) presents (**no. here**) alternatives for management of the French Flat ACEC. Management goals within the ACEC are to protect, conserve and enhance designated ACEC values while allowing appropriate activities.

D Purpose and Need for Action

R The purpose of this document is to describe actions that will guide management of the French Flat ACEC for the next 10 years. Management is needed to protect, conserve and enhance the ACEC's designated values. **A** A site specific management plan and environmental assessment are required by **F** FLPMA and the National Environmental Policy Act (NEPA). Public involvement and coordination with federal, state and local **T** agencies is part of plan development. The final management plan for the ACEC will be reviewed and updated after it has been in effect for 10 years or prior to that time if it becomes necessary.

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This draft management plan and the EA tier to the following: (1) the Final EIS and Record of Decision (ROD) and the Medford District Resource Management Plan (RMP) dated June 1995 (2) the Final Supplemental EIS on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl dated February 1994; and (3) the ROD for Amendments to Forest Service and Bureau of Land Management (BLM) Planning Documents Within the Range of the Northern Spotted Owl and its attachment A entitled the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl dated April 13, 1994.

Consistency with State and County Plans

The alternatives in this draft management plan take into consideration other existing

land use plans and laws, including the State of Oregon's Endangered Species Act, Oregon Natural Areas Preserves Act, Oregon Land Conservation and Development Commission Goal 5, and the Josephine County Comprehensive Plan.

Statutory Authority

Congress provided specific language in the FLPMA for identification and protection of areas on the public lands having significant natural and cultural resources. The FLPMA provides that ACECs be given priority in the "inventory of all public lands and their resources and other values," but that such identification "shall not, of itself, change or prevent change of the management of public lands." Under FLPMA, Congress made clear that it viewed ACECs as special places within the public lands (Callison 1984). Senate Report No. 94-583, by the Committee on Interior and Insular Affairs, stated that "management of public lands is to include giving special attention to the protection of ACECs for the purpose of ensuring that the most environmentally important and fragile lands will be given...early attention and protection." This report also stated that "unlike wilderness areas... (ACECs) are not necessarily areas in which no development can occur." FLPMA set the foundation to prepare policy and procedures for identifying, designating and managing ACECs. BLM regulations for land use planning (43CFR 1610.7-2 and 1610.5-5 May 5, 1983) guide the ACEC designation process. Copies of these regulations and laws are available at the Medford District BLM Office.

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D Following the Record of Decision on this management plan the BLM will publish the list of prohibited activities, closures or restrictions in the Federal Register so they become federal regulations specific to the ACEC. These will be posted at the ACEC and distributed to interested public.

Setting

F The French Flat ACEC lies about 6 miles south of Cave Junction, Oregon. The ACEC encompasses 656 acres in Township 40 South, Range 8 West, sections 10,15 and 22 (Figure 1). It is included within the 10,613 acre BLM Illinois Valley Botanical Emphasis Area. The ACEC includes only public land administered by the Medford District BLM, including both public domain, and Oregon and California Revested Railroad lands. Sections 10 and 22 contain BLM public domain lands, and section 15 is Oregon and California Revested Railroad. The ACEC is adjoined on all sides by private and BLM lands primarily to the south.

Designated ACEC Values

French Flat ACEC was designated for several natural resource values: botanical, wildlife, geologic and other natural systems or processes. Each of these values is described below.

Botanical: French Flat is one of only a few federal occurrences for Cook's desert parsley (*Lomatium cookii*), a Federally proposed endangered species. In addition, French Flat ACEC contains numerous other special status plant species. The site also hosts a number of plant communities considered rare or vulnerable by the Oregon Natural Heritage

Program (Kagan 1993). Equally valuable is the very low abundance of non-native, invasive plants at French Flat, providing for a near pristine condition.

Wildlife: The ACEC has three documented and nine suspected special status wildlife species. In addition, French Flat has potential habitat characteristics required by twelve other special status wildlife species not yet detected in the ACEC.

Hydrologic and Other Natural Systems or Processes:

The Logan Cut, a channel dug in the 1800's to provide water for mining operations, represents the most significant hydrologic feature associated with the ACEC; it runs along the western boundary of the north end of the ACEC. In addition, several small ponds resulting from past mining operations and smaller ditches to move water are present in various locations on the ACEC. Aside from these man-made features, there are no year round rivers or streams on the property, but intermittent streams and ephemeral draws may exist during high spring flows. Additionally, wetlands cover much of the open grasslands in flat areas and gradual slopes.

Other important natural systems and processes include fire, succession, and evolution. Atzet and Wheeler (1982) indicate that fire has been a significant and important part of the environment, shaping plant communities in the region, and evidence of past fire is common on the landscape of the ACEC. The ACEC presents an array of plant communities which display successional processes. Evolutionary processes, in the form of species hybridization (*Triteleia howellii* x *T. multiflora*), have been documented at the site.

D Other Values/Uses

R In addition to its designated values, the French Flat area has many other significant natural features and human uses. The site contains identified mineral resources and is used for recreation, collecting, and other purposes. The remaining important natural values and special land use authorizations are discussed below.

F **Forest Resources:** A substantial portion of the French Flat ACEC is covered by forest stands of diverse character. This character has been shaped over decades by human interventions for firewood, timber, and special forest products. The BLM has a record of selective logging in area going back to 1960, but some mid-seral stands suggest large scale cutting 50 to 60 years ago. In section 10 there are cut stumps, but no other record of logging.

T **Open Space:** The ACEC provides a unique open space and scenic natural area with unusual character in the Illinois Valley basin. The undeveloped landscape stands out here on the valley floor where much of the lowlands have been converted to residential, agricultural, industrial, or commercial developments.

Mineral Resources: French Flat ACEC has nine active locatable mineral mining claims. Minerals of interest within the ACEC include gold, platinum and chromium. French Flat includes an area that was reported to be the site of the Esterly Mine. The Esterly Mine produced in excess of \$500,000 worth of placer gold and platinum. The majority of the mining took place in sections 15 and 22. Section 10 was reported to be part of the mine's holdings as well.

Chromite was produced from the Esterly Chromite Mine located in the north half of section 22.

The GIS library for Locatable Mineral Potential reports the subject parcel has a moderate potential for locatable minerals in the west half of section 22. The potential for gold, chromite and platinum group metals is unknown. Based upon the mining history of the area, the mineral potential should be considered high for the above mentioned commodities as well as for locatable minerals in general (Matt Craddock, pers. comm).

Recreation: The primary recreational use in the ACEC is observation of the unique plant communities and diverse wild flowers, as well as horseback riding, camping, mountain biking, and target shooting. Off Road Vehicles still use the area despite its closure to motorized traffic.

Historical Values: The Logan Cut and other portions of the historic Waldo mining community are currently being considered for designation in the National Register of Historic places. Due to their proximity to the ACEC, activities on the ACEC may greatly influence such historic sites.

Construction of the Logan Cut was initiated in 1886 as a giant tail race and operated in conjunction with hydraulic placer mining in the Llano de Oro mines. In 1907, James T. Logan, mine superintendent for the Simmons-Cameron mining operation in the Esterly Lakes Area, extended and improved the cut. The Logan Cut is located at 1360 to 1440 feet in elevation and is from 40 to 70 feet deep (Budy 2000). The cut is historically significant as a contribution to hydraulic placer mining in the Upper Illinois

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D Valley. The ditch retains its integrity of location, setting, design and feeling making it eligible for the National Register of Historic Places under Criterion A.

R Management Objectives/Issues

A The management objective for the ACEC is to protect, conserve and enhance the values for which it was designated, which includes ensuring that ecological processes can continue in such a way as to enhance the ACEC values. Management issues for the ACEC are related to the uses listed above. Mining activities, recreation and authorized land uses must be managed in such a way as to avoid negative impacts to designated ACEC values.

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Public Scoping Summary: (This section to be corrected/completed when appropriate)

Throughout development of this draft management plan/EA, the public was provided opportunities to comment. The comments received helped formulate the issues, alternatives and actions discussed in the plan/EA. Legal notices placed in the [Newspaper Name](#) on [date](#) and in the [Newspaper Name](#) on [date](#) announced a public scoping meeting held on [date](#) and provided a 30 day written comment period which ended [date](#). Thirty-four people sent letters or completed forms expressing their opinions on the how the ACEC should be managed. These written and oral scoping comments are summarized in Appendix A. Copies of all scoping letters and public comments are on file.

D Chapter 2 - Affected Environment

R This chapter describes the physical, biological, and social environment potentially be affected by this plan.

A Ecoregion

F The French Flat ACEC is in the Klamath Mountains Ecoregion, which is one of nine ecoregions that comprise the state of Oregon and 79 ecoregions in the conterminous United States (Omernik 1997). The Klamath Mountains Ecoregion is bounded by six ecoregions, including the Coast Range, Willamette Valley, Cascades, Eastern Cascades Slopes and Foothills, Sierra Nevada, and the Central and Southern California Chaparral and Oak Woodlands Ecoregions (Omernik 1997) (Figure 2). The Klamath Mountains Ecoregion encompasses the Klamath Mountains Physiographic Province, extending across the interior basins of the Rogue and Umpqua Rivers to the foothill fringes of the Western Cascade Range (Orr et al. 1992). Specifically, the ACEC occurs in the southern end of the Oregon portion of the Klamath Mountains Ecoregion. Within this ecoregion, the ACEC lies in an area transitional between two subregions: the broad flat areas of the ACEC are representative of the Rogue/Illinois Valleys subregion, while the higher hills and steep serpentine slopes are typical of the Siskiyou Foothills subregion (Omernik, pers. comm.) (Figure 3).

The biota of each of the surrounding regions overlap to varying degrees in the Klamath Mountains and contribute to a notably high level of biological diversity. The region is recognized as one of 200 biologically

outstanding ecoregions in the world (Olson 1997). The combination of the climate, physiography, history and mineralogy of the Klamath Mountains Ecoregion has also contributed to this diversity. Whittaker (1960) observed that the region exhibits a "central relation" to the forests of the western United States. The region has acted as a repository for species with ranges that have shifted across the region over time. Driven by historic shifts in temperature and precipitation, successive floras have arrived and occupied the region since the middle Miocene (Axelrod 1990). The complex physiography of the ecoregion provided an array of environments which sustained species of successive transient geofloras (Whittaker 1960, Smith and Sawyer 1988). Species lost from the surrounding regions through periods of extensive glaciation, vulcanism, flood, and desiccation were in some cases retained in the Klamath Mountains.

As a result, the Klamath Mountains Ecoregion contains a rich flora of plants endemic to the region, many of which are dependant on serpentine soils. This area of southwestern Oregon is considered among the top in the state for abundance of rare plant species and is renowned as a center of endemism (Kaye et al. 1997). "Serpentine" is a term that is generally used to describe environments influenced by ultramafic substrates. Soils derived from ultramafic rocks such as serpentinite and peridotite have a low calcium to magnesium ratio and high levels of heavy metals. The extreme chemical conditions of these soils pose a uniquely stressful environment for plant growth (White 1971). The variable tolerances to these conditions expressed by the plant species in the regional flora

D influence their distributions and the plant associations they form on serpentine.

R The Klamath-Siskiyou area exhibits the largest terrestrial exposures of ultramafic substrate in Oregon (Orr et al. 1992) and contains a wide array of distinct plant communities that only grow on serpentine (Kruckeberg 1954). The greatest concentration of species endemic to serpentine in western North America is in the Klamath-Siskiyou Mountain complex (Kruckeberg 1992). Because of its high biological diversity and unique vegetation, the region is considered an Area of Global Botanical Significance, one of seven such sites in North America (Wagner 1997).

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Watersheds

The Illinois River sub-basin is part of the greater Rogue River basin. The Illinois River drains all of Josephine County and a small portion of eastern Curry County. The headwaters of both the East and West Fork Illinois River watersheds drain areas of Del Norte County, California.

Portions of the French Flat ACEC lie in both the East Fork and West Fork Illinois River Watersheds. The subwatershed of the East Fork in which French Flat is situated is the Lower East Fork Illinois River subwatershed. The subwatershed for the West Fork Illinois River is the Lower West Fork Illinois Valley subwatershed. The West Fork (53,350 acres) and East Fork (57,350 acres) watersheds dissect and drain a portion of the Siskiyou Mountains, a range that lies in southwestern Oregon and northwestern California (USDA NRCS 1999).

Climate: French Flat ranges in elevation from 1430-1770 feet above sea level. Maritime influences with high precipitation reach the western peaks of the Illinois Valley watershed on the crest between the Coast Range and the Siskiyou, but dissipate over the interior valley where conditions are relatively xeric. In Cave Junction, annual precipitation averages 59.8 inches per year, with 18 inches falling in the form of snow. Precipitation reaches a low in July, averaging 0.97 inch and a mean monthly maximum of 8.1 inches in December. Temperatures average 53°F, with a maximum mean daily temperature of 69°F in July and a minimum of 39°F in December and January (Oregon Climate Service). Extreme temperatures range from -6°F in winter to 108 °F in summer. In the Siskiyou Mountains, a zone of transient snow accumulation occurs above 2,500 feet in elevation, and season-long accumulations of snow occur above 4,500 feet (USFS 1997).

Geology: The mountains and constituent rocks of southwestern Oregon are comprised of a series of small, fault-bounded geological terranes that were rafted onto the North American continent during subduction of the Pacific Ocean plate. These terranes are generally of the Mesozoic era, and were accreted during the late Mesozoic and Early Tertiary time. The French Flat ACEC is part of the Rattlesnake Creek Accretional Terrane, which is composed primarily of ultramafic rock types such as serpentinite and peridotite. Much of both watersheds is influenced by ultramafic rocks. For example, about 60% of the West Fork watershed is underlain by ultramafic substrates. The remainder is comprised predominantly of metasedimentary rock, which is covered by

D Quaternary and some older sedimentary deposits on the valley floor.

R **Hydrologic System:** Both the West and the East Fork Illinois River are on the Oregon Department of Environmental Quality's (DEQ) 303(d) list of water quality limited water bodies for flow modification and excessive summer temperatures from the mouth to the California border. Summer water temperatures exceed the 64 degrees Fahrenheit standard. Lack of shade, high width to depth ratios and water diversions at low flow all contribute to high temperatures. The DEQ is scheduled to complete a Water Quality Management Plan/Total Maximum Daily Load for the Illinois sub-basin by the end of 2002. This document will outline problem areas and make recommendations for decreasing temperatures and improving flow conditions (Dammann, pers. comm.).

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Vegetation: The intergradation of soil types, drainage, aspect and elevation, with associated precipitation and temperature gradients, and historic disturbance by fire contribute to the wide variety of plant communities found in the local watersheds. The West Fork Illinois River watershed was recently found to have the greatest number of rare species of all 1,400 watersheds in Oregon in a study by the Oregon Natural Heritage Program (1997). The watersheds support a large number of sensitive plant species, many of which are narrow or regional endemics (occurring nowhere else in the world). The French Flat ACEC, with over 170 species of vascular plants, has exceptional botanical interest due to its location in the heart of the Illinois River Valley, which is a center for endemic species of vascular plants (USFS 1997).

The Illinois River Watershed supports a variety of dominant vegetation associations, only some of which are represented at French Flat. The three major vegetation zones described here, Coastal Tanoak, Interior Tanoak, and Interior Valley Black Oak zones, are adapted from the Illinois River Watershed Assessment completed in December 1999 by the USDA Natural Resources Conservation Service.

The Coastal Tanoak Zone occurs on the west side of the Coast Range, covering 65,000 acres. Cloud cover and fog have a dramatic effect on vegetation in this zone. The Coastal Tanoak Zone is comprised of Douglas-fir and abundant tanoak. Chinquapin, Port Orford cedar and red alder are sometimes present. In addition, Pacific madrone, California laurel and sugar pine can be found on some south-facing slopes. Sword-fern is abundant in the understory.

The Interior Tanoak Zone occurs in the central watershed and in the Siskiyou mountains. It is the largest vegetation zone, covering 264,000 acres or 42% of the Illinois Valley basin. The Interior Tanoak Zone is characterized by an abundance of tanoak on northerly aspects. Douglas-fir is the dominant overstory tree species in this zone, but is less productive than in the Coastal Tanoak Zone. Sugar pine, ponderosa pine, incense cedar, madrone, black oak, and canyon live oak are important tree species with a deciduous understory of poison oak, hazel and oceanspray. This zone has a greater east-side influence than the Coastal Tanoak Zone.

The Interior Valley Black Oak Zone includes the entire central valley floor and foothills around Cave Junction. This is the zone in

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which the French Flat ACEC is located. Hot summer temperatures and late spring frosts limit the vegetation in this zone, which is also locally influenced by the presence of serpentine soils. On non-serpentine soils, Douglas-fir dominated stands contain sugar pine, incense cedar, madrone, black oak or live oak. Understory dominants include poison oak, hazel and snowberry. Interspersed throughout are some pockets of remnant white oak savannah and Jeffrey pine savannah. Riparian corridors and bottomlands support hardwoods such as cottonwood, white alder, willow, ash, and big-leaf maple. Serpentine areas in this zone support communities of Port Orford cedar and Jeffrey pine with azalea, manzanita and *Ceanothus* in the understory.

Other minor vegetation zones in the Illinois River Watershed include the Cool Mixed Conifer Zone, a productive high elevation conifer forest; the Cool Douglas-fir-Chinquapin Zone in the upper watershed of the Siskiyou Mountains below high, cool ridges in the snow zone; the Cool Western Hemlock Zone in the upper elevations of the Silver Creek Watershed and in isolated pockets around Rough and Ready Creek; the Cold White Fir Zone dominating ridgetops and high elevation north-facing aspects; and the Cold Shasta Red Fir Zone, the highest and coldest vegetation zone of the watershed

Regional Human Context

The Illinois Valley is located in the southern portion of Josephine County, which has a human population of 65,500. The following data is taken from Reid (1996) and represents federal and state data taken between 1987 to 1995. For Josephine

County, the percentage of the population age 65 and older is 20%, exceeding the state average of 13.7%, and transfer payments are among the highest in the state. The unemployment rate has been considerably higher than the state average. Wages have been among the lowest in the state. Josephine County ranks among the highest for poverty, particularly for children at 27.5% of the population. College educated comprise 12% of the population, compared to 20% for the state. The high school dropout rate is among the highest for the state (Reid 1989).

Cave Junction is the largest town in the vicinity of French Flat, with a population of 1,256. A considerable population also lives outside of the city limits on rural residential lands. The county ranks highly for owner occupied housing units. Josephine County has the smallest percentage of the land base in farms and only 24% of the land in the county is in private ownership. The county timber harvest fell by 67% between 1988 and 1994 (Reid 1996). Employment is primarily in manufacturing, followed by the combination of health, education, and public administration, and then by retail and wholesale trade (Illinois Valley Community Response Team (CRT), no date). The historic dependance of the local economy on resource extraction, including logging and mining, is apparent. Development of ecotourism and new industrial centers have both been targeted as primary goals in recent regional strategic plans for community development (Illinois Valley CRT 1995).

Affected Environment in the ACEC

D **Geology:** French Flat and other flat areas on the ACEC are pleistocene alluvial terraces of the East and West Fork Illinois Rivers composed of thick layers of gravel and sediments deposited in the floodplain. On the ACEC, these materials are composed of ultramafic rock fragments and small particles as well as other rock types, thus the resulting sedimentary landforms are relatively flat and sparsely vegetated. This terrace landscape is surrounded by low serpentine ridges rising above the floor of the Illinois River Basin.

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T Rocks comprising these uplands are completely serpentinized peridotites containing tectonic blocks and faulted formations. These were developed due to shallow accretion of older oceanic crust of the pre-Jurassic period. The Orleans Fault runs roughly north-south through the western portions of the ACEC, with uplift of peridotite ridges occurring east of the fault. Serpentine substrates contribute a large portion of the upland areas of French Flat.

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Soils: The soils of Josephine County (Figure 4) have been mapped by the Natural Resources Conservation Service (Borine 1983). On the French Flat ACEC, most of the soils are derived, at least in part, from ultramafic rocks, as well as smaller amounts of sedimentary and extrusive igneous rocks (Table 1). Wetland soils of the Brockman series (clay loam) occupy the lowest topographic positions, and have a perched water table from fall through spring. This soil type was derived predominantly from alluvium washed down from adjacent serpentinite deposits. Permeability of this soil is very slow, the soil surface typically has a moderate risk of erosion, and the clay content causes the soil to have strong seasonal shrink-swell properties.

Upland soils on the ACEC include Pollard loam in areas of mixed coniferous forest and the Cornutt-Dubakella and Pearsoll-Rock Outcrop complexes on the rocky hillsides. The Pollard Loam is a deep, well-drained soil on terraces, saddles, and gradual hill slopes. Because these soils are more fertile and have a greater water holding capacity, the vegetation they support is more productive than other lands on the ACEC.

The Cornutt-Dubakella Complex soils occur on a hill in the northern portion of the ACEC, and support mixed conifer forests as well as oak-openings and some chaparral vegetation. These soils are a complex of shallow and deeper well-drained soils over serpentine bedrock.

Pearsoll-Rock Outcrop Complex soils are shallow, stony clay loams of poor fertility, supporting widely spaced trees, grasses and chaparral. Runoff from these hill-slope soils is rapid and erosion hazard is high, especially when grazed by livestock.

Hydrologic System: The hydrology of French Flat has been altered by the Logan Cut, which forms the western boundary of the northern part of the ACEC.

The Logan Cut is located on BLM land in the northwest and northeast quarters of section 9 and the northwest corner of section 15 in Township 40 South, Range 8 West. The Logan Cut contains 26 acres (OMB No. 10024-0018).

Table 1. Soils and Plant Associations of the French Flat ACEC. Plant association nomenclature follows Atzet (1996), unless specified. Soils follow Borine (1983).

Soil Map Unit	Plant Series and Associations	Comments
<i>Alluvial Soils (serpentine)</i>		
11B&C/ Brockman Clay Loam	California oatgrass-tufted hairgrass	Wetland soils with open vegetation
	Mixed pine-oak woodland chaparral	Rare plant association Similar to Ponderosa pine-Oregon white Oak/buckbrush of Borgias (1991)
	Douglas-fir/dry shrub forest	Heavy fire fuel accumulation.
	Mixed conifer-hardwood forest	Heavy fire fuel accumulation. Similar to Douglas fir-Ponderosa pine/Poison oak of Atzet (1996)
<i>Alluvial Soils (non-serpentine)</i>		
1B/Abegg gravelly loam	Mixed conifer-hardwood forest	Heavy fire fuel accumulation. Similar to Douglas fir-Ponderosa pine/Poison oak of Atzet (1996)
<i>Terrace soils</i>		
61B/Pollard loam	Douglas-fir/dry shrub forest	Heavy fire fuel accumulation.
	Mixed conifer-hardwood forest	Mixed conifer forest – heavy fire fuel accumulation
<i>Hill and Ridge soils</i>		
21F/Cornutt- Dubakella Complex	Mixed conifer-hardwood forest	Mixed conifer forest – heavy fire fuel accumulation
58F/Pearsoll- Rock Outcrop Complex	Jeffrey pine savannah: /buckbrush/IdahoJeffrey pine/buckbrush/Roemer's fescue (Jeffrey pine/buckbrush/Idaho fescue of Atzet et al., 1996)	Dry Jeffrey pine vegetation type often with low grass cover in ACEC. Includes highest number of rare plants in the ACEC. Also contains patches of Siskiyou mat/Idaho fescue/Serpentine (=Barrens of Jimerson [1995]).

Vegetation: The biological diversity and complex plant-environment interactions of

southwestern Oregon and Northern California have made this area famous

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among biologists and nature enthusiasts. Various ecologists have described the vegetation of the Klamath-Siskiyou region, but two recent compilations are particularly important. Atzet (1996) classifies and describes forested plant associations in southwestern Oregon, and Jimerson (1995) provides additional insight into the associations on serpentine in northern California. These classifications are the most robust and comprehensive available. A list of the most abundant plant associations for the ACEC are provided in Table 1. The plant communities on the ACEC may offer unique expressions of the plant associations described by these authors. A list of over 190 plant species documented in the ACEC during field surveys (Kaye 2002) is included in Appendix B. The following descriptions of the vegetation on the ACEC were developed by Kaye (2002) following earlier work by Borgias (1991).

The assemblage of plant species on a site responds to many environmental factors including quantities and patterns of precipitation and temperature, soil depth, available water capacity, drainage, aspect, disturbances such as fire and flooding, and other factors. One of the distinct features of the ACEC is the influence of ultramafic rocks and serpentine soils. Serpentine plant communities can offer a distinct and unique ecosystem that stands out abruptly from surrounding non-serpentine vegetation (Whittaker 1954). Franklin (1988) considers Jeffrey pine (*Pinus jeffreyi*)/grass woodlands (savannahs), such as those present on the ACEC, as perhaps the most outstanding feature of the Siskiyou serpentines. Additionally, the presence of healthy Port Orford cedar (*Chamaecyparis lawsoniana*)

trees on serpentine soils of the ACEC is an ecologically valuable quality.

Five plant community-types are identified by Kaye (2002) for the French Flat ACEC (Figure 1). Where possible, the names used to describe these vegetation types follow previously established community names used by Atzet et al. (1996), or are compared to types described by them. Also, Borgias (1991) provided a base-map of vegetation types for the region of the ACEC. In addition to the five community-types identified in Kaye (2002), areas of mine-tailings that represent intense disturbance to the vegetation and soils of the ACEC were mapped separately.

Douglas-fir/dry shrub forest (of Atzet et al. 1996)

Forests of this community-type on the French Flat ACEC are typically dominated by *Pseudotsuga menziesii*, with small amounts of *Pinus ponderosa* and *P. lambertiana*. Hardwoods in the canopy or sub-canopy include *Quercus garryana*, *Q. kelloggii*, *Arbutus menziesii*, and occasional tree-form *Lithocarpus densiflorus* and *Cornus nuttallii*. The shrub layer lacks dominance by any species, and ranges in total cover from 0% to 50%. Typical shrubs include *Corylus cornuta*, *Rhus diversiloba*, *Ceanothus integerrimus*, *Symphoricarpos mollis*, and occasional *Lithocarpus densiflorus* and *Arctostaphylos viscida*. Understory herbs include *Arnica spathulata*, *Luina nardosmia*, *Iris bracteata*, *Trientalis latifolia*, *Dodecatheon hendersonii*, *Lonicera hispidula*, *L. ciliosa*, *Erythronium howellii*, *Chimophila umbellata*, *Lathyrus polyphyllus*, *Osmorhiza chilensis*, *Collomia heterophylla*, *Thermopsis montana*, *Elymus glaucus*,

D *Smilacina racemosa*, *Adenocaulon bicolor*,
Madia madioides, and *Calypso bulbosa*.
R This community-type is very similar to that
described by Atzet et al. (1996) as
A Douglas-fir/dry shrub, but differs in lacking
canyon live oak and including a greater
diversity of shrubs, including *Lithocarpus*
densiflorus as both shrub and tree forms.
F Sensitive plants that occur in this community
include *Erythronium howellii* and
Cypripedium montanum.

T *Mixed conifer-hardwood forest*

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This forested plant community-type is
typified by a diversity of trees in the
overstory and shrubs in the understory. The
forest canopy is dominated by *Pinus*
ponderosa and *Pseudotsuga menziesii* as
well as *Quercus garryana*, *Q. kelloggii*, and
Arbutus menziesii, with scattered *Pinus*
lambertiana. Total forest canopy ranges
from 60% to 90% cover. The shrub layer is
also represented by a diversity of shrubs in
patches or mixed groups of plants, including
Ceanothus cuneatus, *Arctostaphylos viscida*,
Rhus diversiloba, *Amelanchier alnifolia*, and
scattered *Corylus cornuta*. Common herbs
on the forest floor include *Iris bracteata*,
Dodecatheon hendersonii, *Sanicula*
crassicaulis, *Madia madioides*, *Calochortus*
tolmiei, *Arnica spathulata*, *Chlorogalum*
pomeridianum, and *Silene hookeri*. This
community appears to be transitional
between denser conifer forests and more
open hardwood-dominated
woodland-chaparral. This community-type
appears to be related to the
Douglas-fir-Ponderosa pine/poison oak
association of Atzet et al. (1996), but
contains more pines and hardwoods, and
more dry-site shrubs such as *Ceanothus*
cuneatus and *Arctostaphylos viscida*. Soils

in this community-type appear to be little
influenced by serpentine-type parent
materials.

Mixed pine-oak woodland-chaparral

Hardwoods and conifers mix in a variable
canopy with abundant shrubs in this
community-type. The forest canopy ranges
from 10% to 60% cover, while shrubs as a
group range from 5% to 80% cover. The
prominent woodland trees include *Pinus*
ponderosa and *Pinus jeffreyi*, as well as
Quercus kelloggii and *Q. garryana*.
Fraxinus latifolia and *Pseudotsuga menziesii*
are also present, but at less than 5% each.
The abundant shrubs are dominated by
Ceanothus cuneatus (average 30%),
Amelanchier alnifolia, *Rhus diversiloba*, and
Arctostaphylos viscida, but *Salix lasiolepis*,
Rosa gymnocarpa, and small *Fraxinus*
latifolius are also common. Herbaceous
species include *Danthonia californica*,
Lomatium nudicaule, *Sidalcea malvaeflora*,
Festuca californica, *Poa secunda*, and
Chlorogalum pomeridianum. Serpentine
parent materials evidently influence the soils
under this community type, but apparently as
mixed alluvium so the influence varies from
weak to medium. This community type keys
to a Ponderosa pine-California black oak
association in Atzet et. al (1996), but has a
different shrub component and is at a lower
elevation than what those authors describe
(average elevation of 3820 in contrast to the
1400-1600 feet found for this community
type). Borgias (1991) referred to this
community-type at French Flat as Ponderosa
pine-*Quercus garryana*-*Q.*
kelloggii/*Arctostaphylos viscida* woodland
chaparral, and mapped it very close to our
mapping effort.

D Jeffrey Pine Savannah: Jeffrey
pine/buckbrush/Roemer's fescue
(Jeffrey pine/buckbrush/Idaho fescue of
Atzet et al., 1996)

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On the French Flat ACEC, this plant
community-type covers the majority of
serpentine-soil hill-slopes. Widely scattered
to locally clustered *Pinus jeffreyi* result in a
tree canopy ranging from 0% to 40% cover,
with occasional *Calocedrus decurrens* and
Pseudotsuga menziesii. *Arbutus menziesii*,
Quercus kelloggii, and *Q. garryana* are also
occasional hardwoods. The shrub layer is
dominated by *Ceanothus cuneatus* (0%-70%
cover) and *Arbutus menziesii* (0%-50%
cover), *Rhus diversiloba* and *Amelanchier*
alnifolia. The herbaceous layer is a rich
assemblage of native grasses and forbs. The
mixture and dominance of grasses is variable
and highly diverse, but includes *Festuca*
roemerii, *Melica geyeri*, *Danthonia*
californica, *Festuca californica*, *Stipa*
lemmonii, *Koeleria macrantha*, and *Poa*
secunda. *Festuca roemerii* tends to be more
abundant on north facing slopes, *Stipa*
lemmonii dominates drier south slopes, and
Melica geyeri tends to be most common on
west-facing slopes. Total grass cover ranges
from 10% to 75%. Forb species diversity
was also high in this plant community-type,
including *Calochortus menziesii*,
Eriophyllum lanatum, *Ranunculus*
occidentalis, *Lomatium macrocarpum*, *L.*
nudicaule, *Cerastium viscosum*, *Aspidotis*
densa, *Gilia capitata*, *Phacelia hastata*,
Trifolium eriocephalum, *Collinsia*
grandiflora, *Silene hookeri*, *Calystegia*
californica, *Horkelia daucifolia*, *Allium*
falcifolium, and sensitive species such as
Senecio hesperius, *Microseris howellii*,
Mimulus douglasii, *Lewisia oppositifolia*,
and *Arabis aculeolata*. As mapped, this

assemblage also includes some small patches
(1 acre or less) of species mixes that could be
recognized as *Pinus jeffreyi*-*Calocedrus*
decurrens/*Arctostaphylos viscida*, because of
the localized absence of *Festuca roemerii* and
presence of *Pinus lambertiana*. Some
portions of this community type could be
classified as Siskiyou mat/Idaho
fescue/Serpentine and are host to the highest
numbers of rare plants in the ACEC.

California oatgrass-tufted hairgrass grassland

This plant community type occupies flats and
gentle slopes in the French Flat ACEC in
areas of serpentine alluvium. The soils tend
to be fine silts to clays, with cobbles and
gravels mixed in on gentle slopes. Only
scattered *Pinus jeffreyi* and *Pinus ponderosa*
occur in these grasslands. The dominant
grasses include *Danthonia californica* and
Deschampsia californica. Moisture levels in
the soils of this community-type appear to
range from mesic to hydric. Where mesic,
Danthonia tends to dominate, while
Deschampsia is more common on hydric
soils. The drier sites also host more grass
species, such as *Melica geyeri* and *Festuca*
roemerii, and are transitional to Jeffrey Pine
Savannah. The forb community is diverse in
this plant assemblage, and includes
Calochortus uniflorus, *Viola hallii*,
Camassia quamash, *Hesperochiron*
californica, *Isoetes nuttallii*, *Achillea*
millefolium, *Aira caryophyllea*, *Micropus*
californicus, *Prunella vulgaris*, and *Horkelia*
daucifolia. Sensitive species that occur in
the community include *Lomatium cookii* and
Limnanthes gracilis.

Special Status Plants - The outstanding
botanical value of the ACEC is in great part

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Due to its concentration of special status plant species. Special Status species are officially listed, proposed for listing, or are candidates for listing by the U.S. Fish and Wildlife Service. The BLM also has its own list of species which it considers sensitive (Bureau Sensitive, Bureau Assessment, Bureau Watch and Bureau Tracking Species) and manages them to prevent their becoming federal candidates for listing as threatened or endangered. Seven federally listed, federal candidates or Bureau Sensitive species are currently known to occur on the ACEC (described below), and four more are suspected due to the presence of suitable habitat (Table 2). In addition, the ACEC harbors four documented (Waldo rockcress [*Arabis aculeolata*], Siskiyou fritillary [*Fritillaria glauca*], opposite-leaved lewisia [*Lewisia oppositifolia*] and Douglas' monkey-flower [*Mimulus douglasii*]) and 14 suspected plant species on the BLM Assessment, Tracking and Watch lists (Table 3). Although a comprehensive vegetation survey of the ACEC has been conducted, the possibility remains that additional rare and sensitive plant species may be present and encountered in the future surveys.

Many of the special status plants which occur in the ACEC are endemic to the Siskiyou Mountains of southwest Oregon and northwest California. Following is a brief description of the seven Federal Proposed, State Endangered and Bureau Sensitive species documented within the ACEC. The patchy distribution of these species on the ACEC could reflect the low level of inventory completed, naturally patchy condition of suitable habitat, or possibly loss of habitat from tree and shrub encroachment and thatch buildup in the absence of fire, as well as the use by off-

highway vehicles (OHV's) and habitat alteration from mining activities.

Cook's desert parsley (*Lomatium cookii*) - This State Endangered species occurs in two distinct areas approximately 30 miles apart, the Agate Desert in the Rogue Valley and the Illinois Valley. The State of Oregon considers this species to be Endangered, while a proposal by the U.S. Fish and Wildlife Service to list this species as Endangered is under review. The population of this species on the ACEC is the largest of those in the Illinois Valley (Kagan 1994). Motorized recreation, encroaching development, and plant succession following fire suppression have jeopardized the other populations outside of the ACEC, while recurrent off-road vehicle use and mining activity remain threats to the species on the ACEC. The populations are currently monitored by the Institute for Applied Ecology (Corvallis, Oregon) in a cooperative partnership with the BLM (Kaye 2001).

Siskiyou butterweed (*Senecio hesperius*) - *S. hesperius* is a serpentine endemic species that usually occurs in Jeffrey pine savanna, and is generally restricted to low elevation, serpentine slopes on the west edge of the Illinois Valley, with the exception of one population farther north at the Cedar Log RNA (Kagan 1989). It is a BLM Bureau Sensitive species.

Howell's Adder's tongue (*Erythronium howellii*) - This Bureau Sensitive species is uncommon throughout its range. It is a member of the Lily family (Liliaceae) that thrives on dry shrubby slopes, mostly on serpentine soils.

D **Opposite-leaved lewisia** (*Lewisia oppositifolia*) - This Bureau Watch species is uncommon throughout its range. It is a member of the purslane family (Portulacaceae) that thrives on dry rocky slopes and flats, mostly on serpentine soils. It is most frequent in near-barren patches of soil that occur within more fully vegetated habitats.

F **Slender meadow-foam** (*Limnanthes gracilis* var. *gracilis*)- Slender meadowfoam is geographically restricted to Josephine and (historically) Jackson counties. Historic collections from Douglas County need verification. All populations are found below 2,500 feet elevation on sunny, vernal wet meadows and stream edges, in valleys and low foothills, including soils formed from ultramafic rocks. Slender meadow-foam is a Bureau sensitive species in Oregon.

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Howell's microseris (*Microseris howellii*)- Howell's microseris occurs only in Josephine and Curry Counties, Oregon. It is restricted primarily to serpentine substrates, and is vulnerable to off-road vehicles and mining activity. It is a Bureau Sensitive species and is listed by the State of Oregon as Threatened.

Howell's montia (*Montia howellii*)- Howell's montia is a diminutive plant with tiny flowers that do not open completely, even when in full bloom. It favors bare soil in disturbed areas. On the ACEC, it occurs in seasonally wet patches of bare soil in a closed road beneath a forest canopy of Douglas-fir. The species is considered Bureau Sensitive and is a candidate for listing by the State of Oregon.

Mountain lady's slipper (*Cypripedium montanum*) - This rare orchid is a Survey and Manage Species (discussed below) that occurs on both sides of the Cascades Range in four western states, Oregon, California, Idaho, and Washington. It appears to be an old-growth dependent species with a high potential sensitivity to timber harvest, which, in one study, appeared to reduce fruit production and increase plant mortality (Kaye 1999).

Survey and Manage Species - The guidelines for management of Survey and Management Species stated in the ROD/RMP contain four components: manage known sites, survey prior to ground disturbing activities, conduct extensive surveys, or conduct general regional surveys (BLM 1995). At this time there is only one known survey and manage species on the ACEC (mountain lady's slipper). As surveys of the area are completed an effort to record survey and manage species should be made.

Invasive Weeds - Exotic species are only a minor component of the vegetation of the French Flat ACEC. Non-native grasses play a significant role only in open spaces where there is a reduced serpentine influence. Along BLM road 40-8-15.1 and in other parts of the ACEC there are sporadic populations of blackberry species (*Rubus laciniatus* and *Rubus discolor*) as well as Klamath weed (*Hypericum perforatum*) and meadow knapweed (*Centaurea pratensis*). These weeds are of greatest concern where there is significant ground disturbance from activities such as mining and unauthorized ORV use, as well as past logging activities.

French Flat ACEC

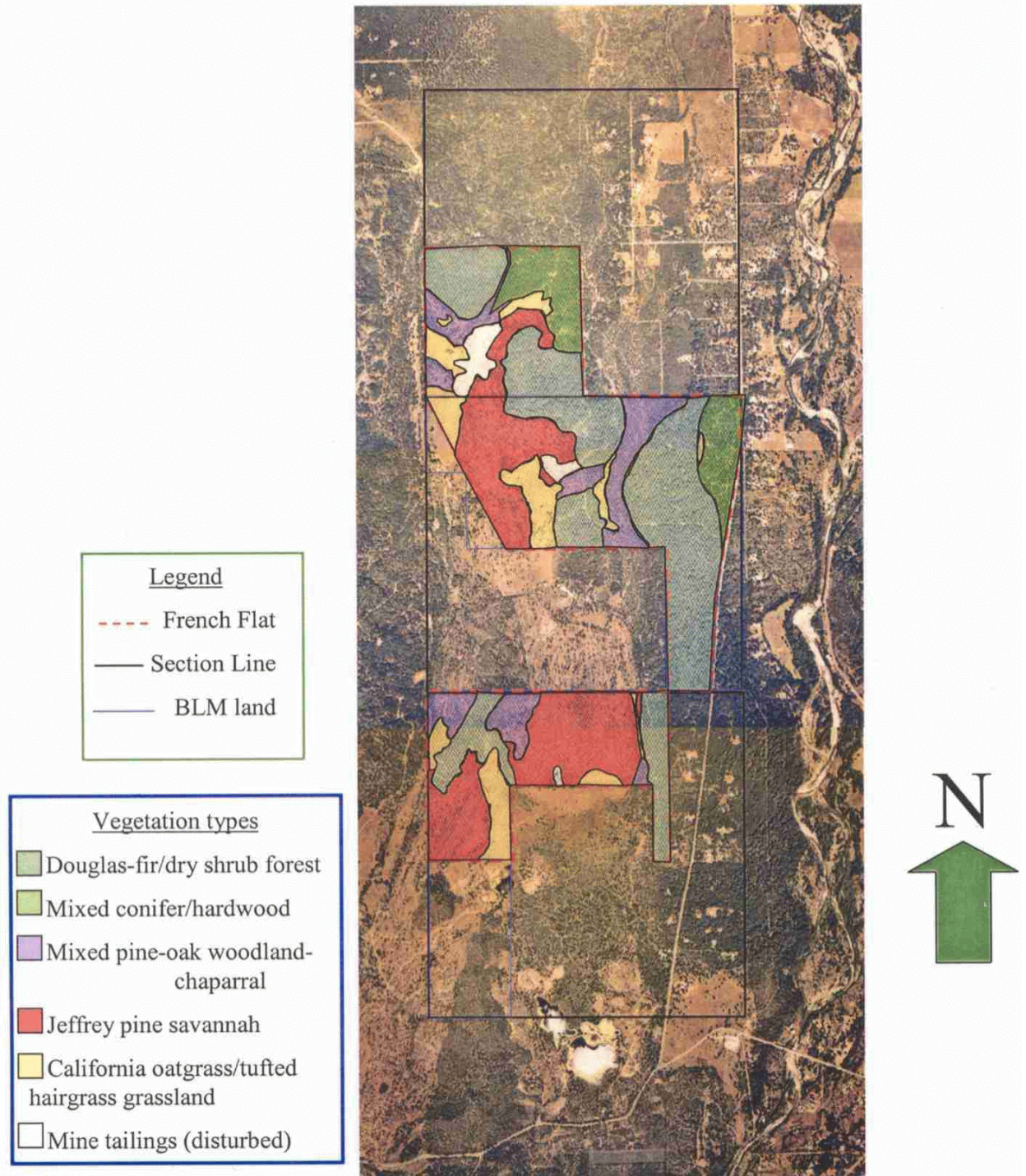


Figure 1. Vegetation map of the French Flat ACEC.

D Table 2. Federally listed, Federal Candidates, Bureau Sensitive and Survey and Manage Plant Species Documented or Suspected within the French Flat ACEC.

	Scientific Name	Common Name	Occurrence	Status
R	<i>Arabis macdonaldiana</i>	Macdonald's rockcress	suspected	FE
A	<i>Bryoria tortuosa</i>	moss	suspected	S&M
F	<i>Camassia howellii</i>	Howell's camas	suspected	BS
T	<i>Cypripedium montanum</i>	mountain lady's slipper	documented	S&M
	<i>Erythronium howellii</i>	Howell's adders tongue	documented	BS
	<i>Limnanthes gracilis</i> var. <i>gracilis</i>	slender meadow-foam	documented	BS
	<i>Lomatium cookii</i>	Cook's desert parsley	documented	SE, FE, BS
24 Oct 2003	<i>Microseris howellii</i>	Howell's microseris	documented	BS
	<i>Montia howellii</i>	Howell's spring beauty	documented	BS
	<i>Senecio hesperius</i>	Siskiyou butterweed	documented	BS
	<i>Perideridia erythrorhiza</i>	red-root yampah	suspected	BS

FE: Federally Endangered
PE: Proposed Federally Endangered
SE: State Endangered
BS: Bureau Sensitive
S&M: Survey and Manage

D Table 3. Bureau Assessment, Watch and Tracking Plant Species Documented or Suspected Within the French Flat ACEC.

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Scientific Name	Common Name	Occurrence	Status
<i>Arabis aculeolata</i>	Waldo rockcress	documented	BW
<i>Arabis koehleri</i> var. <i>stipitata</i>	Koehler's rockcress	suspected	BW
<i>Arctostaphylos hispidula</i>	Howell's manzanita	suspected	BA
<i>Aster brickellioides</i>	bricklebrush aster	suspected	BT
<i>Balsamorhiza sericea</i>	silky balsamroot	suspected	BW
<i>Cardamine nuttallii</i> var. <i>dissecta</i>	cut-leaved toothwort	suspected	BW
<i>Cardamine nuttallii</i> var. <i>gemmata</i>	purple toothwort	suspected	BW
<i>Carex serpenticola</i>	serpentine sedge	suspected	BT
<i>Eriogonum pendulum</i>	Waldo buckwheat	suspected	BW
<i>Fritillaria glauca</i>	Siskiyou fritillary	documented	BA
<i>Hieracium bolanderi</i>	Bolander's hawkbeard	suspected	BW
<i>Mimulus douglasii</i>	Douglas' monkeyflower	documented	BW
<i>Lewisia leana</i>	Lee's lewisia	suspected	BA
<i>Lewisia oppositifolia</i>	opposite-leaved lewisia	documented	BW
<i>Poa piperi</i>	Piper's bluegrass	suspected	BW
<i>Sanicula peckiana</i>	Peck's snakeroot	suspected	BW
<i>Sedum laxum</i> ssp. <i>heckneri</i>	lax stonecrop	suspected	BA
<i>Thlaspi montanum</i> var. <i>siskiyouense</i>	Siskiyou pennycress	suspected	BW

BA: Bureau Assessment

BT: Bureau Tracking

BW: Bureau Watch

D **Plant Disease Threats:** Plant pathogens that cause Port Orford cedar root disease and Sudden Oak Death Syndrom have the potential for far-reaching negative impacts on the ACEC.

R **Port Orford Cedar Root Disease (*Phytophthora lateralis*)-** The only serious pest of Port Orford cedar in its natural range is *Phytophthora lateralis*. This fungal pathogen causes a fatal root disease in all infected individuals. Since 1952, this disease has spread throughout the entire range of Port Orford cedar. *P. lateralis* lives in infected roots of Port Orford cedar and surrounding wet soils. Movement of mud and plant materials by humans from infected areas is the main agent of long-distance dispersal of this disease. As this is a water-borne pathogen, cedars in riparian areas have been greatly affected by natural spread of the exotic disease. There are several uninfected Port Orford cedars at the French Flat ACEC, and there is no evidence that the disease has spread to any trees on the ACEC. It is of utmost importance that OHV's, mining equipment, mountain bikes and pedestrians that have been in areas containing infected Port Orford cedar, wash with bleach water to remove mud and kill any fungal spores before entering the ACEC.

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2003 **T** **Sudden Oak Death (*Phytophthora ramorum*)-** Sudden oak death is a disease complex involving a recently discovered fungal pathogen, *Phytophthora ramorum*, as well as secondary agents including beetles and other fungi (i.e., *Hypoxylon*). At this time, there are sixteen known species of host plant in California and Oregon. Further research is currently underway to determine other hosts. Of the known hosts, 5 species are found in the French Flat ACEC. These are tanoak, California black oak, madrone, and two manzanita species. Symptoms vary from species to species although most deaths are characterized by a rapid foliar color change or spotting, and "bleeding" from the trunk. Currently, the most northern confirmed occurrence of Sudden Oak Death is in the Brookings area of Oregon and the chances of its arrival at French Flat may be high. Infection of susceptible species could result in devastating consequences to the ecological patterns and processes at French Flat, the Klamath Mountains ecoregion, and beyond.

Wildlife: The diversity of plant associations and habitats at French Flat provide potential habitat to support several major groups of wildlife: mammals, birds, fish, reptiles and amphibians, and invertebrates. However, research and data collection on wildlife that occupy serpentine areas is relatively lacking. Most information on wildlife in serpentine areas is anecdotal and incomplete. Wildlife species seem to be well represented on serpentine but at low densities.

The Jeffery pine plant series associated with serpentine is not capable of producing late successional habitat with trees greater than 32 inches in dbh, canopy closure greater than 60%, or multiple canopy layers. The viability and prosperity of most species of concern are not dependent upon habitats in the Jeffrey pine plant series. Species such as the fisher and spotted owl are associated with canopy closures greater than 60% and are not expected on serpentine sites (Leslie Welch, pers comm.). Many species are undocumented from the ACEC but are likely to occur there in suitable habitat.

Special Status Species - Several special status species have been documented or are suspected to occur within the ACEC. All special status wildlife species are listed in Table 4. Many of the

D special status species suspected within the ACEC probably occur there but their presence has not been documented. The following is a brief description of Federally Listed, Federal Candidate, State Critical and Bureau Sensitive species documented within the ACEC.

R **Common Kingsnake (*Lampropeltis getulus*)** - This is a smooth-scaled, shiny, dark brown or black snake that ranges from 36 to 48 in. (90-122 cm) in length. Kingsnakes are sometimes called "chain snakes" because they are patterned with white or yellow markings that resemble chain links. This species is present in moist wooded environments, but it is more common around bodies of water. Pairs mate between May and June and white or yellowish elongated eggs are laid from June to August. Kingsnakes are commonly found near aquatic environments because they feed on water snakes and turtle eggs. They also eat other snakes, amphibians, lizards, birds, and bird eggs. These snakes are strong constrictors that are equipped with an immunity against many venomous snakes. They sometimes eat Rattlesnakes, Copperheads, and Coral Snakes. They are secure throughout most their range, although rare in Oregon

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California Mountain Kingsnake (*Lampropeltis zonata*) - The California Mountain Kingsnake contains six subspecies. All are colorful and attractive snakes with alternating red, black and white crossbands. These crossbands are arranged in triads of color in the order of black, red, black, separated by white. Adults have smooth, shiny scales and can reach lengths of 48 inches. California Mountain Kingsnakes are found in the western U.S. from the Columbia River area of Washington State in the north, to northern Baja California, México in the south. This species is highly prized in the pet trade and significant damage to populations has occurred as the result of unscrupulous collectors. This snake inhabits moist woods from sea level to extremely high elevations. It is relatively secure throughout its range, although rare in Oregon. *L. zonata* was last documented on French Flat in 1939, so updated herpetological surveys are needed to document its current abundance.

Western Gray Squirrel (*Sciurus griseus*)- The western gray squirrel is a tree dweller, nesting in cavities or building nests of branches twenty or more feet off the ground. They are most active during the daylight hours. As the sun rises, they can often be seen sunning themselves on high branches in pines and oaks. In the wild they are shy and hide when intruders come into their territory. Where they are accustomed to human activity, they sometimes make pests of themselves by cleaning out bird feeders. Gray squirrels visit black oak and pine forests in French Flat .

Mammals - The ACEC contains habitat for black bear, cougar, blacktail deer, grey fox, racoons, jackrabbits, many bat species, squirrels and other small mammals. Because few surveys have been conducted in the ACEC, the occurrence and abundance of mammals within the area is not well documented. Spotlight counts conducted by the Oregon Department of Fish and Wildlife for black-tailed deer indicate that deer use serpentine areas, but in very limited numbers.

Due to habitat fragmentation and human encroachment, species associated with Jeffrey pine savanna and deciduous oak/pine savannas are declining in numbers (USFS 1997). Additionally, fire suppression has negatively impacted the Jeffrey pine savanna and deciduous oak/pine

D savannas by allowing for encroachment by shrubs and fire intolerant species. Fire suppression has also resulted in the reduction or loss of species dependent upon fire for critical life cycles.

R Birds - The diversity and abundance of bird species in the ACEC is poorly known. Neotropical migratory birds migrate north each spring to breeding grounds in North America, then fly south to winter in Central and South America, and they may utilize some portions of the ACEC on these journeys. Surveys have documented a wide range of neotropical migrant species occurring in the vicinity of French Flat and in habitats similar to those found on the ACEC. Neotropical migrants are of particular concern because of declines nationally. A breeding bird study along the Illinois River which sampled riparian and upland serpentine areas located 28 species of birds (Appendix D). Species encountered during this survey were very similar to those found in surrounding forest and meadow habitat types, however densities were notably lower (Finley 1997). A multi-year bird banding project at Cedar Log Flat RNA, which supports several habitats similar to French Flat ACEC found 54 species of birds (USFS 1997). Additionally, inventory for the northern spotted owl, *Strix occidentalis*, has not been implemented at this time. However, potentially suitable spotted owl habitat is present in the Douglas-fir stands in the eastern portion of the French Flat ACEC. Other avian species of concern with potential habitat on the site include the northern goshawk, flammulated owl, acorn woodpecker, blue-gray gnatcatcher, western bluebird, pileated woodpecker and great grey owl. The wetlands and ponds also provides habitat for a variety of waterfowl, shorebirds and eagles.

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Reptiles and Amphibians - Herptile species such as garter snakes, rattlesnakes, sagebrush lizards, and western fence lizards are present in the ACEC. The Logan Cut, although an unnatural hydrologic phenomenon, provides habitat for several amphibian and reptile species just outside the border of the ACEC. The wetlands and ponds in the French Flat ACEC provide suitable habitat for the western pond turtle (*Clemmys marmorata*), which occurs along the West Fork of the Illinois River.

Other Wildlife Values - The Coronis fritillary butterfly (*Speyeria coronis* var. *coronis*) was at one time proposed to be added to the BLM special status invertebrate species list. A disjunct population of this species is present in the Illinois Valley. Its primary breeding ground is rocky flats around the Illinois Valley airstrip and Rough and Ready ACEC and eastward to the French Flat ACEC. The larvae feed mostly on *Viola hallii* (Hall's violet) in rocky serpentine habitats of the Illinois Valley (Hammond 1992). The butterfly depends on the violet, so any activity which destroys the violet's habitat could destroy local populations of the butterfly (Paetzel 1993). Additionally, French Flat ACEC contains habitat for the Oregon shoulderband (a snail) and Franklin's bumblebee, two Bureau sensitive invertebrates. A more complete invertebrate study for French Flat is necessary to provide a complete list of such species.

Table 4. Species of Interest Documented or Suspected Within the French Flat ACEC.

Scientific Name	Common Name	Occurrence	State	BLM	ONHP
Reptiles and Amphibians					
<i>Aneides ferreus</i>	clouded salamander	suspected	U	BT	3
<i>Aneides flavipunctatus</i>	black salamander	suspected	P	BA	2
<i>Bufo boreas</i>	western toad	suspected	V	BT	3
<i>Contia tenuis</i>	sharp-tailed snake	habitat present	V	BT	4
<i>Clemmys marmorata</i>	western pond turtle	suspected	C	BS	2
<i>Lampropeltis getulus</i>	common kingsnake	documented	V	BT	3
<i>Lampropeltis zonata</i>	Cal. Mtn. Kingsnake	documented	V	BT	3
<i>Plethodon elongatus</i>	Del Norte salamander	habitat present	V	BT	3
<i>Sceloporus graciosus graciosus</i>	northern sagebrush lizard	suspected		BT	4
Invertebrates					
<i>Helminthoglypta hertleini</i>	Oregon shoulderband (Snail)	habitat present		BS	1
<i>Bombus franklini</i>	Franklin's bumblebee	habitat present		BS	1
Mammals					
<i>Arborimus longicaudus</i>	red tree vole	suspected		SoC	3
<i>Lasionycteris noctivagans</i>	silver-haired bat	suspected	U	BT	3
<i>Myotis evotis</i>	long-eared myotis	suspected	U	BT	4
<i>Myotis thysanodes</i>	fringed myotis	suspected	V	BT	3
<i>Myotis volans</i>	long-legged myotis	suspected	U	BT	3
<i>Myotis yumanensis</i>	Yuma myotis	suspected		BT	4
<i>Sciurus griseus</i>	western gray squirrel	documented	U	BT	3
Birds					

D	<i>Accipiter gentilis</i>	northern goshawk	habitat present	C	BS	3
	<i>Otus flammeolus</i>	flammulated owl	habitat present	C	BS	4
R	<i>Dryocopus pileatus</i>	pileated woodpecker	documented	V	BT	4
	<i>Melanerpes formicivorus</i>	acorn woodpecker	habitat present		BT	3
A	<i>Polioptila caerulea</i>	blue-gray gnatcatcher	habitat present		BT	3
F	<i>Sialia mexicana</i>	western bluebird	suspected	V	BT	4
	<i>Strix nebulosa</i>	great grey owl	not detected habitat present	V	BT	4
T	<i>Strix occidentalis caurina</i>	northern spotted owl	not detected habitat present	ST	FT	1

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Oregon

V=Vulnerable

ST=State Threatened

C=Critical

U=Undetermined Status

P=Peripheral/Naturally Rare

BLM

BT=Bureau Tracking

BS=Bureau Sensitive

BA=Bureau Assessment

FT=Federally Threatened

ONHP

1=Taxa threatened with extinction

2=Taxa threatened with extirpation

3=Species where more information needed

4=Taxa of concern

D **Fisheries:** The Logan Cut provides a low gradient access for fish coming from the West Fork of the Illinois River. It is listed as having chinook, coho, steelhead, and cutthroat trout (*Salmo clarkii*). Coho salmon are listed as Federally Endangered and steelhead are proposed endangered. This is based on the presence of available habitat, not fish observations (Jon Raybourn, personal communication). Snorkel surveys are scheduled to assess fish populations and spawning activity in the near future.

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T Management actions on the ACEC could affect conditions in the Logan Cut. Aside from this adjacent hydrologic feature, there are no fish species within the boundaries of the ACEC.

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Other Natural Systems or Processes:

Natural processes, such as fire and succession, also contribute to the diversity of plant communities.

Fire Regime - Fire has been a significant and important part of the environment shaping plant communities in southwestern Oregon (Atzet and Wheeler 1982). The natural frequency of wildfire in the Jeffrey pine series is 20 to 50 years (Atzet and Wheeler 1982). Natural Jeffrey pine associations are likely to support small, patchy fires and less likely to suffer catastrophic fire due to low fuel loading and widely spaced canopies. However, at French Flat, shrub densities have increased to unnatural levels due to fire suppression. Thus most fires would tend to be catastrophic rather than “small and patchy.” Although most sites are open and quick to dry, little fuel is produced, and fuel continuity is usually lacking, resulting in low intensity fires that have not, in most cases, significantly altered species composition. Jimerson (1995) notes variable potential for

fire exclusion to cause change in the successional pathways of the associations in his Jeffrey Pine series in northern California.

Jimerson (1995) also describes shrubs invading and usurping space of herbaceous species. Kagan (1989) speculated that *Senecio hesperius* abundance declined at Cedar Log Flat RNA in the absence of fire, as evidenced by extremely high cover of native grass. Borgias and Beigel (1996) observed that the dominant species of serpentine savannas regenerated readily following wildfire, however the effect of fire on special status plants of serpentine systems is uncertain (Jimerson 1995, Borgias and Beigel 1996).

The presence of burned snags and fire-dependent plant species indicate that fire is a natural process that has historically contributed to the diversity of plant species within the ACEC. The frequency of fire has likely been greatly reduced due to fire suppression over the last 150 years. Modification of the fire regime in ecosystems of the Pacific Northwest, through prolonged fire suppression, has tended to increase fuel loads, and continuity of fuels, resulting in more severe fire effects (Agee 1993).

Successional Processes- Fire is the most important disturbance mechanism on the upland portions of the ACEC. The fire regime mediates successional processes and pathways. Dense stands of trees and shrubs are established on the deeper, finer textured, older soils in the ACEC. In the absence of recent fire, the abundance of Douglas-fir on such soils (especially in the northwest corner of the ACEC and along the eastern edge of the ACEC by Rockydale Road) has increased

D substantially over historic levels and fuel loads are now very high.

R Evolutionary Processes - The known presence of active interspecies hybridization between *Triteleia* species, with possible speciation occurring, is a notable process on the ACEC. Genetic and evolutionary processes of hybridization among pairs of A *Arctostaphylos* species and pairs of F *Ceanothus* species have also been discovered in the vicinity (Nobs 1963, Gottlieb 1968, T Chambers 1993).

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Historic Human Uses: The vegetation at French Flat was shaped by the practices of the native Takilma Indians, primarily through their use of fire to manage food plants and vegetation used for tool and equipment building. Early settlers made little record of aboriginal activities in southwestern Oregon (Boyd 1999), but it has been recorded that native peoples burned grass fields for the purposes of hunting, and to clear brush for seed collection and acorn gathering in the oak savanna. Hazelnuts (*Corylus cornuta* var. *californica*) were also collected regularly by native peoples here. Light fires were lit to burn off the fuzzy outer bracts and roast the nut inside. Historically, native peoples burned hazel-patches every 5 years to encourage all nuts to drop to the ground and to stimulate resprouting of the established plants. Additionally, oak woodlands were burned to drive deer and elk for hunting. Oak forests were also burned to stop Douglas-fir from over-topping oaks, a successional process that made visibility difficult (Boyd 1999). It is apparent that Native Americans recognized the utility of frequent, low intensity burns in increasing soil nutrient loads and fertility as well as site diversity. Additionally, they may have used

such fires to reduce fuel load as a cautionary measure.

Euro-American land management activities (such as fire suppression, land clearing, and timber management) over the last 150 years have overshadowed those aboriginal practices and greatly influenced the vegetation patterns seen at French Flat and the region today. It is likely that Douglas-fir has encroached on areas from which it was formerly excluded as a result of direct and indirect fire suppression at the French Flat ACEC (Borgias 1997). Post-settlement fire suppression has distinctly changed the vegetation of southwestern Oregon, including the French Flat ACEC, allowing the invasion of annual grasses into perennial bunchgrass communities, pine trees into meadows, Douglas-firs into pine-oak savannas, and increased forest densities in general.

Before 1997, no formal cultural resource surveys had been undertaken in the French Flat watershed and no cultural sites had been documented. A formal survey was completed for the Upper Illinois Landscape Management Project in 2000. This survey encompassed approximately 3000 acres including French Flat ACEC. Eighteen sites were recorded in the ACEC, ranging from mining sites to ditches. Of these eighteen sites, five have been nominated to the National Register of Historic Places. A Management Plan was written to address the National Register sites. The management plan gives three alternatives for management of these sites.

Euro-Americans began settling in the Illinois River Valley in the early 1850's, following the discovery of gold in the area which

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D brought an influx of miners. The French Flat ACEC contains profitable placer deposits and has been prospected by miners since 1852. The Logan (also known as Esterly or Llano de Oro) Placer Mine was operated from 1870 until 1940 as a hydraulic mine, extracting gold and platinum from the buried gravels of the ancient river terrace. The upland sites were also prospected and mined for deposits of chrome. During World War I, Federal Government incentives encouraged mining for strategic minerals such as chromite. The use of heavy machinery for mining and the resulting changes in hydrology on the French Flat ACEC are great. These impacts continue to be a threat to the ecosystem's integrity at French Flat today.

Current Fire Regimes - Jeffery pine on serpentine soils is classified as a Class I fire regime (0-35 years fire frequency, low severity) with the grass/brush community as Class II (0-35 years, stand-destroying, non-forest). The majority of the ACEC is in Condition Class II with the areas being encroached upon by Douglas-fir as Condition Class III (See Tables X and X).

Current Human Uses: The following sections describe the types of resource use which are currently occurring within the ACEC.

Open Space -The Josephine County Comprehensive Plan states that the Board of Commissioners shall support the identification of significant natural areas and shall implement measures to evaluate the importance of preserving such sites (Josephine County Board of Commissioners, No Date).

Recreation - Recreational use of the area includes observation of the unique plant communities and diverse wild flowers, as well as bird watching, horseback riding, camping, mountain biking, and target shooting. The entire ACEC was closed to motorized vehicles and this closure was published in the Federal Register, Volume 57, No 118, on June 18,1992. It has historically been used for OHVs and is still used by OHVs, and remains difficult to close. These difficulties with site closure appear to be due to the flat terrain of the area, the private land around the ACEC, and the lack of a designated OHV site.

There are three BLM-controlled access points into the ACEC. One is from Waldo Road, across from the old Waldo townsite. The other two are along Rockydale Road (Sheirer Lane and the 15.1 road). There are gates on all BLM access points into the ACEC, but the area is still frequently accessed by motorized vehicles.

The Esterly Lakes, in the southern part of the ACEC and on adjacent private land, are a popular spot for camping, day use and fishing.

Recreational Opportunity Spectrum- A Recreational Opportunity Spectrum (ROS) analysis was completed to provide a standardized characterization of the recreation setting for the French Flat ACEC under the three alternatives. The recreation character for the ACEC includes locations classified as Semi-Primitive Motorized (SPM), Roded Natural, and Rural. There are no Primitive or Semi-Primitive Non-Motorized settings, due to the density of open roads which leaves no setting farther than ½ mile from a road influence. A

Description of the ROS analysis can be found in Appendix E. See Figure X for the locations of specific categories, which follow: (this is from Rough and Ready, need same for French Flat)

closed to the collection of special forest products in the RMP.

A Visual Resource Management - The ACEC is in VRM Class III. Objectives for this class include partially retaining the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer (BLM Manual H-8410-1, 1986.)

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2003 Rights of Way - There are no rights of way for non commercial road use within the French Flat ACEC. There are also no known utility corridor rights-of-way located within the ACEC.

Locateable Minerals - Current mining claims within the ACEC are listed in Table 5. Mining claims in the ACEC are shown in Figure 8. All of the claims are placer claims and all surface management is vested with the BLM. Mining claimants with legitimate reasons to access their mining claims by vehicle will be allowed to do so.

Timber Resources - The Douglas-fir forest adjacent to Rockydale Road and around the ACEC has potential for merchantable timber but is in an early to mid-successional state. Pre-commercial thinning may be necessary to create a more open stand that is more insect and disease resistant and to reduce fuel loads and related risk of catastrophic fires.

Special Forest Products - Little is known about the collection of special forest products in the ACEC. The ACEC was

Table 5. Active Mining claims within the French Flat ACEC.

Section	Claim Name	Claimant	Oregon Mining Claim Number
10	Hillside Association	W. Freeman, M. Harris, S. Stephens, R. Stricklan	ORMC155810
	Hillside Assn #2	W. Freeman, M. Harris, S. Stephens, R. Stricklan	ORMC155811
15	Hillside Assn #3	W. Freeman	ORMC25905
	Ophir Assn #1	W. Freeman	ORMC25906
	Ophir Assn #2	W. Freeman	ORMC25907
	Ophir Assn #3	C. Bridges	ORMC25908
	Ophir Assn #4	C. Bridges	ORMC25909
	Ophir Assn #5	C. Bridges	ORMC25910
	Ophir Assn #6	C. Bridges	ORMC25911

D R A F T T

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THIS TABLE TO BE REVISED AS ALTERNATIVES ARE DEVELOPED AND ANALYZED

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Table 6. Comparison of Management Actions by Alternative for the French Flat ACEC.

Management Action	Alternative A (No Action)	Alternative B	Alternative C
1. Locateable minerals	Plan of Operations for all mining activities.	Plan of Operations for all mining activities (same as Alt. A.) Withdrawal from future mining claims. No new permanent structures and residences allowed on the ACEC.	Same as B.
3. Recreational mining	Recreational mining allowed.	Recreational mining prohibited.	Same as B.
4. Saleable minerals	Open to extraction of saleable mineral materials.	Requests for the purchase of saleable minerals denied. Pursue revoking State permits.	Same as B.
5. Motorized vehicles	Closed (except for authorized use) to motorized vehicles on most roads (Figure 6).	Closed (except for authorized use) to motorized vehicles on all roads (Figure 6).	Closed (except for authorized use) to motorized vehicles on all roads (Figure 7).
6. Camping	Dispersed backpack camping allowed. Campfires allowed.	Dispersed backpack camping allowed. No campfires.	Dispersed backpack camping allowed. No campfires.
7. Education and interpretation	No additional interpretation signs or trails developed.	Additional Education/ interpretation signs and trails developed.	Additional Education/ interpretation signs and trails developed. Picnic area and pit toilets developed.
8. Group Use	Group size and access unrestricted.	Registration box(s) at popular access points. Large Groups encouraged to stay on roads and trails.	Same as B.
9. Non-motorized access	Horses and other pack animals, bikes, carts and other non-motorized modes of transportation allowed.	Horses and other pack animals, bikes, carts and other non-motorized modes of transportation restricted to existing roads.	Same as B.
10. Discharge of firearms	Discharge of firearms allowed.	No discharge of firearms. Safety zone established.	Same as B.

Table 6 (continued). Comparison of Management Actions by Alternative for the French Flat ACEC.

Management Action	Alternative A (No Action)	Alternative B	Alternative C
11. Parking	Parking at Rockydale Road improved in conjunction with interpretive trail.	Same as A, with additional parking improvements on east side of Highway 199.	Same as B, with development of picnic area and pit toilets at east side parking area.
12. Inventories	Surveys only in response to development projects.	Additional surveys to determine the presence, distribution, and abundance of existing species, natural processes, and cultural resources.	Same as B.
13. Monitoring	Monitoring of <i>Lomatium cookii</i> .	Expanded and intensified monitoring for high ranked biotic elements, natural processes and abiotic factors.	Same as B.
14. Fire Management Plan	Emphasis on fire suppression plan, and hazard reduction.	Additional emphasis on prescribed burns to enhance vegetation.	Same as B, with less vegetation enhancement.
15. Special Use Apiary Permit	Open for apiary use.	Closed to apiary use.	Same as B.
18. Ecological restoration	No restoration.	Priority sites would be restored using site specific plant materials	Same as B.

Table 6 (continued). Comparison of Management Actions by Alternative for the French Flat ACEC.

Management Action	Alternative A (No Action)	Alternative B	Alternative C
20. Rights of way	Allocation of lands to existing rights of way continue. With the exception of buried line and existing rights of way, avoid locating rights of ways. Rights of way may be granted in avoidance areas when no feasible alternative.	Proposals for new rights of way denied. Proposals to modify existing rights of way evaluated and designed to minimize impacts.	Same as B.
21. Collecting	Open to collection of rocks and other natural features.	Closed to collection of rocks and other natural features, except for educational purposes under permit.	Same as B.
22. Hazard Tree Removal	Removal or cutting of hazard trees not minimized. Stumps and log ends would not be obliterated.	Minimize removal or cutting of hazard trees. Stumps and log ends would be obliterated.	Same as B.

D Figure 1. Boundaries of the French Flat ACEC.

R Figure 2. The Klamath-Siskiyou Ecoregion.

A Figure 3. Rogue/Illinois Valleys Subregion.

F Figure 4. Soils in the French Flat ACEC.

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Figure 5. Recreational Opportunity Spectrum Classes, including roads, gates and berms proposed for Alternative A.

Figure 6. ROS Classes, including roads, gates and berms proposed for Alternative B.

Figure 7. ROS Classes, including roads, gates and berms proposed for Alternative C.

Figure 8. Mining Claims Located in the French Flat ACEC.

Figure 9. Proposed Patented Mining Claims within the French Flat ACEC.

D Management Plan/EA.

The following summarizes the scoping comments submitted by the public.

R Most of these comments were received during a public scoping meeting held on 20 February 2002, but comments were received between Jan. 17 and Feb. 28, 2002, prior to the development of management alternatives. During this time, a total of 34 individuals submitted comments (32 questionnaires and 2 letters). These comments are summarized in Table 10 and excerpts from them are quoted below.

F Table 10. Comments made by the public were reviewed and classified into relevant categories. Comments were further arranged into attitudes implied toward a particular category (i.e., positive, negative, or neutral). Many comments expressed several concerns; these comments received multiple tallies.

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Land Use or Objective	Comment type			Total
	Positive	Negative	Neutral	
Restoration (biological and physical)	4	1	0	5
Biological conservation (botanical, landscape, etc.)	8	3	0	11
Mining	1	2	0	3
Hunting	5	0	0	5
Horseback riding	4	0	0	4
ORV/ 4x4's	5	8	0	13
Invasive/non-native plant control	4	0	0	4
Law enforcement on the ACEC	3	0	0	3
Hiking/biking trail use and development	8	0	0	8
Historical use of French Flat	0	0	7	7
Road use by motorized vehicles	5	8	0	13
Tourism/ interpretive walk	3	0	0	3
Gate installation and maintenance	3	3	0	6
Controlled burns/fuel reduction	2	0	0	2
Total	55	25	7	87

Examples of specific comments in each of several general categories

Restoration (biological and physical)

- Physical repair of damage (ruts) caused by ORV's necessary
- "Restoration of the damaged ecosystem is very important."

D -"Restore the natural state of the meadows- get rid of ruts, encourage Lomatium cookii, remove encroaching doug fir, pull noxious weeds, fencing/gating to keep out motorized vehicles!"

Conservation (botanical, landscape, unique ecosystem, etc.)

R -"After all this activity (4x4's, horse riding, mining) the so-called 'endangered plants' have still survived.. you can't beat Mother Nature!"

A -"This area is very unique in the fact that it has the rare Cook's Lomatium."

-"Protection of the botanical resources of the ACEC should be the top priority of the management plan."

-"The area is truly unusual in that it is the first valley bottom land without human habitation."

-"This is a very valuable natural area and rare low elevation habitat."

F -"One of few tracts remaining in Illinois Valley that's protected and maintained for it's botanical attributes

-"This area has been mined, logged, and driven on for many, many, years and plants seem to still thrive there."

T -"I haven't seen any scientific evidence that the plants in this area are really rare or endangered by present or historical use of this French Flat area."

24 Mining

Oct -"French Flat should be mined because it would promote the economy within the Valley

2003 -"Mining disturbance may bring seeds to the surface so that plants that weren't there before are present

-"Mining, logging, and off-road vehicles are unacceptable in our few remaining wilderness areas."

Hunting

-Hunting has been allowed for many years in this area and should remain open

-"French Flat is my favorite hunting spot."

Horseback riding

-Enjoy riding out horses.. do not want to see anymore restriction

-Most horseback riders maintain the trails they ride on

-"We would like to see the area remain open and unrestricted for horse and foot traffic."

ORV/ 4x4's

-" I am thrilled the BLM is attempting to permanently gate the area from ORV destruction.."

-"I was informed that there is no designated area for 4x4's- I believe there should be."

-Need to find an effective way to keep the 4x4's from abusing The Flat... need to give the 4x4's somewhere else to go.

-"I have heard that it (French Flat) is now locked to stop the boys with their big wheels from riding around and doing their whirly-gig things that has resulted in much destruction already."

Invasive/non-native plants

-Control and eradication for invasive plants needed

-Knapweed is a problem that needs to be worked on

Policing French Flat

-"... a \$3000-5000 contract for someone to bike through the area once or twice a week would be a small amount of resources well spent."

-A ranger or citizen to check the area out a few times a month may help protect bird and waterlife

-Problems apparent with 4x4's using restricted lands- policing may help solve problem

Hiking/biking trails

- D** -French Flat could be part of a larger trail network
-"Great idea to hook up FF with other trail networks such as the proposed trail along the E. Fork in the North East sale area."
- R** -Designated hiking and biking trails throughout the area are needed
-"Good mountain biking within the ACEC- I hope that future resource planning will include this activity."
- A** -Links between the other BLM land parcels (i.e.: one with gate on Waldo Rd.) with trail system would be nice. Also link the W.Fork Illinois River and salmon viewing areas. Need to get right of ways on private land to create this system of linked trails.

Road use

- F** -Don't want to see any of the roads closed- like to drive horses to the trails
-Disabled people will not be able to hunt/enjoy French Flat without using vehicles
-"Pictures of the ratted roads are not representative of the French Flat Area."
- T** -Concern that some people dump their trash on roads
-"Road use within the ACEC should be eliminated and existing roads should be either converted to trails or gotten rid of."
-"Please protect this area from motorized access."
-Motorized vehicles are not appropriate for ACEC land
- 24
Oct
2003
- "How do the elderly or the disabled have access to this land to hunt, when they can't drive there?"
-"I believe the BLM's closing of these roads is illegal based on the fact that R52466 passed on July 26, 1866 says the roads are 'right of way' roads and the BLM has no authority to close them."

Historical use of French Flat

- Not right to restrict access to land that has been accessible for years
-Many people have been riding horses in this area for decades
-"Four-wheeling, horse riding, motorcycles has been done in this area for over 50 years."
-"I toured part of French Flat" ..." and was impressed by the cultural and historical significance of this area."
-"According to some old-time residents of the Illinois Valley, this land has been used for hunting, and camping since before cars became the main means of transportation, and we still should have the chance to continue using this area for recreation - us, and our children, and grandchildren."
-"Historical use of this land suggests no danger to these plants exist."

Tourism/interpretive walk

- I'd like to see some sort of history tourism or interpretation done (brochures or exhibit at Illinois Valley Visitor Center)." "There are opportunities to take local school groups into this area to teach our kids about the history of mining."
-"Please develop recreational trails for hikers, bicycles and horses, with interpretive signs. These trails could benefit our tourism economy."
-Place interpretive signs where appropriate

Gates

- Concern expressed that gates limit access to public lands
-Effective barriers to keep vehicles out to protect the area are needed
-"I can't believe that the U.S. Government can actually close up public lands with gates without first having a public meeting." "I strongly believe that the U.S. Government and the BLM should remove the gates to this area."

- D -"I like the gates. Please keep replacing the signs- the wording is excellent, telling people the reasons why vehicles are not allowed."
 -"I have no answer to the problem of vandalism except the locking of the gates, but then this deprives the people who really care to be able to visit and clean it up when necessary."
- R Controlled burn
 -Support for fire reintroduction as a means to maintain habitat
 -"Reduce fuels buildup with prescribed burns."
- A Recreation
 -"Recreation should be limited to non-motorized use in the ACEC."
 F -"Prime place for nature-based recreation- biking, hiking, botanizing, birding, and jogging."
 -"I've been recreating (hunting, 4x4'ing) in the 'cuts'/French Flat area since I first moved to the Illinios Valley in 1975."
 T -"I bicycle and picnic there- it is a lovely place, but can be much lovelier!"
 -"Modern times see vehicle use of this area for recreation."

24

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2003

Comments Addressed in All Alternatives

Comments Incorporated in Affected Environment:

Comments Addressed in Environmental Consequences:

Comments that suggest actions that would not meet the Purpose and Need, could not be accomplished by the BLM, or are outside the scope of this plan:

People who submitted written comments

- DeBrett, Cheryl
- DeBrett, Chuck
- Floyd, Diane
- Ford, Lowell
- Maize, Dave
- Mittleman, Fred
- Rice, Kathy
- Rice, Don
- Shook, George
- Toler, Dave
- Wiltfong, Dorothy C

People who attended 2/20/03 scoping meeting and made comments

- Burns, Pat

Camp, Mark
D Cooper, Romain
Crawford, Carol
Crocker, Ted III
R Crocker, Theodore
Crocker, Bonnie
Dunn, Tom
A Feltzin, Joya
John, Amy
Kelz, Mark M.
F Lionberger, Michael
Marsden, Jennifer
Marsden, Steve
T Nolan, Mike
Peterson, Beth
24 Sabionski, Chris
Oct Snitkin, Barry
2003 Spliethof, Patrick
Strayer, Dennis H.
Webb, Keith
Wilson, Kelpie
Wolf, Ray

Appendix B. Vascular Plant Species List for the French Flat ACEC.

This list was compiled from site visits to the ACEC in 2001 and 2002 by the authors, as well as various surveys by BLM staff and other individuals. Special Status, Bureau Tracking and Bureau Watch species are noted by an asterisk after the scientific name.

	Scientific Name	Common Name
	Grasses	
	<i>Aira caryophyllea</i>	silver hairgrass
	<i>Aristida oligantha</i>	oldfield three-awn
	<i>Bromus mollis</i>	soft brome
	<i>Bromus tectorum</i>	cheat-grass
	<i>Danthonia californica</i>	California oat grass
	<i>Deschampsia cespitosa</i>	Tufted hair-grass
24	<i>Elymus elymoides</i>	northern rye-grass
Oct	<i>Elymus glaucus</i>	blue wild-rye
2003	<i>Festuca roemerii</i> var. <i>klamathensis</i>	Klamath fescue
	<i>Holcus lanatus</i>	velvet grass
	<i>Koeleria macrantha</i>	June grass
	<i>Melica geyeri</i>	oniongrass
	<i>Poa nevadensis</i>	Nevada bluegrass
	<i>Poa secunda</i>	Sundberg's bluegrass
	<i>Sitanion hystrix</i>	bottlebrush squirreltail
	<i>Stipa lemmonii</i>	Lemmon's needle grass
	<i>Taeniatherum caput-medusae</i>	Medusa head
	<i>Vulpia bromoides</i>	foxtail grass
	Sedges and Rushes	
	<i>Carex deweyana</i>	Dewey's sedge
	<i>Carex lenticularis</i>	lense-shaped sedge
	<i>Carex mendocinensis</i>	Mendocino sedge
	<i>Carex multicaulis</i>	many-stemmed sedge
	<i>Carex obnubta</i>	slough sedge
	<i>Carex nudata</i>	torrent sedge
	<i>Carex praegracilis</i>	clustered field-sedge
	<i>Carex rossii</i>	Ross sedge
	<i>Carex tumulicola</i>	foothill sedge
	<i>Juncus tenuis</i>	slender rush
	<i>Juncus bolanderi</i>	Bolander's rush
	<i>Juncus balticus</i>	Baltic rush
	<i>Juncus effusus</i>	soft rush
	<i>Juncus patens</i>	spreading rush
	<i>Luzula campestris</i>	field woodrush

D

Ferns

Aspidotis densa

Pteridium aquilinum

R

Polystichum munitum

podfern

bracken fern

swordfern

A

Forbs

Achillea millifolium

Adenocaulon bicolor

F

Agoseris heterophylla

Allium amplexans

Allium bolanderii

T

Allium falcifolium

Allium sanbornii

Arabis aculeolata

24
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Arabis holboellii var. *retrofracta*

Arabis modesta

Arnica spathulata

Calendrinia ciliata

Calochortus tolmiei

Calochortus uniflorus

Calypso bulbosa

Calystegia californica

Camassia quamash

Campanula scouleri

Cardamine gemmata

Centaurea pratensis

Cerastium viscosum

Chimaphila umbellata

Chlorogalum pomeridianum

Cirsium vulgare

Clarkia gracilis

Claytonia exigua

Collinsia grandiflora

Collinsia parviflora

Collomia heterophylla

Crepis sp.

Cryptantha intermedia

Cynoglossum grande

*Cypripedium montanum**

Daucus pusillus

Dodecatheon hendersonii

Downingia elegans

common yarrow

pathfinder

annual agoseris

slender leaf onion

Bolander's onion

sickle leaved onion

Sanborn's onion

Waldo rockcress

rockcress

modest rock cress

arnica

red maids

pussy ears

large flowered star tulip

lady's slipper

California morning-glory

common camas

Scouler's bellflower

bittercress

meadow knapweed

mouse-eared chickweed

pipsissewa

soap plant

bull thistle

Clarkia

spring beauty

large-flowered collinsia

small-flowered collinsia

collomia

crepis

common cryptantha

large hound's tongue

mountain lady's slipper

little wild carrot

Henderson's shootingstar

elegant downingia

	<i>Draba verna</i>	vernal whitlow-grass
D	<i>Epilobium paniculatum</i>	tall annual willowherb
	<i>Epilobium rigidum</i>	rigid willow herb
R	<i>Eriogonum nudum</i>	naked buckwheat
	<i>Eriophyllum lanatum</i>	Oregon sunshine
A	<i>Erodium cicutarium</i>	filaree
	<i>Erythronium howellii*</i>	Howell's fawn lily
F	<i>Fritillaria glauca</i>	Siskiyou fritillary
	<i>Fritillaria affinis</i>	checker lily
T	<i>Fritillaria pudica</i>	yellow bells
	<i>Galium aparine</i>	cleavers
24	<i>Gilia capitata</i>	capitate gilia
	<i>Githopsis specularioides</i>	Githopsis
Oct	<i>Goodyera oblongifolia</i>	rattlesnake plantain
	<i>Habenaria unalascensis</i>	short spurred rein orchid
2003	<i>Hastingsia serpentinicola</i>	serpentine rush lily
	<i>Hesperochiron californicus</i>	California hesperochiron
	<i>Hieracium albiflorum</i>	white-flowered hawkweed
	<i>Horkelia daucifolia</i>	carrot-leaved horkelia
	<i>Hypericum perforatum</i>	Klamath weed, St. Johnswort
	<i>Hypochaeris radicata</i>	hairy cat's ears
	<i>Iris bracteata</i>	Siskiyou iris
	<i>Iris chrysophylla</i>	slender-tubed iris
	<i>Isoetes howellii</i>	Howell's quillwort
	<i>Isoetes nuttallii</i>	Nuttall's quillwort
	<i>Lathyrus polyphyllus</i>	wild pea
	<i>Lepidium campestre</i>	field cress
	<i>Lewisia oppositifolia</i>	opposite-leaved lewisia
	<i>Limnanthes gracilis</i> var. <i>gracilis*</i>	slender meadowfoam
	<i>Linanthus bakeri</i>	Baker's linanthus
	<i>Linanthus bicolor</i>	bicolored linanthus
	<i>Lithophragma parviflorum</i>	small flowered fringe cup
	<i>Lomatium cookii*</i>	Cook's desert parsley
	<i>Lomatium macrocarpum</i>	gray desert parsley
	<i>Lomatium nudicaule</i>	naked desert parsley
	<i>Lomatium triternatum</i>	narrow-leaved desert parsley
	<i>Lotus corniculatus</i>	bird's foot treefoil
	<i>Lotus oblongifolius</i>	Torrey's lotus
	<i>Lotus purshianus</i>	Spanish clover
	<i>Luina nardosmia</i>	silvercrown luina
	<i>Madia exigua</i>	little tarweed
	<i>Madia madioides</i>	woodland tarweed
	<i>Micropus californicus</i>	slender cottonweed

D	<i>Microseris howellii*</i>	Howell's microseris
	<i>Mimulus guttatus</i>	common monkey-flower
R	<i>Mimulus douglasii</i>	Douglas' monkey-flower
	<i>Minuartia douglasii</i>	Douglas' sandwort
A	<i>Montia fontana</i>	water chickweed
	<i>Montia linearis</i>	narrow-leaved montia
F	<i>Montia howellii*</i>	Howell's spring beauty
	<i>Montia perfoliata</i>	miner's lettuce
T	<i>Navarretia intertexta</i>	needle-leaved navarretia
	<i>Nemophila pedunculata</i>	spreading nemophila
24	<i>Orobanche uniflora</i>	broomrape
	<i>Orthocarpus lithospermoides</i>	gromwell owl's clover
Oct	<i>Orthocarpus pusillus</i>	dwarf owl's clover
	<i>Osmorhiza chilensis</i>	mountain sweet-cicely
2003	<i>Pectocarya setosa</i>	pectocarya
	<i>Phacelia heterophylla</i>	varied leaved phacelia
	<i>Phlox speciosa</i>	showy phlox
	<i>Plantago lanceolata</i>	English plantain
	<i>Plectritis congesta</i>	rosy plectritis
	<i>Potentilla glandulosa</i>	sticky cinquefoil
	<i>Potentilla gracilis</i>	slender cinquefoil
	<i>Polygala occidentalis</i>	western polygala
	<i>Prunella vulgaris</i>	self-heal
	<i>Ranunculus occidentalis</i>	western buttercup
	<i>Rumex acetosella</i>	red sorrel
	<i>Rumex crispus</i>	curly-leaved dock
	<i>Sanicula crassicaulis</i> var. <i>crassicaulis</i>	Pacific sanicle
	<i>Sanicula crassicaulis</i> var. <i>bipinnatifida</i>	purple sanicle
	<i>Satureja douglasii</i>	yerba buena
	<i>Saxifraga</i> sp.	saxifrage
	<i>Senecio hesperius*</i>	western senecio
	<i>Senecio macounii</i>	Macoun's clustered senecio
	<i>Sidalcea malvaeflora</i> ssp. <i>elegans</i>	mallow sidalcea
	<i>Silene hookeri</i> ssp. <i>bolanderi</i>	Hooker's pink
	<i>Sisyrinchium bellum</i>	western blue-eyed grass
	<i>Smilacina racemosa</i>	false Solomon's seal
	<i>Thermopsis montana</i>	thermopsis
	<i>Thysanocarpus curvipes</i>	fringepod
	<i>Tonella tenella</i>	small flowered tonella
	<i>Trientalis latifolia</i>	western starflower
	<i>Trifolium dubium</i>	clover
	<i>Trifolium eriocephalum</i>	woolly-headed clover
	<i>Trifolium variegatum</i>	clover

D *Triteleia howellii* x *Triteleia multiflora*
Veronica sp.
R *Vicia americana*
Viola adunca
Viola glabella
Viola hallii
Viola lobata
A *Wyethia angustifolia*
Zigadenus venenosus

hybrid triteleia
 veronica
 American vetch
 western long spurred violet
 smooth woodland violet
 Hall's violet
 Lobed-leaf violet
 mull's ear
 death camas

F

Shrubs

T

Amelanchier alnifolia
Arctostaphylos columbiana
Arctostaphylos viscida
Ceanothus cuneatus
Ceanothus integerrimus
Ceanothus pumilus
Corylus cornuta var. *californica*
Lonicera hispidula
Lonicera ciliosa
Rhus diversiloba
Rosa gymnocarpa
Rubus discolor
Rubus laciniatus
Symphoricarpos albus
Symphoricarpos mollis

serviceberry
 hairy manzanita
 white-leaved manzanita
 narrow leaved buck brush
 deer brush
 dwarf ceanothus
 hazelnut
 hairy honeysuckle
 ciliate honeysuckle
 poison oak
 little wild rose
 Himalayan blackberry
 cutleaf blackberry
 snowberry
 creeping snowberry

24
Oct
2003

Trees

Arbutus menziesii
Calocedrus decurrens
Fraxinus latifolia
Lithocarpus densiflorus
Pinus jeffreyi
Pinus lambertiana
Pinus ponderosa
Prunus subcordata
Pseudotsuga menziesii
Quercus garryana var. *garryana*
Quercus garryana var. *breweri*
Quercus kelloggii
Salix lasiolepis

Pacific madrone
 incense cedar
 Oregon ash
 tanoak
 Jeffrey pine
 sugar pine
 ponderosa pine
 western plum
 Douglas-fir
 Oregon white oak
 Brewer oak
 California black oak
 willow

D
R
A
F
T

Appendix C: Draft French Flat ACEC Fire Management Plan

TO BE DEVELOPED

24
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2003

**Appendix D: Bird Species List from Breeding Bird Study
in Serpentine Habitat.**

D

R black-throated grey warbler

R MacGillivray's warbler

R Nashville warbler

common flicker

A hairy woodpecker

A pileated woodpecker

olive-sided flycatcher

F Pacific-slope flycatcher

western wood-pewee

tree swallow

T western bluebird

dark-eyed junco

chipping sparrow

24 lazuli bunting

Oct western tanager

2003 townsend's solitaire

wrentit

plain titmouse

red-breasted nuthatch

Stellar's jay

poor-will

common nighthawk

brown headed cowbird

mourning dove

purple finch

American robin

spotted towhee

mountain quail