APPENDIX B – ENVIRONMENTAL PROTECTION PLANS

B1 – Biological Resources Conservation Plan

B2 – Noxious Weed Management Plan

B3 – Water Resources Protection Plan

B4 – Vegetation Management Plan

B5 – Historic Properties Management Plan Framework

B6 – Paleontological Resources Treatment Plan

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Appendix B1
Biological Resources Conservation Plan

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Acronyms and Abbreviations

APLIC	Avian Power Line Interaction Committee
ARBO	Aquatic Restoration Activities
B2H Project	Boardman to Hemingway Transmission Line Project
BA	Biological Assessment
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMP	Best Management Practice
BO	Biological Opinion
CFR	Code of Federal Regulations
CIC	Compliance Inspection Contractor
DEQ	Department of Environmental Quality
EFSC	Energy Facility Siting Council
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
HUC	hydrologic unit code
IDFG	Idaho Department of Fish and Game
IPC	Idaho Power Company
ips	inches per second
ISSSSP	Interagency Special Status/Sensitive Species Program
MBTA	Migratory Bird Treaty Act
MCR	Middle Columbia River
MIS	Management Indicator Species
MOU	Memorandum of Understanding (Bureau of Land Management)
MU	Memorandum of Understanding (Forest Service)
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OAR	Oregon Administrative Rule
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
POD	Plan of Development
POEA	Polyethoxylated tallow amine
Project	Boardman to Hemingway Transmission Line Project
psi	pounds per square inch
RCA	Riparian Conservation Area
RMP	Resource Management Plan
ROD	Record of Decision
SRB	Snake River Basin
U.S.	United States
U.S.C.	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

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APPENDIX B1 – BIOLOGICAL RESOURCES CONSERVATION PLAN

B1.1 Introduction

The purpose of the Biological Resources Conservation Plan for the Boardman to Hemingway 500-kilovolt Transmission Line Project (Project) is to assist the Bureau of Land Management (BLM), U.S. Forest Service (USFS), and Project personnel in meeting their obligations to protect biological resources during the planning, design, and implementation of the proposed Project. The plan includes information on regulatory requirements and agency concerns pertaining to biological resources and also specific plant and wildlife species conservation mitigation measures to reduce Project-related impacts on biological resources.

The information contained in the Biological Resources Conservation Plan was developed in collaboration with agency resource specialists using information contained in the Final Environmental Impact Statement (EIS), and the Biological Assessments (BA) and Biological Opinion (BO) prepared for the Project. Compliance with the stipulations contained in the Biological Resources Conservation Plan is required to maintain compliance with these documents. The plan provides information regarding the distribution and abundance of particular biological resources that was developed using data provided by relevant agencies and will be updated to include information gathered through resource surveys conducted along the right-of-way prior to completion of the Plan of Development (POD).

Prior to completion of the POD and final engineering design of the Project and initiation of the Geotechnical Investigation, surveys will need to be conducted to collect biological resource information for the Project. The survey requirements and approved methodologies are presented in Attachment A – Biological Resources Survey Requirements.

The plan does not identify mitigation measures for aquatic or riparian resources. Riparian resources are addressed in Appendix B3 – Water Resources Protection Plan.

B1.1.1 Plan Updates

This plan will support the National Environmental Policy Act (NEPA) POD sufficiently to complete and execute the BLM and USFS Records of Decision (RODs) for the Project. This plan will be updated and refined through the development of the POD as biological surveys and engineering design are completed to meet any stipulations of the RODs, BLM and USFS biological resource management policies, BLM right-of-way grant and USFS special-use authorization before issuance of the Notice(s) to Proceed and commencement of construction. Idaho Power Company (IPC) will be responsible for preparing the construction POD and the Construction Contractor(s) will be responsible for implementing the construction POD.

The plan provides information on anticipated impacts on plant and wildlife resources, including fish, associated with the Project and identifies the mitigation measures, stipulations, protocols, and/or techniques required to reduce the impacts. The plan does not identify mitigation measures for aquatic biological resources. Perennial waters have been spanned in design of the Project. Only a small fraction of intermittent and ephemeral drainages will be affected by ground disturbance. Protection for water resources, including mitigation measures identified in Appendix B3 – Water Resources Protection Plan, have met agency requirements to protect aquatic species. The plan is not intended to provide comprehensive, location specific restrictions within the Project area.

B1.2 Regulatory Framework

The following provides a brief overview of federal and state legislation and regulatory compliance applicable to biological resources in the Project area that have been considered in the development of this plan.

B1.2.1 Federal Laws and Regulations

Pursuant to the federal Endangered Species Act (ESA) of 1973, the U.S. Fish and Wildlife Service (USFWS) has authority over actions that may affect the continued existence of a species federally listed as Threatened or Endangered. Take of federally listed species is prohibited without specific exceptions or permits issued under Sections 7 or 10 of the ESA. Under the ESA, the definition of "take" includes to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage any such conduct. USFWS has further defined harm to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Federal agencies must consult with the USFWS under Section 7 of the ESA on actions they authorize, fund, or carry out to insure these actions are not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat.

BLM, as the lead federal agency in preparation of an EIS for the Project, is consulting with the NOAA Fisheries and the USFWS on the potential effects of the Project on federally listed species.

Land Management

Federal Land Policy and Management Act (FLPMA) (43 United States Code [U.S.C.] 1701) as amended, consolidates and articulates BLM and USFS management responsibilities and governs most uses of federal lands, including authorization to grant or renew rights-of-way. In accordance with FLPMA, BLM, and USFS must make land-use decisions based on principles of multiple use and sustained yield. A grant of right-of-way must be limited to its necessary use and contain terms and conditions that reflect the agencies' management responsibilities under FLPMA, including minimizing impacts on biological resources.

National Forest Management Act, as amended, and its implementing regulations under 36 CFR 219, consolidate and articulate USFS management responsibilities for lands and resources of the National Forest System. The National Forest Management Act requires that each national forest develop a management program based on multiple-use, sustained-yield principles and implement a land management plan for each unit of the National Forest System. The implementing regulations at the time the current forest plans were approved required the identification of management indicator species (36 CFR 219.19). These species were selected because their population changes were believed to indicate the effects of management activities on habitats or other species of selected major biological communities or water quality. The land management plan established objectives for the maintenance and improvement of habitat for the management indicator species.

The BLM Resource Management Plans (RMPs) provide management guidance and desired population and habitat conditions for wildlife on BLM-administered land. BLM field offices monitor habitat conditions and manage crucial wildlife habitat jointly with the Oregon Department of Fish and Wildlife (ODFW) and Idaho Fish and Game (IDFG). The BLM manages habitat for wildlife species by assessing the ability of a land area to supply the forage, cover, water, and space requirements for wildlife. Trend studies determine the directional change of a habitat from or toward desired conditions. These habitat and trend studies (BLM Manual 6630.2, 6630.3, and 6630.4) allow the BLM to adjust management prescriptions through grazing or other public uses to improve habitat.

BLM RMPs and Management Framework Plans for Oregon including Baker Field Office (BLM 1989), Southeastern Oregon (BLM 2002); for Idaho including Owyhee Field Office (BLM 1999) specify regulations and goals for management of BLM-administered lands and set restrictions to protect biological resources and the habitats on which they depend.

Wildlife

Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703) makes it unlawful to pursue, hunt, take, capture, kill, or possess any migratory bird, part, nest, or egg of such bird listed in wildlife protection treaties among the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former USSR. This act also contains a clause that prohibits baiting or poisoning of these bird species. A list of species covered by the MBTA can be found in Title 50, Code of Federal Regulations (CFR), Section 10.13. The MBTA applies to many bird species, including raptors, and protects them from prohibited activities during construction, operation, and maintenance of the Project.

Executive Order 13186 (Migratory Birds) requires federal agencies to protect migratory birds and to consider impacts on migratory bird species during Project planning. The federal agencies are directed to develop and implement a Memorandum of Understanding with the USFWS to promote conservation of migratory bird populations.

BLM MOU WO-230-2010-04 (Memorandum of Understanding between the U.S. Department of the Interior Bureau of Land Management and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds) directs the BLM to evaluate the effects of the BLM's actions on migratory birds on a project level and implement approaches to reduce these effects.

Forest Service Agreement #08-MU-1113-2400-264 (Memorandum of Understanding Between the U.S. Department of Agriculture Forest Service and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds) identifies specific activities where cooperation between these parties will contribute to the conservation of migratory birds and their habitats.

The Bald and Golden Eagle Protection Act (16 United States Code [U.S.C.] 668) applies primarily to taking, hunting, and trading activities that involve bald or golden eagles. The act prohibits the taking of any individuals of these two species, as well as any part, nest, or egg. The term "take" as used in the act includes pursue, shoot, shoot at, poison, wound, kill, captures, trap, collect, molest, or disturb (16 U.S.C. 668).

Executive Order 13443 (Facilitation of Hunting Heritage and Wildlife Conservation) requires federal agencies *to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat.*

Vegetation and Invasive Species

Executive Order 13112 (Invasive Species) requires federal agencies prevent the introduction and spread of invasive species and "not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species."

BLM Washington Office Instructional Bulletin 2012-097 directs BLM policy for any cutting or removal of timber, trees, or vegetative resources, including such resources located in the clearing limits of rights-of-way.

BLM Manual 1740-1 – Integrated Vegetation Management and BLM Manual 1740-2 – Renewable Resource Improvement and Treatment Guidelines and Procedures outline policies, objectives, and standards focused primarily on planning, analyzing, constructing, maintaining, replacing, or modifying renewable resource improvements and treatments, such as for forestry, invasive species, and range management.

Executive Order 11990 (Wetlands) requires federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities.

Special Status Species

BLM Manual 6840 (6840 Policy, Rel. 6-125) provides management direction and guidance for the conservation of special status species and their habitats. Under this policy, special status species include animal and plant species listed as threatened or endangered, proposed for listing, or candidates for listing under the provisions of the ESA; those listed as sensitive species by a state; and those listed by a BLM State Director as sensitive. The objective of this policy is to ensure actions requiring authorization or approval by the BLM are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species under provisions of the ESA.

In September of 2015, the BLM published the Record of Decision and Approved Resource Management Plan Amendments for greater sage-grouse management throughout the Great Basin, including Oregon and Idaho. These amendments include habitat management direction that avoids and minimizes additional disturbance to sage-grouse habitat management areas. They also target restoration of and improvements to the most important areas of habitat. The amendments include management actions to establish surface disturbance limits, habitat objectives, mitigation requirements, monitoring, adaptive management strategies, and conservation measures (such as required design features) throughout habitat management areas.

The Land and Resource Management Plan for the Wallowa-Whitman National Forest (1990, as amended) identify goals for forest health and constraints on resource uses to meet these goals.

USFS Manual 2900, Invasive Species Management, sets forth National Forest System policy, responsibilities, and direction for the prevention, detection, control, and restoration of effects from invasive species (including vertebrates, invertebrates, plants, and pathogens).

USFS Manual 2670 directs each Regional Forester to designate sensitive species on public lands administered by the USFS. Per the manual, sensitive species are defined "as plant or animal species identified by a Regional Forester for which population viability is a concern, as evidenced by a significant current or predicted downward trend in population numbers or density, or significant current or predicted downward trends in habitat capability that will reduce an existing distribution of the species."

USFS Manual 2670 also establishes the following management direction and objectives for USFS-sensitive species:

- Maintain viable populations of all native and desired non-native wildlife, fish, and plant species in habitats distributed throughout their geographic range on USFS-administered lands.
- Review programs and activities as part of the NEPA process, through a Biological Evaluation, to determine their potential effect on sensitive species.
- Analyze, if impacts cannot be avoided, the significance of potential adverse effects on the population or its habitat in the area of concern and on the species as a whole.

Wild Free-Roaming Horses and Burros

Wild Free-Roaming Horses and Burros Act of 1971. Wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West; they contribute to the diversity of life forms within the Nation and enrich the lives of the American people. It is the policy of the Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment, or death; and to accomplish this they are to be considered in the area where presently found as an integral part of the natural system of the public lands.

B1.2.1.1 State Regulations: Oregon and Idaho

The Oregon Department of Energy (ODOE) requires that the Project apply for a site certificate from the Energy Facility Siting Council (EFSC). EFSC considers specific standards and other state and local rules and ordinances to determine compliance during review of the application for site certificate. The standards are meant to protect natural resources, ensure public health and safety, and protect against adverse environmental impacts. EFSC, through the ODOE compliance program, monitors and enforces compliance with requirements of a site certificate.

The Fish and Wildlife Habitat Standard at Oregon Administrative Rule (OAR) 345-022-0060 states:

> *To issue a site certificate, the Council must find that the design, construction, and operation of the facility, taking into account mitigation, are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000.*

The Threatened and Endangered Species Standard at OAR 345-022-0070 states:

> *To issue a site certificate, the Council, after consultation with appropriate state agencies, must find that:*
>
> *(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:*
>
> > *(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or*
> >
> > *(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species; and*
>
> *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or endangered under ORS 496.172(2), the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.*

OAR 635-415-0025 defines the implementation of ODFW habitat mitigation recommendations under the Fish and Wildlife Habitat Mitigation Policy. The habitat mitigation policy provides for mitigation for losses of fish and wildlife habitat resulting from development actions.

ODFW's Fish and Wildlife Habitat Mitigation Policy at OAR 635-415-0025(7) states:

> *For proposed developments subject to this rule with impacts to greater sage-grouse habitat in Oregon, mitigation shall be addressed as described in OAR 635-140-0000 through 635-140-0025, except that any energy facility that has submitted a preliminary application for site certificate pursuant to ORS 469.300 et seq. on or before the effective date of this rule is exempt from fulfilling the avoidance test contained in 635-140-0025, Policy 2, subsections (a), (b), (c) and (d)(A). Other mitigation provisions contained in 635-140-0025, Policy 2, subsections (d)(B) and (e), and Policies 3 and 4 remain applicable.*

OAR 635-140-0025 defines the mitigation hierarchy of impacts in sage-grouse habitat from development actions. It provides for mitigation for both direct and indirect adverse impacts to sage-grouse and their habitat.

The Oregon Executive Order No. 15-18 adopts the Oregon Sage-grouse Action Plan which directs state agencies, including ODFW and ODOE, to implement the plan.

The Idaho Executive Order No. 2015-04 adopts the Idaho Sage-grouse Management Plan. Portions of the state plan were adopted by/are consistent with the BLM Approved Resource Management Plan Amendments.

The conversion of forested land to non-forested land must adhere to the Oregon Forest Practices Act and the Forest Practice Rules at OAR chapter 629 divisions 600 through 680. The Forest Practice Rules consider, among other things, plant and wildlife resources.

B1.3 Overview of Biological Resource Issues

Biological resource issues were identified throughout the planning stages of the Project in discussions with biologists and botanists from the BLM, USFS, USFWS, and other cooperating agencies. The effects of the Project on biological resources were analyzed in the EIS. Additional analysis of potential effects on biological resources listed under the ESA and was conducted in the BA. Implementation of the conservation measures contained in this plan are required to comply with the terms and conditions of the BLM right-of-way grant, USFS special-use authorization, and grant of easement as well as the NOAA Fisheries BO.

Biological resources and issues that are addressed in this plan include:

- Special Status Plant and Widlife Inventory
- Procedures for granting exceptions to or modifying certain seasonal and spatial restrictions
- Loss and fragmentation of native vegetation communities
- ESA-listed plant, fish, and wildlife species
- Plant and wildlife species managed by the BLM or USFS as sensitive species
- Migratory birds, including raptors
- Seasonal habitats for big game

Other important biological concerns were identified during the planning stages of the Project and are addressed in other sections of the POD, including:

- Noxious weeds (refer to Appendix B2 – Noxious Weed Management Plan)
- Revegetation (refer to Appendix C1 – Reclamation, Revegetation, and Monitoring Plan Framework)
- Streams, wetlands, and riparian areas (refer to Appendix B3 – Water Resources Protection Plan)

For each biological resource discussed in this section, an overview is provided of the resource presence in the Project area and the level of the mitigation hierarchy that the specific measures are intended to achieve. Measures that must be followed to achieve adequate mitigation are discussed in Section B1.4 – Biological Resource Mitigation Measures. For some resources, this section also identifies levels or amounts of acceptable impact and thresholds that must be met during the construction, operation, and maintenance of the Project.

B1.3.1 Special Status Plant and Wildlife Inventory

As a condition of the BLM and USFS RODs prior to completion of final design of the Project and completion of the POD, field surveys will be required. They will be conducted to identify sensitive biological resources that may be affected by the Project. These studies will identify and map habitats occupied by ESA-listed, BLM-sensitive, and USFS-sensitive plant and wildlife species in and adjacent to the Project area. Where appropriate, field surveys also will identify general areas of suitable habitat for these same species. Once these surveys are conducted, the results will be used to inform the final engineering design of the Project and review and develop additional mitigation measures as needed to comply with agency special status species policies. The results of the surveys and any required mitigation

will be incorporated into the POD. The results of these surveys will then be depicted on the maps developed for the POD to support construction of the Project.

The BLM, USFS, IPC, and other cooperating agencies worked together during development of the EIS, NEPA POD, and BAs to identify surveys that would need to be conducted to collect information for the Geotechnical Investigation prior to completion of the POD and final engineering design of the Project. This group prepared Attachment A – Biological Resources Survey Requirements to document the surveys required and approved methodologies. The survey work for the geotechnical investigation and to support completion of the POD and final engineering design of the Project must be conducted such that adequate time is available for required coordination with the BLM, USFS, and other cooperating agencies to review survey results, provide management recommendations, and develop any additional mitigation measures as needed.

Table B1-1 – Biological Resource Surveys to be Conducted for the Construction Plan of Development provides a list of plant and wildlife species for which surveys will be conducted to inform the final engineering design of the Project, development of special status species mitigation measures as needed, and preparation of the POD and the geographic area where surveys will be conducted for each species. The list of species requiring surveys will be reviewed and updated as needed in advance of the initiation of surveys. This information is copied from Attachment A – Biological Resources Survey Requirements. The findings from the surveys will be included in this table in the POD. Shapefiles of the areas surveyed also will be required to be included in the Project record. Occasionally, modification of the location of Project features as a result of engineering revisions, or to avoid impacts on environmental resources, could require additional biological resource surveys if features are moved out of areas during the surveys. The shapefiles of areas surveyed included in the Project record should always be used to determine whether biological surveys have been conducted in any particular area.

Table B1-1
Biological Resource Surveys to be Conducted for the Construction Plan of Development

Species	Status	Geographic Region of the Project	Survey Area	Survey Timing	Survey Method	Findings
Common name (scientific name)	T/E/C, Federal Sensitive, State Listed, etc.	Description of where the resource occurs in relation to the Project.	Within 300 feet of all ground disturbance. Within 0.5 mile of the centerline.	May 1 – July 15.	Walking meandering transects/ intuitive search. Aerial survey.	Brief description of findings/ reference to technical report.

B1.3.2 Wildlife Variance Management Plan

The BLM, the USFS, state wildlife agencies, and IPC have prepared a Wildlife Variance Management Plan (Attachment B) to provide a framework and structured decision-making process to engage in flexible management of certain biological resources when conditions warrant. The Wildlife Variance Management Plan contains procedures for granting exceptions to or modifying certain seasonal and spatial restrictions identified as Project mitigation measures in this Biological Resources Conservation Plan. The Wildlife Variance Management Plan provides a methodology that facilitates the review and approval or denial of these requests through the Level 2 variance procedure outlined in Appendix A5 – Environmental Compliance Management Plan, Section A5.4.2 – Variance Procedures (Unforeseen Circumstances) of the POD and avoids the need for amendments to the BLM right-of-way grant or USFS special-use authorization.

The Wildlife Variance Management Plan is included in this Biological Resources Conservation Plan as Attachment B – Wildlife Variance Management Plan. To ensure biological resources are appropriately protected, the Wildlife Variance Management Plan contains:

- Roles and responsibilities of involved parties
- Resource conditions that would permit modifications or exceptions to mitigation measures
- Procedures for determining resource conditions
- Procedures for communicating resource conditions and granting modifications or exceptions to mitigation measures
- Procedures for monitoring resource conditions after alterations are granted

B1.3.3 Loss and Fragmentation of Native Vegetation Communities

Loss and fragmentation of native vegetation communities is a botanical resource issue identified and analyzed in the EIS. BLM and USFS policy and management plans require the agencies to avoid any unnecessary degradation of federal lands resulting from actions authorized or carried out on federal lands. Due to the limited distribution of riparian and wetland vegetation types in the Project area and their disproportionately high ecological value, agency policies also require special consideration to avoid, minimize and offset impacts on these vegetation types.

Loss, fragmentation, and other adverse effects to native vegetation communities occur through surface-disturbing activities required for the construction of access roads, temporary work areas, structure foundations, etc. Temporary disturbances such as drive and crush access roads, temporary work areas, or reclamation of disturbed areas will not result in permanent loss; however, some native vegetation communities can take decades to recover from disturbance and reclaimed vegetation communities often differ from those that occurred predisturbance. Ongoing vegetation maintenance to maintain sufficient clearance along the right-of-way will result in permanent alteration of community structure in some native vegetation communities. Other adverse effects such as increased potential for introduction and establishment of invasive plants, alteration of vegetation community structure and composition, or changes to hydrology, light availability, or ambient temperatures could occur to disturbed vegetation communities and adjacent vegetation.

B1.3.3.1 Results of the Environmental Impact Statement Analysis and the Degree of Allowable Impacts

Native vegetation communities are the dominant vegetation cover throughout the Project area. Most vegetation resources are not specifically protected by agency stipulations. However, agencies may not issue use authorizations (including rights-of-way) that will result in undue or unnecessary degradation of resources on federal lands. To meet this standard, the BLM and the USFS have primarily relied on agency siting decisions made through the NEPA process and the design features of the Boardman to Hemingway Transmission Line Project (Project) for environmental protection to minimize the loss and fragmentation of native vegetation communities during the construction, operation, and maintenance of the Project. These design features of the Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy.

The magnitude of loss and disturbance to native vegetation communities was considered in the selection of a route through the EIS process. Additionally, the EIS considered the application of several Project design features aimed to reduce erosion, limit the extent of surface-disturbance, prevent the spread and establishment of invasive plants, and establish desirable native vegetation communities to determine the expected degree of impacts on native vegetation communities. Additional mitigation measures limiting disturbance and vegetation management in sensitive vegetation communities were also considered.

B1.3.3.2 Traditional Foods and Ethnobotanical Resources

Traditional foods and ethnobotanical resources include plants important to tribal groups for subsistence and economic, medical, and ceremonial purposes. Ethnohabitats are microhabitats defined by tribal members as having particular importance. Traditional foods and ethnobotanical resources have the potential to occur throughout the Project area where appropriate vegetation communities exist. Ethnobotanical surveys conducted by the CTUIR in 2013 in the Project area identified areas of abundant traditional foods and other ethnobotanical resources, as well as remnant populations of ethnobotanical resources, which have become less common in the region as a result of ongoing agricultural and urban development.

The clearing of vegetation, use of herbicides, fugitive dust, and introduction or invasive plants and noxious weeds all the potential to impact traditional foods and ethnobotanical resources. The EIS considered the application of several Project design features aimed to limit extent of surface disturbance, reduce dust during construction, prevent the spread and establishment of invasive plants, and establish desirable native vegetation communities to determine the expected degree of impacts on traditional foods and ethnobotanical resources.

B1.3.4 ESA-listed Species

Impacts on ESA-listed species were identified as an issue for the Project during the EIS process. The BLM, as lead federal agency in preparation of the EIS, engaged in Section 7 consultation with the NOAA Fisheries and the USFWS regarding the effects of the Project on ESA-listed plant,wildlife, and fish species. Other federal agencies participating in the Project with a responsibility under the ESA (the USFS, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, and Bonneville Power Administration), also participated in the consultation. Formal consultation with the NOAA Fisheries was initiated on November 16, 2016, when the BLM submitted a BA to the NOAA Fisheries. Formal consultation will conclude when the NOAA Fisheries provides the BLM with a BO on or before February 28, 2017. Informal formal consultation was initiated with the USFWS on December 15, 2016, when the BLM submitted a BA to the USFWS. Informal consultation is expected to conclude when the USFWS provides the BLM with a letter of concurrence on or before January 17, 2017.

A summary of the effect determinations from the Section 7 consultation with the NOAA Fisheries for ESA-listed fish species under the jurisdiction of the NOAA Fisheries is included in Table B1-2.

Table B1-2
Determinations for Fish Species, Critical Habitat,
and Essential Fish Habitat from the NOAA Fisheries Biological Assessment

Species	Listing Status	Determination
Middle Columbia River Steelhead	Threatened	May Affect, Likely to Adversely Affect
	Designated critical habitat	May Affect, Likely to Adversely Affect
Snake River Basin Steelhead	Threatened	May Affect, Likely to Adversely Affect
	Designated critical habitat	May Affect, Likely to Adversely Affect
Snake River Spring/ Summer-Run Chinook Salmon	Threatened	May Affect, Likely to Adversely Affect
	Designated critical habitat	May Affect, Likely to Adversely Affect
Coho salmon	Essential fish habitat	May Adversely Affect
Chinook salmon	Essential fish habitat	May Adversely Affect

A summary of the effect determinations from the Section 7 consultation with the USFWS for ESA-listed fish, plant, and wildlife species under the jurisdiction of the USFWS is included in Table B1-3.

Table B1-3 Determinations for Fish, Plant, and Wildlife Species and Critical Habitat from the USFWS Biological Assessment		
Species	**Listing Status**	**Determination**
Bull Trout	Threatened	May Affect, Not Likely to Adversely Affect
	Designated critical habitat	May Affect, Not Likely to Adversely Affect
Howell's Spectacular Thelypody	Threatened	May Affect, Not Likely to Adversely Affect
Gray Wolf	Endangered	May Affect, Not Likely to Adversely Affect

The primary issues regarding ESA-listed fish species and the Project are temporary increases in turbidity as a result of sediment transport from upland locations from construction activities, use of access roads, and removal of riparian vegetation. Water quality in ESA-listed fish habitat will be affected by temporary and permanent removal of riparian vegetation resulting in the loss of shade and cover. Tall-growing, mature trees in the wire zone of Riparian Conservation Areas (RCAs) (unless they are located in a valley bottom) will be removed permanently, and low-growing vegetation will be maintained.

The primary issue regarding Howell's spectacular thelypody and the Project is the loss, fragmentation, and degradation of previously unknown individuals and occupied habitat. Another important issue is the degradation and potential loss individuals in known occupied habitats 1.5 miles west of the Project. Project activities would negatively affect Howell's spectacular thelypody habitat and populations if vegetation removal in these areas is required.

The primary issues regarding ESA-listed gray wolf and the Project is human presence and construction noise resulting in habitat avoidance causing functional habitat loss and avoidance. This functional habitat loss could persist for the life of the Project through increased recreational traffic on new access roads and ongoing maintenance activities. The creation of new access roads could result in increased illegal hunting pressure on gray wolf. If gray wolves disperse through the Project area, human presence, noise, and vehicle use could result in habitat avoidance and injury or mortality through vehicle collisions.

B1.3.4.1 Endangered Species Act-listed Steelhead and Chinook Salmon

Background and Habitat Requirements

Middle Columbia River (MCR) steelhead, Snake River Basin (SRB) steelhead, and Snake River spring/summer-run Chinook salmon and their designated critical habitat could be affected by the Project. All are listed as threatened under the ESA.

MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon and their designated critical habitat are all present in the Project area in the Middle Columbia River Basin and the Lower Snake River Basin.

Status of the Species in the Project Area and Survey Results

No surveys for ESA-listed steelhead and Chinook salmon will be required for the Project. ESA-listed and other special status fish species will be assumed to be present in streams that have been documented to contain these species. Only Segments 1 and 2 of the Project area have drainages crossed by the Project that support ESA-listed steelhead or Chinook salmon and their designated critical habitat.

In Segment 1, the Project (right-of-way or access roads, or both) crosses the following waterways that support ESA-listed steelhead or Chinook salmon and designated critical habitat, or both:

- Bear Creek
- West Birch Creek

- California Gulch
- East Birch Creek

All four of the waterways are located in the Birch Creek watershed, which discharges to the Umatilla River. All of the waterways are designated as critical habitat at the crossing locations.

In Segment 2, the Project (right-of-way or access roads, or both) will cross the following waterways that support ESA-listed steelhead or Chinook salmon and designated critical habitat, or both:

- Dry Creek
- Grande Ronde River
- Graves Creek
- Rock Creek
- Unnamed Tributary to Rock Creek

Dry Creek discharges to Pelican Creek. Graves Creek and Rock Creek discharge to the Grande Ronde River. All the creeks are located within the Upper Grande Ronde River Subbasin. All the waterways are designated as critical habitat at the crossing locations.

Also in Segment 2, the following waterways that support ESA-listed steelhead or Chinook salmon and designated critical habitat, or both may be affected by upgrades to existing access roads that run parallel to the waterway within portions of the riparian conservation area. These waterways include the following:

- Graves Creek
- Unnamed tributary to Rock Creek
- Sheep Creek
- Meacham Creek

Consultation Findings

The BA prepared by the BLM for the NOAA Fisheries found that the Project may affect, and is likely to adversely affect, MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon. The *may affect* determination was based on the following:

- There are documented detections of MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon in the action area.
- Suitable spawning, migration, and/or juvenile rearing habitats occur in the action area waterbodies for MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon.
- Blasting and implosive splicing activities temporarily may raise sound pressure levels or result in particle movement in waterways occupied by ESA-listed fish.
- The Project temporarily will alter water quality in the action area waterbodies.

The *likely to adversely affect* determination was based on the following:

- The Project temporarily will increase turbidity to above baseline levels as a result of sediment transport from upland locations (access-road construction activities, use of access roads, and vegetation clearing), potentially resulting in behavioral harassment.
- The Project temporarily will increase turbidity to above baseline levels as a result of sediment transport from upland locations (use of access roads for the life of the Project—approximately 50 years) potentially resulting in behavioral harassment.

- Blasting and implosive splicing activities may temporarily raise sound pressure levels above behavioral disturbance guidance levels.
- Blasting activities might temporarily result in peak particle velocities above injury or mortality thresholds.
- The Project potentially will alter predator-prey relationships in the action area as a result of sediment transport into waterways from upland locations and the removal of riparian vegetation.

The BA prepared by the BLM for the NOAA Fisheries also found that the Project may affect, and is likely to adversely affect, MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon critical habitat. The *may affect* determination was based on the following:

- Designated critical habitat occurs within the action area.
- The Project temporarily will alter water quality within the action area.
- The Project permanently will remove tall-growing, mature trees in the wire zone of RCAs (unless they are located in a valley bottom). Low-growing vegetation will be maintained.

The *likely to adversely affect* determination was based on the following:

- Water quality in freshwater spawning (MCR steelhead and SRB steelhead), rearing (MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon), and migration (MCR steelhead and Snake River spring/summer-run Chinook salmon) areas potentially will be affected by the Project from access-road construction activities, the use of access roads, and removal of riparian vegetation.
- Water quality in freshwater spawning (MCR steelhead and SRB steelhead), rearing (MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon), and migration (MCR steelhead and Snake River spring/summer-run Chinook salmon) areas potentially will be affected by the Project from the use of access roads for the life of the Project (approximately 50 years).
- Water quality in freshwater spawning (MCR steelhead and SRB steelhead), rearing (MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon), and migration (MCR steelhead and Snake River spring/summer-run Chinook salmon) areas potentially will be affected by temporary and permanent removal of riparian vegetation resulting in the loss of shade and cover. Tall-growing, mature trees in the wire zone of RCAs (unless they are located in a valley bottom) will be removed permanently, and low-growing vegetation will be maintained.
- Water quality in freshwater spawning (MCR steelhead and SRB steelhead), rearing (MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon), and migration (MCR steelhead and Snake River spring/summer-run Chinook salmon) areas potentially will be affected by upland blasting activities and herbicide use.

In the BO prepared by the NOAA Fisheries, the NOAA Fisheries will determine whether they concur with the BLM's decision that the Project may affect, and is likely to adversely affect, MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon and their designated critical habitat. These findings assume that (1) no new access roads will be constructed within the RCA of a waterway that supports ESA-listed fish or designated critical habitat, or both, (2) no new access-road crossings, or modifications of existing crossings below the ordinary high water mark, will occur in waterways that support ESA-listed fish or waterways that are designated as critical habitat, (3) no new crossings, or modifications of existing crossings below the ordinary high water mark, will occur within 1,000 feet upstream of waterways, including tributaries, that support ESA-listed fish or are designated as critical habitat, (4) no new culverts will be installed and no existing culverts will be replaced, and (5) structure foundations will not be constructed within 300 feet (extent of the RCA) of waterways with ESA-listed

fish or designated critical habitat. Furthermore, all ESA-listed fish conservation measures will be implemented to eliminate other concerns, such as blasting, drilling, access road construction outside RCAs, and herbicide use.

Monitoring Requirements

If blasting activities are anticipated to exceed protective guidelines, monitoring may be required to ensuring that fish are not in the stream near the blasting site and/or in-water monitoring may be required for pressure changes resulting from blasting (refer to ESA-listed Fish Conservation Measure 10 in Section B1.4.2.1).

B1.3.4.2 Bull Trout

Background and Habitat Requirements

The bull trout is a native char found in the West Coast and Intermountain West of North America. Bull trout populations exhibit diverse life history strategies with four distinct life history types: resident, fluvial, adfluvial, and anadromous. The species is considered threatened under the ESA and critical habitat for the species designated.

Bull trout have more specific habitat requirements influencing their distribution and abundance. Bull trout require cold water to survive and are seldom are found in waters where temperatures exceed 59 to 64 degrees Fahrenheit. All life history stages of bull trout require stable stream channels, clean spawning and rearing gravel, complex and diverse cover, and unblocked migratory corridors (USFWS 2015).

Status of the Species in the Project Area and Survey Results

The only waterway crossed by the Project supporting bull trout is the Grande Ronde River, located within the Upper Grande Ronde Subbasin. The Project crosses the Grande Ronde River near La Grande, Oregon. This portion of the Grande Ronde River also is designated as critical habitat.

Surveys for bull trout will not be required for the Project. ESA-listed and other special status fish species will be assumed to be present in streams that have been documented to contain these species.

Consultation Findings

The BA prepared by the BLM found that the Project may affect, but is not likely to adversely affect, bull trout or bull trout designated critical habitat. Informal formal consultation was initiated with the USFWS on December 15, 2016, when the BLM submitted a BA to the USFWS. Informal consultation is expected to conclude when the USFWS provides the BLM with a letter of concurrence on or before January 17, 2017.

These findings assumed the Project would (1) avoid in-water work in the Grande Ronde River, (2) no new access roads or upgrades to existing access roads crossing the Grande Ronde River would be required, (3) no new culverts will be installed and no existing culverts will be replaced, and (4) structure foundations will not be constructed within 300 feet (extent of the RCA) of the Grande Ronde River. Furthermore, all ESA-listed fish conservation measures will be implemented to eliminate other concerns, such as blasting, drilling, access road construction outside RCAs, and herbicide use.

Monitoring Requirements

If blasting activities are anticipated to exceed protective guidelines, monitoring may be required to ensuring that fish are not in the stream near the blasting site and/or in-water monitoring may be required for pressure changes resulting from blasting (refer to ESA-listed Fish Conservation Measure 10 in Section B1.4.2.1.

B1.3.4.3 Howell's Spectacular Thelypody

Background and Habitat Requirements

Howell's spectacular thelypody is a biennial species known only from the Baker and Powder River valleys. The species is known from 16 unique occurrences grouped into five populations: Clover Creek Valley, North Powder, Haines, North Baker, and Pocahontas Road (USFWS 2010). Reintroduction efforts have resulted in the establishment of another population at the Baldock Slough north of Baker City, Oregon (Currin *et al.* 2010). Being a biennial species, the abundance of Howell's spectacular thelypody can vary greatly depending from year to year and accurate population estimates are not available (USFWS 2010). The species is listed as threatened under the ESA.

Howell's spectacular thelypody favors seasonally moist, alkaline soils within remnants of native grassland communities and typically occurs on remnant fluvial features where drier soil conditions discourage competition from sedges and rushes (Currin *et al.* 2010, USFWS 2010). Howell's spectacular thelypody typically occurs with other mesic, alkaline-tolerant species, including: greasewood (*Sarcobatus vermiculatus*), green rabbitbrush (*Chrysothamnus viscidiflorus*), inland salt grass (*Distichlis spicata*), Great Basin wildrye (*Elymus cinereus*), and alkali bluegrass (*Poa juncifolia*) (USFWS 2002).

Status of the Species in the Project Area and Survey Results

The Project does not cross any known populations or occurrences of Howell's spectacular thelypody. However, occurrences in the Clover Creek Valley, North Powder, Haines, North Baker, and Baldock Slough are known within five miles of the Project centerline with the nearest occurrence located 1.5 miles west of the centerline near Clover Creek. Potential habitat for the species has not been determined, but may exist in the Project area and be crossed by the centerline.

Pedestrian surveys will be conducted prior to completion of the POD within 300 feet of all Project features that cross field-verified potential Howell's spectacular thelypody habitat.

Consultation Findings

The BA prepared by the BLM found that the Project may affect, but is not likely to adversely affect, Howell's spectacular thelypody. Informal formal consultation was initiated with the USFWS on December 15, 2016, when the BLM submitted a BA to the USFWS. Informal consultation is expected to conclude when the USFWS provides the BLM with a letter of concurrence on or before January 17, 2017.

These findings assumed that all Project activities will avoid all occupied Howell's spectacular thelypody habitat and individuals by a minimum of 300 feet.

Monitoring Requirements

Construction monitoring and resource monitoring to verify that the results of the surveys conducted to inform the engineering design and POD are accurate at the time of construction will be required for Howell's spectacular thelypody. Monitoring requirements will be added or updated when the surveys have been completed.

B1.3.4.4 Gray Wolf

Background and Habitat Requirements

The gray wolf is circumboreal in distribution, occurring in North America, Asia, and Europe. The gray wolf is considered endangered under the ESA in portions of California, Michigan, Oregon, Washington, and Wisconsin (USFWS 2016).

In Oregon, 110 wolves and 12 known packs have been documented (ODFW 2016). Distribution of gray wolf in Oregon is concentrated in the northeastern corner of the state, where wolves are not federally

listed. Of the 12 known packs, 11 are located in the forests of northeastern Oregon and one, the Rogue Pack, is in the southern Oregon Cascades south of Crater Lake. Only 9 percent of wolves in Oregon are in the West Wildlife Management Zone, where they are federally listed as endangered. Areas used by gray wolf in Oregon generally are characterized by a mosaic of dry and mesic conifer and subalpine forests, but gray wolf is also are associated with grassland and shrubland habitats.

Status of the Species in the Project Area and Survey Results

Only Segment 1 is located in the part of Oregon where the gray wolf is listed as federally endangered. Segments 2–6 are located in the East Wildlife Management Zone where the gray wolf is delisted as federally endangered.

Portions of the Project in Segment 1 would be in proximity to an unnamed ODFW-designated estimated gray wolf use area in Umatilla and Morrow counties. The wolf pack associated with this area was discovered in January 2016 in southwestern Umatilla County and included two adults and three pups born in 2015 (ODFW 2016).

Surveys for gray wolf will not be conducted for the Project.

Consultation Findings

The BA prepared by the BLM found that the Project may affect, but is not likely to adversely affect, gray wolf. Informal formal consultation was initiated with the USFWS on December 15, 2016, when the BLM submitted a BA to the USFWS. Informal consultation is expected to conclude when the USFWS provides the BLM with a letter of concurrence on or before January 17, 2017.

These findings assumed that effects from all Project activities (i.e. human presence, heavy equipment operation, recreational activities, vehicle travel, and illegal hunting) are discountable due to the anticipated low rates of dispersal of gray wolves through the Project area. Additionally, these findings assumed the estimated wolf use area in Umatilla and Morrow counties would not be designated and mapped as a wolf territory.

Monitoring Requirements

There are no species-specific monitoring requirements for gray wolf.

B1.3.5 Species Managed as Sensitive Species or Management Indicator Species

Impacts on species managed by the BLM or USFS as sensitive (including USFS Management Indicator Species [MIS]); or by the State of Oregon as candidate, critical, vulnerable, threatened, or endangered; or by the State of Idaho as species of greatest conservation need, were identified during the EIS process as an issue for the Project. Field surveys for BLM and USFS-sensitive species will be required to be conducted for the Project after completion of the EIS, as described in Section B1.3.1 – Special Status Plant and Wildlife Inventory.

At the time the Final EIS was prepared, sensitive species that may be affected by the Project were identified by the following lists:

- Oregon BLM Sensitive Species: State Director's Special Status Species Lists (ISSSSP 2015a)
- Idaho BLM Sensitive Plant Species: BLM Idaho Botany: Special Status Plant List (BLM 2016)
- Idaho BLM Sensitive Wildlife Species: BLM-Idaho Special Status Animal Species (BLM 2014)
- USFS Sensitive Species: Regional Forester's Special Status Species List (ISSSSP 2015b)
- USFS Management Indicator Species: Wallowa-Whitman National Forest Land and Resource Management Plan (USFS 1990)

- Oregon State Sensitive Plant Species: Oregon's Threatened, Endangered, and Candidate Plants (ODA 2014)
- Oregon State Sensitive Wildlife Species: Threatened, Endangered, and Candidate Fish and Wildlife Species in Oregon (ODFW 2014)
- Idaho State Sensitive Species: Comprehensive Wildlife Conservation Strategy (IDFG 2011)

The sensitive species and USFS MIS species likely to occur in the Project area are summarized in Table B1-4.

Table B1-4
Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area

Common Name	Scientific Name	Status	Likelihood of Occurrence
Plants			
Aloina Moss	*Aloina bifrons*	OR BLM S	Known to occur within 5 miles of the Project centerline
Bank Monkeyflower	*Mimulus clivicola*	ID BLM S	Known to occur within 5 miles of the Project centerline
Barren Milkvetch	*Astragalus cusickii var. sterilis*	OR BLM S, ID BLM S, ST	Known to occur within 5 miles of the Project centerline
Carveseed	*Glyptopleura marginata*	ID BLM S	Known to occur within 0.5 mile of the Project centerline
Columbian Carpet Moss	*Bryoerythrophyllum columbianum*	OR BLM S	Known to occur within 5 miles of the Project centerline
Cordilleran Sedge	*Carex cordillerana*	OR BLM S, USFS S	Known to occur within 0.5 mile of the Project centerline
Cronquist's Stickseed	*Hackelia cronquistii*	OR BLM S, ID BLM S, ST	Known to occur within 0.5 mile of the Project centerline
Cusick's Pincushion	*Chaenactis cusickii*	ID BLM S	Known to occur within 0.5 mile of the Project centerline
Doublet	*Dimeresia howellii*	ID BLM S	Known to occur within 5 miles of the Project centerline
Douglas' Clover	*Trifolium douglasii*	OR BLM S, ID BLM S, USFS S	Known to occur within 0.5 mile of the Project centerline
Esteve's Pincushion	*Chaenactis stevioides*	ID BLM S	Known to occur within 5 miles of the Project centerline
False Naked Buckwheat	*Eriogonum novonudum*	ID BLM S	Known to occur within 0.5 mile of the Project centerline
Flowery Phlox	*Phlox multiflora*	OR BLM S, USFS S	Known to occur within 5 miles of the Project centerline

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Greeley's Springparsely	*Cymopterus acaulis var. greeleyorum*	OR BLM S, ID BLM S	Known to occur within 0.5 mile of the Project centerline
Hairy Wild Cabbage	*Caulanthus pilosus*	OR BLM S	Known to occur within 0.5 mile of the Project centerline
Idaho Milkvetch	*Astragalus conjunctus*	ID BLM S	Known to occur within 5 miles of the Project centerline
Janish's Penstemon	*Penstemon janishiae*	ID BLM S	Known to occur within 0.5 mile of the Project centerline
King's Snapdragon	*Sairocarpus kingii*	ID BLM S	Known to occur within 5 miles of the Project centerline
Laurent's Milkvetch	*Astragalus collinus var. laurentii*	OR BLM S, ST	Known to occur within 0.5 mile of the Project centerline
Malheur Cryptantha	*Cryptantha propria*	ID BLM S	Known to occur within 0.5 mile of the Project centerline
Mingan Moonwort	*Botrychium minganense*	OR BLM S	Known to occur within 0.5 mile of the Project centerline
Mountain Moonwort	*Botrychium montanum*	OR BLM S, USFS S	Known to occur within 5 miles of the Project centerline
Mulford's Milkvetch	*Astragalus mulfordiae*	OR BLM S, ID BLM S, SE	Known to occur within 0.5 mile of the Project centerline
Oregon Princesplume	*Stanleya confertiflora*	OR BLM S, ID BLM S	Known to occur within 0.5 mile of the Project centerline
Oregon Semaphore Grass	*Pleuropogon oregonus*	OR BLM S, USFS S, ST	Known to occur within 0.5 mile of the Project centerline
Owyhee Yellow Phacelia	*Phacelia lutea var. calva*	ID BLM S	Known to occur within 5 miles of the Project centerline
Retrorse Sedge	*Carex retrorsa*	OR BLM S, USFS S	Known to occur within 0.5 mile of the Project centerline
Rigid Threadplant	*Nemacladus rigidus*	ID BLM S	Known to occur within 5 miles of the Project centerline
Salt Heliotrope	*Heliotropium curassavicum*	OR BLM S, USFS S	Known to occur within 0.5 mile of the Project centerline
Saltwort Buckwheat	*Eriogonum salicornioides*	OR BLM S	Known to occur within 0.5 mile of the Project centerline

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Scabland Penstemon	*Penstemon deustus var. variabilis*	OR BLM S, USFS S	Known to occur within 5 miles of the Project centerline
Seaside Heliotrope	*Heliotropium curassavicum var. obovatum*	OR BLM S, USFS S	Known to occur within 5 miles of the Project centerline
Shining Flatsedge	*Cyperus bipartitus*	ID BLM S	Known to occur within 5 miles of the Project centerline
Simpson Hedgehog Cactus	*Pediocactus simpsonii*	ID BLM S	Known to occur within 5 miles of the Project centerline
Small Phacelia	*Phacelia minutissima*	OR BLM S, ID BLM S, USFS S	Known to occur within 5 miles of the Project centerline
Smooth Stickleaf	*Mentzelia mollis*	OR BLM S, ID BLM S, SE	Known to occur within 0.5 mile of the Project centerline
Snake River Goldenweed	*Pyrrocoma radiata*	OR BLM S, ID BLM S, SE	Known to occur within 0.5 mile of the Project centerline
Tolmie's Onion	*Allium tolmiei var. persimile*	ID BLM S	Known to occur within 5 miles of the Project centerline
Water-Thread Pondweed	*Potamogeton diversifolius*	OR BLM S, ID BLM S, USFS S	Known to occur within 5 miles of the Project centerline
White Wooly Buckwheat	*Eriogonum ochrocephalum var. calcareum*	ID BLM S	Known to occur within 0.5 mile of the Project centerline
Wishbone Bush	*Mirabilis laevis var. retrorsa*	None	Known to occur within 0.5 mile of the Project centerline
Woolyfruit Sedge	*Carex lasiocarpa var. americana*	OR BLM S, USFS S	Known to occur within 5 miles of the Project centerline
Amphibians			
Columbia spotted frog Great Basin distinct population segment	*Rana luteiventris*	ID BLM S, ID SGCN, OR BLM S, CR	Known to occur in Segment 5
Columbia spotted frog Population outside Great Basin distinct population segment	*Rana luteiventris*	USFS S, CR	Known to occur in Segments 1, 2, and 3,
Northern leopard frog	*Lithobates pipiens*	ID BLM S, ID SGCN, OR BLM S, CR,	Known to occur in Segments 4, 5, and 6
Rocky Mountain tailed frog	*Ascaphus montanus*	OR BLM S, USFS S, SV	Known to occur in Segment 3

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Western toad Northern Rocky Mountain population only	*Bufo boreas*	ID BLM S, ID SGCN, SV	Known to occur in Segments 3, 4, and 5
Woodhouse's toad	*Anaxyrus woodhousii*	ID BLM S, ID SGCN, OR BLM S	May occur in Segments 1-6
Reptiles			
Common garter snake	*Thamnophis sirtalis*	ID BLM S	May occur in Segment 6
Longnose snake	*Rhinocheilus lecontei*	ID BLM S	May occur in Segment 6
Mojave black-collared lizard	*Crotaphytus bicinctores*	ID BLM S, ID SGCN	Known to occur in Segment 6
Painted turtle	*Chrysemys picta*	OR BLM S	Known to occur in Segments1, 2, and 3
Western ground snake	*Sonora semiannulata*	ID BLM S	Known to occur in Segment 6
Birds			
American bittern	*Botaurus lentiginosus*	ID SGCN	May occur in Segment 6
American peregrine falcon	*Falco peregrinus anatum*	ID BLM S, OR BLM S, USFS S, SV	Known to occur in Segments 2 and 3
American three-toed woodpecker	*Picoides dorsalis*	SV	Known to occur in Segments 1, 2, and 3
American white pelican	*Pelecanus erythrorhynchos*	ID SGCN, OR BLM S, SV	Known to occur in Segments 1, 3, 4, 5, and 6
Bald eagle	*Haliaeetus leucocephalus*	ID BLM S, OR BLM S, USFS S, ST	Known to occur in Segments 1, 2, 3, 4, 5, and 6
Black-backed woodpecker	*Picoides arcticus*	SV, MIS	Known to occur in Segments 2 and 3
Black-capped chickadee	*Poecile atricapillus*	MIS	Known to occur on the Wallowa-Whitman National Forest
Black-throated sparrow	*Amphispiza bilineata*	ID BLM S	Known to occur in Segment 6
Black tern	*Chlidonias niger*	ID SGCN	May occur in Segment 6
Bobolink	*Dolichonyx oryzivorus*	OR BLM S, SV	Known to occur in Segments 1, 2, 3, and 4
Brewer's sparrow	*Spizella breweri*	ID BLM S	Known to occur in Segment 6
Burrowing owl	*Athene cunicularia*	CR, ID BLM S, ID SGCN	Known to occur in Segments 1, 3, 4, 5, and 6
California gull (breeding population)	*Larus californicus*	ID SGCN	May occur in Segment 6
Caspian tern	*Hydroprogne caspia*	ID SGCN	May occur in Segment 6
Cassin's finch	*Haemorhous cassinii*	ID BLM S	May occur in Segment 6
Clark's grebe	*Aechmophorus clarkii*	ID SGCN	May occur in Segment 6
Common nighthawk	*Chordeiles minor*	SC, ID SGCN	Known to occur in all segments
Downy woodpecker	*Picoides pubescens*	MIS	Known to occur on the Wallowa-Whitman National Forest

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Ferruginous hawk	*Buteo regalis*	ID BLM S, ID SGCN, CR	Known to occur in all segments
Flammulated owl	*Otus flammeolus*	SV	Known to occur in Segment 2
Golden eagle	*Aquila chrysaetos*	BGEPA, ID BLM S, ID SGCN	Known to occur in all segments
Grasshopper sparrow	*Ammodramus savannarum*	ID BLM S, ID SGCN, OR BLM S, SV	Known to occur in all segments
Great gray owl	*Strix nebulosa*	SV	Known to occur in Segments 1 and 2
Greater Sage-Grouse	*Centrocercus urophasianus*	ID BLM S, ID SGCN, OR BLM S, USFS S, SV	Known to occur in Segments 2, 3, 4, 5, and 6
Greater sandhill crane	*Grus canadensistabida*	SV	May occur in Segments 1 through 5
Harlequin duck	*Histrionicus histrionicus*	USFS S, ID BLM	Known to occur in Segments 1 and 2
Horned grebe	*Podiceps auritus*	OR BLM S	May occur in Segments 1 through 5
Lewis's woodpecker	*Melanerpes lewis*	ID BLM S, OR BLM S, USFS S, CR, MIS	Known to occur in Segments 2, 3, and 6
Loggerhead shrike	*Lanius ludovicianus*	ID BLM S, SV	Known to occur in all segments
Long-billed curlew	*Numenius americanus*	ID BLM S, ID SGCN, SV	Known to occur in all segments
Mountain chickadee	*Poecile gambeli*	MIS	Known to occur on the Wallowa-Whitman National Forest
Mountain quail	*Oreortyx pictus*	ID BLM S, SV	May occur in all segments
Northern goshawk	*Accipiter gentilis*	ID BLM S, SV, MIS	Known to occur in Segments 1, 2, 3, and 6
Northern flicker	*Colaptes auratus*	MIS	Known to occur on the Wallowa-Whitman National Forest
Olive-sided flycatcher	*Contopus cooperi*	ID BLM S, SV	Known to occur in Segment 2
Pileated woodpecker	*Dryocopus pileatus*	SV, MIS	Known to occur in Segments 1and 2
Prairie falcon	*Falco mexicanus*	ID BLM S	Known to occur in Segment 6
Pygmy nuthatch	*Sitta pygmea*	MIS	Known to occur on the Wallowa-Whitman National Forest
Red-breasted nuthatch	*Sitta canadensis*	MIS	Known to occur on the Wallowa-Whitman National Forest
Red-naped sapsucker	*Sphyrapicus nuchalis*	MIS	Known to occur on the Wallowa-Whitman National Forest
Ring-billed gull (breeding population)	*Larus delawarensis*	ID SGCN	May occur in Segment 6

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Sage sparrow	*Amphispiza belli*	ID BLM S, ID SGCN, CR	Known to occur in Segments 4, 5, and 6
Sage thrasher	*Oreoscoptes montanus*	ID BLM S, ID SGCN	Known to occur in Segment 6
Sandhill crane	*Grus canadensis*	ID SGCN	May occur in Segment 6
Short-eared owl	*Asio flammeus*	ID BLM S, ID SGCN	Known to occur in Segment 6
Snowy egret	*Egretta thula*	OR BLM S, SV	Known to occur in Segment 4
Swainson's hawk	*Buteo swainsoni*	SV	Known to occur in Segments 1, 2, 3, 4, and 5
Three-toed woodpecker	*Picoides dorsalis*	MIS	Known to occur on the Wallowa-Whitman National Forest
Tricolored blackbird	*Agelaius tricolor*	OR BLM S	Known to occur in Segment 1
Upland sandpiper	*Bartramia longicauda*	USFS S, CR	May occur in Segments 2 and 3
Western grebe	*Aechmophorus occidentalis*	ID SGCN	May occur in Segment 6
White-breasted nuthatch	*Sitta carolinensis*	MIS	Known to occur on the Wallowa-Whitman National Forest
White-faced ibis	*Plegadis chihi*	ID BLM S, ID SGCN	May occur in Segment 6
White-headed woodpecker	*Picoides albolarvatus*	ID BLM S, OR BLM S, USFS S, CR, MIS	Known to occur in Segment 3
Williamson's sapsucker	*Sphyrapicus thyroideus*	MIS	Known to occur on the Wallowa-Whitman National Forest
Willow flycatcher	*Empidonax trailii*	ID BLM S	May occur in Segment 6
Mammals			
American marten	*Martes americana*	SV, MIS	Known to occur in Segment 2
Bighorn sheep	*Ovis canadensis spp.*	ID BLM S, ID SGCN	Known to occur in Segment 6
Big brown bat	*Eptesicus fuscus*	ID BLM S	Known to occur in Segment 6
California myotis	*Myotis californicus*	ID BLM S, SV	Known to occur in Segment 3
Canyon bat	*Perimyotis hesperus*	ID BLM S	Known to occur in Segment 6
Columbia plateau ground squirrel	*Spermophilus canus*	ID SGCN	May occur in Segment 6
Fringed myotis	*Myotis thysanodes*	ID BLM S, OR BLM S, USFS S, SV	Known to occur in Segments 1, 2, and 3
Gray wolf	*Canis lupus*	USFWS DL (east of US 395 in Project area in Oregon), USFWS E (west of US 395 in Project area in Oregon), OR BLM S, ID BLM S, USFS S	Known to occur in Segments 1 and 2

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Hoary bat	*Lasiurus cinereus*	ID SGCN	May occur in Segment 6
Little brown bat	*Myotis lucifugus*	ID BLM S, ID SGCN	Known to occur in Segment 6
Long-legged myotis	*Myotis volans*	SV, ID BLM S	Known to occur in Segments 2and 3
Merriam's ground squirrel	*Spermophilus canus vigilis*	ID BLM S	Known to occur in Segment 6
Pallid bat	*Antrozous pallidus*	ID BLM S, OR BLM S, SV	Known to occur in Segments 1, 3, 4, and 6
Piute ground squirrel	*Urocitellus mollis*	ID BLM S	Known to occur in Segment 6
Pygmy rabbit	*Brachylagus idahoensis*	ID BLM S, ID SGCN, OR BLM S	Known to occur in Segment 5
Rocky Mountain elk	*Cervus canadensis nelson*	MIS	Known to on the Wallowa-Whitman National Forest
Silver-haired bat	*Lasionycteris noctivagans*	ID BLM S, ID SGCN, SV	Known to occur in Segments 1, 2, 3, 4, and 5
Spotted bat	*Euderma maculatum*	ID BLM S, OR BLM S, USFS S, SV	Known to occur in Segment 6
Townsend's big-eared bat	*Corynorhinus townsendii*	ID BLM S, ID SGCN, OR BLM S, USFS S, CR	Known to occur in Segments 2, 3, and 4
Washington ground squirrel	*Spermophilus washingtoni*	OR BLM S, SE	Known to occur in Segment 1
Western small-footed myotis	*Myotis ciliolabrum*	ID BLM S, ID SGCN	Known to occur in Segment 6
White-tailed jackrabbit	*Lepus townsendii*	SV	Known to occur in Segments 2, 3, and 5
Invertebrates			
Alpine tiger beetle	*Cicindela plutonica*	ID SGCN	May occur in Segment 6
Blue mountainsnail	*Oreohelix strigose delicata*	USFS S	May occur in Segment 1, 2, and 3
California floater	*Anodonta californiensis*	USFS S	May occur in Segment 1, 2, and 3
Columbia Oregonian	*Cryptomastix hendersoni*	USFS S	May occur in Segment 1, 2, and 3
Columbia pebblesnail	*Fluminicola fuscus*	USFS S	May occur in Segment 1, 2, and 3
Crooked Creek springsnail	*Pyrgulopsis intermedia*	OR BLM S	May occur in Segment 5
Duckhead snowfly	*Capnura anas*	ID SGCN	May occur in Segment 6
Fir pinwheel	*Radiodiscus abietum*	USFS S	May occur in Segment 2
Hunt's bumble bee	*Bombus huntii*	ID SGCN	May occur in Segment 6
Intermountain sulphur	*Coliaschristina pseudochristina*	OR BLM S, USFS S	Known to occur in Segment 3
Jackson Lake springsnail	*Pyrgulopsis robusta*	OR BLM S	May occur in Segment 1
Johnson's hairstreak	*Callophrys johnsoni*	USFS S	Known to occur in Segments 2 and 3
Lined june beetle	*Polyphylla devestiva*	ID SGCN	May occur in Segment 6
Morrison bumble bee	*Bombus morrisoni*	ID SGCN	May occur in Segment 6

Table B1-4 Sensitive Species and USFS Management Indicator Species Likely to Occur in the B2H Project Area			
Common Name	**Scientific Name**	**Status**	**Likelihood of Occurrence**
Owyhee springsnail	*Pyrgulopsis owyheensis*	OR BLM S	Known to occur in Segment 5
Owyhee hot springsnail	*Pyrgulopsis fresti*	OR BLM S	May occur in Segment 5
Poplar Oregonian	*Cryptomastix populi*	OR BLM S, USFS S	May occur in Segment 2
Raptor fairy shrimp	*Branchinecta raptor*	ID SGCN	May occur in Segment 6
Shortface lanx	*Fisherola nuttali*	USFS S	May occur in Segment 1, 2, and 3
Shiny tightcoil	*Pristiloma wascoense*	USFS S	May occur in Segment 1, 2, and 3
Silver-bordered fritillary	*Boloria selene*	OR BLM S, USFS S	May occur in Segment 2 and 3
Western bumblebee	*Bombus occidentalis*	USFS S, OR BLM S	Known to occur in Segments 1, 2 and 3
Western ridged mussel	*Gonidea angulata*	ID SGCN, OR BLM S, USFS S	Known to occur in Segment 1
Fish			
Redband trout	*Oncorhynchus mykiss gairdneri*	OR BLM S, USFS S, MIS, SV	Known to occur in Segments 1-6
Pacific lamprey	*Entosphenus tridentatus*	SV	Known to occur in Segments 1, 2, and 3

Status Designations

BGEPA = Bald and Golden Eagle Protection Act
CR = State Critical (Oregon)
ID BLM S = Idaho Bureau of Land Management Sensitive
ID SGCN = Idaho Species of Greatest Conservation Need
MIS = Management Indicator Species
OR BLM S = Oregon Bureau of Land Management Sensitive
SC = State Candidate (Oregon)
SE = State Endangered (Oregon)
ST = State Threatened (Oregon)
SV = State Vulnerable (Oregon)
USFS S = U.S. Forest Service Sensitive
USFWS C = Candidate for listing under the Federal Endangered Species Act
USFWS DL = Delisted under the Federal Endangered Species Act
USFWS E = Endangered under the Federal Endangered Species Act
USFWS P = Proposed for listing under the Federal Endangered Species Act
USFWS T = Threatened under the Federal Endangered Species Act

B1.3.5.1 Sensitive Plant Species

Background and Habitat Requirements

Generally, sensitive plant species identified in the EIS are local or regional endemics with narrow habitat requirements or restricted geographic extents. However, some sensitive plant species are more broadly distributed and the occurrences in the Project area represent the extreme edge of the species' distribution. The life histories of the sensitive plant species identified in the EIS vary and include long-lived perennial grasses, annual forbs, and bryophytes.

Status of the Species in the Project Area and Survey Results

The known occurrences of sensitive plant species identified in the EIS represent the best available data, but do not accurately depict the distribution and location of all sensitive plant species in the Project area. Pedestrian surveys will be conducted prior to the completion of the POD to accurately determine the

location and number of sensitive plant species in proximity to the Project. Survey results will be added when the surveys have been completed.

Results of Environmental Impact Statement Analysis and Degree of Allowable Impacts

Loss of individuals, destruction of habitat, and habitat degradation through introduction of invasive plants, reduction in patch size and connectivity, alteration of hydrologic regimes, or dust deposition were identified as potential impacts on sensitive plant species and analyzed in the EIS. The EIS also identified impacts that could occur at a population and species level including: reduced viability of local populations, loss of local populations, or contribution to the need to list the species under the ESA.

The magnitude of impacts on sensitive plant species was considered in the selection of a route through the EIS process. Additionally, the EIS considered the application of several Project design features and selective mitigation measures aimed to limit the extent of surface-disturbance in sensitive plant species habitats, avoid loss or other adverse effects to individuals, prevent the spread and establishment of invasive plants, and determine the exact location of sensitive plants are expect to reduce and minimize residual impacts on sensitive plant species.

Monitoring Requirements

Construction monitoring and resource monitoring to verify that the results of the surveys conducted to inform the engineering design and POD are accurate at the time of construction will be required for all sensitive plant species identified in the EIS. Monitoring requirements will be added or updated when the surveys have been completed.

B1.3.6 Migratory Birds Including Raptors

Impacts on migratory birds including raptors were identified as an issue for the Project during the EIS process. Nearly all bird species are protected under the MBTA, and many species are managed as sensitive species by the BLM and USFS. Compliance with the MBTA is required as a condition of the BLM right-of-way grant, USFS special-use authorization, Executive Order 13186, BLM MOU WO-230-2010-04, and Forest Service Agreement #08-MU-1113-2400-264. Furthermore, damage or destruction of any migratory bird, part, nest, or egg of such bird may be punishable under law. The MBTA applies to many bird species, including raptors, and protects them from prohibited activities during construction, operation, and maintenance of the Project. Eagles are afforded additional protections under the Bald and Golden Eagle Protection Act. See Attachment C, Migratory Bird Nest Management, Monitoring, and Reporting Plan Framework.

B1.3.6.1 Results of the Environmental Impact Statement Analysis and the Degree of Allowable Impacts

The measures implemented to protect migratory birds must be sufficient to avoid take of migratory birds, including raptors, their nests, and their young. The MBTA defines take as to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect. (50 CFR 10.12).

Additionally, the measures implemented to protect migratory birds, including raptors, should minimize the effects on important migratory bird habitats, including areas around nest sites. The design features of the Project for environmental protection and selective mitigation measures implemented to avoid and reduce impacts on migratory birds and their habitats are consistent with the minimization of impacts required under the mitigation hierarchy.

B1.3.7 Big Game Seasonal Habitats

Resource inventories performed for the Project EIS identified the following important big game seasonal habitats that could be affected by the Project:

Elk

- Oregon- Winter range
- Idaho- Not applicable

Mule Deer

- Oregon- Winter range
- Idaho- Winter range

Pronghorn

- Oregon- Winter range
- Idaho- Winter range

Bighorn Sheep

- Oregon- Occupied habitat
- Idaho- Core herd home range, population management units, and lambing areas

B1.3.7.1 Results of the Environmental Impact Statement Analysis and the Degree of Allowable Impacts

The ODFW requires compensatory mitigation for impacts on big game but the IDFG does not. The BLM and USFS need to comply with Oregon State laws and ODFW regulations. The agencies typically comply with these requirements by designing actions they authorize to avoid disturbing big game habitats during critical periods. In areas where complete avoidance of big game habitats is not feasible, the agencies are required to minimize the impacts to the extent possible and compensate or offset impacts that will not be in compliance with agency management guidelines.

The design features of the Project for environmental protection and selective mitigation measures implemented to avoid and reduce impacts on big game animals and their habitats are consistent with the avoidance and minimization of impacts required under the mitigation hierarchy.

B1.4 Biological Resource Mitigation Measures

This section of the plan describes mitigation measures (derived from design features of the Project for environmental protection and selective mitigation measures developed for the Project and included in the EIS and expanded upon through consultation with agencies) that must be implemented for each biological resource. The measures for each resource have been developed through use of the BLM's mitigation hierarchy to avoid, minimize and offset resource impacts. All mitigation actions must follow the mitigation hierarchy. The primary objective is to avoid impacts on each resource. For transmission line projects, this typically involves altering the placement of structures, work areas, and other project features to avoid affecting environmental resources. Minimizing impacts on the resource to the extent possible is the BLM's primary objective where avoidance is not possible. Minimizing impacts on environmental resources for transmission line projects is also typically accomplished by altering the placement of structures, work areas, and other Project features. Restoration of habitat disturbed by the Project also can help achieve minimization of impacts. Where avoidance and minimization are not sufficient to achieve legal requirements or agency objectives for specific resources, additional mitigation is required (beyond what has been identified for biological resources in the EIS). The objective of this additional mitigation is to compensate for or offset the impact for which mitigation is being required. This additional mitigation

may include actions such as enhancement of habitat for a species at a site not affected, purchase of habitat under threat, or other actions that benefit the resource affected. In addition to mitigation measures presented here, reclamation of vegetation communities and associated wildlife habitat and range will be implemented, as described in Appendix C1- Reclamation, Revegetation, and Monitoring Plan Framework.

For each biological resource discussed below, this section provides the level of the mitigation hierarchy that the specific measures are intended to achieve and measures that must be followed to achieve adequate mitigation. For some resources, this section also identifies levels or amounts of acceptable impact and thresholds that must be met during the construction, operation, and maintenance of the Project.

B1.4.1 Loss and Fragmentation of Native Vegetation Communities

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. For some high value vegetation communities, specific avoidance measures are required by agency policy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce the loss and fragmentation of native vegetation communities throughout the B2H Project area include:

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 2 (Environmental Training for All Personnel).** Prior to construction, the CIC would instruct all personnel on the protection of ecological and natural resources, such as (a) federal and state laws regarding special status plants, including collection and removal; (b) the importance of ecological and natural resources; (c) the purpose and necessity of protecting ecological and natural resources; and (d) reporting and procedures for stop work. This design feature would minimize effects on special status plant habitats and populations.
- **Design Feature 5 (Spatial Extent of Construction Activities).** The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. This design feature would minimize effects on vegetation resources by restricting disturbance to a predefined extent.
- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but may not be limited to, returning disturbed areas to their natural contour, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-managing agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description.
  - In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval. This design feature would minimize effects on vegetation resources by preventing permanent loss of vegetation communities and reducing indirect effects associated with weed invasion and degradation of special status plant habitat.

- **Design Feature 7 (Salvage Topsoil for Revegetation).** In work areas where ground-disturbing activities would occur, topsoil would be salvaged and segregated prior to construction, to be redistributed and contoured evenly over the surface of the disturbed area to be removed following completion of construction. The soil surface would be seeded with an agency- or landowner-approved seed mix and left rough to help reduce the potential for erosion and loss of seeded surface as specified in the reclamation plan. This design feature would minimize effects on vegetation communities by preserving the seedbank and preventing permanent loss of vegetation communities.
- **Design Feature 8 (Overland Travel in Construction Work Areas).** Grading would be minimized by driving overland in areas approved in advance by the land-managing agency or land owner, or both, in predesignated work areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) whenever possible. This would minimize effects on vegetation resources by minimizing disturbance.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-Way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, or overland travel routes approved in advance by the applicable land-managing agency or landowner. This would minimize effects on vegetation resources by minimizing disturbance and reducing the potential of weed invasion.
- **Design Feature 15 (Reduce Impacts on Riparian Areas).** Consistent with the BLM and USFS riparian management policies, surface-disturbing activities would be avoided in defined segments of RCAs, using the following delineation criteria, unless exception criteria defined by the BLM are met or with agency approval of acceptable measures to protect riparian resources and habitats by avoiding or minimizing stormwater runoff, sedimentation, and disturbance of riparian vegetation, habitats, and wildlife species:
  - Fish-bearing streams: 300 feet slope distance on either side of the stream, or to the extent of additional delineation criteria, whichever is greatest.
  - Perennial non-fish-bearing streams: 150 feet slope distance on either side of the stream, or to the extent of additional delineation criteria, whichever is greatest.
  - Ponds, lakes, reservoirs, and wetlands greater than 1 acre: 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs or from the edge of the wetland, pond, or lake, or to the extent of additional delineation criteria, whichever is greatest.
  - Intermittent or seasonally flowing streams and wetlands less than 1 acre: In watersheds that support ESA-listed fish species or designated critical habitat, or both, 100 feet slope distance from the edge of the stream channel or wetland to the outer edge of riparian vegetation, whichever is greatest. In watersheds that do not have current documented presence of ESA-listed fish species and /or designated critical habitat, 50 feet slope distance from the edge of the stream channel or wetland to the outer edge of riparian vegetation, whichever is greatest.

  Mitigation measures, such as micro-siting road locations, would be developed on a site-specific basis, in consultation and coordination with the BLM and other federal land-managing agencies, and incorporated into the POD. This would minimize effects on vegetation resources by minimizing disturbance to sensitive vegetation communities.
- **Design Feature 16 (Span Riparian Communities/Water Courses).** Based on biological resources surveys and results of Section 7 consultation, state and federally designated sensitive plants, habitat, wetlands, riparian areas, springs, wells, water courses, or rare/slow regenerating vegetation communities would be flagged and structures would be placed to allow spanning of these features, where feasible, within the limits of standard structure design. This would minimize effects on vegetation resources by minimizing disturbance to sensitive vegetation communities.

- **Design Feature 17 (Work during Wet Periods).** If work were required during wet periods with saturated soil conditions, vehicles would not be allowed to travel when soils are moist enough for deep rutting (4 or more inches deep) to occur unless prefabricated equipment pads (matting) was installed over the saturated areas or other measures were implemented to prevent rutting. Equipment with low-ground-pressure tires, wide tracks, or balloon tires would be used when possible. This would minimize effects on sensitive vegetation resources by reducing soil disturbance or alterations to hydrologic regimes.
- **Design Feature 20 (Reduce Potential for Aquatic Invasive Species).** Interagency-developed methods of avoidance, inspection, and sanitization as described in the Operational Guidelines for Aquatic Invasive Species Prevention and Equipment Cleaning (USFS 2009) would be adhered to. If control of fugitive dust near sensitive waterbodies is necessary, water would be obtained from treated municipal sources or drafted from sources known to contain no aquatic invasive species. Support vehicles, drill rigs, water trucks, and drafting equipment would be inspected and sanitized, as needed, following interagency-approved operational guidelines. This design feature would minimize effects on sensitive vegetation resources by reducing the potential for weed introductions to sensitive vegetation communities.
- **Selective Mitigation Measure 2 (Use Existing Access or Stream Crossing, or both, for Sensitive Resources Avoidance).** For all streams, regardless of fish presence, existing access or stream crossings, or both, will be used as much as possible/practicable for construction and maintenance to avoid disturbance of sensitive resources crossed by the B2H Project. Minimizing ground-disturbing construction activities in the vicinity of fish-bearing streams will limit soil disturbance, thereby minimizing the potential for increased erosion and sedimentation. Where applied, this measure is expected to reduce impacts on fish resources by limiting disturbance associated with new access roads.
- **Selective Mitigation Measure 3 (Use of Matting [Stabilization] in Sensitive Resource Areas)**. To minimize ground disturbance in sensitive vegetation areas, matting or another similar practice for ground stabilization could be used for B2H Project access and work areas. Where applied, this measure is expected to reduce impacts on sensitive vegetation communities by limiting soil disturbance that could result in alterations to hydrologic regimes or noxious weed invasion.
- **Selective Mitigation Measure 5 (Minimize Vegetation Clearing for Operational Clearances).** For all areas, regardless of species presence, removal of vegetation in the right-of-way will be minimized to limit disturbance to timber resources and slow-growing vegetation communities and protect sensitive habitat, subject to structure and conductor clearance requirements. Trees and other vegetation will be removed selectively (e.g., edge feathering) to blend the edge of the right-of-way into adjacent vegetation patterns, as practicable and appropriate. Minimizing vegetation clearing also reduces the potential for erosion and potential sedimentation in nearby fish-bearing streams.

B1.4.2 ESA-listed Species

This section contains conservation/mitigation measures for each ESA-listed plant and wildlife species developed through the EIS and expanded upon during the Section 7 consultation process. Compliance with the measures in this section is required to comply with the ESA and as a condition of the BLM right-of-way grant and USFS special-use authorization. Furthermore, damage or destruction of ESA-listed plants, wildlife, fish or their habitats not specifically authorized by the NOAA Fisheries or USFWS may be punishable under law.

B1.4.2.1 Endangered Species Act-listed Steelhead and Salmon

The conservation measures for MCR steelhead, SRB steelhead, and Snake River spring/summer-run Chinook salmon, developed through the Section 7 consultation process and included in the BA for the

National Oceanic and Atmospheric Administration (NOAA) Fisheries are provided below. The conservation measures are consistent with the conservation measures developed through the EIS process and the avoidance of impacts required under the mitigation hierarchy.

Conservation Measures

- **Design Feature 2 (Environmental Training for All Personnel).** Prior to construction, the compliance inspection contractor will instruct all personnel on the protection of cultural, paleontological, ecological, and other natural resources. At a minimum, this instruction will include the following topics:
  - federal and state laws regarding antiquities, paleontological resources, and plants and wildlife, including collection and removal
  - the importance of antiquities, paleontological resources, and plants and wildlife
  - the purpose and necessity of protecting antiquities, paleontological resources, and plants and wildlife
  - the conservation measures/BMPs that must be implemented to protect antiquities, paleontological resources, and plants and wildlife
  - reporting and procedures for stop work

  This instruction is mandatory in order to educate all construction and maintenance personnel on the requirements for environmental protection during construction and for maintenance activities set forth in the POD, with the intent of avoiding, minimizing, reducing, or eliminating effects on the environment.
- **Design Feature 5 (Spatial Extent of Construction Activities).** The spatial limits of construction activities, including vehicle movement, will be predetermined with activity restricted to and confined within those limits.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-way).** All vehicle movement outside the right-of-way will be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-managing agency or landowner. Access routes or stream crossings that have the potential to affect streams with ESA-listed species or their designated critical habitat will be reviewed and approved by the cooperating agencies and the NOAA Fisheries.
- **Design Feature 15 (Reduce Impacts on Riparian Areas).** Consistent with BLM and USFS riparian management policies, surface-disturbing activities will be avoided in defined segments of RCAs[1], using the following delineation criteria:
  - Fish-bearing streams: a 300-foot slope distance on either side of the stream, or to the extent of additional delineation criteria, whichever is greatest
  - Perennial non-fish-bearing streams: a 150-foot slope distance on either side of the stream, or to the extent of additional delineation criteria, whichever is greatest
  - Ponds, lakes, reservoirs, and wetlands greater than 1 acre: a 150-foot slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs, or from the edge of the wetland, pond or lake, or to the extent of additional delineation criteria, whichever is greatest
  - Intermittent or seasonally flowing streams and wetlands less than 1 acre: In watersheds that support ESA-listed fish species or designated critical habitat, a 100-foot slope distance from the edge of the stream channel or wetland to the outer edge of riparian vegetation, whichever is

[1] Distances represent default RCA widths recommended in PACFISH and are consistent with PACFISH (BLM/USFS 02/24/1995) and INFISH (USFS 07/28/1995) biological opinions and the Updated Interior Columbia Basin Strategy–Memorandum #1920 (BLM/EPA/FS/USFWS/NOAA Fisheries 4/18/2014).

greatest. In watersheds that do not have current, documented presence of ESA-listed fish species or designated critical habitat, a 50-foot slope distance from the edge of the stream channel or wetland to the outer edge of riparian vegetation, whichever is greatest

All RCA widths and any additional delineation criteria would meet or exceed those included in the PACFISH (BLM/USFS 02/24/1995) and INFISH (USFS 07/28/1995) biological opinions.

Mitigation measures, such as micro-siting road locations, will be developed on a site-specific basis, in coordination with the BLM and other federal land-managing agencies and will be incorporated into the final POD. This will reduce potential for direct and indirect impacts on riparian areas and the vegetation, fish, and wildlife habitats associated with them by avoiding, minimizing, reducing, and/or eliminating over time modification of these areas through development of site-specific mitigation.

- **Design Feature 17 (Work During Wet Periods).** If work is required during wet periods with saturated soil conditions, vehicles will not be allowed to travel when soils are moist enough for deep rutting (4 or more inches deep) to occur unless prefabricated equipment pads (matting) are installed over the saturated areas or other measures are implemented to prevent rutting. Equipment with low-ground-pressure tires, wide tracks, or balloon tires will be used when possible. This will avoid, minimize, and/or reduce potential for impacts on riparian and soil resources by avoiding work in these areas during wet periods and/or by taking measures that will reduce and minimize disturbance of these areas if work in them cannot be avoided during wet periods.
- **Design Feature 18 (Crossing of Dry Washes).** Crossings of dry washes will be made during dry conditions, when possible. Repeated crossings will be limited to the extent possible but will be constrained to the same location with appropriate stabilization to reduce erosion potential. This will avoid and minimize potential for impacts on water quality and stream structure and function by limiting crossing periods and the frequency of the crossings.
- **Design Feature 20 (Reduce Potential for Aquatic Invasive Species).** Interagency-developed methods of avoidance, inspection, and sanitization as described in the *Operational Guidelines for Aquatic Invasive Species Prevention and Equipment Cleaning* (USFS 2009) will be adhered to. If control of fugitive dust near sensitive waterbodies is necessary, water will be obtained from treated municipal sources or drafted from sources known to contain no aquatic invasive species. Support vehicles, drill rigs, water trucks, and drafting equipment will be inspected and sanitized, as necessary, following interagency-approved operational guidelines. This will avoid, reduce, and/or minimize the potential for spread of aquatic invasive species through adherence with methods to prevent the transport of these invasive species during construction activities associated with the B2H Project.
- **Selective Mitigation Measure 1 (Limit Widening of Existing Roads in Areas of Sensitive Soils, Vegetation, and/or Stream Crossing).** In areas where soils, vegetation, and/or streams are sensitive to disturbance, existing roads will be used for construction access and/or B2H Project maintenance will not, as much as possible/practicable, be widened or otherwise upgraded except in necessary areas to make existing roads passable and safe.
- **Selective Mitigation Measure 2 (Use Existing Access or Stream Crossing, or both, for Sensitive Resources Avoidance).** For all streams, regardless of fish presence, existing access or stream crossings, or both, will be used as much as possible/practicable for construction and maintenance to avoid disturbance of sensitive resources crossed by the B2H Project. Minimizing ground-disturbing construction activities in the vicinity of fish-bearing streams will limit soil disturbance, thereby minimizing the potential for increased erosion and sedimentation. Where applied, this measure is expected to reduce impacts on fish resources by limiting disturbance associated with new access roads.

- **Selective Mitigation Measure 5 (Minimize Vegetation Clearing for Operational Clearances).** For all areas, regardless of species presence, removal of vegetation in the right-of-way will be minimized to limit disturbance to timber resources and slow-growing vegetation communities and protect sensitive habitat, subject to structure and conductor clearance requirements. Trees and other vegetation will be removed selectively (e.g., edge feathering) to blend the edge of the right-of-way into adjacent vegetation patterns, as practicable and appropriate. Minimizing vegetation clearing also reduces the potential for erosion and potential sedimentation in nearby fish-bearing streams.
- **Selective Mitigation Measure 8 (Span and/or Avoid Sensitive Features).** Transmission line structures, work areas, new access roads, and other B2H Project features will avoid waterways that support ESA-listed fish species, critical habitat, or RCAs of waterways that support ESA-listed fish species. This could be accomplished through methods such as selective placement of B2H Project features, spanning waterways, or realigning the B2H Project centerline (micro-siting).
- **ESA-listed Fish Conservation Measure 1:** All waterways supporting ESA-listed fish and critical habitat will be spanned by all B2H Project features (B2H Project features include, but are not limited to, transmission line structures and access roads).
- **ESA-listed Fish Conservation Measure 2:** No in-water work will occur in waterways supporting ESA-listed fish or critical habitat.
- **ESA-listed Fish Conservation Measure 3:** No surface water withdrawals or additional water rights will be required for the B2H Project, including in waterways supporting ESA-listed fish or critical habitat.
- **ESA-listed Fish Conservation Measure 4 (Roadway/Stormwater Management).** During the construction of access roads, BLM and USFS road construction standards and Oregon DEQ 1200-C permit stormwater and erosion control conservation measures and BMPs will be followed. These include, but are not limited to, the following:
  - Road Location
    - Locate temporary and permanent roads and landings on stable locations, (e.g., ridge tops, stable benches or flats, and gentle-to-moderate side slopes). Minimize construction on steep slopes, slide areas, and high landslide hazard locations.
    - Locate temporary and permanent road construction or improvement to minimize the number of stream crossings.
    - Avoid locating roads and landings in wetlands, RCAs, floodplains, and waters of the state.
    - Avoid locating landings in areas that can contribute to dry draws and swales.
    - Locate roads and landings to minimize total transportation system mileage. Renovate or improve existing roads or landings when it would cause less adverse environmental impact. Where roads traverse land in another ownership, investigate options for using those roads before constructing new roads.
  - Road Design
    - Design road cut and fill slopes with stable angles in order to minimize erosion and prevent slope failure.
    - Construct road fills to prevent fill failure using inorganic material, compaction, buttressing, subsurface drainage, rock facing, or other effective means.
    - Design roads crossing low-lying areas so that water does not pond on the upslope side of the road. Provide cross drains at short intervals to ensure free drainage.
  - Waterway Crossing

- Completely span waterways that support ESA-listed fish or that are designated as critical habitat, or both.
- For fish-bearing waterways that do not support ESA-listed fish or waterways that are not designated as critical habitat, use no-fill structures (e.g., portable mats, temporary bridges, or improved hardened crossings) for temporary stream crossings when practicable. When not practicable, design temporary stream crossings with the least amount of fill and construct with coarse material to facilitate removal upon completion (see Design Feature 18).

– Stormwater/Drainage

- Install underdrain structures when roads cross or expose springs, seeps, or wet areas rather than allowing intercepted water to flow down gradient in ditch lines.
- Effectively drain the road surface by using crowning, insloping or outsloping, grade reversals (rolling dips), and waterbars, or a combination of these methods. Avoid concentrated discharge onto fill slopes unless the fill slopes are stable and erosion proofed.
- Outslope temporary and permanent low-volume roads to provide surface drainage on road gradients up to 6 percent unless there is a traffic hazard from the road shape.
- Consider using broad-based drainage dips and/or leadoff ditches in lieu of cross drains for low-volume roads. Locate these surface water drainage measures where they will not drain into wetlands, floodplains, and waters of the state.
- Avoid use of outside road berms unless designed to protect road fills. If road berms are used, breach to accommodate drainage where fill slopes are stable. A road berm will be used within an RCA only if the berm helps to avoid or minimize impacts on fish habitat.
- Divert road and landing runoff water away from headwalls, slide areas, high landslide hazard locations, or steep erodible fill slopes.
- Design landings to disperse surface water to vegetated stable areas.
- Disconnect road runoff to stream channels by outsloping the road approach. If outsloping is not possible, use runoff control, erosion control, and sediment containment measures. These may include using additional cross drain culverts, ditch lining, and catchment basins.
- Minimize ditch flow conveyance to streams through cross drain placement above stream crossing.
- Locate cross drains to prevent or minimize runoff and sediment conveyance to wetlands, RCAs, floodplains, and waters of the state. Implement sediment reduction techniques, such as settling basins, brush filters, sediment fences, and check dams, to prevent or minimize sediment conveyance.

– Sediment/Erosion Control

- Locate waste disposal areas outside of wetlands, RCAs, floodplains, and unstable areas to minimize risk of sediment delivery to waters of the state. Apply surface erosion control prior to the wet season. Prevent overloading areas that may become unstable.
- Phase clearing and grading to the maximum extent practicable to prevent exposed inactive areas from becoming sources of erosion.
- Preserve existing vegetation and revegetate open areas when practical.
- Use temporary sediment control measures (e.g., check dams, silt fencing, bark bags, filter strips, and mulch) to slow runoff and contain sediment from road construction areas. Remove any accumulated sediment and the control measures when work or haul is complete. When long-term structural sediment control measures are incorporated, remove any accumulated sediment to retain capacity of the control measure.

- Limit road and landing construction, reconstruction, or renovation activities to the dry season. Ensure erosion control measures are properly functioning and that additional erosion control measures are on-site to allow for immediate storm-proofing if necessary.
- Apply native seed and certified weed-free mulch to cut and fill slopes, ditch lines, and waste disposal sites with the potential for sediment delivery to wetlands, RCAs, floodplains, and waters of the state. Apply upon completion of construction and as early as possible to increase germination and growth. Re-seed if necessary to accomplish erosion control. Select seed species that are fast growing and provide ample ground cover and soil-binding properties. Apply mulch that will stay in place and at site-specific rates to prevent erosion.
- Place sediment-trapping materials or structures, such as straw bales, jute netting, or sediment basins, at the base of newly constructed fill or side slopes where sediment could be transported to waters of the state. Keep materials away from culvert outlets.
- Use biotechnical stabilization and soil bioengineering techniques to control bank erosion (e.g., commercially produced matting and blankets, native live plants or cuttings, dead plant material, rock, or other inert structure).
- Suspend ground-disturbing activity if projected/forecasted rain will saturate soils to the extent that there is potential for movement of sediment from the road to wetlands, floodplains, or waters of the state (see Design Feature 17). Cover or temporarily stabilize exposed soils during work suspension. Upon completion of ground-disturbing activities, immediately stabilize fill material over stream-crossing structures. Measures could include but not be limited to erosion control blankets and mats, soil binders, soil tackifiers, and slash placement.

– Wind Erosion/Dust Control

- Apply water as needed to avoid wind-blown soil.
- When conducting erosion control measures, apply fertilizer in a manner to prevent direct fertilizer entry to wetlands, RCAs, floodplains, or waters of the state.
- Stormproof open resource roads receiving infrequent maintenance to reduce road erosion and reduce the risk of washouts by concentrated water flows. Stormproof temporary roads if retained overwinter.
- At the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters.
- Suspend storm-proofing/decommissioning operations and cover or otherwise temporarily stabilize all exposed soil if conditions develop that cause a potential for sediment-laden runoff to enter a wetland, floodplain, or waters of the state. Resume operations when conditions allow turbidity standards to be met.
- Remove snow on haul roads in a manner that will protect roads and adjacent resources. Retain a minimum layer (2 to 4 inches) of compacted snow on the road surface. Provide drainage through the snow bank at periodic intervals to allow for snow melt to drain off the road surface.
- Maintain road surface by applying appropriate gradation of aggregate and suitable particle hardness to protect road surfaces from rutting and erosion under active haul activities where runoff drains to wetlands, RCAs, floodplains, or waters of the state.

– BMP Maintenance

- Establish and promptly implement procedures for maintenance and repair of erosion and sediment control measures.

- **ESA-listed Fish Conservation Measure 5 (Staging).** Consistent with ARBO II, the following measures will minimize effects from staging areas:
  - Establish staging areas for storage of vehicles, equipment, and fuels to minimize erosion into, or contamination of, streams and floodplains.
  - Place staging areas 300 feet or more from any natural waterbody or wetland in areas where topography does not restrict such a distance unless the B2H Project Engineer determines that topographic restrictions or other site characteristics necessitate the placement of a staging site use closer to the edge of a natural waterbody/wetland.
  - For staging areas closer than 300 feet to the edge of a natural waterbody/wetland, sediment and pollution control measures will be put in place before and during staging activities to protect the natural waterbody/wetland. Staging areas closer than 300 feet will be approved by an agency biologist before staging occurs.
- **ESA-listed Fish Conservation Measure 6 (Solid Waste and Hazardous Materials Management).** Implement the following BMPs when applicable:
  - written spill prevention and response procedures
  - employee training on spill prevention and proper disposal procedures
  - spill kits in all vehicles
  - regular maintenance schedule for vehicles and machinery
  - material delivery and storage controls, training and signage, and covered storage areas for waste and supplies
  - hazardous materials will be stored per state law guidelines (e.g., secondary containment)
- **ESA-listed Fish Conservation Measure 7 (Heavy Equipment Use).** Consistent with ARBO II, the following measures will minimize effects from heavy equipment use:
  - Choice of equipment—Heavy equipment will be commensurate with the B2H Project and will be operated in a manner that minimizes adverse effects on the environment (e.g., minimally sized, low-pressure tires, minimal hard turn paths for tracked vehicles, and temporary mats or plates within wet areas or sensitive soils)
  - The fueling, cleaning, and inspection for petroleum products and invasive weeds will be implemented as follows:
  - Store and fuel equipment in staging areas after daily use.
  - Inspect daily for fluid leaks before leaving the vehicle staging area for operation.
- **ESA-listed Fish Conservation Measure 8 (Concrete).** Consistent with ARBO II, no uncured concrete or form materials will be allowed to enter active stream channels.
- **ESA-listed Fish Conservation Measure 9 (Herbicides).** Chemical control of vegetation or noxious weeds will use BLM- or USFS-approved herbicides on all federally, state, or privately owned lands. Table B1-5 lists all herbicides approved for B2H Project use and the lands allowing their use.

Table B1-5
Herbicides Approved for B2H Project Use by Jurisdiction

Herbicide	BLM-Administered Lands	USFS-Administered Lands	All Other Lands
2,4-D	✓		✓
Aminopyralid	✓		✓
Chlorsulfuron	✓	✓	✓
Clopyralid	✓	✓	✓
Dicamba	✓		✓
Diflufenzopyr + Dicamba	✓		✓
Fluridone	✓		✓
Fluroxypyr	✓		✓
Glyphosate	✓	✓	✓

Table B1-5 Herbicides Approved for B2H Project Use by Jurisdiction			
Herbicide	**BLM-Administered Lands**	**USFS-Administered Lands**	**All Other Lands**
Hexazinone	✓		✓
Imazapic	✓	✓	✓
Imazapyr	✓	✓	✓
Metsulfuron Methyl	✓	✓	✓
Picloram	✓	✓	✓
Rimsulfuron	✓		✓
Sethoxydim		✓	✓
Sulfometuron Methyl	✓	✓	✓
Triclopyr	✓	✓	✓

The following conservation measures/BMPs for herbicide use are similar or identical to those outlined in ARBO II (NMFS 2013a) and will be incorporated into a B2H Project-specific herbicide plan that meets state and federal requirements.

- General Guidance
  - Use herbicides only in an integrated weed or vegetation management context where all treatments are considered and various methods are used individually or in concert to maximize the benefits while reducing the undesirable effects.
  - Carefully consider herbicide impacts on fish, wildlife, nontarget native plants, and other resources when making herbicide choices.
  - Treat only the minimum area necessary for effective control. Herbicides may be applied by selective, hand-held, backpack, or broadcast equipment in accordance with state and federal law and only by certified and licensed applicators to specifically target invasive plant species.
  - Herbicide application rates will follow label directions, unless site-specific analysis determines a lower maximum rate is needed to reduce nontarget impacts.
  - An herbicide safety/spill response plan is required for all projects to reduce the likelihood of spills and misapplication, to reduce potential for unsafe practices, and to take remedial actions in the event of spills. Spill plan contents will follow agency direction.
  - Pesticide applicator report must be completed within 24 hours of application.
- Herbicide Adjuvants—When recommended by the label, an approved aquatic surfactant will be used to improve uptake. The surfactants R-11, Polyethoxylated tallow amine (POEA), and herbicides that contain POEA (e.g., Roundup) will not be used.
- Herbicide Carriers—Herbicide carriers (solvents) are limited to water or specifically labeled vegetable oil.
- Herbicide Mixing—Herbicides will be mixed more than 150 feet from any natural waterbody to minimize the risk of such an accidental discharge. Impervious material will be placed beneath mixing areas in such a manner as to contain any spills associated with mixing/refilling. Spray tanks shall be washed farther than 300 feet away from surface water. All hauling and application equipment shall be free from leaks and operating as intended.
- Herbicide Application Methods – Liquid forms of herbicides will be applied as follows:
  - Broadcast spraying using booms mounted on ground-based vehicles (this consultation does not include aerial applications).
  - Spot spraying with hand-held nozzles attached to backpack tanks or vehicles and hand-pumped sprayers to apply herbicide directly onto small patches or individual plants.
  - Hand/selective through wicking and wiping, basal bark, frill ("hack and squirt"), stem injection, or cut-stump.
  - Dyes or colorants, (e.g., Hi-Lite, Dynamark) will be used to assist in treatment assurance and minimize over-spraying within 100 feet of live water.

- Aerial spraying will not occur as part of the B2H Project.
- Minimization of Herbicide Drift and Leaching—Herbicide drift and leaving will be minimized as follows:
  - Do not spray when wind speeds exceed 10 miles per hour to reduce the likelihood of spray/dust drift. Winds of 2 miles per hour or less are indicative of air inversions. The applicator must confirm the absence of an inversion before proceeding with the application whenever the wind speed is 2 miles per hour or less.
  - Be aware of wind directions and the potential for herbicides to affect aquatic habitat area downwind.
  - Keep boom or spray as low as possible to reduce wind effects.
  - Avoid or minimize drift by using appropriate equipment and settings (e.g., nozzle selection, adjusting pressure, drift reduction agents, etc.) Select proper application equipment (e.g., spray equipment that produces 200–800 micron diameter droplets [Spray droplets of 100 microns or less are most prone to drift]).
  - Follow herbicide label directions for maximum daytime temperature permitted (some types of herbicide volatilize in hot temperatures).
  - Do not spray during periods of adverse weather conditions (snow or rain imminent, fog, etc.) Wind and other weather data will be monitored and reported for all pesticide applicator reports.
  - Do not apply herbicides when the soil is saturated or when a precipitation event likely to produce direct runoff to fish-bearing waters from a treated site is forecasted by the NOAA Fisheries, the National Weather Service, or another similar forecasting service within 48 hours following application. Soil-activated herbicides can be applied as long as the label is followed. Do not conduct any applications during periods of heavy rainfall.
- Herbicide Buffer Distances—The following no-application buffers, which are measured in feet and are based on herbicide formula, stream type, and application, will be observed during herbicide applications (Table B1-6). Herbicide applications based on a combination of approved herbicides will use the most conservative buffer for any herbicide included. Buffer widths are measured as map distance perpendicular to the bankfull for streams, the upland boundary for wetlands, or the upper bank for roadside ditches.

Table B1-6 No-Application Buffer Widths (Feet) for Herbicide Application by Stream Type and Application Methods						
Herbicides	**Perennial Streams and Wetlands, Intermittent Streams, and Roadside Ditches with Flowing or Standing Water Present**			**Dry Intermittent Streams, Dry Intermittent Wetlands, Dry Roadside Ditches**		
	Broadcast Spraying	**Spot Spraying**	**Hand Selective**	**Broadcast Spraying**	**Spot Spraying**	**Hand Selective**
Labeled for Aquatic Use						
Aquatic Glyphosate	100	*waterline*	*waterline*	50	0	0
Aquatic Imazapyr	100	*waterline*	*waterline*	50	0	0
Aquatic Triclopyr-TEA	*Not Allowed*	15	*waterline*	*Not Allowed*	0	0
Aquatic 2,4-D (amine)	100	*waterline*	*waterline*	50	0	0
Low Risk to Aquatic Organisms						
Aminopyralid	100	*waterline*	*waterline*	50	0	0
Dicamba	100	15	15	50	0	0
Dicamba+diflufenzopyr	100	12	12	50	0	0
Imazapic	100	15	*bankfull elevation*	50	0	0
Clopyralid	100	15	*bankfull elevation*	50	0	0
Metsulfuron methyl	100	15	*bankfull elevation*	50	0	0
Moderate Risk to Aquatic Organisms						
Imazapyr	100	50	*bankfull elevation*	50	15	*bankfull elevation*
Sulfometuron methyl	100	50	5	50	15	*bankfull elevation*
Chlorsulfuron	100	50	*bankfull elevation*	50	15	*bankfull elevation*
High Risk to Aquatic Organisms						
Triclopyr-BEE	*Not Allowed*	150	150	*Not Allowed*	150	150
Picloram	100	50	50	100	50	50
Sethoxydim	100	50	50	100	50	50
2,4-D (ester)	100	50	50	100	50	50
Table Source: ARBO II (NMFS 2013a)						

- Not included in the table are Fluridone, Fluroxypyr, Hexazinone, and Rimsulfuron.
- Fluridone is an aquatic herbicide. Herbicides will not be used in water (aquatic plants will not be removed) as part of the B2H Project. Therefore, Fluridone will not be used within watersheds that support ESA-listed fish or critical habitat.
- Registered use of Fluroxypyr, Hexazinone, and Rimsulfuron is not appropriate in riparian and aquatic habitats; they are only approved for terrestrial habitats. Therefore, these three herbicides will not be used within 300 feet of a waterway, regardless of application method.
- The following will not occur as part of the B2H Project:
    - Herbicides will not be used in-water (aquatic plants will not be removed).
    - Aerial spraying will not occur.

- **ESA-listed Fish Conservation Measure 10 (Blasting).** The following conservation measures/BMPs for blasting will be incorporated into a B2H Project-specific blasting plan that meets all state and federal requirements. No in-water blasting will occur as part of the B2H Project.
  - No implosive splicing or subsurface blasting will occur within 300 feet of a perennial waterway or waterway that supports ESA-listed fish or designated critical habitat.
  - Subsurface blasting activities will adhere to guidelines similar or identical to those set forth in the ESA Section 7(a)(2) Formal Consultation for the Sawtooth National Forest's Programmatic Road Maintenance Activities; Upper Salmon River Subbasin HUC 17060201; Custer and Blaine Counties, Idaho (NMFS 2013b), or as determined during this consultation.
  - Table B1-7 shows the proposed minimum setback distances from the habitat of ESA-listed fish for blasting activities.

Table B1-7
Relationship Between Explosive Charge Weight in Substrates and Required Minimum Setback Distances (Feet) from a Waterbody Occupied or Potentially Occupied by ESA-Listed Fish to Avoid Adverse Effects

Substrate	Explosive Charge Weight in Pounds								
	0.5	1	2	5	10	25	100	500	1,000
	Minimum Setback Distances (feet)								
Rock	30	50	80	120	170	270	530	1,180	1,670
Frozen Material	40	50	70	110	160	250	500	1,120	1,580
Stiff Clay, Gravel, Ice	30	40	60	100	140	220	440	990	1,400
Clay Silt, Dense Sand	30	40	50	80	120	180	370	820	1,160
Medium to Dense Sand	20	30	50	70	100	160	320	720	1,020
Medium Organic Clay-Spawning/Rearing	15	20	30	50	70	100	210	460	660
Medium Organic Clay-Incubation	19	27	38	60	85	135	270	600	850
Soft Organic Clay-Spawning/Rearing	15	20	30	40	60	100	190	440	620
Soft Organic Clay-Incubation	19	27	38	60	85	135	270	600	850

NOTE: Described combinations of charge weight and setbacks, by substrate, will produce up to 2 pounds per square inch (psi) hydrostatic overpressure on the swim bladder of fish, or 0.5 inches per second (ips) vibration velocity. Both values are the known thresholds for adverse effects on individual fish (hydrostatic overpressure) and for incubating eggs (vibration velocity) (NMFS 2013b).

  - Blasting within the setback distances identified in Table B1-7 will occur within the in-water work windows identified in Table B1-8 as much as practicable. Table B1-8 presents the seasonal restrictions based on Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources (ODFW 2008) for waterways that are crossed/paralleled by the B2H Project and support ESA-listed fish or critical habitat, or both.

Table B1-8
Seasonal Restrictions for Waterways Crossed/Paralleled by the B2H Project that Support ESA-Listed Fish and/or Critical Habitat

Waterway	In-Water Work Period[1]
Bear Creek	July 1 – October 31
West Birch Creek	July 1 – October 31
California Gulch	July 1 – October 31
East Birch Creek	July 1 – October 31
Dry Creek	July 1 – October 15

Table B1-8 Seasonal Restrictions for Waterways Crossed/Paralleled by the B2H Project that Support ESA-Listed Fish and/or Critical Habitat	
Waterway	**In-Water Work Period[1]**
Grande Ronde River	July 1 – October 15
Graves Creek	July 1 – October 15
Rock Creek	July 1 – October 15
Unnamed Tributary to Rock Creek	July 1 – October 15
Sheep Creek	July 1 – October 15
Ladd Creek	July 1 – October 15
NOTE: [1]Oregon guidelines for in-water work are outlined because all the streams that are crossed by the B2H Project that support ESA-listed fish that fall under the jurisdiction of the NOAA Fisheries are located in Oregon.	

  - Occurrences in which blasting is necessary outside the in-water work window and within the setback distances provided in Table B1-7 are anticipated to be rare and only to occur under unavoidable circumstances.
    - If blasting is anticipated to exceed protective guidelines, the NOAA Fisheries and the ODFW will be contacted, and mitigation measures will be developed as necessary. Mitigation measures may include ensuring fish are not in the stream near the blasting site and/or in-water monitoring for pressure changes resulting from blasting.

Additional conservation measures/BMPs that will be incorporated into the B2H Project-specific blasting plan for implementation are as follows:

- Use controlled blasting techniques to minimize loss of material on steep slopes or into wetlands, RCAs, floodplains, and waters of the state.
- Waste material will not be side cast within RCAs.
  - Waste material will be loaded and hauled to appropriate disposal locations.
- Use nonexplosive or microexplosive alternatives, such as Betonamit® or an equivalent, where possible to reduce resource impacts.
- Fire all shots in predrilled or dug holes that are small in diameter, shallow, and ensure proper stemming or back-filling.
- Place sandbags or other fill over loaded holes over each shot to increase stemming.
- Individual prime all holes with an electric blasting cap or NONEL blasting cap.
- In multiple hole shots:
  - Do not fire any two holes side by side simultaneously.
  - Use blasting caps with a one millisecond delay.
  - Use at least 50 milliseconds of delay.
- Do not exceed a powder factor of 0.5 pound of explosives per cubic yard of solid rock. Do not exceed 0.25 pound per cubic yard of explosive when air gapping boulders.

- **ESA-listed Fish Conservation Measure 8 (Drilling [Geotechnical Investigations]).**
  - Drilling will not occur within waterways or RCAs.
  - Water used for drilling will be procured from existing municipal sources.
  - Drill recovery/recycling pits, and any associated waste or spoils will be completely isolated from surface waters, off-channel habitats, and wetlands.
  - All waste or spoils will be covered if precipitation is falling or imminent.
  - All drilling equipment, drill recovery and recycling pits, and any waste or spoil produced, will be contained and then completely recovered and recycled or disposed of as necessary to prevent entry into any waterway.

- Note – It is anticipated that only a minor amount of water will be used during drilling because the bore holes are anticipated to be shallow. At this scale, the drilling fluids are minimal and generally absorbed by soil to create a cake around the drill hole. A minor amount of water sometimes occurs at the surface but there is generally not enough to collect.
- If a drill boring case breaks and drilling fluid or waste is visible in water or a wetland, make all possible efforts to contain the waste and contact ODFW and NMFS/USFWS within 48 hours.

B1.4.2.2 Bull Trout

All of the conservation measures listed for ESA-listed steelhead and salmon (refer to Section B1.4.2.1) are applicable to bull trout. The conservation measures are consistent with the conservation measures developed through the EIS process and the avoidance of impacts required under the mitigation hierarchy.

B1.4.2.3 Howell's Spectacular Thelypody

The conservation measures for Howell's spectacular thelypody, developed through the Section 7 consultation process and included in the BA are provided below. The conservation measures are consistent with the conservation measures developed through the EIS process and the avoidance of impacts required under the mitigation hierarchy.

Conservation Measures

- **Design Feature 4 (Preconstruction Surveys for Sensitive Species)**. Preconstruction surveys for special status species, threatened and endangered species, or other species of particular concern would be considered in accordance with the B2H Biological Survey Work Plan. In cases for which such species are identified, appropriate action would be taken to avoid adverse impacts on the species and its habitat. This design feature would minimize effects on special status plant habitats and populations.
- **Selective Mitigation Measure 8 (Span or Avoid Sensitive Features).** Within the limits of standard tower design, structures would be located to allow conductors to avoid identified sensitive features, such as special status plant species and habitats. This could be accomplished through methods such as selective tower placement, spanning sensitive features, or realigning the B2H Project centerline (micro-siting). Application of this selective mitigation measure is expected to limit disturbance to and reduce impacts on special status plants.
- **Selective Mitigation Measure 13 (Spatial Plant Restrictions).** To minimize disturbance to identified plant species, construction, operation, and maintenance activities would be restricted in designated areas unless exceptions are granted by the authorized officer or his/her designated representative and other applicable regulatory agencies (e.g., the USFWS or state wildlife agencies). Application of this selective mitigation measure is expected to limit disturbance to and reduce impacts on special status plants.
- **Howell's Spectacular Thelypody Conservation Measure 1.** Prior to any ground-disturbing activities, areas of potential habitat within 300 feet of any B2H Project-related activity will be 100 percent surveyed by BLM-approved botanists following appropriate USFWS guidelines.
  - Areas of potential habitat will be identified by BLM-approved botanists during the growing season within the Powder River sub-basin (hydrologic unit code [HUC] 17050203) using intuitive controlled survey methods approved by the BLM and USFWS.
  - Surveys for Howell's spectacular thelypody will be conducted during the appropriate bloom window (early May through mid-July) when the presence of flowers and fruit allow for reliable identification. Reference populations will be periodically visited to verify surveys are being conducted during the appropriate bloom window.
  - Because Howell's spectacular thelypody is a biennial species whose abundance varies depending on annual precipitation, surveys must be conducted for two consecutive years in

average or above-average precipitation years to determine the absence of Howell's spectacular thelypody in an area of potential habitat. Areas of potential habitat will be considered occupied habitat if individuals are found during either year of surveys.
  - If individuals are found in an area of potential habitat during the first year of surveys, a second year of surveys in that area is unnecessary.
  - If surveys are conducted in years with less-than-average annual precipitation, a third consecutive year of surveys is required to determine the absence of Howell's spectacular thelypody from an area of potential habitat.

- **Howell's Spectacular Thelypody Conservation Measure 2.** New surface disturbance is prohibited within 300 feet of occupied Howell's spectacular thelypody habitat.

- **Howell's Spectacular Thelypody Conservation Measure 3.** Appropriate erosion control measures (silt fencing, hay bales, or other methods) will be taken where B2H Project activities occur within 300 feet upslope of occupied habitat.

- **Howell's Spectacular Thelypody Conservation Measure 4.** In proximity to occupied habitat, all construction activities will be overseen by a biological monitor to ensure compliance with all applicable conservation measures. The biological monitor will also:
  - Before and during construction, make areas for avoidance visually identifiable in the field (e.g., flagging, temporary fencing, rebar, etc.).
  - Provide the USFWS and BLM with a postconstruction report of compliance, impacts, and extent of impacts on Howell's spectacular thelypody.

- **Howell's Spectacular Thelypody Conservation Measure 5.** Any B2H Project-related use of herbicides for vegetation management or noxious weed control within 0.5 mile of occupied Howell's spectacular thelypody habitat would comply with BLM guidelines and regulations established in the Vegetation Treatments Using Herbicides on BLM Lands in Oregon

B1.4.2.4 Gray Wolf

No conservation measures were developed specifically for gray wolf through the Section 7 consultation process and included in the BA. However, design features of the B2H Project for environmental protection that minimize ground disturbance and vegetation clearing in the right-of-way also may minimize avoidance of the right-of-way by gray wolf. If the estimated wolf use area is subsequently designated and mapped as a wolf territory, additional conservation measures may be added. The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce impacts on gray wolves and their habitats include:

Conservation Measures

- **Design Feature 5 (Spatial Extent of Construction Activities).** The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits.

- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, and filling ditches where they were installed for temporary roads.

  All areas on lands administered by federal agencies disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate

for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan Framework in the POD. The federal land-managing agency would approve a seed mixture that fits each range type. Seeding methods typically would include drill seeding, where practicable; however, the federal land-managing agency may recommend broadcast seeding as an alternative method in some cases.

In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.

- **Design Feature 9 (Use of Access Routes Outside of Right-of-Way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, or overland travel routes approved in advance by the applicable land-managing agency or landowner.
- **Design Feature 10 (Speed Limit on Project Access Routes).** To minimize vehicle collisions with wildlife or livestock and reduce amount of dust generated from construction related activities, a speed limit of 25 miles per hour would be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.

B1.4.3 Species Managed as Sensitive Species or Management Indicator Species

This section contains conservation measures for BLM- and USFS- sensitive species located during surveys conducted to inform the engineering design of the B2H Project and inform the POD. Conservation measures for sensitive species not located during these surveys are assumed to not be needed because these species are not expected to occur in the vicinity of the B2H Project. Table B1-1 – Biological Resource Surveys to be Conducted for the Construction Plan of Development provides an overview of the survey findings. However, if any of the species listed in Table B1-1 are not located during surveys conducted prior to completion of the Construction POD but are located during monitoring, coordination with the appropriate agency and implementation of conservation measures to protect these species will be required.

Conservation measures for BLM-sensitive species were developed through the NEPA process and will be refined or further developed to meet BLM special status species management policies throughout preparation of the POD based on the results of biological resource surveys. Compliance with the measures in this section is required as a condition of the BLM right-of-way grant. In the event that a conservation measure for a BLM-sensitive species cannot be followed, or in the event the effects on the species are expected to exceed those described in this section, coordination will be required with the BLM and the BLM Authorized Officer or his/her designated representative to obtain a BLM right-of-way grant variance. The variance process must be complete before the activity that may affect the species may occur.

Conservation measures for USFS-sensitive species were developed through the NEPA process. These measures will be further refined throughout preparation of the POD to meet USFS special status species management policies, including USFS Manual 2670, based on the results of biological resource surveys conducted. Compliance with the measures in this section is required as a condition of the USFS special-use authorization. In the event that a conservation measure for a USFS sensitive species cannot be followed, or in the event the effects on the species are expected to exceed those described in this section, coordination will be required with the USFS and the USFS Authorized Officer or his/her designated representative to obtain a special-use authorization variance. The variance process must be complete before the activity that may affect the species may occur.

B1.4.3.1 Sensitive Plant Species

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce impacts on sensitive plant species and their important habitats include:

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 2 (Environmental Training for All Personnel).** Prior to construction, the CIC would instruct all personnel on the protection of ecological and natural resources, such as (a) federal and state laws regarding special status plants, including collection and removal; (b) the importance of ecological and natural resources; (c) the purpose and necessity of protecting ecological and natural resources; and (d) reporting and procedures for stop work. This design feature would minimize effects on special status plant habitats and populations.
- **Design Feature 4 (Preconstruction Surveys for Sensitive Species).** Preconstruction surveys for special status species, threatened and endangered species, or other species of particular concern would be considered in accordance with the B2H Biological Survey Work Plan. In cases for which such species are identified, appropriate action would be taken to avoid adverse impacts on the species and its habitat. This design feature would minimize effects on special status plant habitats and populations.
- **Design Feature 5 (Spatial Extent of Construction Activities).** The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. This design feature would minimize effects on vegetation resources by restricting disturbance to a predefined extent.
- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but may not be limited to, returning disturbed areas to their natural contour, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-managing agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description.
  - In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval. This design feature would minimize effects on vegetation resources by preventing permanent loss of vegetation communities and reducing indirect effects associated with weed invasion and degradation of special status plant habitat.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-Way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, or overland travel routes approved in advance by the applicable land-managing agency or landowner. This would minimize effects on vegetation resources by minimizing disturbance and reducing the potential of weed invasion.

Selective mitigation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on sensitive plant species and their habitats include:

- **Selective Mitigation Measure 8 (Span or Avoid Sensitive Features).** Within the limits of standard tower design, structures would be located to allow conductors to avoid identified sensitive features, such as special status plant species and habitats. This could be accomplished through methods such as selective tower placement, spanning sensitive features, or realigning the B2H Project centerline (micro-siting). Application of this selective mitigation measure is expected to limit disturbance to and reduce impacts on special status plants.
- **Selective Mitigation Measure 13 (Spatial Plant Restrictions).** To minimize disturbance to identified plant species, construction, operation, and maintenance activities would be restricted in designated areas unless exceptions are granted by the authorized officer or his/her designated representative and other applicable regulatory agencies (e.g., the USFWS or state wildlife agencies). Application of this selective mitigation measure is expected to limit disturbance to and reduce impacts on special status plants.

B1.4.3.2 Columbia Spotted Frog

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce impacts on Columbia spotted frog and their habitats include:

Conservation Measures

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 4 (Pre-construction Surveys for Sensitive Species).** Pre-construction surveys for Columbia spotted frog would be conducted to determine the presence or absence of occupied Columbia spotted frog habitat.
- **Design Feature 5 (Spatial Extent of Construction Activities).**The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, structures, fences, etc.
- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, replacement of displaced rocks and boulders in a manner that does not create strong edge conditions, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, use of vertical pitting and mulching used for clearings in sage areas, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-management agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically would include drill seeding, where practicable; however, the federal land-management agency or landowner(s) may recommend broadcast seeding as an alternative method in some cases. In construction areas where disturbing the existing contours is not required, vegetation would be left

in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.

- **Design Feature 9 (Use of Access Routes Outside of Right-of-way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-management agency or landowner.
- **Design Feature 10 (Speed Limit on Project Access Routes).** To minimize vehicle collisions with wildlife or livestock and reduce amount of dust generated from construction related activities, a speed limit of 25 miles per hour would be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.
- **Design Feature 15 (Reduce Impacts on Riparian Areas).** Consistent with the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) riparian management policies, surface-disturbing activities would be avoided in defined segments of Riparian Conservation Areas using the following delineation criteria:
  - Fish-bearing streams: 300 feet slope distance on either side of the stream, or to the extent of additional delineation criteria, whichever is greatest.
  - Perennial non-fish-bearing streams: 150 feet slope distance on either side of the stream, or to the extent of additional delineation criteria, whichever is greatest.
  - Ponds, lakes, reservoirs, and wetlands greater than 1 acre: 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs, or from the edge of the wetland, pond or lake, or to the extent of additional delineation criteria, whichever is greatest.
  - Intermittent or seasonally flowing streams and wetlands less than 1 acre: In watersheds that support ESA-listed fish species and /or designated critical habitat, 100 feet slope distance from the edge of the stream channel or wetland to the outer edge of riparian vegetation, whichever is greatest. In watersheds that do not have current, documented presence of ESA-listed fish species and /or designated critical habitat, 50 feet slope distance from the edge of the stream channel or wetland to the outer edge of riparian vegetation, whichever is greatest.
- **Design Feature 16 (Span Riparian Communities/ Water Courses).** Based on biological resources surveys and results of Section 7 consultation (with U.S. Fish and Wildlife Service [USFWS] and National Marine Fisheries Service [NMFS]), state and federally designated sensitive plants, fisheries, habitat, wetlands, riparian areas, springs, wells, water courses, or rare/slow regenerating vegetation communities would be flagged and structures would be placed to allow spanning of these features, where feasible, within the limits of standard structure design.

Selective mitigation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on Columbia spotted frog and their habitats include:

- **Selective Mitigation Measure 2 (Use Existing Access for Sensitive Resources Avoidance).** Existing access would be used as much as possible or practicable for construction and maintenance to avoid disturbance of sensitive resources crossed by the B2H Project. Where applied, this measure is expected to reduce impacts on sensitive habitat by limiting disturbance associated with new access roads.
- **Selective Mitigation Measure 5 (Minimize Vegetation Clearing for Operational Clearances).** Removal of vegetation in the right-of-way would be minimized to protect sensitive habitat, subject to structure- and conductor-clearance requirements. Trees and other vegetation would be removed selectively (e.g., edge feathering) to blend the edge of the right-of-way into adjacent vegetation patterns, as practicable and appropriate.

- **Selective Mitigation Measure 12 (Seasonal and Spatial Wildlife Restrictions).** To minimize disturbance to identified wildlife species during sensitive periods, construction, operation, and maintenance activities on federals lands would be restricted in designated areas unless exceptions are granted by the Authorized Officer or his/her designated representative and other applicable regulatory agencies (e.g., U.S. Fish and Wildlife Service [USFWS], state wildlife agencies; refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources for species-specific seasonal restriction dates).
- **Selective Mitigation Measure 15 (Flight Diverters and Perch Deterrents).** This measure may include use of devices to deter raptors from perching on transmission line structures in habitat for high priority prey species. The specific segments where these devices would be used would be determined in consultation with the appropriate agencies.

B1.4.3.3 Greater Sage-Grouse

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce impacts on Greater Sage-Grouse and their habitats include:

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 5 (Spatial Extent of Construction Activities).**The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, structures, fences, etc.
- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, replacement of displaced rocks and boulders in a manner that does not create strong edge conditions, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, use of vertical pitting and mulching used for clearings in sage areas, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-management agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically would include drill seeding, where practicable; however, the federal land-management agency or landowner(s) may recommend broadcast seeding as an alternative method in some cases. In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-management agency or landowner.
- **Design Feature 10 (Speed Limit on Project Access Routes).** To minimize vehicle collisions with wildlife or livestock and reduce amount of dust generated from construction related

activities, a speed limit of 25 miles per hour would be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.

- **Design Feature 12 (Avian-Safe Design).** The Applicant would design and construct all new or rebuilt transmission facilities to avian-safe design standards, including the Applicant's Avian Protection Plan (Idaho Power Company 2015), Reducing Avian Collisions with Power Lines (APLIC 2012) and Suggested Practices for Avian Protection on Power Lines (APLIC 2006).

Selective mitigation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on Greater Sage-Grouse and their habitats include:

- **Selective Mitigation Measure 2 (Use Existing Access for Sensitive Resources Avoidance).** Existing access would be used as much as possible or practicable for construction and maintenance to avoid disturbance of sensitive resources crossed by the B2H Project. Where applied, this measure is expected to reduce impacts on sensitive habitat by limiting disturbance associated with new access roads.
- **Selective Mitigation Measure 6 (Limit New or Improved Accessibility to Areas Previously Inaccessible).** In areas of sensitive habitat or areas sensitive to additional public access, new or improved access in the B2H Project area would be limited. New or improved access would be closed or rehabilitated using the most effective and least environmentally damaging methods appropriate to that area (in consultation with the landowner or land-managing agency). Methods for road closure or management may include installing locking gates, obstructing the path (e.g., earthen berms, boulders, redistribution of woody debris), revegetating and mulching the surface of the roadbed to make it less apparent, or restoring the road to its natural contour and vegetation.
- **Selective Mitigation Measure 12 (Seasonal and Spatial Wildlife Restrictions).** To minimize disturbance to identified wildlife species during sensitive periods, construction, operation, and maintenance activities on federals lands would be restricted in designated areas unless exceptions are granted by the Authorized Officer or his/her designated representative and other applicable regulatory agencies (e.g., U.S. Fish and Wildlife Service [USFWS], state wildlife agencies; refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources for species-specific seasonal restriction dates).
- **Selective Mitigation Measure 14 (Overland Access).** In addition to using overland travel in work areas, overland access to work areas may be used to reduce resource impacts. The construction contractor would use overland access to the greatest extent possible in areas where no grading would be needed to access work areas. Overland access would consist of drive-and-crush (i.e., vehicular travel to access a site without significantly modifying the landscape, cropping vegetation, or removing soil) and/or clear-and-cut travel (removal of all vegetation while leaving the root crown intact to improve or provide suitable access for equipment). Prior to commencement of work activities, overland access routes would be staked. Routes would be specified in the POD. Use of overland access routes would be restricted based on dry or frozen soil conditions, seasonal weather conditions, and relatively flat terrain.
- **Selective Mitigation Measure 15 (Flight Diverters and Perch Deterrents).** Shield wires, guy wires, and overhead optical ground wire along designated portions of the transmission line with a high potential for avian collisions would be marked with flight diverters or other BLM or U.S. Forest Service (USFS) approved devices in accordance with agency requirements and Reducing Avian Collisions with Power Lines, The State of the Art in 2012 (APLIC 2012). Portions of the transmission line adjacent to or that cross through waterfowl and general migratory pathways or habitat for high priority species may be marked to reduce the risk of avian collisions.

B1.4.3.4 Washington Ground Squirrel

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental

protection (identified in the EIS) being implemented to reduce impacts on Washington ground squirrel and their habitats include:

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 4 (Pre-construction Surveys for Sensitive Species).** Pre-construction surveys for Washington ground squirrel would be conducted to determine the presence or absence of occupied Washington ground squirrel habitat.
- **Design Feature 5 (Spatial Extent of Construction Activities).**The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, structures, fences, etc.
- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, replacement of displaced rocks and boulders in a manner that does not create strong edge conditions, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, use of vertical pitting and mulching used for clearings in sage areas, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-management agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically would include drill seeding, where practicable; however, the federal land-management agency or landowner(s) may recommend broadcast seeding as an alternative method in some cases. In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-management agency or landowner.
- **Design Feature 10 (Speed Limit on Project Access Routes).** To minimize vehicle collisions with wildlife or livestock and reduce amount of dust generated from construction related activities, a speed limit of 25 miles per hour would be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.
- **Design Feature 12 (Avian-Safe Design).** The Applicant would design and construct all new or rebuilt transmission facilities to avian-safe design standards, including the Applicant's Avian Protection Plan (Idaho Power Company 2015), Reducing Avian Collisions with Power Lines (APLIC 2012) and Suggested Practices for Avian Protection on Power Lines (APLIC 2006).

Selective mitigation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on Washington ground squirrel and their habitat include:

- **Selective Mitigation Measure 2 (Use Existing Access for Sensitive Resources Avoidance).** Existing access would be used as much as possible or practicable for construction and

maintenance to avoid disturbance of sensitive resources crossed by the B2H Project. Where applied, this measure is expected to reduce impacts on sensitive habitat by limiting disturbance associated with new access roads.

- **Selective Mitigation Measure 6 (Limit New or Improved Accessibility to Areas Previously Inaccessible).** In areas of sensitive habitat or areas sensitive to additional public access, new or improved access in the B2H Project area would be limited. New or improved access would be closed or rehabilitated using the most effective and least environmentally damaging methods appropriate to that area (in consultation with the landowner or land-managing agency). Methods for road closure or management may include installing locking gates, obstructing the path (e.g., earthen berms, boulders, redistribution of woody debris), revegetating and mulching the surface of the roadbed to make it less apparent, or restoring the road to its natural contour and vegetation.
- **Selective Mitigation Measure 8 (Span and/or Avoid Sensitive Features).** Structures would be located to allow conductors to avoid Washington ground squirrel occupied colony avoidance areas. This could be accomplished through methods such as selective tower placement, spanning sensitive features, or realigning the Project centerline (micro-siting).
- **Selective Mitigation Measure 12 (Seasonal and Spatial Wildlife Restrictions).** To minimize disturbance to identified wildlife species during sensitive periods, construction, operation, and maintenance activities on federals lands would be restricted in designated areas unless exceptions are granted by the Authorized Officer or his/her designated representative and other applicable regulatory agencies (e.g., U.S. Fish and Wildlife Service [USFWS], state wildlife agencies; refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources for species-specific seasonal restriction dates).
- **Selective Mitigation Measure 14 (Overland Access).** In addition to using overland travel in work areas, overland access to work areas may be used to reduce resource impacts. The construction contractor would use overland access to the greatest extent possible in areas where no grading would be needed to access work areas. Overland access would consist of drive-and-crush (i.e., vehicular travel to access a site without significantly modifying the landscape, cropping vegetation, or removing soil) and/or clear-and-cut travel (removal of all vegetation while leaving the root crown intact to improve or provide suitable access for equipment). Prior to commencement of work activities, overland access routes would be staked. Routes would be specified in the POD. Use of overland access routes would be restricted based on dry or frozen soil conditions, seasonal weather conditions, and relatively flat terrain.
- **Selective Mitigation Measure 15 (Flight Diverters and Perch Deterrents).** This measure may include use of devices to deter raptors from perching on transmission line structures in habitat for high priority prey species. The specific segments where these devices would be used would be determined in consultation with the appropriate agencies.

Additional conservation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on Washington ground squirrel include:

- **Washington Ground Squirrel Conservation Measure 1:** Areas within 785 feet of the single hole or cluster of holes of an active Washington ground squirrel colony (occupied colony avoidance areas) will be avoided.
- **Washington Ground Squirrel Conservation Measure 2:** Ground-disturbing activities will be conducted outside of the above-ground period for Washington ground squirrels (January 1 through June 30) in occupied colony dispersal areas. If ground-disturbing activities must occur within this time period, the key breeding period (mid-January through the third week in February) will be avoided. Per Washington Ground Squirrel Conservation Measure 1, ground-disturbing activities will be prohibited in occupied colony avoidance areas year-round.

B1.4.4 Migratory Birds Including Raptors

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce impacts on raptors and other migratory birds and their habitats include:

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 4 (Preconstruction Surveys for Sensitive Species).** Pre-construction surveys for special status species, threatened and endangered species, or other species of particular concern would be considered in accordance with the B2H Project Biological Survey Work Plan, which was previously approved by the Applicant and the appropriate land-management or wildlife-management agencies (e.g., Bureau of Land Management [BLM], U.S. Fish and Wildlife Service [USFWS], state wildlife agencies, etc.). In cases for which such species are identified, appropriate action would be taken to avoid adverse impacts on the species and its habitat. Amendments to the work plan would be made based on the best available science.
- **Design Feature 5 (Spatial Extent of Construction Activities).** The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, structures, fences, etc.
- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, replacement of displaced rocks and boulders in a manner that does not create strong edge conditions, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, use of vertical pitting and mulching used for clearings in sage areas, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-management agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically would include drill seeding, where practicable; however, the federal land-management agency or landowner(s) may recommend broadcast seeding as an alternative method in some cases. In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-management agency or landowner.
- **Design Feature 10 (Speed Limit on Project Access Routes).** To minimize vehicle collisions with wildlife or livestock and reduce amount of dust generated from construction related activities, a speed limit of 25 miles per hour would be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.

- **Design Feature 11 (Limit Construction and Maintenance Activities During Migratory Bird Nesting Season).** If ground-disturbing activities (e.g., vegetation clearing or construction activities) could not be avoided during the migratory bird nesting season (between April 1 and July 15), migratory bird and nest surveys would be required within 7 days of any ground-disturbing activities. A spatial buffer would be placed around each active nest detected during the surveys in the area where the buffer intersects work areas where vegetation clearing or construction is taking place, until such time as the nest is determined, through monitoring, to be no longer occupied. Appropriate spatial nest buffers (by species or guild) and nest-monitoring requirements would be identified using the best available scientific information through coordination with USFWS and other appropriate agencies, and would be provided in a migratory bird nest-management plan incorporated into the Plan of Development (Refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources for species-specific seasonal restriction dates, some of which occur outside of the date range indicated above).
- **Design Feature 12 (Avian-Safe Design).** The Applicant would design and construct all new or rebuilt transmission facilities to avian-safe design standards, including the Applicant's Avian Protection Plan (Idaho Power Company 2015), Reducing Avian Collisions with Power Lines (APLIC 2012) and Suggested Practices for Avian Protection on Power Lines (APLIC 2006).
- **Design Feature 13 (Raptor Protection During Breeding).** Agency guidelines for raptor protection during the breeding season would be followed (refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources).

Selective mitigation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on raptors and other migratory birds and their habitats include:

- **Selective Mitigation Measure 12 (Seasonal and Spatial Wildlife Restrictions).** To minimize disturbance to identified wildlife species during sensitive periods, construction, operation, and maintenance activities on federals lands would be restricted in designated areas unless exceptions are granted by the Authorized Officer or his/her designated representative and other applicable regulatory agencies (e.g., U.S. Fish and Wildlife Service [USFWS], state wildlife agencies; refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources for species-specific seasonal restriction dates).
- **Selective Mitigation Measure 15 (Flight Diverters and Perch Deterrents).** Shield wires, guy wires, and overhead optical ground wire along designated portions of the transmission line with a high potential for avian collisions would be marked with flight diverters or other BLM or U.S. Forest Service (USFS) approved devices in accordance with agency requirements and Reducing Avian Collisions with Power Lines, The State of the Art in 2012 (APLIC 2012). Portions of the transmission line adjacent to or that cross through waterfowl and general migratory pathways or habitat for high priority species may be marked to reduce the risk of avian collisions.

B1.4.5 Big Game Seasonal Habitats

The design features of the B2H Project for environmental protection are consistent with the minimization of impacts required under the mitigation hierarchy. Design features of the B2H Project for environmental protection (identified in the EIS) being implemented to reduce impacts on big game seasonal habitats include:

- **Design Feature 1 (Plan of Development).** Among the implementation plans in the POD, implementation of the Noxious Weed Management Plan will minimize the potential spread of invasive plants and noxious weeds.
- **Design Feature 5 (Spatial Extent of Construction Activities).** The spatial limits of construction activities, including vehicle movement, would be predetermined with activity restricted to and

confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits would be applied to rocks, vegetation, structures, fences, etc.

- **Design Feature 6 (Reclaim Construction Areas).** In construction areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) where there is ground disturbance and where recontouring is required, surface reclamation would occur as required by the Reclamation, Revegetation, and Monitoring Plan or the landowner. The method of reclamation may consist of, but not be limited to, returning disturbed areas to their natural contour, replacement of displaced rocks and boulders in a manner that does not create strong edge conditions, reseeding, installing cross drains for erosion control, placing water bars in permanent roads, use of vertical pitting and mulching used for clearings in sage areas, and filling ditches where they were installed for temporary roads. All areas disturbed as a part of the construction and/or maintenance of the proposed transmission line would be seeded with a seed mixture appropriate for those areas as identified in the Reclamation, Revegetation, and Monitoring Plan. The federal land-management agency or landowner(s) would approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically would include drill seeding, where practicable; however, the federal land-management agency or landowner(s) may recommend broadcast seeding as an alternative method in some cases. In construction areas where disturbing the existing contours is not required, vegetation would be left in place wherever possible, and original contours would be maintained to avoid excessive root damage and allow for resprouting in accordance with the Reclamation, Revegetation, and Monitoring Plan or landowner approval.
- **Design Feature 9 (Use of Access Routes Outside of Right-of-way).** All vehicle movement outside the right-of-way would be restricted to predesignated access, contractor-acquired access, public roads, overland travel routes, or crossings of streams approved in advance by the applicable land-management agency or landowner.
- **Design Feature 10 (Speed Limit on Project Access Routes).** To minimize vehicle collisions with wildlife or livestock and reduce amount of dust generated from construction related activities, a speed limit of 25 miles per hour would be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.

Selective mitigation measures (identified in the EIS) being implemented B2H Project-wide to reduce impacts on big game seasonal habitats include:

- **Selective Mitigation Measure 6 (Limit New or Improved Accessibility to Areas Previously Inaccessible).** In areas of sensitive habitat or areas sensitive to additional public access, new or improved access in the B2H Project area would be limited. New or improved access would be closed or rehabilitated using the most effective and least environmentally damaging methods appropriate to that area (in consultation with the landowner or land-managing agency). Methods for road closure or management may include installing locking gates, obstructing the path (e.g., earthen berms, boulders, redistribution of woody debris), revegetating and mulching the surface of the roadbed to make it less apparent, or restoring the road to its natural contour and vegetation.
- **Selective Mitigation Measure 12 (Seasonal and Spatial Wildlife Restrictions).** To minimize disturbance to identified wildlife species during sensitive periods, construction, operation, and maintenance activities on federals lands would be restricted in designated areas unless exceptions are granted by the Authorized Officer or his/her designated representative and other applicable regulatory agencies (e.g., U.S. Fish and Wildlife Service [USFWS], state wildlife agencies; refer to Attachment D – Seasonal and Spatial Restrictions for Biological Resources for species-specific seasonal restriction dates).

B1.5 Biological Monitoring Requirements

Construction monitoring for biological resources will be required by the BLM and other agencies during construction to ensure that resources present in the Project area are adequately protected and that measures contained in this and other plans are adhered to. The number of monitors required on each construction spread will depend on the resource present and the respective federal land management agencies' Authorized Officers' or their designated representatives' determination of a sufficient monitoring level. Activities that occur in biologically sensitive areas or during periods of heightened sensitivity are likely to require additional monitoring. The responsibilities of the Biological Monitors that will be present in each spread during construction will include the following:

- Preconstruction surveys
- Identification of resource presence/absence in biologically sensitive areas
- Daily briefing of construction crews outlining restrictions associated with biologically sensitive areas
- Daily contact with the environmental inspectors
- Immediate notification of the CIC and authorized agency (BLM, USFS, and/or the USFWS) in the event construction operations violate terms and conditions of the POD and/or Project Record of Decision
- Preparation of a summary of plan compliance given to BLM, USFS, ODFW, IDFG, and USFWS biologists on completion of the construction phase of the Project

In addition to the construction monitoring described above, additional biological monitoring is required for some special status species addressed in this plan. For each species that additional monitoring is required, this requirement is identified under the Monitoring Requirements heading for that species in this plan. The purpose of this additional biological monitoring includes:

- Documenting resource conditions before, during, and after construction
- Monitoring resource recovery after restoration
- Evaluating the effectiveness of mitigation measures and implementing corrective actions or adaptive management where necessary

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Attachment A
Biological Resources Survey Requirements

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Acronyms and Abbreviations

BLM	Bureau of Land Management
EIS	Environmental Impact Statement
ESA	Endangered Species Act
IPC	Idaho Power Company
POD	Plan of Development
Project	Boardman to Hemingway Transmission Line Project
U.S.	United States
USACE	United States Army Corps of Engineers

ATTACHMENT A – BIOLOGICAL RESOURCES SURVEY REQUIREMENTS

A.1 Introduction

The purpose of this survey plan is to define the biological survey requirements and methodologies for the Boardman to Hemingway Transmission Line Project (Project), document those details in the Project Plan of Development (POD), and communicate the survey requirements among Idaho Power Company (IPC), the coordinating agencies, and Project environmental and engineering staff. The plan addresses surveys that must be completed to inform the final design of the transmission line and associated facilities, support the implementation of the geotechnical investigation, and prepare the POD for the transmission line. This survey plan does not contain detailed work plans, strategies or schedules for completion, or maps of survey areas. These details will be documented in separate Project-specific survey implementation plans to be developed in coordination with the agencies by IPC and their contractor to be approved by the Bureau of Land Management (BLM) and other relevant agencies prior to conducting surveys. In addition to development of the survey implementation plans, pre-field activities would include analysis of aerial imagery to define suitable and unsuitable habitats, in-field habitat assessments for some species as identified in this plan, and coordination with IPC and relevant agencies for each survey.

This plan documents the requirements and approach to additional biological surveys that will be necessary during various phases of the Project. Detailed survey plans need to be developed and approved by the agencies and IPC prior to geotechnical or construction activities. This survey plan does not address biological monitoring that could be required as a component of environmental and transmission line construction, or special circumstances that may warrant collection of additional biological resource data. Requirements for environmental and construction monitoring will be informed by the findings of surveys described in this document and will be documented in the POD.

A.2 Need for Biological Resource Surveys

Biological resource surveys are necessary to inform the application of mitigation measures and to ensure compliance with laws, regulations, and agency policies described in the Project Environmental Impact Statement (EIS) as well as inform implementation of stipulations analyzed in the EIS and included in the right-of-way grant. The right-of-way grant will contain stipulations applicable to all phases of the Project, including a preliminary geotechnical investigation. Mitigation measures described in the EIS include seasonal avoidance measures that would be employed during construction as well as measures to avoid or reduce impacts on sensitive resources.

Surveys will be conducted for plants and wildlife that could be affected by the Project and are designated as threatened, endangered, or candidates for listing under the Endangered Species Act of 1973 (ESA) and species listed as sensitive by the United States (U.S.) Forest Service, BLM, or states crossed by the route selected for construction of the transmission line. Surveys to identify potential wetlands and waters of the U.S. are required to facilitate avoidance measures, and if necessary, obtain permits from the U.S. Army Corps of Engineers (USACE), as detailed in this plan. All results and information gathered through habitat modeling, desktop analysis, and field surveys will be provided to IPC and the agencies for the Project record and will be incorporated into the POD as appropriate.

Based on the analysis conducted for the EIS, it is likely that some special status plants, wildlife, wetlands, or waters of the U.S. will be present at proposed geotechnical sites. IPC has developed decision criteria that will be included in the Geotechnical Investigation POD and implemented if sensitive resources are detected near a geotechnical site.

In consultation with IPC and the agencies, survey results and information gathered will inform application of mitigation measures (e.g., seasonal restrictions, design considerations, and spatial avoidance). A process for the reporting of survey results will be developed by IPC and approved by the BLM and other applicable agencies. The process should include a coordination strategy for the timing, format, and recipients of results reports. The process should establish decision criteria that would be employed without having to produce formal reports that would require agency review and response. Establishment of decision criteria would outline the process for reporting observations to the applicable agencies in a manner that would allow construction activities to proceed by employing preselected mitigation measures, biological monitoring, or requests for variances. Likewise, the decision criteria should identify "red flag" observations (e.g., Washington ground squirrel observation) that would necessitate the immediate suspension of construction activities and the reporting requirements for those resources.

A.3 Approach to Biological Resource Surveys

A.3.1 Overview

Due to the temporal separation and different spatial requirements of the geotechnical investigation phase and the transmission line construction phase of the Project, different approaches for collecting required biological resource information will be employed. The geotechnical investigation will occur prior to the surveys necessary for the transmission line design and completion of the POD and require that biological data be collected around the borehole locations, overland travel areas, and new and improved access routes (geotechnical site). Transmission line construction will require biological data to be collected along the entire right-of-way, new and improved access routes, and ancillary facilities. This document presents the recommended approach to conducting the biological resource surveys for the geotechnical investigation and the transmission line construction separately. Changes to the approach described in this document could modify the survey requirements for some species.

A.3.2 Important Considerations for Conducting Surveys

The approach to conducting biological resource surveys for each phase of the Project should be developed in consideration of the data needs for each resource, potential impact of survey findings on development of the relevant POD and final Project design, as well as schedule implications. To promote cost efficiencies, some surveys could be conducted concurrently, if approved by the relevant agencies and IPC. The approach for each biological resource survey must be agreed upon by the agencies and IPC and detailed in the survey implementation plans, to be developed. The goal of the geotechnical investigation surveys is to collect an appropriate amount of information to inform the decision criteria developed by IPC in the POD (including the Geotechnical Investigations POD Framework) to avoid or mitigate potential impacts to sensitive resources.

The goal of the transmission line construction surveys is to collect an appropriate amount of information to design the transmission line, complete the POD, and apply mitigation and achieve compliance with agency policies, stipulations, and biological resource goals as outlined in the right-of-way grant. Depending on the resource and phase of the Project, data needs may vary from relatively simple, preconstruction field resource checks (e.g., migratory birds) to data necessary to inform the design of the Project. Survey results will be used to determine compliance with the ESA, verify permit thresholds, or prepare required permits (e.g., wetlands and waters of the U.S. and species listed under the ESA). Depending on the results of surveys conducted to inform design of the transmission line and completion of the POD, additional biological resource surveys may be required during the year of construction to verify resources conditions or satisfy monitoring requirements. These surveys will be identified in the Biological Resources Monitoring Plan included in the POD.

The strategy for collecting biological information for each resource should promote having required information available in a timely manner to inform IPC and agency decisions. Biological information collected for the Project has temporal relevance due to annual variations in environmental conditions. The results of some surveys also have explicit expiration dates that are defined by agency protocols. The survey strategy for each resource should consider the temporal relevance of data collected as well as the impact of the survey findings on the Project schedule and design. For example, it may be advisable for the Project to conduct critical surveys (e. g., Washington ground squirrel) that will inform Project design one or more years ahead of the construction schedule to allow adequate time for design modifications and preparation of the POD. In some cases, this may require additional surveys or spot-checks prior to construction but will help avoid unnecessary Project delays during construction.

Special circumstances or needs could modify the strategy presented in this survey plan or make it advisable to collect supplemental biological information. The locations of Project features, such as towers, new and improved access routes, and ancillary facilities have not been determined at the time this document was prepared (February 2016). Coordination between Project environmental and engineering staff as features are designed can help with early identification and resolution of issues affecting the biological resource surveys. Furthermore, the desire or need for additional flexibility during the geotechnical investigation or construction of the transmission line may make it advisable to collect information earlier, from a larger geographic area, or more frequently than the minimum requirements presented in this document. The anticipated need for flexibility (e.g., seasonal stipulation waivers, modifications, or approval of alternative access routes or drilling methods to avoid areas closed by seasonal restrictions) should be carefully discussed between IPC and agencies in selection of an ultimate survey strategy.

The approach to conducting surveys for wetlands and waters of the U.S. presented in this plan assumes that all impacts associated with the Project could be permitted under USACE Nationwide Permit 12 and that permits would not be required for the geotechnical investigation because impacts on all wetlands and waters of the U.S. could be avoided during the geotechnical investigation. Nationwide Permit 12 covers activities required for the construction of utility lines and associated facilities, provided that each crossing does not result in the loss of greater than 0.5 acre of waters of the U.S. Coordination with the USACE will be required to approve this approach to conducting required surveys and obtaining necessary permits. Under Nationwide Permit 12, impacts on wetlands and waters of the U.S. are calculated separately for each distinct water resource crossed.

A.4 Geotechnical Investigation

Geotechnical investigations will be conducted prior to construction at sites located along the route selected along the transmission line. The investigation consists of drilling and sampling soils to a depth of 50 to 60 feet to determine subsurface stability, the results of which will be used to design each transmission line foundation and structure. Also, geotechnical investigation will be conducted at the Longhorn Station to quantify subsurface conditions and engineering properties of fill and placement of required fill material. Appendix G is the Geotechnical Investigation POD Framework, which provides a description of the geotechnical investigation.

The approach to, timing of, and requirements for surveys required for the geotechnical investigations are driven by:

- Environmental regulations
- The anticipated drilling schedule
- The geographic area requiring surveys
- The relatively short duration of activity at each site

- The degree to which the Project features and schedule can be modified based on the survey findings
- The level of biological resource information needed to authorize geotechnical activities
- IPC's need to understand the restrictions and mitigation actions associated with sensitive resources prior to initiation of geotechnical activities.

A list of special status plants and wildlife for which surveys must be conducted, the need for any pre-survey habitat assessments, the agency-approved survey methodology and the temporal and spatial extent of each survey for the geotechnical investigation will be included in Geotechnical Investigation POD.

A.5 Transmission Line Construction

The approach to, timing of, and requirements for surveys required for the construction of the transmission line are driven by:

- The anticipated level of impact associated with transmission line construction;
- The need to have sensitive resources identified and design modifications implemented to avoid these resources before construction starts; and
- IPC's need to understand the restrictions and mitigation actions associated with sensitive resources prior to initiation of construction activities.

Information gathered during surveys addressed in this plan will inform mitigation necessary for the final engineering and design of the transmission line. Mitigation will be identified and documented in the POD, which must be approved prior to the initiation of construction activities. Additionally, survey results will inform construction monitoring needs, which will be documented in the Final Biological Resources Monitoring Plan to be included in the POD. A list of special status plants and wildlife for which surveys must be conducted, the need for any pre-survey habitat assessments, and the agency-approved survey methodology and the temporal and spatial extent of each survey for the transmission line construction is included in Table 1

Table will be populated for final POD.

Table 1 Biological Resource Surveys to be Conducted for the Final Plan of Development						
Species	**Status**	**Geographic Region of the Project**	**Survey Area**	**Survey Timing**	**Survey Method**	**Findings**
Common name (*scientific name)*	T/E/C, Federal Sensitive, State Listed, etc.	Description of where the resource occurs in relation to the Project.	Within 300 feet of all ground disturbance. Within 0.5 mile of the centerline.	May 1 – July 15.	Walking meandering transects/intuitive search. Aerial survey.	Brief description of findings/reference to technical report.

A.5.1 Special Status Plants

The recommended approach to, timing of, and requirements for the special status plant surveys for transmission line construction are driven by requirements contained in relevant environmental documents (e.g., Biological Assessment and Biological Opinion), the need for survey results to inform development of final mitigation measures for agency-sensitive species, and the need for survey results to inform the final design of the Project before construction starts. Information gathered during sensitive plant surveys will inform mitigation necessary for the final engineering and design of the transmission line and must be identified and documented in the POD prior to the anticipated transmission line construction. Additionally, survey results will inform construction monitoring needs by identifying the known locations of special status plants and areas of suitable habitat where they may be encountered. Any monitoring requirements will be documented in the Final Biological Resources Monitoring Plan to be included in the POD. A list of special status plants, for which surveys must be conducted, the agency-approved survey methodology, and the temporal and spatial extent of each survey for the transmission line construction is included in Table 1.

The agencies may require that reference populations of the target species be visited to confirm that target species are flowering, fruiting, or otherwise identifiable prior to initiating surveys. Multiple site visits may be necessary to ensure that surveys are conducted during the appropriate life stage (usually flowering or fruiting) of all target species. In select locations, with more than one target species, multiple site visits may be necessary if the survey windows do not overlap to sufficiently allow for surveys to be completed in a single visit. The schedule and number of required visits would be developed and documented in the agency-approved survey strategy. If new occurrences of special status plants are found, the entire extent of the local population intersected by the transmission line or other associated disturbance would be delineated and assessed. The results of these surveys will be incorporated into the POD for site-specific engineering and design, used to develop final mitigation, and used to develop monitoring requirements in coordination with the relevant agencies.

A.5.2 Wetlands and Waters of the United States

The recommended approach to, timing of, and requirements for surveys for wetlands and waters of the U.S. for transmission line construction are driven by the need for the survey results to be available to inform avoidance and mitigation measures necessary for the final engineering and design of the transmission line, to allow time for this information to be incorporated into the POD, and to allow adequate time for required permitting processes with the USACE. Based on these requirements, surveys for wetlands and waters of the U.S. are recommended to occur in all areas along the right-of-way.

In locations where potential wetlands or waters of the U.S. are located during field surveys, it may be advisable to modify new and improved access routes or structure locations to avoid activities that would require USACE permitting. All wetlands and waters of the U.S. that are confirmed through coordination with the USACE and cannot be avoided will require permitting and must be identified and documented in the POD prior to construction of the Project.

A.5.3 Special Status Wildlife

The recommended approach to, timing of, and requirements for surveys for special status wildlife for the transmission line construction are driven by the need for the survey results to be available to inform avoidance and mitigation measures to be developed and included in the POD, to inform the final engineering and design of the transmission line, and to provide information regarding the resources and resource density likely to be encountered during the construction of the transmission line. Survey results will be used to inform construction and resource monitoring needs, which will be documented in the Biological Resources Monitoring Plan to be included in the POD. A list of special status wildlife for

which surveys must be conducted, the agency-approved survey methodology, and the temporal and spatial extent of each survey for the transmission line construction is included in Table 1.

Helicopter surveys designed to detect raptor nests are recommended to occur during the appropriate breeding season. Survey protocols and best management practices designed to avoid disturbance of nesting raptors during helicopter surveys would be developed through agency coordination and included in the survey strategy and raptor survey protocols prior to initiation of the survey effort. It is important to note that helicopter surveys are not efficient for detecting ground-nesting or cavity-nesting raptors (e.g., burrowing owls, short-eared owls, northern harrier, American kestrel) or raptor nests located in dense tree canopies. Supplemental nest information for these species will be collected as part of incidental observations during pedestrian surveys for terrestrial wildlife and will be recorded in survey reports and documented in the POD. Additional pedestrian surveys for migratory bird nests and nesting raptors will be conducted as part of the preconstruction monitoring requirements. These surveys will be conducted by the construction environmental team and/or the construction inspection contractor and are not included in this plan.

Depending on the anticipated need for detailed raptor nest and occupancy data to support construction scheduling, monitoring, seasonal restrictions, and the processing of variance requests, it may be beneficial to conduct more thorough raptor nest surveys and annual nest occupancy determinations in the years leading up to the initiation of construction. Early nest detection and annual nest monitoring could provide a baseline of raptor nest occupancy information that could be used to support the construction phase of the Project but is not required for the objectives of this plan and has not been included at this time.

On completion of the special status wildlife surveys, coordination with the relevant agencies would occur to develop and document where appropriate avoidance and other mitigation measures would be implemented. The agencies may request that a biological monitor be present during construction activities to assist crews with avoiding sensitive resources in the field, modify Project features to avoid the resource, and the construction methods be modified or appropriate mitigation measures applied to reduce impacts. This coordination would occur on completion of the surveys and survey reports and then documented in the POD.

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Attachment B
Wildlife Variance Management Plan

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Acronyms and Abbreviations

AO	Authorized Officer
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
CIC	Compliance Inspection Contractor
IDFG	Idaho Fish and Game
IPC	Idaho Power Company
ODFW	Oregon Department of Fish and Wildlife
POD	Plan of Development
Project	Boardman to Hemingway Transmission Line Project
U.S.	United States
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WVMP	Wildlife Variance Management Plan

ATTACHMENT B – WILDLIFE VARIANCE MANAGEMENT PLAN

B.1 Introduction

This Wildlife Variance Management Plan (WVMP) provides a plan for the Bureau of Land Management (BLM), U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), Oregon Department of Fish and Wildlife (ODFW), Idaho Department of Fish and Game (IDFG), and personnel of the Boardman to Hemingway Transmission Line Project (Project) to engage in flexible management of certain biological resources when conditions warrant during construction, operations, and maintenance phases of the Project. Biological resources, including raptor nests and big game seasonal ranges, were determined to be suitable for adaptive management and mitigation variances by the federal agencies due to (1) species use intensity of seasonal habitats; (2) timing of proposed project work; and (3) climatological variation, primarily mild winters. This Plan does not apply to species listed under the Endangered Species Act, including fish, plants, greater sage-grouse, or non-raptorial migratory birds.

The WVMP contains procedures for granting exceptions to or modifying seasonal and spatial restrictions identified as Project mitigation measures, specifically seasonal and spatial mitigation measures, in Appendix B1 – Biological Resources Conservation Plan of the Plan of Development (POD). The WVMP provides a methodology that facilitates the approval or denial of these requests through the Level 2 variance procedure outlined in Appendix A5 – Environmental Compliance Management Plan and avoids the need for amendments to the right-of-way grant (BLM) and special-use authorization (USFS).

Variances granted under the WVMP are exceptions to Project mitigation measures. Idaho Power Company (IPC) and the Construction Contractor(s) should anticipate variances will not be granted and plan accordingly with a contingency. Variances would be granted based on biological information, not necessarily on the need.

To ensure biological resources are appropriately protected, the WVMP contains:

- Roles and responsibilities of involved parties
- Resource conditions that would permit variances to mitigation measures
- Procedures for determining resource conditions
- Procedures for communicating resource conditions and granting variances to mitigation measures
- Procedures for monitoring resource conditions after variances are granted

Adherence to the mitigation measures included throughout the POD will be mandatory unless a variance request has been approved via the procedures outlined in Section A5.4.2 – Variance Procedures (Unforeseen Circumstances). Variances to seasonal and spatial mitigation measures must be granted in writing by the BLM and USFS Authorized Officer (AO) or his/her designated representative (as appropriate based on land jurisdiction). Variances will be based on site-specific conditions and will not be applied Project-wide. Variances may pertain only to specific construction-related actions, which will be defined prior to approval of the construction-related action by the AO. The federal agency may restore the spatial and seasonal extent of mitigation measures outlined in the POD after granting a variance in the event resource conditions change, additional resource protections are needed as determined by a qualified biologist, or in response to a violation of terms and conditions of the variance to a mitigation measure.

B.1.1 Plan Framework Updates

This plan framework will support the National Environmental Policy POD sufficiently to complete and execute the BLM and USFS Records of Decision, the BLM right-of-way grant, and the USFS special-use authorization, for the Project. This plan framework serves as the baseline document to guide further development of the POD before issuance of the Notice(s) to Proceed and commencement of construction.

The complete WVMP will be prepared by IPC in cooperation the agencies as biological resources preconstruction surveys and detailed engineering design of the Project are completed and will contain the detailed information necessary for fulfilling the Project monitoring requirements. The Construction Contractor(s) will be responsible for implementing and meeting the plan requirements. This plan framework provides Project-specific guidance to complete the WVMP by identifying the Project biological resources monitoring requirements, which will be based on the results of preconstruction surveys. This plan framework will be updated and refined through the development of the POD to meet any stipulations of the Record of Decisions, BLM right-of-way grant, and USFS special-use authorization before the issuance of the Notice(s) to Proceed and commencement of construction.

B.2 Roles and Responsibilities

The parties involved in the Project and the WVMP include IPC, BLM, USFS, USFWS, ODFW, IDFG, Biological Monitors, Compliance Inspection Contractor (CIC), and IPC's Construction Contractor(s). Subcontractors to the involved parties may be engaged as needed. Each of the involved parties has other Project roles and responsibilities, which are outlined in Section 2 – Roles and Responsibilities.

B.2.1 Idaho Power Company

During the construction phase, IPC will be responsible for reviewing and submitting the Request for Wildlife Variance forms (Exhibit A, currently under preparation) prepared by the Construction Contractor(s) to the CIC. During the operation and maintenance phase, IPC will be responsible for preparing and submitting Request for Wildlife Variance forms (Exhibit A) to the appropriate federal agencies. Additionally, during the operation and maintenance phase, IPC will be responsible for contracting and retaining qualified Biological Monitors as needed to support operation and maintenance activities.

B.2.2 Bureau of Land Management and U.S. Forest Service

The BLM and USFS (as appropriate based on land jurisdiction) will be responsible for reviewing written requests using the Request for Wildlife Variance Form (Exhibit A) provided by the CIC during the construction phase and IPC during the operation and maintenance phase for variances to seasonal and spatial mitigation measures. The BLM and USFS will coordinate with the ODFW and IDFG to determine if variances are appropriate using professional knowledge, criteria outlined in the WVMP, and resource conditions presented in the request from the CIC during the construction phase and IPC during the operation and maintenance phase. The BLM and USFS will provide copies of the Request for Wildlife Variance Forms (Exhibit A) and weekly reports submitted by the CIC, IPC, and Biological Monitors to the ODFW or IDFG. If resource conditions permit site-specific variances to mitigation measures, the BLM and USFS will provide written notification to the CIC of the variance and identify work that is permissible at that location. The AO also will provide written notice to the CIC in the event that a variance is not granted or is granted with conditions. Permission granted also may be revoked by written notice at any time if conditions warrant such action.

B.2.3 Oregon Department of Fish and Wildlife and Idaho Department of Fish and Game.

The ODFW and IDFG will act as cooperating agencies to the BLM and USFS in administration of the WVMP. The ODFW and IDFG will provide Project and resource management recommendations to the BLM and USFS for big game resources identified in Appendix B1 – Biological Resources Conservation Plan. Designated ODFW and IDFG Project lead contact(s) will be identified prior to the completion of the POD.

The ODFW and IDFG will review requests for variances to mitigation measures by reviewing the Request for Wildlife Variance Form (Exhibit A) provided by the BLM and USFS. The ODFW and IDFG will provide recommendations to the BLM and USFS, as applicable, regarding modification of mitigation measures using professional knowledge, criteria outlined in the WVMP, and resource conditions outlined in the request. If variances are granted, the ODFW and IDFG will be given the opportunity to review weekly reports submitted by the Biological Monitors to the BLM and USFS detailing resource conditions and Project activities in affected areas. The ODFW and IDFG will submit questions or concerns regarding weekly reports through BLM and USFS, as applicable.

B.2.4 U.S. Fish and Wildlife Service

All variances requested for bald and golden eagle nests and bald eagle roosting areas will be reviewed and approved by the USFWS under their authority over the Bald and Golden Eagle Protection Act (BGEPA). Eagle nesting variance request forms will be sent to the USFWS in addition to the BLM and USFS. The USFWS will provide technical guidance to the BLM and USFS, if requested, for resources over which the USFWS has authority under the Migratory Bird Treaty Act and BGEPA. If requested by the BLM and USFS the USFWS will review requests for other variance requests, which will be provided to the USFWS by the BLM and USFS.

B.2.5 Biological Monitors

To help ensure construction activities are conducted in a manner that complies with all federal, state, and local regulations, the Construction Contractor(s) will contract a team of environmental inspectors that will include Biological Monitors. Biological Monitors will be contracted during the construction phase of the Project and may be contracted during operation and maintenance if IPC wishes to engage in adaptive management or variances. The Biological Monitors will work under the Lead Biological Monitor and will coordinate with the CIC to facilitate variance requests.

Biological Monitors must be pre-approved by the BLM and USFS to ensure they meet the educational requirements (or possess a combination of education and experience) for Wildlife Biology Occupational Series 0486 and/or Botany Occupational Series 0430. Biological Monitors may be required to meet the requirements for other occupational series based on the work to be performed. When a request for variance to a mitigation measure is received, Biological Monitors will be responsible for assessing the status of the affected resources. Biological Monitors will document and communicate resource status in writing to the CIC (during construction) or to the appropriate state and federal agencies (during operation and maintenance). If variances to mitigation measures identified in the POD are granted by federal agencies, it also will be the responsibility of the Biological Monitor to monitor resource conditions and Project activities in the affected area and provide weekly written reports to the CIC or appropriate federal agency. The Biological Monitor will be responsible for notifying the Construction Contractor's Lead Biological Monitor and Environmental Manager if Project activities authorized using the WVMP cause unintended impacts on sensitive resources. The Construction Contractor's Environmental Manager then will notify the CIC or appropriate federal agency within 24 hours of the impact occurring.

B.2.6 Compliance Inspection Contractor

The CIC is an on-the-ground agent of the BLM and other cooperating agencies retained by IPC during the construction phase of the Project. The CIC provides on-site compliance inspections and monitoring for the Project. This service helps to promote environmental protection and ensures compliance with requirements of the BLM and USFS based on the commitments established in the POD.

The CIC will review reports provided by Biological Monitors regarding resource conditions to determine if a variance to mitigation measures identified in the POD may be potentially needed as outlined by the WVMP. When construction encounters areas identified as having protection measures currently in effect, the CIC will submit a written variance request to the AO; and if the request addresses big game resources, the request also will be submitted to the ODFW or the IDFG. If the request addresses bald and golden eagles, the request will also be provided to the USFWS.

If variances to mitigation measures are approved by federal agencies, the CIC will be responsible for conducting field inspections and reviewing the Biological Monitors' weekly reports to ensure resource conditions identified in the WVMP continue to indicate the variance is appropriate. The CIC will immediately notify the appropriate federal agency and ODFW or IDFG if Biological Monitors report unanticipated resource impacts are occurring, resource conditions have changed and no longer meet criteria for variances identified in the WVMP, or the terms and conditions of the variance are violated.

B.2.7 Construction Contractor(s)

The Construction Contractor(s) will be responsible for communicating with Lead Biological Monitors, IPC, and the CIC to identify Project locations where work that would otherwise be restricted by the POD may be allowed using procedures outlined in the WVMP. The Construction Contractor(s) will develop and maintain a construction schedule that will be distributed to the CIC, BLM, and USFS. The construction schedule will allow agencies to anticipate where requests for variances may occur. The Construction Contractor(s) will provide a written request to IPC to investigate biological resources conditions at a particular site if the contractor wishes to request a variance at the location as outlined in the WVMP.

B.3 Communication and Notification Protocol

Timely, clear, and effective communication among the involved parties is a critical component to the success of the Project and implementation of the WVMP. This section of the WVMP identifies major steps in the development and evaluation of individual requests for variances to spatial and seasonal wildlife mitigation measures and necessary communications for each step. These communications and notifications are meant to clarify those outlined in Section A5.4.2 – Variance Procedures (Unforeseen Circumstances) for level 2 variances.

B.3.1 Request for Wildlife Variance

Requests for variances to mitigation measures will be initiated by the Construction Contractor(s) during the preconstruction and construction phases and IPC during the operation and maintenance phase.

The Construction Contractor(s) and their Environmental Manager and Lead Biological Monitor(s) will coordinate with IPC, CIC, and appropriate federal agency to determine if a proposed disturbance may be appropriate for implementing variances to mitigation measures during construction. IPC and their Lead Biological Monitor will coordinate with the appropriate federal agency to determine if a proposed disturbance may be appropriate for variances to mitigation measures during operation and maintenance. Variance request determinations will be made by the BLM and USFS. The USFWS will make determinations for all variance requests made for bald and golden eagles. If deemed appropriate through

the aforementioned coordination with the CIC and appropriate federal agency, the Construction Contractor(s) during the preconstruction and construction phases and IPC during the operation and maintenance phase will have their Biological Monitor perform the necessary fieldwork to determine the condition of the resource for which adaptive management is requested. On completion of fieldwork, the Biological Monitor will prepare the appropriate documentation on the Request for Wildlife Variance Form (Exhibit A) describing the location, nature, and duration of activities that will be performed if the variance is granted and the observed resource conditions at the location. This information will be combined with a completed variance request form and submitted to IPC for review and upon IPC approval and will be submitted to the CIC during construction or appropriate federal agency during operation and maintenance. If a request is submitted to the Biological Monitor, the Construction Contractor(s) will concurrently submit a written notification to the CIC (during construction) or appropriate federal agency (during operation and maintenance). The notification will include a Request for Wildlife Variance Form (Exhibit A) describing the location, nature, and duration of activities that will be performed if the variance is granted.

B.3.2 Determination of Resource Condition

On receipt of a written request from IPC, the Biological Monitor will perform the necessary fieldwork to determine the condition of the resource for which adaptive management is requested. On completion of fieldwork, the Biological Monitor will submit a written description of the resource condition to the CIC (during construction) or appropriate federal agency (during operation and maintenance) for which adaptive management has been requested. The written request will include a Request for Wildlife Variance Form (Exhibit A) describing the location, nature, and duration of activities that will be performed if the modification or exception is granted and the observed resource conditions at the location.

B.3.3 Request Submitted to Federal Agency

During construction, the CIC will review the variance request and appropriate exclusion or adaptive management documentation to provide a recommended action to the AO. The CIC will review the location, nature, and duration of activities that will be performed if the variance is granted and the observed resource conditions at the location. During operation and maintenance, IPC will submit resource conditions directly to the AO. The AO will compile the resource information with the request previously received from IPC. During the construction phase, the CIC will submit a compiled Request for Adaptive Management Form (Exhibit A) to the AO.

B.3.4 Federal Agency Determination

On receipt of a variance request from the CIC (during construction) or IPC (during operation and maintenance), the AO will collaborate with the ODFW or IDFG to determine if resource conditions and required protections are compatible with the requested variance if the request addresses big game ranges. Bald and golden eagle requests will include USFWS authorization. Collaboration and review of a complete variance request will be completed within 10 business days, unless the federal agencies require additional time to review the request. The federal agency may grant, grant with condition(s), or deny the request for a variance to mitigation measures. On determination of the federal agency's action, necessary communications and notifications will include the following:

- The AO will provide written notification of their determination to the CIC (during construction) or IPC (during operation and maintenance).
- During construction, the CIC will provide written notification of the federal agency's determination to the Construction Contractor(s).

B.3.5 Monitoring of Activities

If the federal agency grants a variance request to IPC, daily monitoring of permitted activities and resource conditions will be required in the affected area unless otherwise specified by the AO. On initiation of the authorized activities, necessary communications and notifications will include the following:

- During the construction phase, the Construction Contractor(s) will coordinate with and notify their Biological Monitors of the schedule of planned activities in the affected area.
- During the construction phase, the Construction Contractor's Biological Monitors will prepare and submit weekly reports to the Construction Contractor's Lead Biological Monitor and Environmental Manager; who will review and submit the reports to the CIC. The CIC will review and submit the reports to the AO. During the operation and maintenance phase, IPC and their Biological Monitor(s) will submit the weekly reports to the AO. The weekly reports will detail work performed and resource conditions in the affected area (refer to Appendix A5 – Environmental Compliance Management Plan for reporting and documentation requirements).
- The Construction Contractor's Lead Biological Monitor and Environmental Manager will notify the CIC and the AO immediately if resource conditions become incompatible with the permitted modification, if unforeseen impacts occur, or if authorized activities may result in unintended impacts on biological resources. If unintended impacts may occur, all operations will stop until the appropriate federal agency is notified and grants continued work. At this point, the federal agency may cancel or modify the variance.
- IPC will notify the CIC or appropriate federal agency on completion of work in the affected area.

B.4 Affected Resources

Seasonal and spatial restrictions identified as mitigation measures in the POD to protect raptor nests and roost sites (including eagles) and big game habitats may be modified using this WVMP. Variances must consider site-specific resource conditions, resource sensitivity, and reasonably foreseeable future impacts of the proposed variance on current and future resource conditions. The assessment of the resource for potential WVMP implementation will occur in a relatively short time frame (i.e., same season) prior to the proposed construction or operation and maintenance activity for which a variance would be requested. Older records and data of the resource will be used only as supplemental information in addition to the real-time site assessment. This section of the WVMP identifies site-specific resource conditions that will inform the federal agency's decision of suitability of adaptive management and provides a plan for the Biological Monitor to assess and document those conditions.

B.4.1 Raptors

Raptor variance requests will be based on preconstruction raptor nest and roost survey results. Biological Monitors will visit the previously identified nesting location for which adaptive management is requested to determine nest status and raptor use in the area. In September of each year during construction, the BLM will send the USFWS a summary report on raptor nests where project variances were requested. If at any time "take" under the BGEPA or the Migratory Bird Treaty Act is confirmed or suspected, the BLM and USFS will notify the USFWS immediately. Project-related activities that result in take of protected species should be suspended pending review by these agencies and the USFWS.

B.4.1.1 Unoccupied Nest

If a variance is requested due to lack of occupancy at inactive nesting or roosting site (unoccupied), the Biological Monitor in coordination with the agency biologist must complete a minimum of three visits to the nesting or roosting site during the appropriate nesting or roosting period separated by a minimum of

three days each. Nest status may be determined during preconstruction surveys or during construction monitoring by the Biological Monitors. To avoid inaccurately determining that nests/roosts are unoccupied due to surveys occurring prior to territory and nest selection, the three visits must not occur earlier than the incubation period for species that may inhabit nests in the area of interest. No more than one week may pass between the last nest/roost visit and the onset of construction activities. Alternatively, additional nest or roost visits should be regularly conducted until the onset of site activity. It is important to note that inactive eagle nests are protected under the BGEPA and may not be altered or destroyed without a federal permit. Under the BGEPA, an "inactive nest" is defined as an eagle nest that is not currently used by eagles as determined by the absence of any adult, egg, or dependent young at the nest during the 10 days before the nest is taken.

If adult eagles are observed near a nest during the early breeding season, a variance should not be requested until it is confirmed that the eagles have selected an alternative nest or that nesting will not occur. Biological Monitors will confirm adult eagle pair nest site use during the preconstruction and construction surveys.

Raptor nesting phenology in the Project area can exhibit annual variation, and timing of surveys should be coordinated with the AO. In general, each nest or roost visit period should be timed for 4 hours during peak activity. General nesting phenology for raptors in the Project area is presented in Table 1 of Exhibit B – Preconstruction Raptor Nest Survey Protocol. Visits must be completed during periods when raptors are most active (morning and dusk) and lack of nesting activity must be confirmed at each visit. The use of both a high-powered telescope and binoculars is required to enable Biological Monitors to make observations far enough away from nests to minimize stress and avoid eliciting a sustained territorial behavior from raptors. BLM and USFS concurrence is required (as appropriate based on land jurisdiction) before raptor nests or territories can be deemed unoccupied. A contact list of qualified raptor experts is also provided for each state. The experts can provide professional opinions and raptor biology expertise as requested by the Lead Biological Monitors and CICs, BLM and USFS.

B.4.1.2 Occupied Raptor Nest and Roost Monitoring

If variances to raptor nest seasonal and spatial mitigation measures are granted for occupied nests or roosts, the Biological Monitor will monitor the nest/roost site daily during all authorized activities that may affect behavior or survival of raptors at the site. The use of both a high-powered telescope and binoculars is required to enable Biological Monitors to make observations far enough away from nests/roosts to minimize stress and flushing and to avoid eliciting a sustained territorial behavior from raptors. Monitoring must begin in the early morning, no less than 1 hour prior to construction personnel arriving in the area. Biological Monitors must remain in the affected area to monitor raptor activity for the daily duration of construction activities. The Biological Monitors will maintain a daily log of nest site conditions, raptor behavior, and authorized activities and provide weekly summaries to the CIC (during construction) or appropriate federal agency (during operation and maintenance). If monitoring detects an impact on bird behavior, territory establishment, nest or roost attendance, or nest or roost site conditions, the Biological Monitor will immediately shut down the source of disturbance and notify the CIC or appropriate federal agency, Construction Contractor(s), and IPC to avoid nest or roost abandonment or take.

B.4.2 Big Game Habitats

Adaptive management of seasonal restrictions associated with big game habitats will be evaluated based on seasonally variable climate conditions and site-specific determinations of habitat use. Biological Monitors will conduct two site visits to document habitat conditions and use in the affected area for which adaptive management is requested. Site visits will occur within the seasonal restriction time frame and temporally reflect peak or optimal activity patterns of the big game species for which adaptive management is requested. Biological Monitors will coordinate with local experts, including ODFW or

IDFG perform ocular observations and pellet searches to determine big game use; evaluate annually variable habitat conditions in the affected area; and document conditions, including the following:

- Vegetative status
- Current climatic trends
- Non-Project related disturbance
- Availability and current use of adjacent habitats
- Current and reasonably foreseeable big game use

The Construction Contractor(s) will submit this report to the CIC or appropriate federal agency for review during the construction phase, and during the operation and maintenance phase IPC will submit this report to the appropriate federal agency.

B.4.2.1 Big Game Monitoring

If variances to seasonal and spatial mitigation measures are granted for big game habitats, the Biological Monitor will monitor the affected area daily during peak or optimal periods of big game activity and during authorized construction activities that may affect behavior or survival of big game at the location. The Biological Monitor will keep a daily log of habitat conditions in the affected area, including all conditions and trends identified in the request for adaptive management. Weekly summaries of habitat conditions, big game behavior, and authorized activities will be submitted to the CIC or appropriate federal agency and ODFW or IDFG as appropriate. If monitoring detects an impact on big game behavior or habitat conditions change and are no longer compatible with adaptive management, the Biological Monitor will immediately notify the CIC or appropriate federal agency, the Construction Contractor(s), and IPC so the impacts may be avoided or eliminated.

Exhibit A
Request for Wildlife Variance Form

(Currently under Development)

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Exhibit B
Preconstruction Raptor Nest Survey Protocol

(Currently under Development)

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Attachment C
Migratory Bird Nest Management, Monitoring, and Reporting Plan Framework

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Acronyms and Abbreviations

BLM	Bureau of Land Management
CFR	Code of Federal Regulations
ESA	Endangered Species Act
IPC	Idaho Power Company
MBTA	Migratory Bird Treaty Act
POD	Plan of Development
Project	Boardman to Hemingway Transmission Line Project
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

ATTACHMENT C – MIGRATORY BIRD NEST MANAGEMENT, MONITORING, AND REPORTING PLAN FRAMEWORK

C.1 Introduction

This Migratory Bird Nest Management, Monitoring, and Reporting Plan Framework outlines the steps to be taken by Idaho Power Company (IPC) and its contractors and subcontractors to avoid or minimize impacts on nesting birds during construction of the Boardman to Hemingway Transmission Line Project (Project). The Project calls for the construction of an electrical transmission line through northeastern Oregon and southwestern Idaho. The goals, environmental requirements, regulations, scope, and proposed timing of the Project have been specified in the Environmental Impact Statement.

This Plan Framework describes the steps to be taken for the development of the final Migratory Bird Nest Management, Monitoring, and Reporting Plan that will be prepared for the construction Plan of Development (POD). The final Plan will be developed in response to specific requirements of the Migratory Bird Treaty Act (MBTA) and will be consistent with guidelines provided in Migratory Bird Conservation Actions for Projects to Reduce the Risk of Take during the Nesting Season (USFWS 2014). It will apply to birds nesting on all types of land ownership and management across the entire Project area. The provisions of the final Plan will apply only to the construction phase of the Project; responsibilities of IPC to avoid take and meet its obligations under the MBTA during maintenance activities will be identified elsewhere (Appendix A6 – Operations and Maintenance Plan).

This Plan Framework applies only to non-raptor bird species that are protected under the MBTA and those species known or suspected to nest in the various habitats where Project construction will occur. Bird species listed as threatened or endangered under the protection of the Endangered Species Act (ESA), or candidates for listing are not included in this Plan Framework but are treated separately in Appendix B1 – Biological Resources Conservation Plan.

Plan objectives include the following:

- Describe methods to avoid or minimize impacts on nesting birds outside of the nesting season.
- Identify the roles and responsibilities of the various parties involved with the implementation of the plan.
- Identify survey protocols to be used to locate active nests.
- Specify guidelines for establishing buffer zones around active nests.
- Establish a decision protocol to identify whether a variance to a recommended buffer zone is appropriate in a specific situation.
- Identify nest monitoring protocols for active nests for which a buffer zone is established.
- Identify measures to avoid, minimize, or deter Project impacts on nesting birds.
- Identify the schedule and scope of interim and final reports to be provided to the Bureau of Land Management (BLM), United States Fish and Wildlife Service (USFWS), and United States Forest Service (USFS).

C.1.1 Plan Framework Updates

This Plan Framework will support the National Environmental Policy POD sufficiently to complete and execute the BLM and USFS Records of Decision, the BLM right-of-way grant, and the USFS special-use

authorization, for the Project. This Plan Framework serves as the baseline document to guide further development of the POD before issuance of the Notice(s) to Proceed and commencement of construction.

The complete Migratory Bird Nest Management, Monitoring, and Reporting Plan will be prepared by IPC in cooperation the agencies as biological resources preconstruction surveys and detailed engineering design of the Project are completed and will contain the detailed information necessary for fulfilling the Project monitoring requirements. The Construction Contractor(s) will be responsible for implementing and meeting the plan requirements. This Plan Framework provides Project-specific guidance to complete the Migratory Bird Nest Management, Monitoring, and Reporting Plan by identifying the Project biological resources monitoring requirements, which will be based on the results of preconstruction surveys. This Plan Framework will be updated and refined through the development of the POD to meet any stipulations of the Records of Decision, BLM right-of-way grant, and USFS special-use authorization before the issuance of the Notice(s) to Proceed and commencement of construction

C.1.2 Regulatory Background

This plan will help the Project conform to the stipulations of the MBTA of 1918 (as amended) and avoid take during construction operations. Section 703 of the MBTA states that:

> Unless and except as permitted by regulations made as hereafter provided in this subchapter, it shall be unlawful at any time, by any means or in any matter, to pursue, hunt, take, capture, or kill … any migratory bird, any part, nest, or egg of any such bird. … This law only applies to migratory bird species that are native to the United States or its territories.

The MBTA protects migratory birds under 50 Code of Federal Regulations (CFR) 10.12, and the USFWS maintains a list of all birds protected by the MBTA under 50 CFR 10.13. Executive Order 13186 emphasizes the importance of MBTA adherence by federal agencies. The USFWS issued an MBTA policy guidance document (April 15, 2003) stating that it contains no prohibition applying to the destruction of a nest alone (without eggs or nestlings), provided that no possession occurs during the destruction and that no eagle nests or nests of ESA-listed species are destroyed.

C.2 Initial Plan Preparation

IPC will first compile a list of species that will potentially be nesting in the Project area by reviewing available sources, including but not limited to the Breeding Bird Atlas of Oregon (Adamus *et al.* 2001) Birds of North America (www.bna.birds.cornell.edu/bna/), and Oregon and Idaho fish and wildlife agency databases. This list will be reviewed by the resource agencies for concurrence prior to construction.

C.2.1 Environmental Training

All personnel involved in Project construction will be required to attend an environmental and safety training. This training will provide information on recognizing breeding birds and instruct personnel how to communicate the information if they identify a breeding bird. The training will also explain avoidance actions that must be taken if active nests are identified. A discussion will be held explaining how federal and state regulations (e.g., MBTA) for the protection of nesting birds has resulted in the need for the plan, and how compliance with the plan is important to the Project.

C.3 Roles and Responsibilities

The various parties involved with the implementation of the plan include IPC and all of its Construction Contractor(s) and subcontractors, the BLM, the USFS, and the USFWS. A description of the roles and responsibilities of IPC, federal agencies (including the Construction Inspection Contractor), and the Construction Contractor(s) are outlined will be detailed in the Final Plan. The responsibilities of the four primary roles (Supervisor Avian Biologist, Avian Biologist, Environmental Inspector, and Construction Contractor[s]) involved in the implementation of this plan along the Project route will also be identified in the Final Plan. The Construction Contractor(s) will employ or contract the Supervisory Avian Biologist, Avian Biologists, and Environmental Inspectors. All parties will work together to identify and avoid active migratory bird nests during construction of the Project.

C.4 Measures to Avoid, Minimize or Deter Project Impacts on Nesting Birds

The primary methods to avoid and minimize impacts on nesting birds will be (1) construction at times outside of the nesting season, (2) preconstruction vegetation clearing outside of the nesting season, and (3) the creation and maintenance of appropriate buffer zones around active nests.

IPC will develop methods to deter birds nesting in approved work areas after vegetation clearing has occurred and construction has been initiated. All legally available methods to prevent this will be used to reduce the probability of nests becoming established in approved work areas or on Project related equipment and materials. Under no circumstances will an active nest be removed, destroyed, or harmed in any way through either direct or indirect action. Passerines and other non-raptor birds have been known to nest on construction equipment and materials during the nesting season. To minimize the potential for conflict with nesting passerines, sticks and other debris thought to have been placed by birds preparing to nest on equipment or materials may be actively removed. Fully constructed bird nests also may be removed, except those active nests with eggs or nestlings; eggs without a nest may not be removed until an Avian Biologist or Environmental Inspector has determined that the nesting event at that site has been abandoned, completed, or failed.

C.5 Nest Survey Protocol

C.5.1 Time Frame of Nest Surveys and Monitoring

For the purposes of this Plan, the nesting season is that period of time when eggs or nestlings are present in an active nest. The beginning and end of the nesting season will vary by elevation, annual variations in climatic conditions, and other environmental variables, but is generally viewed to occur from April 1st through August 15th.. Raptors along the Project route may initiate nesting activities as early as February 1. This plan does not address nesting raptors, nor does it address other ESA-protected and sensitive species that also may initiate nesting prior to April 1st. Surveys to locate new nests will terminate on July 31, and any known nests still active on that date will continue to be monitored until August 15 (or later if necessary) by Avian Biologists and Environmental Inspectors. It is extremely unlikely that new nests will be initiated after August 1.

Any Project-related vegetation clearing (habitat removal) or construction activities that will occur during the specified nesting season at the specified elevation will require nest surveys prior to disturbance. Nest surveys will not be needed within buffers that have been previously established for the protection of other resources and overlap with the nesting season.

C.5.2 Nest Survey Methods

Nest surveys (searches for active nests) will be conducted using techniques described in the Handbook of Field Methods for Monitoring Landbirds (Ralph *et al.* 1993). These techniques call for the use of visual and auditory cues to find nests in all possible situations (ground, cavity, cliff, vegetation, and bridge or structural). IPC will provide further detail of nest survey methods in the final Plan.

C.5.3 Application of Buffer Zones

Buffer zones are a useful and accepted management practice designed to avoid or minimize anthropogenic disturbance to active nests. Implementation of recommended buffer zones has been demonstrated to reduce the potential for human-related nest abandonment or nest failure and to minimize disruption of normal nest attendance and feeding behavior of adult birds.

The BLM recommends a buffer zone radius of 100 to 300 feet for nests of non-raptor species covered in a plan, based on the local experience of their biologists. The USFWS and other state or federal agencies do not have any formal guidelines or regulations for the establishment of buffer zones around active nests of non-raptor bird species included in this plan. IPC will work with the resource agency staff to establish buffer zones by species that have potential to be nesting in the area in the final Plan.

Buffer zones will be applied if the distance from the active nest to the edge of the work area is less than the recommended buffer zone radius for that species. The actual point of disturbance, which may be in the approved work area but outside of the buffer zone, is defined as that location in the approved work area where human activity is to occur. The need for establishing a buffer zone in the approved work area will be evaluated by an Avian Biologist when an active nest is discovered. Once an active nest is detected in the survey area and its species is determined, the Avian Biologist will consult the list of recommended buffer zones to determine the appropriate radius.

Buffer zone boundaries in the approved work areas will be marked using signs and flagging placed at the edge of the buffer facing the work area, access road, staging area, or other Project activity or facility.

Signage and flagging protocols will be discussed during the environment and safety training program. The need for an established buffer zone will end when monitoring of a given nest determines that it is no longer active—nestlings have fledged, or nest has been abandoned or has failed—or Project activity and construction that may disturb the nest are no longer occurring within 300 feet of the buffer zone, whichever is first. Signage and flagging will be removed from the approved work area immediately after it is determined that a nest is no longer active, or when project activity and construction are no longer occurring in the buffer zone and potential disturbance is no longer a concern.

C.5.4 Nest Buffer Variance

A potential buffer zone variance will be considered only if the creation of a buffer zone will strongly conflict with critical Project activity. Only the Supervisory Avian Biologist will be able to initiate the decision protocol for a determination of nest buffer variance, with final approval to come from the USFWS and federal land-management agencies' Authorized Officers or their designated representatives.

C.6 Monitoring Protocol

All active nests for which a buffer zone is established in the approved work area, and all active nests within 150 feet of approved and active work area boundaries at which nest survey activities have occurred (regardless of the need for a buffer zone) will be monitored by either an Avian Biologist or Environmental Inspector. Active nests will be monitored weekly at minimum and ideally at 4- to 5-day intervals, but monitoring frequency may vary depending on Project activity or other factors. Nest monitoring activities have the potential to accidentally alert nearby aerial predators or parasitic nesters to

the nest location, so nest monitors will be aware of potential predators or parasites and avoid checking nests if they are nearby.

Details of nest monitoring will be developed by IPC and presented in the final Plan.

C.7 Documentation and Reporting

An electronic tablet will be used to record all nest data from survey and monitoring activities. This field data collected by Avian Biologists will be downloaded to a centralized database on a daily basis for this information to be available to Environmental Inspectors, Construction Contractor(s), and agency personnel so that up-to-date information may be uploaded as needed for planning, scheduling, and monitoring purposes. This centralized, digitized database is the nest monitoring log, which will form the basis for the twice-monthly nest survey and monitoring reports.

A report outlining all nest survey, nest discovery, nest monitoring, and buffer zone establishment and variance activities will be prepared twice each month during the nesting season and submitted to the designated point of contact (to be identified in the final Plan) of the BLM and USFS. This will be a digital report to be submitted electronically.

An annual report summarizing all nest survey, discovery, buffer, monitoring, and avoidance or minimization activities will be submitted to the BLM, USFS, and USFWS by November 31 during each year of Project construction. Also included will be an evaluation of the effectiveness of the recommended nest buffer zones. This report will be submitted in hard copy and in digital form.

C.8 Literature Cited

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Ralph, C.J., G.R. Geupel, P. Pyle, T.E. Martin, and D.F. DeSante. 1993. Handbook of field methods for monitoring landbirds. Gen. Tech. Rpt. PSW-GTR-144, USDA Forest Service, Albany, California.

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Attachment D
Seasonal and Spatial Restrictions for Biological Resources

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ATTACHMENT D – SEASONAL AND SPATIAL RESTRICTIONS FOR BIOLOGICAL RESOURCES

Seasonal and spatial restrictions to protect biological resources were identified from Bureau of Land Management Resource Management Plans, United States Forest Service Land and Resource Management Plans, state wildlife management plans, agency guidelines, and through correspondence with the Bureau of Land Management, United States Forest Service, United States Fish and Wildlife Service, and state wildlife agency staff. For some resources, seasonal and spatial restrictions were developed through the National Environmental Policy Act process for this Project. Due to the nature of the biological resources they are designed to protect, seasonal and spatial restrictions vary by location in the Project area. Table 1 sets forth the seasonal and spatial restrictions (e.g., no surface occupancy, conditional surface use, or no surface disturbance) relevant to resources present in the Project area.

Modifications, waivers, or exceptions to the seasonal restrictions presented in this Attachment may be requested through the processes set forth in the Wildlife Variance Management Plan (Attachment B). Table 1 includes, for certain resources, exception criteria that will be considered as part of and in addition to the processes set forth in the Wildlife Variance Management Plan.

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Table 1 Seasonal and Spatial Restrictions for Biological Resources				
Agency	**Applicable Plan or Other Source**	**Area to Which Restriction Applies**	**Restriction**	**Additional Exception Criteria**
Columbia Spotted Frog				
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Columbia spotted frog habitat	• Limit activities within Riparian Conservation Areas to those that have either a neutral or beneficial effect on aquatic objectives. Timing of those activities will be outside Columbia spotted frog egg laying/hatching for that area. If not known, restrict activities from March 1 to May 31. • Habitat connectivity buffers will be placed in areas where there are established breeding and spawning pools or Columbia spotted frog habitat.	
Big Game				
Oregon Department of Fish and Wildlife (ODFW)	Mitigation Framework for Indirect Road Impacts to Rocky Mountain Elk Habitat (ODFW 2015); B2H Project-specific recommendations developed through coordination with the BLM	Elk and mule deer winter range	• No construction activities will be allowed from December 1 to March 31. • Avoid creating new roads in any portion of big game winter range, when feasible.	
Idaho Department of Fish and Game (IDFG)	B2H Project-specific recommendations developed through coordination with the BLM	Mule deer winter range	Avoidance recommended from December 1 to March 31 in Owyhee County.	
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Elk and mule deer winter range	Avoid locating roads through winter range, when feasible.	
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Rocky Mountain elk winter range	Prohibit motor vehicle use in winter range from December 1 to April 30.	
USFS, Oregon	36 CFR Sec. 261.50(a) and (b) Order # 196	Spring Creek big game winter closure area	Prohibit motor vehicle use from December 15 to April 30.	USFS authorized officers can provide a written waiver for this restriction.
Greater Sage-Grouse				
ODFW, Oregon	Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat (ODFW 2011)		• Micro-site developments and associated infrastructure to minimize impacts on Greater Sage-Grouse habitat use and population dynamics. • Conduct construction and maintenance associated with development activities outside of the period from 1 March to 30 June in sage-grouse habitat. If the developer determines that this time period cannot be avoided and the authorizing entity in consultation with ODFW agrees, then restrict the activity from 1 hour after sunset to 2 hours after sunrise.	
BLM, Oregon	Oregon Greater Sage-Grouse Approved RMP Amendment (ARMPA) (BLM 2015a)	Within 1 mile of the perimeter of occupied leks	From March 1 to June 30 there will be no disruptive activities 2 hours before sunset to 2 hours after sunrise. Disruptive activities are those that are likely to alter Greater Sage-Grouse behavior or displace birds such that reproductive success is negatively affected or an individual's physiological ability to cope with environmental stress is compromised. Examples of disruptive activities are noise, human foot or vehicle traffic, or other human presence.	
BLM, Oregon	Oregon Greater Sage-Grouse ARMPA (BLM 2015a)	Breeding habitat	• Limit noise at the perimeter of occupied or pending leks from 2 hours before to 2 hours after sunrise and sunset during the breeding season to less than 10 decibels above ambient sound levels. • Require noise shields for noise-creating authorizations. • Locate new compressor stations and other authorized noise-creating equipment outside priority habitats and design them to reduce noise that may be directed toward priority habitat.	
BLM, Oregon	Oregon Greater Sage-Grouse ARMPA (BLM 2015a)	Seasonal habitats	Anthropogenic disturbances or activities disruptive to Greater Sage-Grouse (including scheduled maintenance activities) will not occur in seasonal Greater Sage-Grouse habitats. Seasonal avoidance periods include: • In breeding habitat within 4 miles of occupied and pending leks from March 1 to June 30. Lek hourly restrictions are from 2 hours before sunset to 2 hours after sunrise at the perimeter of an occupied or pending lek. • In brood-rearing habitat, from July 1 to October 31. • In winter habitat, from November 1 to February 28.	
BLM, Idaho	Idaho and Southwestern Montana Greater Sage-Grouse ARMPA (BLM 2015b)	Within 2 miles of leks during the lekking season	No repeated or sustained behavioral disturbance (e.g., visual, noise more than 10 decibels [A weighted] at lek, etc.) to lekking birds from 6:00 p.m. to 9:00 a.m.	
BLM, Idaho	Idaho and Southwestern Montana Greater Sage-Grouse ARMPA (BLM 2015b)	Nesting habitat	Avoid mechanized anthropogenic disturbance during the nesting season when implementing fuels/vegetation/habitat restoration management projects, infrastructure construction or maintenance, geophysical exploration activities, and organized motorized recreational events.	

Table 1 Seasonal and Spatial Restrictions for Biological Resources				
Agency	**Applicable Plan or Other Source**	**Area to Which Restriction Applies**	**Restriction**	**Additional Exception Criteria**
BLM, Idaho	Idaho and Southwestern Montana Greater Sage-Grouse ARMPA (BLM 2015b)	Winter habitat	Avoid mechanized anthropogenic disturbance during the winter, in wintering areas when implementing fuels/vegetation/habitat restoration management projects, infrastructure construction or maintenance, geophysical exploration activities, and organized motorized recreational events.	
Northern Goshawk				
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Northern goshawk nests	• Activities should not alter stand structure within a radius of 660 feet from known goshawk nests. • Minimize human disturbance in active northern goshawk nest areas from March 1 to September 30. • Nest-disturbing activities should not occur within a radius of 1,320 feet from known active goshawk nests from April 1 to August 1.	
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Northern goshawk post-fledgling family area	Avoid all disturbances from April 1 to August 30.	
USFS, Oregon	Decision Notice for the Revised Continuation of Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales (Eastside Screens; USFS 1995)	Northern goshawk nesting habitat	• Activities should not alter stand structure within a radius of 30 acres around active and historical nest trees (within the past 5 years). • Minimize human disturbance around nest site from April 1 to August 30. • Nest-disturbing activities should not occur within the 400 acre Post Fledging Area from April 1 to August 30.	
Eagles				
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Bald and golden eagle nests and winter roosts	• No project activities will occur from February 1 to July 30 (both dates inclusive) within 0.5 mile from any occupied bald eagle nest site that may occur in a project area. • Project activities that have potential to disturb bald eagle winter roosts, will be restricted within 400 meters of the roosting area from November 1 to April 30. • Down or standing fuel wood will not be cut and gathered within 0.25 mile of the nest from January 1 to August 31 if a bald eagle nest is active; down woody material may be gathered outside of the nesting season. • No standing dead tree greater than 18 inches diameter at breast height (dbh) will be cut or removed within 500 meters (0.31 mile) of the nest at any time of the year. • No standing dead trees greater than 16 inches dbh will be cut, unless it meets the long-term management objectives. • In bald eagle management areas and essential habitat, protect all known nesting, roosting, and perch trees and provide alternative and future perch trees. Generally, these are any live trees (Douglas-fir, ponderosa pine, etc.) or snags greater than 21 inches dbh.	If it is determined that a nest was inactive for the nesting season, the BLM authorized officer may issue a written waiver to this term and condition.
BLM, Oregon	Southeastern Oregon RMP and Final EIS (BLM 2002)	Bald eagle winter habitat	Human activities that significantly disrupt habitat security would be eliminated by avoiding authorized uses during the winter use period.	
BLM, Idaho	Owyhee RMP (BLM 1999)	Bald eagle winter habitat	Protect bald eagle winter habitat and populations through implementation of the Snake River Birds of Prey National Conservation Area Management Plan and restricting activities that would result in disturbance to wintering eagles or adverse impacts on roost trees, prey species or other habitat components.	
BLM, Idaho	Owyhee RMP (BLM 1999)	Golden eagle nests	Authorize no human caused disturbance within a 0.5-mile radius of any known golden eagle nest from February 1 to June 30. [NOTE: The BLM requests avoidance from February 1-July 30 for the entire B2H Project area.] Disturbance is defined as any activity that could result in frequent flushing of adults or young, nest abandonment, or significant loss of prey base.	
USFS, Oregon	National Bald Eagle Management Guidelines (USFWS 2007)	Bald eagle nests	• Landscape buffer of no activity within 660 feet of active nest. • Human disturbances should be minimized from Jan 1 to August 31. • It is recommended to site transmission power lines away from nests, foraging areas and communal roost sites to avoid collisions.	
USFWS	National Bald Eagle Management Guidelines (USFWS 2007)	Bald eagle nests	Except for authorized biologists trained in survey techniques, avoid operating aircraft within 1,000 feet of the nest during the breeding season.	Except where eagles have demonstrated tolerance for such activity.
USFWS	National Bald Eagle Management Guidelines (USFWS 2007)	Bald eagle nests	Avoid blasting and other activities that produce extremely loud noises within 1/2 mile of active nests.	Unless greater tolerance to the activity (or similar activity) has been demonstrated by the eagles in the nesting area.
USFWS	National Bald Eagle Management Guidelines (USFWS 2007)	Bald eagle foraging areas and communal roost sites	• Minimize potentially disruptive activities and development in the eagles' direct flight path between their nest and roost sites and important foraging areas.	

Table 1
Seasonal and Spatial Restrictions for Biological Resources

Agency	Applicable Plan or Other Source	Area to Which Restriction Applies	Restriction	Additional Exception Criteria
			• Locate aircraft corridors no closer than 1,000 feet vertical or horizontal distance from communal roost sites.	
			Other Raptors	
BLM, Oregon	Baker Field Office Draft RMP/EIS (BLM 2011)	Ferruginous hawk nests	• Do not disturb nest sites from March 15 to July 15. • Generally, avoid treatments from March 1 to August 1 each year, especially during the incubation period when ferruginous hawks are more prone to abandon nests if disturbed.	
BLM, Idaho	Owyhee RMP (BLM 1999)	All other raptor nests	Authorize no human caused disturbance within a 0.5 mile radius of nests from March 15 to June 30. [NOTE: The BLM requests avoidance from March 15-July 15 for the entire B2H Project area] Disturbance is defined as any activity that could result in frequent flushing of adults or young, nest abandonment, or significant loss of prey base.	
USFS, Oregon	Wallowa-Whitman Land and RMP (USFS 1990)	Raptor nests	The Wallowa-Whitman Land and RMP calls to protect all active raptor nest sites using best available science. There are more than 10 raptor species with the potential to nest within the transmission line footprint, each with unique landscape buffers and timing restrictions. General overlap of timing restrictions occurs from March 1 to August 15.	
			Fish	
ODFW	Oregon Guidelines for Timing of In-water Work to Protect Fish and Wildlife Resources (ODFW 2008)	Fish-bearing streams	ODFW guidelines for preferred work periods will be followed for any in-water work.	

Table Sources:

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Table Notes:

ARMPA = Approved resource management plan amendment
BLM = Bureau of Land Management
EIS = Environment impact statement
ODFW = Oregon Department of Fish and Wildlife
RMP = resource management plan
USFS = U.S. Forest Service
USFWS = U,S. Fish and Wildlife Service

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