CULTURAL RESOURCE INVENTORY STRATEGY PLAN

for the

ROGUE RIVER NATIONAL FOREST
Cultural Resource Inventory Strategy Plan
for the
Rogue River National Forest

Prepared by: Jeff LaLande
Forest Archaeologist
USDA Forest Service
Rogue River National Forest
Medford, Oregon
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Cultural Resource Inventory Strategy Plan
for the
Rogue River National Forest

Prepared by: [Signature]
Forest Archaeologist
January 4, 2000

Reviewed and Recommended by:

[Signature]
Regional Archaeologist
1/10/2000

[Signature]
Recreation Staff Officer
1/20/2000

[Signature]
Oregon SHPO Archaeologist
FEB 03 2000

Approved by:

[Signature]
Forest Supervisor
1/20/00
This Cultural Resource Inventory Strategy Plan is designed to guide the archaeological and historical field inventory efforts on the Rogue River National Forest.

This document is virtually identical in format and overall approach to the original inventory strategy plan approved in 1990 (LaLande 1990b), which the Forest employed through the end of the twentieth century. The current plan has been updated to reflect survey-acreage and site-inventory attainments through 1999, and it incorporates other new information. The basic inventory strategy remains essentially the same as that developed in the 1990 plan, but with a clarified provision for ongoing resurvey of high-probability land-types prior to future ground-disturbing projects.

During the 1990s, extensive monitoring of the effectiveness of the 1990 strategy, by means of large-scale surveys of numerous roadside salvage sales and other projects in a wide variety of terrain, demonstrated that the original plan’s classification and ranking of land-types into “high”- and “low”-potential for containing significant cultural resources remains sound. If anything, the 1990 plan proved overly cautious in its identification of certain “high-potential” and “medium-potential” land-types, which have proved not to contain substantial cultural evidence; the 2000 plan, however, retains that cautious approach.

Although not a determining factor in the decision to continue to apply the original strategy, the Forest’s cultural resource technician cadre has indicated that the 1990 plan proved to be a practical and effective field guide to accomplishing their on-the-ground survey coverage. Careful field work over the years by motivated and competent cultural resource technicians has resulted in the bulk of the cultural resources found and documented on the Rogue River National Forest. Cultural resource technicians will continue to play a key role in successful implementation of the Forest’s inventory strategy.
SUMMARY

This Cultural Resource Inventory Strategy Plan provides direction for cultural resource inventory projects on the Rogue River National Forest during the 2000s.

The Plan gives a brief overview of the environment and cultural background of the Forest; it describes the various kinds of cultural (or heritage) resources found on the Forest; it divides the Forest into ten different "land-types"; it ranks these land-types as to their probability for containing significant cultural resources; and it sets forth the field-survey methods to be used in these land-types.

The Plan's inventory strategy uses a scheme that classifies the Forest into "high," "medium," and "low" probability land-types, based on their demonstrated/expected potential for containing cultural evidence. Survey intensity, "second entry" coverage, and other aspects of on-the-ground search efforts are defined, and specific direction is given for survey techniques and post-survey documentation.

Accomplishments will be monitored in the field on a regular basis, and periodic reassessment of the Plan may lead to modification of the current cultural resource inventory strategy. In doing so, the Plan is intended to remain a useful management tool beyond the year 2010.
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I. INTRODUCTION

A. Purpose and Scope

The purpose of this inventory strategy plan is to guide, beginning in the year 2000, the efforts of field personnel (be they Forest Service employees or private contractors) in the search for cultural resources on the Rogue River National Forest. Past human activity in the mountainous sections of southwestern Oregon and northern-most California occurred for specific reasons (for example, the need for food, the mining of valuable minerals, the care of livestock, the harvest of timber). That human presence left behind evidence -- called cultural, or heritage, resources -- that reflects the geographic patterning of those past activities on the landscape.

This plan is meant to be an efficient, comprehensive, and explicit strategy to find heretofore undocumented cultural resources -- the significant places, sites, structures, and objects associated with the Forest's human heritage. The major aim of the inventory strategy therefore is to provide a practical field-guide for cultural resource technicians and other personnel during their survey of project areas on the Rogue River National Forest. It incorporates data from almost 25 years and over 465,000 acres of previous inventory on the National Forest, during which time the Forest Service has located and documented over 1,700 cultural resources -- from isolated prehistoric artifacts such as obsidian projectile points to extensive complexes of structures associated with mining, logging, and recreation use. The inventory strategy plan identifies and defines the various land-types found on the Forest as to their relative potential (high, medium, or low) for containing cultural resources, and it provides prescriptions for on-the-ground search of the various land-type areas.

This plan is not a Cultural Resource Overview; it does not provide comprehensive archaeological chronologies or historical narratives for the National Forest. However this plan does rely on the Forest's C.R. Overview (LaLande 1980, as updated in addendum reports through 1999), as well as on other research publications (see Section VII, Selected Bibliography) and
especially the results of the over 860 project area cultural resource surveys that have been done on the Forest.

This plan concentrates on a strategy designed to locate prehistoric cultural resources. Intensive historical research into a wide variety of sources has yielded a great deal of site-specific information about the location of historic-period resources on the National Forest. The strategy definitely takes into account the need to locate the additional historic sites that remain undocumented on the Forest. However, with the exception of certain kinds of historic features (e.g., small hard-rock mines, hydraulic mining ditches) that occur only in certain portions of the Rogue River National Forest, the standard strategy provided here (which includes direction for the intensive survey of areas where research has indicated most historic sites are likely) should function to find the overwhelming majority of historic resources as well. For those kinds of sites that are suspected to occur in what are otherwise defined as "low potential" areas, additional sampling of those "low potential" areas will be done.

Background: A number of laws and regulations mandate that all federal land-managing agencies inventory the areas under their jurisdiction for cultural resources, evaluate those resources for their historic or archaeological importance, protect significant resources from damage, and enhance those resources for the enjoyment and education of the public. The Forest Service has been conducting cultural resource inventory of lands contained within the Rogue River National Forest since the mid-1970s. In the past, most of this field inventory has been accomplished by means of reconnaissance or survey of specific Forest Service or Forest Service-authorized project areas (e.g., timber sales, range or wildlife habitat developments, road construction, recreational facility developments, prescribed burning, electronic communication site installations and other special use permit approvals).

Since the late 1970s, the selective search of National Forest lands for archaeological sites or historic structures/features has been guided by project-by-project inventory strategy designs that were provided by the Forest archaeologist. It is important to note that the actual areas included in timber sale harvest units or along new road construction routes have been [and continue to be] largely located within land-types that are identified in this plan as "low potential"; however, c.r. reconnaissance of project planning areas has consistently involved substantially larger acreages (entire sub-drainages or other environmentally "logical" areas), which include large portions that are not proposed for ground-disturbing project activities. These broader-scope project planning areas, which typically include "high" and "medium potential" land-types as well, have served as the "sampling universe" for c.r. reconnaissance efforts.

B. Cultural Resource Inventory: Acreage Accomplishments

The first cultural resource surveys on the Rogue River National Forest were undertaken in 1975. Since that time, cultural resource technicians (with the Forest archaeologist directing the project-specific inventory strategy and often personally assisting in the field) have served as the main workforce in the search-phase of c.r. inventory. When sites are found, the Forest archaeologist (or other professional archaeologists under contract) evaluates their significance relative to the
National Register criteria and, when appropriate, provides recommendations for site management.

As of 1999, the cultural resource inventory program has accomplished reconnaissance/survey of over 465,000 acres (i.e., "cleared" acres) out of a grand total of about 628,000 acres of National Forest land in the Rogue River National Forest's land-base (approx. 574,000 acres in Oregon, and about 54,000 acres in California). This effort has involved intensive search of about 136,000 acres. However, due to the Forest's "shelterwood timber harvest" system, the 136,000-acre figure actually includes approximately 25,000 "double-counted" acres (i.e., areas that have been subjected to a second [and in some cases, a third or fourth] phase of intensive reconnaissance/survey). The shelterwood system on the Rogue River National Forest (in which a project area is first searched prior to an "initial harvest entry" and then searched again before the area's "shelterwood overstory" trees are harvested several years later) entailed a "second entry c.r. survey" policy since 1980. Under this policy, the second (and in selected areas, third) round of reconnaissance permits search of areas that typically were heavily obscured by vegetation growth during the initial search; it also allows for re-checking of the earlier inventory strategy's accuracy in identifying high, medium, and low potential acres. Although shelterwood harvesting has declined on the Forest since 1993 due to environmental concerns and government decisions, the second-entry c.r. survey policy remains in force.

C. Cultural Resource Inventory: Sites Found

Currently (i.e., year 2000), approximately 1,700 cultural resources (including isolated artifacts, sites, structures, and discrete major structures/features within historic building complexes) have been field-verified on the Forest as a result of the c.r. inventory program. Over 660 of these are prehistoric resources; in excess of 1,000 date to the historic period. However, these totals are somewhat misleading because of the very inclusive nature of the Forest's inventory. Approximately 420 of the total prehistoric sites are actually isolated, single artifacts. These "isolates" are typically situated in places (e.g., rocky-soiled ridge tops) where no other archaeological evidence seems to occur. Over 520 of the historic sites are either very recent (post-1955) sites or are minor features (e.g., short segments of abandoned Forest Service trail or telephone line). Few if any of these "sites" are potentially significant cultural resources.

Excluding the isolated prehistoric artifacts and the very recent/minor historic resources, the Forest total is about 720 cultural resources (240 prehistoric and 480 historic). The prehistoric resources range from numerous small, sparse lithic scatters to a few large, high density prehistoric sites, as well as several presumed vision-quest features. The wide variety of historic resources reflects the full range of activities on the Forest. Sites include mines, wagon roads, homesteads, logging railroad grades, ranchers' line shacks, early Forest Service guard stations and lookouts, CCC-built shelters, and numerous subsidiary features (ditches, dumps, etc.) associated with historic activities that post-date 1870. (Documented sites associated with earlier [ca. 1850-70] historic activities are very few.)

Most of the 720 cultural resources inventoried to date encompass well under one acre each; several historic Forest Service administrative compounds are between one and three acres in size.
Totalling all of the Forest's cultural resource properties—which include the 1,500-acre Union Creek Historic District and the approx. 4,000-acre Rogue River N.F. portion of the Huckleberry Patch "traditional cultural property" on the Rogue-Umpqua Divide—the Forest's current total "cultural resource acreage" is estimated to be less than 6,500 acres. Based on intensive site survey of most sites and test excavation of a small sample, most of the Forest's prehistoric sites are small in area (< 1 acre), shallow in depth (< 1 meter), and have experienced substantial disturbance from both natural and human causes. Many sites that have experienced long-term natural soil mixing (e.g., due to rodent burrows and uprooting of windthrown trees) have been further affected by tractor logging, road construction, and other activities since the 1950s.

D. The Inventory Strategy Process

The inventory strategy being implemented by this document relies heavily on past inventory results (i.e., the kind of sites that have been found, and the land-types in which they located). However, the "second entry" policy will continue to refine the strategy in the future. In addition, intensive c.r. reconnaissance during the 1990s of large road-side salvage sales (which are located largely in "low potential" land on steep mid-slopes) has been an additional tool for monitoring the strategy's accuracy. Multiple, large-scale salvage sales during that decade involved intensive c.r. survey efforts across extensive areas of both steeply sloping ground and much gentler terrain that is situated greater than 200 feet from water --- i.e., areas classified as "low c.r. potential" ground. The results of these surveys indicate that the inventory strategy design implemented by the Forest in 1990 was successful in identifying the most probable land-types for containing potentially significant cultural evidence.

In the future, if new data (i.e., data resulting from second-entry searches, post-project monitoring, etc.) indicate that appreciable numbers of significant cultural resources are located in certain land-types or in specific sections of the Forest that were previously considered "low potential," project reconnaissance strategies will be modified in order to include systematic inventory of such sites. The inventory strategy will be periodically re-evaluated and updated, as appropriate, in light of current knowledge about the locational attributes of potentially significant cultural evidence.
Figure 1
LOCATION MAP

Rogue River National Forest
Figure 2: Perspective Overview of the Rogue River National Forest
Figure 3
GEOLOGIC-PHYSIOGRAPHIC PROVINCES

Oregon Physiographic Provinces

- Klamath Mountains (Siskiyou Mountain portion)
- Western Cascades
- High Cascades

Volcanic Rocks

Granitic Rocks

Metamorphic Rocks

phyllite
greenstone
peridotite

Rogue River National Forest
Figure 4
FOREST STREAM DRAINAGES
Figure 5: Late-Period Cultural Group "Territories"  
(Approximate boundaries based on ethnographical evidence)
<table>
<thead>
<tr>
<th>Period</th>
<th>Date Before Present</th>
<th>Sites</th>
<th>Representative Archaeological Evidence</th>
<th>Presumed Subsistence/Settlement Pattern</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paleo-Indian</td>
<td>12,000-9,000 B.P.</td>
<td>A very few isolated, surface artifacts</td>
<td>Diagnostic artifact: fluted (&quot;Clovis&quot;) projectile point; elsewhere in Pacific Northwest sites of this period associated with extinct mammals and pluvial lakeshores.</td>
<td>Presumed long-range (?) nomadic lifeway based on hunting of megafauna; probably some generalized hunting/gathering as well.</td>
<td>Well-documented elsewhere in western U.S.; knowledge of this putative local period will depend on the existence and study of as-yet undocumented site(s).</td>
</tr>
<tr>
<td>Early Archaic</td>
<td>9,000-4,000 B.P.</td>
<td>Marial (lower Rogue R., r-c dated at 8560 B.P. +/-190 years; Squaw Creek (n. Calif. r-c dated at 6,530 B.P.); Applegate sites JA52 and JA53.</td>
<td>Large wide-stemmed projectile points (&quot;Horax Lake&quot; stemmed, &quot;Windust&quot;-like points); large side-notched (&quot;Bitterroot&quot;-like points); large foliate (&quot;Cascade&quot; or &quot;leaf-shaped&quot;) points; edge-ground cobbles; grinding slabs.</td>
<td>Use of atl-atl for hunting continues; development of a generalized hunting and gathering economy based on changing post-glacial climate/environment; pit-houses?: &quot;Allithermal&quot; (hot/dry period) may have stimulated new adaptations (acorn focus?) around 7,000-4,000 B.P.; &quot;central-based wandering&quot; pattern develops.</td>
<td>Salmon fishing documented for elsewhere in Pacific N.W. by 9,000 B.P.; Mt. Mazama eruption (6,000 B.P.) probably had catastrophic, temporary local effects (e.g., salmon runs). Period probably witnessed intensive experimenting with local flora and other resources; Hokan-speakers predominant?; relatively small populations; (Connolly's &quot;Glade Tradition&quot;).</td>
</tr>
<tr>
<td>Middle Archaic</td>
<td>4,000-1,500 B.P.</td>
<td>Marial (r-c dated at 2810 B.P. +/-50 years); Applegate sites JA47 and JA49; Lost Creek, Elk Creek, Gold Hill sites.</td>
<td>Variety of medium-to-small, stemmed-and-shouldered points; ovate (&quot;Gold Hill&quot; or &quot;Excelsior&quot;) points; awl stones (bi-polar lithic reduction?); multi-purpose ground-stone tools, and bowl mortar common.</td>
<td>Hunting/gathering (acorns, camas) combined w/ increasing reliance on anadromous fish; adaptation to post-Allithermal climate; pit-houses?: refinement of basketry styles based on ethnic identity?, use of bow-and-arrow by end of period.</td>
<td>Aside from Marial, no local radiocarbon dates for this period; arrival of Penutian-speakers from interior Pac. N.W.?; bison-hunting documented at Nightfire Island in upper Klamath Basin; development of obsidian and other trade networks.</td>
</tr>
<tr>
<td>Late Archaic</td>
<td>1,500-200 B.P.</td>
<td>Gold Hill, Lost Creek, Elk Creek, Applegate River, Klamath River canyon, Emigrant Lake sites.</td>
<td>Small, triangular projectile points (&quot;Gunther barbed,&quot; &quot;Desert side-notched&quot;), circular and rectangular (?) semi-subterranean plank houses; meat lodges; hopper mortar bases; bone awls/antler wedges; steatite smoking pipes; crude ceramic wares and figurines; carved slate zoomorphic &quot;clubs&quot;; large obsidian blades (wealth display items and burial goods); twined basketry with geometric designs.</td>
<td>Bow-and-arrow replaces atl-atl; riverine-oriented winter villages with transhumance patterns in uplands during warm seasons; wide-spectrum hunting/gathering/fishing, w/ focus on deer/elk, acorn/camas, salmon; manipulation of vegetation through use of fire; development of ethnographic territories and &quot;pre-Formative&quot; adaptation involving intensive resource utilization.</td>
<td>Arrival of intrusive Algonkian/Athapascan speakers; dominance of the &quot;Lower Klamath Culture Area&quot; with emphasis on wealth accumulation and annual rituals; development of tobacco horticulture; expanding populations and increased trade, warfare and other intergroup contact; (Fredrickson's &amp; Connolly's &quot;Gunther Pattern&quot;).</td>
</tr>
<tr>
<td>Protohistoric</td>
<td>A.D. 1790-1850</td>
<td>Applegate site JA42; Rogue River village near Gold Hill (Ogden 1961).</td>
<td>Small projectile points made from Euro-American bottle glass; metal tools; glass trade beads; rectangular plank houses.</td>
<td>Continuance of previous lifeways, but with addition of iron, gunpowder and (by 1830-40) the horse; indirect trade via coast replaced by 1830 with direct contact (Hudson's Bay fur brigades, Fort Umpqua).</td>
<td>Increased interaction (trade and warfare) with Euro-American trappers/explorers; Rogue River Indian Wars of 1851-56 and aboriginal occupation of area.</td>
</tr>
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II. ENVIRONMENTAL AND CULTURAL SETTING

A. Section Overview

This section provides a brief introduction to the dominant environmental characteristics of the Rogue River National Forest. More specific information is contained in the Final Environmental Impact Statement for the Forest's Land and Resource Management Plan (Rogue River National Forest 1990), the Forest's Cultural Resource Overview (LaLande 1980), and several environmental histories (e.g., LaLande 1995).

The Rogue River National Forest is located in southwestern Oregon and extends into northernmost California; it contains a total of approximately 626,000 acres, divided between two separate sections. Over 400,000 acres are located in Jackson County, Oregon; the remaining acreage is situated in Douglas, Josephine, and Klamath counties, Oregon, and in Siskiyou County, California. Adjacent to the Rogue River National Forest are the Umpqua, Winema, Klamath, and Siskiyou National Forests.

The Rogue River National Forest comprises the forested uplands of the upper Rogue River drainage. Aside from minor acreages in scattered parcels, the majority of the National Forest is situated over 2,000 feet above sea level in elevation. The Forest "surrounds" the Rogue River Valley, a lower elevation area where -- due to its river fisheries, oak groves, camas fields, plentiful habitat for large mammals, gentle topography, and relatively mild climate -- most aboriginal settlement took place. Archaeological surveys and other information tend to support the ethnohistoric and ethnographic record that most of the large, semi-permanent native villages of the late prehistoric period were located in lower elevation valley areas that are situated well outside of the National Forest, particularly along the Rogue River and its major tributaries.

The National Forest by and large consists of an "upland" environmental setting where -- because of steep mountainous terrain, snowfall/snowpack, short growing season, and other factors -- prehistoric uses such as hunting and gathering would have occurred largely during the warmer months of the year. Elevations of the National Forest range from below 2,000 feet in a very few areas to almost 9,500 feet (at the summit of Mt. McLoughlin, the highest point in southwestern Oregon). However, by far the largest portion (over 90 percent) of the Forest is heavily forested, mountainous terrain situated between 3,500 and 6,500 feet in elevation. Based on ethnographic and archaeological evidence, it is assumed (a) that throughout prehistory, most aboriginal use of what is now the Rogue River National Forest occurred from spring through autumn by small, extended family or task-specific groups, and (b) that most prehistoric archaeological sites on the Forest therefore resulted from activities by such groups, or by individuals belonging to such groups.

Likewise, during the historic period most settlement and other human activity has been concentrated in the Rogue River Valley and in adjacent, agriculturally suitable valleys (e.g., Applegate Valley, Little Butte Creek basin, etc.) that are situated below 2,000 feet in elevation.
The National Forest, in contrast, has been the scene of a wide variety of historic activities--mining, grazing, logging, recreational use, and so on--that have tended to be seasonal in nature, and most of the habitation sites associated with these activities can be typified as "temporary occupations," not as permanent settlements. As with prehistoric sites, environmental setting has helped to determine the kinds of historic sites found on the Forest.

The Rogue River National Forest comprises two separate sections, located in the two mountain systems which bound the Rogue River Valley: the Siskiyou Mountains (a sub-range of the larger Klamath Mountains system) and the Cascade Range. However, the Forest can be divided into three major geographic units for more detailed environmental description: Siskiyou Mountains, Rogue-Umpqua Divide, High Cascades. Partially because of their differing geological, geomorphic, hydrological, and vegetational characteristics, these three units experienced different cultural use patterns.

B. Siskiyou Mountains

The Siskiyou Mountains portion of the National Forest consists of all of the Forest located south of the Rogue River and west of the main Rogue River/Bear Creek Valley basin. This unit includes all of the Applegate Ranger District and the western half of the Ashland Ranger District.

Geology: The Siskiyou Mountains (a sub-range of the Klamath Mountains geologic-physiographic province) are composed of metamorphic and intrusive rocks dating from the late Paleozoic through the Mesozoic Eras (about 500 to 65 million years ago). The metamorphic rocks vary from slightly to highly altered meta-sediments and meta-volcanics that are associated with "island arc" geological processes along the margins of an ancient continent; such rocks include schist, phyllite, gneiss, amphibolite, marble and greenstone, as well as extensive bodies of ultra-mafics (peridotite and serpentinite). The intrusive rocks are largely the result of Jurassic Period magmatic intrusions; rocks include granite, granodiorite, quartz diorite, and gabbro.

The Siskiyou Mountains do not contain sources of high quality cryptocrystalline silica; obsidian deposits are also absent from the unit. The geologic processes that formed the rocks of the Siskiyous resulted in the emplacement of gold, antimony, copper, mercury, chrome, and other metallic ores; these tend to be associated with particular rock-types and are localized within certain drainages (e.g., copper ores in Elliott Creek/Squaw Creek drainages; antimony ore in Kanaka Gulch; chromite in peridotite/serpentinite areas; etc.). Alluvial gold placer deposits are distributed along numerous lower elevation streamcourses of the Applegate River system.

Geomorphology: The complex geology of the Siskiyous, combined with recurring uplift and erosional cycles during the Cenozoic Era (65-2 million years ago), has resulted in an area of very rugged terrain. Mount Ashland (7,533 feet a.s.l.) is the highest peak in the unit (and the highest point in Oregon west of the Cascade Range). Although no peaks rise above 8,000 feet in elevation, elevational changes from under 2,000 feet to over 6,000 feet within a horizontal distance of 6-8 miles are common. The erosional effect of Pleistocene glaciation (i.e., during the last 2 million years) has been very limited (e.g., small cirques and moraines at the summit of Mt. Ashland, head of Silver Fork Basin, Red Mountain, Red Buttes, and other high points along the
Siskiyou Crest). Instead, the parallel drainage pattern (generally trending east-west), aided by the effects of mass-wasting (e.g., debris avalanches and large landslides), has created a topography that is characterized by numerous deeply incised, east-west canyons enclosed by steep ridges.

Well over five-sixths of the unit's total land area consists of slopes in excess of 30 percent. Level terrain is largely limited to small areas of alluvial terraces along major streams and to narrow "bands" along the summits of major ridge-crests. The "Siskiyou Crest," the watershed divide between the Rogue (Applegate) and Klamath River drainages, forms the southern boundary of this unit of the Forest; it has numerous "saddles" which provide limited areas of level to gently sloping ground.

Climate and Hydrology: Overall, the climate of the Siskiyou Mountains portion of the Forest is characterized by mild, moist winter seasons and hot, dry summer seasons. Lower elevations tend to have the mildest winters and the hottest summers; at higher elevations the winter snows can accumulate to great depths and the summers tend to be much cooler than in the lower canyons. The Applegate River is the major stream of the area; all creeks either flow into the Applegate or into Bear Creek (located immediately to the east of the Siskiyou Mountains unit). Major tributaries of the Applegate River (e.g., Little Applegate River, Palmer Creek, Beaver Creek, Squaw Creek, Carberry Creek, Elliott Creek) and Bear Creek (Wagner Creek, Ashland Creek, Neil Creek) are high-gradient streams that periodically experience severe, erosive floods. The Siskiyou Mountains have many seasonal/ephemeral drainages that contain surface water only during the winter or spring. Along ridge-crests, the only sources of water are occasional springs (typically located on north or east aspect slopes, near to the ridge-crest). The highest elevations of the unit are dotted with occasional lakes in glacial cirque basins (e.g., Monogram Lakes, Azalea Lake); the Squaw Lakes, formed by landslide dams along Squaw Creek, are the only low elevation lakes.

Vegetation and Wildlife: Because of elevational changes and distinctive differences in soil-types, the vegetation communities of the Siskiyou Mountains are quite diverse, ranging from "interior valley" brushfields and oak groves on low elevation, southwest aspect slopes to subalpine forest/meadow mosaic along the Siskiyou Crest. Most of the unit is covered by mixed conifer and true fir forest communities, with riparian communities along major streams and scattered meadows (moist and dry varieties) as lesser-acreage components. Dominant species in these two major vegetation-type communities are Douglas-fir (Pseudotsuga menzeisii), ponderosa pine (Pinus ponderosa), sugar pine (P. lawsoniana) incense-cedar (Calocedrus decurrens); and white fir (Abies concolor), Shasta red fir (A. magnifica shastensis), mountain hemlock (Tsuga mertensiana) respectively. Oregon white oak (Quercus garryana) and California black oak (Q. kelloggii) are common at low elevations, as are canyon live oak (Q. chrysolepis), manzanita (Arctostaphylos patula), madrone (Arbutus menziesii), and other species with edible nuts or berries. Unlike that portion of the Siskiyou Mountains located to the west of the Rogue River National Forest (i.e., within the Siskiyou and Klamath National Forests), the eastern Siskiyous do not contain groves of tanoak (Lithocarpus densiflorus), a favored acorn source of local native groups. Also, unlike the higher elevations of the Cascade Range, the eastern Siskiyous currently do not contain extensive huckleberry patches (Vaccinium spp.). Important edible plants found in the mixed conifer and true fir communities of the unit include serviceberry (Amelanchier spp.) and beargrass (Xerophyllum tenax). These understory species are found widely dispersed throughout the forest (however, concentrations of beargrass, which are
ethnographically documented as important gathering areas, do occur on the upper slopes of Wagner Butte and Red Mountain). Due to a number of interrelated environmental factors, the Siskiyou Mountains are known for their diversity of vegetation communities (e.g., those associated with peridotite/serpentinite soils) and for containing a number of rare and endemic plant species.

Prior to the late nineteenth century, the Siskiyou supported herds of black-tailed deer, Roosevelt elk, and small bands of bighorn sheep; a wide variety of rodents, from squirrel to beaver, comprised the smaller herbivorous mammals. Grizzly bear, black bear, timber wolf, coyote, mountain lion, bobcat, and various members of the weasel family were the main predators. Raccoon and ringtail cat were also present.

Major streams of the unit supported native and anadromous fish. Based on historical testimony, the pre-1900 salmon/steelhead runs of the eastern Siskiyou were far greater in numbers and extent than in recent decades. Most of the permanent, larger streams would have supported anadromous fish runs.

Prehistoric Cultural Patterns: Several Early-to-Late Archaic Period village/camp sites are documented for major alluvial terraces of the upper Applegate River (all located on formerly private land; now within the Applegate Reservoir project area); these sites include numerous ground-stone and chipped-stone tools (including a full chronological sequence of temporally-diagnostic projectile points), debitage, very fragmentary faunal remains, as well as occasional carved schist discs and ceramic figurines. Aside from these few, relatively "rich" sites along the Applegate River, the Siskiyou Mountains unit of the Forest contains prehistoric site-types that indicate seasonal hunting, gathering, and very limited fishing (e.g., Squaw Lakes site) in the upland forested environment. Most sites are either isolated artifacts or small, sparse lithic scatters (obsidian predominating or at least forming over 25% of the lithic debitage), with occasional ground-stone tools found near ridge-top saddles. One lithic scatter near Mt. Ashland contained a carved-stone zoomorph figurine fragment (possibly a ceremonial object or shamanistic item). An unusual (and presumably prehistoric) item, found in an isolated context, is a carved soapstone "egg"; this artifact was located in a semi-concealed rock overhang near the summit of Red Buttes.

The Siskiyou Mountains contain a few deposits of low-grade chert as well as meta-volcanic rocks which have been used for the making of large stone tools such as choppers. However, tools made from these rock-types tend to occur only in village/camp sites located along main river terraces; elsewhere in the Siskiyous stone tools/debitage are composed almost exclusively of exotic cryptocrystalline silica (nearest natural source: the Rogue River/Bear Creek Valley stream gravels which drain the Western Cascades) and obsidian (major source: Medicine Lake Highland in eastern Siskiyou Co., California, which appears to predominate greatly over upper Klamath Basin obsidian sources [see LaLande 1990]). Most of the ground-stone tools documented for the unit are made from locally available alluvial cobbles (particularly gneiss, pyroxenite, granodiorite); a few found in the eastern portion are of basalt (probably obtained from alluvial deposits in the Bear Creek Valley). Serpentine areas such as that along the crest of Elliott Creek Ridge, contain soapstone deposits; a very few carved soapstone artifacts (e.g., pipes) have been found at the larger sites along the Applegate River.
Primary site locations are: alluvial terraces along the lower courses of major tributary streams (e.g., Beaver Creek, Palmer Creek); ridge-crests/saddles (within 1/4 mile of a spring) of major ridge systems either on or leading to the Siskiyou Crest; and moist meadows within one mile of the Siskiyou Crest. This pattern may indicate that aboriginal use in the unit concentrated along the lower streams (travel, fishing) for brief periods, along the summits of ridges (for hunting/gathering and for easier travel to the highest elevations), and in the Siskiyou Crest "forest/meadow mosaic zone" during much of the summer season (for hunting/gathering as well as for obsidian trade with groups visited from the south). Other than isolated artifacts, virtually no prehistoric sites are documented for the steeply sloping terrain which comprises by far the largest portion of the Siskiyou Mountains unit.

Aboriginal cultural groups known to have claimed or seasonally used territory in the eastern Siskiyou Mountains include: Shasta, Upland Takelma, River Takelma, Dakubetede (the Applegate Athapascans), and Karok. The groups that would have occupied areas within the Rogue River National Forest were the Shasta (i.e., the southeastern portion of the unit, in the Bear Creek Valley tributary drainages and the Siskiyou Crest zone between Mt. Ashland and Red Buttes) and the Dakubetede (the remainder of the unit).

Historic Cultural Patterns: The historic period began in the eastern Siskiyou Mountains during the late 1820s and early 1830s, with the arrival of small groups of itinerant fur trappers employed by the Hudson's Bay Company; early trapping activities left little or no documented physical evidence in the unit. Intensive historic period activities in the Siskiyou Mountains began in 1852, with the discovery of gold.

Thousands of miners arrived during the 1850s and 1860s to work the stream-gravel placers. Most evidence of this period has long since been obliterated by successive phases of mining or by erosive floods. During the 1870s-1880s in particular (but extending into the early twentieth century) large-scale placer operations, utilizing hydraulic mining technology, created numerous and long-lasting cultural features along the lower elevation slopes and stream terraces of the Applegate River drainage (e.g., ditches, reservoirs, extensive "washing pits" where the mining occurred, massive deposits of rock tailings). Subsequent to about 1860 lode (or "hard-rock") mining occurred in the unit at numerous locations; gold, cinnabar, copper, and (after 1916) chromite were the primary ores. Most of this activity was very short in duration, leaving behind scattered cultural features typical of small-scale prospecting and underground mining: prospect pits, adits, seasonal habitation structures (generally log or shake-over-pole cabins) and associated dump-scatters. Small lode mining sites tend to be found along ridge-tops or mid-slopes. The relatively few medium-to-large lode operations (which include small-size mines that operated for several decades) typically date to after 1900 and are localized in a few heavily mineralized locales of the unit (e.g., the Blue Ledge copper mining area of Elliott Creek, the gold mining area of Steamboat Mountain); these relatively well-documented mines include extensive subterranean excavations as well as ore milling sites (arrastras, stamp mills) and associated habitation sites. Due to the high price of gold during the 1930s, numerous placer and lode mines became active in that decade. The majority of the Forest's documented, physically-intact mining sites date to this "Depression Era" mining boom, when many unemployed individuals came to the Siskiyou Mountains with the hope of economic survival through small-scale gold mining.

During the late nineteenth and early twentieth centuries agricultural settlement in the river valleys (i.e., on parcels of land that became privately owned) resulted in the building of irrigation
ditches and other features on adjacent National Forest land. Many local residents primarily raised livestock, grazing their herds on the high elevation meadows each summer; "line shacks," pole corrals, salt logs, spring enclosures, and related features testify to this activity. Unlike the High Cascades unit of the Rogue River National Forest, the Siskiyou Mountains unit contains very few homestead sites dating to the 1890-1920 period (i.e., the area was not the focus of "agricultural" claims encouraged by the Forest Homestead Act of 1906 or other land settlement legislation). Hunting and other seasonal subsistence/recreational activities by local residents left numerous small features (camps, hunting blinds, etc.) throughout the unit.

After 1905 Forest Service management of what is now the Applegate and (western portion of) the Ashland Ranger Districts resulted in the construction of ranger stations (e.g., the 1911 Star Ranger Station building, listed on the National Register of Historic Places), guards stations, fire lookouts (Dutchman Peak Lookout, listed on the NRHP), telephone lines, trails, and other administrative features. (The location of such features are generally well-documented in historic records.) During the Great Depression the Forest Service used Civilian Conservation Corps crews to build many other such features (e.g., the 1936 Star Ranger Station building, Squaw Peak Lookout, both listed on the NRHP), in addition to campgrounds (including two rustic-style picnic shelters, McKee and Wrangle, that are also now NRHP-listed) and roads into the higher elevation sections of the unit.

Post-World War II recreation activities focused on traditional camping areas (e.g., river and stream terraces, the Siskiyou Crest "high country" meadows), with new site development along the Applegate River (including Applegate Lake reservoir) and at Mount Ashland.

Aside from very limited pre-World War II timber harvest near mines and ranches, logging came relatively late to the unit. The first commercial timber sales date to the mid-1940s, after road systems into the rugged terrain permitted log hauling by means of trucks. Outside of Red Buttes Wilderness (designated by Congress in 1984), other smaller portions of the Siskiyou Crest, and isolated roadless areas, the entire unit is heavily loaded; timber harvest units, logged by means of skyline yarding systems since the 1960s are plentiful on the steep slopes.

C. Rogue-Umpqua Divide

The Rogue-Umpqua Divide portion of the National Forest consists of almost all of the Forest located west of the upper Rogue River (exclusive of the Sherwood Butte/Sherwood Creek vicinity, which is the northern-most part of the High Cascades unit). This unit includes the western portion of the Prospect Ranger District.

Geology: The Rogue-Umpqua Divide unit is situated entirely within the Western Cascades geologic-physiographic province. The Western Cascades are composed of volcanic rocks dating to the Cenozoic Era (Eocene through Miocene Periods, about 50 to 10 million years ago). These volcanic flows, pyroclastics, and redeposited volcanic sediments are associated with the early buildup of the Cascade Range. The rock-types include andesitic flows, agglomerates, tuff (ash) deposits, and remnant basalt flows.
The Western Cascades contain abundant, localized sources of high quality cryptocrystalline silicate ("jasper, agate, chalcedony, opaline, chert"). In the Rogue-Umpqua Divide unit these occur as occasional sizable bedrock outcrops (e.g., on Elkhorn Peak and Quartz Mountain) and as numerous small nodule/vein emplacements (e.g., along ridges near Knob Hill). Cryptocrystalline silicate (CCS) also occurs as cobbles/pebbles in the alluvial gravels of streams which drain these areas. Economically valuable mineral deposits are rare; low-grade gold ore occurs in the Elk Creek drainage and sulphur deposits are found in the Foster Creek drainage.

**Geomorphology:** The older, highly fractured, and easily eroded nature of the Western Cascades' volcanic rock-types has created an area of very steep terrain. Some of the unit's streams (e.g., Bitterlick Creek) have carved deep canyons into the volcanic deposits. The basalt along the crest of the Rogue-Umpqua watershed divide was originally deposited as flows that filled ancient canyon bottoms, but (because basalt is much more erosion-resistant that the adjacent rock-types) it now forms the summits of major peaks and ridges (i.e., the softer rocks which comprised the ancient canyon slopes have long since eroded away, leaving the basalt-filled "canyon bottoms" as the present-day peaks and ridge-crests). Because of its lower elevation and generally south aspect, the unit has been little affected by glaciation. The highest point in the unit is Fish Mountain (6,783 feet a.s.l); other dominant peaks along the actual Rogue-Umpqua watershed divide (Abbott Butte, Hershberger Mountain) also rise above 6,000 feet. The lowest elevations (below 1,500 feet) occur in scattered parcels of National Forest land in the Trail Creek/Elk Creek vicinity.

Similar in character to the Siskiyou Mountains in terms of relief, well over four-fifths of the Rogue-Umpqua Divide unit's land area consists of slopes in excess of 30 percent. The unit's dendritic drainage pattern, aided by the effects of mass-wasting (large landslides), has created a complex topography that is characterized by numerous deeply incised canyons enclosed by steep ridges. Rock outcrops include naturally-formed "rock shelters" or shallow caves, but few of these are located near water sources. Level terrain is largely limited to alluvial terraces along major streams (e.g., Woodruff Creek, Abbott Creek) and to the narrow "summit bands" of major ridge-crests. The Rogue-Umpqua watershed divide forms the northwestern boundary of the unit; it has numerous "saddles" that provide limited areas of level-to-gently sloping ground.

**Climate and Hydrology:** The climate of the Rogue-Umpqua Divide unit is characterized by mild, moist winter seasons and hot, dry summer seasons. As with other portions of the Forest, lower elevations tend to have the mildest winters and the hottest summers; at higher elevations the winter snows can accumulate to great depths. Forming much of the eastern boundary of the unit, the upper (or "North Fork" of the) Rogue River follows a generally turbulent course through a gorge-like channel for much of its length. Major tributaries of the upper Rogue River that drain the unit (e.g., Trail Creek, Elk Creek, Abbott Creek, Flat Creek) are high-gradient streams that periodically experience severe, erosive floods. These drainages also contain numerous seasonal/ephemeral streams that carry water only during the winter or spring. Small permanent springs provide the only dependable water along the main Rogue-Umpqua Divide and spur ridges to the south; the unit does not contain any lakes.

**Vegetation and Wildlife:** The vegetation communities of the Rogue-Umpqua Divide are less diverse than those of the Siskiyou Mountains. A few small oak groves (and associated dry

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meadows) and brushfields are scattered at low elevations. Most of the unit is covered by dense mixed conifer and true fir forest communities. Nearly impenetrable thickets of riparian vegetation, particularly vine maple (*Acer circinatum*) and alder (*Alnus* spp.), grow along most of the unit's flood-prone stream courses. The Rogue-Umpqua Divide is near the southern-most range of some plant species (e.g., Pacific rhododendron [*Rhododendron macrophyllum*], Alaska yellow cedar [*Chamaecyparis nootkatensis*], making the unit somewhat vegetationally distinct from and more diverse than the High Cascade forests immediately to the south. Douglas-fir, ponderosa pine, sugar pine, incense-cedar, white fir, noble/Shasta red fir, and mountain hemlock predominate. California black oak, Pacific madrone, and big-leaf maple are the major hardwood understory trees (live oak is virtually absent). The main Rogue-Umpqua Divide supports an extensive meadow/forest mosaic, with camas (*Camassia quamash*) in moist openings and thin-leaf huckleberry a major component of the forest understory from Butler Butte to Fish Mountain. Chinquapin (*Castanopsis chrysophylla*) occurs in nearly pure stands in a few areas. Other important edible plants (serviceberry, beargrass, manzanita) are found widely dispersed throughout the forest.

Except perhaps for the absence of bighorn sheep and ringtail cat, the Rogue-Umpqua Divide supported the same animal species as the Siskiyou Mountains. Because of the very cold water temperatures and lack of adequate nutrients, many of the streams of the unit do not support significant populations of “normal”-sized adult native fish. Obstructions along the upper Rogue River keep anadromous fish from traveling upstream of Prospect; Elk Creek, however, continues to support a natural anadromous fishery.

**Prehistoric Cultural Patterns:** Intensive archaeological study has occurred immediately south of the Rogue-Umpqua Divide unit, in the lower Elk Creek Valley. Beginning in the late 1960s and continuing intermittently through the 1980s, prehistoric sites located within the Army Corps of Engineers’ Elk Creek Reservoir project area have been investigated. For the most part, these sites (located several miles from the nearest National Forest land) appear to represent Late Archaic Period housepit villages and seasonal camps; artifacts show evidence of stone and bone tool manufacture, food preparation, and hunting/gathering activities. Local cryptocrystalline silicates form the dominant portion of tool-making debris. Ceramic vessels and human burials were encountered within/adjacent to some housepit depressions (see Pettigrew and Lebow 1987). In the adjacent uplands of the Rogue-Umpqua Divide unit, site-types indicate seasonal hunting, gathering, and possible "vision-quest" religious activities as well. Several lithic scatters encompass at least one acre and have surface densities of over 10 items per 4 square meters. Most sites, however, are isolated chipped-stone tools or small lithic scatters, with occasional isolated ground-stone tools found near oak grove openings. A putative "shaman cache" site, with chipped stone figurines and other unusual objects, has been reported for the high elevations of the unit, but the authenticity of this find is in question (Moore 1977).

The Rogue-Umpqua Divide contains abundant primary and secondary (i.e., alluvial gravel) sources of high-grade cryptocrystalline silica; the predominant debitage (i.e., over 90% of surface items) at most sites in the unit consists of this kind of material; evidence of heat treatment is very common. Several CCS quarry sites have been documented for the unit; these are places where deposits were used for making "blanks," with further reduction into tools probably occurring elsewhere. Some large chopping tools found at sites in the unit were made from welded tuff, available in several locations within the unit. Obsidian from both Medicine
Lake Highland and the upper Klamath Basin sources was used by inhabitants of the unit (see LaLande 1990, Pettigrew and Lebow 1987). Most ground-stone tools found in the unit were made from locally available basalt/andesite cobbles.

Primary site locations are: alluvial terraces along the lower courses of major streams (e.g., Woodruff Creek); ridge-crests/saddles (within 1/4 mile of a spring) of major ridges either on or leading to the main Rogue-Umpqua Divide; and moist meadows. Sites are particularly plentiful along or within 1/2 mile of the Rogue-Umpqua watershed divide and in the Woodruff Meadows vicinity near the Rogue River (both of these meadow/forest mosaic areas may have been preferred for summer season hunting/gathering). Other than isolated artifacts, virtually no prehistoric sites are documented for the steeply sloping terrain which forms by far the largest portion of the Rogue-Umpqua Divide unit. Several lithic scatters have been found on small, level "benches" that are located on otherwise very steep slopes; these sites are less than 1/4 mile from springs and/or moist meadows.

Aboriginal cultural groups known to have claimed or seasonally used territory in or adjacent to the Rogue-Umpqua Divide unit include: Upland Takelma, Southern Molala, and Upper Umpqua. The Klamath may have occasionally entered the unit from their upper Klamath Basin home territory well to the east.

Historic Cultural Patterns: The historic period began in the Rogue-Umpqua Divide vicinity during the late 1820s and early 1830s, with the arrival of small groups of trappers. The Umpqua Valley in particular became a favored trapping territory for these predominantly French-Canadian employees of the Hudson's Bay Company, and some of them may have been the first to explore the high elevation streams of the area. However, other than a March 1827 foray to the upper Rogue River (at least as far upstream as Prospect [LaLande 1987b]), no such visits are documented for the Rogue-Umpqua Divide unit. Early trapping left little or no physical evidence.

Southwestern Oregon's "gold rush" of the 1850s did not involve the Rogue-Umpqua Divide. Aside from probable prospecting expeditions, the unit did not experience the kind of early mining activity that took place in the Siskiyou Mountains. Beginning in the late 1850s (i.e., subsequent to the conclusion of the local Indian Wars), the first sustained use of the area was by Rogue Valley and Umpqua Valley residents, who hunted, picked huckleberries, and grazed livestock along the watershed divide. Small camps, a network of trails, and other features resulted from these activities. Aside from scattered parcels along Trail Creek and Elk Creek, the unit is situated sufficiently far from agricultural settlements so that no irrigation ditches were built. Between the 1890s and 1914 a very few "agricultural" homestead claims were located in the unit. Most of these homesteads were claimed with the intention of gaining ownership to timberland; cabins and other improvements tended to be only the minimum required by law. Intermittently during the late nineteenth and early twentieth centuries, lode mining for gold and other ores took place at the Buzzard (later called Al Sarena) Mine on Elk Creek. Less than half a dozen other, very small and short-lived lode mining (gold, sulphur, uranium) operations took place within the unit between 1930 and 1960.

After 1905 Forest Service management of what is now the western part of the Prospect Ranger District resulted in the construction of guard stations, fire lookouts (including Hershberger Mountain Lookout, listed on the National Register of Historic Places), telephone lines, trails, and
other administrative features. Because of its commercially valuable stands of sugar pine, during
the 1930s the Prospect Ranger District served as a target area for the Forest Service's "Ribes
eradication" program (an effort to stop the spread of the blister rust disease). Also during this
time the Civilian Conservation Corps was employed in building roads, trails, and lookouts (e.g.,
Mt. Stella Lookout, listed on the NRHP) in the Rogue-Umpqua Divide area. In 1936 the Soil
Conservation Service built the snow survey cabin at Whaleback Mountain (listed on the NRHP).

Post-World War II recreation use of the unit has included dispersed, "backcountry" activities
such as hunting, with camps at a few traditionally popular spots near the Rogue River or the
watershed divide. The only developed recreation facilities in the unit are at Abbott Creek, near
Woodruff Meadows.

Aside from very limited pre-World War II timber harvest near homesteads, logging came
relatively recently to the unit. The first commercial timber sales date to the late 1940s and early
1950s, after extensive road systems into the rugged terrain permitted log hauling by means of
trucks. Most of the unit is now heavily roaded. Evidence of post-1950 tractor logging is
common on the lower, gentler slopes of the unit; skyline harvest units (dating to after the 1960s)
are plentiful on steep slopes.

D. High Cascades

The High Cascades portion of the National Forest consists of all of the Forest located east of the
Bear Creek Valley and the Rogue River. It also includes the Sherwood Butte/Sherwood Creek
area north of, as well as the Mazama pumice "flats" adjacent to the west side of, the upper Rogue
River. The unit includes the eastern portion of the Prospect Ranger District, all of the Butte Falls
Ranger District, and the eastern half of the Ashland Ranger District.

Geology: The High Cascades unit is situated almost entirely within the High Cascades geologic-
physiographic province. A very small portion, which includes the North Fork and South Fork
canyons of Little Butte Creek, is situated within the Western Cascades province and has rock-
types like those described previously for the Rogue-Umpqua Divide. In contrast to the older
Western Cascades, the High Cascades are composed of relatively recent volcanic rocks dating to
the later part of the Cenozoic Era (Pliocene, Pleistocene, and Holocene Epochs, about 4,500,000
to 6,800 years ago). This material was deposited during formation of the High Cascades' stratovolcanoes (e.g., Rustler Peak, Devils Peak, Mt. Mazama, Mt. McLoughlin), shield
volcanoes (e.g., Brush Mtn.), cinder cones (e.g., Big Elk), and extensive lava fields (e.g., the
Dead Indian Plateau, Huckleberry Mtn.). The rock-types include lava flow materials (primarily
andesites and basalts) and volcanic ejecta. The latter includes isolated exposures of cinder, as
well as extensive areas of pumice that resulted from the explosion and collapse of Mt. Mazama
about 6,800 years ago. Mazama pumice blankets much of the northern-most part of the unit,
forming a thin mantle over the intra-canyon basalt flows of the Prospect/Union Creek Flat and
filling the "incised pumice canyons" of the upper Rogue River to depths of over 100 feet (e.g.,
Crater Creek, Bybee Creek, Copeland Creek, Castle Creek, and the upper-most reaches of the
Rogue River itself). Extensive lava fields (dating to less than 30,000 years ago) are found on and
surrounding Brown Mountain and at Rye Springs.
Aside from scattered chalcedony veins/nodules exposed in the Western Cascades rock formations of the Little Butte Creek canyons and isolated outcrops near Butte Falls, the High Cascades unit does not contain any cryptocrystalline silicate deposits. No obsidian sources are documented for the unit (however, a scatter of obsidian-like rocks found near Daniel Springs indicates that deposits may occur in this vicinity). In areas of Mazama pumice, fragments of glassy, black dacite are common; although no definite artifacts have been found, this material could have been flaked into choppers and other large tools. The High Cascades unit is not known to contain any economically valuable mineral deposits. Aside from gravel and cinder operations since World War II, the only mining has involved small-scale removal of supposedly gold-bearing Mazama pumice along the upper Rogue River; this activity, dating to the 1950s and 1980s, has not proved economically viable.

**Geomorphology:** Except for several sub-areas mentioned below, most of the High Cascades unit has relatively gentle terrain. Overall, the unit consists of a "rolling" plateau with occasional prominent peaks and canyons. Most of the High Cascades unit is geologically very young; erosional processes simply have not had sufficient time to affect the area's relief to the same degree as in the Siskiyou and Rogue-Umpqua Divide. In addition, the generally resistant nature of the andesite/basalt flows has slowed the effects of stream erosion. Starting at the north end and proceeding south, the High Cascades unit can be divided into the following sub-areas: the Upper Rogue/Mt. Mazama incised pumice canyons, the Prospect/Union Creek "flat," the Huckleberry Mountain plateau, the Middle Fork/South Fork Rogue River plateau (including the glacially-carved, very recent volcanic relief of the Cascades Crest, which forms the Rogue River/Klamath Basin watershed divide), the Big Butte Creek plateau, the Little Butte Creek canyons, and the Dead Indian plateau. Places with steep slopes are found mainly in the incised pumice canyons, the Little Butte Creek canyons, and in portions of the Cascade Crest. The latter area contains several dramatically deep, U-shaped glacial canyons (e.g., Red Blanket, Middle Fork). The highest point in the unit is Mt. McLoughlin (9,495 feet a.s.l.); a number of other peaks along the crest of the Cascades rise to well above 6,500 feet.

Less than one-fourth of the unit has slopes that exceed 30 percent; over one-half the area consists of slopes between 0 and 10 percent. Level terrain is plentiful in the lower elevations; however, water sources tend to be sparse over large areas of the unit and the lava fields present major impediments to travel despite their gentle relief.

**Climate and Hydrology:** The climate of the High Cascades unit, although similar to that of the Siskiyou Mountains and the Rogue-Umpqua Divide units, tends to remain somewhat cooler during the summer seasons due to its higher average elevation. Major streams include the upper Rogue, Middle and South Forks of the Rogue, Big Butte Creek, and Little Butte Creek. In those sections flowing across the level sections of the unit, tributaries tend to have meandering courses. Due to porous rock-types (pumice, vesicular basalt), many streams have subterranean drainage for much of their length, "sinking" and reappearing as surface flows further downstream. Small, permanent springs provide the only dependable water in some extensive areas (e.g., western margins of Mt. McLoughlin). Numerous small lakes occur in the glacial cirque basins of the Cascade Crest. Fish Lake, a lava-dam impoundment at the head of the North Fork of Little Butte Creek, is the largest body of water in the unit.
Vegetation and Wildlife: The vegetation communities of the High Cascades are probably the least diverse of the Forest, in terms of both community variation and species composition. A few oak grove/grassland areas are found on low elevation, south aspect slopes (e.g., Little Butte Creek canyon), but most of the unit is covered by dense mixed conifer and true fir forest communities. Douglas-fir, ponderosa pine, sugar pine, Pacific yew, incense-cedar, white fir, noble/Shasta red fir, and mountain hemlock predominate. Englemann spruce is found on moist soils, whitebark pine at timberline, and lodgepole pine forms dense stands at higher elevations (particularly on Mazama pumice and in burned areas). Pacific madrone and maple are among the most common hardwoods; chinquapin is found in near-pure stands at medium elevations. The poorly-drained nature of much of the unit has helped to create a number of moist meadows (e.g., on the Dead Indian plateau); camas is a common component of the seasonally lush vegetation of such areas. Serviceberry and Pacific dogwood are ubiquitous in the mixed conifer stands. In the true fir communities, huckleberry forms a major understory plant, particularly in places like Huckleberry Mountain, Blue Rock, Twin Ponds, and Robinson Butte.

The High Cascades supported a similar mix of animal species to those found in the other two units. Historical accounts indicate that vast numbers of deer and elk were taken from the vicinity by late nineteenth century hunters. Bighorn sheep almost certainly were present in small numbers along the Cascade Crest, and pronghorn antelope (historically documented as seasonally present within Crater Lake National Park) may have occurred as transient herds travelling between the Rogue River Valley and the Klamath Basin.

The main anadromous fishery within the unit likely would have been lower Little Butte Creek. Some anadromous fish may have ascended the lower reaches of the Middle Fork and South Fork of the Rogue River, but obstructions kept anadromous fish from ascending the Upper (or main fork of the) Rogue above Prospect. Cold water temperatures and downstream obstructions (e.g., Big Butte Creek Falls) probably kept native fish populations in the unit small in numbers and composed of generally small-sized fish. Although most of the high-mountain lakes of the Cascade Crest were originally barren of fish, small populations of native trout apparently were once present in some of the lakes of Blue Canyon basin.

Prehistoric Cultural Patterns: Aside from timber sale project surveys and small-scale site testing, very little archaeological study has occurred within or immediately adjacent to the High Cascades unit. Two of the three "Clovis points" so far recorded for southwestern Oregon were found in close proximity to the unit (both of these are relic collectors' surface finds; one of them occurred on private land less than two miles from the Forest boundary). Some extensive, dense lithic scatters are located on alluvial terraces a short distance west (downstream) of the unit boundary; located in transitional grassland/forest settings, these may have served as major seasonal camps. Based on numerous project area surveys, sites within the unit tend to be small lithic scatters that could have been short-use or single episode "bivouacs"; these probably resulted from tool manufacture/repair during seasonal hunting/gathering forays into the high elevation forests. In general, the higher elevation (i.e., more easterly) lithic scatters in the unit tend to be much smaller in size and have higher percentages of obsidian debitage than lower elevation sites to the west. Most of the isolated artifacts found in the unit are obsidian projectile points/knives. One of the largest sites within the unit yielded part of a carved slate "zoomorph" figurine and an unusual cylindrical pestle made from Siskiyou Mountains metamorphic rock.
Presumed "vision-quest" cairns and other stacked-rock features occur on some of the promontories of the unit. The only petroglyph site documented for the Forest (evaluated as being probably recent/non-aboriginal in origin) is located on the northwest slope of Mt. McLoughlin.

Excluding the Little Butte Creek canyons, the High Cascades unit does not contain sources of cryptocrystalline silicate (however, good quality "jasper/agate" can be obtained from stream gravels a few miles to the west of the unit). Obsidian from both the Medicine Lake Highland and the upper Klamath Basin sources was used by inhabitants of the unit (LaLande 1990). Most ground-stone tools found in the unit are made from locally available basalt/andesite cobbles.

Primary site locations are: alluvial terraces along the courses of major streams, springs, major ridge-crests, and the margins of meadows and lakes. (Note: Many of the larger meadows within the unit were homesteaded around 1900 and are privately owned land; extensive lithic scatters are known for some of these but these are not included in the Forest's site total.) Aside from isolated artifacts, virtually all recorded sites are located within 50-100 feet of a permanent water source.

Aboriginal cultural groups known to have claimed or seasonally used territory in or adjacent to the High Cascades unit include: Upland Takelma, Southern Molala, Klamath (who annually hunted/gathered in the Crater Lake/Huckleberry Mountain vicinity), and Shasta (who may have used the southern-most portion of the unit).

Historic Cultural Patterns: The historic period began in the High Cascades vicinity during the late 1820s and early 1830s, with the arrival of small groups of trappers. A February 1827 foray by the first known white visitors to interior southwestern Oregon may have ascended the Little Butte Creek drainage to the Fish Lake area (LaLande 1987b).

Southwestern Oregon's gold rush of the 1850s did not involve the High Cascades except for incidental travel through the area by brief, unsuccessful prospecting expeditions (one of which "discovered" Crater Lake in 1853). The earliest sustained use of the unit was for summer grazing of cattle. Gold discoveries in north-central Oregon and Idaho in the 1860s, combined with the availability of the lush cattle range of the upper Klamath Basin, led to development of several trans-Cascade wagon roads from the Rogue River Valley that passed through the unit (i.e., Rancheria Trail, John Day Trail, Union Creek/Crater Lake Road, Dead Indian Road). These routes included traditional camping spots (e.g., Fourbit Ford, Camp 76, Union Creek, Silver Camp, Warpeg Camp). Cattle and sheep grazing in the high elevation meadows, as well as hunting and berry-picking, continued as major uses of the unit. Numerous camps, trails, shelters, and other features resulted from these activities. Huckleberry Mountain -- with its dense berry patches -- in particular was the scene of much early recreation use. Between the 1890s and 1914 (and, in a very few cases, into the 1920s) a large number of "agricultural" homestead claims were located in this unit, most of them concentrated in the level, forested areas: the Prospect/Union Creek flat, the Big Butte Creek plateau (specifically, areas directly north of and southeast of the community of Butte Falls), and the Dead Indian plateau. Although some of these homesteads included meadowland with actual pasture value (and many of these therefore became private land), others were claimed chiefly with the intention of gaining ownership to timberland. Many such claims were found invalid and the cabins were subsequently abandoned.
After 1905 Forest Service management of what is now the Butte Falls Ranger District and the eastern parts of the Prospect and Ashland Ranger Districts resulted in the construction of ranger stations, guard stations (e.g., Big Elk and Willow Prairie, both now listed on the National Register of Historic Places), fire lookouts, telephone lines, trails, roads, and other administrative features. During the 1930s, several Civilian Conservation Corps camps were located within the unit, and CCC crews were active in reforestation, road/trail/lookout construction, and the development of campgrounds with "rustic style" shelters, mortared-rock stoves and other features. The CCC also built two major administrative sites (Butte Falls and Union Creek Ranger Station complexes), two seasonal administrative sites (Imnaha and Lodgepole Guard Stations), and five rustic-style recreational shelters (Union Creek, Parker Meadows, Fish Lake, Dead Indian Soda Springs) that are all now listed on the National Register. The Soil Conservation Service built the snow survey cabin at Honeymoon Creek in 1943 (which also is now listed on the NRHP).

Because of attractions such as the upper Rogue River and Fish Lake, as well as the proximity of Crater Lake, the High Cascades unit historically has had the highest recreational use on the Forest. Historic recreational sites include Union Creek Resort and its nearby CCC-built campgrounds (part of a Historic District listed on the NRHP), Dead Indian Soda Springs, and Huckleberry Mountain.

The relatively level, extensive pine/Douglas-fir forests of the unit were first harvested on a commercial scale during the 1920s-1930s, when railroad spurs extended into the Fourbit Creek drainage east of Butte Falls. Several logging camp sites and numerous railroad logging features resulted in this particular area. The easily accessible timber stands along the Rogue River between Prospect and Union Creek were logged by means of tractors and trucks beginning in the late 1930s. World War II and the postwar lumber boom saw further road construction and tractor logging throughout almost all of the unit except the Cascade Crest (which was designated by Congress in 1984 as the Sky Lakes Wilderness).
III. CULTURAL RESOURCE SITE-TYPES

Following is a listing, with brief descriptions, of the major kinds of cultural resource sites and features found on the Rogue River National Forest. (It is important to note that, although a number of prehistoric or historic sites admittedly can be assigned to more than one site-type, the following classification scheme permits a generally useful grouping for the majority of the Forest's cultural resources.)

A. Prehistoric Sites

As mentioned previously, most of the prehistoric sites found on the Forest seem to be indicative of short-term site occupation by small groups of people. Large sites with dense deposits of cultural material are uncommon within the upland environment of the Rogue River National Forest. (However, such sites are documented for relatively short distances outside of the Forest boundary on private land; most of these sites [rockshelters, large lithic scatters, apparent housepit villages] are located along major tributaries of the Rogue River below 2,500 feet in elevation.) The following list of prehistoric sites incorporates all sites found within the National Forest boundary (i.e., whether or not actually located on National Forest land.)

Open, Dense Habitation Sites (n = 2 on NF land; 3 on adjacent non-NF land):

Description: These sites are characterized by abundant fire-cracked rock and lithic debitage, presence of both chipped-stone and ground-stone tools, ashy soil matrix or midden soil, burned bone fragments, etc.; they may also contain surface or sub-surface house depressions (circular to sub-rectangular).

Presumed function: These sites are assumed to be semi-permanent or regular, seasonal habitation sites where house structures were present.

Typical land-type location: One presumed housepit village site on National Forest land (heavily disturbed by deep plowing and other agricultural disturbance) is located on the Forest's tree nursery, near Medford along Jackson Creek, at an elevation of less than 1,500 feet a.s.l.; the other NF-land site in this category is adjacent to a major stream, below the 2,500-foot contour. The three sites on non-NF land are located along the Applegate River on flood-free terraces, below 2,000 feet a.s.l.
Rockshelters (n = 2 on NF land; 1 on adjacent non-NF land)

**Description:** These sites are characterized by natural rock overhangs of sufficient height/depth to have provided shelter, with some prehistoric cultural evidence present.

**Presumed function:** These sites are assumed to have been seasonal, short-term habitation sites used during upland hunting/gathering.

**Typical land-type location:** Outside of the Forest, large rockshelters with stratified prehistoric deposits are relatively abundant in the foothill canyons of the Western Cascades. With one exception, all of the rockshelters on the Forest are located within the Western Cascades rocks of the Rogue-Umpqua and High Cascades units, along major streams at the base of steep slopes. (Note: There are a number of rockshelters in these units, many of them small in size and located over 200 feet from a water source, which have not yielded any prehistoric cultural evidence to careful surface investigation and which therefore are not included in the site total; these may have provided short-term shelter to occasional groups/individuals but additional sub-surface investigation would be necessary to confirm if any cultural evidence remains.)

The soft volcanic rocks of the Western Cascades (tuffs, agglomerates) are much more conducive to formation of natural shelters (by stream erosion, etc.) than are the other rock-types in the Forest. The Siskiyou Mountains' highly fractured, unstable rock-types has resulted in very few potential rockshelters being located in that unit. A few, very small shelters (no cultural evidence found) are situated along streams in areas of schist bedrock. In the granite rock-types of the Ashland Creek drainage, exfoliating bedrock exposures along ridge-crests contain small shelters at the base of huge granite "boulders"; these natural features are typically located a considerable distance from water, and of the large number that have been visited (n = >20) only one has yielded any prehistoric evidence (i.e., a single jasper flake found near the mouth of the shelter).

Large Lithic Scatters (n = >6 on NF land; >4 on adjacent non-NF land)

**Description:** These sites consist of surface scatters of lithic debitage at least one acre in extent. Composed predominantly of debitage (core remnants, flakes, flake fragments) associated with the making of stone tools, chipped-stone (and occasional ground-stone) tools may be present as well. Small fragments of calcined bone are also typically found at these sites but fire-cracked rock is uncommon. Surface densities can vary considerably at such sites (due in part to vegetation cover or past surface collecting), but they have an average of at least 3 items per square meter in the "areas of surface concentration"; surface concentrations of more than 10 items per square meter are rare. Sub-surface testing at such sites on the Forest has indicated cultural densities of at least 50 items per cubic meter in areas of concentration.

**Presumed function:** Based on the artifactual content, these sites probably represent seasonally-used, multi-episode base-camps for upland seasonal hunting/gathering where
tool making (often including heat treatment and primary reduction of cryptocrystalline silica "blanks") and food preparation took place.

**Typical land-type location:** All of these documented sites are situated on alluvial terraces along major streams (i.e., Class I or II streamflow designation) or on the level margins of moist meadows. None of these sites occurs above 3,000 feet in elevation.

**Small Lithic Scatters (n = >75 on NF land; >10 on adjacent non-NF land)**

**Description:** These sites consist of surface lithic scatters under one acre in extent (the overwhelming majority of them are less than 0.25 acres in size). Composed predominantly of "secondary/tertiary reduction stage" debitage from the making of stone tools, chipped-stone (and occasional ground-stone) tools may be present as well; calcined bone fragments may or may not be present and fire-cracked rock is apparently absent at these sites. Surface densities generally vary between 1 item per 5 square meters and up to 3 items per square meter in areas of surface concentration.

**Presumed function:** These sites probably represent seasonal, short-term bivouacs used during upland hunting/gathering. Occasional tool making and tool maintenance are the main activities represented in the archaeological record, although food preparation is indicated by the presence of calcined bone fragments or edge/end-pounded cobbles at a few such sites in the Siskiyou Mountains.

**Typical land-type location:** All of these documented sites are located either on alluvial terraces of major/secondary streams (Class II and III), at springs, along the margins of moist or dry meadows, or on the summits/saddles of major ridge-crests.

**Very Small, Sparse Lithic Scatters (n = >125 on NF land; >10 on adjacent non-NF land)**

**Description:** These sites consist of surface lithic scatters that are well under 20 meters in diameter and typically have a maximum surface density of fewer than 3 items (largely secondary/tertiary flakes) per 5 square meters. Most of these sites contain a total of fewer than 10 items visible on the ground surface. The debitage at many of these sites appears to have resulted from the making of a single tool (or at least from the reduction of a single core).

**Presumed function:** Although some of these sites may have been visited a number of times over the course of prehistory, based on the very limited amount and range of artifactual content, many of them may represent "single episode" occupations (e.g., where a projectile point was re-touched during an upland hunting foray).

**Typical land-type location:** Over 90 percent of these sites are located either on ridge-crests (e.g., saddles and knolls), stream terraces, meadow margins, or at springs. The remainder occur along spur ridge-crests.
Quarries (n = 6 on NF land)

**Description:** These sites consist of bedrock sources of cryptocrystalline silica or other toolstone that show evidence of on-site quarrying and primary reduction.

**Presumed function:** Both sites of this type so far documented on the Forest are located in the Rogue-Umpqua Divide unit. One is near Quartz Mountain, at a place where "white chalcedony" outcrops and boulders have been quarried and large percussion flakes/chunks of angular debris are abundant. The other site, near Rabbitears, is a small quarry of silicified wood with abundant debitage from primary reduction.

**Typical land-type location:** This type of site will be found only within the Western Cascades geologic province (i.e., Rogue-Umpqua Divide unit), where good quality cryptocrystalline silica is found. Bedrock outcrops are often located at/near ridge-crests but can be located on steep mid-slopes as well. The single documented quarry on the Forest is situated on a 20%+ slope, where the large size of bedrock outcrops can be seen on aerial photographs of the area.

Isolated Artifacts (n = >420 on NF land; >12 on adjacent non-NF land)

**Description:** These sites consist of single artifacts at locations where, despite intensive surface survey, no other prehistoric evidence seems to be located. Over 50 percent of these sites are isolated projectile points, knives, or other chipped-stone tools. "Single flake/single core" sites are also common (and these may actually be remnants of very small, sparse lithic scatters, described above). Isolated ground-stone tools and "manu-port" alluvial cobbles make up the remainder of these sites. (Note: a "manu-port" is stream-rounded cobble that, although lacking any obvious evidence of use, was found in a context that indicates the item was brought to the site, probably intended for later use as a grinding or pounding tool.)

**Presumed function:** Although some of these sites may actually be remnants of very small, sparse lithic scatters (described above), many of them are apparently "single episode" sites where artifacts were either lost, discarded, or cached for later use. In the case of projectile points it is possible that some of these were secondarily deposited after having been used as hunting weapons and "lost" (e.g., incorporated into the archaeological record with the death of an escaped prey animal).

**Typical land-type location:** This type of site may be found in virtually any land-type on the Forest. Well over 75 percent of these sites have been found along streams and ridge-crests, at springs or meadows. The remainder have been found in a variety of land-types, from level areas that are far from an existing water source to steep slopes equally far from water. A number of these items were found within tractor skid-roads and may have been moved a substantial distance from their original location.
Figure 6  Fluted ("Clovis" style) projectile point,
High Cascades, Butte Falls vicinity (LaLande and Fagan 1982)
Figure 7  Projectile points dating from Early Archaic Period, Siskiyou Mountains, Applegate Lake vicinity
(Brauner and Nisbet 1983)
Figure 8  Projectile points dating from Early to Middle Archaic Periods, Siskiyou Mountains, Applegate Lake vicinity (Brauner and Nisbet 198\textsuperscript{a}...
Figure 9  Projectile point and baked clay object, Middle to Late Archaic Periods, Siskiyou Mountains, Applegate Lake vicinity (Brauner and MacDonald 1983)

Projectile points, Late Archaic to Contact Periods
Siskiyou Mountains, Applegate vicinity (Brauner and Lebow 1983, Brauner 1985)
Figure 10  Side scraper (L) and pestle, Siskiyou Mountains, Ashland vicinity
(Lalonde 1987)
Figure 11  Projectile points, K-P probably date from Middle Archaic period (actual size)
A-J date from Late Archaic Period (Pettigrew and Lebow 1987)

A: Coquille Series Broad-necked (CSB), Specimen 59-957-8
B: Coquille Series Narrow-necked (CSN), Specimen 59-226-4
C: Diverging Stem broad-necked (DGB), Specimen 100-3216-6
D: Elk Creek Square Barbed (ECSB), Specimen 59-163-6
E: Rogue River Barbed (RRB), Specimen 100-2895-4
F: Rogue River Distally Constricted (RRDC), Specimen 100-287-2
G: Rogue River Diving Stem (RRDS), Specimen 100-822-5
H: Side Notched Concave Base (SNCB), Specimen 59-506-5
I: Side Notched Straight Base (SNSB), Specimen 100-352-3
J: Triangular Concave Base (TCB), Specimen 59-126-2
K: Triangular Straight Base (TSB), Specimen 100-1268-7
L: Triangular Single Notched (TSN), Specimen 100-1155-4
M: Willow Leaf Large (WLL), Specimen 100-1165-1
N: Willow Leaf Medium (WLM), Specimen 100-464-7
O: Willow Leaf Small (WLS), Specimen 59-819-6
P: Willow Leaf Extra Large (WLXL), Specimen 27A-247-2
Figure 12  Flaked cobble tools (above); pestle and tubular stone pipe fragments (below)
Western Cascades/Elk Creek Valley vicinity (Pettigrew and Lebow 1987)
Figure 13  Projectile points dating from the Late Archaic Period (actual size) Upper Rogue River/Trail Creek vicinity (Baxter and Minor 1987)
Figure 14: Artifacts dating to Late Archaic Period, Upper Rogue River/Trail Creek vicinity (Baxter and Minor 1987)

a, biface fragment; b-c, drills/perforators; d-e, scrapers; f-g, cores; h-i, pestles; j, stone wedge (a-e shown actual size; f-j shown at 65% scale).
Figure 15  Artifacts, probably dating from Middle and Late Archaic Periods
South Umpqua River/Tiller vicinity (Baxter and Minor 1987)

a-e, bifaces; f-p, scrapers; q, edge-ground cobble; r, hammer; s, chopper (a-p shown actual size; q-s shown 50% actual size).
Cairns and Other Stacked/Aligned-Rock Features (n = >20 on NF land)

**Description:** These sites consist of cairns or circular enclosures of stacked rocks. Generally the rocks are large-cobble-to-small-boulder in size, and the cairns are rarely more than half a meter in height. A number of these cairns appear to be remnants of what were formerly larger, higher features. (Some of the sites listed in this category may actually be naturally-formed cairns, where long-term weathering/fracturing of small, columnar basalt outcrops has resulted in distinct "piles" of sub-rounded rocks on prominent ridge-crests.)

**Presumed function:** Based on ethnographic evidence from the upper Klamath Basin and elsewhere, these sites are thought to be associated with the "vision-quest" or shamanistic power-seeking activities of native people. (Note: Some cairns, otherwise similar in appearance and location-type to those presumed to be aboriginal in origin, are now known to have been built in the early 20th century as pole-supports for Forest Service telephone lines [reference to early FS maps can be helpful in identifying the locations of such features]; "cairn-building" by Forest visitors still occurs for a variety of reasons.)

**Typical land-type location:** This type of site is found on prominent peaks, bluffs, and ridge-crests, particularly in locations that have a panoramic vista of the surrounding terrain. Most of these sites are located in the Rogue-Umpqua Divide and the northern High Cascades units, areas that were used by the Southern Molala and Klamath Indians during the late prehistoric period.

Other Prehistoric Features (n = 4 on NF land)

**Description:** Currently, this site-type includes three very different kinds of features: peeled-bark trees, rock art, and human burials. Only a single example of each kind of feature has been documented for the Forest; if more are found, they can be treated as separate site-types. Peeled-bark trees are old-growth ponderosa pines which have had a portion of bark stripped away, and the scar is typically exposed but with the edges "healed over" by the surrounding outer bark.

Rock art consists of images/designs that are either carved/pecked into a rock surface ("petroglyphs") or painted onto a rock surface with hematite or other pigments ("pictographs"). The single example of rock art on the Forest is a series of small petroglyphs pecked into a basalt boulder. (Note: As mentioned in Section II, this feature has been evaluated as quite possibly recent and non-aboriginal in origin.)

Human burials are actually **any** aboriginal human remains, whether "accidently" buried/preserved or purposefully interred in a grave. (Documented forms of interment in southwestern Oregon/northern California include simple burial, pre-interment cremation, and in-grave cremation prior to burial.) The single known example of native burial on the Forest occurs at a site where several individuals were interred, apparently at least one of them with "grave goods" (obsidian blades). The single interment at this site for which any archaeological evidence is documented was an adult female skeleton (lying semi-flexed on its back, with the head to the east but "facing" towards the west).
Presumed function: The peeling of ponderosa pine bark was done to obtain the cambium layer, ethnographically documented as an "emergency late-winter" food for Pacific Northwest Indian groups. Rock art may have had either religious (e.g., "hunting magic") or aesthetic functions. Although the burial site included interments of several individuals, it apparently functioned as more than a cemetery; the chipped-stone tools and debitage found at the site indicates that it also served as a habitation site.

Typical land-type location: Due to their very limited number, there are no "typical" land-type locations for these kinds of features on the Forest. Peeled-bark pines obviously will be found only where ponderosa pines occur. In other areas of the Pacific Northwest, trees that are assumed to be aboriginally-peeled pines (as opposed to those with natural scarring from windthrown timber or scarring from historic period activities) tend to co-occur with lithic scatters or other prehistoric evidence; the single, presumably aboriginally-peeled pine on the Forest is located adjacent to a small lithic scatter in the Rogue-Umpqua Divide unit.

Very few rock-art sites are known for southwestern Oregon or adjacent California west of the Cascade Range; most of them occur along the lower stretches of the region's major rivers and consist of large alluvial boulders with either abstract or figurative, deeply-carved petroglyph designs. The single petroglyph site on the Forest (which has figures that are unlike any designs documented for the region and which could have been pecked into the boulder surface in less than an hour's time) is located high on the north slope of Mt. McLoughlin, along an abandoned Forest Service trail; no other prehistoric evidence has been found near this site.

The single burial site on the Forest is situated on an alluvial terrace next to one of the region's major rivers; it co-occurs with lithic tools, debitage, fire-cracked rock and other evidence of a habitation site.

B. Historic Sites

Following are very brief discussions of historic site-types, grouped by major kinds of historic activities. The many distinct types of sites (e.g., the numerous different kinds of features associated with placer mining, with lode mining, with railroad logging, etc.) are indicative of the full range of post-1850 activities that have occurred on the Forest; no attempt at detailed, type-by-type description is made here.

Placer Mining (n = >127)

Description: These sites date from the 1850s to the present, and include both small-scale placer mines and much more extensive hydraulic operations that were mined by means of huge quantities of high-pressure water. In addition to camps, cabins, cabin sites, dumps and other habitation features, this site-type includes water storage facilities (reservoirs, self-shooters), water diversion facilities (ditches, flumes, headboxes, penstocks), the actual
mined areas ("washing pits," tailing piles, prospect-pits), and associated equipment (abandoned hand-tools, sluice boxes, sections of steel pipe).

**Documentation:** Most of the Forest's large-scale hydraulic mining operations are at least mentioned (and in some case described in some detail) in contemporary newspaper accounts and in special mining reports. The small-scale placer mines, particularly those that pre-date the Depression, have very little historical documentation. Because of the successive nature of placer mining, many early sites have been "mined away" by later phases of mining and no evidence remains at these places; flooding has also no doubt obliterated a number of placer mining sites.

**Typical land-type location:** Placer gold mining on the Forest is confined to the Siskiyou Mountains. These sites typically occur below 3,500 feet in elevation, on alluvial terraces directly adjacent to the Applegate River and its major tributaries. Large-scale hydraulic mines (typically dating between 1878 and 1910) can be found on "high terraces" (ancient river deposits now located several hundred feet above the current streambed).

**Lode Mining** (n = >161)

**Description:** These sites date from ca. 1860 (i.e., the earliest lode gold operations on Steamboat Mountain) until the present. Aside from a very few locations, most lode mining sites post-date 1900, when improved trails, roads, and ore-recovery systems made small-scale operations in remote sections of the Forest potentially profitable undertakings. In addition to "hard-rock" gold mines, antimony, chromite, copper, molybdenum, quicksilver, sulphur, talc, and uranium have been mined on the Forest. Very few of these operations exceeded more than a few years' excavation by any single individual or corporation; with the exception of the brief Blue Ledge "copper boom" of the early 20th century, relatively small-scale lode mining has been the norm for the Forest. In addition to camps, cabins, cabin sites, dumps and other habitation features, this site-type consists of mining excavations (e.g., prospect-pits, adits, shafts, tunnels, open pits, associated tailings), ore-processing facilities (e.g., arrastras, stamp mills, retorts, cyanide leaching piles, ore dumps, associated tailings), and miscellaneous equipment.

**Documentation:** Many, if not most, of the Forest's post-1900 lode mines are documented in the Oregon Metal Mines Handbook (published by the Oregon Dept. of Geology and Mineral Industries in 1943), in Forest Service mineral examinations, or other sources. It is believed that the locations of most of the Forest's lode mines are known and that, aside from prospect-pits or other small features, very few additional lode mining sites remain to be discovered. (Note: As with placer mining, lode mining tended to re-occur at the same locales, and many later sequences of operation have removed the evidence of earlier phases of work.)

**Typical land-type location:** Because the location of lode mining is obviously dependent on the location of ore bodies (which can occur in canyon bottoms, on ridge-crests, or on steep mid-slopes), no particular land-types can be identified as having greater likelihood than other locations for containing these sites. Well over 95 percent of the Forest's documented lode mining sites are located in the Siskiyou Mountains. A very few, small
mines (gold, sulphur, uranium) are documented for National Forest land within the Rogue-Umpqua Divide unit. The only "lode mining" operations within the High Cascades unit are post-1950 gold prospect-pits (excavated by heavy equipment) in the Mazama pumice deposits along the upper Rogue River.

**Transportation** (n = >36)

**Description:** These sites resulted from pre-1930 transportation routes through the National Forest. (Forest Service trails are not included in this category.) The category is largely composed of remnant segments of wagon roads and pre-FS trails, but road camps (e.g., Robinson Camp, Silver Camp, Whiskey Camp), bridge abutments, blaze marks on trees, and miscellaneous features also comprise this site-type. For the most part, these sites are associated with trans-Cascade Range travel between the Rogue River valley and the upper Klamath Basin between the 1860s and the 1920s. The original Jacksonville-to-Fort Klamath military wagon road ("Rancheria Trail"), the Crater Lake Road, the John Day Trail (old Diamond Lake Road), and the old Fish Lake-to-Lake-of-the-Woods Road are the main components of the historic transportation system.

**Documentation:** The Forest's historic trails and roads are well documented on 19th and early 20th century maps, particularly in the original General Land Office township survey plats. It is highly likely that all historically significant travel routes through the Forest (and most of the routes' associated features) have been identified.

**Typical land-type location:** The routes of historic trails and roads pass through a variety of land-types in the High Cascades unit; however, gentle topography and periodic water-sources were important factors in route lay-out and in the location of camps. With a single exception, the routes of historically significant wagon roads through the Forest are today closely paralleled by modern highways.

**Grazing** (n = >59)

**Description:** These sites, which date from the late 19th century through the present, are associated with seasonal livestock grazing on the Forest. Evidence includes: round-up cabins ("line shacks"), hay barns, corrals and truck-loading chutes (the latter post-date the mid-1930s), hollowed-log water troughs, salt logs, spring enclosures (e.g., notched-log pens that kept livestock out of the water source), drift-fences and other major fencelines, stock driveways, and miscellaneous features resulting from the activities of local ranchers.

**Documentation:** A large number of these sites are documented in Forest Service records (early grazing atlases, etc.), but many of the pre-1920 sites have no official documentation. Such sites tended to be re-used in successive phases (e.g., a modern "line shack" may be the second or third such structure at a site).

**Typical land-type location:** The overwhelming majority of these sites are located in/adjacent to meadows or meadow-forest mosaic areas above 3,500 feet in elevation. Forested springs, large alluvial terraces, and ridge-crest saddles account for most of the
remaining sites. Excluding the fencelines, driveways, and other linear features, most grazing sites are located within 200 feet of a water source. Sites of this category are distributed throughout the Forest's three geographic units.

Homesteading (n = >43)

Description: These sites, which date between the 1890s and the 1920s, are associated with "agricultural" land settlement within the Forest. Some of this activity was done by "squatters" (i.e., those who settled without any attempt at establishing legal land claims), but most occurred under the terms of various public land laws (e.g., Homestead Act of 1862, Stock-Raising Homestead Act of 1916, and particularly the "June 11" Forest Homestead Act of 1906). Many of these claims, although entered under laws that called for bona fide agricultural improvements, were speculative in nature (with the likely motive of obtaining ownership being sale of the land to a timber corporation). Because of their typically brief use-period (3-6 years of seasonal occupation), many of these homestead sites had very temporary structures and minimum improvements to the land. Evidence at homestead sites includes: cabins or cabin sites, outbuildings, dump-scatters, fenced garden plots, small irrigation ditches, minor wagon roads. Based on photographic and other evidence, most cabins were of unpeeled log or shake-over-pole construction.

Documentation: Overall, the locations of these sites are very well documented in Forest Service homestead examination files (ca. 1906-1925), General Land Office township plats (1880s-1900), and GLO land status records (held in the State Office of the Bureau of Land Management; photostatic copies for selected sections held in RRNF CRM library). For post-1905 claims, FS homestead examination records often contain very detailed, site-specific contemporary information (site maps, written descriptions and photographs of structures).

Typical land-type location: Because of the speculative, "timberland" objective of many homestead claims, these sites tend to be located at moderate elevations in densely forested areas of mixed conifer timber (Douglas-fir, ponderosa pine, and sugar pine preferred because of their high lumber values relative to other species). Level to gently-sloping terrain (the only land that was reasonably accessible to settlement via wagon travel) was a major factor in site selection. Proximity to a water source (spring or small stream) was important, but the presence of a nearby meadow (i.e., for grazing the claimant's livestock) - - although apparently desirable -- does not seem to have been decisive in the locating of many homestead claims. Because of inaccessibility and other factors, relatively few homestead sites are located in the Siskiyou Mountains; the following four sub-areas of the High Cascades unit account for almost all of the Forest's homestead sites: Prospect-Union Creek flat, Big Butte Creek plateau, Little Butte Creek canyons, Dead Indian plateau.

Developed Recreation (n = >21)

Description: These sites, which date from around 1900 to the present, are associated with on-going recreational use and development at certain key places on the Forest. Some of the earliest sites are located at mineral springs (e.g., Dead Indian Soda Springs), at favorite...
berry-picking areas ("Huckleberry City"), and at stopping points along the route to Crater Lake (Union Creek); later sites (dating to the 1930s) are located at popular fishing areas (Fish Lake, Squaw Lake) and swimming holes (McKee Bridge) or are successive developments at older recreation sites (e.g., Union Creek). Prominent among these sites are Forest Service campgrounds with mortared-rock stoves, rustic-style "community kitchen" shelters and other features built by Civilian Conservation Corps crews during the Great Depression. Pre-1930s intensive recreational use at places like Huckleberry Mountain is evidenced by numerous, scattered camps with fire-rings, dump-scatters, axe-cut trees and so on. Privately-built developments include resort buildings, "summer home" recreational residences, and miscellaneous features.

**Documentation:** Although a number of minor features no doubt remain to be discovered, virtually all of the Forest's developed recreation site areas are recorded on early FS maps and are well documented in the Forest's historic photograph collection.

**Typical land-type location:** Relatively level terrain and proximity to water are the major factors in the specific location of these sites. Meadows, terraces along rivers or streams, stands of old-growth trees, and other natural-appearing places with high aesthetic content have been favored.

**Logging (n = >62)**

**Description:** These sites are associated with the harvest of timber from the Forest; most of them pre-date 1945 (although a few "gyppo" sawmill sites and donkey engine sleds date to the 1950s-1960s). For the most part, these sites resulted from logging activities that occurred subsequent to 1910. Logging sites include early cutting areas (i.e., high stumps with springboard notches), donkey engine settings (flat spots of slopes marked by steel cable, cans, and miscellaneous debris), log-yarding chutes (deep troughs gouged into the soil by ground-lead yarding systems), donkey engine sleds, logging arches (e.g., early 20th century hydraulic "high wheels" that were pulled by tractors), logging railroads and associated features (trestles, cribbed-log stream crossings), logging camps and associated dump-scatters, sawmills, and miscellaneous abandoned equipment.

**Documentation:** Most of the Forest's large-scale historic logging operations are well documented (e.g., all of the 1920s-30s railroad logging spurs of the Fourbit Creek Timber Sale, east of Butte Falls, are shown on contemporary maps). The very small, early logging sites (such as sugar pine shake-makers' camps) are not documented in the historic record.

**Typical land-type location:** Availability of accessible, economically valuable stands of timber is obviously the most important factor for the location of most sites in this category. Prior to the construction of truck roads and the use of high-lead or cable logging systems on the Forest after World War Two, virtually all commercial harvest on the Forest was confined to a few heavily timbered areas with gentle topography and/or close proximity to railroad transportation. In the Siskiyou Mountains the only historic donkey engine logging localities within the Forest are the Neil Creek/Quartz Creek (ca. 1915-1930) and Hamilton Creek (ca. 1929-35) drainages near Ashland. In the High Cascades they include the Fourbit Creek/Willow Creek drainage (railroad logged ca. 1925-35) and the Prospect-
Union Creek flat (tractor logged ca. 1938-45). Several "post-War lumber boom" (ca. 1945-55) sawmills occur among the intermixed NF/private lands of the Dead Indian plateau.

Forest Service (and other Federal Agency) \( (n = >235) \)

**Description:** These sites date between 1906 and about 1955. Most of them are directly associated with Forest Service administrative and resource management activities on the Forest. In addition to permanently-staffed ranger station complexes and seasonally-used guard stations (many of them built during the 1930s by C.C.C. crews), these sites include: fire lookouts (lookout trees, tower structures, ground cabins and associated features), telephone lines (galvanized wire with occasional porcelain insulators hung from trees or poles), trails (with the FS standard "dot-dash" blazing on trees), trail shelters (shake-over-pole "Adirondack"-style structures), and miscellaneous features. Also included in this category are sites which resulted from the activities of other federal agencies: C.C.C. and Blister Rust Control camps, FS fire lookouts and cabins utilized by the Aircraft Warning Service during World War II, snow survey cabins built by the Soil Conservation Service, Bureau of Biological Survey porcupine traps, and so on.

**Documentation:** This site category is very well documented by Forest Service maps, historic photographs, and other records. Although not all of them have been field-verified and evaluated, it is likely that the locations of all potentially significant sites in this category are recorded in the Forest's inventory.

**Typical land-type location:** Because of the wide variety of sites in this category (ranging from administrative compounds that include dozens of buildings to remote trails), there is no "typical" land-type. However, the "residential" sites are most often found on level terrain near permanent water sources at low-to-medium elevations; early FS trails (and telephone lines) tend to be located along ridge-crests and major stream courses; lookouts obviously are found on very high points with panoramic views of the surrounding terrain.

Miscellaneous Historic Activities \( (n = >229) \)

**Description:** These sites include a variety of ca. 1880s-1970s features which do not fit within the foregoing categories. A very few of these sites are cemeteries or solitary graves. Dispersed recreation and trapping account for many of the sites in this class; these include: hunters' camps (often no more than a rock fire-ring and scattered food cans), axe-hacked "pitch trees," graffiti-inscribed trees and rocks, trappers' cabins, bear traps, and notched "marten trap trees." Cooperative/commercial irrigation and hydroelectric developments, all of which serve users off-Forest, are also included in this category. Additionally, past illegal or unauthorized activities resulted in some of the sites: moonshine stills, marijuana plantations, temporary shelters built by "counter-culture residents" of the Forest, abandoned automobiles (some dating to around 1930), and road-side garbage dumps. (Note: Most of the inventoried dumps in this category are single-episode sites that date between 1935 and 1960; they are particularly common along low elevation FS roads in the
Applegate Valley, as well as near the towns of Butte Falls and Prospect.) Pet graves comprise another not uncommon kind of feature in this category.

**Documentation:** This category is the least documented site-type on the Forest. The historical background of a few of these sites (i.e., the 1888-inscribed Waldo Tree in the Sky Lakes Wilderness, the ca. 1970 Sasquatch trap on Grouse Creek near the Applegate River) are known; the history of most of them, however, will probably remain somewhat enigmatic.

**Typical land-type location:** Sites of this category are found in all of the Forest's land-types and are common in all three units; although a majority of them occur in level to gently-sloping terrain in close proximity to water, a significant number occur on very steep slopes and over a quarter-mile from a permanent water source.

**C. Section Summary**

There is a wide range of prehistoric and historic site-types on the Rogue River National Forest. Their locations reflect both the constraints and the opportunities offered by the land. Whether prehistoric or historic, the overwhelming majority of inventoried sites that are associated with habitation -- including even very short-term or single-episode occupancy of a site -- show a strong correlation with level to gently-sloping terrain (although the site may be located on a very small piece of "level" ground within an otherwise steep-sloped area) and proximity to water.

**Regarding site-location information in the historic record, most of the Forest's historic site-types are well documented. Small, ephemeral historic sites, however, are under-represented in the historic record relative to larger, longer-term sites.** Although relatively few of these small, undocumented historic sites may meet the eligibility criteria of the National Register of Historic Places, one objective of the Forest's inventory strategy will be to discover, record, and evaluate as many of these sites as possible. With the exception of lode mining sites (the locations of which do not correlate to terrain/water factors), most of these should be found through the strategy used to discover prehistoric sites. The strategy is discussed through the land-type descriptions in the following section, and is amplified and summarized in the concluding section of this plan.
IV. CULTURAL RESOURCE LAND-TYPES

A. Section Overview

This section presents the classification of the Forest's terrain into a number of different "cultural resource probability" land-types. These land-types are grouped into areas with "high," "medium," or "low" potential for containing cultural resources.

The classification scheme uses slope of terrain and proximity to water as the two main factors in identifying land-types and in assigning their respective c.r. probability. Presence of non-forested areas (e.g., meadows, large rock outcrops, lava flows, summits of peaks) is a third positive factor in the scheme, but it is important to note that a level terrace adjacent to a water does not have to include a meadow to be considered "high potential." The three factors of water, slope, and openings have proven to have strong correlation with the locations of both prehistoric and historic sites on the Forest. It is estimated that, aside from isolated artifacts and stacked-rock features, well over 95 percent of the Forest's known prehistoric sites occur within land-types H-1, H-3, and H-4.

The slope/water factors tend to interact together to identify many high potential areas; the non-forest factor acts independently to identify most of the others. Note that the various land-types are not necessarily mutually exclusive; a meadow (land-type H-2) can occur adjacent to a stream or spring (land-type H-1), and a "medium probability" land-type, such as the crest of a subsidiary ridge system, can occur within a short distance from a spring. However, if an area could be classified in more than one land-type, it will be treated as the "higher probability" type for inventory purposes.

Although both elevation above sea level and solar aspect have tended to influence human settlement/use patterns within the Forest, these two criteria are not used as limiting factors in land-type c.r. probability. For example, due to the constraints of snowpack and so on, high elevation locales tend to have fewer and smaller sites than low elevation areas; likewise, north aspect slopes tend to have fewer sites than slopes with other solar aspects, and it would be possible to include such factors into the land-type classification. However, the Forest's c.r. probability scheme (and hence its inventory strategy) calls for equally high intensive coverage of the identified land-types (e.g., of all meadows whether located on north aspect or south aspect slopes, and of all ridge-crests whether located above or below 6,000 feet).

The cultural resource land-type classification is based on the results of past cultural resource inventory on the Forest, inventory that has included (a) intensive coverage of the full range of land-types, (b) second and third phases of search over the same ground (i.e., the validity of the inventory's assumptions are regularly monitored), and (c) comprehensive application of ethnohistorical, ethnographic, and historical documentation. (See Section I of this plan for more discussion on past inventory accomplishment.)
B. High-Probability Land-Types

The following six land-types are identified as having the highest potential for containing cultural resources. Taken together, the approximate acreage of these land-types include about 15 percent of the Forest. They will be subject to "one-hundred percent," intensive search during project surveys (survey intensities are discussed in Section V). In addition to containing most of the total number of cultural resources found on the Forest, these high-probability land-types account for an overwhelming majority of those resources that are evaluated as eligible or potentially eligible to the National Register of Historic Places.

Land-Type H-1 (Level-to-30% ground, < 200' from water source)

**Description:** Cultural resource land-type H-1 includes all relatively level to gently-sloping terrain close to water. In addition to riparian zones, alluvial terraces and adjacent benches along permanent, seasonal or ephemeral streams, this land-type includes the margins of lakes, ponds, and marshes/bogs, as well as the terrain immediately around both permanent and seasonal springs. Any qualifying terrain that is judged to have been situated close to a former water source (i.e., extinct springs, etc.) is also included. Vegetation cover is not a defining factor; areas of this land-type may be fairly open or densely forested.

**Acreage:** The total area of this land-type on the Forest is about 37,000 acres, approximately 6 percent of the National Forest.

**Discussion:** It is estimated that over 550 of the Forest's inventoried cultural resources are located within this land-type, primarily at elevations below 4,500 feet. It served as the location of prehistoric settlements, seasonally-used upland camps, fishery sites, short-use bivouacs, travel routes, and habitation/work sites for a wide variety of historic activities.

Land-Type H-2 (Isolated areas of level-to-10% ground on steep slopes, < 500' from water or opening)

**Description:** Cultural resource land-type H-2 includes small (< 5 acres) areas of level to gently-sloping terrain that are situated on otherwise steep slopes (e.g., old landslide slump basins) and are relatively close to water or meadows.

**Acreage:** The total area of this land-type has not been calculated; it probably aggregates to less than 0.2 percent of the Forest. It is located predominantly in the Siskiyou Mountains and Rogue-Umpqua Divide units.

**Discussion:** A very few (< 30) of the Forest's inventoried cultural resources are located within this land-type, primarily at elevations below 3,500 feet. Lithic scatters have been found on isolated "benches" overlooking springs or meadows; these are thought perhaps to represent upland hunting camps used when large game animals would tend to be available at those nearby water sources or meadows. Lode mining sites (cabins, camps, ore dumps) occur at a few such places in the Siskiyou Mountains.
Land-Type H-3 (Natural openings and their forested margins)

Description: Cultural resource land-type H-3 includes all natural openings: moist meadows; dry, grassy "balds," oak savanna, and rocky "scabland" flats, as well as the forested, 100-foot margin around such features. (Due to the forest encroachment of many meadows since fire suppression was instituted 80 years ago, survey efforts will take into account the probable pre-1910 extent of any opening.)

Acreage: The total area of this land-type is about 35,000 acres, or approximately 5.5 percent of the Forest. Much of this land-type is found as extensive areas of forest/meadow mosaic in the higher elevations of the Forest's three units.

Discussion: A relatively large number (>250) of the Forest's cultural resources are located within this land-type, primarily above 3,500 feet. A wide range of site-types, both prehistoric and historic, are represented. In particular the forest/meadow mosaic areas of the Siskiyou Crest and the Rogue-Umpqua watershed divide contain lithic scatters.

Land-Type H-4 (Major ridge-crests and saddles)

Description: Cultural resource land-type H-4 includes the crests of all major ridge systems (i.e., ridges which divide Class I-III drainages, as identified in the Forest's stream classification system). The ridge-crests included in the land-type vary from level to 40 percent in slope. Typically this land-type forms linear "ribbons" of land up to 100 feet wide along the undulating summits of ridges; steeply sloping terrain (land-type L-2) makes up much of the adjacent land. Major ridge saddles may be well over 100 feet wide; these areas are located at distinct topographic "passes" or "gaps" along the crest of a ridge system. Also included in this land-type are spur knolls and large rock outcrops immediately adjacent to the crest. This land-type may be open or forested; although water is often available a short distance away (in the form of permanent or seasonal springs at the heads of drainages), proximity to water is not a criterion in this land-type's definition.

Acreage: The total area of this land-type is about 20,000 acres, approximately 3 percent of the Forest. Most of this land-type occurs in the Siskiyou Mountains and the Rogue-Umpqua Divide units, with much smaller amounts in the Little Butte Creek canyons and other sub-areas of the High Cascades.

Discussion: This land-type accounts for a large portion of the Forest's small, sparse lithic scatters (particularly those above 3,500 feet), isolated artifacts (both chipped- and ground-stone tools), and high elevation historic sites (total sites = >225). The relatively gentle topography provided by major ridge-crests apparently served as aboriginal and early historic travel routes, especially in contrast to the streamsides zones in the canyon bottoms of adjacent drainages (which often contain little level land and can be choked with dense riparian vegetation that greatly impedes travel).
Land-Type H-5 (Bases and lower vertical faces of large rock outcrops and cliffs)

**Description:** Cultural resource land-type H-5 includes the accessible, lower portions of rock outcrops, whether isolated pinnacles or extensive cliff systems. Proximity to water is not a defining factor.

**Acreage:** The total area of this land-type on the Forest is very small, and no actual acreage estimate is given. It probably aggregates to less than 0.1 percent of the Forest. Land-type H-5 is confined largely to the eroded canyons of the Western Cascades volcanics, in the Rogue-Umpqua Divide unit and the Little Butte Creek canyons of the High Cascades unit. In the Siskiyou Mountains, the granitic outcrops of the Ashland batholith and various peridotite bodies comprise the main areas on this land-type.

**Discussion:** Within the wider area of southwestern Oregon and northern-most California, this land-type is known to contain rockshelters. The volcanics of the Western Cascades have been most conducive to the formation of such features. Very small shelters are occasionally found among the massive, exfoliated granitic boulders which occur along ridge-crests in the eastern Siskiyous. Rock art is found along the bases of cliffs elsewhere in the Pacific Northwest. The highly fractured nature of many rock-types in the Siskiyou Mountains lessens the likelihood of aboriginal rock art in that unit.

Land-Type H-6 (Summits of major peaks and bluffs)

**Description:** Cultural resource land-type H-6 includes the summits of prominent peaks, large rock outcrops, or bluffs. This land-type may be situated within land-type H-4, or it can occur as separate, isolated areas surrounded by land-type L-2. It is defined to include the actual summit areas as well as accessible slopes immediately adjacent. Proximity to water is not a defining factor. In general, the summit should be relatively open and provide a vista of much of the surrounding terrain.

**Acreage:** As with land-type H-5, the total area in this land-type is very small, and no acreage figure is given. It probably accounts for around 0.2 percent of the Forest. "Prominent" peaks range from regionally important mountains, such as Mt. McLoughlin and Mt. Ashland, to locally significant ones (e.g., Red Blanket Peak, Hershberger Mtn., Palmer Peak).

**Discussion:** This land-type is ethnographically and archaeologically known to contain stacked-rock cairns associated with the vision-quest. Peak summits have also been used for Forest Service fire lookouts, land survey triangulation stations, and miscellaneous features.
C. Medium Probability Land-Types

The following two land-types were identified in 1990 as having moderate potential for containing cultural resources. The approximate acreage of these two land-types contains about 5 percent of the Forest. Results of surveys and monitoring during the 1990s indicate that these land-types actually contain very few cultural resources and are of low potential for containing significant cultural resources. However, these two land-types will continue to receive higher intensity survey efforts than will types L-1 and L-2. They will be subject to 20% sample surveys of intensive search.

Land-Type M-1 (Spur ridge-crests)

Description: Cultural resource land-type M-1 includes the crests of all spur ridges (i.e., all ridges not included within land-type H-4) and associated saddles. Typically this land-type forms linear "ribbons" of land up to 50 feet wide along the undulating summits of spur ridges; steeply sloping terrain (land-type L-2) composes much of the adjacent land.

Acreage: The total area of this land-type is about 25,000 acres, around 4 percent of the Forest. Most of this land-type occurs in the well-defined, dissected stream drainages of the Siskiyou Mountains, the Rogue-Umpqua Divide, and the Little Butte Creek canyons of the High Cascades.

Discussion: Very few cultural resources are known for this land-type; it was probably used for travel to/from major ridges and for dispersed hunting and gathering. Forest Service trails and small lode mines are the primary kinds of historic sites documented for this land-type.

Land-Type M-2 (Margins of lava flows and large landslides)

Description: Cultural resource land-type M-2 includes the edges and forested 100-foot margins of surface lava flows and large landslide features.

Acreage: This land-type is restricted to a very few, limited areas of the Forest, and no acreage estimate is given; it aggregates to less than 1 percent of the Forest. Land-type M-2 includes the edges of the Brown Mountain Lava Field, the Rye Springs lava flow, the Skeeter Creek lava flow, the Gypsy Springs lava flow, and the large, ancient landslide scars of the Siskiyou Mountains.

Discussion: Very few cultural resources are known for this land-type. However, due to the barrier-effect these extensive areas probably had on game animals' travel habits, hunting may have been a seasonal activity at such places. Small lithic scatters and stacked-rock hunting blinds would seem to be possible, although intensive search efforts along the edges of the Brown Mountain Lava Field during the late 1990s failed to yield any such evidence.
D. Low Probability Land-Types

The following two land-types include the remainder of the Forest. They account for the majority of the Forest's acreage, and will be subject to sample surveys of intensive search.

Land-Type L-1 (Extensive "level" areas, > 200 feet from water source)

Description: Cultural resource land-type L-1 includes level to gently-sloping (<20%) terrain that is not in close proximity to a known (or possibly extinct) water source and that does not fall into any of the previous land-types.

Acreage: The total area of this land-type is about 200,000 acres, approximately 30 percent of the Forest. Most of this land-type occurs in the High Cascades unit.

Discussion: Aside from a number of isolated artifacts, prehistoric sites are not documented for this land-type. (Note: Many of these artifacts were found in logging skid roads, and they may have been moved considerable distances from their original locations). The predominant kinds of historic sites occurring in this land-type are segments of wagon roads, logging railroads and Forest Service trails, as well as scattered evidence of early logging (i.e., cutting areas and logging camps associated with the Fourbit Creek Timber Sale east of Butte Falls). Site-specific locational information for these site-types is available in the historic record.

Land-Type L-2 (Extensive "steep" areas)

Description: Cultural resource land-type L-2 includes areas of steeply sloping (>20%) terrain that does not fall into any of the previous land-types.

Acreage: The total area of this land-type is about 300,000 acres, almost 50 percent of the Forest. It consists of most of the "high relief" areas of the Forest. It comprises much of the Siskiyou Mountains and Rogue-Umpqua Divide units; in the High Cascades, the Little Butte Creek canyons and the glaciated or incised pumice terrain fall into this category.

Discussion: Aside from isolated artifacts (which tend to occur near ridge-crests and hence may have eroded downslope from land-type H-4 locations), prehistoric sites are not documented for land-type L-2. The predominant kinds of historic sites found in this land-type are Forest Service trails, small lode mining features (prospect pits, adits), and a very few early logging areas (e.g., Neil Creek, Wagner Gap, Reeder Gulch).
V. INVENTORY STRATEGY

A. Section Overview

This section of the plan provides specific direction in how the inventory strategy will be implemented during project surveys. In addition to reviewing the "cultural resource probability" land-type classification, this section (a) defines survey intensity, (b) prescribes minimum percentages of land (by c.r. land-type) to be surveyed intensively within a project area, (c) discusses the different levels of coverage during initial and second/third-entry surveys, and (d) provides direction in recording the results of surveys.

B. Resource-Probability Land-Types: A Review

In Section IV, classification of the Forest's land-base in terms of cultural resource potential (or probability) identified ten land-types, classed as "high," "medium," or "low" probability for containing cultural resources:

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<thead>
<tr>
<th>HIGH</th>
<th>MEDIUM</th>
<th>LOW</th>
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<tbody>
<tr>
<td>H-1 (All water sources)</td>
<td>M-1 (Spur ridges)</td>
<td>L-1 (Other &quot;level&quot; areas)</td>
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<tr>
<td>H-2 (Small benches)</td>
<td>M-2 (Lava flows, slides)</td>
<td>L-2 (Other &quot;steep&quot; areas)</td>
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<td>H-3 (Meadows, etc.)</td>
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<td>H-4 (Major ridges)</td>
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<td>H-5 (Cliff bases)</td>
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<td>H-6 (Peak, bluff summits)</td>
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<td>H-7 (Known or suspected cultural resource sites)*</td>
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* Note: H-7, the seventh kind of area that will be treated as "high potential," regardless of the actual land-type in which such areas occur, is any location with a documented or reported cultural resource. This category of land includes both discrete sites as well as linear features such as roads and trails. For example, a Forest Service trail across L-1 or L-2 land would be surveyed as intensively as would an area of H-4 land. Therefore, any known or suspected cultural resource will be treated as "H-7" land-type and given intensive coverage to determine if additional cultural evidence is present.
Some places within the Forest can be classified as falling within more than one of the above land-types; for the purposes of c.r. survey, any such area will be treated as belonging to the "highest c.r. potential" land-type and will be searched accordingly.

C. Intensive Coverage

The issue of "intensive coverage" is crucial to attaining the objectives of the Forest's c.r. inventory program. Intensive coverage is sometimes referred to as "one-hundred percent coverage." "Total" inventory is, practically speaking, a misnomer for intensive c.r. survey in heavily vegetated terrain. However, although a truly "100% survey" of the Forest may never be realized, the inventory strategy is designed to approach as closely as possible to that goal given the realities of terrain, vegetation cover, and administrative constraints.

"Findable" Cultural Resources: Intensive coverage means c.r. survey of sufficient thoroughness to find all of the "reasonably findable" cultural resources within the area intensively searched. "Reasonably findable" resources includes those which have some form of cultural evidence visible on the ground surface, either artifacts or features which can be found by intensive search. For the purposes of the Forest's strategy, "findable" resources include virtually all historic sites and all prehistoric sites down to most small, sparse lithic scatters with surface evidence, as well as stacked-rock features and other small sites. Sites which are situated totally beneath the ground surface, with no surface indications, are not considered reasonably findable (however, see below, for discussion of test-scrapse survey in selected high probability areas). Isolated artifacts are not considered reasonably findable resources; although isolated artifacts have been (and no doubt will continue to be) found during search efforts, the inventory strategy is not designed to find all such isolated artifacts.

Intensive Survey Methods: There is no absolute, "cookbook" procedure to survey an area intensively; it is recognized that individual, area-specific judgements and decisions will often have to be made in the field. However, the following standards should be applied in all situations unless on-the-ground conditions determine otherwise; in such cases the reasons for variation from these standards must be given in the project's c.r. reconnaissance report.

Ground Visibility: Visibility of the ground surface is a crucially important aspect of intensive coverage. In "open" areas, where ground-cover vegetation is absent or minimal, intensive coverage can proceed unimpeded. In forested or otherwise obscured ground-surface areas, intensive coverage efforts must utilize all places where mineral soil is exposed: trails, skid roads, rootwads and rootwad holes of windthrown trees, deer beds, gopher "back-dirt" piles, bases of large trees, streambeds and so on. (Note on visibility "enhancement": Lithic debitage is often composed of very small fragments, and intensive coverage will almost always involve a considerable amount of slow walking in a "bent-over" position in order to enhance the visibility of small, sparse lithic scatters. In certain high probability areas, particularly the exposed-soil margins of meadows, some "extra intensive" coverage will be called for: "hands-and knees survey" can yield small fragments of debitage that otherwise might not be noticed by a careful observer.)
In heavily vegetated portions of certain high-probability areas (e.g., land-types H-1 and H-3) selected by the surveyor (usually in consultation with the Forest archaeologist), "test-scrapes" can be done to provide visual coverage of a sample of the area's mineral soil surface. Test-scrapes should typically involve trowel-scraped excavations between 0.5 and 1 meter in diameter down to the surface of mineral soil; the excavations should be located no more than 20 meters apart along a survey route. (Note: Although test-scrape inventory has proven much more effective in delimiting the extent of previously known sites than it has in finding previously unknown sites, it will continue to be used as part of the Forest's inventory strategy methods on a case-by-case basis.)

Survey Routes: Intensive coverage must survey all high probability land-types and a sample (discussed below) of the remaining land-types. Due to the typically rugged topography of most of the Forest, straight-line or compass-oriented survey routes are not always appropriate. Terrain-oriented survey coverage, with straight-line transects used as appropriate in level to gently-sloped areas, will be standard in the Siskiyou Mountains and Rogue-Umpqua Divide units. Streamcourse and ridge-crest orientation will be the primary factors in terrain-oriented coverage. Except in the case of "narrow," high/medium probability land-types (e.g., H-4, M-1) or of sample transects across low probability land-types (e.g., a skid-road used as an "opportunistic" route across a heavily forested, steep slope) where a single (but often meandering) transect will typically suffice, transects should be spaced approximately 20 meters apart. In otherwise appropriate land-types where the standard spacing has to be varied due to unforeseen terrain or vegetation factors, this fact should be discussed in the project c.r. reconnaissance report.

Sampling: Intensive coverage of most project areas on the Forest will consist of sampling; very few project areas will involve intensive coverage of the total area (exceptions would include projects that are under 20 acres in size or projects which involve transfer of National Forest land to private ownership). The actual portion of any project acreage to be sampled will depend on the land-types involved, whether the survey is an initial-entry or second/third-entry search of a given area, as well as other factors. The sample portions given below will be the Forest standard; the reasons for any significant deviations from the standard must be given in the project's c.r. reconnaissance report.

Initial Entry Surveys: "Initial entry," as used in the c.r. inventory strategy, refers to the first adequately-documented cultural resource survey effort within a given area. It does not necessarily equate to the usual Forest Service definition of the term: the first phase of logging or other ground disturbance within in an area (i.e., many areas of the Forest were logged during the 1920s-1960s long before the Forest's cultural resource inventory program began).

In initial-entry project areas, the following intensive coverage sampling will be standard:

*High probability land-types: 100%

*Medium probability land-types: 20%

*Low probability land-types: 5% minimum
For the project's total acreage, a minimum of 20 percent of the entire area will be intensively searched (i.e., if a project consists of L-1 or L-2 exclusively, then 20% of those low probability acres will be searched).

**Intensive coverage in low probability land-types** shall emphasize the search of known "project impact acres," including planned road construction routes, specific harvest units, landings, etc. In the Siskiyou Mountains, special attention will be given to sampling steep slopes (L-2) in an effort to find traces of hydraulic mining ditches (on slopes below 3,500 feet) and small lode mining features; this may expand coverage in low probability areas to 10 percent.

Regarding coverage in low probability land-types, it is important to note that most timber sale areas on the Rogue River National Forest are composed largely of harvest units that are located in land-types L-1 and L-2. In addition to specific coverage of portions of these units during c.r. survey, these units are intensely covered by Forest Service pre-sale layout personnel (e.g., for purposes of surveying slope profiles, performing timber stand examinations, mapping/marking of sale units, and other duties). Most of the Forest's pre-sale personnel are formerly active c.r. technicians or have had cultural resource orientation/awareness training specific to their particular Ranger District; the minimum "5-20%" survey of low potential areas will actually be closer to 50-75% coverage due to the de facto c.r. coverage during pre-sale layout of each project.

**Second Entry Surveys:** This term refers to second or even third phases of c.r. survey within a given area. The repetitive surveys are a function of the "multiple entry" harvest methods used on the Forest, primarily the shelterwood harvest method. The repetitive c.r. survey system (a) enables re-survey of areas that may have been heavily obscured by vegetation during the initial entry, (b) provides for monitoring of the work done by previous surveyors, and (c) enables periodic reassessment of the Forest's inventory strategy.

In second-entry project areas, the following intensive coverage sampling will be standard:

- **High probability land-types:** 80% minimum (100% preferred)
- **Medium and low probability land-types:** aggregate minimum of 5%
  (10% preferred)

In the long run, all medium-to-low-probability land-type areas of the Forest should be given at least two phases of survey coverage, within the sampling scheme described above. With completion of a second-entry search, such an area will usually be considered "cleared" for c.r. survey purposes and additional search of low-probability areas will not normally be necessary. However, certain medium-to-low-probability land-type areas, based on the judgement of the Forest archaeologist or due to the availability of new data, may be given a third or even fourth phase of coverage. *High-probability land-type areas* will typically be re-surveyed prior to any ground-disturbing project, and this may involve numerous survey re-entries over the long term.

**Pre-field Research:** Prior to actual field survey, the Ranger District's cultural resource coordinator or c.r. surveyor will consult with the Forest archaeologist (who will assign the
project a c.r. job number), and then conduct a review of relevant ethnographic and historical records. Typically, this will minimally include reference to appropriate sections of the Forest's Cultural Resource Overview, previous c.r. reconnaissance reports for the area, early Forest Service or GLO township plats, the 2-volume administrative history of the Forest, oral history interviews which deal with the survey area, or contact with local residents/FS employees with a personal knowledge of the area. A workable scale map of the survey area (i.e., typically using 7.5' topographic quad base-map, enlarged as needed) will be prepared that shows (a) known/suspected sites and (b) the area's various land-types, as defined in Section V of this plan. This "pre-field" map will guide the on-the-ground survey effort.

Field Survey and Post-Survey Documentation: Cultural resource field personnel will utilize the survey methods and sampling schemes given above, as well as the basic archaeological survey skills learned as part of c.r. technician training (including periodic CRM updates and "refresher" courses given on-Forest). Site recording will include mapping, scale drawings, and photography as appropriate. Every site given a RRNF site number will be documented on a R-6 site-report form (R6-FS-2300-18) or other standard form; every site-form will be accompanied by a 1"=1 mile (or better) scale map pin-pointing the location of that particular site. (Note: if a site is too small to map its size/shape accurately as anything other than a small dot on the map, make a colored dot-mark at the proper location and enclose the dot in this symbol: .) For all prehistoric sites, each site-form should also include a photocopy of the appropriate aerial photograph (photo i.d. # shown) with the site location marked in color.

During or after the survey, the District's c.r. coordinator or c.r. surveyor will again consult with the Forest archaeologist, who will (a) assign FS site numbers to relevent resources and (b) provide site evaluations/recommendations as needed.

In addition to site-forms, post-survey documentation will usually involve preparation of a cultural resource reconnaissance report. The basic format for both positive and negative reports is available on the FS Data General computer system; it can be modified as needed for each project. Certain project reports may call for special report formats; the Forest archaeologist will assist in such efforts. Upon completion of a draft version, the Forest archaeologist will review the report and return it in a timely manner to the writer for final revision. Two copies of the final report (including color-coded maps, etc.) will be prepared on the Ranger District, with the appropriate District review signatures, and then sent to the Forest archaeologist. (Note: The District c.r. coordinator should retain a third copy for the District's CRM job file.) The Forest archaeologist will place one copy of the report in the Forest's master CRM job file (after recording relevant data for CRM accomplishment reporting purposes) and will send the other copy to the State Historic Preservation Office for review and comment.

Upon receipt of SHPO's written concurrence/comments or completion of the "no historic properties"/"no effect" documentation form by the Forest archaeologist, as appropriate, the Forest archaeologist will send a copy to the District's c.r. coordinator for inclusion in the project's Environmental Assessment (EA) file. 

*Note:* Site locational information is exempt from the Freedom of Information Act and is usually not appropriate to include in an EA packet. SHPO concurrence forms, Forest archaeologist's "no historic properties"/"no effect" forms, or other compliance documentation are typically the only c.r. information that should be included in the project EA or EA files available to the public.
Each cultural resource survey and its results will be recorded on the District and Supervisor's Office c.r. job and c.r. site overlays. Copies of the reconnaissance report, site-forms, site evaluation reports, SHPO compliance documentation, and other information will be permanently held in each District/SO c.r. job file.
VI. MONITORING AND REASSESSMENT

As discussed in Section I-D of this plan, the Rogue River National Forest's cultural resource inventory strategy will be re-evaluated periodically.

A. Additional Monitoring

Second-entry surveys (discussed in Section V) will continue to serve as the primary means to monitor the effectiveness of the inventory strategy. In addition to "overstory timber removal" projects under the shelterwood harvest system, second-entry surveys accomplished during the 1990s included a number of extensive road-side timber salvage projects. Although most such "hazard tree" salvage timber sales were restricted to very narrow bands of land immediately adjacent to existing roads, these projects gave added opportunity for monitoring the inventory strategy (i.e., many of the Forest's roads follow the contours of steep slopes and their cut-banks provide for intensive coverage of otherwise heavily vegetated terrain; c.r. survey of these projects will therefore entail additional sampling of these land-types). "Density management" timber harvests (e.g., "thinning from below" projects that focus on removal of dense stands of young trees while retaining larger diameter trees), which came into use during the 1990s, will likely become increasingly prevalent during the 2000s. Projects such as roadside hazard-tree sales, density management/fire-reduction projects, and old-growth enhancement projects will continue to be used for monitoring the inventory strategy.

Supplemental monitoring will be done by (or under the direct supervision of) the Forest archaeologist on a triennial basis for each of the three geographic areas if regularly scheduled projects are not sufficient to provide for adequate monitoring. At least one timber sale or other previously surveyed area will be selected per unit; monitoring will include intensive re-coverage of at least 20% of the low probability land-type acres in the selected area.

B. Periodic Reassessment

Based on the results of on-going survey work, monitoring efforts, and other information, the Forest's inventory strategy will be peridoically reassessed. The assessment will focus on (a) c.r. probability land-type classifications, (b) intensive coverage techniques, (c) sampling schemes, and (d) effectiveness of monitoring. The efficacy of the strategy will be evaluated by the Forest archaeologist every five years; documentation of the reassessment findings will be provided to SHPO for review and comment. If adjustments or modifications to the strategy need to be made, this inventory strategy plan ("archived" in the Forest's computer files) will be revised and re-issued.
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APPENDIX

Sample Land-Type Maps

Following are six examples of cultural resource land-type maps. There are two examples for each of the Forest's three geographic units. High c.r. potential areas are delineated. Medium and low c.r. potential areas include all areas not delineated; medium potential ground, for the most, consists of spur ridge-crests that are easily observed on the topographic maps.

These maps, which continue in use from the original 1990 version of the C.R.I.S.P., are schematic in function. Larger-scale mapping on a project-by-project basis will involve a higher degree of accuracy for land-type identification, as well as for recording of actual survey routes followed during project reconnaissance.

Prior to performing the field survey (but subsequent to the pre-field research phase), the cultural resource technician responsible for c.r. inventory of a particular project area will prepare a project-specific c.r. land-type map -- based on the land-type definitions given in Section IV of the Plan -- and a copy of this map will be included with the "form A" submitted to the Forest archaeologist for review and assignment of a c.r. job number to that project. The archaeologist will return the form and map with additional survey-strategy direction when appropriate. This process will ensure than the Plan's inventory strategy is being implemented and will provide an opportunity for project-specific modifications.
ROGUE-UMQUA DIVIDE
Abbott Butte USGS Quad #2