Appendix A2
Traffic and Transportation Management Plan

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Acronyms and Abbreviations

B2H	Boardman to Hemingway Transmission Line Project
BLM	Bureau of Land Management
CIC	Compliance Inspection Contractor
EIS	Environmental Impact Statement
ESA	Endangered Species Act
IPC	Idaho Power Company
NMFS	National Marine Fisheries Service
POD	Plan of Development
Project	Boardman to Hemingway Transmission Line Project
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

APPENDIX A2 – TRAFFIC AND TRANSPORTATION MANAGEMENT PLAN

A2.1 Introduction

This Traffic and Transportation Management Plan addresses regulatory compliance, traffic management practices, levels of right-of-way access, and mitigation measures to help reduce impacts related to transportation and the construction of temporary and long-term access for the Boardman to Hemingway Transmission Line Project (Project).

A2.1.1 Plan Updates

This plan will support the draft Plan of Development (POD) to a sufficient level to be able to execute the Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Records of Decision. This plan 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, USFS special-use authorization before the issuance of the Notice(s) to Proceed and commencement of construction. The Construction Contractor(s) will be responsible for any POD updates and refinements as well as implementation of the POD.

A2.2 Purpose

The purpose of this plan is to provide the BLM, the USFS, other public agencies, the Compliance Inspection Contractor (CIC), and the Construction Contractor(s) with a description of the type of access associated with the construction, operation, and maintenance of the Project.

The goal of this plan is to mitigate traffic and transportation-related impacts from construction of the Project and associated access through mitigation measures described throughout this plan. These mitigation measures are intended to mitigate the effects of Project-related traffic and transportation on environmental resources, roads, travel, and road safety.

A2.3 Regulatory

A number of agencies have jurisdiction over the traffic and transportation-related components of the Project. At the federal level, these agencies include the BLM, USFS, Federal Highway Administration, Federal Railroad Administration, Federal Transit Administration, and the Federal Aviation Administration. At the state level, these agencies include the Idaho and Oregon Departments of Transportation; Idaho Highway Patrol and Oregon Highway Patrol. In addition, local level law enforcement and road departments are located in the cities/towns along the Project.

All appropriate traffic and transportation permitting related to the construction of the Project is required to be identified and obtained by the Construction Contractor(s) before the commencement of Project construction. In addition, the Construction Contractor(s) will coordinate relevant construction activities with applicable agencies and entities.

A2.4 Traffic Management Practices

Ground travel will be the primary means of transport in support of Project construction as well as Project operation and maintenance. All Project-related vehicles will obey jurisdictional traffic speed regulations and the posted speed limit. On roads where speed limits are not posted, the speed limit will be 15 miles per hour, unless otherwise directed by the CIC. Helicopter-assisted construction, as described in Section

A3.6.2 – Helicopter Use, could be used as deemed necessary and approved by the respective federal land-management agencies' Authorized Officers or their designated representatives and in coordination with Idaho Power (IPC).

Before construction, authorized access routes will be clearly marked in the field with signs or flagging (refer to Appendix A1 – Flagging, Fencing, and Signage Plan). The Construction Contractor(s) will review the location of proposed access and will be responsible for ensuring construction travel is limited to designated areas that clearly identify the limits of disturbance. Flagging will be maintained until final cleanup and/or reclamation is completed, after which they will be removed (refer to Appendix A1 – Flagging, Fencing, and Signage Plan).

All field personnel will attend an environmental training program (refer to Appendix A4– Environmental and Safety Training Plan). Through this program, field personnel will be instructed to use only approved access roads, drive within the delineated road limits, and obey jurisdictional and posted speed limits to minimize potential impacts on environmental resources.

The Construction Contractor(s), the CIC, and all environmental monitors will maintain a communications network that consists of one or both of the following devices: two-way radios or cellular phones. This will allow for coordination of equipment traffic along existing access roads so public safety, traffic impacts, and resource impacts are minimized.

In general, the number of construction vehicles needed for the Project is not expected to substantially increase traffic volumes. Similarly, road and lane closures are anticipated to be minimal and most likely will occur during conductor stringing activities or during blasting. If road and lane closures are needed, the appropriate regulatory agencies, affected parties, and emergency service providers will be notified in advance by the Construction Contractor(s).

Project adjacent landowners will be notified of the construction schedule via hard copy letter sent by IPC, prior to the commencement of construction, although construction traffic is not expected to disrupt access to residences along the Project right-of-way. Signs will be posted in the Project area to notify landowners and others of the construction activity. Construction crews will park only in designated areas and will be shuttled to the appropriate work sites if necessary.

A2.5 Types of Right-of-Way Access

The Project will require vehicular access during construction of the station, each communication station site, and each transmission structure, as well as temporary facilities including multi-use areas and pulling and tensioning sites. Access roads include:

- New roads; and
- Existing roads requiring substantial modification.

Existing roads that will be used for construction and operation of the Project but will not require substantial modification are not "related and supporting facilities" and, therefore, are not included.

IPC applied the following definitions.

Access Road: A linear travel route designated to support construction, operation and maintenance of the transmission line.

Road Surface: The surface of the road on which vehicles would travel.

Bladed Road: Roads constructed using heavy equipment and designed to support vehicular traffic. Bladed road features typically include cuts and/or fills to construct a smooth travel surface and manage surface water drainage and include the manipulation or creation of a road prism and profile.

Road Alignment: The series of horizontal curves and tangents that define the travel path.

Road Prism: The area consisting of the road surface and any cut slope, fill slope and contiguous drainage features. For primitive roads, the road prism is defined as the travel surface and extent of clearing necessary for horizontal clearance or the extent of modification from the natural condition, whichever is greater.

Road Profile: The trace of a vertical plane intersecting the surface along the longitudinal centerline of the roadbed.

Road Segment: The length of road between intersecting nodes of a branching road network, between substantially different road surface materials (native and non-native material), or between different road classifications.

New roads proposed to be constructed in connection with the construction of the proposed energy facility are considered related or supporting facilities, and are therefore part of the proposed facility.

- **Primitive**. New primitive roads were identified based on review of aerial imagery and topographic data and will meet the following criteria:
  - Created by direct vehicle travel over native material and existing vegetation.
  - Disturbance may include clearing of large woody vegetation and other obstructions to ensure safe vehicle operation.
  - Will generally be present on the landscape as two-track roads leaving no disturbance beyond the edge of the travel surface.
  - May require intermittent maintenance work to support continued safe vehicle passage during construction.
  - Typical construction disturbance is 16 feet wide. The operational width is 10 feet wide.
- **Bladed**. New bladed roads were identified based on review of aerial imagery and topographic data and will meet the following criteria:
  - Construction of new road prism across side slope over 8 percent or over rough and uneven terrain.
  - Typical construction disturbance is 16 feet wide, but can be up to 35 feet wide as dictated by terrain and soil conditions. The operational width is 14 feet wide.

Existing roads that do require substantial modification in connection with the proposed energy facility are considered related or supporting facilities, and are therefore part of the proposed facility. Existing roads that will require substantial modification for construction and operation of the Project satisfy the following criteria:

- Field reconnaissance and aerial photographs indicate that current road conditions are adequate for construction of the Project.
- Proposed repair and/or construction activities would (1) increase the width of the existing road prism; (2) change the existing road alignment; (3) use materials inconsistent with the existing road surface; and/or (4) change the existing road profile in a way that would alter vehicle use patterns.
- Repairs using existing road surface materials within the existing road prism that would not change the road profile or alter the vehicle use patterns are considered substantial modifications if they comprise greater than 20 percent of the road surface area defined by road prism width and longitudinal distance over a defined road segment.
- Typical construction disturbance is 16 feet wide. The operational width is 14 feet wide.

Note: Notwithstanding the above criteria, IPC may consider alternative road classifications and determinations of substantial modification for individual road segments.

After construction is completed, any new roads developed for the Project connecting to multi-use areas will be removed and restored to preconstruction conditions, unless the landowner requests otherwise. Roads developed for pulling and tensioning sites may be permanent because they will also provide access to structures for operations and maintenance.

A2.6 Mitigation Measures

This section describes practices intended to mitigate potential environmental, traffic, and traffic safety-related impacts associated with access to and from the Project. The protection measures described below include design features of the Project for environmental protection (Section A2.6.1 – Design Features of the Project for Environmental Protection) and selective mitigation measures (Section A2.6.2 – Selective Mitigation Measures).

A2.6.1 Design Features of the Project for Environmental Protection

Following are design features for environmental protection to reduce potential impacts resulting from the transportation network for the Project and the potential for increased levels of public access associated with the construction and operation of the Project.

Design features for environmental protection are to be applied to all affected Project areas to help reduce potential access related impacts. Listed below are transportation-related design features for environmental protection to be implemented by the Construction Contractor(s) during construction of the Project facilities:

- **Design Feature 4.** Pre-construction surveys for special status species, threatened and endangered species, or other species of particular concern will be considered in accordance with the B2H 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 will be taken to avoid adverse impacts on the species and its habitat. Amendments to the work plan will be made based on the best available science. Surveys for fish species are not anticipated; ESA-listed fish species will be presumed present in all watersheds that agency data indicate presence.
- **Design Feature 5.** The spatial limits of construction activities, including vehicle movement, will be predetermined with activity restricted to and confined within those limits. No paint or permanent discoloring agents indicating survey or construction limits will be applied to rocks, vegetation, structures, fences, etc.
- **Design Feature 6.** 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 doesn't 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 will 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) will approve a seed mixture that is compatible with the affected Ecological Site Description. Seeding methods typically will 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 will be left in place wherever possible, and original contours will 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 8.** Grading will be minimized by driving overland in areas approved in advance by the land-management agency and/or land owner in predesignated work areas (e.g., staging areas, material laydown yards, fly yards, and wire pulling/splicing sites) whenever possible.
- **Design Feature 9.** 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-management agency or landowner.
- **Design Feature 10.** 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 will be employed on B2H Project access routes, unless the applicable land-management agency has designated an alternative speed limit.
- **Design Feature 16.** Based on biological resources surveys and results of Section 7 consultation (with 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 will be flagged and structures will be placed to allow spanning of these features, where feasible, within the limits of standard structure design. Surveys for fish species are not anticipated; ESA-listed fish species will be presumed present in all watersheds that agency data indicate presence.
- **Design Feature 17.** If work were 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) were installed over the saturated areas or other measures were implemented to prevent rutting. Equipment with low-ground-pressure tires, wide tracks, or balloon tires will be used when possible.
- **Design Feature 18.** Crossings of dry washes will be made during dry conditions, when possible. Repeated crossings will be limited to the extent possible but constrained to the same location with appropriate stabilization to reduce erosion potential.
- **Design Feature 19.** Canal and/or ditch crossings will require placement of temporary bridges or improvement of existing crossings.
- **Design Feature 31.** In accordance with the Programmatic Agreement (to comply with Section 106 of the National Historic Preservation Act) entered into among the BLM; USFS; the states of Idaho and Oregon; consulting parties; and tribes, specific measures to mitigate effects on cultural resources will be developed and implemented to mitigate identified adverse impacts.
- **Design Feature 32.** Watering facilities (tanks, natural springs and/or developed springs, water lines, wells, etc.) will be repaired or replaced if they are damaged or destroyed by construction and/or maintenance activities to their pre-disturbed condition as required by the landowner or land-management agency. Should construction and/or maintenance activities prevent use of a

watering facility while livestock are grazing in that area, then the Applicant will provide alternate sources of water and/or alternate sources of forage where water is available.

- **Design Feature 33.** Fences, gates, and walls will be replaced, repaired, or reclaimed to their original condition as required by the landowner or the land-management agency in the event they are removed, damaged, or destroyed by construction activities. Fences will be braced before cutting. Temporary gates or enclosures will be installed only with the permission of the landowner or the land-management agency and will be removed/reclaimed following construction unless approved by the land management agency or landowner to be left after construction is complete. Cattle guards or permanent access gates will be installed where new permanent access roads cut through fences on land administered by an affected federal agency or other grazing lands.

  Temporary gates across breached fences may be required when livestock are actively grazing an area in which the breached fence is located when construction activities have halted for a time. Should construction activities prevent use of a facility, such as a corral when that corral is needed to facilitate movement of livestock, then the Applicant will provide a temporary corral to facilitate movement of livestock. This temporary gate will prevent livestock on one side of the fence from going to the other side through the breach.

- **Design Feature 34.** Calving, lambing, and trailing areas will be avoided when in use by livestock operations to the extent practical. Calving season generally occurs between December and February. Lambing season generally occurs between March and June. Trailing areas (areas where livestock producers move livestock across lands to facilitate proper grazing management) can occur throughout the B2H Project area and timing may vary throughout the year. Prior to construction, the Applicant will coordinate with the applicable land-management agency or private landowner to avoid areas used for calving, lambing, and trailing during construction.

A2.6.2 Selective Mitigation Measures

Selectively recommended mitigation measures to be applied on a site-specific basis to reduce access and transportation-related impacts include the following to be implemented by the Construction Contractor(s) (refer to Volume II – POD Map Sets):

- **Selective Mitigation Measure 1 (Limit Widening of Existing Roads in Areas of Sensitive Soils, Vegetation and/or Stream Crossings).** In areas where soils, vegetation, and/or streams are sensitive to disturbance, existing roads to be used for construction access and/or B2H Project maintenance will not, as much as possible/practicable, be widened or otherwise upgraded except in areas necessary to make existing roads passable and safe.
- **Selective Mitigation Measure 3 (Use of Matting [Stabilization] in Sensitive Resource Areas).** To minimize ground disturbance in sensitive resource areas, matting or other similar practices for ground stabilization could be used for B2H Project access and work areas.
- **Selective Mitigation Measure 4 (Minimize Slope Cut and Fill for Access and Work Areas).** The alignment of new access roads will follow the landform contours where practicable to minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape.

  Modification to the size and/or configuration of the structure work areas facilitated by minor structure design adjustments (e.g., altering leg length) will be used to minimize cut and fill slopes and blend contours with existing topography.

  Additionally, soil amendments or mineral emulsions will be applied, or grading techniques such as slope rounding and slope scarification will be used to blend road and structure work area cuts into the landscape in areas of steep terrain where grading is necessary, in rocky areas, or where soil color will create strong landscape contrasts.

- **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 will be limited.

  New or improved access will be closed or rehabilitated using the most effective and least environmentally damaging methods appropriate to that area (in consultation with the landowner or land-management 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 11 (Helicopter-assisted Construction).** Helicopter-assisted placement of towers during construction and maintenance may be used where practicable to reduce surface impacts in environmental constraint areas or steep terrain locations.
- **Selective Mitigation Measure 12 (Seasonal and Spatial Fish and Wildlife Restrictions).** To minimize disturbance to identified fish and wildlife species during sensitive periods, construction, operation, and maintenance activities will be restricted in designated areas unless exceptions are granted by the Authorized Officer or his/her designated representatives and other applicable regulatory agencies (e.g., USFWS, NMFS, state wildlife agencies). A list of seasonal fish and wildlife restrictions are presented in the EIS.
- **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 will use overland access in areas where no grading will be needed to access work areas. Overland access will 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 will be staked. Routes will be specified in the POD. Use of overland access routes will be restricted based on dry or frozen soil conditions, seasonal weather conditions, and relatively flat terrain.

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