

## **APPENDICES**

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**Appendix A1**  
**Flagging, Fencing, and Signage Plan**

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## Acronyms and Abbreviations

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B2H	Boardman to Hemingway Transmission Line Project
BLM	Bureau of Land Management
CIC	Compliance Inspection Contractor
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 A1 – FLAGGING, FENCING, AND SIGNAGE PLAN

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## **A1.1 Introduction**

This Flagging, Fencing, and Signage Plan describes the methods that will delineate Boardman to Hemingway Transmission Line Project (Project) limits of disturbance and protect environmental resources during Project construction. These methods are intended to ensure Idaho Power Company's (IPC), personnel; the Construction Contractor(s); Bureau of Land Management (BLM); U.S. Forest Service (USFS); U.S. Department of the Navy (Navy); Bureau of Reclamation; Compliance Inspection Contractor (CIC); and other entities or individuals on the Project access for approved areas.

The measures described in this plan are an integral part of the environmental compliance program for avoiding and minimizing impacts on environmental resources. The objective of this plan is to provide information on the field markings that will be used to identify approved Project travel and work areas, as well as environmental resource areas.

### **A1.1.1 Plan Updates**

This plan will support the National Environmental Policy Act Plan of Development (POD). This plan will be updated and refined through the development of the POD to meet any stipulations of the Record 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.

## **A1.1 Regulatory Requirements**

No federal, state, or local laws, rules, or regulations specifically address flagging, fencing, and signage protocols for construction projects. However, some of the mitigation measures identified in the Environmental Impact Statement for the Project hinge on adequate field marking of work areas and/or of sensitive resource areas to avoid or reduce impacts. These mitigation measures include flagging or fencing requirements to help protect vegetative cover, water quality, cultural resources, and special-status species and to minimize the spread of invasive weeds.

## **A1.2 Methods**

### **A1.2.1 Demarcate Project Facilities**

Standard survey flags and stakes will be installed before the start of Project construction. Private property owners shall be given notice in advance of surveying and staking taking place. All Project features that require field marking will be marked by the Construction Contractor(s) to demarcate the limits of approved work areas and to facilitate approved travel to and from the Project right-of-way. If the delineated areas exceed the approved dimensions for Project facilities, the Construction Contractor(s) will coordinate with the CIC for approval, and consultation with the BLM and other agencies may be required.

### **A1.2.2 Environmental Exclusions**

Signs, flags, and/or fencing will be used to establish exclusion areas to protect environmental resources in the vicinity of construction activities. A system of standardized and simplified exclusion markings as identified in Table A1-1 – Flagging Scheme will be used to ensure consistent field marking interpretation during construction and to minimize the risk of highlighting more sensitive types of environmental resources that could be targeted by the public.

### **A1.2.2.1 Signing**

Signs will be used to help identify Project features. Signs will be a minimum of 8.5 by 11 inches on laminated (7 millimeter or greater) color paper. Signs will be installed on metal posts, wooden stakes, or attached to exclusion fencing/roping, as appropriate. Background colors will vary to enhance sign recognition from a distance.

Table A1-1 – Flagging Scheme provides some standards for marking Project features that will be needed during Project construction. Figures A1-1 through A1-6 (included at the end of this appendix) show the size and configuration of typical sign layouts. Signs for sensitive resource areas will be oriented for visibility from both directions of likely travel.

### **A1.2.2.2 Flagging**

Survey flagging will be used to delineate the limits of applicable work areas. Survey flagging is typically surveyor's ribbon tied to wooden stakes, metal posts, or vegetation. Survey flagging may be used to temporarily demarcate environmental resource locations situated a safe distance from planned construction activities but will not be used to define resource exclusion areas proximate to planned construction activities.

The respective federal land-management agencies' Authorized Officers (or their designated representative) or the CIC, as needed, will determine whether flagging or fencing (as described below) is the appropriate protective device for a given location. Flagging color will conform to the requirements of Table A1-1 – Flagging Scheme.

### **A1.2.2.3 Fencing**

To delineate the limits of construction near sensitive resources requiring a high level of protection from Project disturbance, a combination of one or more of the following fencing materials will be installed by the Construction Contractor(s):

- rope (1/4 inch in diameter in yellow or orange coloring),
- plastic or fabric tape, and/or
- safety fencing (plastic orange or red mesh at least 24 inches wide and at least 18 inches off the ground to facilitate travel by small animals).

Roping with periodic marking by exclusionary signs or lengths of tape is a highly visible and effective exclusion device. Roping, tape, and safety fence will be installed using metal posts for increased durability and in areas with compact or rocky soils. If construction in a wetland is necessary, the boundaries of the approved disturbance area will be demarcated so impacts are limited to the area authorized. In most cases, it is anticipated the exclusion device will be installed at the boundaries of the sensitive resource (including any required buffers), rather than at the edge of the work area. If a buffer zone encroaches into the work area, only the portions that overlap with the work area will be delineated and signed as an exclusion zone.

<b>Table A1-1 Flagging Scheme</b>			
<b>Feature</b>	<b>Flagging or Sign Colors</b>	<b>Sign Text</b>	<b>What to Do</b>
Project access road	To be decided by Construction Contractor(s)	Project Access Road – Road # – Boardman to Hemingway Transmission Line Project	To be located at points of intersection, additional intermittent flagging may be required. Construction Contractor(s) to verify that right of entry has been obtained before marking these areas.
Temporary work areas (wire-pulling/tensioning sites, multi-purpose construction yards, etc.)	To be decided by Construction Contractor(s)	Not applicable	Construction Contractor(s) to verify that right of entry has been obtained before marking these areas.
Communication station	To be decided by Construction Contractor(s)	Not applicable	Do not disturb survey stakes.
Protected animals/plants or sensitive environmental areas	Yellow	Sensitive Resource Area – Keep Out	Avoid these items/areas – do not drive vehicles or equipment near flagged items or within flagged areas.
Reclamation project areas	Brown	Restoration in Progress – No Vehicle Traffic Allowed	Avoid these items/areas – do not drive vehicles or equipment near flagged items or within flagged areas.
Invasive weed cleaning stations	Blue	Weed Cleaning Station	Signs will be posted at entry points into weed cleaning stations.
Proposed structure locations	To be decided by Construction Contractor(s)	Not applicable	Do not disturb survey stakes.
Structure offsets	To be decided by Construction Contractor(s)	Not applicable	Do not disturb survey stakes.
Outside edge of permitted right-of-way	To be decided by Construction Contractor(s)	Not applicable	Do not drive vehicles or equipment outside of designated corridor.
Centerline	To be decided by Construction Contractor(s)	Not applicable	Do not disturb survey stakes.
Cadastral survey monument	To be decided by Construction Contractor(s)	Not applicable	Protect in place.
Non-authorized access road	To be decided by Construction Contractor(s)	Do Not Enter; Not an Authorized Access Road	Do not drive vehicles or equipment on unauthorized roads.
<p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>• Staking and flagging will be done by the Construction Contractor(s) and verified by the CIC, including sensitive resource areas and exclusion zones.</li> <li>• Construction Contractor(s) shall stake all proposed tower center hub and footer locations, structure locations, and associated reference points and mark the centerline with intervisible stakes not to exceed 500 feet apart and at all road crossings.</li> <li>• Construction Contractor(s) shall use staking intervals appropriate to the conditions observed in the field. For example, areas of rough terrain or dense vegetation may require staking intervals less than 500 feet. In all cases, field staking intervals shall be done at a frequency such that each adjacent stake can be easily discernible.</li> <li>• Maintain (refurbish as needed) staking over time as conditions require.</li> </ul>			

## **A1.3 Installation, Monitoring, and Maintenance of Fencing, Flagging, and Signage**

This Flagging, Fencing, and Signage Plan will include the proper installation, monitoring, and maintenance of field markings. The Construction Contractor(s) will be responsible for the installation and maintenance of the field marking of all applicable Project features. The field markings will be installed in advance of any Project construction activities, in coordination with the CIC, to denote exclusionary zones along with the assistance of appropriate environmental monitors. The CIC will be consulted if there is uncertainty as to the type or location of needed exclusion devices for a specific environmental resource.

Field marking monitoring by the Construction Contractor(s) and the CIC will include an ongoing assessment of the need for replacement or repair of field markings. Maintenance needs related to field markings will be corrected at the time of observation or shortly thereafter. If maintenance of a field marking is needed in an active construction area, corrective action will be taken within one workday.

All exclusionary devices will be removed by the Construction Contractor(s) after Project cleanup and reclamation activities.

## **A1.4 Mitigation Measures**

This section describes practices intended to protect potential environmental and cultural resources through appropriate Project flagging, fencing, and signage to identify approved Project travel and work areas, as well as sensitive resource areas where construction or travel is to be excluded. The protection measures described below include design features for environmental protection (Section A1.5.1) and selective mitigation measures (Section A1.5.2).

### **A1.4.1 Design Features of the Project for Environmental Protection**

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

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

- **Design Feature 2.** Prior to construction, the CIC will instruct all personnel on the protection of cultural, paleontological, ecological, and other natural resources, such as (a) federal and state laws regarding antiquities, paleontological resources, and plants and wildlife, including collection and removal; (b) the importance of these resources; (c) the purpose and necessity of protecting them; and (d) reporting and procedures for stop work.
- **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 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 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 11.** 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 POD.
- **Design Feature 15.** Consistent with BLM Riparian Management Policy, surface-disturbing activities would be avoided in defined segments of Riparian Conservation Areas, 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 greater 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.

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-management agencies, and incorporated into the final POD.

- **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 20.** 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 water bodies 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 needed, following interagency-approved operational guidelines.
- **Design Feature 21.** Hazardous material would not be discharged onto the ground or into streams or drainage areas. Enclosed containment would be provided for all waste. All construction waste (i.e., trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials) would be removed to a disposal facility authorized to accept such materials within 1 month of B2H Project completion, except for hazardous waste which would be removed within 1 week of B2H Project completion.

Refueling and storing potentially hazardous materials will not occur within a 200-foot (100-meter) radius of all identified private water wells, and a 400-foot radius of all identified municipal or community water wells. Spill prevention and containment measures will be incorporated as needed.

- **Design Feature 25.** Where work will occur on hazardous and contaminated sites, IPC must seek approval from the U.S. Environmental Protection Agency as required by federal law. Work on contaminated sites must avoid remedial structures (e.g., capped areas, treatment, or monitoring wells, etc.) and workers must use adequate worker protection measures for working in contaminated areas.
- **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 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.

#### **A1.4.2 Selective Mitigation Measures**

Recommended selective mitigation measures to be applied on a site-specific basis to delineate limits of disturbance and protect environmental and cultural resources 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 5 (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 8 (Span and/or Avoid Sensitive Features).** Within the limits of standard tower design, structures will be located to allow conductors to avoid identified sensitive features such as dwellings/buildings and span sensitive existing land uses, natural features, hazardous substance remediation sites, and cultural resource sites. This could be accomplished through methods such as selective tower placement, spanning sensitive features, or realigning the B2H Project centerline (micro-siting).
- **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).
- **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.

**PROJECT  
ACCESS ROAD  
ROAD #**

**BOARDMAN TO HEMINGWAY TRANSMISSION PROJECT**

**Figure A1-1. Typical Sign – Project Access Road**

**SENSITIVE  
RESOURCE AREA  
KEEP OUT**

**BOARDMAN TO HEMINGWAY TRANSMISSION PROECT**

**Figure A1-2. Typical Sign – Sensitive Resource Area Keep Out**

**RESTORATION IN  
PROGRESS – NO  
VEHICLE TRAFFIC  
ALLOWED**

**BOARDMAN TO HEMINGWAY TRANSMISSION PROJECT**

**Figure A1-3. Typical Sign – Restoration in Progress – No Vehicle Traffic Allowed**

**NO REFUELING  
WITHIN 100 METERS OF  
WETLANDS AND STREAM  
BANKS**

**BOARDMAN TO HEMINGWAY TRANSMISSION PROECT**

Figure A1-4. Typical Sign – No Refueling

**DO NOT ENTER  
NOT AN  
AUTHORIZED  
ACCESS ROAD**

**BOARDMAN TO HEMINGWAY TRANSMISSION PROJECT**

**Figure A1-5. Typical Sign – Do Not Enter**

# **WEED CLEANING STATION #**

**BOARDMAN TO HEMINGWAY TRANSMISSION PROJECT**

**Figure A1-6. Typical Sign – Weed Cleaning Station #**

## **A1.5 Literature Cited**

USFS (U.S. Forest Service). 2009. *Operational Guidelines for Aquatic Invasive Species Prevention and Equipment Cleaning*. Interagency Guidance – Revised August 2009. Washington, D.C.