Revised Draft Environmental Assessment

Idaho Public Safety Communication Sites – Wildfire Mitigation

State of Idaho, Bureau of Homeland Security

FEMA-LPDM-PJ-10-ID-2008-007

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FEMA

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Area of Potential Effect (APE) – the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking.

Best management practices (BMPs) – innovative environmental protection practices applied to help ensure that projects are conducted in an environmentally responsible manner.

Fuels Reduction – removal of excess fuels through thinning, limbing, or other methods to reduce the potential for severe wildfires.

Thinning – partial removal of trees, branches, or shrubs from a stand to reduce fuel loads.

Wildfire – an unwanted wildland fire.

Wildland Fire – any non-structure fire, other than prescribed fire, that occurs in the wildland. This term encompasses fires previously referred to as both wildfires and natural fires.

Wildland/Urban Interface – line, area, or zone where structures and other human development meet or intermingle with vegetative fuels in wildlands.

APE	area of potential effect
BHS	Bureau of Homeland Security
BLM	Bureau of Land Management
BMP	best management practice
CFR	Code of Federal Regulations
EA	environmental assessment
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
ICDC	Idaho Conservation Data Center
IDFG	Idaho Department of Fish and Game
L-PDM	Legislative Pre-Disaster Mitigation
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
SHPO	State Historic Preservation Office
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USGS	U.S. Geological Survey

SECTION ONE INTRODUCTION

The State of Idaho Bureau of Homeland Security (BHS) applied to the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) Legislative Pre-Disaster Mitigation (L-PDM) program for funding assistance with a wildfire fuel load reduction project in southeastern Idaho. The State of Idaho Public Safety Communication Sites Wildfire Mitigation Project would reduce risk from fire to three state-owned public safety communication sites located in Oneida, Bannock, and Bingham Counties, Idaho.

The National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Part 1500 through 1508) direct FEMA and other federal agencies to fully understand and take into consideration the environmental consequences of proposed federally funded projects. Under NEPA, Congress authorizes and directs federal agencies to carry out their regulations, policies, and programs as fully as possible in accordance with the statute's policies on environmental protection. NEPA requires federal agencies to make a series of evaluations and decisions that anticipate significant effects on environmental resources. This requirement must be fulfilled whenever a federal agency proposes an action, grants a permit, or agrees to fund or otherwise authorize any other entity to undertake an action that could possibly affect the human environment. FEMA issued a draft EA in July 2009 for the project; however the location for the Malad Ridge site has subsequently changed. In compliance with NEPA and its implementing regulations, FEMA prepared this revised draft environmental assessment (EA) to analyze the potential environmental impacts of the project alternatives, also addressing the new Malad Ridge site.

SECTION TWO PURPOSE AND NEED FOR ACTION

The purpose of the FEMA L-PDM program is to provide funding to assist states and local governments (including Indian Tribal governments) in implementing cost-effective hazard mitigation activities that complement comprehensive mitigation programs and that reduce injuries, loss of life, and damage and destruction of property. The purpose of this action is to provide L-PDM funding to the Idaho BHS for wildfire mitigation activities at three public safety communication sites.

The State of Idaho operates a comprehensive network of communication sites that traverses the state. Mountainous topography necessitates that communications sites be located on hills and mountaintops to achieve maximum functionality. However, the tops of the hills and mountains are exceptionally vulnerable to wildfires due to increased lightning activity, erratic wind patterns, vegetative fuel types containing more fine fuels that are easy to ignite, and fire behavior characteristics. These remote sites are located in areas with no water supply for firefighting operations and are only accessible by steep, narrow dirt roads with limited turnouts. In July 2007, the East Butte communication site was damaged by a wildfire event. This fire caused a reduction or elimination of services for eight days in eastern Idaho, which affected radio, television, and electricity.

The communication sites provide public communications (both land mobile radio systems and microwave systems) to a variety of state, federal, and local agencies. This includes the Idaho BHS, Idaho State Police, Idaho Departments of Fish and Game and Lands, and the Federal Bureau of Investigation. The sites also provide support to local public safety organizations through cooperative partnerships. While the sites are located on Federal Bureau of Land Management (BLM) lands, they are leased to the State of Idaho. Moreover, one or more federal agency is often located at these sites.

The loss of any of these remote communications sites and their facilities can create far reaching and serious implications as demonstrated in the East Butte fire mentioned above. Currently Idaho's communications network is not configured in a loop. As a result, the loss of any site in the two-way line of communication will result in a loss of intra-state communications in either direction that would have passed through the damaged site.

The need for this action is to reduce or eliminate the risk to remote communications sites from wildfires at Malad Ridge, Chinese Peak, and East Butte. From this need, the state of Idaho identified the preferred alternative (vegetative fuel management and removal) as a high priority in the *State of Idaho Hazard Mitigation Plan* (Idaho BHS 2007).

SECTION THREE ALTERNATIVES ANALYSIS

This section discusses the two alternatives considered in this EA: (1) the No Action Alternative and (2) the Proposed Action Alternative, to which FEMA would contribute funding.

3.1 ALTERNATIVE 1 – NO ACTION

Under the No Action Alternative, FEMA would not provide funding to reduce wildfire fuel loads in the target areas of the state's public safety communication sites. The state-wide communication system would continue to be at risk from catastrophic fire events. This alternative would not support the goals and objectives identified in the *State of Idaho Hazard Mitigation Plan* (Idaho BHS 2007).

3.2 ALTERNATIVE 2 – PROPOSED ACTION

The Proposed Action would remove excessive vegetation through private contractors using backhoes and weed retardants on approximately three acres of publicly-owned lands (Appendix A, Figures 1 through 4). The geographic areas targeted for wildfire vegetation management include one acre at Malad Ridge (approximately 12 miles from Malad, Idaho), one acre at Chinese Peak (approximately six miles from Pocatello, Idaho), and one acre at East Butte (approximately 10 miles from Atomic City, Idaho). The staff from the Idaho Public Safety Communications Department would work with the Idaho Department of Transportation and private contractors to complete the required work. All work would be done in consultation with the Idaho Department of Lands, U.S. Forest Service, or Idaho BLM, who are responsible for managing public lands near these communication sites. All three sites are located on BLM land.

The vegetation to be removed at all three sites includes underbrush, grasses, and sage brush. A BLM-approved weed retardant, such as Roundup and/or 2-4-D, would be applied to all areas within 50 feet of the radio towers and structures. Following this application, six inches of crushed gravel aggregate would be applied to the cleared area using a small (5 cubic yard) dump truck and a bobcat or small tractor fitted with a front loader scoop. Best management practices (BMPs) for erosion control, such as wind fencing and watering, would be employed during all stages of the project.

In addition to creating this defensible space, the roofs and walls of the structures protecting vital communications equipment at Malad Ridge would be replaced with non-combustible materials. A precast concrete building (approximately 4 feet wide by 8 feet long) would be constructed around the back-up generator at Chinese Peak for protection. The fuel tanks and fuel line would be protected from radiant heat exposure and direct flame impingement at all three sites by partially burying the existing 500-gallon tanks (approximately 3 foot diameter, 48 inches tall by 10 feet long) and 0.75 inch lines 5 feet deep into the ground. A jackhammer and track-hoe would be used to dig. A concrete vault, lid, and a dirt berm (approximately 2 feet tall by 3 feet wide) would be constructed around the fuel tanks for further protection.

The proposed project would take three years to complete. Work would be done mainly in May through August. The proposed tasks are consistent with the *State of Idaho Hazard Mitigation Plan* (Idaho BHS 2007).

3.3 OTHER ALTERNATIVES CONSIDERED

No other alternatives were identified that would effectively reduce or remove the inherent risks of wildfire caused by lightning activity, erratic wind patterns, vegetative fuel types containing more fine fuels that are easy to ignite, fire behavior characteristics, steep terrain, and limited access. While relocating the communication facilities/function to less vulnerable locations is possible, it would be impractical and cost prohibitive. All of the buildings at Chinese Peak and East Butte have already been retrofitted with fire-resistant materials to reduce vulnerabilities.

SECTION FOUR AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section discusses the existing conditions, by resource and the potential effects, of the No Action and Proposed Action Alternatives.

For each resource category, the impact analysis follows the same general approach. When possible, quantitative information is provided to establish impacts. Qualitatively, these impacts will be measured based on small, moderate, or large impacts as outlined in the chart below.

Impact Scale	Criteria
Small	Environmental effects would not be detectable or would be so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.
Moderate	Environmental effects would be sufficient to alter noticeably, but not to destabilize, important attributes of the resource.
Large	Environmental effects would be clearly noticeable and would be sufficient to destabilize important attributes of the resource.

Impacts are disclosed based on the amount of change or loss of the resource from the baseline conditions. Impacts may be direct or indirect. Direct impacts are caused by the action and occur at the same time and place as the action. Indirect impacts are caused by the action and occur later in time or are farther removed from the area, but are still reasonably foreseeable (40 CFR Part 1508). Cumulative impacts are discussed in Section Five.

Resources that were not analyzed in detail include air quality and visual resources. No prescribed fire would be used for fuel reduction in this project, so no effect on air quality is expected beyond small amounts of dust and exhaust from short-term removal operations. No visual impacts are anticipated due to the minor loss of vegetation and small amounts of ground disturbance. These resources will not be analyzed to any further extent.

4.1 CLIMATE, GEOLOGY, AND SOILS

4.1.1 Climate

Generally, the climate in southeastern Idaho can be described as cold with significant snowfall in the winter, and dry and sunny in the summer. Snowfall is the primary source of precipitation for the region, with a typical snowfall of more than 40 inches. Rainfall is fairly evenly distributed throughout the year, and the average annual rainfall is less than 15 inches. Windstorms occur between October and July, with maximum wind speeds of 50 miles per hour. Thunderstorms with lightning strikes on areas of higher elevation are frequent during the summer months in eastern Idaho. In the summer, humidity is usually below 25 percent, and can be 15 percent or lower (WRCC 2009).

Temperatures can range from highs in the 80s in the summer and the 40s in winter to lows of the 50s in the summer and the 20s in the winter (North Wind 2004).

Over the next century, climate in Idaho may experience additional changes. By 2100 temperatures in Idaho could increase by 5°F (with a range of 2-9°F) in winter and summer and

4°F (with a range of 2-7°F) in spring and fall. Precipitation is estimated to change little in summer, to increase by 10 percent in spring and fall (with a range of 5-20 percent), and to increase by 20 percent in winter (with a range of 10-40 percent). The amount of precipitation on extreme wet or snowy days in winter is likely to increase. The frequency of extreme hot days in summer would increase. An increase in the frequency and intensity of winter storms is possible (USEPA 1998).

4.1.2 Geology and Soils

East-central Idaho lies within the Cordilleran fold and thrust belt and in the Basin and Range province. Rocks and structures within this region reflect a long and complex history of deformation. Strata were deposited here in the Mesoproterozoic, late Neoproterozoic, and Paleozoic. During the Paleozoic, marginal basins and uplifts formed, rather than the regionally extensive Paleozoic passive-margin succession that is present south of the Snake River Plain.

Today, east-central Idaho is on the northern flank of the late Cenozoic track of the Yellowstone-Snake River Plain hotspot, which has produced bimodal volcanic rocks along the plain and an east-northeast-trending topographic bulge (Link and Janecke 1999). The closest fault line to Malad Ridge is 10 miles away; three additional faults are within 30 miles of the site. There is one fault line within 25 miles of East Butte and one fault line within 55 miles of Chinese Peak. These faults have a low probability of experiencing tectonic activity; however these faults have the potential for a 6-7 magnitude earthquake (USGS 2008).

Malad Ridge is considered part of the Basin and Range Physiographic province. The area is drained by North Canyon and Stump Canyon which flow eastward into the Malad River. The range extends northwest and is composed almost entirely of sediments of the Pennsylvanian to Permian-aged Oquirrh Formation (USBLM 2003a). The area around Chinese Peak makes up the majority of the Pocatello Range. This mountain range has a complex geologic history and lies in the northeast corner of the Basin and Range Province. The peak area is part of the transition into the Idaho-Wyoming Fold and Thrust Belt of the Rocky Mountain Province (USBLM 2004). East Butte is one of five major rhyolite domes present on the eastern Snake River Plain. They are located near the extinct Picabo and Heise volcanic centers, but are not directly associated with Yellowstone Hotspot volcanism (Hughes et al. 1999).

All three project areas are relatively steep with gradients of 30 to 60 degrees. Malad Ridge is located at 7,169 feet elevation, Chinese Peak lies at 6,791 feet elevation, and East Butte is at 6,572 feet elevation.

Soils in the project areas are predominantly sedimentary. Soil depth to bedrock depends upon the soil type and ranges from 24 inches to 60 inches. Soils are mostly referred to as loam, which are described as gravelly/cobbly clay and silty soils. This type of soil is vulnerable to accelerated erosion caused by disturbance of natural conditions through burning, excessive grazing, or tillage. These disturbances increase the potential for erosion by wind and water. There are limited amounts of exposed bedrock at the East Butte site only (USDA NRCS 2008).

4.1.3 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, FEMA would not provide funding to reduce wildfire fuel load in target areas of the state's public safety communication sites. No impacts to climate or geology would occur. These sites have a low probability of experiencing tectonic activity. No impacts to soil resources within the project area would be expected, except for impacts associated with a catastrophic fire. The impact scale would range from small to moderate. These impacts may include loss of vegetation caused by uncontrolled fire and subsequent soil erosion.

Alternative 2 – Proposed Action

No effect from climate and geology would be expected based on the small scale of the project and ground-disturbing activities. These sites have a low probability of experiencing tectonic activity. The impact scale would be small. Future natural fires of varying intensities may alter the physical, chemical, and biological properties of the soil as a result of vegetation removal, organic consumption, and increased temperatures. In addition, the lack of fire may alter the soil properties as a result of limited nutrient cycling in fire-maintained habitat areas.

The impact scale to soils would be moderate. Approximately 2 to 6 inches of soil would be removed within a 50-foot radius of all structures. No fuels reduction by burning is planned for this project. Best management practices for erosion control, such as wind fencing and watering, would be employed during all stages of the project. Vegetation removal activities would not result in increased turbidity in streams or increased erosion of stream banks. Due to the gravelly and cobbly nature of the soils, wind erosion would not be increased. Direct, indirect, and cumulative effects to soil productivity, fertility, or infiltration capacity would be at or below the level of detection. The soils would remain at the same stability level or become more stable with the introduction of six inches of gravel, which has a lower potential for erosion. Any effects on soil productivity or fertility would be slight, and no long-term effects to soils would occur. No linings beyond the concrete vault are proposed around the buried fuel lines or tanks. There would be a small potential of infiltration from leaks due to the shallow depth between the 5 foot concrete vault and bedrock at the sites. With changes in climate, soils could become drier. However, the extent of this is unknown (USEPA 1998). Due to the small scale of the project, it would not measurably exacerbate climate change.

4.2 FLOODPLAINS

According to FEMA Flood Insurance Rate Maps, the project areas are not located in or adjacent to floodplains.

Alternative 1 – No Action

Under the No Action Alternative, FEMA would not provide funding to reduce wildfire fuel loads in target areas of the state's public safety communication sites. No floodplain impacts are anticipated.

Alternative 2 – Proposed Action

No impacts to floodplains are expected from fuels reduction activities because the activities would not occur within or adjacent to designated floodplains or riparian areas. No direct, indirect, or cumulative impacts to floodplains are anticipated.

4.3 WETLANDS AND WATER RESOURCES

According to the National Wetlands Inventory, no wetlands are located within or adjacent to the project areas.

Alternative 1 – No Action

No impacts to wetlands and water resources would be expected, as there are none within or adjacent to the project area.

Alternative 2 – Proposed Action

No environmental consequences are expected to occur to wetlands or water resources within the project area. No manual, mechanical, or chemical vegetation removal would occur in or adjacent to wetlands, riparian areas, or streams.

4.4 VEGETATION

The project sites are located within hot, dry eastern Idaho, which also contributes to a preponderance of annual thunderstorms that commonly ignite wildfires. While vegetation can vary somewhat from one specific location to the next, the region generally features a mixture of woodlands, conifer, and juniper forests as well as prairie grasses and sagebrush (see Appendix A, Figures 5-7b for site photographs).

Big sagebrush (*Artemisia tridentate*) is found throughout eastern Idaho. Big sagebrush is perhaps the most important shrub on western rangelands. Evergreen leaves and abundant seed production provide an excellent winter food source to numerous species of large mammals, and provides habitat for birds. The greatest danger to sagebrush stands comes from fire. Big sagebrush plants have no fire resistance and many acres are destroyed annually because of increased fire frequency resulting from infestations of exotic annual weeds such as cheatgrass (*Bromus tectorum*) and medusahead (*Taeniatherum*). Prior to the introduction of these annuals, insufficient fuels may have limited fire spread in big sagebrush communities (USDA NRCS 2009).

Other common plant species within eastern Idaho include crested wheatgrass (*Agropyron cristatum*), bulbous rabbitbrush (*Chrysothamnus*), cheatgrass, brome (Bromus), fescue (*Festuca idahoensis*), poa (*Poa maniototo*), needlegrass (*Stipa*), wheatgrass (*Agropyron*), juniper (*Juniperus*), quaking aspen (*Populus tremuloides*), maple (*Acer*), fir (*Abies*), lodgepole pine (*Pinus contorta*), and numerous forbs.

Alternative 1 – No Action

The risk to the state's public safety communication sites from wildfires would increase. The impact intensity to vegetation would be small to large, depending on the size of the fire. Factors

contributing to the highest fire risk include steep topography, increased lightning activity, erratic wind patterns, vegetative fuel types, fire behavior characteristics, and buildings lacking defensible space (clearings between wildland vegetation and structures).

Alternative 2 – Proposed Action

Vegetation to be removed includes sagebrush, grasses, and other small brush at all three sites. The impact scale to vegetation would be moderate. Removal of soil and subsequent replacement with gravel would effectively eliminate any vegetation within 50 feet of the communication structures and towers. Various disturbances caused by the work crews and removal of individual sagebrush along the periphery of the sites would result in localized, direct, small effects to native plant communities. However, it is anticipated that the removal of vegetation would have no effect beyond the project area and that the gravel, with minor maintenance, would suppress any establishment of invasive species.

Changes in the vegetative community or species population would be minor, with small and localized effects to a small proportion of any native species population along the periphery of the project area. Many of these species are ecologically dependant on fire and fire cycles, and the effects are considered small in the short term.

4.5 FISH AND WILDLIFE

Data was requested from the Idaho Conservation Data Center for known special-status species at and near the project sites (ICDC 2009). The Idaho Department of Fish and Game was consulted for potential Endangered Species Act (ESA)-listed species in Bannock, Bingham, and Oneida Counties (IDFG 2009). All three project areas are located in mid-elevation mountain shrub, juniper, and aspen/conifer habitat types. These habitat types support a wide variety of big sagebrush and forest wildlife species. Representative wildlife species from these habitats include cottontail rabbit (*Sylvilagus nuttallii*), montane vole (*Microtus montanus*), mule deer (*Odocoileus hemionus*), Rocky Mountain elk (*Cervus elaphus nelsoni*), moose (*Alces alces*), and mountain lion (*Felis concolor*).

4.5.1 Federally Listed Species and Critical Habitat

Only one species listed under the ESA, Canada lynx (*Lynx canadensis*), is known to occur in Bannock and Oneida Counties. The yellow-billed cuckoo (*Coccyzus americanus*) is the only known ESA-listed species to occur in Bingham County. However, the yellow-billed cuckoo is a riparian-obligate species requiring large tracts of willow and cottonwoods. This habitat does not exist in the project area in Bingham County, so this species will not be discussed further in this section.

4.5.1.1 Canada Lynx

The Canada lynx is a federal and Idaho State-listed species. The Canada lynx is listed as Threatened under the ESA and is considered Critically Imperiled by Idaho State. In Idaho, critical habitat for lynx has been designated only in the extreme northeast corner of the state.

The Canada lynx occurs throughout Canada and Alaska, in the extreme northeastern and north-central United States, and in the northern and central Rocky Mountains. Within Idaho, populations exist north of the Salmon River in the west and north of the Caribou Range in the

east. The total population size in Idaho is unknown, but it is thought to be less than 100 individuals (IDFG 2005).

In Idaho, the Canada lynx inhabits montane and subalpine coniferous forests typically above 4,000 feet. Habitat used during foraging is usually early successional forest. Dens are usually in mature forests. Individuals are wide-ranging and require large tracts of forest. The Canada lynx preys on the snowshoe hare, particularly during the winter, as well as variety of birds and other small mammals (IDFG 2005).

Gap Analysis originated in Idaho in the late 1980s as a system for assessing the distribution of native plant and animal distributions in relation to land stewardship. The Gap Analysis data was assessed for the predicted distribution of both Canada lynx and snowshoe hare in the vicinity of the project site (Landscape Dynamics Lab 2009). This information was cross-referenced with species observations from the Idaho Conservation Data Center (IDFG 2005).

In addition, the Final EIS for the Northern Rockies Lynx Management Direction project was reviewed (USDA NRCS 2007). This document shows occupied lynx habitat as well as core areas, secondary areas, and peripheral areas. Core areas have persistent, verified records of lynx occurrence over time and recent evidence of reproduction. Secondary areas have historical records of lynx presence with no record of reproduction, or with historical records and no recent population surveys. These areas may contribute to lynx persistency by providing habitat to support lynx during dispersal movements or other periods, allowing them to return to core areas. Peripheral areas have no evidence of long-term presence or reproduction, but may contain habitat that enables the sufficient dispersal of lynx between populations or subpopulations. Linkage areas are areas of movement opportunities. They are not "corridors," which imply only travel routes, but are broad areas of habitat where animals can find food, shelter, and security (USFWS 2005).

The Malad Ridge, East Butte, and Chinese Peak sites are all outside the potential range of lynx (core, secondary, and peripherals areas). One historical observation is within 12 miles of Malad Ridge. However, it is highly unlikely that Canada lynx use any of these sites.

4.5.1.2 Migratory Birds

The project areas provide habitat for a variety of migratory birds, including songbirds and birds of prey. The U.S. Fish and Wildlife Service Office of Migratory Bird Management maintains a list of migratory birds (50 CFR 10.13). The Migratory Bird Treaty Act of 1918, as amended, provides federal protections for migratory birds, their nests, eggs, and body parts from harm, sale, or other injurious actions. The act includes a "no take" provision. Migratory birds that may occur in the project areas are listed in the following table.

Common Name	Scientific Name	Site with Potential Habitat
Brewer's sparrow	Spizella breweri breweri	East Butte, Chinese Peak, Malad Ridge
Ferruginous Hawk	Buteo regalis	East Butte, Chinese Peak, Malad Ridge
Golden Eagle	Aquila chrysaetos	East Butte, Chinese Peak, Malad Ridge
Green-tailed towhee	Pipilo chlorurus	East Butte, Chinese Peak, Malad Ridge
Gray flycatcher	Empidonax wrightii	East Butte, Chinese Peak, Malad Ridge
Loggerhead shrike	Lanius ludovicianus	East Butte, Chinese Peak, Malad Ridge
Peregrine falcon	Falco peregrinus	East Butte
Sage sparrow	Amphispiza belli nevadensis	East Butte

Common Name	Scientific Name	Site with Potential Habitat
Sage Thrasher	Oreoscoptes montanus	East Butte, Chinese Peak, Malad Ridge
Swainson's hawk	Buteo swainsoni	East Butte, Chinese Peak, Malad Ridge
Lark sparrow	Chondestes grammacus	East Butte, Chinese Peak, Malad Ridge
Virginia's warbler	Vermivora virginae	Chinese Peak, Malad Ridge
Western tanager	Piranga ludoviciana	Chinese Peak, Malad Ridge
Williamson's sapsucker	Sphyrapicus thyroideus	Chinese Peak, Malad Ridge

4.5.2 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, no vegetation management activities would be conducted. As a result, no direct effects to either ESA-listed species or non-listed species in the project area are expected. However, the potential for losses of listed and non-listed species due to wildfire would remain. The impact scale would range from small to large, depending on the size of the wildfire. Future uncontrolled wildfires could result in adverse impacts to wildlife through the loss of habitat or the mortality of individuals.

Alternative 2 – Proposed Action

Under the Proposed Action Alternative, wildfire fuel reduction activities are determined to have no effect to federal and state-listed wildlife or plant species. Since the project site is outside of known and predicted Canada lynx habitat, it is unlikely that lynx reside or roam within the project area. Impacts to non-listed wildlife, including migratory birds, could occur through habitat modification. Various factors including changes in food sources, shelter, population density, and dispersal effort would determine the severity of impacts to non-listed wildlife. However, due to the topographic location of the sites and the relatively small area of disturbance/conversion, the impact scale would be small. These impacts would dissipate as displaced individuals either establish new home ranges or are outcompeted. These effects would not be expected to exceed the natural range of variability or have long-term effects on the natural processes sustaining these populations.

4.6 HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Cultural resources consist of locations of human activity, occupation, or use identified through field inventory, historic documentation, or oral evidence. The term includes archaeological, historic, and architectural properties and sites or places of traditional cultural or religious importance to Native American tribes or other social or cultural groups. Management of Idaho's cultural resources falls under the jurisdiction and control of the State Historic Preservation Office (SHPO) according to their relative importance. Management objectives include protecting against impairment, destruction, inadvertent loss, and accommodating uses determined appropriate through consultation and planning.

Section 106 of the National Historic Preservation Act (NHPA) holds that activities occurring on federal lands, or those that require federal permits or use federal funds, undergo a review process to protect cultural resources that are or may be eligible for listing on the National Register of Historic Places. The area of potential effect (APE) for archaeological and cultural resources

includes all those areas proposed for vegetation removal (approximately 1 acre per site) at the three public communication sites in southeastern Idaho. Copies of the draft EA were sent to the Idaho SHPO, Shoshone-Bannock Tribes, Shoshone-Paiute Tribes and the BLM for review.

4.6.1 Historic Resources

Historically, Euro-Americans and other non-indigenous groups, including fur trappers and mountain men, entered the area during the mid-late 1800s following Lewis and Clark and other early expeditions. After news was released from initial explorations as to the wealth of resources found in the west, including those found in the region, fur-trappers traveled in and began dispatching large numbers of animals to supply the growing demand for fur, especially beaver, by eastern industrial society.

Fort Hall, established by Nathaniel Wyeth near present-day Pocatello, was located at a strategic position, as it was rich in beaver and located at the intersection of old Indian trails from all directions that would later become emigrant routes (Brown 1932). The fort functioned as a center of trade, where Indians could barter skins and buffalo meat for Euro-American goods such as knives and tobacco. In response to construction of Fort Hall, the Hudson's Bay Company constructed Fort Boise. Competition later forced the sale of Fort Hall to the Hudson's Bay Company in 1837 (Ghent 1929). A rapid decimation of the buffalo and beaver populations led the trappers to leave the Snake River country gradually, once the area no longer produced significant quantities of fur. By 1840, the fur-trapping era ended and the stage was set for the great overland migration for immigrant settlement of the west (Dicken and Dicken 1979).

The principal route of migration across southern Idaho and through the project area region was the Oregon Trail, which traces its origins to the trails forged by the earlier explorers and fur trappers. The wave of migration was preceded by a handful of American Protestant missionaries, who traveled to the Oregon Territory to establish missions among the Native American peoples of the region in the mid-1830s. By the mid-1840s, the "floodgates of emigration" had opened. Fort Hall became an important stop along the Oregon Trail, as it was located approximately two-thirds of the way from Independence, Missouri to Oregon City. Hudson's Bay Company employees aided the emigrants passing along the Oregon Trail and raised cattle for trade with Indians and the emigrants (Beal and Wells 1959).

The effects of the Oregon Trail usage on Native Americans in the region were considerable in terms of use of natural resources (primarily forage and firewood fuel) by the emigrants. An estimated 240,000 emigrants with 1.5 million animals traveled through the territory of the Fort Hall Indians during the great migration (Madsen 1980). With an increased pressure on regional resources, hostilities between Native Americans and new emigrants increased dramatically. Traditional Shoshone wintering grounds were settled, game became scarce, and grazing took its toll on roots and plants that provided important subsistence resources.

Initially overlooked during the overland immigrant expansion, typically settlers of Southeastern Idaho were farmers or storekeepers from Oregon attracted by the goldfields, or Mormons who migrated north from the Salt Lake Valley. Eventually, it was discovered that crops would grow well on the sage-covered flats of the Snake River Plain if water were available. The early twentieth century introduction of large-scale irrigation soon made it possible to settle and farm the area and Euro-American populations continued to steadily increase.

The BLM was the first user to develop a site on Malad Ridge. This was followed by a State of Idaho facility authorized in 1987. Several county repeaters, the USFS, and a Ham Radio operator have subsequently collocated in BLM's facility. The State of Idaho facility is used solely by State agencies, including BHS (USBLM 2003a).

In the early 1950s, the U.S. Forest Service (USFS) constructed a small radio communications building on Chinese Peak (named Chinks Peak prior to December, 2001 for a Chinese American who reportedly died on the summit). The BLM later constructed a small temporary lookout tower as Chinese Peak provided an excellent location for the detection of range and forest fires. In early 1950, BLM established an administrative communication site on the mountain. The State of Idaho communication site was created in the late 1970s (USBLM 2004).

Idaho Radio Corporation was first to establish a communication site on East Butte. The company constructed a television tower, building, and access road in 1953. In order to accommodate future communication users, the BLM divided the larger communication site area, called North Ridge, into ten individual communication site lots. The Atomic Energy Commission (now Department of Energy) was the first to occupy a lot on North Ridge, in 1955. The State of Idaho communication site was created in the early 1970s (USBLM 2003b).

4.6.2 Archaeological and Cultural Resources

The Northern Shoshone and Bannock occupied an area generally along the Snake River Plain and the mountains to the north, though many neighboring Eastern Shoshone and Northern Paiute groups also used resources of this region. Principal population areas included the upper Snake River valley in the general area surrounding Fort Hall; the Lemhi River valley; the Boise, Payette, and Weiser valleys; the Sawtooth Range; and the Bruneau River Valley. Local groups within the Shoshone region were often identified by other Indian groups and by early settlers based on foods that were commonly eaten. Nomenclature included Agaideka (Salmon Eaters), those who lived along the Snake River; Tukudeka (Sheepeaters), residents in the Sawtooth Mountains; Yahandeka (Groundhog Eaters), the inhabitants of the Boise River; and Kammedeka (Jackrabbit Eaters), who resided along Bannock Creek and the Raft River. These classifications, however, do not refer to political divisions, and their use resulted in confusing designations given the high mobility and seasonal resource exploitation practiced by all of these groups (Murphy and Murphy 1986).

Prehistorically, lithic scatters are the most common type of site found in the region. The lithic debitage, or processed stone flakes, represent activity areas of past peoples. These sites can also contain stone tools, projectile points, or solely lithic debitage waste flakes produced during the manufacture or maintenance of stone tools. The evidence left behind in the archaeological context is indicative of specific types of activities or sites. Examples include short-term hunting camps; butchering sites; and tool quarry, manufacturing, or repair locations. Other site types can include a variety of habitations or campsites, fishing locations, hunting blinds, rock alignments, cairns, ceremonial and rock art sites, and burials. As both the ethnographic and the archaeological records of the region conclude, although dependent on environmental variability, prehistoric lifeways saw a relatively high resource abundance of both vegetative plants and game for subsistence (Plew 2008 and Steward 1970).

According to data received from the Idaho SHPO, 29 surveys have been conducted and 11 cultural resource sites have been discovered within 1 mile of the APE associated with the project.

No cultural properties have been located within the same geographic hilltop environment within the 1-mile buffer of the APE. The nearest cultural resource site within the APE is located over 1,000 feet from the Malad Ridge site.

The following tables list surveys conducted for each of the three sites.

4.6.2.1 East Butte Surveys

Rpt No.	Title	Author	Year	Agency	Project No.	Survey Acres
1990/548	Idaho Power Company Right-of-Way I-27300. BLM, Idaho Falls District.	Hill, Richard	1990	BLM, Idaho Falls	ID3-90-34	5
1989/4899	A Cultural Resources Inventory of the Perimeter Boundary, Grazing Boundary, and 1984 Project Areas, Idaho National Engineering Laboratory, Southeastern Idaho.	Miller, Susanne	1985	INEL, EG&G, Idaho	–	7037
1999/198	Archaeological Clearance Surveys and Cultural Resource Inventories on the Idaho National Engineering Laboratory, April 1967-March 1985.	Miller, Susanne	1985	DOE	–	–
1989/979	A Report on the 1967-69 Archaeological Survey of the National Reactor Testing Station, Idaho. Tebiwa 13(1).	Butler, B. Robert	1970	–	–	0

4.6.2.2 Chinese Peak Surveys

Rpt No.	Title	Author	Year	Agency	Project No.	Survey Acres
2008/695	Proposed Microwave Facility at Chinese Peak. BLM, Pocatello District.	Lapp, A.	2008	BLM, Pocatello	ID-320-2008-EA-301	1
2008/165	Lyon-Hansen-Rice Powerline ROW IDI-35339. BLM, Pocatello District.	Lapp, A.	2007	BLM, Pocatello	ID-320-2007-EA3550	1
2008/130	Buckskin and Moonlight Mountain Hazardous Fuels. North Wind, Inc., Idaho Falls, ID. BLM, Pocatello District.	Shelton, J.	2007	BLM, Pocatello	–	337
2007/343	Lyon-Hansen Rice Road ROW IDI-3533. BLM, Pocatello District.	Lapp, A.	2006	BLM, Pocatello	ID-320-2006-EA-3091	1
2004/241	DOE Seismic Station ROW IDI-34141. BLM, Idaho Falls District.	Hill, Richard	2003	BLM, Idaho Falls	ID-075-2003-0006 CE	1
2003/223	Chinese Peak Road Re-construction. BLM, Idaho Falls District.	Hill, Richard	2002	BLM, Idaho Falls	ID-075-2002-0016	10
2001/1026	50 Clear Talk Wireless Cell Phone Tower Locations in Southeast and South-Central Idaho. Prepared for Clear Talk Wireless by Northwind Environmental, Inc., Idaho Falls, Idaho.	Harding, W., J. Shelton, C. Green	2001	Other	–	4

Rpt No.	Title	Author	Year	Agency	Project No.	Survey Acres
1999/61	Blackrock/Chinks Peak Recreational Trail. BLM, Idaho Falls District.	Cresswell, Lisa	1998	BLM, Idaho Falls	ID-030-99-1	5
1996/753	U.S. Cellular Communication Site Relocation. BLM, Idaho Falls District.	Cresswell, Lisa	1996	BLM, Idaho Falls	ID-030-96-6	1
1996/473	Chinks Peak Guzzler. BLM, Idaho Falls District.	Cresswell, Lisa	1996	BLM, Idaho Falls	ID-030-96-043	1
1995/983	Chinks Peak Road Reroute. BLM, Idaho Falls District.	Cresswell, Lisa	1995	BLM, Idaho Falls	ID-030-95-045	8
1994/874	Martin Hackworth Culinary Water Pipeline. BLM, Idaho Falls District.	Cresswell, Lisa	1994	BLM, Idaho Falls	ID-030-94-63	5
1989/2586	Van Horn Powerline Right-of-Way I-26378. BLM, Idaho Falls District.	Hill, Richard	1989	BLM, Idaho Falls	ID-030-9-008	1
1989/2760	CRI, Chinks Peak Spring Development. BLM, Idaho Falls District.	Hill, Richard	1987	BLM, Idaho Falls	ID-030-4-375	10
1989/2731	CRCW, Williams Telecommunication Company, Communication Site Right- of-Way I-22699. BLM, Idaho Falls District.	Hill, Richard	1986	BLM, Idaho Falls	I-22699	10
1989/2721	CRCW, John VanHorn Road Right-of-Way I-22940. BLM, Idaho Falls District.	Hill, Richard	1986	BLM, Idaho Falls	I-22940	2

4.6.2.3 Malad Ridge Surveys

Rpt No.	Title	Author	Year	Agency	Project No.	Survey Acres
2008/131	Pleasantview Hills Forestry and Hazardous Fuels. Golder Associates, Calgary, Canada. BLM, Pocatello District.	Balcom, R.	2007	BLM, Pocatello	ID-320-2007-CE-3464	3000
1992/571	North Canyon Pipeline. BLM, Burley District.	Laudeman, Pete	1992	BLM, Burley	ID2-92-42	10
1989/3537	CRRN, Stump Canyon Pipeline. BLM, Burley District.	Laudeman, Pete	1986	BLM, Burley	ID2-86-47	12
1989/409	CRCW, North Canyon Guzzlers. EA#81- 43. BLM, Burley District.	Barner, Isaac	1981	BLM, Burley	EA#81-43	5
1989/5875	An Archaeological Survey of Utah Power and Light Utility Corridor near North Canyon in Oneida County, Idaho. Swanson/Crabtree Anthropology Research Laboratory, Rept. of Invest. 86-13. Idaho State Univ.	Ross, Jeffrey and William Reed	1986	BLM, Burley	ID2-86-55	25
1989/358	CRCW, Wood Canyon #2 Timber Sale EA#80-11. BLM, Burley District.	Barner, Isaac	1980	BLM, Burley	EA#80-11	20
1989/1300	CRCW, Stump Spring JDR#1102. BLM, Burley District.	Corliss, David	1975	BLM, Burley	JDR#1102	0
1989/1285	CRCW, PVWS North Canyon JDR#4223. BLM, Burley District.	Corliss, David	1975	BLM, Burley	JDR#4223	0

4.6.3 Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, FEMA would not provide funding to reduce wildland fuel loads. Because no federal activity would occur, no requirement for compliance with Section 106 of the NHPA exists.

Alternative 2 – Proposed Action

The Proposed Action includes vegetative clearing for all three radio tower sites. All vegetation is to be removed within 50 feet of the structures. After the vegetation is removed through use of a backhoe, an herbicide would be applied, and 6 inches of gravel would be spread in the 50-foot radius. Five-hundred-gallon propane tanks would be partially buried and covered with a 2-foot tall by 3-foot wide dirt mound at all three project locations to enhance fire protection measures. Finally, the main structure/building at Malad Ridge would be replaced. Due to the remoteness of each project area and the relatively limited scope of construction to enhance protective measures to both the buildings and fuel tanks, no significant visual impacts or degradation of historical viewsheds would occur.

The scope of the Proposed Action is generally limited in terms of potential to impact cultural resources. Since the proposed work would focus on previously developed telecommunications sites, no adverse effects to cultural resources are expected. Class III intensive surveys of East Butte and Chinese Peak were completed in June 2009, and the survey of Malad Ridge was completed in October 2009 (Appendix B). No cultural or archaeological resources were found on the previously developed telecommunications sites, and no adverse effects are expected. The impact intensity would be small.

4.7 SOCIOECONOMIC AND ENVIRONMENTAL JUSTICE (EO 12898)

Executive Order (EO) 12898, Environmental Justice, directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations in the United States resulting from federal programs, policies, and activities. Socioeconomic and demographic data for residents in the project vicinity was studied to determine if a disproportionate number (defined as greater than 50 percent) of minority or low-income persons have the potential to be affected by the Proposed Action.

Alternative 1 – No Action

Under the No Action Alternative, FEMA would not provide funding to reduce wildfire fuel load in target areas of the state's public safety communication sites. Minority and low-income populations served by these facilities would incur the same impacts as the general population in terms of wildfire-caused loss of communications capability. Because no federal activity would occur, no requirement for compliance with EO 12898 exists.

Alternative 2 – Proposed Action

Maintenance activities of any sort within the project areas are unlikely to affect either the local population or a disproportionate number of minority or low-income persons. There are no residents located within or adjacent to the project areas. These communication sites were selected as high-priority based solely on their need for fuel reduction. The Proposed Action would not cause adverse economic impacts and would comply with EO 12898. The results of the project would be more reliable public communication for the entire state, both during and outside of the fire season. The ability to decrease communication interruptions would be a social and economic beneficial effect for all population groups.

SECTION FIVE CUMULATIVE IMPACTS

The Council on Environmental Quality regulations for implementing NEPA requires an assessment of cumulative effects during the decision making process for federal projects. Cumulative effects are defined as *"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions"* (40 CFR 1508.7). Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions.

The Proposed Action Alternative and other urban interface activities that are planned in the fire management plans by the Counties are not expected to have adverse cumulative impacts to climate, geology, and soils; floodplains; water resources; wetlands; vegetation; fish and wildlife; historic, archeological, and cultural resources; or socioeconomics and environmental justice, as no project impacts are anticipated. Due to the limited scope of the work, no loss of any sensitive species or habitat is expected that would contribute a measurable amount to the cumulative effects.

All three project areas are located on BLM-owned land. There are two users at the Malad Ridge site: BLM and the State of Idaho. The State of Idaho's lease was renewed in 2008, and the BLM's lease does not expire. Due to its rural location in a sparsely populated area of the state, cellular/PCS and other communication site providers have not shown interest in the site.

Chinese Peak currently has 10 users, including Qwest, the State of Idaho, City of Pocatello, Northwest Pipeline, JR Simplot, and four other private communication companies. The City of Pocatello's lease ends in 2010, and the State of Idaho's lease ends in 2032. Of the other users, two private communications companies have leases expiring in 2010 and 2016. Currently, there are two empty plots that could be developed for communications.

There are nine users at East Butte, including Idaho Public TV, Clark Radio, the State of Idaho, PacifiCorps, Department of Energy, and four other private companies. The State of Idaho's lease expires in 2025, and the Department of Energy's lease does not expire. The Idaho Public TV and PacifiCorps leases expired in 2008; however these are likely in the process of renewal. Currently, there is one empty plot and one vacant site that could be developed for communications.

SECTION SIX PUBLIC INVOLVEMENT AND RESPONSE TO COMMENTS

FEMA is the lead federal agency for conducting the NEPA compliance process for the proposed vegetation management project. As the lead agency, FEMA expedites the preparation and review of NEPA documents, responds to the needs of residents surrounding the treated lands, meets the spirit and intent of NEPA, and complies with all NEPA provisions.

A public notice is required for this draft EA. The public will have the opportunity to comment on the EA for 30 days after the publication of this notice. The notice identifies the action, location of the proposed site, participants, location of the draft EA, and who to write to provide comments. FEMA will review all written comments submitted for identification of any significant issues that need to be addressed and will incorporate them into the final EA, as appropriate. Copies of the draft EA were sent to BHS, Idaho SHPO, Shoshone-Bannock Tribes, Shoshone-Paiute Tribes and the BLM for review and comment.

Many public agencies in Idaho organized or increased their public education efforts to reduce hazardous fuels on public lands by making plans in accordance with the *State of Idaho Hazard Mitigation Plan* (Idaho BHS 2007).

The following plan is relevant to public involvement efforts supporting this EA.

6.1 STATE OF IDAHO HAZARD MITIGATION PLAN

The *State of Idaho Hazard Mitigation Plan* (Idaho BHS 2007) was prepared by the Idaho BHS to reduce disaster assistance costs and preserve disaster assistance eligibility for the state, counties, and cities. The plan is the comprehensive, state-wide mitigation planning effort conducted in Idaho. It identifies hazards and associated vulnerabilities within the state and provides a comprehensive state-wide strategy to reduce future disaster losses through sound mitigation projects.

Where infrastructure elements, including communication systems, are at direct risk from fires, the following steps should be taken:

- Assist with the development of fire-resistant communities and state facilities
- Make state communication sites fire resistant
- Reduce fuels on state-owned lands within wildland/urban interface areas and vicinities to state facilities
- Create defensible spaces and remove light fuels around communication sites
- Bury power lines servicing communication sites (Idaho BHS 2007)

SECTION SEVEN REQUIRED PERMITS AND COMPLIANCE

The Idaho BHS is required to obtain and comply with all local, state, and federal permits and approvals prior to implementing the Proposed Action Alternative. Development at the Proposed Action Alternative sites shall comply with the project's scope of work.

SECTION EIGHT CONCLUSION

The revised draft EA evaluated resources that could be significantly affected or affect the project. This initial evaluation has resulted in identification of no significant impacts associated with the resources of climate, geology, and soils; floodplains; wetlands and water resources; vegetation; fish and wildlife (ESA); historic, archaeological, and cultural resources; and socioeconomic and environmental justice. Obtaining and implementing permit requirements along with appropriate BMPs will avoid or minimize any small or moderate effects associated with the action. It is recommended that a finding of no significant environmental impact to the human or natural environment be issued for the Proposed Action Alternative.

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Appendix A
Figures

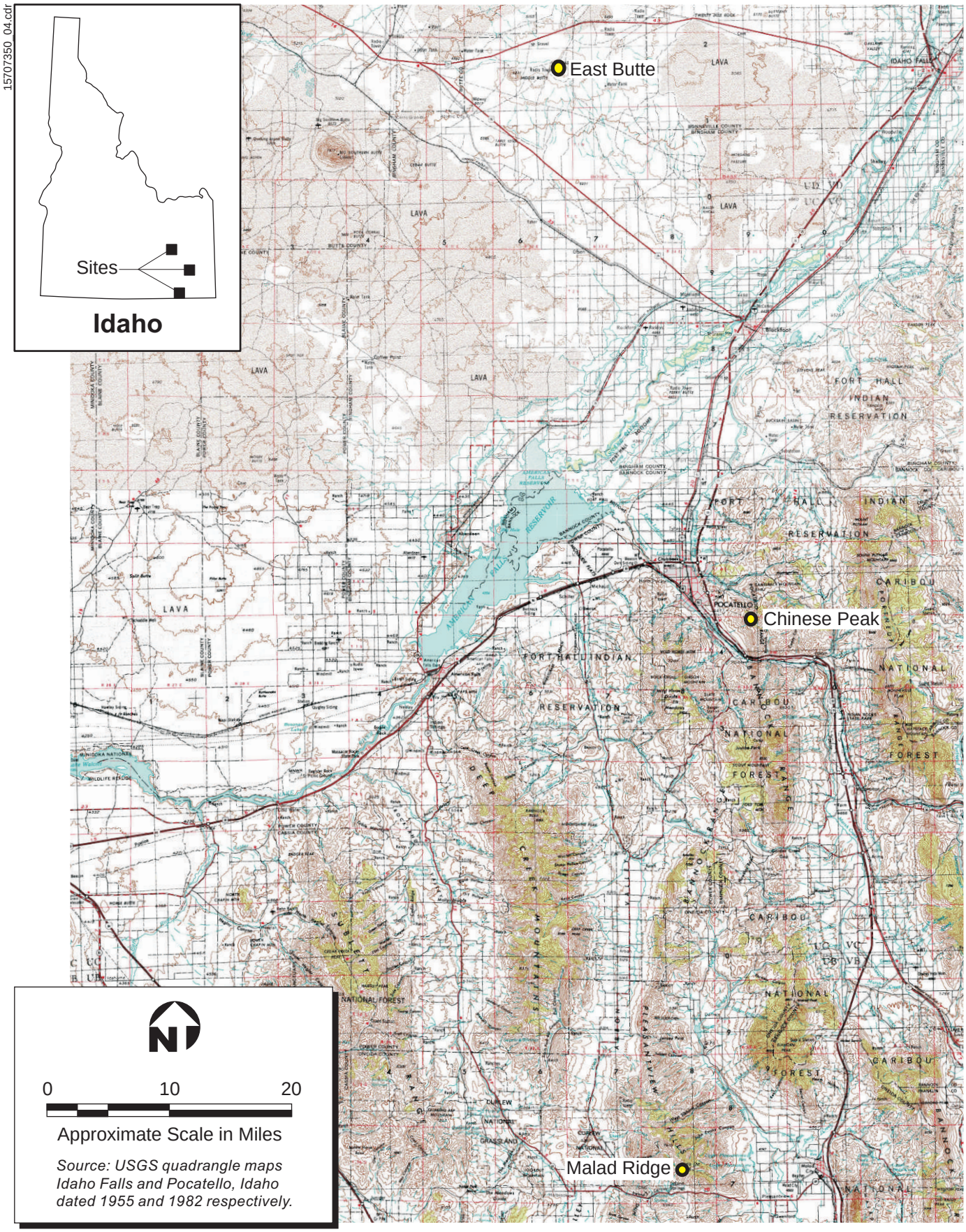
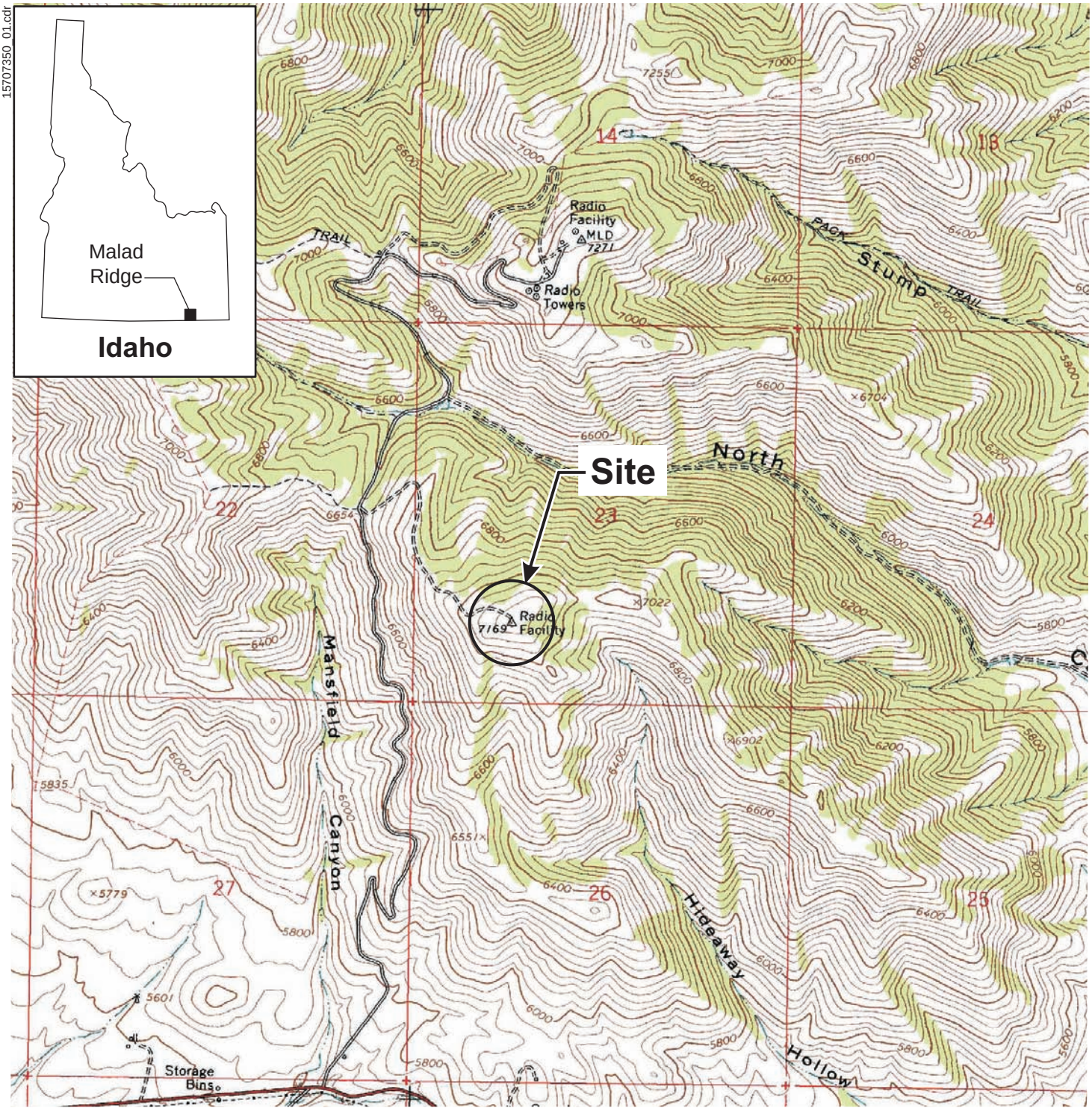


Figure 1

Site Locations

Job No. 15707350

Idaho Public Safety Sites



Source: USGS 7.5 minute quadrangle map Ireland Springs, Idaho dated 1968.

N

0 0.5 1

Approximate Scale in Miles

Figure 2

Malad Ridge

Job No. 15707350

Idaho Public Safety Sites