IDAHO POWER®
An IDACORP Company

Hemingway – Boardman 500 Kilovolt (kV) Transmission Line: Preliminary Plan of Development

Stacey Baczkowski
Biologist

December 19, 2007

Preliminary Draft

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1. INTRODUCTION

1.1 Purpose

This Plan of Development (POD) has been prepared to provide the Bureau of Land Management (BLM) specific information on the construction, operation, and maintenance of the Hemingway - Boardman 500 kilovolt (kV) Transmission Line Project (Project). In addition to providing Project construction details, the POD also describes routine and emergency operation and maintenance activities performed by Idaho Power Company (Idaho Power), or its contractors, on its transmission lines and poles/structures. The POD is intended to ensure that:

- The Project is constructed as approved;
- Operation and maintenance (O&M) activities comply with the stipulations in right-of-way (ROW) grant __ ;
- Impacts to the environment are avoided and/or minimized;
- Idaho Power complies with other applicable state and federal laws and policies;
- Idaho Power and the BLM effectively communicate; and
- Idaho Power meets reliability and service requirements.

The POD is intended for use by BLM and Idaho Power personnel throughout the life of right-of-way grant _____.

This POD supersedes all previous plans and agreements with the BLM regarding the Project. The specific transmission lines and access and service roads covered by this POD are described in more detail below and are shown on Figure 1 and on the maps in Appendix 1.

Figure 1. Project Area

1.2 Reliability

Electric utilities are charged by State and Federal regulatory agencies with the responsibility to provide safe, reliable electric service to their customers. Customers may include homeowners, businesses, factories, municipalities, government, and other utilities. Electricity is essential for domestic use, economic growth, providing for national security, and other vital services. When Congress passed the Energy Policy Act of 2005 (Act), they recognized the fact that power lines are in need of repair and/or upgrade. The Act establishes mandatory reliability standards for power lines and provides incentives to transmission companies to upgrade and maintain existing facilities. Regular inspections, preventative maintenance, and timely repairs are essential to providing reliable electric service. Failure to conduct necessary inspections and maintenance cannot only lead to disruptions in service, but can also lead to penalties against Idaho Power.

1.3 Communication

Idaho Power and the BLM recognize communication is an integral component to the success of this POD. To facilitate communication the two parties will meet as needed to discuss construction and future O&M issues. Coordination meetings will focus on:

- Ongoing activities during construction;
- Overview of recent O&M activities;
- Idaho Power's foreseeable O&M activities;
- Anticipated new or changed BLM policies and practices that could affect Idaho Power's plans (such as road improvements or closures, resource plan updates, and others);
- Proposed amendments to this POD;
- Discussion of future activities that may be beyond the scope of this plan;
- Issues regarding shared data and information;
- Key personnel changes;
- Policy changes; and
- Any other issues that warrant attention.

Idaho Power and the BLM Authorized Officer are responsible for scheduling and coordinating meetings. A list of key personnel and contact information is included in Appendix 2.

During construction of the Project, Idaho Power and the Authorized Officer will be in contact as needed to discuss the ongoing Project construction activities. The construction contractor will report directly to Idaho Power. Idaho Power will in turn contact the Authorized Officer regarding any issues relating to the Project.

In addition to direct communications, the BLM and Idaho Power will share appropriate resource data, especially geographic information systems (GIS) data. These data are necessary to effectively carry out the intent of this POD. Data management and transfer will be discussed at the coordination meetings.

1.4 Project Description

1.5 Right-of Way Location and Description

1.5.1 Legal Description

Table 1. Right-of-way length, width, acreage by land ownership and project component.

1.6 Other Federal, State, and Local Approvals

2. FACILITY DESIGN AND CONSTRUCTION

2.1 Transmission Line Design

The design, construction, operation, and maintenance of the Project will meet or exceed the requirements of the National Electrical Safety Code (NESC), U.S. Department of Labor, Occupational Safety and Health Standards, and Idaho Power's requirements for safety and protection of landowners and their property.

2.1.1 Structures and Fiber-Optic Cable

2.1.2 Conductors and Insulators

2.2 Transmission Line Construction

Idaho Power will not initiate any construction or other surface disturbing activities on public lands within the ROW until the BLM Authorized Officer issues the grant and written Notice to Proceed. Idaho Power will conduct all activities associated with the construction and operation of the transmission lines within the authorized limits of the ROW and in strict conformity with this POD. Idaho Power and its contractors will follow the environmental protection measures described in Section 4.

Temporary construction yards will be located at _____. The yards will serve as field offices, reporting locations for workers, parking space for vehicles and equipment, and sites for temporarily marshalling construction materials.

The construction of the transmission lines will follow the general sequence of: 1) centerline surveyed and staked; 2) access and service roads maintenance/construction; 3)work area preparation; 4) holes excavated; 5) structures erected and installed; 6) fiber optic, conductors, and ground rods installed, and 7) site clean-up and reclamation. Typical construction activities associated with a transmission line are shown on Figure 3. The number of workers and types of equipment required to construct the Project are shown in Table 2. Various phases of construction will occur at different locations throughout the construction process. This will likely require several crews operating at the same time at different locations.

2.2.1 Surveying

A surveyor will determine centerline location, specific pole locations, ROW boundaries, work area boundaries, and service roads to work areas. Preliminary locations of the centerline, structures, work areas, and service roads have been identified. Marking will be maintained until final cleanup and/or reclamation is completed, after which markers will be removed and recycled or disposed of at a State approved landfill

2.2.2 Service Road Construction

Equipment to construct the service roads will include hand tools, bulldozers, graders and crew-haul vehicles. Some new roads and existing roads needing maintenance will require a small dozer that would blade out the road until the path is sufficient for construction equipment traffic. New roads in areas of steep slopes will require an excavator to cut into the hillside and place material on the cut slope sufficient to allow for construction equipment. The excavator will pull itself up the slope as it builds the road, placing the excavated material in the most effective location for stability. The road construction work force is anticipated to number no more than 4 individuals at any one time (Table 2). Water bars and dips will be installed to control erosion and storm water, will be implemented to reduce construction impacts, and will follow standard designs. Environmental protection measures designed to minimize impacts to natural resources are described in Section 4.

2.2.3 Work Area Preparation

Work areas around the structure locations will be cleared of vegetation and graded only to the extent necessary to allow for safe construction of the transmission line. The area needed at each structure will vary depending on contours and construction equipment needed. Equipment to clear the work areas will include a small dozer, backhoe, and excavator, depending on the specific location. Generally, an area approximately ___ feet by ___ feet will be needed at each structure location. Dead-end structures will require an area approximately ____ feet by ___ feet. Within these work areas, the permanent disturbance associated with each structure will be approximately ___ square feet. After construction, the work areas will be restored using excess soils, vegetation, and topsoil stockpiled for that purpose.

2.2.4 Structure Assembly

2.2.5 Conductor and Fiber Optic Installation

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

Guard structures will 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 will be required at the end of a conductor spool or if a conductor is damaged during stringing. The work will 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 will be cleared of vegetation and graded to allow for safe operation of the pulling and tensioning equipment. Equipment to clear the areas will include a small dozer, backhoe, and excavator, depending on the specific location. After construction, the areas will be restored using excess materials, vegetation, and topsoil stockpiled for that purpose.

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

Table 2 lists the equipment and personnel necessary for conductor fiber optic cable installation.

2.2.6 Traffic Control and Road Restrictions

Due to the remoteness of the Project, most areas of the line will not require traffic control or road restrictions. At major intersections it may necessary at times to restrict traffic. Traffic control can include restriction of traffic to one lane as well as limited road closures. These restrictions are necessary for the safety and convenience of the public, as well as construction personnel. The closures will only be for the amount of time needed to perform the construction tasks requiring the road restrictions. Prior notice will be given for any extended delay or road blockage. The road restrictions will be managed according to the Manual of Uniform Traffic Control Devices.

2.2.7 Temporary Use Areas

2.2.8 Clearance Requirements

2.3 Construction Waste Disposal and Cleanup

Construction sites, material storage yards, and service roads will be kept in an orderly condition throughout the construction period. Refuse and trash will be removed from the sites and disposed in an approved manner. Oils and fuels will not be dumped along the line onto the ground or into streams. Oils or chemicals will be containerized and disposed in an approved and licensed facility for disposal. Construction practices shall 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 will occur without BLM approval.

Table 2. Estimated Personnel and Equipment for Transmission Line Construction

Activity	People	Quantity of Equipment	
Survey	3	1	pickup truck
Road Construction	4	1	1Bulldozers (D-8 Cat),
		1	motor graders
		1	pickup trucks
		1	water/gas trucks
Structure Steel Haul	4	1	steel haul trucks
		1	pickup trucks
		2	yard and field cranes
		1	fork lift
Structure Assembly Per crew - ____ crew total	6	1	Truck mounted auger?
		1	pickup trucks
		1	carry alls
		1	cranes (rubber tired)
		1	trucks (2 ton)
Structure Erection Per crew - ___ crew total	5	1	cranes (60 Ton)
		1	trucks (2 ton)
		2	pickup trucks

Activity	People	Quantity of Equipment	
		1	carry all
Wire Installation	10	1	wire reel trailers
		2	diesel tractors
		2	cranes (19-Ton, 30-Ton)
		1	trucks (5 ton)
		2	pickup trucks
		1	splicing trucks
		1	3-drum pullers (1 medium, 1 heavy)
		1	Single Drum Puller (large)
		1	Double bull-wheel tensioner (heavy)
		1	sagging equipment (D-8 Cat)
		1	static wire reel trailer
		1	water trucks
Wire Clean-Up	3	1	trucks
		1	pickup trucks
		1	(D-6 Cat)
Road Rehabilitation (ROW restoration)	2	1	motor graders
		1	pickup trucks

Maximum total personnel required considering all tasks (actual personnel at any one time would be less) 44

Note: Depending on schedule requirements multiple crews may be required.

3. OPERATION AND MAINTENANCE

Idaho Power performs a number of activities to keep its transmission lines operational and in good repair. These activities can be planned—such as those for routine patrols, inspections, scheduled maintenance, and scheduled emergency maintenance—or they can be unplanned, such as those for emergency maintenance in cases where public safety and property are threatened. For the purpose of this POD, activities are divided into routine, corrective, and emergency maintenance.

Maintenance activities will be conducted in accordance with this POD and right-of-way grant stipulations. Unless specifically noted, IPC will implement the environmental protection measures described in section 4 of this POD while conducting routine, corrective, and emergency maintenance activities. IPC will notify the BLM of proposed activities when previously identified TES species and cultural resources occur within, or adjacent to, the work area. IPC will also notify the BLM of emergency maintenance activities as soon as possible. Routine and corrective maintenance activities that are not adjacent to TES species or cultural resources will be conducted as necessary and without prior notification to the BLM.

3.1 Routine Maintenance

Routine maintenance activities are conducted on a regular basis, have been carried out historically, do not damage vegetation or soil outside of the ROW, and do not adversely impact sensitive resources—including known TES species, waters of the U.S., and cultural resources. Personnel are generally present in any one area for less than a day. The following are examples of routine maintenance activities:

- Routine air patrols from a helicopter to inspect for structural and conductor defects, conductor clearance problems, and hazard tree identification.

- Routine ground patrols to inspect structural and conductor components. Such inspections may require either an all-terrain vehicle (ATV) or pickup traveling on access and service roads and may rely on either direct line-of-sight or binoculars. Patrols are typically conducted in the spring and fall. Follow-up maintenance is scheduled depending on the severity of the problem—either as soon as possible or as part of routine scheduled maintenance.

- Climbing structures to inspect hardware or make repairs. Personnel access these structures by pickup or ATV or by foot.

- Structure or conductor maintenance from a bucket truck. The bucket truck may be located on or off a road, and no grading is necessary to create a safe work area.

- Cathodic protection surveys typically require personnel to use an ATV or pickup and make brief stops to check the integrity and functionality of the anodes and ground beds.

- Routine cyclical vegetation clearing to trim or remove tall shrubs and trees to ensure adequate ground-to-conductor clearances. Vegetation clearing cycles vary from 3 to 6 years. Personnel access the area by pickup or ATV or by foot; use chainsaws to clear the vegetation; and typically spend less than half a day in any one specific area.

- Removal of individual trees or snags (hazard trees) that pose a risk of falling into conductors or structures and causing outages or fires. Personnel access hazard trees by ATV or by foot from an access or service road and cut them with a chainsaw. Any felled trees or snags are left in place as sources of large woody debris. Felled green trees are limbed to reduce fire hazard. Vegetation management to remove hazard vegetation is expected to be limited to a few tower spans because of the lack of tall shrubs or trees within the rights-of-way.

- Routine road maintenance, such as blading the road to improve surface condition and drainage, or removing minor physical barriers, such as rocks and debris. All initial road maintenance is performed by hand crews using ATVs, pickups, chainsaws, and hand tools. Trees and brush are cut off at grade to minimize damage to vehicles. Slash, deadfall, and boulders are placed at the edge of the road or down slope of the road bed, depending on site topography, to serve as a filtering windrow to minimize erosion and sedimentation. Smaller vegetation (e.g., grasses) is left in the road bed unless it is too tall and hinders access.

- Vegetation removal on service roads to allow the necessary clearance for access and provide for worker safety. Hand crews access the service roads by pickup or ATV and use chainsaws and hand tools to clear the vegetation.

- Installation of bird protection devices, bird perch discouragers, and relocation or removal of bird nests.

3.2 Corrective Maintenance

Corrective maintenance activities are relatively large-scale efforts that occur on an infrequent basis, may result in more extensive vegetation clearing or earth movement, and typically involve rehabilitation seeding or measures to control noxious weeds. Personnel are present in any one location or area for a prolonged time, generally more than one day. The following are examples of corrective maintenance:

- Non-cyclical vegetation clearing to remove saplings or larger trees in the ROW.

- Structure or conductor maintenance in which earth must be moved, such as the creation of a landing pad for construction or maintenance equipment.

- Structure (e.g., cross-arm, insulator, pole) replacement.

- Road maintenance involving erosion control, water drainage installation or repair (such as culverts or rock crossings), road rehabilitation after major disturbances (such as slumping), or other road maintenance requiring heavy equipment (not including routine grading).

- Follow-up restoration activities, such as seeding, noxious weed control, and erosion control.

- Conductor replacement—This requires the use of several types of trucks and equipment and grading to create a safe work area to hang and pull the conductor into place.

3.3 Emergency Situations

Emergency situations are those conditions that may result in eminent or direct threats to public safety or threaten or impair Idaho Power's ability to provide power to its customers or the Western grid. The following examples include, but are not limited to, real and potential emergency situations:

- Failure of conductor splices.

- Lightning strike or wildfire.

- 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 eminent failure of crossarms or insulators, which could, or does, cause conductor failures.

- Vandalism to structures or conductors from shooting or other destructive activities.

If an emergency situation arises, IPC may take immediate corrective action to fix the problem, safeguard human health, and prevent damage to the environment. Actions are frequently the same as those that occur during routine O&M activities (e.g., structure replacement, road repair), but are in response to a threatening situation. IPC will implement feasible and practicable measures to avoid and minimize impacts during emergency actions and will notify the BLM of emergency actions as soon as possible. Activities conducted in response to emergency situations may not adhere to the conditions of this POD. Where appropriate, especially regarding rehabilitation efforts, IPC will follow the conditions described within this POD when responding to an emergency. Site rehabilitation (e.g., remedial grading) will be implemented where necessary and in consultation with the BLM. Follow-up actions and additional reporting requirements will be coordinated with the BLM on a project-specific basis.

4. ENVIRONMENTAL PROTECTION MEASURES

Construction and future O&M activities have been planned to minimize the damage to the environment and to comply with stipulations in the ROW grant, the BLM's resource management plan, NEPA regulations, and other regulations and guidelines. The following environmental protection measures will be implemented during construction, operation, and maintenance activities; and to the extent possible, during emergency situations.

4.1 Approved Work Area

All construction and future O&M activities will occur within Idaho Power's ROW. 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 construction areas where grading is not required, disturbance is 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.

WA-2. Work will be temporarily halted where wet conditions cause excessive rutting (>3 inches deep) of roads and/or work areas.

WA-3. 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, where feasible and within limits of standard pole design. Structure placements are shown in the Appendix 1 map set.

WA-4. 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-5. Ground disturbance is limited to that necessary to safely and efficiently install the proposed facilities.

WA-6. 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-7. 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-8. Hazardous materials will not be drained onto the ground or into streams or drainage areas. Totally enclosed containment will be provided for all trash.

WA-9. If blasting is necessary, appropriate safety guidelines will be followed, as required by state and federal regulations relating to blasting operations.

WA-10. Fire protection measures will be followed, as required by state and federal regulations, to prevent wildfires.

WA-11. 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.

4.2 Site Access and Road Management

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 will 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).

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

RD-1. In areas where grading 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. 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-5. 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-6. 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-7. All road drainage structures installed by Idaho Power will be maintained or repaired during O&M activities.

RD-8. 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, gravel, or a combination of these or similar control measures may be used.

Service roads will 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 will 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 will take precedence.

4.3 Vegetation Management

Vegetation can interfere with the flow of electric power, pose safety problems, and interfere with future O&M activities. Maintaining adequate clearance between vegetation and conductors is essential to safe and reliable operations. Vegetation will be cleared _____ (to be determined based on structure and conductor type, topography, etc.)

4.3.1 Noxious Weed Control

To decrease the potential for the introduction or spread of undesirable vegetation, the following environmental protection measures will 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.

4.3.2 Restoration Plan

Idaho Power is responsible for repairing measurable damage to resources and roads resulting from construction and O&M activities. The primary objective is to restore denuded areas, reduce the spread of noxious weeds, and reduce storm water runoff and soil erosion. Any measurable damage must be repaired as soon as weather, ground, and scheduling conditions permit. In some cases, reclamation methods may not be necessary, given the limited amount of soil compaction and vegetation destruction. The BLM will decide the degree of reclamation needed for the construction project and for ground disturbing O&M activities.

Idaho Power is to follow the specifications outlined in this section when it revegetates roads and other disturbed areas. If Idaho Power no longer requires a road for patrolling and maintenance, the service road will be abandoned, revegetated, and stabilized by erosion-control methods, if necessary.

The seed mix has been determined in consultation with the BLM. Idaho Power will provide all seed. Seed will meet the requirements of the Federal Seed Act and applicable Idaho and Oregon State laws about seeds and noxious weeds. Only seed certified as "noxious weed free" will be used. If requested, Idaho Power must provide the BLM with evidence of seed certification. In addition, the seed must be appropriate to the geographic and elevation characteristics of the area to be seeded (2,870 to 3,480 feet). The actual seed mix applied may depend on the availability of seed but will have a minimum of 98.0% purity, 84.0% germination and 0.0% weed content. The Authorized Officer will approve any changes to the seed mix.

Idaho Power, or its designated contractor, is to seed an area after construction or after ground disturbing O&M activities are completed. The best time to seed is in the fall (September to November). If fall seeding cannot be done, spring seeding should take place in February or March, as conditions dictate.

Table 3. Seed mix for restoration of construction and ground disturbing O&M activities (final seed mix subject to seed availability).

Common Name	Pure Live Seed lbs/acre (drilled)	Pure Live Seed lbs/acre (broadcast/harrowed)	Area of use
BLM TO SPECIFY			

The seed mix will be drilled or broadcast on the disturbed area, after seedbed preparations are complete. The seedbed should be prepared by dragging a weighted chain harrow or disc harrow behind an ATV or small tractor. After broadcasting on BLM lands, the seed will be lightly harrowed or raked into the ground. Seeding will not take place when wind velocities exceed that which will allow a uniform application of the seed mix. The Authorized Officer may review and approve the results of the seedbed preparations prior to the seed application if desired.

During routine patrols, Idaho Power will monitor reseeded areas for adequate vegetation cover of desired plant species. Seeding shall be repeated if a satisfactory stand is not obtained, as determined by the Authorized Officer upon evaluation following the second growing season.

4.4 Protection Measures for Streams

Streams, canals, or other watercourses with definable streambeds or stream banks, regardless of whether there is flowing water, are important because they provide habitat for a variety of animal and plant species. Idaho Power will exercise care to ensure protection of all aquatic, riparian, and wetland habitat on BLM land. To minimize the amount of disturbance, structures locations were chosen to avoid features such as riparian areas and watercourses and/or to allow conductors to clearly span the features, within limits of standard pole design. During future O&M activities, if woody vegetation within 100 feet of streams needs to be managed, it will be cut with a chainsaw. Herbaceous plants and low-growing shrubs will be left in place.

4.5 Protection Measures for Sensitive Plants

The following environmental protection measures will help minimize construction and O&M effects on sensitive plant species.

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 respread during the restoration process.

4.6 Protection Measures for Sensitive Wildlife

Wildlife species with the potential to occur and that are designated either as threatened, endangered, candidate, species of concern by the U.S. Fish and Wildlife Service (FWS) or as BLM sensitive are listed in Appendix 5 and are collectively referred to as sensitive wildlife. If these species are found to occur near construction or O&M activities, Idaho Power will implement the following environmental protection measures:

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. 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-6. 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-7. 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.

SW-8. 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-9. New structures will be built in accordance with raptor-safe standards specified in APLIC (2006).

SW-10. Small migratory bird nests in both grassland and sagebrush are difficult to locate and are only occupied for a few weeks in late spring. However, if an occupied nest is found within an active, or soon to be active, work zone it could be flagged and avoided, or possibly moved. The Authorized Officer will decide on a case by case basis.

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 will occur within the ROW over the life of the grant. As sensitive species are identified, their locations will be recorded in a spatial database and O&M activities will be scheduled to avoid critical periods. With the exception of emergency repair situations, major O&M activities in designated areas can be modified or curtailed during sensitive periods (e.g., nesting and breeding periods).

4.6.1 Raptor and Owl Protection

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

4.7 Protection Measures for 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, 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 will 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.

4.7.1 Unanticipated Discovery of Human Remains

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 will determine what mitigation is necessary and, once the mitigation is complete, work can resume in the area.

4.8 Protection Measures for Aesthetic Resources

Idaho Power will implement the following environmental protection measures to protect aesthetic 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. Nonspecular conductors will be used to reduce visual impacts.

VR-3. All stakes and flagging will be removed from the construction area and disposed of in a State approved landfill.

4.9 Protection Measures Against Fire

Construction and O&M activities will follow industrial fire precaution levels and regulations (Appendix 5). Fire regulations are generally effective between April 1 and October 31 and at other times with unusual weather conditions.

Transmission lines in the western United States may be interconnected with the lines of other utilities. Continued operation of these lines provides stability to the entire interconnected western transmission system. In addition, continuous operation of the transmission line is necessary for Idaho Power to supply electric service to its customers. Therefore, the BLM will use its best efforts to avoid using fire-suppression techniques that could take the line out of service. If the BLM determines that it must use fire-suppression techniques that could affect operation of the line, it will notify Idaho Power as soon as possible.

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 will have approved suppression tools and equipment. All power-driven equipment, except portable fire pumps, shall be equipped with one fire extinguisher and one long handled round point shovel. In addition, each truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski. In some conditions each internal combustion engine shall be equipped with a spark arrester (see Appendix 6).

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 will notify the appropriate BLM contact (Appendix 2). 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, BLM will notify the appropriate Idaho Power contact (Appendix 2).

5. POD Acceptance

The following authorized representative of Idaho Power and the Bureau of Land Management have accepted this *POD*:

_____ _____

Idaho Power Company Date

_____ _____

Bureau of Land Management Date

6. POD History

This section summarizes amendments made to the POD after the plan's acceptance. The amendment history includes the date on which changes were made, a brief description of those changes, and the signatures of authorized representatives of the Idaho Power Company and BLM accepting the changes.

7. Literature Cited

Avian Power Line Interaction Committee (APLIC). 1994. Mitigating bird collisions with power line: the state of the art in 1994. Edison Electric Institute. Washington, D.C., USA.

Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Line: The State of the Art in 1996. Edison Electric Institute and the Raptor Research Foundation. Washington, D.C.

Idaho Sage Grouse advisory committee (ISGAC). 2005. November Draft Conservation plan for the greater sage grouse in Idaho. Boise, ID.

Richardson, C. T., and C. K. Miller. 1997. Recommendations for protecting raptors from human disturbance: a review. Wildlife Society Bulletin 25:634–638.

U.S. Department of the Interior (USDI). 1985. Monument resource management plan. USDI, Bureau of Land Management, Shoshone District, ID.

U.S. Department of the Interior (USDI). 1987. Jarbidge resource management plan. USDI, Bureau of Land Management, Boise District, ID.

White, C. M., and T. L. Thurow. 1985. Reproduction of ferruginous hawks exposed to controlled disturbance. Condor 87:14–22.

Appendix 1. Structure Locations

Appendix 2. Contact Information for Key Personnel

Appendix 3. Sensitive Plant Locations

Appendix 4. Sensitive Wildlife Species

Appendix 5. Fire Protection and Suppression