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Forest Service

Limestone/Silver Vegetation Management Project

Newport-Sullivan Lake Ranger Districts

Colville National Forest

Heritage Resource Report

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Introduction

The Newport-Sullivan Lake Ranger District of the Colville National Forest has proposed a vegetation management project on Forest Service System land. The project area is located between Leadpoint and Metaline, Washington, and is bounded to the east by Highway WA-31 and bounded on the west by Deep Lake Boundary Road. The analysis area is within the Deep Creek, Cedar Creek-Pend Oreille, and Slate Creek Pend Oreille Watersheds. Primary access is via Highway 31, National Forest System Road 2975, National Forest System Road 4730, and National Forest System Road 4752.

As prescribed by Forest Service and other federal guidelines, a cultural resources inventory was conducted on 982 acres of proposed project areas. Surveys were conducted during the 2016 field season by Forest Service archaeological technicians. The Colville National Forest Inventory Design for Heritage Resources (Kramer 2002) allowed the Forest to reduce the initial 3,618 acres identified as project unit to 818 acres requiring survey (table 1). Actual inventory covered 982 acres and identified 14 new sites and monitored 14 previously identified sites.

The focus of the proposed action is to improve forest health, reduce hazardous fuels, and improve ecological processes through restoration of aquatic/riparian habitat conditions in accordance with the Colville National Forest Plan. Effects to those identified heritage resources must be considered.

Table 1. Cultural Resource Inventory Summary

	Acres			
Total Initial Project Area Acreage	3,662			
Prior Survey/Un-surveyable Acreage	44 (17/27)			
Acres Requiring Survey	3,618			
Inventory Design Probability	Acres	Survey Intensity	Inventory Design Acres To Survey	Surveyed
High (0-15% Slope)	533	100%	533	448
Med (15-25% Slope)	435	35%	152	219
Low (greater than 25% Slope)	2,650	5%	133	315
Total	3,618		818	982

Relevant Laws, Regulations, and Policy

Regulatory Framework

Land and Resource Management Plan

The 1988 Colville National Forest Land and Resource Management Plan provides standards and guidelines for heritage resources.

The Limestone/Silver Vegetation Management Project, with the mitigation provided, meets the Forest Plan Standards and Guidelines for Cultural Resources (item 2, page 4-37) and federal regulations concerning heritage properties (National Historic Preservation Act and its implementing regulations at 36

CFR 800). Monitoring and maintenance of these sites would continue through the Heritage Program's standard program of work.

Laws, Regulations, and Policy that Apply to Heritage Resources

- Organic Act of 1897 (Title 16, United States Code (U.S.C.), section 473-478, 479-482, 551)
- Antiquities Act of 1906 (34 Statute 225, 16 U.S.C. 431-433), Uniform regulations at 43 CFR part 3 implement the Act.
- Historic Sites Act of 1935 (16 U.S.C. 461), Uniform regulations at 36 CFR part 65 implement the Act.
- National Historic Preservation Act (NHPA) of 1966 as amended, (16 U.S.C. 470) Uniform and departmental regulations at 36 CFR part 800 implement NHPA.
- Archaeological Resources Protection Act of 1979 as amended (ARPA) (16 U.S.C. 470aa *et seq.*). Uniform regulations and departmental regulations at 36 CFR part 296 implement ARPA.
- Archeological and Historic Preservation Act (AHPA) of 1974 (16 U.S.C. 469-469c-2)
- Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (25 U.S.C. 3001) Uniform regulations and departmental regulations at 43 CFR part 10 implement NAGPRA.
- National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4346). The Act is implemented by the Council on Environmental Quality (CEQ) regulations at 40 CFR 1500-1508.
- National Forest Management Act of 1976 (NFMA) (16 U.S.C. 1600)
- Federal Land Policy and Management Act of 1976 (FLPMA), (43 U.S.C. 1701)
- Executive Order 11593, Protection and Enhancement of the Cultural Environment (May 13, 1971)
- Executive Order 13287, Preserve America (Mar. 3, 2003)
- Executive Order 13327, Federal Real Property Asset Management (Feb. 4, 2004)
- Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716)
- 36 CFR 60 National Register of Historic Places
- 36 CFR 61 Procedures for Approved State and Local Government Historic Preservation Programs
- 36 CFR 63 Determinations of Eligibility for Inclusion in the National Register of Historic Places
- 36 CFR 65 National Historic Landmarks Program
- 36 CFR 68 The Secretary of the Interior's Standards for Historic Properties
- 36 CFR 79 Curation of Federally Owned and Administered Archaeological Collections

Other Guidance or Recommendations

- FSM2360.1 Forest Service Manual Heritage Program Management (2015)
- FSH 2309.12 Heritage Program Management Handbook (2015)
- Programmatic Agreement Among the United States Department of Agricultural, Forest Service, Pacific Northwest Region (Region 6), the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Officer Regarding Cultural Resources Management on National Forest in the state of Washington (1997).

Topics and Issues Addressed in This Analysis

Purpose and Need

- Promoting ecological resiliency to uncharacteristic disturbance (extreme insect/disease outbreaks and/or severe fire behavior) by restoring tree species that are better able to withstand the effects of fire, and increasing growing space for tree species to promote healthier conditions.
- Identifying where the fire regime condition class is not within the historic range of variability and taking management actions to move it closer to the desired condition class.
- Reduce hazardous fuels^[2] (ground fuels, ladder fuels, and forest crown continuity), for the purpose of reducing the risk of large, stand-replacing fires. The effect of reducing the risk of large, stand-replacing fires would be to: 1) decrease the probability that a wildland fire would develop into, or be sustained as, a stand-replacing or crown fire, 2) increase the ability to provide for public and firefighter safety during a wildland fire, and 3) increase the effectiveness and efficiency of protecting property within the wildland-urban interface^[3].
- Restore watershed conditions by reducing sedimentation from roads and trails and move streams and wetlands into functioning conditions; and maintain or restore riparian vegetation (Inland Native Fish Strategy, 1997);
- Identify the type and length of new Forest Service System roads and temporary roads needed to access areas of forest without roads that need short- and long-term treatments to move the stands closer to the historical range of variability.
- Identify current Forest Service System roads and unauthorized road templates where restoration actions would result in improved hydrologic stability on the landscape.

^[2] 10-year Comprehensive Strategy Implementation Plan (USDA Forest Service, 2002)

^[3] Cohesive Strategy Priority (USDA Forest Service, 2000)

Issues

- Promoting development of late-successional habitat and old-growth forest ecosystems, which serve as habitat for a variety of terrestrial wildlife species
- Protection or improvement of aquatic habitats
- Level and type of fuel reduction adjacent to privately-owned lands
- Management of stands to minimize effects of mountain pine beetle and other insects
- Management of road density as it affects fragmentation or other wildlife habitat concerns
- Management of overstocked stands which exhibit decreased vigor and increased susceptibility to insects and diseases
- Access to proposed treatment areas

Potential Concerns for Heritage Resources

Potential issues of concern for heritage resources in the analysis area include:

- Reduction of vegetation and fuels could have the potential to effect historic properties.
- Management of roads and aquatic improvement projects could affect historic properties.

Resource Indicators and Measures

The resource indicators and measures used in this analysis are listed in table 2.

Table 2. Resource indicators and measures for assessing effects

Resource Element	Resource Indicator	Measure (Quantify if possible)	Used to address: P/N, or key issue?	Source (LRMP S/G; law or policy, BMPs, etc.)?
Site assessment	Site conditions	Generally descriptive unless a previous assessment exists in which current conditions can be compared.	Yes	BMP (HPMP)

Methodology

The objectives of the cultural resources inventory are to identify, record, and evaluate all prehistoric and historic cultural resources within the analysis area in accordance with criteria set by the National Register of Historic Places and to determine effects under section 106 of the National Historic Preservation Act as amended.

A literature search is used to identify known sites and prior surveys in the area. If the surveys provided adequate coverage, then these areas are eliminated from requiring survey. Known sites that might be directly impacted by proposed actions are also identified for monitoring to assess conditions since the last site visit and identify if other preservation measurements are required.

As prescribed by Forest Service and other federal guidelines, a cultural resources inventory is conducted on the proposed project areas within the analysis area. The Colville National Forest Inventory Design for Heritage Resources (Kramer 2002) uses certain variables, like slope and distance to water, to eliminate areas with low potential for sites (very steep slopes) and prioritize those areas with high potential for sites (e.g., flat areas close to water). The survey itself consists of intensive pedestrian surveys at 20-meter intervals with efforts focused on covering those areas with high to medium potential for sites.

Monitored sites and newly identified sites have a protective buffer, typically 30 meters, flagged around the site boundary to help with avoidance mitigation measures. In some areas, a standard protection area was not feasible because of the proximity of highways, roads, campgrounds, streams, and creeks. In these particular cases, a decreased buffer perimeter is allowed.

Management Class Recommendations

A National Register of Historic Places determination of eligibility is prescribed by the National Historic Preservation Act implementing regulation 36 CFR 800 as a method for designing management recommendations for heritage properties located on National Forest System lands. Evaluations of eligibility are performed for each property within the project boundary, when practical. Following this, management prescriptions are provided for project analysis. The following list of management prescriptions was developed for historic properties on National Forest System lands. These prescriptions are based on National Register eligibility determinations for historic properties.

Table 3. Management class prescriptions

Management Class	Prescription	Number of Sites in the Analysis Area
1	Evaluated as "Not Eligible." No further need to actively manage.	7
2	Not evaluated. Property must be protected and preserved as if eligible. Protect historic property through avoidance.	31
3	Evaluated as "Eligible to the National Register" Project would have <u>no effect</u> on property. Property must be protected and preserved as defined by regulation. Protect historic property through avoidance.	0
4	Evaluated as "Eligible." Project would have an <u>adverse effect</u> on property. Property must be protected and preserved as defined by regulation. Protect historic property through avoidance.	0

Currently, there are 38 known sites in the project area. Seven of these sites are management class 1 as they have been determined not to be eligible with State Historic Preservation Office concurrence. Thirty-one sites are classified as management class 2. It is recommended to protect historic properties through project re-design to avoid all class 2 sites.

Information Sources

A records search of previous surveys and sites recorded within a quarter mile of the project area was conducted prior to the beginning of the project. Colville National Forest Heritage Program files maintained at the Supervisor's Office in Colville, Washington, and the Washington Department of Archeology and Historic Preservation files were examined for relevant information. In addition, a search of hard copy atlas maps, General Land Office maps, aerial photos, and any other information pertinent to the project area was conducted.

Incomplete and Unavailable Information

The tribes were asked to identify traditional cultural properties in the area. While the Colville National Forest Heritage Program has not been advised of known traditional cultural properties within the planning area, the Confederated Tribes of the Colville Reservation have asked Forest Service staff for analysis of ethnography and historic documents to see if anything has been noted in the past that might be considered as traditional cultural properties. The Confederated Tribes of the Colville Reservation have also requested the Forest to consider effects to ethnobotanical resources (i.e. culturally significant plants) that might be important to the tribe and consider them in our analysis and planning. This sort of analysis has not been completed.

Spatial and Temporal Context for Effects Analysis

Direct/Indirect Effects Boundaries

The spatial boundaries for analyzing the direct and indirect effects to heritage resources are the site's boundary and the designated protection area. The sites are irreplaceable should they be effected. The vegetative cover of the designated protection area is critical for site protection.

The temporal boundaries for analyzing the direct and indirect effects are short-term (1 to 5 years). Rates of decay to sites, especially those with wood as part of a site's features (like cabins, flumes, etc.), can radically alter a site's context within a short period time. For instance, a collapsed roof allows for more exposure to the elements and accelerates rates of decay. Vegetation growth or regrowth occur at different speeds, and can affect the site's condition.

Cumulative Effects Boundaries

The spatial boundaries for analyzing the direct and indirect effects to heritage resources are the site's boundary and the designated protection area. The sites are irreplaceable should they be effected. The vegetative cover of the designated protection area is critical for site protection.

The temporal boundaries for analyzing the cumulative effects are long-term (5 or more years) because coincidental projects with overlapping effects have the potential to increase forest users in the project location, and with decreased vegetative cover, expose the heritage resource to impacts. Additionally, the effects of changes in drainage patterns, vegetation, and other natural factors that occur after projects have the ability to affect rates of natural decay for sites.

Affected Environment

Cultural Context

Prehistoric

Archaeological research has uncovered evidence of human activity in the region dating to the middle-Archaic period (8,000 to 5,000 years ago). The evidence for this activity is found predominantly in the form of lithic artifacts. Archaeological excavations have recovered artifacts, but subsequent research and analysis have not produced a chronology or a generalized local sequence. In general, a three period chronology system (Thoms 1984) is utilized; this system is an adaptation of a Northwestern Plains sequence proposed by Mulloy (1958).

The Colville National Forest is located within a culture known as the Plateau. The Plateau is set apart from its neighboring cultural areas by topography (mountainous barriers) and aboriginal cultural adaptations. The cultural adaptations were strongly influenced by available resources and the inland maritime environment (Chatters and Pokotylo 1998). Most Plateau cultural adaptations have emphasized the mass harvest and long-term storage of three resource groups: fish (salmonids), edible roots (camas), and large ungulates. Settlements within the Plateau area were also similar and were characterized by winter settlement in the lowlands and dispersed resource procurement encampments in the summer. Population densities were tied to resource abundance (particularly fish). The Plateau culture area is subdivided into the Northern (Canadian) Plateau, the Southern (Columbia) Plateau, and the Eastern Plateau. The Colville National Forest is influenced predominately by the Northern and Eastern Plateau cultural areas, with Pend Oreille County located entirely within the Eastern Plateau sphere of influence.

The Eastern Plateau region is characterized by great physiographic diversity. This diversity has influenced the aboriginal cultural adaptations that arose in the area. The diverse terrain presented obstacles and opportunities for native peoples. In general, the presence or absence of fish migration (salmon and steelhead) impacted cultural development more than any other factor (Chatters and Pokotylo 1998).

Ethnographic investigation has permitted certain generalities about the region. During the last 6,000 years, the region has been used by diverse groups for a variety of activities. The project area lies within the traditional use area of the Kalispel. The Kalispel is a sub-group of the Salishan-speaking groups which include the following cultural traditions: Wenatchee, Columbia, Chelan, Methow, Okanogan, Nespelem, Sanpoil, Spokane, Coeur D'Alene, Colville, Lakes, and Kalispel. Ethnographic accounts indicate that the Pend Oreille River Valley, specifically the eastern edge of the Colville National Forest, may have also been used by the Kootenai, Spokane, and Colville tribes.

Historic

Fur-trading

Beginning in 1821, the Hudson Bay Trading Company had great influence in the Colville and Pend Oreille Valley regions; this influence lasted through to the late 1800s. The Hudson Bay Trading Company was the largest trade outpost in the region, serving parts of Washington, Idaho, Montana, and Canada. The company maintained a cadre of trappers in addition to purchasing furs from freelance trappers. Under the influence/guidance of the Hudson Bay Trading Company, many trails were created to facilitate trade within the region. The presence of the Hudson Bay Trading Company induced cultural changes in both Euro-American and First Nation Communities alike (Chance 1973). In 1809, David Thompson of the North West Company was the first trader to make contact with the Kalispel (Thoms 1987b). In 1809,

Thompson attempted to descend the Pend Oreille River and made it as far as the present day community of Tiger.

Mining

Hundreds of miners began to filter into the Pend Oreille River Valley primarily looking for gold. Some gold was found, but it was the larger deposits of zinc and lead that continued to fuel the mining industry. The earliest gold discovery was in 1859 on Sullivan Creek (Holstine 1987). The earliest mining efforts were for placer deposits. In its simplest form, all placer mining required was a gold pan and running water fueled by determination. In its most complex form; several men would work rockers, sluice boxes, pressure hoses, and floating dredges. Most of the placer mines played themselves out by the 1870s. Placer mining eventually gave way to hard rock mining; hard rock mining required heavier equipment and capital investment. The most notable hard rock mine in Pend Oreille County was the Oriole mine. The Oriole mine was located by George H. Linton and was situated west of Metaline Falls.

Homesteading

While the miners had gained entry into the Pend Oreille Valley by the 1850s, the majority of the northern part of the county remained isolated and inaccessible. Riverboat traffic stopped at Box Canyon until 1906, when the Federal government widened the channel. Even so, riverboat landings were scarce, and it was not until the Great Northern Railroad's transcontinental line arrived in 1892 that homesteading expansion grew in earnest (Holstine 1987). Much of the lands adjacent to the river had been claimed, forcing new arrivals to claim parcels on higher ground. These lands were marginal and suited to timber and grazing. Eventually most settlers abandoned their lands or sold them to timber companies or the Federal government via the Resettlement Administration. Most of the homesteads date from the 1890s through to the 1920s; homesteading left an indelible mark on the Forest.

Logging

Settlers in the late 1880s introduced the timber industry into the area. With the timber industry and the passage of the Forest Homestead Act in 1906, homesteaders moved into the project area (Bamonte and Bamonte 1996). The Forest Homestead Act allowed for 160-acre homesteads on reserved forest lands. Under the Act, the land parcels were supposed to have agricultural potential, but much of the land was rocky and unsuitable for farming. Settlers in the area found that timber harvesting was much more profitable than farming (Bamonte and Bamonte 1996).

The timber industry became the primary industry and contributed greatly to the settlement and economic development of Pend Oreille County (Fandrich 2002). In 1902, the Dalton and Kennedy sawmill was built in Dalkena; the mill contributed to much of the local prosperity in that section of the Pend Oreille Valley. The Panhandle Lumber Company, located in Ione, was also a major influence on the area and was considered to be one of the best equipped sawmills in northeastern Washington. By 1914, the timber industry was paying 55 percent of all wages in the state of Washington.

"New Deal" Era

During the Great Depression, President Franklin D. Roosevelt proposed a series of economic relief programs to the American public. These programs were designed to put the many unemployed Americans back to work and provide an income with which they could support their families. One such program was the Civilian Conservation Corps (CCC).

Northeastern Washington had fallen into economic depression well before the stock market crash of 1929. Many of the industries that supported northeastern Washington fell on hard times after World War I when farm prices dropped and mining needs diminished (Holstine 1987, p. 67). The Colville National Forest

and other public lands benefitted from the New Deal Era programs. Arguably the greatest contribution to forest, and the community as a whole, was made by the CCC.

An estimated 11,200 men were employed by the CCC in the state of Washington at the time of its inception (Holstine 1987), with about 200 men located at each camp. There were 16 CCC camps located within or adjacent to what is now the Colville National Forest; eight of these camps were located in Pend Oreille County. The camp duties included, but were not limited to, the following: fighting local fires, building/maintaining roads and trails, improving campgrounds, and planting trees.

Historic Properties Summary

There have been five previous cultural resource inventories completed within the Limestone/Silver analysis area that are considered adequate. These surveys equal 89 acres, but only 17 acres of these surveys fall in proposed project units (table 4).

A total of 38 sites are within the analysis area. Twenty-four sites had been previously recorded (table 5) and 14 sites were newly identified in 2016 (table 6). One site, 6210500198, is a logging complex composed of 18 features that had previously been recorded as individual sites. The Forest combined all these features under one site number at some point.

Table 4. Previous cultural resource inventories

Report #	Author	Report Title	Date	Acres	Findings
R2004062105009	A. Beat	Boundary Meadows Restoration	2004	25	No Effect (Avoidance)
R2006062105016	T. Randolf	Boundary Meadows Wetlands Restoration Project	2006	46	No Effect
R2009062105010	C. Burdick	Krabbenhof Waterline Special Use Permit	2006	8	No Effect (Avoidance)
R2011062112003	S. Chilvers	Red Top Radio Repeater	2011	5	No Historic Properties
R2012062105008	K. Philmon R. Gordon	Metaline Radio Tower	2015	5	No Historic Properties

Monitoring was conducted on 14 known sites. Only 4 of the 18 features of site 06210500198 were able to be visited, and those features were located within identified project units. Three sites were outside of proposed units and were not visited. Seven sites had been determined “not eligible,” following Forest Service management prescriptions (table 3) and were not visited.

Environmental Consequences

Alternative 1 – No Action

There would be no change from the current condition. Heritage sites would continue to gradually deteriorate over time, subject primarily to natural forces (i.e. weather conditions, unexpected wildfire, etc.). Cattle grazing and recreationists would still have the potential to effect sites through destruction and/or alteration. Natural forces could destroy or significantly damage standing or downed historical structures, affecting potential National Register eligibility characteristics of these properties.

Alternative 2 – Proposed Action

Project activities have the potential to damage or destroy these sites directly by heavy machinery, falling trees, road building, fuels treatments, fisheries/hydrology projects, etc., or indirectly as a result of discovery through increased access to exposed sites. Qualified Heritage Program personnel would coordinate with appropriate project personnel to provide location information to pre-sale, roads, and fuels treatment crews and ensure buffers are enacted.

Twenty-one sites (table 7) are located within 50 meters of proposed treatment units and have the potential to be effected by proposed activities.

Table 5. Previously known historic properties located in the project area

Forest Site Number	Smithsonian #	Site Name	DAHP SITE TYPE	Eligibility (SHPO Concurrence Date)	Monitoring Notes (Date of Monitor)
Site Requiring Monitoring (Site is in proposed project areas and is eligible or potentially eligible)					
06210100232	N/A	Lucille Mine	Historic Mining Property	Potentially Eligible	No Change (10/14/16)
06210500192	N/A	Brick Kiln	Historic Structure Unknown	Potentially Eligible	No Change (8/24/16)
06210500193	N/A	Frank Smith's Cabin	Historic Cabin	Potentially Eligible	Further Deterioration (9/12/16)
6210500198 Flume Creek Logging Complex	N/A	OM-Flume Cr	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01415	OM-Flume Cr	Historic Logging Properties	Potentially Eligible	Not Monitored
	N/A	OM-Flume Cr Boards	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01416	OM-Flume Cr Bridge	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01418	OM-Flume Cr Can Dump	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01413	OM-Flume Cr Cord Road	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01421	OM-Flume Cr Dam	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01410	OM-Flume Cr Duo	Historic Logging Properties	Potentially Eligible	Further Deterioration (11/8/16)
	N/A	OM-Flume Cr Flume	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01419	OM-Flume Cr Flume	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01420	OM-Flume Cr Head Gate	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01409	OM-Flume Cr House	Historic Logging Properties	Potentially Eligible	Not Monitored

Forest Site Number	Smithsonian #	Site Name	DAHP SITE TYPE	Eligibility (SHPO Concurrence Date)	Monitoring Notes (Date of Monitor)
	45FS01412	OM-Flume Cr Landing	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01417	OM-Flume Cr Log Cabin	Historic Logging Properties	Potentially Eligible	No Change (9/27/16)
	45FS01411	OM-Flume Cr Log Jam	Historic Logging Properties	Potentially Eligible	Not Monitored
	N/A	OM-Flume Cr Saw Blade	Historic Logging Properties	Potentially Eligible	No Change (9/9/13)
	45FS01414	OM-Flume Cr Workcamp	Historic Logging Properties	Potentially Eligible	Not Monitored
	45FS01408	OM-Flume Root Cellar	Historic Logging Properties	Potentially Eligible	Further Deterioration (11/8/16)
06210500271	45FS02263	Hoage Mining Claim	Historic Mining Properties	Potentially Eligible	No Change (6/30/16)
Forest Site Number	Smithsonian #	Site Name	DAHP SITE TYPE	Eligibility (SHPO Concurrence Date)	Monitoring Notes (Date of Monitor)
06210500325	N/A	F. Schmidt Ditch	Historic Water Structure	Potentially Eligible	Further Deterioration (9/12/16)
06211200060	N/A	Myeerah Mine	Historic Mining Property	Potentially Eligible	Further Deterioration (10/8/16)
Site Not Requiring Monitoring (Sites are in analysis area but not in project area or are not eligible and are no longer managed)					
06210100004	45CF00024	Levi H. Fox Homestead	Historic Cabin	Not Eligible (5-9-83)	N/A
06210100089	45ST00247	Challin Ore	Historic Mining Property	Not Eligible (1-11-80)	N/A
06210100192	45CF00470	W.F. Kuhnert Homestead	Historic Cabin	Not Eligible (11-20-87)	N/A
06210100234	N/A	Red Top Cabin	Historic Mining Properties	Potentially Eligible	Not Monitored
06210100235	N/A	Iroquois Mine	Historic Mining Properties	Potentially Eligible	Not Monitored
06210500044	45CF00134	Frisco Standard #1	Historic Mining Structure	Not Eligible (8-13-82)	N/A
06210500045	45CF00135	Russian Crk Platform	Historic Mining Properties	Not Eligible (8-13-82)	N/A
06210500046	45CF00136	Russian Creek Camp	Historic Mining Properties	Not Eligible (8-13-82)	N/A
06210500047	45CF00137	Russian Crk Cabin	Historic Mining Properties	Not Eligible (8-13-82)	N/A
06210500194	N/A	H. Holtz Cabin	Historic Cabin	Potentially Eligible	Not Monitored

Forest Site Number	Smithsonian #	Site Name	DAHP SITE TYPE	Eligibility (SHPO Concurrence Date)	Monitoring Notes (Date of Monitor)
06210500195	N/A	D.M. Albee Homestead	Historic Homestead	Potentially Eligible	No Change (9/29/13)
06210500196	N/A	Everett Crk Work Camp	Historic Logging Property	Potentially Eligible	No Change (9/9/13)
06210500197	N/A	Everett Crk Log Skid	Historic Logging Property	Potentially Eligible	Further Deterioration (9/9/13)
06210500202	N/A	Pearl Troyers Homestead	Historic Homestead	Potentially Eligible	Further Deterioration (9/9/13)
06210500272	N/A	Giant Mining Claim	Historic Mining Properties	Potentially Eligible	No Change (9/28/13)
06211200061	N/A	United Treasure Mine	Historic Mining Properties	Potentially Eligible	No Change (8/29/13)
06211200062	45ST00631	Fish Creek Cabin	Historic Cabin	Potentially Eligible	Further Deterioration (8/29/13)

Table 6. Newly recorded historic properties located in project area

Forest Site Number	Site Name	DAHP Site Type	Eligibility
6210500183	Rd. 140 Shelter	Historic Structure Unknown	Potentially Eligible (Unevaluated)
6210500373	Lead King Mine	Historic Mining Properties	Potentially Eligible (Unevaluated)
6210500374	Northern Workings of Lead King Mine	Historic Mining Properties	Potentially Eligible (Unevaluated)
6210500377	Road 306 Mining Group	Historic Mining Properties	Potentially Eligible (Unevaluated)
6210500378	Katie's Can Dump	Historic Debris Scatter	Potentially Eligible (Unevaluated)
6210500379	Grouse House	Historic Mining Properties	Potentially Eligible (Unevaluated)
6210500381	Elk Mine	Historic Mining Property	Potentially Eligible (Unevaluated)
6210500382	Down and Out Site	Historic Structure Unknown	Potentially Eligible (Unevaluated)
6210500383	Last Bridge Standing	Historic Logging Properties	Potentially Eligible (Unevaluated)
6211200171	Mineshaft and Tailings	Historic Mining Properties	Potentially Eligible (Unevaluated)

Forest Site Number	Site Name	DAHP Site Type	Eligibility
6211200172	Spring Fling	Historic Feature (Spring)	Potentially Eligible (Unevaluated)
6211200173	Peony Homestead	Historic Homestead	Potentially Eligible (Unevaluated)
6211200174	Nicole's Cabin	Historic Mining Property	Potentially Eligible (Unevaluated)
6211200175	WildCat Mine	Historic Mining Property	Potentially Eligible (Unevaluated)

Table 7. Historic properties located within or adjacent to treatment units

Site Number	Type	Eligibility
6210500183	Historic Structure Unknown	Potentially Eligible
6210500373	Historic Mining Properties	Potentially Eligible
6210500374	Historic Mining Properties	Potentially Eligible
6210500377	Historic Mining Properties	Potentially Eligible
6210500378	Historic Debris Scatter	Potentially Eligible
6210500379	Historic Mining Properties	Potentially Eligible
6210500381	Historic Mining Property	Potentially Eligible
6210500382	Historic Structure Unknown	Potentially Eligible
6210500383	Historic Logging Properties	Potentially Eligible
6211200171	Historic Mining Properties	Potentially Eligible
6211200172	Historic Feature (Spring)	Potentially Eligible
6211200173	Historic Homestead	Potentially Eligible
6211200174	Historic Mining Property	Potentially Eligible
6211200175	Historic Mining Property	Potentially Eligible
06210100232	Historic Mining Property	Potentially Eligible
06210500192	Historic Structure Unknown	Potentially Eligible
06210500193	Historic Cabin	Potentially Eligible
6210500198	Historic Logging Properties	Potentially Eligible
06210500271	Historic Mining Properties	Potentially Eligible
06210500325	Historic Water Structure	Potentially Eligible
06211200060	Historic Mining Property	Potentially Eligible

Heritage Protection Resources Design Elements

The intent of heritage protection resources design criteria is to protect cultural resources and to comply with the National Historic Preservation Act. Some of the design criteria specifically protect heritage resources from an identified threat; but all of the design criteria have the overarching objective to minimize or eliminate effects from all threats (i.e. recreationists, cattle, timber sale/implementation, and fire). These criteria include:

- The Forest archeologist or authorized Heritage Program personnel would provide location information (maps and coordinates) to appropriate designated presale and fuels personnel so they can incorporate avoidance areas into project layout.
- Avoiding all historic properties during project implementation. A minimum 30-meter buffer is required on all sites as established by a certified archeologist. All equipment must stay out of identified site boundaries. Trees would be felled away from the interior site boundaries.
- The inadvertent discovery of historic properties during implementation requires operations to cease within the vicinity of the site. Implementation personnel would notify the Forest archaeologist of the discovery. The Forest archaeologist or authorized Heritage Program personnel would investigate, record, and provide mitigation measures for the protection of the site. Work cannot proceed until given Heritage Program clearance.
- Fuels projects involving ladder fuels are allowed with the following provisions: a) no heavy machinery is used within the identified site boundary, b) lop and scatter is allowed within the site boundary for trees and brush less than 6 inches in diameter, c) piles made for later burning must be placed outside all site boundaries. During prescribed fire operations, fire would be kept outside of site boundaries. Additional protective measures would be implemented with regard to flammable historic sites, such as cabins or other structures. Construction of standard fire line around the site boundaries is the preferred method of protection, but the pretreatment of structures with foam or water is allowed, as is wrapping structures in heat attenuating materials. The final method of protection of archeological sites is left to the discretion of fire personnel to fit the unique conditions of each location, provided that the protection is adequate to prevent damage to cultural resources. Protective measures required in proposed fuel area.
- Forest Service System roads opened for the project that lead to units containing cultural resources should be closed as soon as practical. The removal of surrounding cover from timber harvest/thinning increases the visibility of sites from access roads and increases visitation. Screening vegetation should be left in place to obscure historic sites from the road whenever possible.
- At the discretion of the Heritage Program, new road construction would be monitor by a qualified archaeologist.

Direct and Indirect Effects – Alternative 2 (Proposed Action)

Vegetation Management

Vegetation management activities have the potential to damage or destroy historic or culturally sensitive sites directly by heavy machinery, falling trees, road building, fuels treatments, etc., or indirectly as a result of discovery through increased access to each site. Additionally, the removal of natural barriers may allow cattle access to historic properties, which could increase the likelihood of damage from cattle behavior and movement. Removal of vegetative cover can also lead to increased user access which, in turn, could lead to damage, destruction, and loss through looting.

Fuels Reduction

Fuels reduction activities have the potential to damage or destroy sites directly by heavy machinery, falling trees, fuels treatments, etc., or indirectly as a result of discovery through increased access to each

site. Additionally, the removal of natural barriers may allow cattle access to historic properties, which could increase the likelihood of damage from cattle behavior and movement. Removal of vegetative cover can also lead to increased user access which, in turn, could lead to damage, destruction, and loss through looting.

However, hazardous fuels reduction can have a beneficial effect on historic properties with regard to the decrease in potential for uncontrolled wildland fire. Uncontrolled wildland fire could completely destroy many of the historic properties within the project area. A reduction in fuels would mitigate this potential occurrence.

Road Construction

Road construction activities have the potential to damage or destroy these sites directly by heavy machinery and road building activities or indirectly as a result of discovery through increased access to the sites. Development of existing gravel/source material pits would have no effect on cultural resources as these locations have been previously cleared for cultural concerns. Decommissioning of roads could have a beneficial effect on historic properties as it has the potential to reduce access to areas which may contain historic properties, thereby reducing the possibility of damage, destruction, and looting by the public.

Hydrological

One aquatic organism passage (culvert) was identified for replacement. Replacement would reconnect a small amount of habitat for seasonal fish use by eliminating a barrier, but has little potential to have a direct effect, as the initial installation of the culvert would have likely already disturbed the area, or indirect effect, as the stream channel has already been established and the culvert would not change this.

Cumulative Effects – Alternative 2 (Proposed Action)

Past, Present, and Reasonably Foreseeable Activities Relevant to Cumulative Effects Analysis

Past management practices within the planning areas include timber harvest, road construction, recreation management, fisheries and wildlife improvement, fire suppression, and range management. Foreseeable future management practices would likely include the same types of actions.

Cumulative effects of past management practices are likely to have some effect on historic properties, mostly from aggressive fire suppression, historic fire patterns, and the continued build-up of fuels. This build-up of fuels has the potential to affect historic properties through catastrophic wildland fire. None of the proposed actions for this undertaking would mitigate for past management practices.

Cumulative effects of foreseeable future management practices would likely be beneficial to the protection of historic properties in that the cultural resource program would be involved in providing input to line officers regarding future practices that should allow for added protection. None of the proposed actions for this undertaking would consist of negative cumulative effects to historic properties.

The culmination of all the past, present, and future activities is that humans would have more/better access to areas which may not have seen much use. Greater access can potentially lead to effects on heritage resources. However, with appropriate mitigation, the negative effects can be reduced or eliminated. It is expected that the cumulative effects of this proposed action are most likely to be beneficial to historic properties through enhanced protection of these properties.

Summary of Environmental Effects

Under Alternative 1 (no action), there would be no change from the current condition. Historic properties would continue to gradually deteriorate over time. Under Alternative 2, 21 sites have the potential to be affected by the project proposal. Design criteria have been put into place to ensure the avoidance and protection of these historic resources, as well as any inadvertent site discoveries.

The project would have no effect on heritage resources as long as the project continues to follow the design criteria and follow an avoidance protocol. Sites would be preserved for future generation's enjoyment and research.

Compliance with LRMP and Other Relevant Laws, Regulations, Policies, and Plans

The Limestone/Silver Vegetation Management Project, with the mitigation provided, meets the Forest Plan Standards and Guidelines for Cultural Resources (item 2, page 4-37) and Federal regulations concerning Heritage Properties (National Historic Preservation Act and its implementing regulations at 36CFR800). Monitoring and maintenance of these sites would continue through the Heritage Program's standard program of work.

Intensity Factors for Significance (FONSI)

The project would have "no effect" on known resources if designed to exclude/avoid sites located within the project area.

The information included in this report is based upon personal field reviews of the project area and/or my knowledge of local site conditions. By signature below, I certify that this analysis follows the applicable policy direction found in Forest Service 2300 Manuals.

/s/ Gregory Heide
CNF Assistant Forest Archaeologist
03/15/17
BS – Major: Anthropology Minor
MS – Anthropology
Years' Experience: 7

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