



U.S. Department of the Interior

Bureau of Land Management
Boise District
Four Rivers Field Office

Danskin Interconnect Project

Environmental Assessment

BLM EA No: ID110-2007-EA-3358

April 2007

SUMMARY

Idaho Power Company (Idaho Power) proposes to: 1) rebuild an existing 138-kV line from the Danskin Station to Mountain Home Junction #1; 2) construct a 230-kV interconnection between the Danskin Station and Bennett Mountain Station; 3) rebuild an existing 138-kV line between the Danskin Power Plant and Hubbard Station at 230 kV; and 4) operate and maintain the lines and service roads. These facilities would be constructed in 2007 and 2008. Idaho Power applied for right-of-way (ROW) authorization for portions of the line that would cross federal lands managed by the Bureau of Land Management.

As the lead federal agency, the BLM determined that an environmental assessment (EA) was required to identify potential resource impacts, pursuant to the National Environmental Policy Act (NEPA) of 1969.

As required by NEPA, the BLM conducted scoping activities to identify potentially significant issues to be analyzed in the EA. The following list summarizes the issues and concerns raised during the scoping process:

- Impacts to threatened, endangered, rare, and sensitive botanical resources;
- Impacts to threatened, endangered, rare, and sensitive wildlife resources;
- Impacts to historical and archaeological resources.

The analysis conducted during the preparation of the Environmental Assessment (EA) found a low level of impact to specific botanical, wildlife, and historic and archeological resources. Protection measures listed in Section 2 would eliminate or substantially reduce these impacts.

This EA would be available for a 30-day public review and comment period. If no significant impacts are identified, and the Proposed Action is approved, the BLM will issue a Finding of No Significant Impact (FONSI) and a ROW authorization for federal lands crossed by the Project. If the BLM determines that significant impacts would result from Project implementation, an Environmental Impact Statement (EIS) may be required.



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1. PURPOSE OF AND NEED FOR ACTION

1.1. Introduction

Idaho Power Company (Idaho Power) filed applications with the Bureau of Land Management (BLM) for right-of-way (ROW) authorizations for construction and operation of the Danskin Interconnect Project (Figure 1). The Project consists of the following components:

1. Rebuild the existing 138-kV line from Danskin Switching Station to Mountain Home Junction #1;
2. Construct a 230-kV interconnection between the Danskin Switching Station and Bennett Mountain Switching Station;
3. Rebuild Line #406 as a 230-kV line from the Danskin Power Plant to the new 230-kV Hubbard Station (near the existing Mora Station); and
4. Operation and maintenance of 138-kV and 230-kV lines and access and service roads.

Right-of-way grants would be issued with a term of 30 years. ROW authorization would allow Idaho Power to continue to access, operate, and maintain existing and new transmission lines for the duration of the grant term.

Danskin to Mountain Home Junction #1—Currently, a 138-kV line (Line 919) exists in a 50-foot ROW between the Danskin Switching Station (Danskin) and Mountain Home Junction #1. The existing 138-kV line would be rebuilt at the same voltage and along the same ROW centerline. However, within the first 3.5 miles of the line from Danskin, the ROW width would be increased from 50 feet to 100 feet and a double circuit, 230-kV line would be constructed from the Bennett Mountain Switching Station (Bennett) to Danskin. The remaining 2.2 miles of the 138-kV line would be rebuilt within the existing 50-foot ROW as a single circuit H-Frame line. The project includes the removal and replacement of all existing structures and wire. The line is required to be in service by December 2007.

Bennett to Danskin 230-kV Interconnect—The first 3.5 miles of the new 230-kV line from Danskin would be double circuit (138/230-kV) with the rebuilt Danskin to Mountain Home Junction #1 138-kV line (see above). The remaining 2.1 miles of the 230-kV line, from the end of the double circuit section to Bennett, would be single circuit on direct-bury, weathering, steel poles. The new 230-kV line would be numbered as Line 724. The required in-service date is December 2007.

Danskin Power Plant to Hubbard Station—The 230-kV line from the Danskin Power Plant to the new Hubbard Station is approximately 42 miles long, and would replace the existing “Half-Sole” line (Line 406). The 230-kV line would be renumbered to Line 723. The project includes the removal and replacement of all existing structures and wire, and the existing 50-foot

Figure 1. Proposed Danskin Interconnect Project

ROW would be increased to 100 feet. The required in-service date for the new 230-kV line is March 15, 2008.

Temporary Work Areas and Access and Service Roads—In addition to the structures and conductors, project components include temporary work areas and permanent and temporary service roads. Temporary work areas, such as laydown yards and offices, would be located on private land. Pulling and tensioning sites would be located on public and private lands. Across most of the project area, existing service roads would be used to remove the existing line, construct the 230-kV lines, and conduct periodic maintenance of the completed line. Idaho Power may need to create new spur roads to new pole sites within the ROW. Spur road locations would be specified in the POD and approved by BLM.

Operation and Maintenance—Operation and maintenance (O&M) includes planned and unplanned maintenance. Planned maintenance includes scheduled activities such as routine patrols, inspections, and scheduled maintenance. Unplanned maintenance occurs when a threat is imminent to public safety or to Idaho Power's ability to provide power to their customers. These threats might include wildfires burning wooden structures or lines, wind or ice damage, trees falling into lines, or vandalism. Maintenance is conducted on the structures, lines, and access and service roads within the ROW. A more detailed description of maintenance activities and frequency is included in Section 2.2.3.5.

1.2. Purpose and Need

Increases in usage and demand for electricity have severely strained Idaho Power's existing electrical transmission facilities in the Treasure Valley, and has necessitated the addition of several natural gas-fired power plants in the Mountain Home area. The Proposed Action would integrate a 200-MW, simple-cycle gas turbine into the Idaho Power system to meet electrical power demands in the Treasure Valley. In addition, the new transmission line would increase electrical capacity and system reliability throughout the Idaho Power service area.

Simply stated, the purpose and need of this project is to interconnect Idaho Power facilities and to transfer power from peaking plants in the Mountain Home area to support the growing load in the Treasure Valley. Failure to upgrade the electrical transmission system would eventually result in either the need to: 1) conduct rotating customer outages; or 2) build a power plant in southwestern Idaho where the most load growth is occurring.

One MW of power is roughly enough electricity to meet the needs of about 650 homes on an average day in southern Idaho. During the summer, when temperatures are high and air conditioners are running, it may take 2 to 4 MW of power to meet the demands of those same 650 homes. Power consumption in the Idaho Power service area is increasing at about 50 MW per year. The additional 200 MW of transmission capacity that would be delivered by the Proposed Action would help Idaho Power meet this increasing demand.

1.3. Project Objectives

1.3.1. Interconnect Idaho Power Facilities

Idaho Power's 2006 *Integrated Resource Plan* (IRP)—prepared to fulfill the regulatory requirements and guidelines established by the Idaho Public Utilities Commission (IPUC) and the Oregon Public Utility Commission (OPUC)—identified the Proposed Action as necessary to meet system constraints and power demand.

Since 1990, Idaho Power has added more than 165,000 new customers. Idaho Power expects to add 11,000–12,000 retail customers per year through 2025. In July 2006, Idaho Power set a new peak-hour load record of 3,084 MW and summertime peak-hour loads are expected to increase by 80 MW per year through 2025. To address peak loads, Idaho Power will increase peaking capacity with the construction of a peaking plant in the Mountain Home area. The Proposed Action has been designed to interconnect existing facilities and deliver energy to the Treasure Valley.

1.3.2. Provide Safe and Reliable Transmission of Electricity

Electric utilities are charged by state and federal regulatory agencies with the responsibility to provide safe, reliable electrical service to their customers. Customers may include homeowners, businesses, factories, municipalities, government, and other utilities. Electricity is essential for domestic use, economic growth, national security, and other vital services.

Idaho Power operates and maintains its transmission lines to ensure the structural and engineering integrity of the system. Providing safe, reliable power to customers requires an effective and timely Operation and Maintenance (O&M) program. O&M must be accomplished, to the greatest extent possible, while maintaining a harmonious relationship with adjoining land uses and the environment.

1.3.3. Consistency with Management Plans

The Proposed Action occurs in the BLM planning area represented by the Bennett Hills/Timmerman Hills Management Framework Plan (MFP) (USDI 1976). The Proposed Action conforms to this land-use plan and other applicable environmental laws and policies.

1.3.4. Environmental Objectives

Project construction and O&M activities have been designed to minimize impacts to the environment. The following objectives are specific to the Proposed Action:

- Restrict work to defined, approved work areas;
- Implement appropriate construction best management practices to avoid or minimize direct and indirect impacts to resources;

- Conduct road maintenance as necessary to minimize direct and indirect impacts to resources;
- Rehabilitate the temporarily disturbed area;
- Minimize the establishment and spread of noxious weeds in the ROW;
- Protect waters of the U.S. and associated riparian habitats;
- Protect federally-listed and Idaho BLM species of special concern;
- Protect historical and cultural resources;
- Minimize aesthetic and environmental impacts.

1.4. Authorizations, Permits, Reviews, and Approvals

The BLM has administrative responsibilities for public lands where the Proposed Action would occur. Title V of the Federal Land Policy and Management Act, as amended, authorizes the granting and renewing of ROW crossing public lands administered by the BLM. Table 1 summarizes federal agency approvals, reviews, and permitting requirements for the project.

Table 1. Federal authorizations, permits, reviews, and approvals required for the project.

Action Requiring Permit, Approval, or Review	Permit/Approval	Accepting Authority/ Approving Agency	Statutory Reference
Right-of-way (ROW) over land under federal management, including construction and operation	ROW grant	Bureau of Land Management (BLM)	Federal Land Policy and Management Act 1976 (PL 94-579), USC 1761–1771, and 43 CFR 2800
National Environmental Policy Act (NEPA) decision to grant ROW	EA	BLM	NEPA, Council on Environmental Quality 40 CFR part 1500 et seq.
Grant of ROW	Endangered Species Act compliance by BLM and the U.S. Fish and Wildlife Service (USFWS)	USFWS	Endangered Species Act Sec. 7 consultation
Grant of ROW	National Historic Preservation Act compliance with Sec. 106	BLM, as lead agency, and State Historic Preservation Office	National Historic Preservation Act 1966, 36 CFR part 800, 16 USC 47

1.5. Decision to Be Made

The BLM must decide if ROW authorizations are to be issued and, if so, what conditions would be included to minimize environmental impacts and ensure compliance with local resource management objectives. In doing so, the BLM must comply with requirements promulgated by the National Environmental Policy Act (NEPA) of 1969 (as amended), as well as other federal laws (Table 1).

This EA presents an analysis of the potential environmental impacts on public lands that may result from implementation of the Proposed Action. The Authorizing Officer will determine whether the Proposed Action is a “major federal action” requiring the development of an environmental impact statement by assessing the significance of the Proposed Action based on context and intensity (40 CFR 1508.27). Issuing ROW authorization would allow Idaho Power to remove the existing 138-kV line; build the 230-kV lines; and continue to access, operate, and maintain the transmission line for the duration of the grant term.

1.6. Scoping

The following issues were identified as a result of discussion with BLM. These issues are discussed in more detail in Section 3, Affected Environment, and Section 4, Environmental Consequences.

1.6.1. Archaeological and Historical Resources

Federal agencies are required to consider the effects of the proposed undertaking on historic properties, which include archaeological and historical sites. Historic and prehistoric cultural resources occur in the project area. Removal of existing lines and structures, construction in the existing and wider ROW, and continued O&M of the line—particularly those activities involving ground disturbance—could potentially impact the integrity of cultural resources. In addition, traditional cultural properties, if identified by Native American tribes, could be at risk.

1.6.2. Federally Listed, Candidate, and Sensitive Wildlife Species

The BLM is obligated to protect listed species and determine whether its actions are likely to affect these species. The U.S. Fish and Wildlife Service (USFWS) reported two federally-protected species on its project species list. The bald eagle (*Haliaeetus leucocephalus*) occurs in winter in the project area. The gray wolf (*Canis lupus*) is listed as threatened, nonessential population and was evaluated under BLM Policy 6840.

In addition to federally-listed species, the BLM maintains a list of sensitive species that it must consider when making management decisions. The Proposed Action could directly or indirectly impact these species. BLM sensitive species that have the potential to occur in the project area are considered in Sections 3 and 4.

1.6.3. Federally Listed, Candidate, and Sensitive Plant Species

The USFWS reported no proposed or listed plant species that either occur or potentially occur in the project area. The BLM is obligated to protect listed species and determine if its actions are likely to affect these species. In addition to federally-listed species, the BLM must consider a separate list of sensitive species when making management decisions. Two BLM sensitive species, slickspot peppergrass (*Lepidium papilliferum*) and woven-spore lichen (*Texosporium sancti-jacobi*) occur within the proposed ROW. These two species, and potentially occurring BLM sensitive species, are addressed in Sections 3 and 4.

Project activities have the potential to impact these species by vehicle traffic, personnel, or by ground disturbing activities. Species productivity could be indirectly impacted by soil compaction, accelerated erosion, or noxious weed introduction.

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION

As discussed in the previous section, the purpose and need for the proposed Danskin CT1 Interconnect Project is to integrate a 200-MW, simple gas turbine into the Idaho Power system to meet electrical power demands in the Treasure Valley. Additionally, the new transmission line would increase electrical capacity and system reliability throughout Idaho Power's service area. Idaho Power has developed the Proposed Action to meet this need. Several other actions that were considered as alternatives were not studied in detail due to various reasons. All considered alternatives, including the No-Action Alternative, are discussed below.

2.1. Description of the Proposed Action and No-Action Alternatives

In this analysis, the No-Action Alternative means that Idaho Power would continue current operation and maintenance of the lines and would not undertake the Proposed Action. The Proposed Action is the project that Idaho Power has applied for with the BLM.

2.1.1. *Actions Common to Both Alternatives*

Operation and Maintenance Requirements—Idaho Power performs O&M activities to keep the project transmission lines operational and in good repair. These activities are either planned (such as those for routine patrols, inspections, and scheduled maintenance) or unplanned (such as those for emergency maintenance in cases where public safety and property are threatened). Under both alternatives, O&M of the line would be similar, but because the majority of the new line would have steel structures and the old line has wood poles, the O&M would not be identical. As is currently done, a patrolman using a pickup or all-terrain vehicle would conduct a ground patrol twice a year, once in the spring and fall, and identify line and structure conditions in need of repair. Follow-up maintenance for problems would be scheduled for the fall (October through November). A detailed climbing or aerial inspection of the structures, conductors, and associated hardware would take place approximately once every 10 years, at any time of the year. During a climbing inspection, structural hardware is checked and tightened. Follow-up maintenance to the detailed inspection usually occurs the following fall. Vegetation treatments to clear the ROW are minimal because of the lack of tall shrubs and trees. If vegetation treatments within the ROW or work areas needed to occur due to dense shrubs or fire hazards, they would be done using mechanical methods.

Emergency situations are those conditions that may result in imminent or direct threats to public safety or threaten or impair Idaho Power's ability to provide power to its customers. The following examples include actual and potential emergency situations:

- Failure of conductor splices;
- Lightning strike or wildfire resulting in burned wood pole structures (existing line) or the smoke causing flashover between the conductors;

- Damage to structures from high winds, ice, or other weather-related conditions;
- Line or system outages or fire hazards caused by trees falling into conductors;
- Breaking or imminent failure of cross-arms or insulators, which could or does cause conductor failures; and
- Vandalism to structures or conductors from shooting or other destructive activities.

Permitted Uses—Land uses that are compatible with safety regulations required for a transmission line may be permitted by the BLM in and adjacent to the ROW. Existing land uses, such as grazing, generally have been permitted within the ROW. Incompatible land uses within the ROW include construction and maintenance of structures or dwellings, as well as any use requiring changes in surface elevation that would affect existing facilities. Compatible uses of the ROW on public lands would have to be approved by the BLM.

2.2.2. No-Action Alternative

Under the No-Action Alternative, the BLM would not amend or grant ROW authorization. The existing lines would remain in place, interconnection facilities would not be constructed, and Idaho Power would continue operation and maintenance as it currently does under the existing BLM ROW grant.

Implementation of this alternative would preclude most of the impacts to the environment associated with the Proposed Action; however, it would not preclude environmental impacts from occurring. If this alternative were adopted, other sources of power and transmission routes would need to be developed to meet the energy needs identified in Section 1. Development of these other energy sources and transmission routes would create their own environmental impacts in the region.

The No-Action Alternative would not meet the purpose and need identified for the Proposed Action and is not considered a reasonable option.

2.2.3. Proposed Action

The Proposed Action is to issue ROW authorizations for the construction, operation, and maintenance of transmission lines and interconnection facilities, associated communications equipment, and service roads on public lands administered by the BLM. The Proposed Action includes:

1. Rebuilding the existing 138-kV line from the Danskin Switching Station to Mountain Home Junction #1;
2. Constructing a 230-kV interconnection between the Danskin Switching Station and Bennett Mountain Switching Station;

3. Rebuilding Line #406 as a 230-kV line from the Danskin Power Plant to the new 230-kV Hubbard Station (near the existing Mora Station); and
4. Operation and maintenance of 138-kV and 230-kV lines and access and service roads.

The Proposed Action would be constructed over approximately nine months, starting in July 2007. Construction of each project component is expected to occur concurrently. Any modifications to construction techniques would be approved by the BLM prior to implementation.

Line Route and Right-of-Way Requirements—The proposed 138-kV and 230-kV lines would occupy the same ROW for approximately the first 3.5 miles east of the Danskin Switching Station. However, the current ROW width of 50 feet would be expanded to 100 feet; the ROW centerline would remain the same. Approximate length of the proposed ROWs are provided in Table 2.

Table 2. Right-of-way length by land ownership and project component.

Project Component	Proposed ROW (100-foot wide) Length (miles)		
	BLM	State	Private
Danskin–Mountain Home Junction #1 (Line 919)	1.25	0	4.45
Danskin–Bennett Mountain (Line 724)	1.8	0	0.5
Danskin–Hubbard (Line 723)	14.08	4.18	23.74

Note: Total length of ROW in the table exceeds the actual length because the first 3.5 miles of the new 230-kV line from Danskin will be double circuit (138/230-kV) with the rebuilt Danskin to Mountain Home Junction #1 138 kV line.

Structures and Fiber-Optic Cable—The proposed 230-kV line rebuild between the new Hubbard Substation and Danskin Power Plant would occupy the existing line ROW, but individual structure locations within that ROW would change where viable to optimize line design. New structures would be constructed of weathering steel and would be directly imbedded in the ground. On average, the structures are 70- to 80-feet tall and spaced from 600- to 1000-feet apart. To provide for remote operation of the line, an optical ground wire (OPGW or fiber-optic wire) would be installed in place of one of the shield wires. The OPGW is DNO-5484, with 24-count, single-mode fibers. The OPGW would be for the sole purpose of operating the line and interconnected transmission grid. The proposed double pole structure is illustrated in Figure 2.

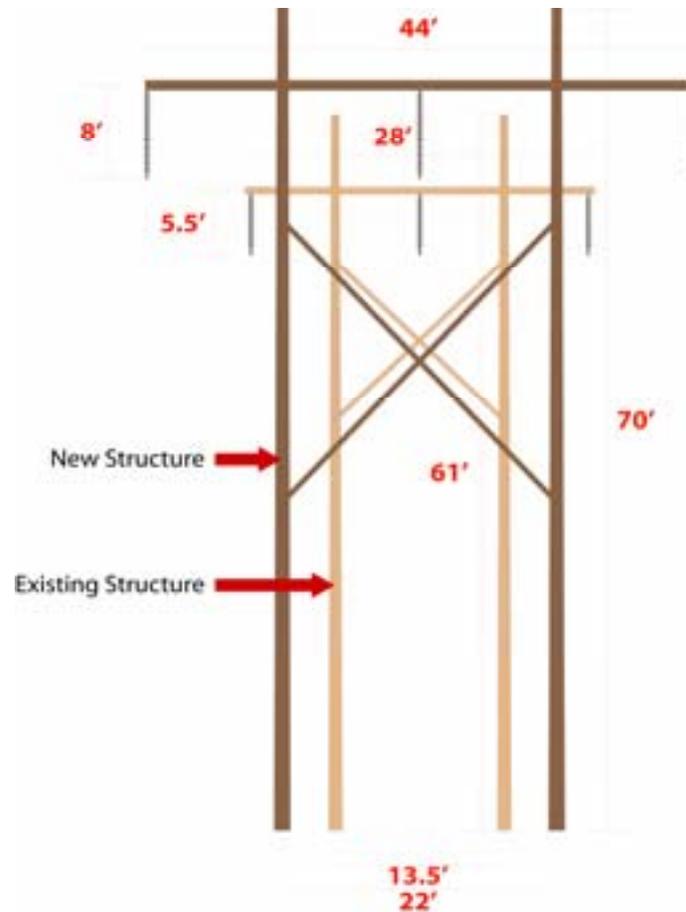


Figure 2. Existing and proposed structure diagram and specifications for H-frame structures.

The proposed new 230-kV line between the Danskin Switching Station to the Bennett Mountain Switching Station would run eastward for 3.5 miles. Structures in this section are single-pole, weathering steel on concrete foundations with double-circuit capability. On average, structures would be 100- to 120-feet tall and would be placed an average of 750-feet apart. From the end of the double circuit section, the line would run due south for 2.1 miles to Bennett. Structures in this section are single-circuit, single-pole, direct-bury, weathering steel. To provide for remote operation of the line, an optical ground wire (OPGW or fiber-optic wire) would be installed in place of one of the shield wires. The OPGW is DNO-5484 with 24-count, single-mode fibers. The OPGW would be for the sole purpose of operating the line and interconnected transmission grid.

Rebuilding of the 138-kV line between the Danskin Switching Station to Mountain Home Junction #1 would follow the existing line route from Danskin, eastward to Mountain Home Junction #1. The 138-kV line would be constructed using two different structure types: 3.5 miles would be on the single-pole, steel structures with double-circuit capability described above, and 2.2 miles will be H-frame, directly-embedded, wood pole structures. The H-frame structures with cross-arms would average 70- to 80-feet tall and would be placed an average of 750-feet apart. To provide for remote operation of the line, an optical ground wire (OPGW or fiber-optic wire)

would be installed in place of one of the shield wires. The OPGW is DNO-5484 with 24-count, single-mode fibers. The OPGW would be for the sole purpose of operating the line and interconnected transmission grid.

The design, construction, operation, and maintenance of the proposed line would meet or exceed requirements of the National Electrical Safety Code (IEEE 2002), U.S. Department of Labor, Occupational Safety and Health Standards, and Idaho Power for the safety and protection of landowners and their property.

2.2.3.1. Transmission-line Construction

Sequence of Activities—Idaho Power would not initiate any construction or other surface-disturbing activities on the public land portion of the ROW until authorized by BLM. Such authorization would consist of a written notice to proceed (Form 2800-15). Idaho Power would conduct all activities associated with construction, operation, and maintenance of the transmission line within the authorized limits of the ROW and in strict conformity with the POD. A copy of the complete ROW authorization, including all stipulations and the approved POD, would be made available to personnel at the project area during construction. BLM personnel would ensure compliance through project monitoring and ROW grant stipulations.

Construction of the Proposed Action would occur as follows:

1. Survey and stake centerline;
2. Maintain service roads as necessary;
3. Remove existing line;
4. Prepare (e.g., clear and/or grade) work areas as needed;
5. Excavate structure holes, erect towers, and install structures;
6. Install fiber-optic or traditional ground wire, conductors, and ground rods;
7. Clean up and reclaim site.

Various phases of construction would occur at different locations for each project component throughout the construction process. Construction would involve several crews operating at the same time at different locations. The preliminary construction schedule is shown in Table 3.

Table 3. Preliminary construction schedule, 2007 to 2008.

Task and Project Component	2007				2008
	1-QTR	2-QTR	3-QTR	4-QTR	1-QTR
Rebuild 138-kV line from Danskin to Mountain Home Junction #1 (Line919)					
Contractor selection and mobilization		■			
Removal of existing line and structures			■	■	
Structure installation			■	■	
Wire installation				■	
Cleanup and rehabilitation				■	
Construct 230-kV line between Danskin and Bennett Mountain (Line 724)					
Contractor selection and mobilization		■			
Removal of existing line and structures			■		
Structure installation			■	■	
Wire installation				■	
Cleanup and rehabilitation				■	
Rebuild Line 406 between Danskin and Hubbard (Line 723)					
Contractor selection and mobilization		■			
Removal of existing line and structures			■		
Structure installation			■	■	
Wire installation				■	■
Cleanup and rehabilitation					■

Surveying—Construction survey work for the Proposed Action would consist of determining centerline location, specific pole locations, ROW boundaries, work area boundaries, and service roads to work areas. Final design plans for the structure locations, work areas, and service road maintenance within the ROW would be included in the final POD; the POD would be approved by the BLM prior to the start of construction.

As this is an existing ROW, it may be unnecessary to mark the boundaries. Locations where the line changes angles or the ROW is not clear may be marked with painted laths or flags as needed to keep the contractor within the ROW. Marking would be maintained until final cleanup and/or reclamation is completed, after which they will be removed and recycled or disposed of at a state-approved landfill.

Access and Service Road Maintenance—The existing and proposed ROWs have access and service roads in or adjacent to the Proposed Action. In most cases, where the existing road system can accommodate construction equipment or vehicles, cross-country travel may be possible. Areas where cross-country travel is required would be marked to protect natural and cultural resources prior to the start of construction activities. Maintenance of service roads may involve clearing vegetation and grading. A set of final design plans detailing the location of

potential pulling sites and new and existing service roads would be provided in the POD. Work areas (laydown yards, offices) would be on private land.

Equipment to maintain service roads includes hand tools, bulldozers, graders, and crew-haul vehicles. Specific actions, such as installing water bars and dips to control erosion, would be implemented to reduce construction impacts. In addition, measures to minimize impacts in specific locations and during certain periods of the year (e.g., avoiding wet roads when ruts greater than three inches would be created) would be implemented.

Removal of Existing Line—The existing lines, located on wood poles, would be removed in segments prior to construction of the new lines. All existing conductor and associated hardware would be removed and existing wood poles would be cut off near ground level. All materials would be salvaged or removed to a state-approved landfill. Access and service road maintenance is not anticipated to be necessary for removal of the existing line and structures; however, depending on the condition of the road, remedial grading and/or vegetation removal may be necessary.

Work Area Preparation—Temporary construction yards would be located on private lands along the line route. One yard is proposed for a 40-acre parcel owned by Idaho Power, located between Orchard and Black's Creek roads. Another yard is proposed for city-owned land in the Mountain Home area; this yard was previously used during construction of the Rattlesnake substation. The work areas serve as field offices, reporting locations for workers, parking spaces for vehicles and equipment, and places to temporarily store and marshal construction materials.

Setting Structures—Structures for Lines 723 and the single-circuit sections of Lines 919 and 724 would be directly embedded in the ground without the use of concrete footings. Structures for the double-circuit section of Lines 724 and 919 would be attached to concrete footings. Excavations for all structures would be done with a vehicle-mounted power auger. If rocky areas are encountered, blasting may be required. Structures would be set using a crane and material trucks. Access and service road maintenance would likely be required in some areas so the power auger, crane, and material trucks can safely access the sites.

Directly embedded foundations consist of a cylindrical hole in the ground 8–12 feet deep, depending on soil and structure height and loading. Cast in place, concrete foundations consist of a cylindrical column of concrete embedded in the ground anywhere from 15–25 feet deep, depending on soil conditions. Poles are attached to the concrete via embedded anchor bolts.

Structure holes that would be left open or unguarded overnight or for more than a day, would be covered and/or fenced where practical to protect the public, livestock, and wildlife. Soil removed from holes would be stockpiled in the work area and used to backfill holes. All remaining soil not needed for backfilling would be spread in the work area. If native soil is not suitable for backfill, clean, noxious-weed-free soil would be imported to backfill holes.

Any required blasting would be conducted in strict compliance with all applicable safety orders and/or rules. All employees engaged in the handling and use of explosives would obtain the appropriate certification required by the state or county in which such operation is located. Idaho Power's on-site Construction Manager is a licensed "employee possessor." Accurate accounting

of all explosives would be maintained, and any shortages would be reported immediately to Idaho Power's on-site Construction Manager and the county sheriff. No explosives would be stored in the ROW; they will be stored at Idaho Power's material storage yard. The magazines and site would meet all federal requirements. Safeguards such as blasting mats would be employed when needed to protect adjacent property. In extremely sandy areas, soil may be stabilized by water or a gelling agent prior to excavation.

Pole Assembly and Erection—Sections of the steel structures and associated hardware would be moved to each structure work area by truck and would be assembled at the work area (Figure 3). Areas would need to be large enough to accommodate the entire length of the steel poles while cross-arms and insulators are mounted to them. Cross-arms are then installed and rigged with insulator strings and stringing sheaves at each ground wire and conductor position. This process is done while the pole is on the ground. The assembled structures are then hoisted into place by a large crane or helicopter.

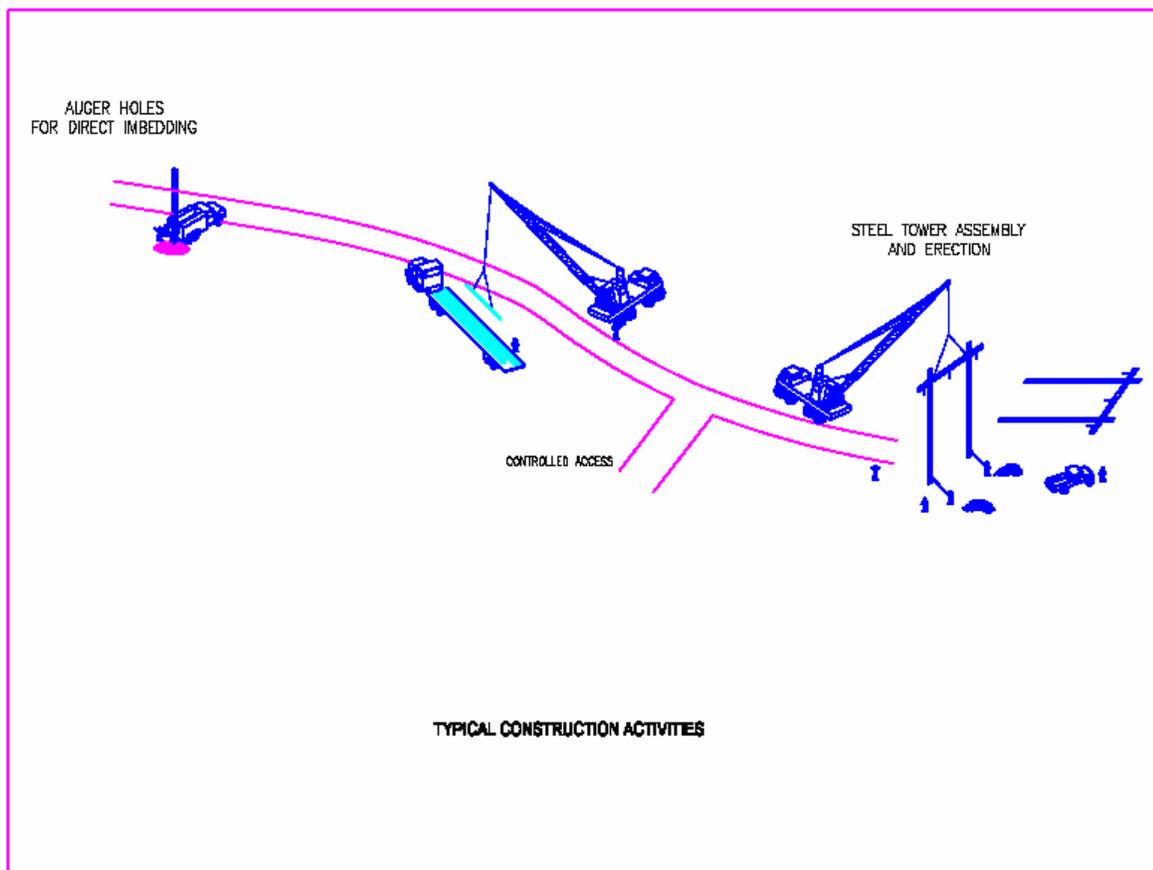


Figure 3. Typical construction activities.

Conductor and Fiber-optic Installation—Fiber-optic and conductor would be strung using powered pulling equipment at one end and powered braking or tensioning equipment at the other end. Once poles are in place, a pilot line would be pulled (strung) from pole to pole and threaded through stringing sheaves on each pole. A larger diameter, stronger line would then be attached

to the pilot line and strung. This is called the pulling line. This process is repeated until the fiber-optic cable and conductor is pulled through all sheaves (Figure 4).

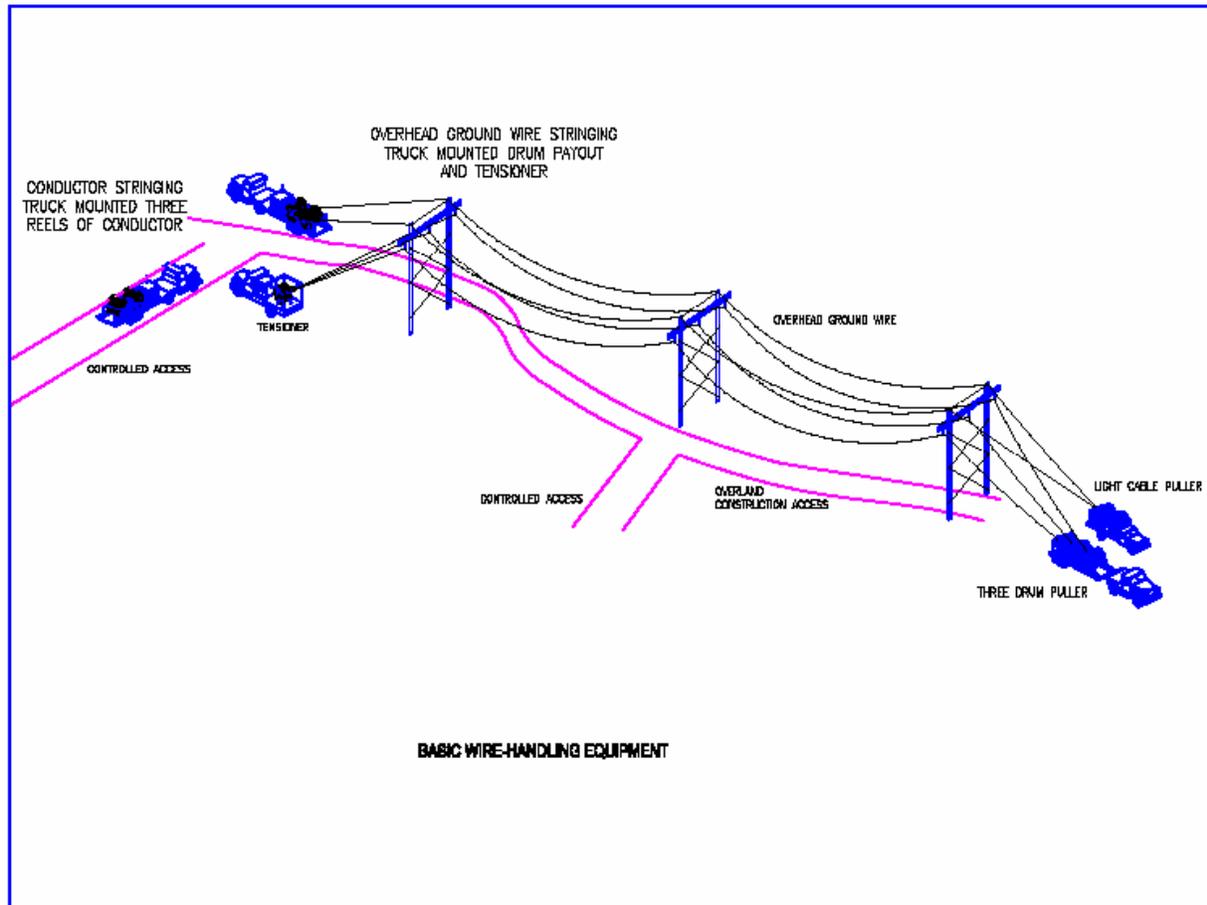


Figure 4 . Typical wire stringing activities.

Guard structures would be installed as needed to insure the safety of construction personnel and the public during construction (e.g., at major road crossings). Guard structures consist of H-frame poles placed on either side of an obstacle. These structures prevent ground wire, conductor, or equipment from falling on an object. Equipment for erecting guard structures includes augers, line trucks, pole trailers, and cranes. Guard structures may not be required for small roads. On such occasions, other safety measures such as barriers, flagmen, or other traffic control will be used.

Conductor splicing would be required at the end of a conductor spool if a conductor is damaged during stringing. The work would occur in the same work areas used for the poles or pulling/tensioning sites. Pulling/tensioning sites are approximately 100 feet by 300 feet and would be cleared of vegetation and graded to allow for safe operation of the pulling and tensioning equipment. Equipment to clear the areas would include a small dozer, backhoe, and excavator, depending on the specific location. After construction, the areas would be restored in accordance with the BLM-approved POD.

Splice boxes for the fiber-optic cable would be required approximately every four miles, where the cable spool ends. The boxes would measure approximately 36" x 48" x 36" and would be mounted on the side of the pole approximately 10 feet above the ground.

Ground Rod Installation—As a part of standard construction practices, tower footing resistance along the route is measured prior to wire installation. If the resistance to remote earth for each transmission tower is greater than 25 ohms, additional structure grounding **would** be installed.

2.2.3.2. Construction Waste Disposal

Construction sites, material storage yards, and service roads would be kept in an orderly condition throughout the construction period. Refuse and trash would be removed from the sites and disposed in an approved manner. Oils and fuels would not be dumped along the line onto the ground or into streams. Oils or chemicals would be stored in, and disposed of, in accordance with all applicable laws and regulations. Construction practices will comply with all applicable federal, state, and local laws and regulations concerning the use, storage, transportation and disposal of hazardous materials. No open burning of construction trash would occur without BLM approval.

2.2.3.3. Site Reclamation

Disturbed areas within the ROW would be finish-graded and reseeded as specified in the POD. The natural drainage pattern along the ROW would be restored as nearly as practical to the original pattern. Work sites would be restored using excess materials, vegetation, and topsoil stockpiled for that purpose. The contractor would dispose of excess soil materials, rock, and other objectionable materials that cannot be used in restoration work, as approved by the Authorized Officer and as directed by Idaho Power's on-site Construction Manager.

If at some point Idaho Power no longer desired a permanent road for patrolling and maintenance, service roads would be abandoned, revegetated, and stabilized by erosion-control methods where necessary. Disturbed areas would be restored, as nearly as possible, to their original contours and reseeded where appropriate. Ripping and other surface scarification on construction roads or other areas would be done as necessary. In most cases, the amount of soil compaction and vegetation destruction may not warrant ripping and reclamation. This determination will be made on a case-by-case basis with the Authorized Officer.

2.2.3.4. Fire Protection

A fire plan is included in the POD and would be approved by the Authorized Officer. It documents all applicable fire laws and regulations to be observed during the construction period, including any BLM notice of restricted activities due to high fire danger. All personnel would be advised of their responsibilities under the applicable fire laws and regulations. In general, Idaho Power is responsible for inspecting the transmission line for fire hazards. When working on or around transmission lines on BLM lands during fire season, Idaho Power employees and contractors would have approved suppression tools and equipment. All power-driven equipment, except portable fire pumps, will be equipped with one fire extinguisher and one long-handled, round-point shovel. In addition, each truck and passenger-carrying vehicle will be equipped with

a double-bit axe or Pulaski. In some conditions, each internal combustion engine shall be equipped with a spark arrester.

Fire regulations are generally effective between April 1 and October 31 and at other times with unusual weather conditions.

If Idaho Power becomes aware of an emergency situation that is caused by a fire on, or threatening, BLM lands and that could damage transmission lines or their operation, it would notify the BLM. Likewise, if the BLM becomes aware of an emergency situation that is caused by a fire on, or threatening, BLM lands and that could damage transmission lines or their operation, it would notify Idaho Power.

2.2.3.5. Transmission-line Operation

Operational Characteristics—The nominal voltage for the Danskin Power Plant to the Hubbard Switching Station transmission line (Line 723) and the Danskin Switching Station to the Bennett Mountain Switching Station transmission line (Line 724) is 230-kV alternating current (AC). The nominal voltage for the Danskin Switching Station to Mountain Home Junction #1 transmission line (Line 919) is 138-kV AC. There can be minor variations of up to 5% above the nominal level, depending on load flow.

Safety—Safety is a primary concern in the design of the transmission systems. An AC transmission line is protected with power circuit breakers and related line relay protection equipment. If conductor failure occurs, line switches automatically open and the line is de-energized. The overhead ground wires, along the top of the line, provide lightning protection. Electrical equipment and fencing at the substations are grounded.

Maintenance—Idaho Power performs O&M activities to keep transmission lines operational and in good repair. These activities are either planned (such as routine patrols, inspections, scheduled maintenance, and scheduled emergency maintenance) or unplanned (such as emergency maintenance in cases where public safety and property are threatened). Other than routine inspections, the level of maintenance anticipated would be relatively low. The proposed weathering steel structures will require less maintenance than the wood structures.

A patrolman using a pickup or all-terrain vehicle conducts a ground patrol twice a year, once in the spring and once in the fall, and identifies line and structure conditions in need of repair. Follow-up maintenance on problems is then scheduled for the fall (October through November). A detailed climbing or aerial inspection of the structures, conductors, and associated hardware takes place approximately once every 10 years. During a climbing inspection, structural hardware is checked and tightened. Climbing inspections can take place from April through October. Follow-up maintenance to the detailed inspection usually occurs the following fall. Vegetation treatments to clear the ROW would be minimal because of the lack of tall shrubs or trees.

Idaho Power may clear vegetation within a 10-foot radius of each wood pole as a measure to reduce possible damage from fires. Following vegetation clearing, licensed applicators would apply herbicides to minimize vegetation regrowth. Idaho Power would coordinate these activities with BLM to ensure that sensitive plant and wildlife resources are not negatively impacted.

Maintenance activities are also conducted on access and service roads. Because existing service roads have not been recently maintained, initial maintenance activities are expected to include grading to re-establish the road bed where necessary, for the safe operation of equipment, repair eroded areas, and install water bars and dips to control erosion and storm water runoff. Long-term maintenance would be conducted on an as-needed basis and can include the same activities as the initial maintenance.

Idaho Power would implement a noxious weed control program on federal lands to prevent the spread of new infestations resulting from the Proposed Action. Noxious weed control areas include all lands disturbed by construction activities plus a 30-foot buffer area around disturbances. Noxious weed control would be conducted in accordance with the ROW stipulations.

In addition to typical O&M activities described above, Idaho Power may apply a fire retardant treatment to wood poles. Fire retardants are unlikely to be used within the project area, except in a rare case where vegetation clearing adjacent to a pole is not allowed. Osmose[®] Fire-Guard[™] is hand-applied by brush to the lower portion of wood poles. The treatment material does not contain any hazardous materials and does not have the potential to drift or leach into the water. When used, applicators would lay plastic sheeting around the structure to trap any drips or inadvertent spills.

Emergency situations are those conditions that may result in imminent or direct threats to public safety or threaten or impair Idaho Power's ability to provide power to its customers. The following examples include actual and potential emergency situations:

- Failure of conductor splices;
- Lightning strike or wildfire resulting in smoke causing flashover between the conductors;
- Damage to structures from high winds, ice, or other weather-related conditions;
- Line or system outages or fire hazards caused by trees falling into conductors;
- Breaking or imminent failure of cross-arms or insulators, which could or does cause conductor failures;
- Vandalism to structures or conductors from shooting or other destructive activities.

The POD provides a more detailed description of operation and maintenance activities.

2.2.3.6. Applicant-Committed Environmental Protection Measures

The following environmental protection measures are part of the Proposed Action and would be implemented by Idaho Power. These measures have been designed to avoid or reduce the impacts of the Proposed Action.

These measures and other specific plans would be incorporated in the POD, which provides details on the construction process, O&M activities, and methodology to protect resources and human safety. In addition, the POD would outline any required monitoring guidelines so that

inadvertent impacts to resources can be avoided, and will include specifications for reclamation and revegetation of the ROW, resource mitigation measures, noxious weed control, fire prevention, hazardous spill prevention, and water pollution prevention. The POD would be prepared in consultation with the BLM before the notice to proceed (Form 2800-15) is issued. Idaho Power would conduct comprehensive training to inform construction crews of all permit requirements and restrictions relevant to construction.

Work Area—All construction and future O&M activities would occur within Idaho Power’s ROW (work area). Projects that extend outside the permitted ROW and are on BLM land are not regulated under this POD without the concurrence of the BLM.

Environmental protection measures include:

- WA-1. In an effort to minimize the general environmental impacts of construction, structures were placed to avoid sensitive features, especially riparian areas and watercourses, and/or to allow conductors to clearly span the features, within limits of standard pole design.
- WA-2. All waste products and food garbage from construction sites will be deposited in a covered waste receptacle and removed daily. Garbage will be hauled to a suitable disposal facility.
- WA-3. Ground disturbance is limited to that necessary to safely and efficiently install the proposed facilities.
- WA-4. Existing improvements will be repaired or replaced to their condition prior to disturbance if they are damaged or destroyed by construction activities, as agreed to by the parties involved.
- WA-5. Fences and gates will be installed, replaced, or repaired to their condition prior to disturbance if they are damaged or destroyed by construction activities, or as required by the Authorized Officer.
- WA-6. Hazardous materials will not be drained onto the ground or into streams or drainage areas.
- WA-7. If blasting is necessary, appropriate safety guidelines will be followed, as required by state and federal regulations relating to blasting operations.
- WA-8. Fire protection measures will be followed, as required by state and federal regulations, to prevent wildfires that may cause damage to wildlife habitat.
- WA-9. Appropriate traffic control measures will be used to ensure public safety during construction. Prior notice will be given for any extended delays or road blockage.

Site Access and Road Maintenance—Idaho Power describes roads necessary for the construction and O&M of transmission lines as either access roads or service roads. The sole purpose of service roads is to provide maintenance crews ingress to the transmission lines. These

roads would not exist if the transmission lines did not exist. In contrast, access roads serve a broader purpose, such as contributing to the BLM, county, or state road systems. Access roads provide direct or indirect access to the transmission lines, but that access is not their primary purpose. Public use of service roads would be determined on a case-by-case basis with the BLM. Idaho Power is responsible for road closures mutually agreed to by Idaho Power and the BLM (that is, roads that are closed to the public, but accessible to the BLM and Idaho Power for maintenance purposes). No road closures are anticipated for this project.

The following environmental protection measures will help to minimize road effects on resources.

- RD-1. In areas where recontouring is not required, disturbance will be limited to overland driving, where feasible, to minimize changes in the original contours. Large rocks and vegetation may be moved within these areas to allow vehicle access.
- RD-2. In areas where soils are particularly sensitive to disturbance, existing service roads will be repaired only to where they are passable with an overland vehicle.
- RD-3. Work will be temporarily halted where wet conditions cause excessive rutting (>3 inches deep) of roads and/or work areas.
- RD-4. When overland routes in the ROW are chosen, contractors will avoid destruction of sagebrush and slickspots when alternative routes within the ROW are available (e.g., existing spurs to old poles).
- RD-5. To limit new or improved accessibility into the area, all new service roads that were neither desired nor required for maintenance will be closed using the most effective and least environmentally damaging methods appropriate to that area, with concurrence of the Authorized Officer.
- RD-6. All existing roads will be left as close to an undeveloped nature (i.e., two-track road) as possible without creating environmental degradation (e.g., erosion or rutting from poor water drainage) or unsafe conditions.
- RD-7. Where appropriate, roads will be maintained to have crossroad drainage in order to minimize the amount of channeling or ditches needed. Water bars will be installed at all alignment changes (curves), significant grade changes, and as requested by the Authorized Officer.
- RD-8. All existing road drainage structures will be maintained or repaired by Idaho Power during construction and future O&M activities.
- RD-9. Service roads and other areas of ground disturbance, within the construction limits will be watered, as needed, to remain compact and to avoid the creation of dust. This may also require the limitation of types of equipment, vehicle speeds, and routes utilized during construction. Water, weed-free straw, wood chips, dust reducer, gravel, or a combination of these or similar control measures may be used.

Service roads would usually be inspected annually. Maintenance requirements will vary depending on the type of road, level of use, and condition of the road. Typically, maintenance will be conducted when road conditions threaten resource values or public safety or impede access for transmission-line maintenance personnel. Service roads would be maintained in accordance with Idaho Power's requirements for transmission-line service roads. In the event of a conflict between Idaho Power's requirements and the requirements of the BLM, the requirements of BLM would take precedence.

Noxious Weed Control—Idaho State law (IDAPA 2, Title 6, Chapter 22) lists modes of action that are capable of disseminating noxious weeds and the duties to control the spread of listed noxious weeds. Equipment and supplies necessary for line construction and future O&M activities, and the activities themselves, are possible agents for the spread of noxious weeds. To decrease the potential for the introduction or spread of undesirable vegetation, the following environmental protection measures would be followed during construction and O&M activities:

- NW-1. Personal vehicles, sanitary facilities, and work areas will be confined to areas specified in the POD. For construction and prolonged O&M projects, maintenance equipment, materials, and vehicles will be stored at the sites where activities will occur or at specified maintenance yards.
- NW-2. The responsible party will clean all equipment that may operate off-road or disturb the ground before beginning construction and O&M activities within the project area. This process will clean tracks and other parts of the equipment that could trap soil and debris and will reduce the potential for introduction or spread of undesirable exotic vegetation. Preferably, the cleaning will occur at an Idaho Power operation center, commercial car wash, or similar facility. Vehicles traveling only on established roads are not required to be cleaned.
- NW-3. Idaho Power will prepare a revegetation plan in consultation with the BLM when necessary. The plan will specify appropriate revegetation timing, techniques, and seed mix(es). Adherence to this plan will also help limit the spread and establishment of noxious weeds. Certified, noxious-weed-free seed must be used on all areas to be restored. Other construction material, such as fill, shall also be free of noxious weed seed.

Visual Resources—The following environmental protection measures would minimize project effects on visual resources.

- VR-1. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate limits of survey or construction activity.
- VR-2. Weathered steel poles, which have a rusted appearance, will be used for the 230-kV transmission line to reduce visual contrasts.
- VR-3. Nonspecular conductors will be used to reduce visual impacts.
- VR-4. All stakes and flagging will be removed from the construction area and disposed of in a state-approved landfill.

Cultural Resources—Any cultural and/or paleontological resource (fossil[s] or historic or prehistoric site or object) discovered by Idaho Power, or its designated contractor, on BLM land shall be immediately reported to the Authorized Officer. If new, probable historic, cultural, or paleontological resources are discovered during construction, potentially destructive work within 300 feet of the find will be halted. Pursuant to 43 CFR 10.4(g), the holder of the authorization must notify the Authorized Officer, by telephone and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), activities in the vicinity of the discovery must be stopped and protected for 30 days or until notified to proceed by the Authorized Officer. Idaho Power's construction inspector would immediately implement the following measures:

- a. Flagging will be erected to prohibit potentially destructive activities.
- b. Idaho Power's archaeologist will make a preliminary assessment of the newly discovered resource.
- c. If the archaeologist determines that the discovery represents a potential new site or an undocumented feature of a documented site, the BLM will be notified and processes identified by the BLM will be followed.
- d. Construction will not resume in the identified area until cleared by the archaeologist (private land) or Authorized Officer (public lands managed by the BLM).

Environmental protection measures for cultural resources include the following:

- CR-1. Prior to construction, all supervisory personnel will be instructed on the protection of cultural resources. The construction contract will address: (a) federal and state laws; (b) the importance of these resources; (c) the purpose and necessity of protecting them; and (d) methods for protecting sensitive resources.
- CR-2. Construction crews and vehicles will be constrained to the road and not allowed to travel cross-country near known sites. Where a road intersects a site, the road sides will be posted to indicate that no off-road activity may occur. Marking will be coordinated with the BLM and done by personnel appointed by Idaho Power. After construction or the O&M activity is complete or no longer poses a threat to the cultural resources, the stakes will promptly be removed to protect the site's significance and location from unwanted attention.
- CR-3. Contractors will be provided with maps showing avoidance areas; these will include established work zones as well as ROW areas where overland travel should be avoided.

All human interments will be treated with the respect accorded them by state and federal laws applying to human remains. If the discoveries are unanticipated, state law does not distinguish between historic or prehistoric burials as far as what steps are required for initial notification or disinterment. If human remains are discovered on BLM lands during construction or future O&M activities, Idaho Power will stop all work in the immediate area to protect the integrity of the find and notify the county sheriff and BLM as soon as possible. In addition, the location of

the find will be flagged or fenced off to protect it from further impacts. The BLM would determine what mitigation is necessary and, once the mitigation is complete, work can resume in the area.

Sensitive Plants— The following environmental protection measures would minimize project effects on sensitive plants.

- SP-1. Prior to construction, all supervisory personnel will be instructed on the protection of natural resources, including sensitive plant species and habitats. The construction contract will address (a) federal and state laws regarding plants; (b) the importance of these resources; (c) the purpose and necessity of protecting them; and (d) methods for protecting sensitive resources.
- SP-2. Sensitive plant populations that occur within the ROW and work areas will be marked on the ground, where practical, to ensure that the species are avoided. If species are discovered during the work, Idaho Power will establish a spatial buffer zone and immediately contact the BLM. The Authorized Officer may evaluate the adequacy of the buffer on a case-by-case basis. Until the BLM authorizes Idaho Power to proceed, either orally or in writing, all activities will cease within the buffer zone. After the project is complete or no longer poses a threat to the plant population, the marking (stakes) will promptly be removed to protect the site's significance and location from unwanted attention.
- SP-3. Sensitive plant populations near the ROW, but not within work areas, will be protected by marking the edges of the ROW and service roads in the general vicinity to ensure that workers do not leave those areas. If the plants are within work areas that have, or will have, ground disturbance, Idaho Power will establish a species appropriate buffer zone around the population. Marking will be immediately removed at the end of construction activities within that area. As needed, marking will be reinstated during the land rehabilitation period.
- SP-4. For sensitive resource issues where marking is not appropriate, work in designated areas will be modified or curtailed during critical periods. The Authorized Officer, in advance of construction or maintenance, will approve sensitive areas and time frames. Emergency repair situations are excluded from this restriction.
- SP-5. Contractors will be provided with maps showing avoidance areas; these will include established work zones as well as ROW areas where overland travel should be avoided.
- SP-6. In the event any sensitive plants require relocation, permission will be obtained from BLM. If avoidance or relocation is not practical, the topsoil surrounding the plants will be salvaged, stored separately from subsoil, and re-spread during the restoration process.

Sensitive Wildlife— The following environmental protection measures would minimize project effects on sensitive wildlife species.

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- SW-1. Prior to construction, all supervisory personnel will be instructed on the protection of natural resources. To assist in this effort, the construction contract will address: (a) federal and state laws regarding plants and wildlife; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive resources (e.g., Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and BLM wildlife policy).
- SW-2. If sensitive wildlife species are discovered during construction and O&M activities, and the animals are not directly within ground disturbance areas, they will be protected by marking the edges of the ROW and service roads in the general vicinity to ensure that workers do not leave those areas. If the animals are within work areas that have or will have ground disturbance, Idaho Power will establish a species and temporal appropriate buffer zone and then will contact BLM immediately. The Authorized Officer may evaluate the adequacy of the buffer on a case-by-case basis. Until BLM authorizes Idaho Power to proceed, either orally or in writing, all activities must cease within the buffer zone. After the project is completed or no longer poses a threat to the species, the marking (stakes) will promptly be removed to protect the site's significance and location from unwanted attention. As needed, marking will be reinstated during the land rehabilitation period.
- SW-3. For sensitive resource issues where marking is not appropriate, work in designated areas will be modified or curtailed during critical periods. The Authorized Officer, in advance of construction or maintenance, will approve sensitive areas and time frames. Emergency repair situations are excluded from this restriction.
- SW-4. If sensitive wildlife species are killed or injured due to construction or O&M activities, the local IDFG conservation officer and Authorized Officer will be notified.
- SW-5. If construction activities effect wintering deer from December 1 to March 15, the Authorized Officer may restrict activities if impacts are deemed to be excessive.
- SW-6. The Construction Manager must ensure all construction workers are knowledgeable of the legal harvest seasons, methods of take, and bag limits for deer, elk, pronghorn, upland game birds, and cottontail rabbits. All on-site personnel will be made aware that all birds of prey are protected by federal and state laws.
- SW-7. To facilitate identification of potential conflicts with sensitive wildlife species, Idaho Power maintains a spatial database of known locations near service road and transmission-line rights-of-way. This database will be updated following construction of the new line to protect sensitive wildlife during future O&M activities.
- SW-8. Contractors will be provided with maps showing avoidance areas; these will include established work zones as well as ROW areas where overland travel should be avoided.
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- SW-9. Idaho Power will conduct pre-construction surveys to identify raptor and migratory bird nests. Empty nests will be removed. If occupied nests are found, Idaho Power, in consultation with the BLM, will establish a suitable buffer around the nest and avoid the area or relocate the nest.
- SW-10. New structures will be built in accordance with raptor-safe standards specified in APLIC (2006).
- SW-11. Overall construction impacts to reptiles and amphibians are expected to be very low. However, if a large (hundreds of snakes) hibernaculum of the night snake (*Hypsiglena torquata*) is unearthed during construction, activity should be temporarily halted to allow the snakes to disperse to other cover.

It is probable that sensitive species would occur within the ROW over the life of the grant. As sensitive species are identified, their locations would be recorded in a spatial database and O&M activities would be scheduled to avoid critical periods. With the exception of emergency repair situations, major O&M activities in designated areas could be modified or curtailed during sensitive periods (e.g., nesting and breeding periods). BLM is notified in advance of major activities therefore, sensitive periods and areas of concern can be approved in advance of maintenance by the Authorized Officer.

Raptor and Owl Protection—The ferruginous hawk, short-eared owl, and burrowing owl are the only species of special concern likely to nest in the project area. Species are expected to be present from about March through July. For the ferruginous hawk, young or eggs could be directly impacted if nests are abandoned or have to be removed by construction crews. This is a highly unlikely event as ferruginous hawks typically prefer to nest in juniper trees, on rock outcrops, and on the ground. Two-pole structures do not provide the correct surface area for a stable nest. Burrowing owls nest underground so eggs and young could be killed by heavy vehicles or any surface disturbance.

Idaho Power biologists would conduct surveys prior to structure removal or rebuild, to identify potential conflict areas of raptor nesting territories in the immediate vicinity of the ROW. Nests under construction, but not yet with eggs that are present in an area scheduled for work during that nesting season will be removed. Idaho Power has the appropriate permits to do this. However, if nests with eggs or young need to be moved, Idaho Power would consult with the Idaho Department of Fish and Game (IDFG) and the FWS to decide on the proper action and to obtain an additional permit to move the nest. In the event that a successful move was unlikely, construction activities in that area may be delayed or service roads rerouted as appropriate. The Authorized Officer would make this decision.

If occupied raptor territories are observed off of the poles, the extent of likely construction disturbance would be assessed. If necessary, spatial and temporal management buffers could protect occupied territories. White and Thurow (1985) recommended no activities within 250 meters of an occupied ferruginous hawk nest, and Richardson and Miller (1997) recommended no major actions within 800 meters of an occupied nest.

Burrowing owls are mostly crepuscular and nocturnal and would not likely be significantly disturbed by construction or O&M activities as long as their burrows were not directly impacted. A buffer of 100 meters would be established for occupied burrows. Buffers for other raptor species would be decided as needed by the BLM biologist and Authorized Officer (Table 4).

Table 4. Time periods during which construction or O&M activities will be reviewed, and may be restricted, within 400 meters of nesting raptors.

Raptor Species	Restrictive Time Period
Golden eagle	March 1–June 30
Ferruginous hawk	March 15–June 30
Swainson hawk	April 15–July 30
Red-tailed hawk	March 1–June 30
Western burrowing owl	March 15–June 30

Air Quality— The following environmental protection measures would minimize project effects on air quality.

- AR-1. Road construction will include dust-control measures, as required and identified in the BLM-approved dust-control plan, submitted as part of the POD.
- AR-2. All requirements of those entities having jurisdiction over air quality matters will be followed, and any permits needed for construction activities will be obtained. Open burning of construction trash and discarded poles or pole pieces will not allowed.

Health, Safety, Noise— The following environmental protection measures would minimize project effects on health, safety, and noise.

- HS-1. Hazardous materials will not be drained onto the ground or into streams or drainage areas. Totally enclosed containment will be provided for all solid waste.
- HS-2. If blasting is necessary, appropriate safety guidelines will be followed, as required by state and federal regulations relating to blasting operations.
- HS-3. Fire protection measures will be followed, as required by state and federal regulations, to prevent wildfires.
- HS-4. Appropriate traffic control measures will be used to ensure public safety during construction. Prior notice will be given for any extended delays or road blockage.
- HS-5. Vehicle maintenance activities that have the potential to release hazardous materials (e.g., oil change, repair of a hydraulic line) will be conducted in approved work areas and with appropriate best management practices (e.g., spill containment).

2.2. Description of Alternatives Considered but Eliminated from Detailed Study

2.2.1. New or Rerouted Transmission Line

Alternatives to rebuilding within the existing ROW were to: 1) reroute all or portions of the existing ROW; or 2) build an entirely new transmission line within a new ROW. No issues were identified during scoping or preliminary analyses of affects to resources that suggested a need to reroute all or portions of the existing ROW. The existing ROW is well established, thus rerouting it would likely cause additional environmental impacts to new areas from the need to build new roads and infrastructure.

2.2.2. Alternative Voltages

Idaho Power evaluated keeping the transmission line voltage at 138-kV and upgrading its capacity. Given the age and configuration of the existing line, upgrading line capacity to 138-kV would entail almost the same rebuild as in the 230-kV Proposed Action. Idaho Power's backbone transmission system is 230-kV. Idaho Power's needs justified the use of a 230-kV line, as a 230-kV line best meets the need for the amount of capacity expansion required and best meets the operational requirements of the electrical system.

The use of a higher voltage, such as 500-kV, would only be justified if there were a need for the magnitude of capacity that a large voltage line required. Higher voltage construction than 230-kV would be much more expensive because of the increased costs associated with structure types and substation upgrades that would be required at the line's termination points.

3. AFFECTED ENVIRONMENT

This chapter describes the existing environmental setting that may be affected by construction and O&M of the Proposed Action. Sections are included for the general project setting; cultural resources; threatened, endangered, and sensitive plant species; and listed, candidate, and BLM sensitive wildlife species. Potential resource impacts from the Proposed Action and No-Action Alternatives and suggested protective measures are described in Section 4.

3.1. General Project Setting

3.1.1. *Physiography and Geology*

The Proposed Action is located in the Malheur-Boise-King Hill section of the Columbia Intermontane geomorphic province. Bassalt flows in this section exhibit complex interbedding with thick Miocene and Pliocene lacustrine and fluviatile sediments. Numerous stream channels also occur within this section; perennial streams include the Snake, Bruneau, Boise, and Payette Rivers.

The project area is characterized by relatively flat topography, with a slight increase in elevation from the west to the east. Elevation at the Mora Substation is 2,870 feet above mean sea level (msl) and 3,300 feet msl at the Mountain Home Junction #2 Substation. The interconnection corridor shares similar topography to that of Line 406, but does have slightly steeper slopes. Elevations range from 3,260 feet msl at the Bennett Mountain Switching Station to 3,480 feet msl at the Rattlesnake Substation.

3.1.2. *Soils*

The Columbia Intermontane geomorphic province is characterized by a range of grassland soils, with light colored arid soils prevalent across the southern half of the region (Ross and Savage 1967). The Natural Resource Conservation Service (NRCS) identified numerous soil map units within the project area (NRCS 2005). Soil units are predominately loams, silt loams, and clay loams. Specific soil map units can be found in Krichbaum 2005.

3.1.3. *Climate*

The climate is very similar throughout the project area. The Mountain Home, Idaho weather reporting station is located approximately 2 miles south of the project area. For the period of record (1948 through 2005), the average annual high temperature is 64.8 F and the average annual low temperature is 36.7 F. Average total precipitation is 9.97 inches and average total snowfall is 10.8 inches. December and January are the coolest months and July and August are the warmest months (Western Regional Climate Center 2006).

The Kuna, Idaho weather reporting station is located approximately 5 miles from the western end of the project area. For the period of record (1948 through 1996), the average annual high temperature is 63.3 F and the average annual low temperature is 35.9 F. Average total precipitation is 9.83 inches and average total snowfall is 11.9 inches. December and January are the coolest months and July and August are the warmest months (Western Regional Climate Center 2006).

3.1.4. Vegetation

The project area is in the Intermountain Semidesert Ecosystem province (Bailey 1995). The province is characterized by steppe and shrub-steppe plant communities and is divided into three vegetation zones; the project area occurs within the Big Sagebrush Zone (Frenkel 1993). The following description of the vegetation community is taken from *An Investigation of Special Status Rare Plant Resources Associated with the Proposed Mountain Home-Mora (Line 406) Upgrade Project, Ada and Elmore Counties, Idaho* (Krichbaum 2005).

Specifically, the project area is dominated by *Artemisia tridentata ssp. wyomingensis* (Wyoming big sagebrush). Several different *A. t. ssp. wyomingensis* habitat types are described by Hironaka *et al.* (1983), however, the generally high level of ground and vegetation disturbance within the project area makes this kind of classification difficult (since the habitat types are based on climax communities). Most likely, much of the project area would be classed as a depleted stand of the *Artemisia tridentata ssp. wyomingensis/Pseudoroegneria spicata* (Hironaka *et al.* 1983). In these cases, the understory is often reduced to *Poa sandbergii* (Sandberg bluegrass), *Elymus elymoides* (squirreltail), and *Bromus tectorum* (cheatgrass) (Hironaka *et al.* 1983).

Current vegetation in the project area includes a shrub layer (if present) of *Artemisia tridentata ssp. wyomingensis*, *Ericameria nauseosa*, and/or *Chrysothamnus viscidiflorus*, as well as occasional scattered *Grayia spinosa* (spiny hopsage) and *Tetradymia glabrata* (littleleaf horsebrush). As mentioned above, much of the grass layer is composed of weedy annuals, dominated by *Bromus tectorum*, but also including *Taeniatherum caput-medusae* (medusahead), and *Vulpia* spp. (annual fescues). The non-native perennial bunchgrasses *Agropyron cristatum* and *A. fragile* are also common. In less-disturbed areas, however, native bunchgrasses are present. The most common of these are *Poa secunda* and *Elymus elymoides*, but a variety of other species such as *Achnatherum thurberianum* (Thurber's needlegrass), *Hesperostipa comata* (needle and thread), and *Leymus cinereus* (basin wildrye) are also found. In general, the forb community is also degraded and at an early seral stage, with a high percentage of non-native species such as *Sisymbrium altissimum* (tall tumbled mustard), *Descurainia sophia* (herb sophia), and *Lepidium perfoliatum* (clasping pepperweed). Scattered native forbs include *Penstemon* spp. (penstemon), *Astragalus* spp. (milkvetch), and *Lomatium* spp. (biscuitroot).

Several riparian areas associated with creeks, reservoirs, seeps and ditches are also present at the eastern end of project area. Common riparian associates include *Carex* spp. (sedge), *Juncus* spp. (rush), *Salix* spp. (willow), *Euthamia occidentalis* (western goldentop), *Phalaris arundinacea* (reed canarygrass), and *Typha latifolia* (broadleaf cattail).

3.1.5. Land Use

The primary land use on both public and private lands within the project area appears to be livestock grazing. Cattle, and indications of cattle grazing, are commonly found throughout the project area. Dispersed recreation activities (primarily hunting) also occur throughout the study area, although no specific areas of concentrated recreation use are present. Off-road vehicle use on the public lands occurs throughout the project area, although no areas of heavy, concentrated use are located near the line. Service and access roads associated with the line are also used for other purposes such as stock maintenance, hunter access, and general recreational driving. County and other roads also cross the project corridor in limited locations.

The project area is crossed by several secondary roads, one primary U.S. highway (Highway 20), and one interstate highway (Interstate 84). Kuna-Mora road is the most well-traveled secondary road in the project area, crossing Line 406 toward the western end of the project. In addition, a Union Pacific railroad line crosses the project area south of Leone. Several transmission lines also cross the project area.

3.2. Archaeological and Historical Resources

The BLM is responsible for identifying, protecting, managing, and enhancing archaeological, historic, architectural, and traditional lifeway values located on public lands managed by the BLM, as well as those that might be affected by BLM undertakings on non-federal lands. Some of the legislation and implementing regulations governing cultural resource management include the following: the National Historic Preservation Act of 1966 (NHPA), as amended; the Archaeological Resources Protection Act of 1979; the American Indian Religious Freedom Act of 1978 (AIRFA); and the Native American Graves Protection and Repatriation Act of 1990. The Federal Land Policy and Management Act states that public lands are to be managed in a manner “that would protect the quality of...historical...and archaeological values.” NEPA and NHPA provide the objective to coordinate plans and functional programs and resources so as to preserve and protect important cultural resources early in the project planning process. Traditional lifeway values are usually identified through consultation with tribal officials. AIRFA and NHPA envision the potential for access, use, and protection of traditional cultural properties, religious sites, and sacred objects. The identification and evaluation of traditional cultural properties is described in “Bulletin 38” (Parker and King 1994).

The BLM has a national programmatic agreement with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers. In addition, the Idaho BLM has a state protocol agreement with the Idaho State Historic Preservation Office (SHPO) that provides further guidance on BLM’s responsibilities for implementation of NHPA and Section 106. Under Section 106, federal agencies are required to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the Advisory Council on Historic Preservation. These regulations, “Protection of Historic Properties” (36 CFR 800), became effective June 17, 1999.

3.2.1. Historical and Archaeological Inventories

Class III field surveys were conducted along the proposed ROW in September and October 2005 and June 2006. Prior to the start of field work, a Class I records review was conducted. The survey area consisted of a 200-foot wide corridor along the exiting Line 406 ROW and a 500-foot wide corridor along 11.8 miles of proposed and alternative transmission line corridors. Three surveyors conducted a 100% surface survey, walking linear transects spaced 15 meters to 20 meters apart in areas outside of riparian zones and 5 meters apart within riparian zones. No shovel probes were conducted on BLM lands; however, shovel probes were conducted on state and private lands as part of the National Register eligibility assessment. All cultural traces, regardless of age, were documented. All work on federal lands was carried out under BLM Cultural Use Permit ID-I-35446. The BLM compliance report and the survey report are on file with the Idaho SHPO and BLM; however, to protect the confidentiality of resource sites, they are exempt from Freedom of Information Act requests.

A review of cultural resource records at the Idaho State Historic Preservation Office found 34 surveys completed between 1979 and 2004 within the project vicinity.

3.2.2. Prehistoric and Historic Sites

The survey recorded data for four previously recorded sites and nine previously unrecorded sites. Eight of the previously unrecorded sites are historic and include rock concentrations, historic artifact scatter, and irrigation canals. One undocumented, precontact artifact site was also recorded. The four previously recorded sites include the Oregon Shortline/Idaho Central Railway, and three historic artifact scatters. Surveyors were unable to locate the previously recorded Dorsey Wagon Road; extensive plowing has obliterated any ruts and traces of the road.

Two sites are recommended as eligible for nomination to the National Register of Historic Places; the Oregon Shortline/Idaho central Railway spur line and the precontact artifact scatter.

3.3. Threatened, Endangered, and Sensitive Plant Species

Plant taxa listed as endangered or threatened, are proposed, or a candidates for listing by the USFWS that could potentially occur within the project area are identified in Table 5. This table also includes plant taxa that have been designated as sensitive by the BLM. Pedestrian field surveys of the project area were conducted in upland areas in May and June 2005 and in riparian areas in August 2005. Surveys targeted potentially occurring sensitive plant species and also characterized the existing vegetation.

The field surveys did not locate any USFWS endangered, threatened, proposed, or candidate plant species. The surveys did identify three occurrences of *Lepidium papilliferum* (slickspot peppergress) and one occurrence of *Texosporium sancti-jacobi* (woven-spore lichen); both are considered sensitive by the BLM (Figure 5).

Because *Lepidium papilliferum* is an annual with a long seed-dormancy period, it is possible that certain populations may have no above-ground individuals during certain years when growing

conditions are particularly unfavorable. Therefore, additional pedestrian surveys were conducted in May and June 2006 for *Lepidium papilliferum*. Surveys conducted in 2005 were conducted during good growing conditions and surveyors felt that they had identified all potential habitat. The 2006 surveys were intended to address the possibility that no matter how thorough a survey is, it may fail to locate certain populations during particular years.

The 2006 surveys followed the same methods as the 2005 surveys (Krichbaum 2005). However, only areas rated as moderate to good habitat quality were surveyed. This amounted to about 18 miles of 200-foot wide right-of-way and another 3.5 miles of wider search areas in the interconnection zones where the precise alignment had not been set. Areas rated as having no potential or poor were not surveyed. All public lands within these areas were checked as well as a small portion on private land within *Lepidium papilliferum* Management Area 8.

3.3.1. Slickspot Peppergrass (*Lepidium papilliferum*)

Species Description—The following species description is taken from the USFWS *Draft Best Available Biological Information for Slickspot Peppergrass (Lepidium papilliferum)* (USFWS 2006). *Lepidium papilliferum* is an herbaceous plant that exhibits annual or biennial life forms that typically occur in sagebrush (*Artemisia spp.*) steppe habitats at approximately 2,200 feet (ft) (670 meters (m)) to 5,400 ft (1,645 m) elevation in southwestern Idaho. It is found in suitable habitats in the Snake River Plain and Owyhee Plateau in Ada, Canyon, Gem, Elmore, Payette, and Owyhee counties, Idaho. The plant occurs at elevations ranging from approximately 2,200 ft (670 m) to 5,400 ft (1,645m).

The habitat of *Lepidium papilliferum* can be broadly characterized as semi-arid, sagebrush (*Artemisia spp.*) steppe habitats in southern Idaho. *Lepidium papilliferum* is associated with basalt ridges and plains, stable piedmont, and alluvial floodplains and deposits.

Lepidium papilliferum can be found in visually distinct microsites known as slickspots (mini-playas or nitric sites) that act as small water basins and where the sodium and clay content is higher than adjacent, unoccupied habitat. Most populations occur on flat to gently sloping terrain. *Lepidium papilliferum* resides in a semi-arid-steppe climate. The plant is found on slickspots where moisture tends to linger longer than surrounding non-slickspot sites.

The fact that *Lepidium papilliferum* has persisted following over a century of habitat degradation, sometimes with somewhat large populations of the species occurring on extremely degraded sites, indicates that the plant is capable of withstanding some level of disturbance.

Regulatory Status—The species was proposed to be federally-listed as endangered on July 15, 2002 by the USFWS. On September 25, 2002, the comment period on the proposed listing was reopened and the final determination was then delayed for six months to allow for further study and evaluation of the need for listing of the species. The proposed rule to list *L. papilliferum* as endangered was withdrawn on January 22, 2004 (69 FR 3094). The Western Watershed Project filed a suit on April 5, 2004 for failure “to list Slickspot peppergrass (*L. papilliferum*) as threatened or endangered under the Endangered Species Act, after having published a Proposed Rule to list Slickspot peppergrass as an endangered species in 2002”. In

Figure 5. Sensitive Plant Locations

Table 5. Sensitive plant species with potential for occurrence in the project area.

Name	Status (see legend)	Habitat
<i>Astragalus atratus</i> <i>var. owyheensis</i> Fairfield milkvetch	BLM: Type 3 IDRank: G4G5T3S3	Sagebrush-grass communities in thin soil of stony basalt flats where moist in spring
<i>Astragalus mulfordiae</i> Mulford's milkvetch	BLM: Type 2 IDRank: G2S2 INPS: GP2	Sandy bluffs and dune-like or sometimes shaley talus of river terraces; sandy slopes and ridges with needle and thread grass, Indian ricegrass, and bitterbrush
<i>Astragalus purshii</i> <i>var. ophiogenes</i> Snake River milkvetch	BLM: Type 4 IDRank: G5T3S3 INPS: M	Barren sites within sagebrush steppe, and on loosely aggregated, frequently moving sand and gravelly sand deposits on bluffs, talus, dunes, and volcanic ash beds
<i>Camissonia pterosperma</i> wingfruit suncup	BLM: Type 4 IDRank: G4S2 INPS: S	Dry, open slopes, ridges, and washes in the sagebrush and pinyon-juniper zones
<i>Chaenactis stevioides</i> Steve's dustymaiden	BLM: Type 4 IDRank: G4S2 INPS: S	Open, usually sandy sites within shrub-steppe communities
<i>Cymopterus acaulis</i> <i>var. greeleyorum</i> Greeley springparsley	BLM: Type 3 IDRank: G5T2S2 INPS: GP2	Sagebrush and desert shrub-steppe communities; on brown and white volcanic ash
<i>Downingia bacigalupii</i> Bach's calicoflower	BLM: Type 4 IDRank: G4S2 INPS: S	Drying mud of vernal pools, lake margins, wet meadows, roadside and irrigation ditches, and streambanks
<i>Downingia insignis</i> harlequin calicoflower	BLM: Type 3 IDRank: G4S1 INPS: 1	Vernal pools, roadside ditches, playas, and lake margins
<i>Eatonella nivea</i> white false tickhead	BLM: Type 4 IDRank: G4S3 INPS: S	Dry desert areas in sandy or volcanic soils, often with sagebrush
<i>Epipactis gigantea</i> stream orchid	BLM: Type 3 IDRank: G3S3 INPS: S	Seeps, cliff bases along streams, and hot springs
<i>Eriogonum ochrocephalum</i> <i>var. calcareum</i> whitewoolly buckwheat	BLM: Type 3 IDRank: G4T3S2 INPS: GP3	Barren knolls and ridges with sagebrush or saltbrush; often in pale, chalklike soil of volcanic origin
<i>Eriogonum shockleyi</i> <i>var. parkardiae</i> Packard's buckwheat	BLM: Type 3 IDRank: G5T2S2 INPS: GP2	Gravelly benches on lake bed sediments in desert shrub and sagebrush communities
<i>Escobaria vivipara</i> spiny star	BLM: Type 4 IDRank: G5S2 INPS: S	Dry valleys, plains, and foothills; open, gentle to steep rocky slopes and flats, with sagebrush or conifer species
<i>Glyptopleura marginata</i> carvseed	BLM: Type 4 IDRank: G4S3 INPS: S	Desert shrub and sagebrush communities, on dry sandy-gravelly or loose ash soils
<i>Ipomopsis polycladon</i> manybranched ipomopsis	BLM: Type 3 IDRank: G4S2 INPS: 2	Dry open areas in desert shrub and sagebrush communities, on sandy to silty soils
<i>Lepidium davisii</i> Davis' pepperweed	BLM: Type 3 IDRank: G3S3 INPS: GP3	Mostly barren hard bottom playas, but sometimes with a few scattered shrubs, within shrub-steppe habitat

Name	Status (see legend)	Habitat
<i>Lepidium papilliferum</i> slickspot peppergrass	BLM: Type 1 IDRank: G2S2 INPS: GP2	Bare slickspot soils within sagebrush-steppe habitat
<i>Nemacladus rigidus</i> stoutstem threadplant	BLM: Type 4 IDRank: G4S2 INPS: S	Desert shrub, juniper or pinyon juniper woodland, sandy and gravelly wash bottoms, volcanic ash; sandy or cindery soils
<i>Pediocactus simpsonii</i> Simpson hedgehog cactus	BLM: Type 4 IDRank: G4S3 INPS: M	Desert valleys and low mountains; rocky or sandy benches and canyon rims in low sagebrush, bud sage, and Sandberg bluegrass communities
<i>Penstemon janishiae</i> Antelope Valley beardtongue	BLM: Type 3 IDRank: G4S2 INPS: 1	Sagebrush communities; on clay soils derived from volcanic ash or lake bed sediment
<i>Pogogyne floribunda</i> profuse flower mesamint	IDRank: G3S1 INPS: GP3	Vernal pools, seasonal lakes
<i>Psathyrotes annua</i> annual psathyrotes	BLM: Type 3 IDRank: G5S2 INPS: 1	Salt desert shrub communities, usually on sandy, well drained soils; dry, open, often alkaline places in the desert; sandy, gravelly, or clay soils
<i>Pyrrocoma insecticuriis</i> wholeleaf goldenweed	BLM: Type 3 IDRank: G3S3 INPS: GP3	Gravelly to heavy clay soil in sagebrush-grass meadows, rolling sagebrush hills, dry flats, and old fields, and along fence lines and roads; ephemerally moist areas
<i>Sairocarpus kingii</i> least snapdragon	IDRank: G4SNR INPS: 1	Deserts, gravelly slopes, talus, and wash banks; sometimes in sandy soils; with shadscale, blackbrush, and sagebrush
<i>Stanleya confertiflora</i> Oregon princesplume	BLM: Type 2 IDRank: G1S1 INPS: GP1	Dry plains on somewhat sparsely vegetated clay soils
<i>Teucrium canadense</i> var. <i>Occidentale</i> western germander	BLM: Type 3 IDRank: G5T5?S2 INPS: 1	Streambanks and moist bottomlands
<i>Texosporium sancti-jacobi</i> woven-spore lichen	BLM: Type 2 IDRank: G2S2 INPS: GP2	On well decomposed humus, flat or north-facing slopes, especially on old clumps of Sandberg bluegrass, in sagebrush/ needlegrass bluebunch wheatgrass sites
<i>Spiranthes diluvialis</i> Ute ladies' tresses	USFWS: LT BLM: Type 1 IDRank: G2S1 INPS: GP2	Steams, seeps, and bogs

USFWS (US Fish and Wildlife Service) Ranking:

LE = Listed Endangered. Taxa in danger of Extinction throughout all or a significant portion of their range.

LT = Listed Threatened. Taxa likely to be classified as Endangered within the foreseeable future throughout all or a significant portion of their range.

PE = Proposed Endangered. Taxa proposed to be listed as Endangered (formal rulemaking in progress).

PT = Proposed Threatened. Taxa proposed to be listed as Threatened (formal rulemaking in progress).

BLM Ranking:

Type 1 = Threatened, Endangered, Proposed, and Candidate species. These species are listed by the US Fish and Wildlife Service (USFWS) as Threatened or Endangered, or they are Proposed or Candidates for listing under the Endangered Species Act.

Type 2 = Rangewide/Globally Imperiled Species - High Endangerment. These are species that have a high likelihood of being listed in the foreseeable future due to their global rarity and significant endangerment factors. Species ranked by the network of Conservation Data Centers and Natural Heritage Programs with Global Ranks of G1-G3 or T1-T3 with a threat priority of 1-9 using the USFWS Listing Priority Criteria.

Type 3 = Rangewide/Globally Imperiled Species - Moderate Endangerment. These are species that are globally rare with moderate endangerment factors. Their global rarity and inherent risks associated with rarity make them imperiled species. Idaho BLM sensitive species that are ranked by the network of Conservation Data Centers and Natural Heritage Programs with Global Ranks of G1-G3 or T1-T3 with (a) a threat priority of 10-12 using the USFWS Listing Priority Criteria or (b) an Idaho Native Plant Society ranking of Priority 1-2 or Sensitive--i.e., Sensitive with the majority of the population on BLM-administered lands.

Type 4 = Species of Concern. These are species that are generally rare in Idaho with small populations or localized distribution and currently have low threat levels. However, due to the small populations and habitat area, certain future land uses in close proximity could significantly jeopardize these species. This includes sensitive species that are not Type 3.

IDRank (Idaho Conservation Data Center) Categories:

G = Global rank indicator; denotes rank based on rangewide status.

T = Trinomial rank indicator; denotes rangewide status of infraspecific taxa.

S = State rank indicator; denotes rank based on status within Idaho.

1 = Critically imperiled because of extreme rarity or because some factor of its biology makes it especially vulnerable to extinction (typically 5 or fewer occurrences).

2 = Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (typically 6 to 20 occurrences).

3 = Rare or uncommon but not imperiled (typically 21 to 100 occurrences).

4 = Not rare and apparently secure, but with cause for long-term concern (usually more than 100 occurrences).

5 = Demonstrably widespread, abundant, and secure.

E = Exotic or introduced.

U = Unknown.

H = Historical occurrence (i.e., formerly part of the native biota with the implied expectation that it might be rediscovered).

X = Presumed extinct or extirpated.

Q = Indicates uncertainty about taxonomic status.

? = Not yet ranked.

INPS (Idaho Native Plant Society) Rankings:

GP1 = Global Priority 1. Taxa with a GRANK of G1 or T1.

GP2 = Global Priority 2. Taxa with a GRANK of G2 or T2.

GP3 = Global Priority 3. Taxa with a GRANK of G3 or T3.

GX = Taxa thought to be globally extinct (i.e., GRANK = GX).

1 = STATE PRIORITY 1. Taxa in danger of becoming extinct or extirpated from Idaho in the foreseeable future if identifiable factors contributing to their decline continue to operate; these are taxa whose populations are present only at critically low levels or whose habitats have been degraded or depleted to a significant degree.

2 = STATE PRIORITY 2. Taxa likely to be classified as Priority 1 within the foreseeable future in Idaho, if factors contributing to their population decline or habitat degradation or loss continue.

S = SENSITIVE. Taxa with small populations or localized distributions within Idaho that presently do not meet the criteria for classification as Priority 1 or 2 but whose populations and habitats might be jeopardized without active management or removal of threats.

M = MONITOR. Taxa that are common within a limited range as well as those taxa which are uncommon but have no identifiable threats.

R = Review. Global and State rare taxa which may be of conservation concern in Idaho but for which insufficient data exists upon which to base a recommendation regarding appropriate classification.

response to the lawsuit, the USFWS decision to withdraw its proposal to list *L. papilliferum* as endangered was reversed and the Service was directed to reconsider whether a proposed rule listing the species as either threatened or endangered should be adopted. The USFWS issued an announcement on October 13, 2005, regarding the court ruling and requested new information and data. On January 12, 2007, the USFWS issued a decision to withdraw their proposal to list this species as endangered. The species is considered sensitive by the BLM.

In December 2003, the BLM entered into a Candidate Conservation Agreement (CCA) for Slickspot Peppergrass with the State of Idaho and Idaho Army National Guard, with nongovernmental cooperators, to implement conservation measures for *Lepidium papilliferum*. This is a formal agreement to address the conservation needs of a candidate species by reducing, mitigating, and eliminating the threats facing the plant, with the goal of making it unnecessary to list the species. The goal of the CCA is to conserve the species and its habitat while protecting the long-term sustainability of predictable levels of land use in southern Idaho.

The CCA identifies the following conservation measures relative to the Proposed Action:

- Complete botanical survey using U.S. Fish and Wildlife Service (USFWS) Rare Plant Inventory Guidelines within occupied and suitable habitat prior to soil disturbance authorizations.
- Complete botanical surveys for *Lepidium papilliferum* and its habitat prior to authorizing herbicide use.
- Strive to conserve remaining stands of sagebrush or native vegetation in making land management and project level decisions.
- Require that all ROW holders or other related permit holders to establish 40 to 60 percent perennial cover depending on the location of the project after all ground disturbing activities.

Habitat Integrity—*Lepidium papilliferum* habitat integrity was **assessed** in 2005; a detailed description of the field work and results is provided in *An Investigation of Special Status Plant resources Associated with the Proposed Mountain Home—Mora (Line 406) Upgrade Project, Ada and Elmore Counties, Idaho* (Krichbaum 2005). The assessment field work was primarily based on the draft USFWS *L. papilliferum* effects determination framework document (USFWS 2003a). The final proposed protocol for the present study was submitted to the Boise District BLM Office, and discussed with the district botanist prior to beginning the field work (Mark Steiger [Boise District BLM] pers. comm. on May 2, 2005). The field work to evaluate the *Lepidium papilliferum* habitat integrity transects took place from August 4–8, 2005.

A total of 31 *Lepidium papilliferum* habitat blocks were delineated within the study area. Of these, 12 blocks were located within Management Area 5 (10 habitat blocks) or in Management Area 8 (2 habitat blocks) and were therefore selected for sampling. Transects were set up in each of these 12 blocks, and readings of *L. papilliferum* habitat integrity were taken (Table 5). All of the 12 randomly-placed transects were thought to be located in areas representative of their respective habitat blocks.

Due to extensive habitat fragmentation within the study area, many of the habitat blocks were relatively small. In addition, few slickspots remained in many of the burned-over areas. As a result of both these factors, many of the habitat transects contained less than 10 slickspot samples; and for four of the transects (including both of those in Management Area 8), no slickspots were encountered along the transect line. These four transects were removed from the subsequent data analysis. In total, for the eight remaining transects, 43 plots were read (an average of 5.4 plots per transect).

For all plots in all sampled habitat blocks, the average habitat integrity rating (which takes in all eight habitat indicators) was 0.40 (out of a possible 1.00, where 0 represents Low quality ratings, and 1 represents High quality ratings) (Table 6). This ranged from a low of 0.24 in block H07 to a high of 0.52 in habitat block H02. In general the first four indicators (the slickspot microsite indicators) were higher than the last four indicators (the adjacent habitat indicators). For the four slickspot microsite indicators, the average across all transects was 0.58, while the average for the four adjacent habitat indicators was 0.22.

When analyzed by individual indicator, large differences are shown. Indicator No. 4 (soil deposition in the slickspots) shows the highest average (best condition) for all plots with a rating of 0.97, while Indicator No. 7 (non-native species density in adjacent habitat) shows the lowest at 0.00 (Table 5).

Table 6. Average recorded values for *Lepidium papilliferum* Habitat Integrity Assessment transect data.

Habitat Block	No. of Plots	1 (SS) NN Dens ¹	2 (SS) Soil Dist ²	3 (SS) Organic ³	4 (SS) Soil Depo ⁴	5 (ADJ) Gr Dist ⁵	6 (ADJ) Frag ⁶	7 (ADJ) NN Dens ⁷	8 (ADJ) Crust ⁸	All 8 ⁹	SS 4 ¹⁰	ADJ 4 ¹¹
H01	10	0.50	0.25	0.45	0.95	0.50	0.00	0.00	0.00	0.33	0.54	0.13
H02	10	0.55	0.45	0.70	1.00	0.50	0.50	0.00	0.45	0.52	0.68	0.36
H03	1	0.50	0.50	0.50	1.00	0.00	0.00	0.00	0.00	0.31	0.63	0.00
H04	10	0.65	0.05	0.70	1.00	0.50	0.50	0.00	0.00	0.43	0.60	0.25
H05	1	0.50	0.00	0.50	1.00	0.00	0.00	0.00	0.00	0.25	0.50	0.00
H06	4	0.50	0.50	0.50	1.00	0.25	0.50	0.00	0.25	0.44	0.63	0.25
H07	5	0.50	0.00	0.50	0.80	0.00	0.10	0.00	0.00	0.24	0.45	0.03
H08	2	0.50	0.00	0.50	1.00	0.50	0.50	0.00	0.50	0.44	0.50	0.38
All Blocks	43	0.55	0.23	0.58	0.97	0.40	0.31	0.00	0.15	0.40	0.58	0.22

Table shows average values for plots read along transect lines (with the following correspondences: 0 for Low quality, 0.5 for Moderate quality, and 1 for High quality).

(SS) NN Dens¹ = Density of nonnative annual and/or perennial plants established within slickspots

(SS) Soil Dist² = Level of soil disturbance within slickspots

(SS) Organic³ = Level of organic debris deposition and accumulation within slickspots

(SS) Soil Depo⁴ = Level of soil deposition and accumulation within slickspots

(ADJ) Gr Dist⁵ = Level of ground disturbance within the adjacent (surrounding) habitat

(ADJ) Frag⁶ = Level of sagebrush-steppe habitat fragmentation or modification within the adjacent (surrounding) habitat

(ADJ) NN Dens⁷ = Density of nonnative annual and/or perennial plants within the adjacent (surrounding) habitat

(ADJ) Crust⁸ = Cover of biological soil crust in the adjacent (surrounding) habitat

All 8⁹ = Average for all eight indicators

SS 4¹⁰ = Average for all four slickspot microsite indicators (indicators 1 through 4)

ADJ 411 = Average for all four adjacent habitat indicators (indicators 5 through 8)

Occurrence Within the Project Area—Three occurrences of *Lepidium papilliferum* were found within the study area (Figure 5). Starting at the western end of Line 406, the first of these (LEPAMH-01) is located approximately 220 feet from the IDCDC-mapped location for EO #22 (the Pleasant Valley North EO), and is likely a subpopulation of this EO. The subpopulation consists of approximately 25 plants in one slickspot located 70 feet north of the centerline on State of Idaho land. The slickspot lies 80 feet north of Kuna-Mora Road, just west of its junction with Pleasant Valley Road. The subpopulation is located in a patch of intact *Artemisia tridentata* with an understory dominated by annual grasses. Most of the area mapped as the nearby EO #22 has burned recently, and no other *L. papilliferum* individuals were found within the study corridor in this EO.

The second *Lepidium papilliferum* occurrence (LEPA-MH-02) was found 8.5 miles further east, on BLM land, near the point where Indian Creek crosses the line (Figure 5). It consists of two occupied slickspots located approximately 1,800 feet from the nearest IDCDC mapped subpopulation of EO #72 (the SW of Leone EO). LEPA-MH-02 will also likely be treated as an additional subpopulation of EO #72 (making 12 subpopulations in total for this EO). The first slickspot contained four *L. papilliferum* individuals, and is located approximately 90 feet from the centerline (13 feet from the edge of the service road). The second occupied slickspot is larger and contained 55 individuals (the nearest of which were located 104 feet from the centerline [60 feet from the edge of the service road]). The plants are located in a patch of well-developed *Artemisia tridentata* with a mixed understory of primarily annual grasses and forbs.

The third *Lepidium papilliferum* occurrence (LEPA-MH-03) consists of three individuals located on State of Idaho land, three miles east down the line corridor from LEPA-MH-02. The plants are found in two slickspots located approximately 780 feet south of the IDCDC mapped location for EO #54 (the Southwest of Indian Creek Reservoir EO). The first slickspot contained one *L. papilliferum* plant and is located approximately 40 feet south of the centerline. The second slickspot contained the other two individuals and is located approximately 105 feet south of the centerline. Both slickspots are located in a burned-over area dominated by *Bromus tectorum* (cheatgrass) and other annual species. Only a few scattered shrubs are present (*Artemisia tridentata* and *Chrysothamnus viscidiflorus*).

No new *Lepidium papilliferum* sites were located during the 2006 surveys. A previously identified site (LEPA-MH-01) had 109 plants in 2006 and 25 in 2005. This site is adjacent to Kuna-Mora Road and is about 60 feet from the nearest Line 406 pole. No plants were located at the other two sites identified in 2005 (LEPA-MH-02 or 03).

3.3.2. Woven-spore Lichen (*Texosporium sancti-jacobi*)

Species Description—*Texosporium sancti-jacobi* is a whitish/pale grey crustose lichen in the Caliciaceae family that grows on organic matter and soil. The thallus patches are typically arranged in small clumps and often grow associated with pedestals of *Poa secunda*. The distinctive apothecia are circular, approximately 0.02 to 0.06 inches in diameter, and filled with a dark blackish to olive green spore mass (occasionally tinged with bright yellow) (Washington Natural Heritage Program 2000).

In Idaho, the species grows in *Artemisia tridentata* ssp. *wyomingensis*/*Pseudoroegneria spicata* (bluebunch wheatgrass) associations, ranging from 2,890 to 3,280 feet in elevation (Atwood and DeBolt 2000). *Texosporium sancti-jacobi* is typically found on flat or north-facing slopes, in late seral habitats. The species is currently known from widely separated occurrence groupings in southwest Idaho, central Washington, central Oregon, and southern California (Atwood and DeBolt 2000). In Idaho, the IDCDC database contains 22 element occurrence records for *T. sancti-jacobi*, confined to Elmore and Ada counties.

Regulatory Status—*Texosporium sancti-jacobi* is currently a BLM Type 2 Sensitive species. The BLM's Type 2 Sensitive classification is used for those taxa considered to be imperiled globally (rangewide) at a high level of endangerment. The BLM considers that these taxa "...have a high likelihood of being listed in the foreseeable future due to their global rarity and significant endangerment factors" (Idaho Conservation Data Center 2005). The Type 2 classification includes species ranked by the IDCDC as G1-G3 or T1-T3 with a threat priority of 1-9.

Occurrence Within the Project Area—Fifty-six clumps of *Texosporium sancti-jacobi* were found within EO #01 (the South Cole Road/Ten Mile Creek South EO), located near the western end of the project area (Figure 5). The 56 clumps were scattered in 14 small groupings along a 0.9 mile-long segment of line corridor, west of South Cole Road. The groupings were located no closer than 30 feet from the centerline. The habitat along the segment of line containing the *Texosporium sancti-jacobi* consists of well developed *Artemisia tridentata*, with a relatively intact cryptogamic soil crust in the immediate area of the occurrence. Patchy, recent fires have fragmented the habitat, and no *T. sancti-jacobi* clumps were found in the burned areas.

3.4. Threatened, Endangered, and Sensitive Wildlife

Wildlife species considered in this analysis were identified from USFWS and BLM species lists. The USFWS list included federally-listed, proposed, and candidate endangered and threatened species for the counties in which the project occurs (dated September 2006). The most current (2003) Idaho BLM list consists of the USFWS species (Type 1), as well as BLM Type 2–5 species, for the Four Rivers Field Office. All species from these lists were considered unless it was determined that they would not occur within the project area. Potential was evaluated based on several sources. The Idaho Comprehensive Wildlife Conservation Strategy (ICWCS, IDFG 2005) provided predicted range maps and habitat use descriptions for some of the species. Other sources were predicted distribution models created as part of the Idaho Gap Analysis Project (IVMD 2005). The models are based on habitat associations (buffered by restrictions in climate, elevation, distance to water sources, etc.), range approximations, and species experts' observations. Potential was also based on known occurrences from the IDCDC (2006), data from the BLM Four Rivers Field Office, USGS Snake River Field Office, and expert biologists' knowledge of the area.

The project area is defined as the ROW, service roads, and any areas that would be temporarily disturbed during construction. For each species considered, Table 7 details its USFWS or BLM status, habitat types within the project area that could support it, and the likelihood of it being present within the project area.

Table 7. Status, habitat requirements, and likelihood of occurrence of threatened, endangered, and sensitive wildlife species that may occur in the Danskin Interconnect project area.

Common Name	Scientific Name	Type ^a	Potential Habitat in Project Area	Likelihood of Occurrence in Project Area
Federally Protected				
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	Mountain Home Reservoir in winter and crosses line between foraging areas.	Occurs in winter near project area. Not likely to adversely affect.
Gray wolf	<i>Canis lupus</i>	TE	Sagebrush and grassland.	Unlikely to occur. Occurs far north of area. Not likely to adversely affect.
Amphibians and Reptiles				
Woodhouse toad	<i>Bufo woodhousii</i>	3	Xeric to slightly mesic grassland and shrubland, often in washes, floodplains or riparian.	May occur as within the predicted range.
Western toad	<i>Bufo americanus</i>	3	Canals and sagebrush/ grassland within 2 miles of water.	May occur. One historic record north of area.
Common garter snake	<i>Thamnophis sirtalis</i>	3	Canals and intermittent ponds, prairie swales, and roadside ditches.	May occur. No records for area.
Great basin collared lizard	<i>Crotaphytus bicinctores</i>	3	Arid habitats with sparse vegetation and rocks 0.25- 1m in diameter.	Not likely to occur. On north edge of predicted range.
Night snake	<i>Hypsiglena torquata</i>	5	Rocky and sandy areas in sagebrush and in areas with no sagebrush. Typically only near rock outcrops.	May occur. Is present south of project.
Raptors				
Golden eagle	<i>Aquila chrysaetos</i>	BGEP Act ^b	Foraging habitat only, in grassland and sagebrush. Requires cliffs or platforms on utility towers for nesting.	Occurs as forager.
Prairie falcon	<i>Falco mexicanus</i>	3	Foraging habitat only, in grassland and sagebrush. Nests on cliffs.	Occurs mostly March-July.
Ferruginous hawk	<i>Buteo regalis</i>	3	Grassland and sagebrush. Nests in trees, on cliffs, utility poles, and ground.	Occurs. Nests on PPL line near project March to June.
Swainson's hawk	<i>Buteo swainsoni</i>	5	Foraging habitat only, in grassland and sagebrush. Nests in trees. Closest known is 1 mile south of line.	Likely to occur as forager May-August on west and east ends.
Western burrowing owl	<i>Athene cunicularia</i>	5	Grassland and sagebrush, during nesting season. Nests underground.	Occurs. Records in work zone.
Short-eared owl	<i>Asio flammeus</i>	5	Grassland and sagebrush, during nesting season. Nests on the ground.	Likely to occur. Records near project area.
Shrubland Birds				
Brewer's sparrow	<i>Spizella breweri</i>	3	Sagebrush, especially big sagebrush, during nesting season.	Likely to occur. No records for area.
Sage sparrow	<i>Amphispiza belli</i>	3	Sagebrush, especially big sagebrush, during nesting season.	May occur. No records for area.
Loggerhead shrike	<i>Lanius ludovicianus</i>	3	Grassland, open sagebrush, and ecotone habitats, during nesting season.	Likely to occur. Nested in 1990's along Simco Road.
Sage thrasher	<i>Oreoscoptes montanus</i>	5	Sagebrush, especially big sagebrush, during nesting season.	May occur. No records for area.
Grassland Birds				
Grasshopper sparrow	<i>Ammodramus savannarum</i>	3	Open grassland with patchy bare ground, during nesting season.	Likely to occur. No records for area.

Common Name	Scientific Name	Type ^a	Potential Habitat in Project Area	Likelihood of Occurrence in Project Area
Long-billed curlew	<i>Numenius americanus</i>	5	Prefers open, recently-grazed shrub steppe containing short vegetation for nesting; often feeds in agricultural areas.	Occurs March to July. West half of project is BLM designated range.
Other Birds				
Wilson's phalarope	<i>Phalaropus tricolor</i>	5	Nests near freshwater marshes. When not breeding also found on lakes and mudflats.	May occur as non-nester at Mountain Home reservoir.
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	5	Found in shrubby and bushy areas (especially near water), in riparian woodlands, cultivated lands, marshes, and around human habitation.	Likely to occur.
Bats				
Spotted bat	<i>Euderma maculatum</i>	3	Forages in various habitats from desert to montane. Roosts in cracks and crevices in cliffs and canyons.	May occur. No records for area. No roosting habitat known.
Townsend's western big-eared bat	<i>Corynorhinus townsendii</i>	3	Forages in sagebrush. Roosts colonially in caves, buildings, mine adits. Closest known caves (Kuna and Higby) are 6 mi from line.	May occur. No records for area. No roosting habitat known.
Western pipistrelle	<i>Pipistrellus hesperus</i>	4	Forages in sagebrush but near watercourses. Roosts in caves, under loose rocks, crevices in cliffs, buildings.	May occur. No records for area. No roosting habitat known.
Yuma myotis	<i>Myotis yumanensis</i>	5	Forages in sagebrush. Roosts in caves, tunnels, or buildings.	May occur. No records for area. No roosting habitat known.
Western small-footed myotis	<i>Myotis ciliolabrum</i>	5	Forages in sagebrush. Roosts in caves, mine tunnels, crevices in rocks, buildings.	May occur. No records for area. No roosting habitat known.

^a Federal status; T = threatened, TE = threatened, nonessential population
Idaho BLM special status animal species

Type 2: Rangelwide/global imperilment species: species that are experiencing significant declines throughout their range with a high likelihood of being listed under the ESA in the foreseeable future due to their rarity and/or significant endangerment factors.

Type 3: Regional/state imperilment species: species that are experiencing significant declines in population or habitat and are in danger of regional or local extinctions in Idaho in the foreseeable future.

Type 4: Peripheral species in Idaho: species that are generally rare in Idaho with the majority of their breeding range outside the state.

Type 5: Watch list species: species that are not considered Idaho BLM sensitive species but current populations or habitat information suggests that species may warrant sensitive status in the future.

^bThe Bald and Golden Eagle Protection Act (16 USC 668a–d) prohibits the taking or possession of and commerce in bald and golden eagles.

3.4.1. Listed and Candidate Species

3.4.1.1. Bald Eagle

Status

The bald eagle (*Haliaeetus leucocephalus*) is a federally-listed, threatened species that is scheduled to be unlisted on June 29, 2007 (FWS news release February 8, 2007). Populations have recovered significantly since it was listed as endangered in 1978. The Endangered Species Act of 1973, Bald and Golden Eagle Protection Act of 1940, and the Migratory Bird Treaty Act of 1918 protect this species. In Idaho, the number of occupied territories has increased steadily since 1979, when there were 11 documented territories. There were 190 documented territories occupied in 2006 (Sallabanks 2006). No nesting territories are present in the project area. The area may receive occasional use by wintering birds.

Habitat Requirements

In Idaho, bald eagles are most often found along rivers, lakes, and marshes with nearby tall trees or cliffs for perching, roosting, and nesting. Typically, bald eagles occupy habitats along major waterways. Nesting home ranges along the Cabarton River of Idaho averaged 8 km (Kimball and Bechard 2003). Home ranges of 53 bald eagles along rivers, lakes, and bays in western Washington from 1986 to 1997 averaged 4.3 km, with a range of up to 7 km (Watson 2002). Nesting typically begins in March, and young fledge in late June or July.

Winter habitat for bald eagles often centers on ungulate winter ranges and watercourses free of ice. Carrion and waterfowl are the primary food items taken by bald eagles in the winter. Fish can be taken as a winter food item, but they are not as easily available as in the summer due to the icing of lakes and rivers. Eagles winter along the Boise and Snake River corridors from about November through March.

Occurrence in Project Area

Nest Sites—There are no bald eagle nesting territories in the project area. The closest is on the Boise River, 9 miles northeast of the line (IDCDC 2006).

Winter Habitat—No critical bald eagle winter habitat is identified in Idaho (USFWS 1986). Bald eagles are known to regularly winter along the Boise River, north of the project area, and on the Snake River, south of the project area. There are two reservoirs very close to the project area where wintering bald eagles may occasionally forage or roost. Mountain Home Reservoir is on the eastern end of the project only 0.1 mi from the line. This reservoir is situated adjacent to a highway and relatively close to human habitation. Hubbard Reservoir, on the west end of the project area, is about 1 mile from the substation where the new line will end. This area is also surrounded by human habitation and eagles using the area could be somewhat accustomed to human activity. There are no known night roosts in the project area.

Use of the existing line by bald eagles is unknown. They could occasionally perch on the structures. The corridor is not considered key habitat because of a lack of suitable nesting, roosting, or foraging habitat. Wintering eagles have been observed on several occasions to fly from the direction of the Boise River south across the line to the IBP beef processing plant, 1 mile south of the line on Cole road (Leslie Carpenter, personal observation).

3.4.1.2. Gray Wolf

Status

In the Rocky Mountain region, gray wolves (*Canis lupus*) are listed as threatened, but those in the Yellowstone and central Idaho reintroduction areas are designated as nonessential, experimental populations. This designation allows federal and state officials additional flexibility in managing this population, although federal agencies are still required to confer with the USFWS if their actions are likely to adversely affect the continued existence of gray wolves (50 CFR 17.83). The wolf is increasing throughout the Rocky Mountain Recovery Area. By the end of 2005, biologists documented 59 resident wolf packs in Idaho, observed a minimum of 370 wolves, and estimated the population at 512 wolves (Nadeau et al. 2006).

Habitat Requirements

Wolves were once found throughout Idaho but are currently restricted to mostly forested habitat. They require areas with low human population, low potential for human interactions, high prey densities, and secluded denning sites (Groves et al. 1997). Wolf packs typically occupy a specific territory and defend that territory from other wolves. Their annual range may reach several hundred square kilometers. In addition, individuals may move several hundred kilometers, especially when dispersing (Groves et al. 1997).

Occurrence in Project Area

The closest known wolf pack to the project area is the Bennett Mountain pack, which has been observed about 20 miles northeast of Mountain Home. In 2005, two radio-collared wolves came within about 10 miles of the line at Mountain Home reservoir. Wolves might range into the project area on an extremely rare basis. The low elevation of the project area, in general, indicates that the habitat and prey base for the wolf would not be present.

3.4.2. Sensitive Species

Several BLM sensitive species have the potential to occur in the project area (Table 7). For most of the species, no formal surveys have been conducted by the BLM in the project area so specific locations are unknown. The following sections discuss each species' habitat requirements, reasons for decline or concern, and the likelihood and location of occurrence within the project area.

3.4.2.1. Amphibians and Reptiles

There are two sensitive toad species, two snake species, and one lizard species with some potential to be in the project area. Amphibians, and to a smaller extent reptiles, require a water source on a regular basis. Most of the project area does not have perennial water sources. Beginning at the eastern end, the project line will run just west of the Mountain Home Reservoir for about a mile. This reservoir is the largest, permanent water source adjacent to the line. Most of the creeks in the project area are not perennial. From east to west, named creeks that cross under the line include Canyon, Squaw, Soles Rest, Bowns, Sand Hollow, and Indian (several branches). Indian Creek has several man-made dams that retain water in the dry season. The line will end at the New York Canal. Hubbard Reservoir is 0.8 mi to the west from there. There are several drainages and small depressions throughout the project area that likely provide water for short periods after a rain.

The western toad (*Bufo americanus*) has the potential to be present throughout the project area where permanent water is within 500 m. There are no recent records of the toads in or near the project area. The IDCDC (2007) has one record from the 1920s, 5 miles north of the line, near Black's Creek and a few more from the Boise River as recent as 1960. They are not likely present in the dry portions of the project area since the toads may be more dependent on open water sites in the drier and warmer portions of southern Idaho (Bartelt 1997). They may occur near Mountain Home Reservoir or the New York Canal. The species hibernates in the winter, so it would be active above ground from about March through November. Causes of decline may

include drought, habitat loss, disease, pollution, and increase in ultraviolet radiation (Bartelt 1997).

Woodhouse's toad (*Bufo woodhousii woodhousii*) populations in Idaho occur at a few locations along the western Snake River Plain from approximately Bruneau to Weiser. The ICWCS (IDFG 2005) shows the potential for the woodhouse toad to be present throughout the project area. Populations occur primarily in moderately xeric to somewhat mesic grassland and shrubland environments, often in washes or floodplains or in riparian habitat. Breeding takes place in shallow water bodies, sometimes in temporary or seasonal pools. The IDCDC (2007) has several records from 1918, 7 mi north of the line in Boise and adjacent to the Boise River.

The common garter snake (*Thamnophis sirtalis*) occupies virtually any type of wet or moist habitat (Groves et al. 1997). The IVMD (2005) map does not show any potential for the project area because it requires habitat within 90 m of a water source. Small, seasonal water sources in the project area are not mapped by the IVMD. It may be seasonally present in areas of the line that are near the two canals or irrigation ditch. It would be active above ground from about March through October.

The Great Basin collared lizard (*Crotaphytus bicinctores*) occurs in rocky, sparsely vegetated habitat. Typical vegetation at sites includes sagebrush, saltbush, and bunchgrasses. Scattered rocks used as basking perches are a characteristic habitat component. Idaho populations occur at lower elevations along the Snake River, primarily in Owyhee and Canyon counties (IDFG 2005). This species is not expected to occur and in the project area.

Night snakes (*Hypsiglena torquata*) inhabit desert lowlands that generally have a rocky component, although they can be found in areas lacking rocks, provided there are rodent burrows (Storm and Leonard 1995). Diller and Wallace (1986) studied this species in the Birds of Prey area in the 1970s and 1980s and found them in several locations. The IVMD (2005) map shows potential for the project area. It could use areas of greasewood (*Sarcobatus vermiculatus*), shadscale saltbush (*Atriplex confertifolia*), rabbitbrush, and low sagebrush shrubs. It is nocturnally active above ground from about May through October (Diller and Wallace 1986).

3.4.2.2. Raptors

In addition to the bald eagle, raptor species of special concern for the project area are the golden eagle (*Aquila chrysaetos*), prairie falcon (*Falco mexicanus*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), burrowing owl (*Athene cunicularia*) and short-eared owl (*Asio flammeus*). Locations noted below are from Idaho Power observations, IDCDC records as of January 2007, and USGS records (Michael Kochert, pers. comm.). Concern and causes of decline for these species typically include disturbance at nest sites and loss of prime foraging habitat.

In Idaho, the golden eagle prefers open and semi-open areas in deserts and mountains and typically builds its nest on a cliff (Groves et al. 1997). In southern Idaho, it feeds primarily on jackrabbits, and thus requires sagebrush habitat. The species is a fairly common nester along the Snake River Canyon in the Snake River Bird of Prey National Conservation Area (NCA), to the south of the project. The only suitable nesting cliffs near Line 406 are at Crater Rings, 4 miles

south of the line. One pair nests there annually and those birds will likely perch on the project line. On the western end of the project area a new golden eagle nest was built and used in a tree in 2005 and again in 2006. It is on private land about 0.6 mi north of the line. Golden eagles also occasionally nest on the Pacific Power and Light (PPL) 500-kV transmission towers and on platforms, where provided, on lower-kV towers. Some birds remain in the project area year-round, some are migratory, and northern migrants also winter in the area.

In Idaho, the prairie falcon nests on cliffs in sagebrush communities and dry mountainous habitat and winters at lower elevations. It feeds primarily on small mammals and passerines. The species is a common nester in southern Idaho along the Snake River canyons and could be expected to hunt from the transmission line throughout the project area. No suitable nesting cliffs occur in the project area. The NCA, to the south of the project area, supports many nesting pairs and foraging home ranges do extend to Line 406. One or two pairs nest annually in Crater Rings, 4 miles south of the line. These birds will likely perch on the project line. Like the golden eagle, some birds remain in the project area year-round and some migrate out of the area in fall and winter.

The ferruginous hawk nests in arid, semi-arid, and grassland regions and is reported to be in decline throughout much of its range. This decline has been attributed to the conversion of grasslands for agricultural purposes, loss of nesting sites, control of natural fires, declines in prey populations, and human disturbances (Harlow and Bloom 1987, Marshall et al. 1996). It is especially sensitive to human activity near its nest site (White and Thurow 1985). This species nests on the ground as well as on utility structures, tall rock outcrops, and artificial nesting structures.

Several historical, and possibly still occupied, ferruginous hawk nest territories occur near the project area (IDCDC 2007). Recent surveys have not been done, but it is likely that there will be a few occupied sites in the project area in 2007. The hawks nest on transmission lines and artificial platforms to the north and south of Line 406. The closest nests are on the PPL line where it crosses the project line. The new 230-kV line would likely attract nesting attempts from ravens and ferruginous hawks because it is more suitable for holding a nest than the smaller 138-kV line. In the NCA ferruginous hawks lay their eggs as early as 6 March and fledge their young as late as 17 July (Carpenter 1996).

In the project area, Swainson's hawks nest and forage near agricultural areas with scattered trees. The Swainson's hawk is considered abundant and stable in Idaho (M. J. Bechard, Boise State University, pers. comm. as cited in IDFG 2005). The project area has only partially been surveyed in recent years. In 2006 there were nine occupied nesting territories near the west end of the project area. The closest nest was 0.5 mi from the line adjacent to busy paved road. On the east end, there was one occupied nest near (170 m) the line in the vicinity of the interstate crossing. In the project area, Swainson's hawk lay their eggs as early as 26 April and fledge their young as late as 31 July (Carpenter 1996).

The burrowing owl nests and forages in open grasslands, deserts, agricultural lands, and urban areas, and the Idaho population was reported as stable 20 years ago (Marti and Marks 1987). Burrowing owls appear to do well in disturbed habitats, and it may be one of the raptors least affected by man-made environmental changes. Historical records show the species to be fairly

common throughout the project area (IDCDC 2007). The Line has not been surveyed for burrowing owls but a few were seen incidentally during 2006 resource surveys. One occupied burrow was along an access road and two others were close to Mountain Home reservoir. There are likely more occurrences. In southwest Idaho, burrowing owls lay their eggs as early as April 3 and fledge their young as late as August 20 (Carpenter 1996).

Short-eared owls are typically associated with open landscapes such as marshes, grasslands, and agricultural lands (e.g., pastures, stubble fields, and hay fields) (Johnsgard 2002). Due to their nomadic behavior the numbers of owls nesting each year in the project area varies, however they can be an uncommon to fairly common nester (L. Carpenter, pers observation). Specific occurrences in the project area are unknown. In the project area short-eared owls lay their eggs as early as 20 March and fledge their young as late as 11 July (Carpenter 1996).

3.4.2.3. Shrubland Birds

Much of Line 406 traverses shrubland communities. This section includes four migratory avian sagebrush inhabitants that are dependent on sagebrush and related shrub-steppe species for nesting. Three are BLM sensitive species, and one is a watch species (Table 7). Specific occurrences in the project area are largely unknown. The conversion of sagebrush habitat to exotic annual grassland is the greatest threat to these species, and it is thought to be the primary reason why they have experienced recent declines.

The sage sparrow (*Amphispiza belli*), Brewer's sparrow (*Spizella breweri*), and sage thrasher (*Oreoscoptes montanus*) are sagebrush nesting passerines of concern that are likely present in the project area. Sage sparrows prefer semi-open habitat with evenly spaced shrubs, and are closely associated with big sagebrush (Martin and Carlson 1998). Brewer's sparrows are also closely associated with sagebrush, typically nesting in stands less than 1.5 m tall (Rotenberry et al. 1999). The sage thrasher is considered a sagebrush obligate, generally dependent on large patches and expanses for successful breeding (Reynolds et al. 1999). All three species would be present from late March through July.

The loggerhead shrike (*Lanius ludovicianus*) nests along ecotones, in grasslands, and in other open habitats with short vegetation, including sagebrush. It does not avoid human developments, and so is commonly found near fences, old orchards, mowed roadsides, cemeteries, golf courses, and agricultural fields (Yosef 1996). There are several territory records in the vicinity of Simco Road, north and south of the line. No records are on BLM land near Line 406. The shrikes are likely present scattered throughout the project area and would be present from about March through July.

3.4.2.4. Grassland Birds

According to ShrubMap (USGS 2007) invasive annual grassland and steppe and grassland are the two most prevalent grassland types in the project area. These grasslands occur as both large areas and as small patches within shrublands. There are two grassland species of special concern. The grasshopper sparrow (*Ammodramus savannarum*) is a BLM sensitive species, and the long-billed curlew (*Numenius americanus*) is a watch species (Table 7). Specific occurrences in the project area are largely unknown.

The long-billed curlew is a grassland nester in the project area from late March through mid-July. There are several records of long-billed curlew occurrences from 1984–1988 in the western half of the area and the IDCDC has designated it as a curlew range. Birds are likely nesting on the eastern half of the line as well, especially near Mountain Home reservoir.

The grasshopper sparrow prefers moderately open grasslands and prairies with patchy bare ground for catching grasshoppers (Vickery 1996). In Idaho, it is an uncommon to rare breeder that could be present from May to July in suitable habitat throughout the project area. There are no species records, but it is predicted to occur throughout the project area (IDFG 2005).

3.4.2.5. Bats

There are five bat species of special concern likely to be present in the project area for at least part of the year; the Spotted Bat (*Euderma maculatum*), Townsend's western big-eared bat (*Corynorhinus townsendii*), western pipistrelle (*Pipistrellus hesperus*), Yuma myotis (*Myotis yumanensis*) and western small-footed myotis (*Myotis ciliolabrum*). Within the project area, these bat species would typically forage nocturnally for insects primarily in sagebrush and riparian habitats (like Mountain Home Reservoir or near Ten Mile Creek). Occurrence in the project area is unknown although it is unlikely that there are any concentrated roosting areas since no caves, rocky cliffs, or lava tubes occur in the area. Crater Rings, 4 mi south of the line, and Kuna and Higby caves, 6 mi south of the line, may provide roosting cover. IDCDC bat records are, for the most part, old (1980s–1993) and scant (five locations 20 to 30 miles away). There are one or two records for the Spotted Bat, Townsend's western big-eared bat, Yuma myotis and the western small-footed myotis. There are no records for bat occurrences closer than 20 miles of the project area. The greatest threat to bats is usually disturbance at maternity colonies and roost sites.

4. ENVIRONMENTAL CONSEQUENCES

The BLM considered all the following elements of the human environment when analyzing the impacts of the Proposed Action. Some listed elements of the human environment are subject to specific requirements specified in statutes, regulations, executive orders, or policy. Others are included because they are among the resources and land uses managed by BLM field offices. Elements with an “X” are unaffected (or only minimally affected) by the Proposed Action and receive no further consideration.

<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Special Status Species (threatened, endangered, sensitive, proposed)
<input checked="" type="checkbox"/> Floodplains/Wetlands/Riparian Areas	<input checked="" type="checkbox"/> Wilderness Study Areas
<input checked="" type="checkbox"/> Prime/Unique Farm Lands	<input checked="" type="checkbox"/> Wild and Scenic Rivers
<input checked="" type="checkbox"/> Existing Areas of Critical Environmental Concern (ACEC)/Natural Areas	<input checked="" type="checkbox"/> Soil Resources
<input checked="" type="checkbox"/> Native American Religious Concerns/Traditional Uses	<input checked="" type="checkbox"/> Water Quality (Drinking or Ground)
<input checked="" type="checkbox"/> Tribal Rights/Indian Trust Resources	<input checked="" type="checkbox"/> Off-highway Vehicle Use
<input type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Cave Resources
<input checked="" type="checkbox"/> Paleontological Resources	<input checked="" type="checkbox"/> Visual Resources
<input checked="" type="checkbox"/> Environmental Justice	<input checked="" type="checkbox"/> Forest Resources
<input checked="" type="checkbox"/> Wastes (Hazardous or Solid)	<input checked="" type="checkbox"/> Mineral Resources
<input checked="" type="checkbox"/> Economic/Social Values of Wildlife	<input checked="" type="checkbox"/> Other Special Designations (National Monument, Wilderness, National Recreation Trails)
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Fisheries
<input checked="" type="checkbox"/> Availability of Access/Need to Reserve Access	<input checked="" type="checkbox"/> Recreation Use, Existing and Potential
<input checked="" type="checkbox"/> Livestock Grazing/Rangeland Resources	<input checked="" type="checkbox"/> Vegetation Types/Communities
<input checked="" type="checkbox"/> Invasive/Nonnative Species	<input checked="" type="checkbox"/> Agricultural Entry
<input type="checkbox"/> Migratory Birds	

4.1. Archaeological and Historical Resources

The prehistoric and historic resources within the ROW have been well characterized. A Class III cultural survey was completed for the project area. This and past surveys have identified two sites that are eligible for the NRHP. Determinations of impacts are based on standards and regulations set out under the NRHP. Determinations of “adverse effect” are most commonly associated with undertakings that impact cultural properties that are eligible for NRHP listing for values other than information potential or in cases where disturbance of human remains is anticipated. “No adverse effect” determinations are ordinarily made when properties (usually archaeological sites), valued solely for their information potential, would be impacted but where

data recovery would precede the disturbance. A determination of “no effect” is made when the undertaking could be redesigned to entirely avoid effects to eligible properties or only elements of eligible properties that do not contribute to their importance would be affected.

4.1.1. Proposed Action Alternative

The Proposed Action has the potential to impact archaeological and historical sites during construction and O&M activities. Impacts can result from surface and subsurface disturbing activities, looting during construction and O&M activities, agricultural activities, and the general public’s use of existing service roads.

Construction and O&M activities and crews will be restricted to the existing service roads and ROW. The boundaries of sensitive cultural and historical resources will be flagged prior to the start of construction and O&M activities to ensure that all workers do not enter the areas. Flagging will be immediately removed at the end of construction and O&M activities in the area and will be reinstated as necessary. Construction activities would also be designed to avoid the two historical sites. The Proposed Action would not impact any of the historic properties.

In 1994, Juan C. Chavarria recorded ruts from a portion of the historic Dorsey Wagon Road in the survey area. This portion of the survey area is now in a cultivated field and all evidence of the historic trail at this location has been obliterated by plowing. Current surveys did not find any historic debris or other cultural resources in the survey area that might be associated with the old wagon road. Because the road has been destroyed by plowing, the Proposed Action would not impact the site.

4.1.2. No-Action Alternative

Under the No-Action Alternative, cultural sites would be protected from unauthorized uses under federal law (e.g., NHPA). Thus, the No-Action Alternative would likely have no impact on historical and archaeological sites. Since Idaho Power currently implements environmental protection measures when conducting maintenance activities, the No-Action Alternative is also not expected to affect these resources.

4.2. Threatened, Endangered, and Sensitive Plant Species

No federally-listed, threatened, or endangered plant species occur within the project area. Two BLM sensitive plant species have been documented in the project area. Construction, operation, and maintenance activities have the potential to affect these species by vehicle traffic or personnel or other ground disturbing activities. These species could also be indirectly affected by impacts to site productivity. For example, activities may cause soil compaction, accelerated erosion, or noxious weed introduction. **Given** the specific locations of each plant species and occurrence, the proposed structure location, and implementation of environmental protection measures identified in Section 2.2.3.6., it is very unlikely that the Proposed Action will affect these or other sensitive species.

Since Idaho Power currently implements environmental protection measures when conducting maintenance activities, the No-Action Alternative is also not expected to affect these resources.

4.3. Threatened, Endangered, and Sensitive Wildlife

Raptors

Three sensitive raptor species (the burrowing owl, short-eared owl, and ferruginous hawk) may be impacted by construction, and to a much lesser degree by O&M activities. During construction, adult raptors could be disturbed by the noise and human presence at work areas, and thus displaced from nests and hunting areas. Disturbance would be temporary and occur in relatively small areas at one time. During O&M activities, adult raptors may be temporarily displaced from structure work areas, but should not be noticeably affected by ground or aerial patrols or inspections.

Idaho Power biologists would conduct surveys prior to construction to identify raptor nests and territories in the ROW and immediate vicinity. Nests under construction that are present in an area scheduled for work will be removed under authorization of U.S. Fish and Wildlife Service permits. Nests with eggs or young would be relocated or avoided, as appropriate, and as determined by the U.S. Fish and Wildlife Service and Idaho Department of Fish and Game.

Shrub-obligate passerines

Three BLM sensitive species and one watch species are shrub-obligate passerines that are dependent on sagebrush and related shrub-steppe species for nesting. The Migratory Bird Treaty Act provides protection from impacts to migratory birds and their nests. Construction could disturb the birds due to noise, human activity, habitat conversion, or direct mortality.

The project is scheduled to begin construction in July, at the end of the nesting season, and be completed before the start of the 2008 nesting season. This will greatly reduce the chance of disturbance to nests. Although nesting locations and population numbers for the project area are unknown, it is likely that very few nesting territories would be disturbed by the small, isolated work patches. The chances of direct take of more than a few individuals of these uncommon species would be anticipated to be low. No adverse affects on the local populations are expected.

Since Idaho Power currently implements environmental protection measures when conducting maintenance activities, both the Proposed Action and the No-Action Alternative are not expected to affect these resources.

4.4. Cumulative Effects

The Council on Environmental Quality regulations for implementing NEPA require an assessment of cumulative effects in 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 are considered for the Proposed Action to threatened, endangered, and sensitive plants and wildlife and archaeological resources in the project area and surrounding landscape. Cumulative effects of the No-Action Alternative would be similar but without the effects of construction. However, implementation of the No-Action Alternative would require other electric power projects to meet the growing need for electricity. These projects, which are unknown at this time, would likely have cumulative impacts beyond that of the Proposed Action.

4.4.1. Current Conditions and Future Actions

Existing conditions in the project area and surrounding landscape reflect past natural and man-caused actions. Past actions that have degraded environmental resources include development of private lands for residential and commercial uses, including agriculture. Public and private land has been subject to wildfire and subsequent conversion of native habitat to exotic annual grasslands dominated by cheatgrass. This is one of the most prevalent and influential land changes. Cheatgrass degrades habitat and generally lowers the carrying capacity for native plants and wildlife. Other actions that have resulted in the current environmental resource conditions include livestock grazing, recreational use, and development of infrastructure (roads and utility corridors).

Future actions in the project area and surrounding landscape would continue to affect the natural resources, although to a much smaller degree than in the past. Idaho's human population is expanding, but in the project area, it would be expected to grow at a slower rate compared with other areas in southern Idaho. Additional losses, due to the above mentioned factors, in the foreseeable future would likely be low. Private land use patterns are not likely to change. Fire may continue to result in less native habitat if the land is not rehabilitated with native species. Recreational use in the current ROW and service roads area would be considered low, but OHV use levels would grow in the future with increased popularity and population.

4.4.2. Resource Effects

Beneficial effects of the project on resources result mainly from the conversion from wood structures to steel structures. This includes a reduced risk of wildfire, a reduced frequency of O&M, and a reduced disturbance area owing to fewer structures to maintain. Overall, a reduction in wildfire risk would have the most beneficial effect on a cumulative basis.

Cultural Resources—No adverse effects to cultural resources would be anticipated from implementation of the Proposed Action. Environmental protection measures are proposed to protect all historic properties. The Proposed Action would use existing corridors and would not add cumulative effects to cultural resources.

Botanical Resources—The Proposed Action has been designed to minimize potential environmental impacts to botanical resources. Overall this project would not degrade habitat since work areas and service roads would be rehabilitated using native or other BLM approved seed mixes. This project would add only a minor, incremental ground disturbance since it would be constructed in existing corridors with some new pole locations and service roads. On a

regional cumulative context, a greater threat to botanical resources comes from wildfire and the potential subsequent conversion to non-native species.

Wildlife Resources—Habitat loss, habitat degradation, wildfires, human disturbance, crested wheatgrass seeding, and livestock grazing have all contributed to impacts on sensitive wildlife and would continue to impact sensitive species in the future. In the past, habitat loss within the project area has generally occurred due to the development of lands for agriculture, roadways, and industrial and urban areas.

Transmission line towers provide perches and nesting areas for raptors and ravens (Steenhof et al. 1993). This may result in increased avian predation within the raptor or raven home range. If so, the power line corridor would be anticipated to have continuous impacts on the prey base of this general area through the life of the project due to corvid and raptor use of the structures. These impacts would not be expected to be incremental, but remain continuous through the life of the project. Given that the proposed transmission line has fewer structures than the existing line, there would be less perching and nesting substrate available to avian predators, and thus a lower level of impact to the prey base would be expected.

This project would add only a minor incremental habitat loss since it would be constructed in existing corridors. Temporarily disturbed areas would be rehabilitated in accordance with the POD following construction. Service roads would be maintained with a herbaceous cover so that they would have some wildlife value. No additional cumulative effects are anticipated for federally-listed or candidate species because of the low level of impact and the nominal use of the area by these species. Impacts to migratory birds would be expected to be additive over time, but would not be expected to cause species declines within the area in the future. Idaho's human population is expanding, but in the project area, it would be expected to grow at a slower rate compared with other areas in southern Idaho. Additional losses to habitat due to urban and industrial development in the foreseeable future would likely be low. Wildfires would be expected to continue annually within the general project area. Thus, impacts to wildlife from wildfires would be expected to continue at the same level.

Transmission-line O&M activities are infrequent, non-intensive, and site-specific and have probably led to minor disturbances. Future levels of O&M activities are not expected to increase. O&M activities that are most disturbing to sensitive wildlife would occur in the spring and early summer. For this project, the use of an existing utility corridor and existing roads would lessen the disturbance to wildlife.

With the implementation of the proposed environmental protection measures (see Section 2.2.3.6), this project would not be expected to lead to appreciable additional cumulative impacts to habitat loss, habitat degradation, or wildlife disturbance. Therefore, cumulative effects of this project on wildlife resources now and into the future, are expected to remain minor.

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Four Rivers Field Office

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