

**Appendix B**  
**Proponents' Plan of Development Supplement**

# **Plan of Development Supplement**

## **Gateway West Transmission Line Project**

### **Segments 8 and 9**

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**TABLE OF CONTENTS**

**1.0 INTRODUCTION..... 1**

    1.1 Background..... 1

    1.2 Purpose of this Plan of Development Supplement ..... 2

    1.3 Applicability of the Plan of Development..... 2

**2.0 ROUTE CHANGES..... 2**

    2.1 Segment 8..... 3

    2.2 Segment 9..... 5

    2.3 Lower Voltage Transmission Line and Substation Removal..... 7

**3.0 DESIGN CHANGES ..... 11**

    3.1 Segment 8 Line Separation ..... 11

    3.2 Segment 9 Double-Circuit Segment ..... 12

**4.0 CONSTRUCTION AND OPERATION ..... 16**

    4.1 Construction..... 16

        4.1.1 Access for Removal of Lines..... 16

        4.1.2 Site Preparation..... 16

        4.1.3 Remove Conductors..... 16

        4.1.4 Remove Transmission Structures ..... 17

        4.1.5 ROW Site Reclamation ..... 17

        4.1.6 Gage Substation Removal ..... 17

    4.2 Operation ..... 17

**5.0 DECOMMISSIONING ..... 17**

**6.0 MITIGATION AND ENHANCEMENT PORTFOLIO ..... 18**

**7.0 LITERATURE CITED..... 18**

**LIST OF TABLES**

**Table 2-1.** Segments 8 and 9 Proposed Route Features ..... 3  
**Table 3-1.** Summary of Segment 9 Project Transmission Facilities ..... 13

**LIST OF FIGURES**

**Figure 2-1.** Summer Lake Option 1 ..... 4  
**Figure 2-2.** Baja Road-Murphy Flat South ..... 6  
**Figure 2-3.** Swan Falls to Bowmont Transmission Line Modifications ..... 9  
**Figure 2-4.** Mountain Home to Bennet Transmission Line Modifications ..... 10  
**Figure 3-1.** Proposed Reduced Line Separation ROW Design Locations ..... 12  
**Figure 3-2.** Typical Double-Circuit 500/138-kV Structure ..... 14  
**Figure 3-3.** Double-Circuit 500/138-kV ROW Design ..... 15

**APPENDICES**

Appendix A Location Maps  
Appendix B Morley Nelson Snake River Birds of Prey National Conservation Area  
DRAFT Mitigation and Enhancement Portfolio Proposal

## ACRONYMS AND ABBREVIATIONS

BLM	U.S. Department of the Interior, Bureau of Land Management
BOPNCA	Morley Nelson Snake River Birds of Prey National Conservation Area
Companies	PacifiCorp, dba Rocky Mountain Power, and Idaho Power Company (Idaho Power)
EIS	Environmental Impact Statement
Gateway West	Gateway West Transmission Line Project
Idaho Power	Idaho Power Company
kV	kilovolt
MEP	Mitigation and Enhancement Portfolio (Appendix B)
MP	milepost
NLCS	National Landscape Conservation System
OCTC	Orchard Combat Training Center
POD	Plan of Development
Project	Gateway West Transmission Line Project
RAC	Resource Advisory Committee
ROD	Record of Decision
ROW	right-of-way
SR	State Route
WECC	Western Electricity Coordinating Council

## 1.0 INTRODUCTION

### 1.1 Background

PacifiCorp, doing business as Rocky Mountain Power, and Idaho Power Company (Companies) are proposing to construct and operate the Gateway West Transmission Line Project (Gateway West or Project) consisting of approximately 1,000 miles of new 230-kilovolt (kV), 345-kV, and 500-kV alternating current electric transmission system consisting of 10 segments between the Windstar Substation at Glenrock, Wyoming, and the Hemingway Substation approximately 30 miles southwest of Boise, Idaho. The proposed transmission line is needed to supplement existing transmission lines in order to relieve operating limitations, increase capacity, and improve reliability in the existing electric transmission grid, allowing for the delivery of up to 1,500 megawatts of additional energy for the Companies' larger service areas and to other interconnected systems.

The U.S. Department of the Interior, Bureau of Land Management (BLM) released the final environmental impact statement (Final EIS) on April 26, 2013, that identified alternative routes for Segments 8 and 9 in and near the Morley Nelson Snake River Birds of Prey National Conservation Area (BOPNCA) in southwestern Idaho (BLM 2013a). The BOPNCA was designated by Congress in 1993 and became part of the National Landscape Conservation System (NLCS) in 2000, which was formally established by Public Law 111-11 in 2009. The BLM-preferred alternatives for Segments 8 and 9 avoided the BOPNCA, based on guidelines in manuals developed in 2012 pursuant to Public Law 111-11. However, the BLM-preferred routes had potential impacts on the greater sage-grouse (*Centrocercus urophasianus*), scenic resources in Owyhee County, local communities, and private landowners.

The Record of Decision (ROD), issued by the BLM in November 2013, deferred the decision to grant rights-of-way (ROW) on federal lands for Segments 8 and 9 because the principal siting issue involves a requirement in the enabling legislation (Public Law 103-64) that the BOPNCA be managed "to provide for the conservation, protection and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area" (BLM 2013b).

The intent of deferring the decision was to provide "additional time for federal, state, and local permitting agencies to pursue a consensus regarding siting routes in these segments" (BLM 2013b). In addition, the ROD stated that "the BLM needs more time to evaluate and refine" the Draft Mitigation and Enhancement Portfolio Proposal (MEP) prepared by the Companies "to ensure that it is sufficient" to meet the enhancement requirement of the enabling legislation.

In November 2013, BLM established the Boise District Resource Advisory Council (RAC) Subcommittee to examine options for resolving siting issues associated with Segments 8 and 9 of the Project and evaluate the MEP submitted by the Companies. In May 2014, the RAC Subcommittee issued its recommendations in two reports: the first report addressed routing options in or near the BOPNCA (Boise RAC Subcommittee 2014a) and the second concerned the revised MEP submitted by the Companies to the RAC Subcommittee in March 2014 (Boise RAC Subcommittee 2014b). The RAC Subcommittee recommendations were adopted by the Boise District RAC and forwarded on to BLM for action.

In response to the reports of the RAC Subcommittee, the Companies have agreed to adopt the route option recommendations. The Companies have also incorporated some of the RAC Subcommittee MEP recommendations for mitigation and enhancement into the Morley Nelson

Snake River Birds of Prey National Conservation Area DRAFT Mitigation and Enhancement Portfolio Proposal (August 2014 MEP) included as Appendix B.

## **1.2 Purpose of this Plan of Development Supplement**

The purpose of this Plan of Development (POD) Supplement is to update the Companies' ongoing cooperative work with the BLM and the Boise RAC to reach agreement on routes for Segments 8 and 9. The Companies have been working cooperatively for 8 years with the BLM, cooperating agencies, and landowners to design the entire Project. The Companies have considered comments and have revised routing, standard operating procedures, and environmental protection measures including compensatory mitigation, such that the BLM can authorize the Project where it crosses public lands. This work has resulted in a ROD from the BLM for Segments 1 through 7 and Segment 10.

In order to show the adoption of the RAC-recommended routes and the MEP for Segments 8 and 9, the Companies now provide a revised SF-299 and POD. These documents present as the Proposed Action the revised routes recommended by the Boise RAC, provide details on reduced separation and on double-circuiting, and submit the August 2014 MEP that demonstrates that the Project as proposed will meet the requirements of the enabling legislation of the BOPNCA. If authorized to construct and operate the Project through BLM issuance of a ROW grant, the Companies will incorporate the changes described herein.

## **1.3 Applicability of the Plan of Development**

The August 2013 POD (IPC and RMP, 2013a), issued to support the November 2013 Project ROD, outlines the stipulations and mitigation measures identified in the Final EIS that must be followed during construction, operation, and maintenance of the Project. The August 2013 POD is intended to be used Project-wide as 1) a summary of Project environmental requirements and protection measures, and 2) a description of the processes and procedures that will be used to ensure compliance (including the requirements of the U.S. Fish and Wildlife Service, BLM, Bureau of Reclamation, United States Forest Service, and other federal, state, and/or local agencies) as appropriate. This supplement provides additional details to support a ROD for Segments 8 and 9 and incorporates by reference relevant details found in the August 2013 POD and in the January 2013 POD (IPC and RMP, 2013b) issued to support the Final EIS.

The Companies intend to issue one or more PODs for portions of the Project as those portions go to construction. Those construction PODs will contain site-specific details showing the applicability of the environmental requirements and protection measures, and will be an enforceable stipulation of the Notices to Proceed issued for each portion of the Project as it goes to construction.

## **2.0 ROUTE CHANGES**

The routes analyzed in the Final EIS showed the Companies' Proposed Routes for Segment 8 and 9 current at that time. The Proposed Route for Segment 8 diverged from the BLM's Preferred Route as indicated in the Final EIS at node 8e, trending due west across the BOPNCA, then avoiding several sensitive areas and terminating at the Hemingway Substation. The Proposed Route for Segment 9 largely avoided the BOPNCA and followed the West-wide Energy Corridor to the southwest of the towns of Bruneau and Grand View, trending northwest to terminate at the Hemingway Substation.

Since the issuance of the November 2013 ROD, which excluded Segments 8 and 9 from the decision, the Companies have continued discussions with the BLM and the Boise RAC, and

altered their Proposed Action for Segments 8 and 9 accordingly. In March 2014, the Companies submitted a revised MEP informally to the BLM and to the Boise RAC that altered the Companies' Segment 8 Proposed Route by substituting Alternatives 8D and 8E and the Companies' Segment 9 Proposed by substituting Alternative 9G.

The Proposed Routes for Segments 8 and 9, further revised based on the Boise RAC's recommendations, are detailed below. For each of these Segments, the first approximately 90 miles remains unchanged. Those first 90 miles were shown in the Final EIS as representing both the Companies' Proposed Route and the BLM's Preferred Route. Since there is no controversy over these portions of the routes, the Companies are proposing no changes to them. Similarly, the Boise RAC examined only the portions of each Segment where impacts to the BOPNCA were substantial and subject to additional discussion and revision. For the purposes of this POD, revisions to Segment 8 begin at the node identified as 8e in the Final EIS and as node 8-01 in Figure 2-1, while revisions to Segment 9 begin at Node 9g, identified as node 9-01 in Figure 2-2.

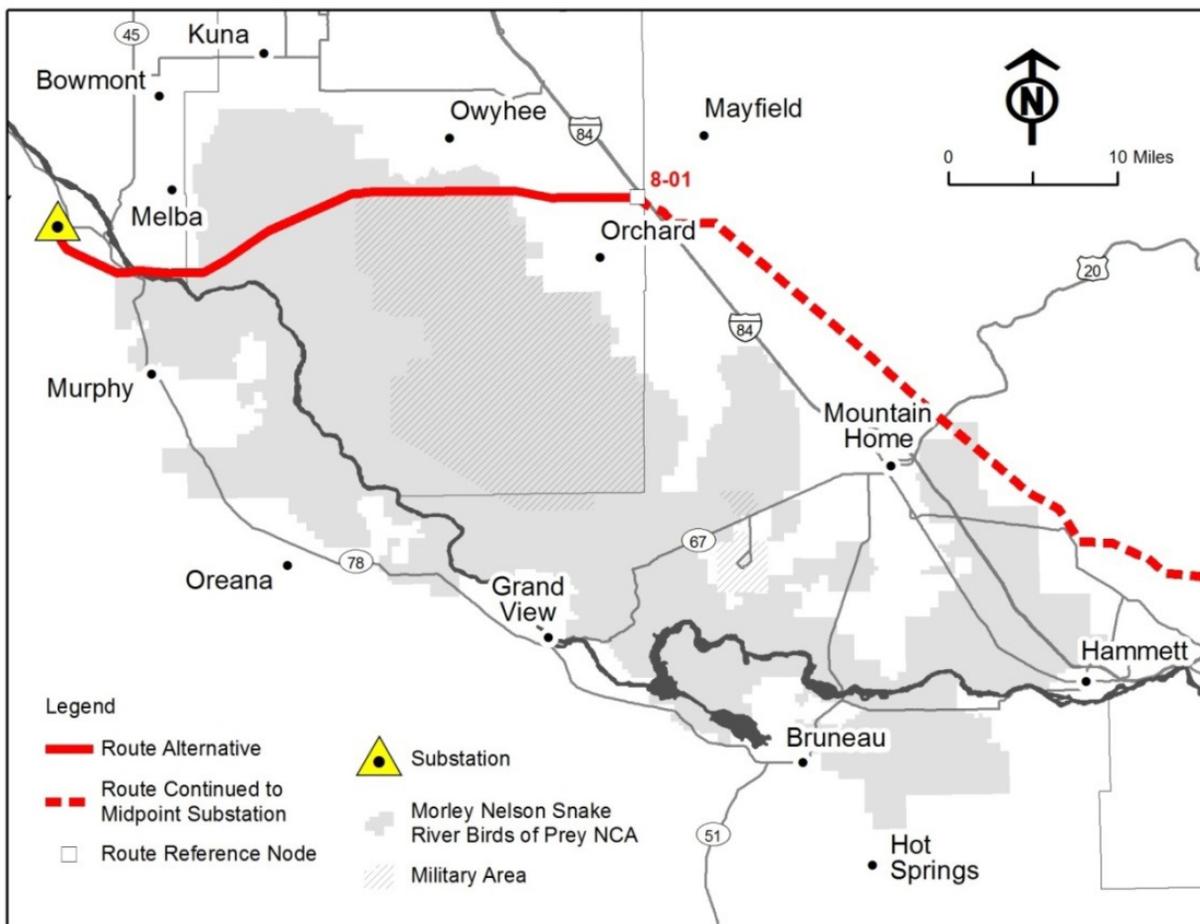
A detailed description of each route follows. Table 2-1 lists the location and land use features of the Segment 8 and 9 routes. Detailed maps are contained in Appendix A.

**Table 2-1.** Segments 8 and 9 Proposed Route Features

<b>Feature</b>	<b>Segment 8 - Summer Lake Option 1 (miles)</b>	<b>Segment 9 - Baja Road- Murphy Flat South (miles)</b>
Total Length	38	65.8
Ownership		
Bureau of Land Management	26.9	57.7
Bureau of Reclamation	2.7	.1
Private	6.2	5.0
State	2.0	5.5
Land Use		
BOPNCA	40.2	53.8
Orchard Combat Training Center	.5	0
Adjacent to Existing Transmission Lines	28.7	31

## 2.1 Segment 8

The majority of the Boise RAC Subcommittee concluded that the best route for Segment 8 is Summer Lake Option 1. The route option parallels the existing Midpoint to Hemingway 500-kV transmission line across the BOPNCA (Figure 2-1). As presented to the RAC Subcommittee by the Companies, the updated Western Electricity Coordinating Council (WECC) separation criteria allows the new transmission line to be 250 feet from the existing line under certain conditions (see Section 3.1). The RAC Subcommittee concluded that this route should minimize vegetation disturbance by reducing the amount of new access roads to be constructed and maintained within the BOPNCA and elsewhere.



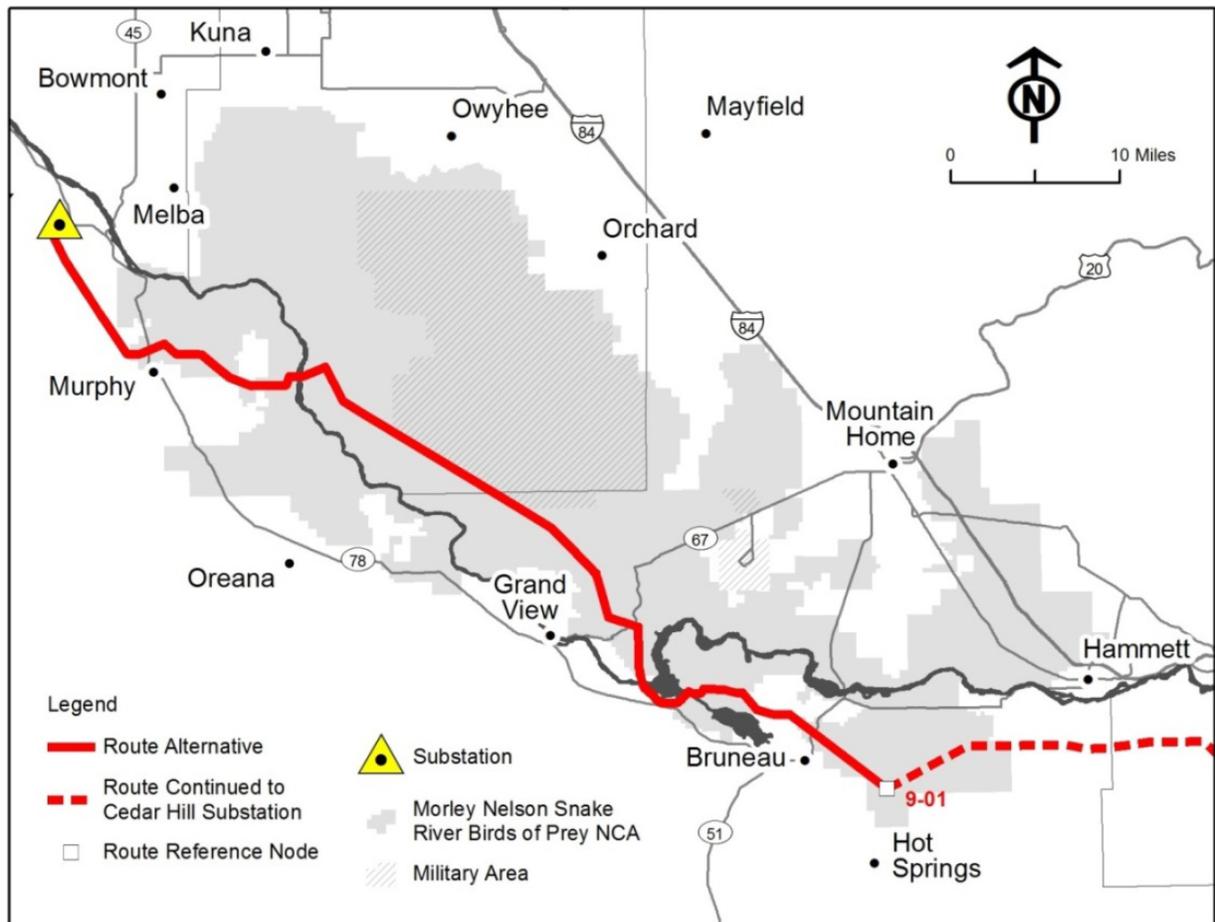
**Figure 2-1.** Summer Lake Option 1

The Summer Lake Option 1 route option begins at milepost (MP) 0.0 (MP 91.4 of the overall Segment 8 route and identified as 8-01 in Figure 2-1) and generally parallels the existing Midpoint to Hemingway 500-kV transmission line, running about 1,500 feet south of the line before turning northwest and then crossing the existing line at MP 7.1. From there, the alignment generally parallels 250 feet north of the existing line for the remaining 30 miles into the Hemingway Substation. At MP 8.2, the alignment crosses into the BOPNCA and follows the existing Midpoint to Hemingway 500-kV transmission line for approximately 8 miles, north of the boundary to the OCTC. At MP 12.7, the alignment crosses Pleasant Valley Road and continues west for approximately 3.5 miles. To avoid new agricultural impacts on private property and to minimize impacts to the OCTC's tank maneuver Alpha Sector, the alignment shifts south 250 feet at MP 16.2 and assumes the existing ROW of the Midpoint to Hemingway 500-kV transmission line. A 1.1-mile section of the existing Midpoint to Hemingway 500-kV line will be rebuilt 250 feet south within the Alpha Sector. At MP 16.8, the two routes resume their previous alignments, with the new Summer Lake Option 1 route 250 feet north of the existing Midpoint to Hemingway 500-kV line. The route crosses Swan Falls Road at MP 22.2 and the existing Bowmont to Canyon Creek 138-kV transmission line at MP 22.9. At MP 27, the alignment turns west (still parallel to the existing line), leaving the BOPNCA at MP 27.2, and crosses 2 miles of irrigated agriculture at the Canyon and Ada county lines, north of Celebration County Park, before crossing the Snake River between MPs 30.9 and 31.3 at the southern end of Noble

Island. The alignment then turns northwest and parallels the existing line for approximately 5 miles (crossing Hemingway Butte at MP 35.2), before turning north through the existing China Gulch subdivision and into the Hemingway Substation. Table 2-1, above, lists the features of the Segment 8 route.

## **2.2 Segment 9**

The majority of the Boise RAC Subcommittee members concluded that the best route for Segment 9 is Baja Road-Murphy Flat South. This route begins at MP 0.0 (MP 95.6 of the overall Segment 9 route and identified as 9-01 in Figure 2-2). This option will move the existing 138-kV line from its own structures to become part of a double-circuit structure also containing the new 500-kV line for most of the distance through the BOPNCA. The new double-circuit line will incorporate and replace existing 138-kV line near C.J. Strike Reservoir in Owyhee County and along Baja Road on public land in Ada and Elmore counties. The line will cross the Snake River near C.J. Strike Dam and above Swan Falls, near Sinker Butte, where an existing 138-kV transmission line crosses the Snake River. The new 500-kV line will traverse public land on Murphy Flat, avoiding historic Oregon Trail ruts. It will cross Highway 78 near the Rabbit Creek Trailhead, and continue north to the Hemingway Substation, outside of preliminary priority sage-grouse habitat and mainly out of view from most subdivisions in Owyhee County. The advantages of this route are that it will 1) minimize impacts on communities and private property in Owyhee County, 2) minimize the amount of new road that to be constructed and maintained within the BOPNCA and in unroaded areas in Owyhee County, and 3) minimize the construction of transmission towers and roads near greater sage-grouse leks and within greater sage-grouse habitat. Table 2-1, above, lists the features of the Segment 9 route.



**Figure 2-2.** Baja Road-Murphy Flat South

The Baja Road-Murphy Flat South route generally follows the previous alignment for Alternative 9G studied in detail in the Final EIS. Beginning south of Bruneau Dunes State Park, within the BOPNCA, the route leaves the established utility corridor in a northwesterly direction, crossing State Route (SR) 51 at MP 5.5, and leaving the BOPNCA at MP 6.7. At MP 10.3, the route re-enters the BOPNCA, double-circuiting with the existing C.J. Strike to Bruneau Bridge 138-kV transmission line near or on the current ROW for approximately 3.3 miles. At MP 14, the two circuits separate for approximately 0.2 mile to permit a more feasible crossing of the Narrows between C.J. Strike Reservoir and the Bruneau Arm. On the west side of the Bruneau River, the two lines again become a double-circuit line across the Cove non-motorized and recreation areas, west approximately 2.1 miles to the C.J. Strike Dam, where the existing 138-kV line double-circuits with the existing Evander Andrews to C.J. Strike 138-kV line north toward Mountain Home. The route parallels the existing double-circuit 138-kV line approximately 200 feet to the west for 4 miles, crossing the Snake River downriver of the C.J. Strike Dam between MPs 17 and 18. At MP 20.8, the alignment shifts west, and then north again, to avoid encroachment in the Mountain Home Air Force Base-controlled airspace and to avoid new impacts to private agricultural lands. At MP 24.8, the alignment crosses the Grand View Highway and then joins the existing Bowmont to Canyon Creek 138-kV transmission line in a new double-circuit alignment along the south side of the Big Baja Road. The new double-circuit alignment proceeds northwest, generally parallel to Big Baja Road and adjacent to the southern

boundary of the OCTC, for 20.2 miles to a location southeast of Swan Falls and north of Tick Basin. Here, the two circuits separate before crossing the Snake River canyon between MPs 47.3 and 47.8 near the existing Sinker Creek to Tap 138-kV transmission line crossing south of Sinker Butte. On the west side of the canyon, the route turns briefly south, parallel to the existing 138-kV line, and then turns west adjacent to the existing Sinker Creek Substation access road. At MP 50.8, the route turns northwest along the east and west faces of several low hills to minimize impacts to irrigated agriculture and to the Oregon National Historic Trail. Near MP 56, the route descends off of the Murphy Rim and crosses the Con Shea Basin north of Murphy. After crossing SR 78 at MP 57.7 north of the Rabbit Creek trailhead, the alignment rejoins the original Segment 9 Proposed Route and continues in a northwesterly direction for approximately 9.5 miles into the Hemingway Substation.

## **2.3 Lower Voltage Transmission Line and Substation Removal**

With acceptance of the August 2014 MEP, removal and modifications of certain lower voltage transmission lines and associated facilities will occur as described below.

### **2.3.1 Swan Falls to Bowmont Transmission Line**

The existing Swan Falls to Bowmont transmission line is a 46-kV line that occurs within a 40-foot wide ROW and crosses approximately 10.8 miles of public lands managed by the BLM (Figure 2-3). As part of the August 2014 MEP, Idaho Power Company (Idaho Power) will remove approximately 7 miles of line on BLM-managed lands, including all structures (although structures may remain if requested by BLM), from the Bowmont Substation to Gage Substation; Idaho Power will continue to use the existing line from the Gage Substation to Ferry Substation to serve its customers. Idaho Power will construct an approximately 1-mile long section to connect the remaining portion of the line to the Idaho Power system. It is expected that the new construction will occur on private land. In addition, approximately 3.9 miles of existing 12.5-kV lines, including 0.25 mile on BLM lands, will be reconstructed. Further, approximately 4 miles of the existing 46-kV line on existing BLM ROW between the Gage and Ferry substations will be converted to a 12.5-kV distribution line. This will require a neutral conductor to be strung on the existing structures, and may also require structure replacements. Idaho Power is also proposing to remove the existing Gage Substation and associated equipment and apparatus. The Gage Substation is on BLM-managed land.

The following summarizes the planned facility removals and modifications affecting the Swan Falls to Bowmont transmission line and facilities:

- Remove approximately 7 miles of existing 46-kV line between the Bowmont and Gage substations.
- Remove Gage Substation.
- Convert approximately 4 miles of existing 46-kV Gage to Ferry/Swan Falls line to 12.5 kV. Structure replacements may be necessary.
- Reconstruct approximately 3.9 miles of existing lines south of Melba including 0.25 mile on public land. Structure replacement on reconstructed lines is assumed to be necessary.

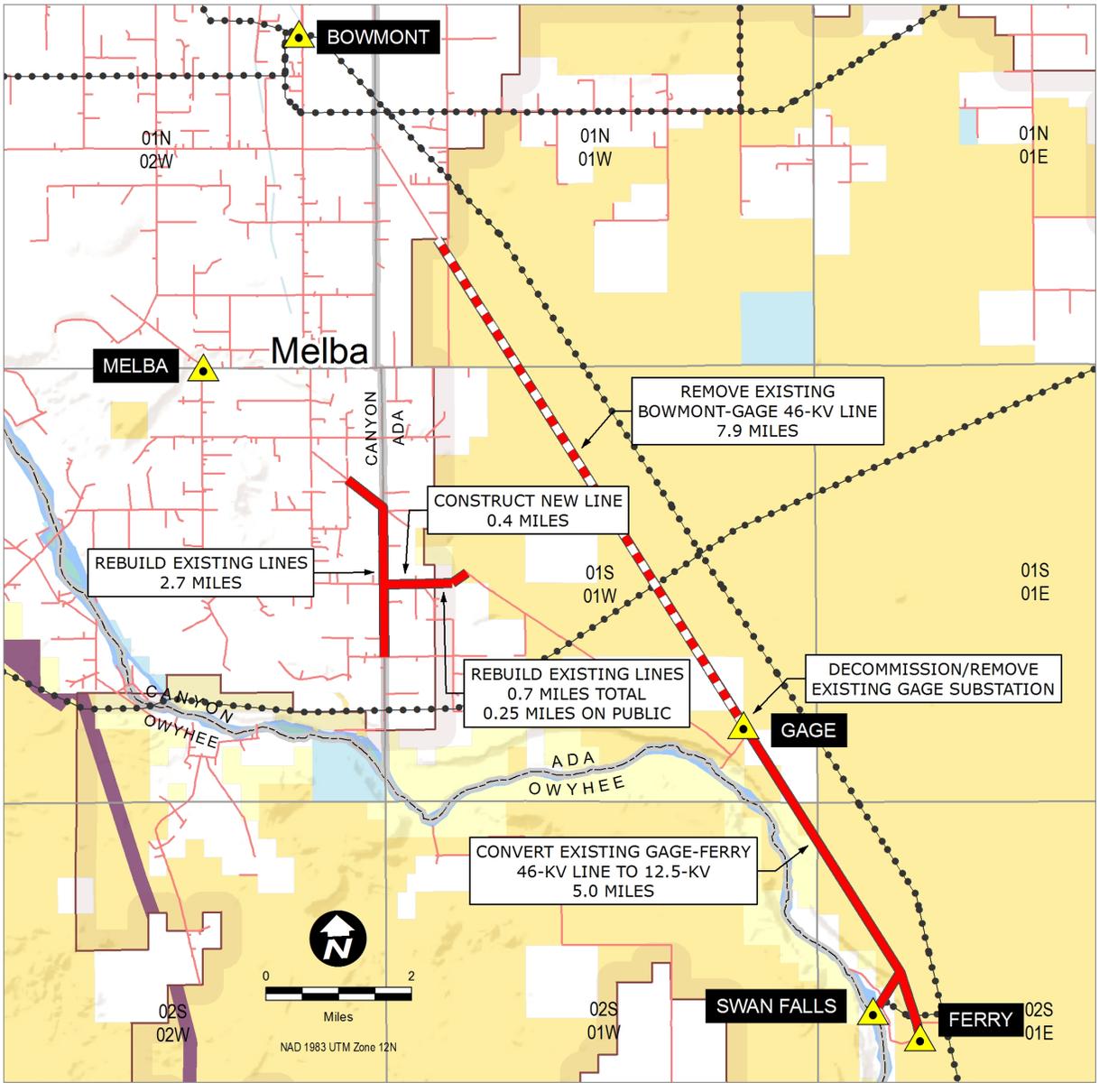
### **2.3.2 Mountain Home to Bennett Transmission Line**

The existing Mountain Home to Bennett transmission line (Line 210) is a 69-kV line with distribution underbuild (Figure 2-4). The 5.6 miles of the line on the BOPNCA without any distribution underbuild will be removed, including all structures (although structures may remain if requested by the BLM). Idaho Power will continue to use the remaining portion of the line to serve customers. Idaho Power will also reconstruct approximately 2.2 miles of the existing

feeder connection for the Sailor Creek (Glenn's Ferry), all of which is on private lands. Idaho Power will conduct maintenance on the remaining portion of the line; this will be determined as part of the engineering analysis to support the removal.

The following summarizes the planned facility removals and modifications affecting the Mountain Home to Bennett transmission line and facilities:

- Remove 5.6 mile portion of existing 69-kV Mountain Home-Bennett line.
- Reconstruct 2.2 miles of Sailor Creek (Glenn's Ferry) feeder line. Structure replacement on reconstructed lines is assumed to be necessary.



Legend

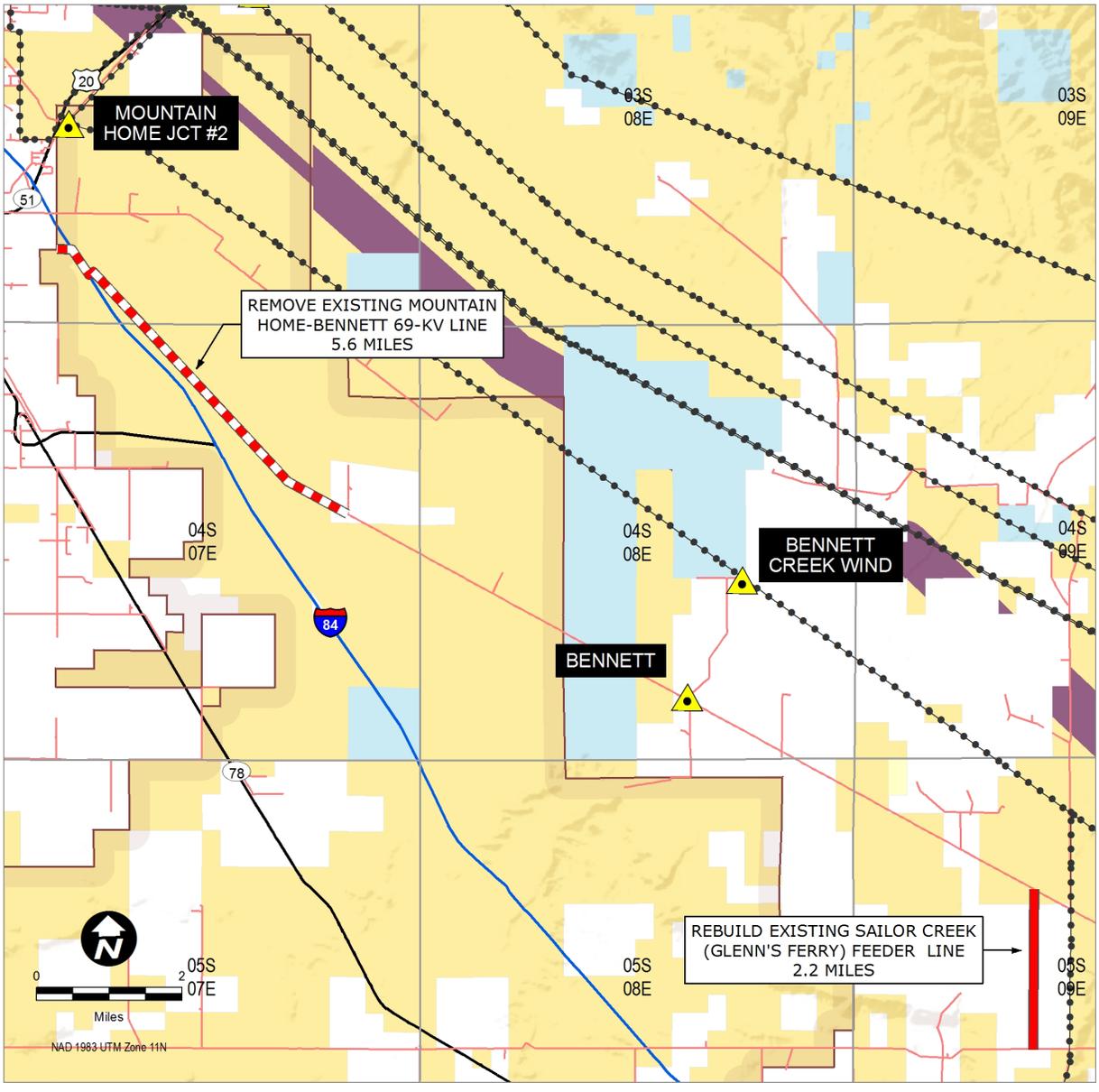
- |  |                              |  |   |
|--|------------------------------|--|---|
|  | New or Rebuild Existing Line |  | Bureau of Land Management                   |
|  | Remove Existing Line         |  | Bureau of Reclamation                       |
|  | Existing Transmission Line   |  | Fish and Wildlife Service                   |
|  | Existing Distribution Line   |  | Private                                     |
|  | Substation                   |  | State Land                                  |
|  |                              |  | Water                                       |
|  |                              |  | Morley Nelson Snake River Birds of Prey NCA |



Sources: Idaho Power, BLM, ESRI, Ventyx

IPC\_Rebuild Remove\_Gage-Ferry\_20140730 Scott.Flinders 8/1/2014

Figure 2-3. Swan Falls to Bowmont Transmission Line Modifications



Legend

- New or Rebuild Existing Line
- Remove Existing Line
- Existing Transmission Line
- Existing Distribution Line
- ▲ Substation
- Bureau of Land Management
- Bureau of Reclamation
- Private
- State Land
- Morley Nelson Snake River Birds of Prey NCA
- West-wide Energy Corridor (WVEC)



Sources: Idaho Power, BLM, ESRI, Ventyx

IPC\_Rebuild Remove\_Bennett\_20140730 Scott.Flinders 8/1/2014

Figure 2-4. Mountain Home to Bennet Transmission Line Modifications

## 3.0 DESIGN CHANGES

Section 4.0 of the August 2013 POD provides a detailed description of the transmission facilities design features associated with the Gateway West segments requiring new transmission line construction, and is incorporated herein by reference. The discussion below focuses on additional design changes applicable to Segments 8 and 9 within or near the BOPNCA.

### 3.1 Segment 8 Line Separation

As part of their evaluation, the RAC Subcommittee asked the Companies about the feasibility of reducing the separation between the proposed Segment 8 single-circuit 500-kV transmission line and the existing 500-kV Midpoint to Hemingway line. The Companies reported that based on changes in WECC reliability criteria, line separation could be reduced in this case to approximately 250 feet. Based on the Companies' response, the RAC Subcommittee recommended a separation reduction across the BOPNCA, and the Companies have incorporated that change into a 28.7-mile portion of Segment 8. Figure 3-1 shows the reduced line separation ROW design and location of reduced separation to the existing Midpoint to Hemingway line.

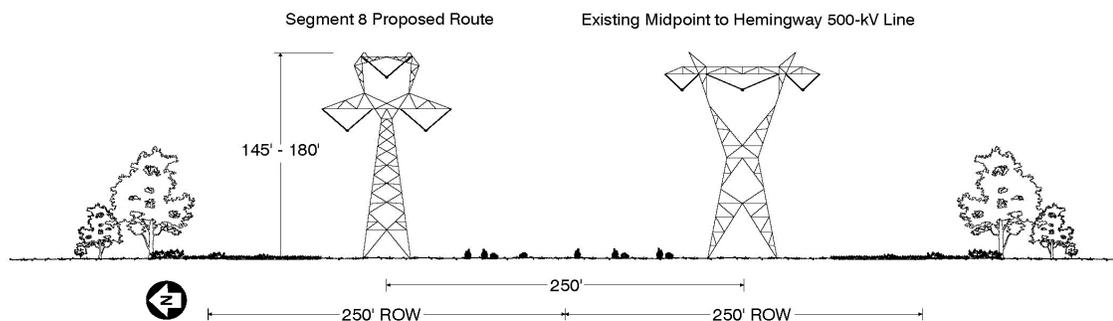
At the time the Gateway West Final EIS was prepared, the WECC recommended that high-voltage transmission lines be separated by at least "the longest span length of the two transmission circuits at the point of separation or 500 feet, whichever is greater, between the transmission circuits" (WECC 2008). For Gateway West, the longest span length was assumed to be 1,500 feet, thereby dictating the minimum distance between existing and proposed transmission lines serving the same load (BLM 2013a).

The regional transmission planning criteria and guidelines were derived from planning standards developed by the North American Electric Reliability Council and were designed to reduce the risk of the following:

- A tower falling into an adjacent line
- A snagged shield wire dragged into adjacent line
- An aircraft flying into more than one circuit
- Fire, smoke, or dust shorting more than one circuit
- Lightning strikes affecting more than one line

In December 2011, WECC and the WECC Board of Directors relaxed its regional transmission planning criterion to a minimum of 250 feet from an existing line (BLM 2013a). This change became effective in April 2012. The separation of transmission lines within a common corridor or lines serving the same load is measured between the centerlines of the transmission lines. All utilities participating in WECC are still responsible for preventing outages and must use the best available planning and engineering to estimate the risk of outages regardless of separation. Under certain limited circumstances, the Companies are willing to consider reducing the separation between high-voltage lines for limited distances and under restricted circumstances.

The Companies plan to use existing roads near and beneath the existing 500-kV transmission line to minimize the overall disturbance footprint of the new line. Rather than constructing a completely new access road network for the Summer Lake Option 1 route, they will use short spur roads from existing roads to provide access to new towers.



Proposed 500-kV Single-Circuit Lattice Steel Tower Adjacent to the North Side of the Existing Midpoint to Hemingway Line (MPs 7.3 to 36)

**Figure 3-1.** Proposed Reduced Line Separation ROW Design Locations

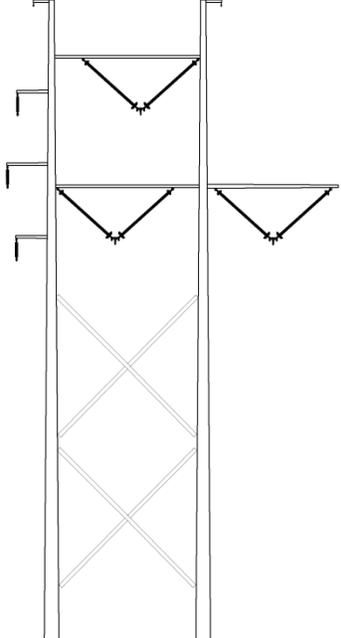
### 3.2 Segment 9 Double-Circuit Segment

As part of their evaluation, the RAC Subcommittee asked the Companies about the feasibility of co-locating (double-circuiting) 5.4 miles of the existing CJ Strike to Bruneau Bridge and 20.2 miles of the Bowmont to Canyon Creek 138-kV transmission lines and on the same structures with the proposed Segment 9 single-circuit 500-kV line<sup>1</sup>. The Companies reported that double-circuiting would be feasible and have incorporated this change into the proposed Project.

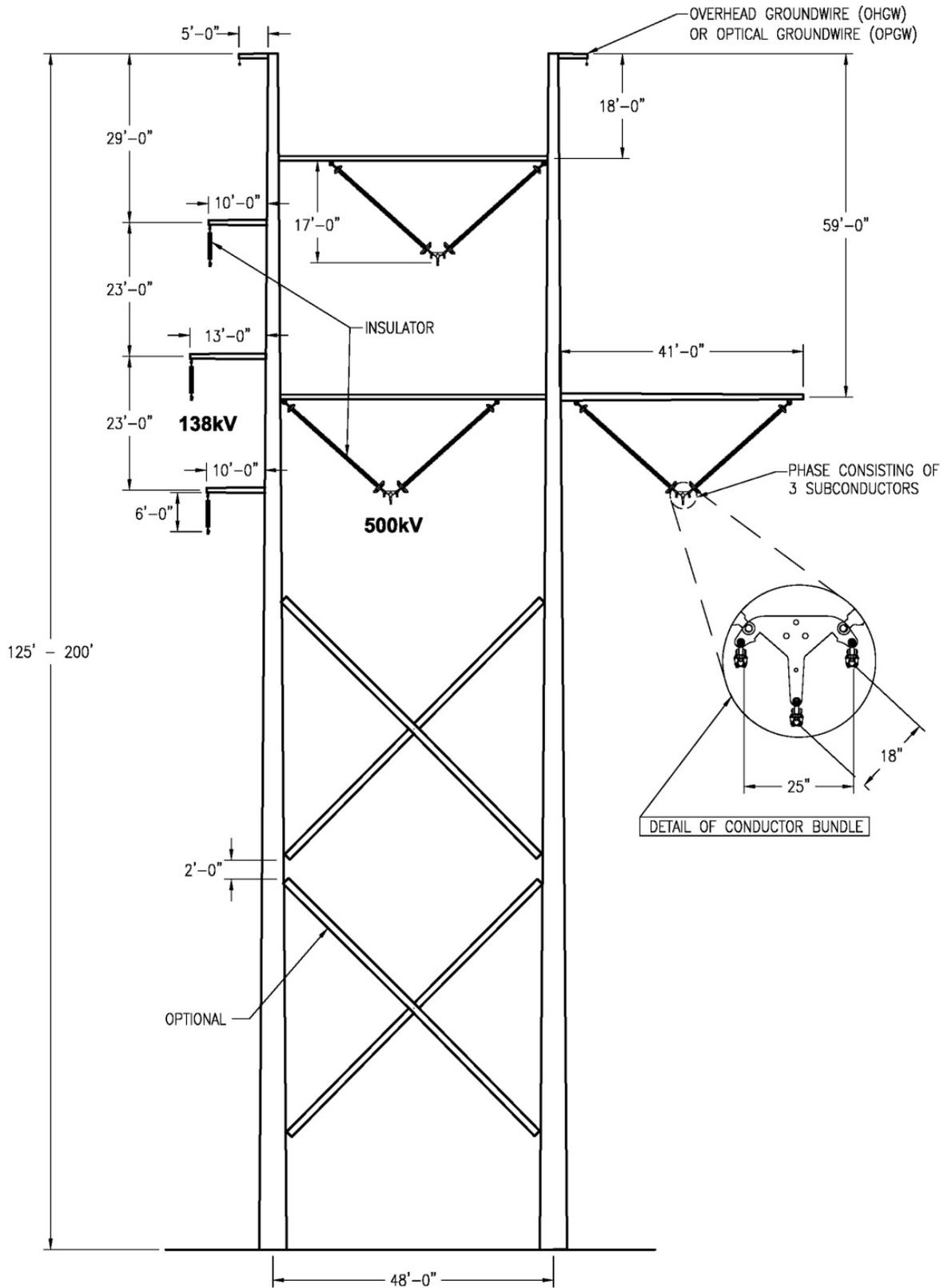
Table 3-1 describes facility features for the double-circuit portion of Segment 9 in the BOPNCA that will be double-circuiting. Figure 3-2 shows a sketch of the proposed double-circuit 500/138-kV structure. Figure 3-3 shows the ROW design configuration for the double-circuit portion of Segment 9 within the BOPNCA.

<sup>1</sup> In addition, the 138 and 500-kV circuits will separate on to single-circuit structures for approximately 0.2 mile to permit a more feasible crossing of the Narrows between C.J. Strike Reservoir and the Bruneau Arm.

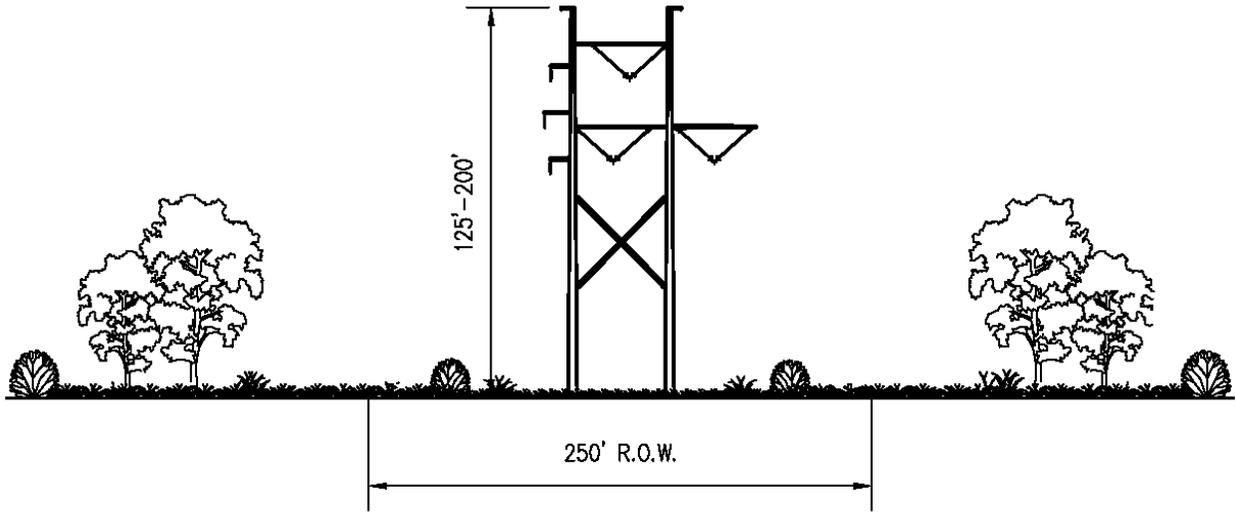
**Table 3-1. Summary of Segment 9 Project Transmission Facilities**

Project Facility	Description
<p data-bbox="181 268 574 310"><b>Double-Circuit 500/138-kV portion of Segment 9 in the BOPNCA</b></p> 	<ul style="list-style-type: none"> <li>• Three-phase 138-kV and three-phase 500-kV construction for all structure designs, conductor spacing and clearances<sup>1/</sup>.</li> <li>• 500-kV Conductor: Bundled 1949.6 kcmil 42/7 aluminum conductor steel reinforced (ACSR)/TWD "Athabaska/TW", with three subconductors per phase. Non-specular (dull) finish rather than a shiny finish.             <ul style="list-style-type: none"> <li>○ Estimated subconductor diameter: 1.51 inches.</li> <li>○ 500-kV Bundle spacing: Distance between subconductors is 18 inches and 25 inches.</li> </ul> </li> <li>• 138-kV Conductor: Single 715 kcmil 26/7 aluminum conductor steel reinforced (ACSR) "Starling". Non-specular (dull) finish rather than a shiny finish.             <ul style="list-style-type: none"> <li>○ Estimated conductor diameter: 1.05 inches</li> </ul> </li> <li>• Non-reflective, non-refractive insulators.</li> <li>• One optical ground wire (OPGW) containing 48 fibers with diameter of 0.64 inch.</li> <li>• One EHS steel overhead ground wire with diameter of 0.50 inch.</li> <li>• Minimum ground clearance:             <ul style="list-style-type: none"> <li>○ 138-kV: 24 feet</li> <li>○ 500-kV: 35 feet</li> </ul> </li> <li>• Structure types: double-circuit steel H-frame structures, dull galvanized or self-weathering steel.</li> <li>• Above-ground structure height: varies between 125 and 200 feet.</li> <li>• Approximate distance between structures: 900 to 1,200 feet.</li> <li>• ROW width: 250 feet</li> <li>• The exact quantity, distance between, and placement of the structures will depend on the final detailed design of the transmission line, which is influenced by the terrain, land use, environmental constraints, and economics. Alignment options may also slightly increase or decrease the quantity, location, and height of structures.</li> </ul>

1/ Project design follows the Avian Power Line Interaction Committee recommendations. Details for tower construction and components such as conductor spacing are provided in the August 2013 POD.



**Figure 3-2.** Typical Double-Circuit 500/138-kV Structure



**Figure 3-3.** Double-Circuit 500/138-kV ROW Design

## 4.0 CONSTRUCTION AND OPERATION

### 4.1 Construction

Appendix B, Section 3.0 of the previously published POD describes the methods of constructing of the portions of Gateway West within the BOPNCA. Since the publication of the POD, the Companies have recommended and accepted the following modifications as part of the Project for portions of Segments 8 and 9 within the BOPNCA and provide new construction related information.

Segment 9 will construct approximately 25.6 miles of new double-circuit 500/138-kV transmission line. The construction methods for the steel pole H-Frame double-circuit 500/138-kV structure (Figure 3-2) are similar to the steel pole H-frame single-circuit structure described in Appendix B, of the August 2013 POD, Transmission Line and Substation Components.

The following sections describe the methods for removal of 25.6 miles of the existing C.J. Strike to Bruneau Bridge 138-kV and Bowmont to Canyon Creek 138-kV lines as described in Section 2.2 and removal and reconstructing of lower voltage lines and modify associated facilities upon approval of the August 2014 MEP as described in Section 2.3. The Companies propose to work with the BLM to identify structures the BLM would like to retain within BLM-managed lands. Those structures will still need to be accessed to remove the hardware and conductors but could be left if desired.

#### 4.1.1 Access for Removal of Lines

In order to construct the double-circuit 500/138-kV line or reconstruct lower voltage lines, the existing lines must be removed. The 138-kV line will be replaced in its entirety, including structures. The lower voltage lines will be reconstructed using a combination of re-conducting and structure replacement as needed. The lower voltage lines access can generally be confined to 15 feet to one side of the existing line.

Existing access roads or overland travel, including the roads and trails used for construction, maintenance, and inspection of the line, will be used to remove the existing line. All roads or access ways or required disturbance areas used for line removal work will be surveyed, cleared, and staked prior to any construction. On completion of line removal work, all access or spur roads shall be removed in their entirety and in accordance with project requirements and restrictions.

#### 4.1.2 Site Preparation

In general, the existing pads surrounding existing structures are sufficient to allow access for the bucket trucks and small cranes needed to remove the structures. If needed, vegetation on the existing pads may be cut or crushed to allow safe equipment access. Grading will be used only if essential for worker safety. Erosion control measures as specified in the Stormwater Pollution Prevention Plan and Appendix Z of the August 2013 POD will be employed where needed.

#### 4.1.3 Remove Conductors

The next step after establishment of access and a safe work area for the lineworkers is to remove the conductors and shield wire. To remove the conductors, the line is taken out of service. Bucket trucks are generally used to hoist the workers to the wire positions to allow workers to remove the hardware holding the wires in place, and drop the wires to the ground. In some cases, workers may climb the structures to accomplish this. A wire spooling machine is attached to one end of each wire after the wires are all on the ground. Each wire is wound onto reels to be hauled to one of the designated multi-use yards or to an approved off-site disposal

area. Guard equipment or structures will be deployed where energized lines are crossed to prevent the wires being removed from coming in contact with the energized wires.

#### **4.1.4 Remove Transmission Structures**

Structure removal follows wire removal. In most cases, a 20- to 30-ton lift capacity crane attaches to the structure's upper section and holds it in place while the poles are cut off near ground and the structure is laid to the ground for disassembly. In a few instances, workers in bucket trucks or climbing remove the insulators, hardware, braces, and crossarms in the air and lower them to the ground, leaving the poles standing. Once all the equipment has been removed, the poles are cut off near ground and allowed to fall (or may be supported by crane and lowered to ground). Guy wires and anchors, if any, will be removed at the same time. All materials are loaded onto trucks and hauled to a multi-purpose yard or to a preapproved disposal site. Any treated wood that is given away to an outside party will be accompanied by a Bill of Sale and Consumer Information Sheets that describe any health and environmental risks associated with different types of treated wood (i.e., proper and improper uses).

#### **4.1.5 ROW Site Reclamation**

After conductors, structures, and associated hardware have been removed, workers dig out around the base of the remaining pole section and cut off the pole below ground. The resulting holes are filled and compacted with soils that have been approved for backfill and from approved sources if not available on-site. The final step is to remove and restore work areas, pads, and other disturbed areas to a condition agreed upon by the landowner, tenant or managing agency. Appendix D of the August 2013 POD, the Reclamation Plan, and Appendix Z, Mitigation Measures, contain the plans and requirements for site restoration and reclamation.

#### **4.1.6 Gage Substation Removal**

The Gage substation is currently located within a 50-foot by 50-foot fenced area. Removal will require a disturbance area of approximately 100 feet by 100 feet to provide adequate space to remove the entire station. The existing fence and transformer will be removed as will the foundations and miscellaneous concrete to below ground level. The existing 46-kV transmission line will continue to pass through the site and connect to the existing 46-kV line to Ferry Substation and Swan Falls Power Plant. Once construction removal activities are complete, the site will be reclaimed. Appendix D of the August 2013 POD, the Reclamation Plan, and Appendix Z, Mitigation Measures, contain the plans and requirements for site restoration and reclamation.

### **4.2 Operation**

Appendix B, Section 4.0 of the August 2013 POD describes routine and emergency response measures the Companies will employ during operation. These measures apply without change to the Project as proposed in the SF-299 and this POD Supplement for Segments 8 and 9.

## **5.0 DECOMMISSIONING**

Appendix B, Section 5.0 of the August 2013 POD describes how the proposed transmission line would be removed from service at the end of the useful life of the Project including dismantling and removal of conductors, insulators, and hardware from the ROW. Structures would be removed, foundations would be removed to below ground surface, and following abandonment and removal of the transmission line structures and equipment, any areas disturbed during line dismantling would be reclaimed and rehabilitated. No changes are proposed to this approach in this POD Supplement.

As part of the August MEP described in Appendix B, portions of two existing lower-voltage power lines and one substation owned by IPC from areas within the BOPNCA will be removed. The removal methods will be the same as described in Appendix B, Section 5.0 of the August 2013 POD except that the BLM may specify that one or more power poles be left for perching and nesting opportunities for birds of prey.

## 6.0 MITIGATION AND ENHANCEMENT PORTFOLIO

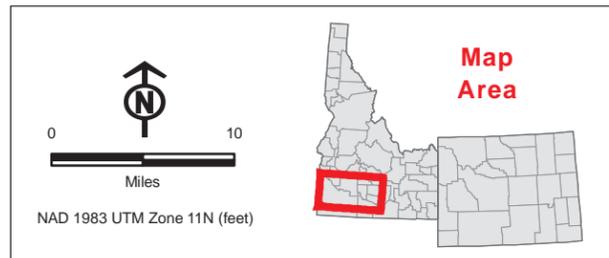
The August 2014 MEP from the Companies included as Appendix B to this POD Supplement is intended to offer sufficient mitigation and enhancement for the resources and values for which the BOPNCA was designated to allow the BLM to complete its decision process for Segments 8 and 9 of the Project and issue a ROD for these segments. It was first submitted to the BLM as part of the Companies' comments on the Final EIS in 2013 and entered into the Administrative Record at that time. Subsequent to the issuance of the ROD, the Companies continued conversations with the BLM and subsequently with the Boise RAC and the RAC Subcommittee. A version of the MEP was issued in January 2014 and another version shared with the RAC Subcommittee in March 2014. Additional comments were provided by BLM in August 2014. The August 2014 MEP has been updated since the version prepared for the RAC Subcommittee and reflects the Companies' responses to the RAC Subcommittee recommendations and BLM comments.

## 7.0 LITERATURE CITED

- BLM (U.S. Department of the Interior, Bureau of Land Management). 2013a. Final Environmental Impact Statement for the Gateway West Transmission Line Project. Wyoming State Office. Case File Numbers WYW-174598; IDI-35849. Cheyenne, WY. April 26.
- BLM. 2013b. Record of Decision for the Gateway West Transmission Line Project. Wyoming State Office. Case File Numbers WYW-174598; IDI-35849. Cheyenne, WY. November 12.
- Boise RAC Subcommittee (Boise District Resource Advisory Council Subcommittee). 2014a. Boise District Resource Advisory Council Subcommittee Report on Gateway West Segments 8 and 9 Route Options In or Near the Morley Nelson Snake River Birds of Prey National Conservation Area.
- Boise RAC Subcommittee. 2014b. Boise District Resource Advisory Council Subcommittee Review and Comments on the Gateway West Transmission Line Project Mitigation and Enhancement Portfolio for the Morley Nelson Snake River Birds of Prey National Conservation Area.
- IPC and RMP (Idaho Power Company and Rocky Mountain Power). 2013a. Gateway West Transmission Line Project Plan of Development. August.
- IPC and RMP (Idaho Power Company and Rocky Mountain Power). 2013b. Gateway West Transmission Line Project Plan of Development. January.
- WECC (Western Electricity Coordinating Council). 2008. TPL – (001 thru 004) – WECC – 1 – CR – System Performance Criteria. Available online at <http://www.wecc.biz/Standards/WECC%20Criteria/Forms/AllItems.aspx>

**APPENDIX A  
LOCATION MAPS**

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- Segment 8**
- Proposed
  - Summer Lake Option 1
- Segment 9**
- Proposed
  - Segment 9 Proposed

- Other Features**
- Substation
  - Milepost
  - Existing Transmission Lines (138-kV or greater)

- West Wide Energy Corridor (WVEC)**
- Protected Area or Restricted Access
  - City Limits

- Land Status**
- Bureau of Land Management
  - National Forest
  - National Park Service
  - Fish and Wildlife Service
  - Bureau of Reclamation

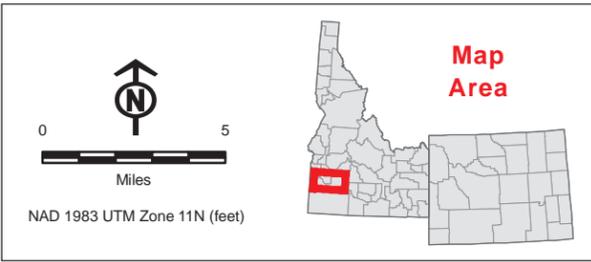
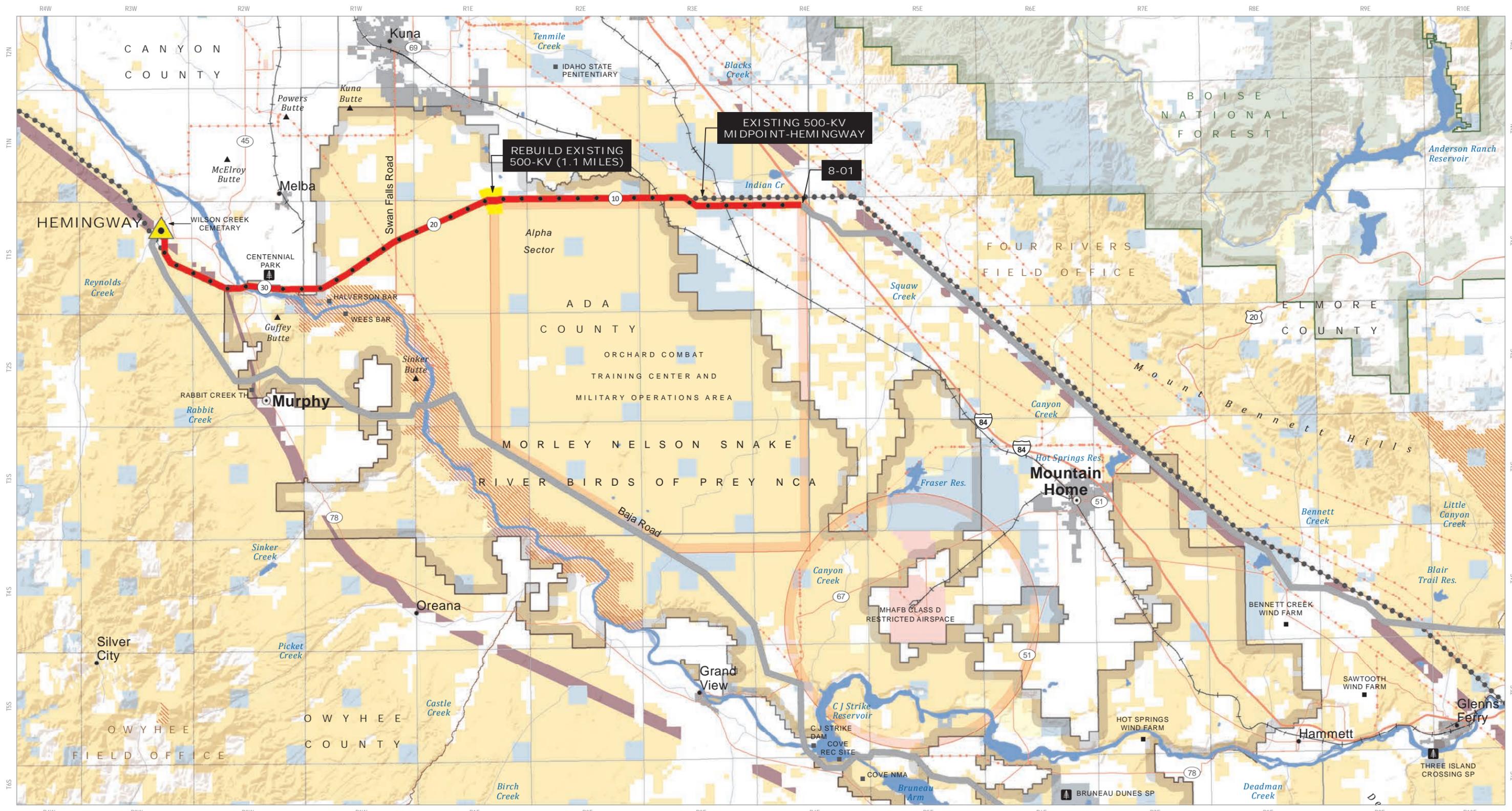
- Military Reservation/Corps of Engineers**
- State
  - State Wildlife, Park, Recreation or Other
  - Private



Gateway West  
Transmission Line Project

**Segments 8 and 9  
Overview**

Appendix A-1



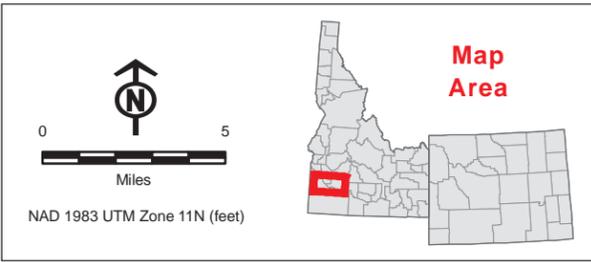
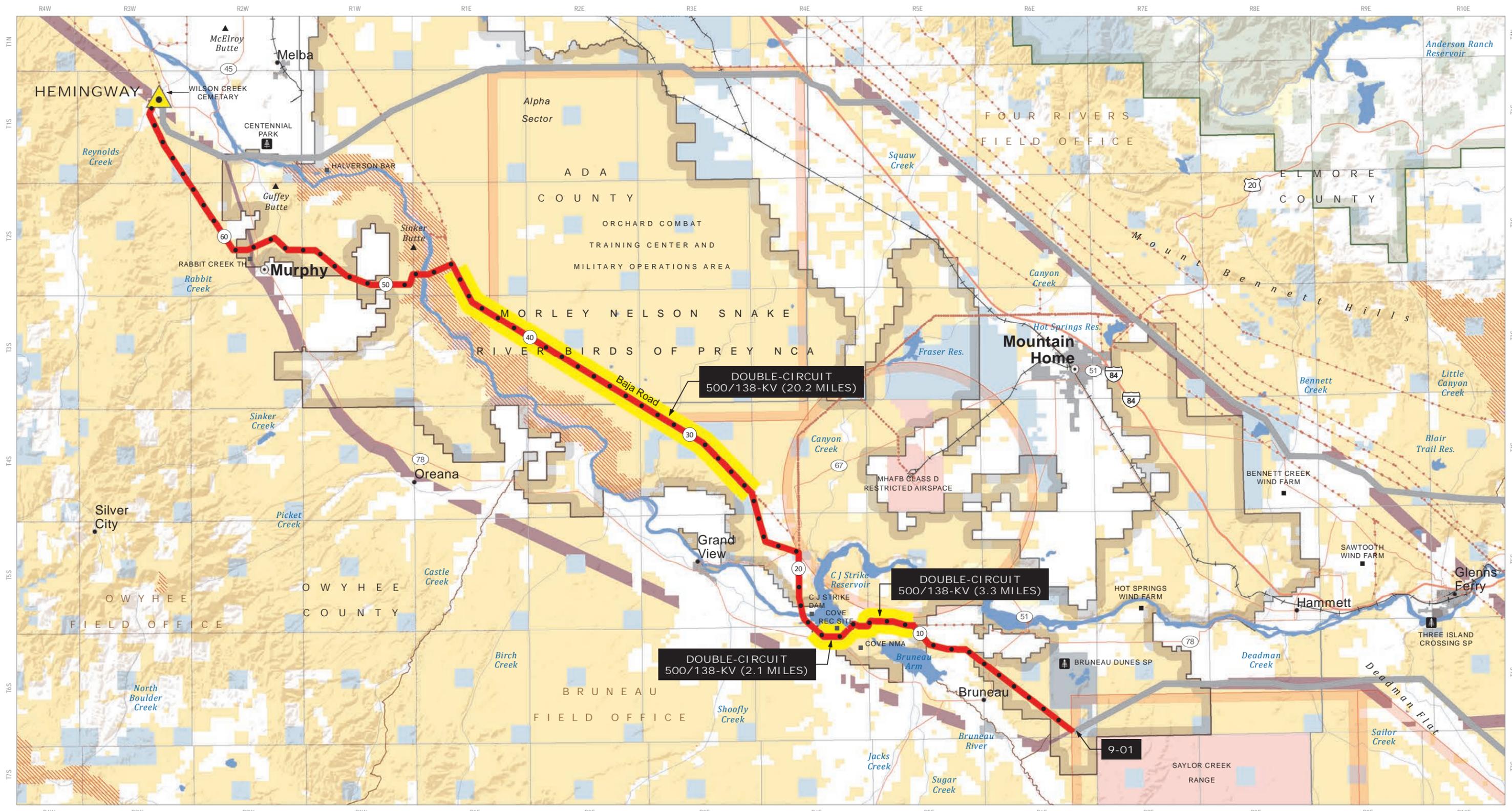
Segment 8		Other Features		Land Status		Military Reservation/Corps of Engineers	
	Summer Lake Option 1		Substation		Existing Midpoint-Heminway 500-kV Line		Military Reservation/Corps of Engineers
	Rebuild Existing 500-kV		Ten Mile		Existing Transmission Lines (138-kV or greater)		State
	Other Route		Mile		West Wide Energy Corridor (WWEC)		State Wildlife, Park, Recreation or Other
			Protected Area or Restricted Access		City Limits		Private
					Bureau of Land Management		
					National Forest		
					Fish and Wildlife Service		
					Bureau of Reclamation		

ROCKY MOUNTAIN POWER  
A DIVISION OF Xcel Energy

IDAHO POWER  
An Exelon Company

Gateway West  
Transmission Line Project

**Segment 8**  
**Summer Lake Option 1**  
Appendix A-2



- Segment 9**
- █ Baja Road-Murphy Flat South
  - Double-circuited Portion
  - Other Route

- Other Features**
- Substation
  - Ten Mile
  - Mile
  - Existing Transmission Lines (138-kV or greater)

- West Wide Energy Corridor (WWEC)
- Protected Area or Restricted Access
- City Limits

- Land Status**
- Bureau of Land Management
  - National Forest
  - Fish and Wildlife Service
  - Bureau of Reclamation

- Military Reservation/Corps of Engineers
- State
- State Wildlife, Park, Recreation or Other
- Private



Gateway West  
Transmission Line Project

**Segment 9**  
**Baja Road-Murphy Flat South**  
Appendix A-3

**APPENDIX B**  
**MORLEY NELSON SNAKE RIVER BIRDS OF PREY NATIONAL**  
**CONSERVATIONN AREA DRAFT MITIGATION AND ENHANCEMENT**  
**PORTFOLIO PROPOSAL**

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See Appendix C-1 of the SEIS to view the August 2014 Draft Mitigation and Enhancement Portfolio.

## **Gateway West Transmission Line Project Addendum to August POD Supplement Use of Baja Road and Disturbance Calculations**

On August 7, 2014 PacifiCorp, doing business as Rocky Mountain Power (RMP), and Idaho Power Company's (IPC) collectively the Companies submitted to Bureau of Land Management (BLM) a Plan of Development Supplement for the Gateway West Transmission Line (Project or Gateway West). This addendum to the supplement describes use of the Baja Road and disturbance during construction and operation.

### **1.0 BAJA ROAD**

Baja Road is the access road used for construction and maintenance of the existing 138-kV transmission lines. These lines would be removed and reconfigured onto a double-circuit 500/138-kV structure series for approximately 26.5 miles of which, 18.3 miles is in the SRBOP and adjacent to Baja Road as part of the Baja Road-Murphy Flat South alternative identified by the Boise District Resource Advisory Council (RAC) and adopted by the Companies as part of the Segment 9 Proposed Route. The Companies intend to utilize the existing road with "no improvement". Project-wide, existing roads requiring "no improvement" include existing maintained paved or all-weather surfaced roads that are able to be used in their current condition (PacifiCorp and Idaho Power, 2013). The Companies' construction standards will be met, including the use of a minimum travel surface width of 14 feet wide and requiring a travel surface width of up to 20 feet depending on the radius of curves. The use of the term 'no improvement' is intended to signify that no additional new disturbance will be created outside of the established disturbed area. As such, the existing roads requiring "no improvement" for access could include regular maintenance to make the road passable for construction. Regular maintenance could include but is not limited to minor blading activities, repair of washed out areas, wash boarded areas, depressions requiring graveling, approach installation, and other minor improvements within the established disturbed area.

The Baja Road meets the criteria for "no improvement". **Figure 1-1** shows the typical condition of the Baja Road adjacent to the existing 138-kv line. The view is looking south and the proposed location of the new double-circuit 500/138-kV line is on the right side of the road.



**Figure 1-1. Current Condition of the Baja Road**

Based on aerial imagery and field reconnaissance, the road has a 14 feet wide travel surface and the total established disturbed area or width is approximately 40 feet. The road is generally in excellent condition having been recently restored. There may be a few washboard areas, but the width and gravel surface should be sufficient without any additional improvements outside of the current travel way. The construction concept for installation of the planned 500/138-kV line would involve in most cases a stub road extending from the edge of the existing Baja Road to an approximately 1.4 acre construction pad (**Figure 1-2**). The centerline of the Proposed Route is approximately 140 feet off of the road centerline. The terrain is mostly flat, so overland travel to access the construction pads or structures for operation and maintenance would stay within the Project-wide travel way (14 foot wide during construction and 8 feet wide during operations). **Figure 1-1** and **Figure 1-3** illustrate the terrain and construction pad features.



Figure 1.2. Conceptual Stub Road Configuration from Baja Road.

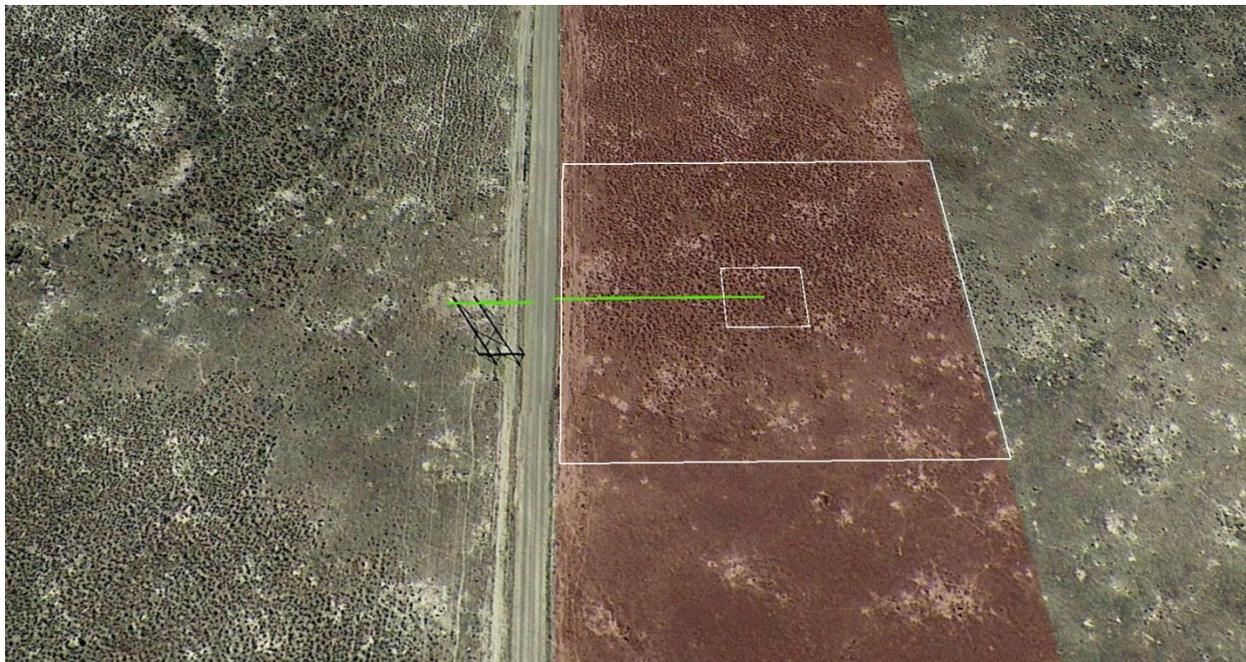


Figure 1-3. Conceptual Construction Work Area (large white box).

## 2.0 CONSTRUCTION AND OPERATION DISTURBANCE

The amount of land disturbed during construction and operation is a function of length, extent of facility improvements and location. **Table 2-1** shows the length, extent of new, rebuild and removed facilities and ownership associated with the proposed routes for Segment 8 (Summer Lake Option 1) and Segment 9 (Baja Road-Murphy Flat South).

**Table 2-1. Segments 8 and 9 Proposed Route Features**

Feature	Segment 8 - Summer Lake Option 1 (miles)	Segment 9 - Baja Road- Murphy Flat South (miles)
Total Length	38.3 (1.1 rebuild)	89.3 (20.9 removal)
Ownership		
Bureau of Land Management	27.1 (0.8)	75.3 (17.6)
Bureau of Reclamation	2.7	0.1
Private	6.2 (0.2)	5.1 (0.2)
State	2.0	8.5 (3.1)
Land Use		
BOPNCA	23.1 (1.1)	73.7 (20.9)
Orchard Combat Training Center	0.5	--
Adjacent to Existing Transmission Lines	30.7	55.0 (20.9)

Land disturbance as described in **Table 2-2** is the estimated amount of land that would be disturbed during construction or required to be permanently converted to operational uses. Estimates for construction disturbances are based on best professional judgment and experience with this type of project following the process described in Section 3.1 of the Gateway West EIS. Estimates were made of disturbance areas resulting from each construction activity involving structure placement, access roads, contractor and material staging areas, and new and expanded substations. For each route, the amount of disturbance reflects use of existing access roads meeting the definition of “no improvement” as described above. **Table 2-3** describes the dimensions of the structure construction pads and area permanently occupied by structures after restoration.

**Table 2-2. Summary of Transmission Line Land Disturbance Resulting from Construction and Operations <sup>(1)(2)</sup>**

Segment/Project Component	Land Affected During Construction (acres)	Land Affected During Operations (acres)
<b>Segment 8</b>		
Access - Existing Road, Improved	136	43
Access New Road	21	10
Deadend Pulling - 500-kV (1-SC)	121	-
Fly Yard	112	-
Pad - 500-kV	245	10
Pulling-Tensioning - 500-kV (1-SC)	17	-
Regeneration Site	-	-
Staging Area	40	-
<b>Subtotal - Segment 8</b>	<b>693</b>	<b>63</b>
<b>Segment 9</b>		

**Table 2-2. Summary of Transmission Line Land Disturbance Resulting from Construction and Operations <sup>(1)(2)</sup>**

Segment/Project Component	Land Affected During Construction (acres)	Land Affected During Operations (acres)
Access - Existing Road, Improved	195	60
Access - New Road	76	32
Deadend Pulling - 138-kV (1-SC)	21	
Deadend Pulling - 500/138-kV (1-DC)	96	-
Deadend Pulling - 500-kV (1-SC)	163	-
Fly Yard	212	-
Pad - 138-kV	1	0.2
Pad - 138-kV (Removal)	49	-
Pad - 500/138-kV (1-DC)	255	10
Pad - 500-kV	268	11
Pulling-Tensioning - 138-kV (1-SC)	1	-
Pulling-Tensioning - 500/138-kV (1-DC)	14	-
Pulling-Tensioning - 500kV (1-SC)	15	-
Regeneration Site (3)	1	0.5
Staging Area	60	-
<b>Subtotal - Segment 9</b>	<b>1428</b>	<b>114</b>
<b>Total</b>	<b>2121</b>	<b>177</b>

1/ The exact land requirements would depend on the final detailed design of the transmission line, which is influenced by the terrain, land use, and economics. Alignment options may also slightly increase or decrease these values.

2/ Acreages in table are rounded to the nearest acre; columns therefore may not sum exactly.

3/ Values are given in 0.5-acre increments because regeneration sites are typically 0.5 acre each.

**Assumptions/Notes:**

1. ROW width for the 500-kV single circuit and 500/138-kV double circuit segments are 250 feet.
2. The staging areas would serve as field offices, reporting locations for workers, parking space for vehicles and equipment, sites for material storage, fabrication assembly and stations for equipment maintenance, and concrete batch plants.
3. Staging/material storage yards/batch plants would be approximately 20 acres for single-circuit 500-kV and double-circuit 500/138-kV lines. They would be located at each end of a segment, and every 20 to 30 miles along the line.
4. Fly yards would be 10 to 15 acres located approximately every 5 miles. Values in table assume helicopter construction for all single-circuit 500-kV and double-circuit 500/138-kV construction. The construction contractor may choose to construct using ground-based techniques, therefore not utilizing fly yards.
5. For 500 kV, wiring pulling/splicing sites would be the ROW width x 600 feet located approximately every 3 miles; for 138-kV, ROW width x 400 feet located every 9,300 feet. Typically, only sites that would be off of the ROW would be at large angle dead-ends. It is estimated that one in four sites would be off of the ROW.

**Table 2-3. Summary of Transmission Line Land Disturbance Resulting from Construction and Operations**

Segment	Transmission Line Length (miles)	Structure Type	Typical Height (feet)	No. of Structures	Average Distance Between (feet)	Temporary Disturbance Area per structure (sq. feet.)	Permanent Disturbance Area per structure (sq. feet.)
8, 9	54.6	500-kV Single-Circuit Lattice Tower	145–180	358	1,200–1,300	ROW Width 250 feet x 250 feet = 1.42 acres	ROW Width 50 feet x 50 feet = 0.06 acre
9	0.5	500/138-kV Double-Circuit Lattice Tower	145–180	178	900-1,200	ROW Width 250 feet x 250 feet = 1.43 acres	ROW Width 50 feet x 50 feet = 0.06 acre

### 3.0 REFERENCES

IPC and RMP (Idaho Power Company and Rocky Mountain Power). 2013. Gateway West Transmission Line Project Plan of Development. August.