Morley Nelson Snake River Birds of Prey National Conservation Area

DRAFT Mitigation and Enhancement Portfolio Proposal

Gateway West Transmission Line Project

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ACRONYMS AND ABBREVIATIONS

BLM	Bureau of Land Management
BMP	Best Management Practices
BOPNCA	Morley Nelson Snake River Birds of Prey National Conservation Area
CIC	compliance inspection contractor
Committee	Oversight Committee
Companies	Rocky Mountain Power and Idaho Power Company
EIS	Environmental Impact Statement
EPM	Environmental Protection Measure
FLPMA	Federal Land Policy and Management Act
FTE	full-time equivalent
Gateway West	Gateway West Transmission Line Project
HPTP	Historic Properties Treatment Plan
IDANG	Idaho Army National Guard
IPC	Idaho Power Company
kV	kilovolt
NCA	National Conservation Area
NHT	National Historic Trail
NLCS	National Landscape Conservation System
NMA	Non-Motorized Area
NRCS	Natural Resources Conservation Service
NTP	Notice to Proceed
OCTC	Orchard Combat Training Center
POD	Plan of Development (Bureau of Land Management)
PPH	preliminary priority habitat
PP&L	Pacific Power and Light Company (now PacifiCorp)
Project	Gateway West Transmission Line Project
RAC	Resource Advisory Council (Boise District)
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
SF299	Standard Form 299
SR	State Route
SRBOP	Snake River Birds of Prey National Conservation Area
SRMA	Special Recreation Management Area
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management
WWEC	West-wide Energy Corridor

1.0 INTRODUCTION

This Draft Mitigation and Enhancement Portfolio Proposal (Draft MEP) from PacifiCorp, doing business as Rocky Mountain Power, and Idaho Power Company (Companies), is intended to offer sufficient mitigation and enhancement for the resources and values for which the Morley Nelson Snake River Birds of Prey National Conservation Area (BOPNCA or SRBOP or NCA) was designated to allow the Bureau of Land Management (BLM) to complete its decision process for Segments 8 and 9 of the Gateway West Transmission Line Project and issue a Record of Decision (ROD) for these segments.

1.1 Gateway West Transmission Line Project Description

The Companies, are proposing to construct and operate the Gateway West Transmission Line Project (Gateway West or Project) consisting of approximately 990 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 Project includes ground-disturbing activities associated with the construction, operation, and maintenance of aboveground, single-circuit transmission lines involving towers, access roads, multi-purpose areas, fly yards, pulling sites, substations, communication sites, and electrical supply distribution lines. The Project crosses private land and public lands administered by the BLM, U.S. Department of Agriculture Forest Service, Bureau of Reclamation, and the states of Idaho and Wyoming, including the BOPNCA.

The compensatory mitigation and enhancement proposed within this Draft MEP is based upon the Project "footprint" or disturbance footprint and line mileage within the BOPNCA on federal lands. The Project "footprint" was developed based on standard construction and operation practices and is defined as follows:

1. "Construction footprint" includes all the areas that may be disturbed during construction, including the full width of access roads including cuts and fills where needed, construction spaces at each structure, etc. The majority of this footprint will be reclaimed (see Appendix B, Plan of Development, for the ROD, which includes the Reclamation Plan, among many other environmental protection plans and includes a detailed description of disturbance in its Appendix B).

2. "Operation footprint" of the Project includes those areas permanently occupied by Project facilities, including the reduced travelway of permanent roads and the footprint occupied by the structures, regeneration stations, and substations.

Table 1, below, shows typical construction and operation footprints for various Project elements. Note that these values were used to estimate disturbance by developing a geodatabase layer using the proposed facility locations and then overlaying that "footprint" database, whether for construction or operation footprint, with the relevant vegetation or land ownership geodatabase layer.

Table 1. Typical Construction and Operation Footprints for Project Elements

Element	Construction Footprint	Operation Footprint
500-kV Lattice Structure and 138-kV/500-kV double-circuit structure	250' x 250' or 2.43 acres	50' x 50' or 0.06 acre; remainder revegetated but not recontoured
Regeneration Station	1 acre	0.5 acre; remainder reclaimed
Access Roads	Length times average 26' wide	Length times average 8' wide; remaining width reclaimed
500-kV in-line pulling and tensioning site	250' x 700' or 4.02 acres	Fully reclaimed
500-kV angle structure pulling and tensioning site	2 @ 250' x 600' or 6.89 acres	Fully reclaimed
Fly Yards (if used)	12.5 acres	Fully reclaimed
Multi-purpose yards	20 acres	Fully reclaimed

Because all the temporary facilities, most of the structure workspaces, and most of the access road construction disturbance will be reclaimed, the operation footprint is much smaller than the construction footprint. For example, for the Companies' proposed routes for both Segments 8 and 9, the long-term project occupancy within BOPNCA on BLM lands is only 97 acres, but the construction footprint within BOPNCA on BLM lands is 1,267 acres.

1.2 Gateway West and BOPNCA

The BLM released the final environmental impact statement (Final EIS) on April 26, 2013, which identified alternative routes for Segments 8 and 9 in and near the 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 Final EIS described the BLM preferred alternatives and the Companies' proposed routes.

The BLM preferred alternatives, as specified in the Final EIS, were that Segment 8 (described herein as starting at the Midpoint Substation and moving to the west) be constructed along the Proposed Route for the first 92 miles, then constructed through largely private land along Alternative 8B, avoiding most of the crossing of the BOPNCA to arrive at the Hemingway Substation 40 miles later and that Segment 9 (described herein as starting at the Cedar Hill Substation and moving to the west) be built using the Final EIS Proposed Route for the first 95 miles, then use Alternative 9E and some modifications to the Final EIS Proposed Route to arrive at the Hemingway Substation about 76 miles later.

In the Final EIS the Companies proposed to construct Segment 8 from the existing Midpoint Substation near Shoshone, Idaho about 131 miles to the existing Hemingway Substation near Melba, Idaho. The BLM advised that the Proposed Segment 8 crossing of the Halverson Non-Motorized Area could not be permitted at all and the Idaho Army National Guard (IDANG) expressed reservations regarding the crossing of the Alpha Maneuver Sector. The Companies also originally proposed to construct Segment 9 about 162 miles from the proposed Cedar Hill Substation southeast of Twin Falls, Idaho, to the existing Hemingway Substation. During the siting and routing discussions and meetings with the various task forces formed by local landowners, governments, and the local BLM (see Section 3.3), additional alternatives for Segment 9 were considered. The Owyhee County task force proposed Alternative 9D, which parallels an existing line within the BOPNCA, and the BLM, in response to concerns raised by that proposal, proposed Alternative 9G.

The Companies, considering the feedback from the BLM and public modified the Final EIS Proposed Route. The route modifications were not formally submitted to the BLM; rather the Companies submitted the route modifications in conjunction with a previous version of the Draft MEP as a comment to the Final EIS during the public comment period. The Companies modified the Final EIS Proposed Route for Segment 8, including Alternatives 8D and 8E, which were proposed to avoid the Alpha Sector and the problematic crossing of the Snake River and the Halverson NMA, respectively. The Companies modified Segment 9 through the inclusion of Alternative 9G.

The 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 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 Draft MEP submitted by the Companies. The RAC Subcommittee evaluated the Companies' Proposed Routes as modified by Alternatives 8D, 8E, and 9G and identified and evaluated several other routing options. 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 Draft 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.

The development and evaluation of route options by the RAC Subcommittee considered a wealth of local knowledge and included the participation of members of the public, local and state

officials, and federal agencies (local and national-level). The Companies support the RAC Subcommittee recommended route options and have adopted these route options as the Companies current Proposed Routes as reflected in the August 2014 Standard Form 299 (SF299) revision and within this Draft MEP. The Companies have also incorporated some of the RAC Subcommittee recommendations for compensatory mitigation and enhancement within this Draft MEP.

Table 2, below, shows the numbers of miles of the BOPNCA (on BLM-managed lands) crossed by the Companies' current Proposed and the Final EIS BLM-Preferred alignments for Segments 8 and 9.

Table 2. Distances of Alternative Routes across BOPNCA on BLM-Managed Lands

Segment	Route	Miles	
		Total Length[1/]	Distance across BOPNCA (BLM and BOR)
8	BLM Preferred	132	2.0
	Proposed Route	129.4	17.9
9	BLM Preferred	171.4	11.2
	Proposed Route	161.4	46.0

[1/] Total length from Substation to Substation

Figure 1 shows the Proposed Routes for Segments 8 and 9 in red, which are consistent with the RAC Subcommittee recommended route options and the BLM's Final EIS Preferred Alternative as a black striped overlay on either red or green routes, as appropriate.

Although the ROD states that the Project's environmental protection measures would "conserve and protect NCA resources," BLM staff has emphasized that mitigation must bring the area back to baseline, which BLM staff has stated is above and beyond "conserve and protect NCA resources." Therefore, the Companies have included a compensatory mitigation component based on the long-term operational footprint of the Project to restore to the pre-construction or baseline at a minimum. The compensatory mitigation is beyond the standard mitigation or Project design features (presented in the BLM Plan of Development [POD] as environmental protection measures) that will be implemented and will offset residual effects. The Companies have further proposed an enhancement component to meet the enhancement requirement in the enabling legislation for the BOPNCA.

The Companies have provided a MEP that is scaled, where feasible, to the acres of direct impact on the NCA and allows for its consideration and approval *regardless of the alternative finally selected*. It is the Companies' intention to provide compensatory mitigation and enhancement in proportion to the impacts to the BOPNCA for any route that is approved, and to use the acres of construction disturbance as a surrogate to estimate proportional impacts.

For example, the routes selected as Preferred by the BLM in the Final EIS would disturb 351 acres during construction, as compared to 1,267 acres for the Companies' Proposed Route. If the BLM's Preferred Alternatives were selected, the funding within the Draft MEP would be scaled back to about 20 percent of the proposed funding for the Companies' Proposed Route.

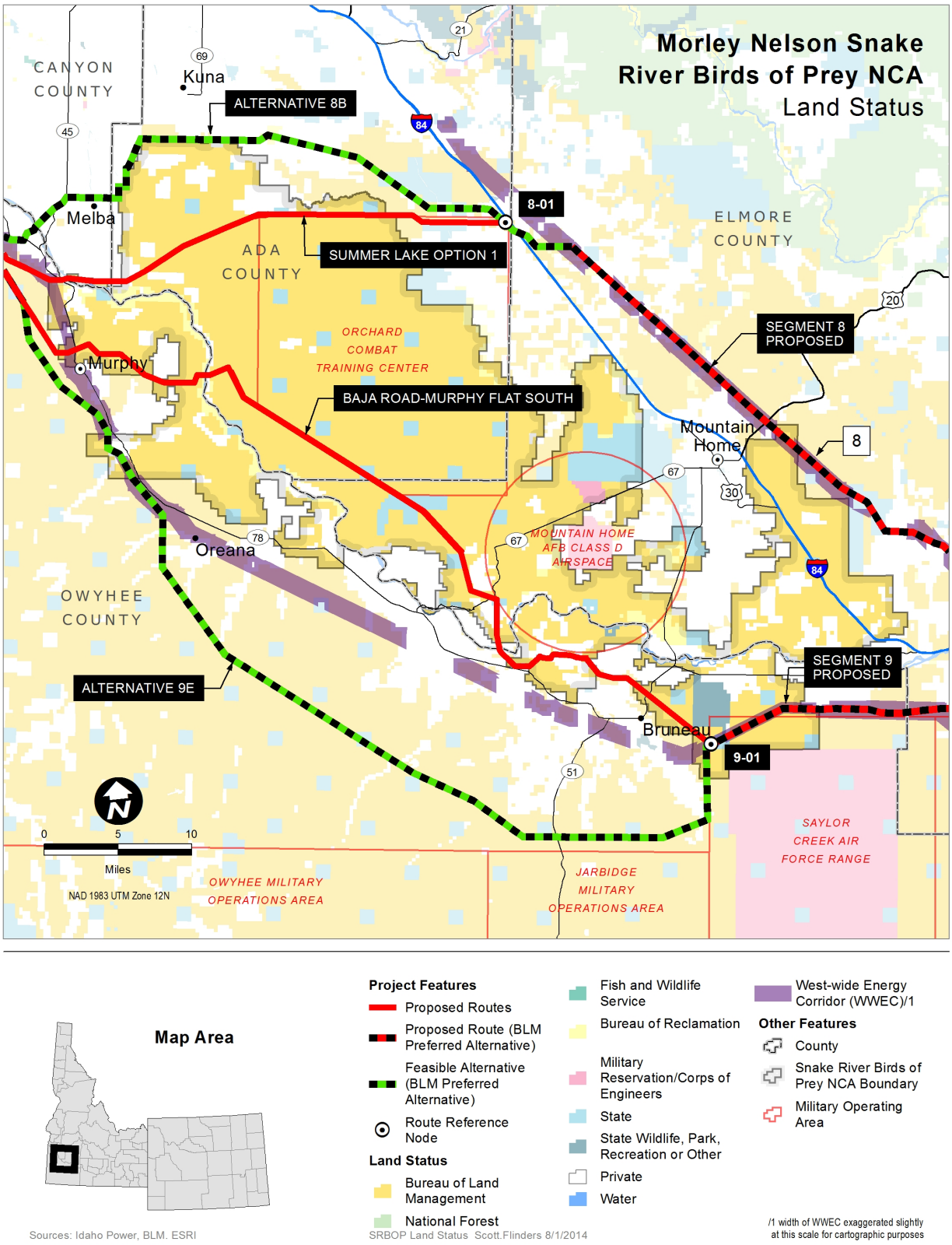

Figure 1. Land Status

1.3 Purpose of Mitigation and Enhancement Portfolio

The Companies present substantial evidence in Section 4.3, below, that transmission lines are a benefit, not a detriment, to raptor populations. The lattice structures provide additional nesting, perching, and roosting substrates and the transmission lines do not pose a substantive risk to the raptors. The access roads used for construction and operation of the transmission line can serve as firebreaks and access for firefighting. Limiting the area burned and the number of times an area burns can help limit the adverse impacts of cheatgrass that so often invades after a fire. Therefore, the Project would have no adverse impacts on the values for which BOPNCA was designated and would enhance the BOPNCA in important ways. The BLM does not agree with the Companies and has asserted in its Final EIS that any enhancement provided by the Project is outweighed by other environmental impacts. In the spirit of cooperation and in the interest of receiving a ROW grant from the BLM for Segments 8 and 9, the Companies propose this Draft MEP so that the BLM can find that this Project meets its stated "enhancement requirement" for the BOPNCA and permit construction of both Segment 8 and Segment 9 within its boundaries.

The Companies present this Draft MEP to the BLM to make a clear and public commitment to provide sufficient compensatory mitigation to fully offset impacts to resources within the BOPNCA as well as providing sufficient enhancement opportunities for the BOPNCA to allow the BLM to approve a complete route for Segment 8 and a complete route for Segment 9 in its ROD regarding the Project. The Companies would prefer that the Proposed Route for Segment 8 and the Proposed Route for Segment 9 be approved, which are the RAC Subcommittee recommended route options and reflect the input and consideration of state and local governments, the public, the local and national BLM representatives, and the Companies.

1.4 Structure of Mitigation and Enhancement Portfolio

This Draft MEP presents:

1. A summary of the enabling legislation and subsequently published regulation, plan, and policy regarding BOPNCA, and a discussion of the consistency of the Project with the values for which the BOPNCA was designated (Section 2);
2. Important aspects of siting and routing decisions for the Proposed, Alternative, and BLM Preferred routes for Segments 8 and 9 (Section 3);
3. A brief analysis of the impacts of the alternative routes across BOPNCA considered by the Companies or by the BLM as reasonable and feasible routes, summarized from the Final EIS (Section 4);
4. The Companies' approach to determining the needed level of compensatory mitigation and enhancement to allow for the approval of both Segments 8 and 9, using the level of disturbance as a metric that can be applied regardless of the route considered (Section 5);
5. Types of mitigation and enhancement projects and their effectiveness (Section 6.1);
6. How the MEP will be funded and managed, which may include a third party for receiving the funds, together with an Oversight Committee to provide oversight of fund receipt, management, disbursement, and effectiveness (Section 6.2); and
7. A monitoring and reporting program to allow for transparent disclosure of the use and effectiveness of the enhancement projects (Section 6.3).

2.0 BOPNCA REGULATORY BACKGROUND

2.1 Enabling Legislation

The Enabling Legislation for BOPNCA, Public Law 103-64, established the BOPNCA in 1993 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…." Section 2(4) of the Act defines the term "raptor habitat" to include the habitat of the raptor prey base as well as the nesting and hunting habitat of raptors within the conservation area.

Section 1((5)(D) states, "Protection of the conservation area as a home for raptors can best and should be accomplished by the Secretary of the Interior, acting through the Bureau of Land Management, under a management plan that: (…) (D) allows for diverse appropriate uses of lands in the area to the extent consistent with the maintenance and enhancement of raptor populations and habitats and protection and sound management of other resources and values of the area."

Section 2(4) defines the term "raptor habitat" to include the habitat of the raptor prey base as well as the nesting and hunting habitat of raptors within the BOPNCA.

Section 2002 of Public Law 111–11—Mar. 30, 2009, established the National Landscape Conservation System (NLCS) within the BLM and automatically made BOPNCA, among other National Conservation Areas and other special areas, part of the NLCS. Public Law 111-11 specifically mandated the NLCS to uphold the enabling legislation for each of the components of the NLCS. Section 2301 added "Morley Nelson" to the NCA's title to recognize the contribution of that individual.

2.2 Resource Management Plan

In 2008, the RMP for the BOPNCA was finalized and announced. The RMP states,

"The SRBOP contains approximately 483,700 acres of public land in the Idaho counties of Ada, Canyon, Elmore and Owyhee. The NCA includes the 138,000-acre Orchard Combat Training Center (OCTC), used by the Idaho Army National Guard for military training since 1953. Within its boundary are approximately 41,200 State acres, 4,800 private acres, 1,600 military acres, and 9,300 acres covered by water; however, these lands were not affected by the SRBOP designation and are not affected by SRBOP RMP decisions. The SRBOP is managed by BLM under the concept of dominant use rather than multiple use. This means that prior to authorizing uses, BLM determines the compatibility of those uses with the purposes for which the NCA was established."

Section 2.17 of the RMP states "Major utilities will be restricted to the two corridors identified (Lands Map 3). Potential developments within these corridors would be compatible with the purposes for which the NCA was established". Furthermore the RMP specifies, in Section 2.17 in the "Utility and Communication Corridor Objectives and Management Actions" table that the objective of this element is: "ROW authorizations for utility developments will be compatible with the purposes for which the NCA was established, emphasizing habitat protection with economic development." Lands Map 3 of the RMP specifies the two utility corridors to which all future utility development would be restricted. The RMP recognizes that utility corridors

meet the "economic development" component of the overall BLM mission and explicitly acknowledges that these corridors will be managed separately from the overall NCA, where habitat protection is the only goal. Note that these corridors also are part of the National Energy Corridors as required in the Energy Policy Act of 2005 and were explicitly designated for utilities. Furthermore, Page 2-26 of the RMP states that land use authorizations "will enhance or at least not adversely affect raptor populations or their habitat." As presented in the following sections, notably sections 2.4 and 4.3, the Project does not adversely affect raptor populations or their habitat and the Project itself provides and/or enhances opportunities for nesting, perching and roosting of raptor species and other birds of prey.

2.3 NLCS Management Strategy and Manuals (BLM 6100)

In October of 2011, the BLM completed the *National Landscape Conservation System 15-Year Strategy 2010-2025* to provide national-level guidance for managing the BLM's National Conservation Lands. The national strategy is organized around 4 major themes:

- Ensuring the conservation, protection, and restoration of NLCS values;
- Collaboratively managing the NLCS as part of the larger landscape;
- Raising awareness of the value and benefits of the BLM's NLCS; and
- Building upon BLM's commitment of conservation.

Each of the BLM State Offices in turn were asked to prepare a three-year strategy organized around and tiered to the same four themes outlined in the national strategy; the Idaho State Office has prepared a state strategy for 2012–2015 (*Idaho National Landscape Conservation System Strategy 2012–2015* (BLM no date). In July 2012, the NLCS issued several management manuals. The strategies and manuals were released well after the completion of route development for this Project.

The national and state strategy, as well as Manual 6100, allow for multiple uses that are consistent and/or compatible with the designating legislation. However, Manual 6100, Section 1.6(J)(4) Lands and Realty, also states,

"To the greatest extent possible, subject to applicable law, the BLM should through land use planning and project-level processes and decisions, avoid granting new ROWs through NLCS units …Subject to applicable law, the BLM shall exercise its discretion to deny ROW applications in NLCS units if the BLM determines the ROW proposals are:

a. inconsistent with the authority that designated the unit; or
b. incompatible with the protection of the values for which the unit was designated, subject to a compatibility determination by the authorized officer for the affected NLCS unit."

BLM Manual 6220 specifically addresses managing NCAs. This manual allows for uses that are compatible with the "…protection of the objects and values for which those areas were designated." (Section C.1). However, the manual also appears to make the assumption that rights-of-way are not compatible. Section E.1.e states "…to the greatest extent possible, subject to applicable law, through land use planning and project-level processes and decisions, the BLM should avoid sitting ROWs in Monuments and NCAs." Manual 6220 Section E.5 states "If new

ROWs are authorized in Monuments and NCAs, consistent with 43 CFR Parts 2800 and 2880 and to the greatest extent possible:

a. the ROW must share, parallel, or adjoin existing ROWs;

b. the effects of the projects from the grants of the ROW must be mitigated; and

c. the ROW should include a stipulation that boundaries will be marked to federal boundary standards."

When considering the national and state strategy and BLM manuals, it is clear that the BLM has contemplated the issuance of ROWs within the NCA as the BLM has established a process for doing so and criteria or requirements for managing the NLCS unit in this regard. Therefore authorizing ROWs for the Project within the NCA is allowable, and when factoring in the use of a designated utility corridor (see Section 3.2) and this MEP, the spirit and requirements of managing a NLCS unit are met and satisfied.

2.4 Consistency with Enabling Legislation and RMP

The enabling legislation allows for "diverse appropriate uses of lands in the area to the extent consistent with the maintenance and enhancement of raptor populations and habitats and protection and sound management of other resources and values of the area." The Companies believe that any of the proposed alignments considered for the purposes of this Draft MEP are consistent with the enabling legislation. The Companies believe that transmission lines crossing the BOPNCA do not impair the values for which the BOPNCA was established because:

1. Lattice structures are, in and of themselves, no hazard to raptors;
2. Lattice structures provide substantial perching, roosting, and nesting opportunities for many species of raptors and other birds of prey; and
3. 500-kV conductors are 1.5 inches in diameter and are bundled in a triangular configuration with spacing of 18 and 25 inches. The three conductor bundles are at least 39 feet apart from each other in the delta lattice tower configuration. There is negligible risk of collision with such large structures. There is no danger of electrocution as no raptor has a wingspan sufficient to touch two phases at once.

The Project conducted a rigorous routing and siting analysis "to develop proposed transmission corridors/routes and substation sites meeting the requirements of the Project purpose and need, minimizing or avoiding significant environment effects and meeting Project engineering and construction requirements" (IPC and RMP 2008). As such the routes developed through this analysis balanced the many contributing constraints, including potential impacts to raptors with routing and siting opportunities. Similarly, the analysis presented in the Final EIS considered the many constraints and opportunities, including those expressed and those which continue to be voiced during public involvement and comment on the Project, in order to balance potential impacts to all resources and the public. BLM must consider the "multiple-use mandate" and concept presented in the Federal Land Policy and Management Act (FLPMA) of 1976 for the overall Project, but must also respect the "dominant use" requirements of the enabling legislation and subsequent BLM regulation and policy.

No plan amendments are needed for the BLM's Preferred Routes for Segment 8. The BLM, in the Final EIS, stated that a single plan amendment would be required to permit the BLM-

Preferred Route for Segment 9 because it does not entirely lie within a designated utility corridor.

Table 3, below, lists the Companies' assessment of plan amendments required to permit the Proposed Routes.

The Proposed Route for Segment 8 requires amendments to allow construction outside the designated utility corridors and for surface disturbance within 0.5 mile of or within slickspot peppergrass habitat. For a detailed description of Proposed Segment 8, see Section 3.4.2.

The Proposed Route for Segment 9 requires amendments to allow construction outside the designated utility corridors, to cross the Cove NMA area in new double-circuit configuration along existing 138-kV alignment, for crossing the Snake River and C. J. Strike Special Recreation and Management Areas (SRMAs) and for visual impacts associated with the Snake River Canyon. For a detailed description of the Proposed Segment 9 route, see Section 3.4.2.

Table 3. RMP Amendments Needed by Route

Routes	RMP Amendment Needed for Conformance
Proposed 8	Allow the Gateway West Project outside the designated utility corridors.
	Gateway West will be allowed within 0.5 mile of occupied, sensitive plant habitat, with appropriate mitigation to protect sensitive plants, including slickspot peppergrass.
Proposed 9	Allow the Gateway West Project outside the designated utility corridors.
	Allow the Gateway West Project to cross the Cove non-motorized area.
	VRM Class II areas that are in view of the proposed powerline where micrositing would not sufficiently mitigate for VRM Class II impacts would be inconsistent with the VRM II classification and would be reclassified to VRM III. In these locations, VRM Class II areas within 250 feet of the route centerline would be reclassified to VRM Class III, taking into account the need for a 0.5 mile buffer distance from NHTs. Mitigation will include adjusting the alignment to ensure a 0.5 mile buffer from NHTs is maintained.
	Snake River SRMA: This SRMA consists of 15,900 acres in the Snake River Canyon downstream from Grandview, Idaho that is managed for the protection of cultural and scenic values. The SRMA designation has been reduced by approximately 6,400 acres to accommodate a major powerline.
	C.J. Strike SRMA: This SRMA consists of 16,900 acres surrounding C.J. Strike Reservoir along the Snake River. The purpose of the SRMA is to provide enhanced recreation management associated with the reservoir, and protection of the Oregon Trail adjacent to the reservoir. The SRMA designation has been reduced by approximately 3,100 acres to accommodate a major powerline ROW.
	Retain all public lands in the 43,000-acre ROW avoidance area to protect the visual corridor along the historic Oregon Trail and the resources along the Snake River canyon. Allow the Gateway West Transmission Line Project with mitigation as appropriate based upon Section 106 consultation."

3.0 SITING AND ROUTING CONSIDERATIONS FOR SEGMENTS 8 AND 9

3.1 Existing Transmission Lines across BOPNCA

The BOPNCA was designated in 1993, after several dams had been constructed to provide clean hydroelectric power for Idaho and other Western states on the Snake River and after several transmission lines had been built along and across the Snake River within the boundaries of the designated National Conservation Area to convey that power and other power sources to and through Idaho. One of those dams, Swan Falls, is within the BOPNCA, and there are about 23.9 miles of lattice tower 500-kV, 0.7 mile of lattice tower and H-frame 230-kV, and 90.7 miles of lattice tower and H-frame 138-kV transmission lines presently within the BOPNCA. Figure 2 shows underlying topography, the location of the Swan Falls dam, and the existing high-voltage (138-kV or greater) transmission lines within the BOPNCA.

During development and refinement of the routes considered for this Project, the Companies were encouraged by multiple stakeholders, including land managing agencies, to take opportunities to route adjacent to existing lines where possible. Routing opportunities were few for this Project and while routes were developed to take advantage of opportunities, the location of routes and development of alternatives was driven by the numerous routing constraints, including sensitive resources and stakeholder concerns and priorities. The Companies worked with federal and state resource agencies and stakeholders to develop routes that addressed the numerous resource issues and stakeholder concerns associated with routes in the BOPNCA and adjacent areas; the stakeholder effort is summarized in Section 3.3. Since this effort, the Companies have stated:

1. a willingness to implement 250 feet of separation between the proposed 500-kV line and existing Midpoint to Hemingway Transmission line in Segment 8; and
2. the ability to double circuit portions of the proposed 500-kV line with existing 138-kV lines; within and near the BOPNCA. These two factors have greatly influenced the development of the Proposed Routes for Segments 8 and 9.

3.2 National Energy Corridor Designation

Two National Energy Corridors were designated across BOPNCA in a ROD signed by the BLM in January 2009 in response to the Section 368 of the Energy Policy Act of 2005, requiring the Secretary of the Interior to designate energy transport corridors on Federal land under existing authorities, such as those provided by the FLPMA. Those corridors include portions of both the Proposed and Preferred Routes for Segment 8 (east of Mountain Home) and Segment 9 (east of Bruneau and north of Murphy) as shown on Figure 1.

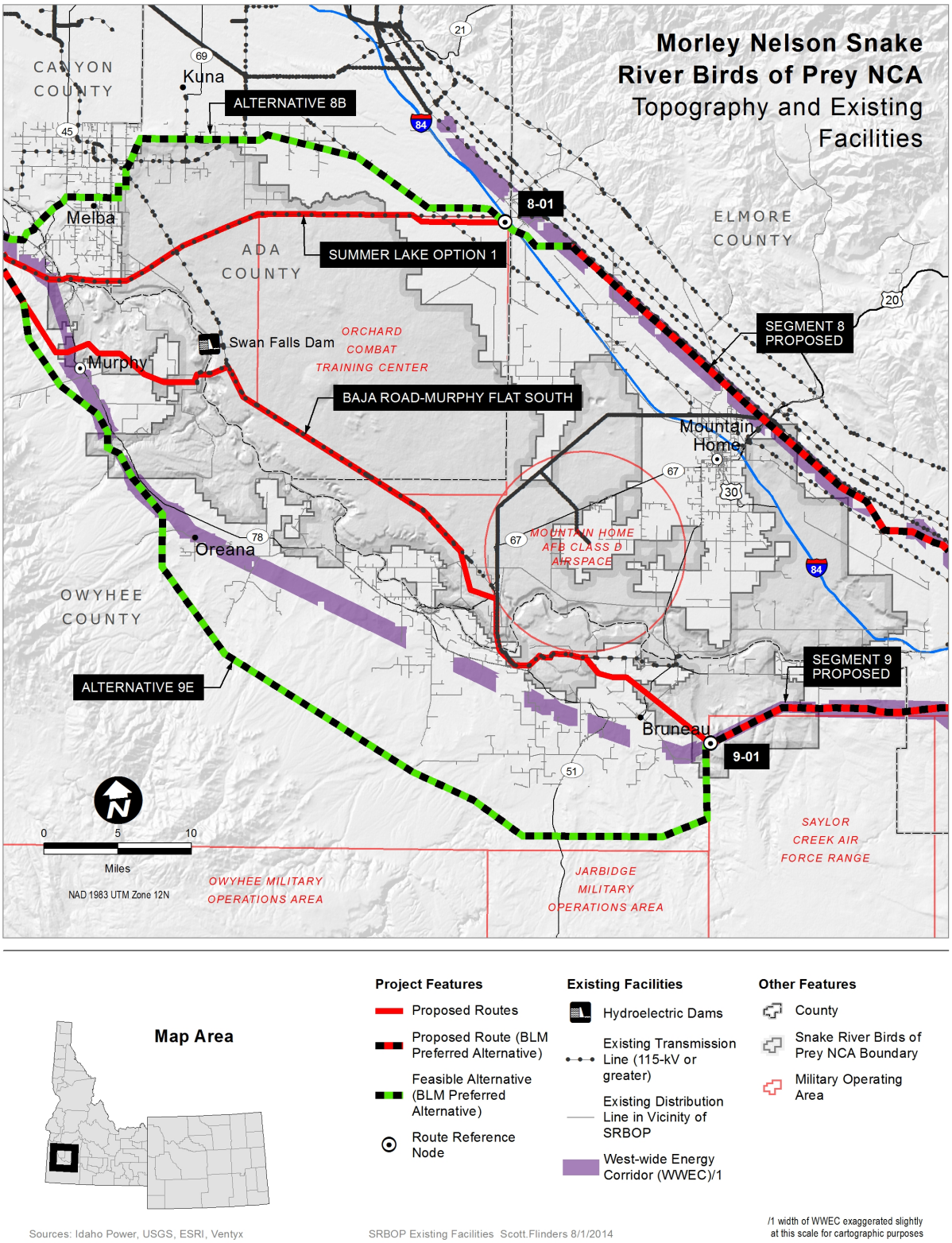

Figure 2. Topography and Existing Facilities

This 2009 Energy Corridor ROD, which amended several RMPs that covered the BOPNCA area at the time of the writing of the designation of corridors, states:

"Designation of Section 368 corridors and amendment of affected RMPs does not authorize any projects, mandate that future projects be confined to the corridors, or preclude BLM from denying a project in a designated corridor or requesting design revisions to meet unanticipated siting issues there. Future ROW proposals will need to comply with other applicable laws, regulations, and policies. ROW applicants will not be prevented from proposing projects outside the designated corridors for BLM's consideration, although such proposals may need to go through the land use plan amendment process to be accommodated."

During the final development of the National Energy Corridors, then-director of the BOPNCA, John Sullivan, worked with the national team to adjust the Corridor near Bruneau Dunes State Park to recognize that the Corridor would likely not be successful across a state park. The final corridor east of Bruneau, as declared, was developed, in part, to accommodate the Gateway West Project.

The intent of the National Energy Corridors, as reflected in the BOPNCA RMP, was to designate routes that would be, *by definition*, compatible with the underlying land management of the area. While it does not exempt a project located within the corridor from any aspect of NEPA or other federal consultation requirements, it does relieve it of a need, to the extent that it occupies this corridor, of seeking any land management plan amendments to permit the project. If a transmission line, *by definition*, is compatible with the underlying land management, it is reasonable to assume that the land managers recognize and accept the trade-off between economic development and other values in the NCA. This is an important point to the Companies, who are proposing to mitigate for impacts, even within the corridor, and to offer enhancement elements, even within the corridor, but at a lower ratio than outside the corridor.

3.3 Summary of Companies' Consensus-Building Siting Work

The Companies originally proposed to build Segments 8 and 9 entirely outside the BOPNCA except where the National Energy Corridors explicitly allowed for transmission line construction (JPC & RMP 2008). When the BLM initiated scoping meetings in May of 2008, numerous concerns were raised by local landowners, stakeholders, and governments raised numerous concerns regarding the placement of Segments 8 and 9. Based on a series of BLM- and Companies-sponsored meetings held in the vicinity of the proposed routes, several alternatives were developed.

As stated in a memo from the BLM accepting a revised siting study, "BLM has received a revised siting study dated December 30, 2009 from the Proponents of the Gateway West Transmission Line Project and received January 6, 2010. This supplemental study focuses on the alternatives that have been proposed by cooperating agencies and task forces and that were submitted to the BLM on or before September 4, 2009. In several cases, the Proponents made changes in their Proposed Routes based on those alternatives, and on October 6, 2009 provided the BLM with a memo explaining changes in the Proposed Route and providing preliminary recommendations regarding proposed alternatives."

The Companies worked with local stakeholders and local BLM representatives across multiple venues for several years in an attempt to find a route that could be acceptable to all parties participating in these discussions. A summary of meetings held is found in Table 4, below.

Based upon the results of the consensus building meetings as identified in Table 4, the Companies revised their Proposed Route for Segment 8 to cross the BOPNCA parallel to the south side of the existing 500-kV Midpoint to Hemingway transmission line, based in part on a recommendation from the city of Kuna and adjacent landowners and stakeholders. The IDANG raised concerns regarding the crossing of the Alpha Maneuvering Sector of the OCTC, and the Companies responded by completing a feasibility study of rerouting the Midpoint to Hemingway transmission line to the north of the sector and routing Alternative 8D parallel to the Midpoint to Hemingway alignment through the BOPNCA. The BLM raised serious concerns regarding the Proposed Segment 8 crossing of the Snake River due to the sensitivity of the area and the Companies responded by completing a feasibility study and preliminary design for Alternative 8E which provides an alternative crossing, well south of the area of concern, that still largely followed existing transmission lines.

Boise RAC Subcommittee

Most recently the Companies supported the Boise RAC in their evaluation of the Draft MEP and route options in and/or near the BOPNCA. The Companies participated in 11 Boise RAC public meetings. In addition to the meetings the Idaho Governor's Office of Energy Resources led two public field tours in and around the BOPNCA in order to assist with the evaluation and development of route alternatives (Boise RAC Subcommittee 2014a). During the course of these meetings, the Companies provided requested input and technical expertise regarding the engineering feasibility of Boise RAC evaluated route options, the purpose and need of the Project and the Draft MEP.

As stated in the 2014 Boise RAC report on route option in and/or near the BOPNCA,

> "Many of the public who attended meetings stated that they appreciated the process that the subcommittee was using to evaluate several route options in and around the BOPNCA. Several members of the public stated that they are against locating the 500-kV transmission line near dairies, irrigated/pivot agriculture, and residences. Most of the public comments received by the subcommittee were supportive of routes going through the BOPNCA with appropriate mitigation and enhancement."

Through this additional public evaluation process established by the BLM through adherence of the Project's ROD, the Companies believe that the Boise RAC recommended route options will be generally supported by local authorities and the public and represent a good local consensus on route location. The Companies have adopted the RAC recommended route options as their Proposed Routes within and near the BOPNCA.

Table 4. Companies' Siting and Routing Meetings

Date	Title	Location	Public (Y/N)	Staff	Attendees	Number of Attendees
12/15/2008	Murphy Landowner Meeting	Murphy, ID	Y	**IPC Staff**: Doug Dockter, Todd Adams, Kristi Pardue, Lynette Berriochoa, Scott Johnson, Mike Ybarguen, Mark Lupo **RMP Staff**: Shawn Graff **TT Staff**: Jim Nickerson, Susan Hayman, Diann Strom	Landowners	54
4/8/2009	Kuna City Officials Meeting	Kuna, ID	Y	**IPC Staff**: Kristi Pardue, Doug Dockter, Stephanie McCurdy, Lynette Berriochoa, Denny Trumble	BLM, Kuna City Officials	15
4/9/2009	Owyhee County Planning and Zoning Commission Meeting	Murphy, ID	Y	**IPC Staff**: Mike Ybarguen, Brent Lulloff	Administrator Mary Huff	
4/15/2009	Community Conversation	Gooding, ID	Y	**IPC Staff**: Todd Adams, Dan Olmstead, Gerald Orthel, Paul Ortmann **RMP Staff**: Shawn Graff **BLM Staff**: Lori Armstrong, Mike Courtney, Debbie Kovar, Jeff Steele, Jim Tharp **TT Staff**: Walt Vering, Diann Strom, Mike Takac	Landowners, targeted toward dairy farmers	5
4/23/2009	City of Kuna Engineering Department Meeting	Kuna, ID	Y	**IPC Staff**: Todd Adams, Justin Hitt **TT Staff**: Jim Nickerson	Gordon Law, Steve Hasson and Mayor Scott Dowdy	5
4/30/2009	Bruneau Town Hall Meeting	Bruneau, ID	Y	**IPC Staff**: Doug Dockter, Kristi Pardue, Blake Watson, Layne Dodson, Lynette Berriochoa **TT** Staff: Jim Nickerson, Ray Outlaw, Carl de Simas	County Commissioners, State Representatives, interested landowners	96
5/5/2009	Grand View Meeting		N	**IPC Staff**: Blake Watson		
6/3/2009	Town Hall Meeting	Melba, ID	Y	**IPC Staff**: Kristi Pardue, Doug Dockter, Todd Adams, Layne Dodson, Mike Ybarguen, Lisa Grow, Lynette Berriochoa, Rich Hahn, **RMP Staff**: Pam Anderson **BLM Staff**: John Sullivan, Aiden Seidlitz **TT Staff**: Jim Nickerson, Diane Adams, Ara Swanson	County Commissioners, State Representatives, interested landowners	95
6/11/2009	Town Hall Meeting	Kuna, ID	Y	**IPC Staff**: Kristi Pardue, Doug Dockter, Todd Adams, Layne Dodson, Mike Ybarguen, Bryan Wewers, Marsha Leese, Blake Watson, Rich Hahn **RMP Staff**: Pam Anderson, Shawn Graff **BLM Staff**: John Sullivan, Rosey Thomas **TT Staff**: Jim Nickerson, Walt Vering, Diane Adams, Carl de Simas	Ada County Commissioners, City of Kuna officials, general public, landowners, media	72

Table 4. Companies' Siting and Routing Meetings (continued)

Date	Title	Location	Public (Y/N)	Staff	Attendees	Number of Attendees
6/15/2009	City of Kuna Working Session		N	**IPC Staff**: Justin Hitt, Todd Adams **BLM Staff**: representatives		
6/18/2009	Owyhee County Committee Meeting	Grand View, ID	Y	**IPC Staff**: Todd Adams **TT Staff**: Walt Vering	Interested landowners and residents	
7/6/2009	Landowner Meeting	Kuna, ID	Y	**IPC Staff**: Justin Hitt **BLM Staff**: representatives	Ada County landowners (Kuna and Melba), BLM	
7/16/2009	Town Hall Meeting	Glenns Ferry, ID	Y	**IPC Staff:** Todd Adams, Kristi Pardue, Justin Hitt, Blake Watson **BLM Staff:** John Sullivan, Holly Hampton, Jeff Steele **RMP Staff:** Shawn Graff **TT Staff:** Jim Nickerson, Susan Hayman, Diane Adams	County commissioners, Glenns Ferry mayor, interested landowners	59
7/21/2009	Town Hall Meeting	Jerome, ID	Y	**IPC Staff:** Dan Olmstead, Gerald Orthell, Paul Ortmann **BLM Staff:** Holly Hampton, Jeff Steele **TT Staff:** Jim Nickerson, Diane Adams	County commissioner, interested landowners	19
7/22/2009	Town Hall Meeting	Gooding, ID	Y	**IPC Staff:** Dan Olmstead, Gerald Orthell, Paul Ortmann **BLM Staff:** Holly Hampton, Jeff Steele **TT Staff:** Walt Vering, Diane Adams		28
8/4/2009	Ada County Task Force Meeting		N	**IPC Staff:** Todd Adams, Justin Hitt **BLM Staff:** representatives	Charlie Baun	
8/11/2009	Owyhee County Meeting	Grand View, ID	N	**IPC Staff:** Todd Adams, Justin Hitt		
8/12/2009	City of Kuna Meeting	Kuna, ID	N	**IPC Staff:** Todd Adams		

Table 4. Companies' Siting and Routing Meetings (continued)

Date	Title	Location	Public (Y/N)	Staff	Attendees	Number of Attendees
8/19/2009	Ada Congressional Meeting	Kuna, ID	Y	**IPC Staff**: Layne Dodson, Rich Hahn **BLM Staff**: John Sullivan	Dale Willis (Owyhee County property owner), Charlie Baun (ECS meeting facilitator), Jed Jones (Osprey Ridge property owner), Duane Yamamoto (Kuna property owner), Owyhee County Commissioner Jerry Hoagland, Canyon County Commissioner Kathy Alder, Ada County Commissioner Rick Yzaguirre, Ada County Commissioner Fred Tillman, Ada County Commissioner Sharon Ullman, Matt Ellsworth (representing Senator Risch), Brian Ricker (representing Senator Crapo), Tom Schwaz (representing Representative Minnick), District 23 Representative Steve Hartgen, Frank Bachman (Bruneau property owner), Lavar Thornton (Kuna property owner), Bob Davenport (Kuna/Melba property owner), Sid Anderson (City of Kuna), Steve Hasson (City of Kuna), Craig Moore (City of Melba), Burl Smith (City of Melba), Klinchew (City of Melba)	
8/28/2009	Kuna Task Force Meeting		N	**IPC Staff**: Justin Hitt **BLM Staff**: representatives	Charlie Baun	
11/10/2009	Community Conversation	Mountain Home, ID	Y	**IPC Staff**: Todd Adams, Justin Hitt, Randy Lane, Kristi Pardue, Denny Tremble, Blake Watson **RMP Staff**: Pam Anderson, Shawn Graff **BLM Staff**: John Sullivan, Jeff Steele **TT Staff**: Diane Adams, Adair Muth	County commissioners, interested landowners, state representatives, staff from federal delegation	38
11/12/2009	Community Conversation	Kuna, ID	Y	**IPC Staff**: Todd Adams, Kristi Pardue, Layne Dodson, Justin Hitt, Piper Hyman, Randy Lane, Brent Luloff, David Thornton, Denny Tremble **RMP Staff**: Pam Anderson, Shawn Graff **BLM Staff**: John Sullivan, Jeff Steele **TT Staff**: Diane Adams, Adair Muth	County commissioners, interested landowners, state representatives, staff from federal delegation	68

The Companies have spent several years and many hundreds of hours in meetings with resource agencies and listening to diverse stakeholders and responding with alternative routes. While there will never be a perfect route that pleases everyone for a large and complex project like Gateway West, the Companies ask the BLM to seriously consider the RAC recommendations, which the Companies have adopted as their Proposed Routes. The Companies believe that these routes, in conjunction with this August 2014 MEP, will allow the BLM to authorize Segments 8 and 9 through the issuance of a ROD and ROW Grant.

3.4 History of Formal Proposed Actions and BLM Preferred Alternatives

3.4.1 Rationale for crossing the BOPNCA

The fundamental rationale for proposing alternatives that cross the BOPNCA has several components:

- The Project's purpose, in part, is to connect the Midpoint and Hemingway substations with Segment 8 and the Cedar Hill and Hemingway substations with Segment 9. Given the location of these substations, it is impractical to entirely avoid the BOPNCA.
- To the extent feasible, the Project, along its 990-mile length, has been proposed to follow National Energy Corridors, state-designated corridors, utility corridors designated by BLM management plans, or to parallel existing transmission lines. This approach limits proliferation of transmission lines across the landscape and confines impacts to areas already impacted by similar utilities, a stated national goal of federal land managers (BLM 2009).
- There are two National Energy Corridors, confirmed and included in the BOPNCA RMP as utility corridors, designated across the BOPNCA. Utilization of these corridors is encouraged by BLM national policy and by the BOPNCA RMP and was employed wherever possible during siting and routing.
- Although all uses of the BOPNCA must conform with the enabling legislation to be considered, the Companies feel that the RAC-recommended Routes that the Companies have adopted as their Proposed Routes across the BOPNCA fundamentally do conform with the enabling legislation, that the transmission line does not adversely affect the resources and values for which this element of the NLCS was designated, and that when considered with this Draft MEP, mitigates impacts and enhances raptor populations, cultural, and scientific resources, which are elements of the enabling legislation.

The Companies therefore propose to the BLM that the Proposed Routes for Segments 8 and 9 be approved through the BOPNCA. Though the Companies believe that the project does not have an adverse effect on raptor populations, including the raptor prey base, and that no enhancement should be required, in the spirit of cooperation offer this Draft MEP to allow the BLM to approve routes across the BOPNCA as specified in the November 14, 2013, ROD for the Project. In support of these Proposed Routes, the Companies are submitting a revised SF299 and detailed Plan of Development Supplement describing the route location, proposed facilities, facilities to be removed and activities associated with construction and operation within and near the BOPNCA, of which this document is a part.

3.4.2 Project Siting History

In October 2007, the Companies submitted a preliminary application for a ROW from the BLM, which contained a project description with tentative proposals for the ten segments of the Project. A map was included that showed the substations to be interconnected and two-mile-wide study corridors that connected the substations, because the Companies wanted to work cooperatively with the BLM and other agencies, counties, and local landowners to develop the route details. The first siting study was published in September 2008 after the public scoping meetings had provided initial input. Supplemental siting studies were published in October 2008 and December 2009 responding to agency and stakeholder comments. The Companies have continued to work collaboratively with the BLM and other agencies through the six-year NEPA process and continue to work with the stakeholders to resolve the final issues and receive approval for Segments 8 and 9.

For each stage of the NEPA process, the Companies have responded to concerns and made practicable changes in routes and environmental measures, providing formal notification of these changes in a revised Project Description within a revised POD. POD revisions have been filed in August 2008 and May 2009 to support the pre-EIS scoping and alternatives development, January 2010 to support the Draft EIS, February 2012 and January 2013 to support the Final EIS, August 2013 to support the ROD, and August 2014 to support the Supplemental EIS for Segments 8 and 9, of which this document is a part.

Specifically for Segments 8 and 9, the Companies have worked closely with the Boise District RAC Subcommittee as it has reviewed a March 2014 version of this document and the Companies' proposed routes through the BOPNCA.

3.4.2.1 Siting Study 2008

The Companies held, or participated in, a series of Project kickoff meetings to solicit agency input, which included input from the BPONCA representatives. The Companies met with representatives of the BOPNCA and USAF Saylor Creek Bombing Range to propose a specific alignment that would minimize effects on the Bruneau Dunes State Park and not compromise the military training mission. Considering this, environmental constraints, existing transmission congestion, and topographical constraints, among other considerations, two primary parameters were developed that affected high-level routing decisions with respect to Segments 8 and 9, these were 1) that the BOPNCA be avoided to the extent practical to be consistent with BLM's RMP, and 2) that the new corridor follow an existing utility corridor or the West-wide Energy Corridor (WWEC) where possible. Portions of the routes that were located within the BOPNCA but that were also within the WWEC were not considered a disadvantage at the time (IPC and RMP 2008). Based on those factors, the Companies proposed the following routes within and near the BOPNCA in 2008:

Segment 8 – A route that substantially avoided the BOPNCA by locating through the City of Kuna; similar to the BLM Preferred Alternative identified in the Final EIS**.**

Segment 9 – A route that followed the WWE Corridor through the BOPNCA, identified as the Proponents' Proposed Route in the Final EIS.

3.4.2.2 Siting Study December 2009, SF-299 to support Draft EIS

The second supplement to the siting study, published December 2009, incorporated consideration for concerns expressed by local cooperating agencies and the public during extended scoping for the Project after local cooperating agencies had reviewed the administrative draft of the EIS. This supplement was formally submitted as a project description change through an SF299 filed in January 2010 to support the Draft EIS.

Segment 8 – The Companies documented as their Proposed Route for Segment 8 a location through the BOPNCA south of the existing Midpoint to Hemingway 500-kV transmission line. This decision was based on collaboration with representatives of Melba, Kuna, Ada County, and BLM to reach a mutually acceptable solution.

Segment 9—The Companies documented as their Proposed Route for Segment 9 the route that largely follows the WWE Corridor and is within the WWE Corridor. Location for the Proposed Route was negotiated and agreed to among the Companies, Bruneau Dunes State Park, the Air Force, and BLM to avoid both the park and the Saylor Creek Bombing Range.

3.4.2.3 POD to Support the Final EIS and ROD (January and August 2013)

No substantive changes were made between the Draft and Final EIS to the Proposed Route for Segments 8 and 9.

3.4.2.4 Modified March 2014 MEP Proposed Routes

After the FEIS was issued, the Companies, considering the feedback from the BLM and public, modified the Final EIS Proposed Routes. The Companies did not submit these route modifications formally to the BLM, but provided them in conjunction with an earlier version of the Draft MEP as a comment to the Final EIS during the public comment period.

Segment 8 –The Companies modified the Final EIS Proposed Route for Segment 8 to include Alternatives 8D and 8E, which were proposed to avoid the Alpha Sector and the problematic crossing of the Snake River and the Halverson NMA, respectively.

Alternative 8D would not be in conformance with the management direction provided in in the BOPNCA RMP for sensitive plant habitat and for placing the transmission outside of the designated utility corridors, but would be in conformance with the resources and values for which the BOPNCA was originally It would also avoid impact to the IDANG and their training program.

Alternative 8E was proposed by BLM to avoid the Halverson Bar and Wees Bar Non-motorized Areas and an avoidance area associated with a National Register Historic District. Alternative 8E would minimize but not entirely eliminate indirect or visual impacts to cultural sites. While Alternative 8E crosses a small portion of the mapped avoidance area, it avoids direct impacts to known resources. It would follow the existing 138-kV transmission line along the Snake River on the east side and across the river, only leaving existing lines on the short leg from the river crossing north to where it reconnects with the Proposed Route (See Figure 2)

Alternative 8E would not be in conformance with the management direction provided in the BOPNCA RMP for sensitive plant habitat, utilization of existing corridors, and protections for visual resources, but would be in conformance with the resources and values for which the BOPNCA was originally designated.

Segment 9 – During the siting and routing discussions and meetings with the various task forces formed by local landowners, governments, and the local BLM (see Section 3.3), additional alternatives for Segment 9 were considered. The Owyhee County task force proposed Alternative 9D, which parallels an existing line within the BOPNCA, and the BLM, in response to concerns raised by that proposal, proposed Alternative 9G. The Proposed Route as modified by Alternative 9G was termed the "consensus" route for Segment 9.

Owyhee County had indicated that it preferred to see the project located well within the BOPNCA, following an existing transmission line, in part because the County believes that the Proposed Route would have significant detrimental effect on the County's landowners, farmers, economy, future development, and its tax base. Alternative 9D is a variant of an alternative identified by the Owyhee County Task Force. Avoidance of private lands and maximizing the use of public land was the primary sitting criteria. The specific alignment was developed through consultation between the BLM representatives and the Proponents based on information originally provided by the Task Force. This alternative substantially deviates from the designated WWE corridor (which is followed by the Proposed Route) and would cross 47.9 miles of the BOPNCA (thereby requiring an RMP amendment).

Alternative 9G is a further variant of Alternative 9D, recommended by local BLM staff. This alternative is generally coincident with Alternative 9D, but crosses the Snake River to the south to avoid potential routing issues with the Segment 8 crossing of the Wees Bar and Halverson Bar Non-Motorized Areas. It was developed in close coordination with landowners, Owyhee County, the State of Idaho, and the Field Office and BOPNCA staff of the BLM.

3.4.2.5 RAC Recommended Alternatives

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 Draft 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.

The development and evaluation of route options by the RAC Subcommittee considered a wealth of local knowledge and included the participation of members of the public, local and state officials, and federal agencies (local and national-level). The Companies support the RAC Subcommittee recommended route options and have adopted these route options as the Companies current Proposed Routes as reflected in the August 2014 Standard Form 299 (SF299) revision and within this Draft MEP. The Companies have also incorporated some of the RAC Subcommittee recommendations for compensatory mitigation and enhancement within this Draft MEP.

Segment 8 Proposed Route

The Segment 8 Proposed Route (RAC Summer Lake Option 1) begins at MP 0.0 (MP 91.4 of the overall Segment 8 route and identified as 8-01 in Figure 1) and generally parallels the existing Midpoint to Hemmingway 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 the remaining 30 miles into the Hemingway Substation. At MP 8.2, the alignment crosses into the BOPNCA and follows the existing Midpoint to Hemmingway 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 Hemmingway 500-kV transmission line. A 1.1-mile section of the existing Midpoint to Hemingway line would 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 Hemmingway 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.

Segment 9 Proposed Route

The Segment 9 Proposed Route (RAC Baja Road-Murphy Flat South) generally follows the previous alignment for Proposed Route 9 for the first 90 miles and then 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 down river 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.

3.4.3 BLM Preferred Alternatives

The Draft EIS issued in July 2011 did not identify a BLM Preferred Alternative (BLM 2013a). Rather the Draft EIS recognized that Gateway West represented the largest and most complex proposed high-voltage transmission line in the western United States and recognized that there is no impact-free route choice for a large transmission line reporting that "In some segments of the Gateway West Project, where there are multiple resource conflicts, alternative routes often show dramatically different impacts on certain resources, and some alternatives were put forward to emphasize protection of one resource or land value over another. There are substantial segments of the public than have not had a chance to express their opinions on the issues and alternatives so far proposed. It is reasonable to expect those entities to propose additional alternatives or perhaps to present new information on alternatives currently considered."

Following issuance of the Draft EIS, the BLM conducted 17 open house meetings and held a 90-day comment period to receive public comments. The BLM also met with counties, local task forces, and state and federal agencies to resolve issues raised by these entities.

Segment 8 – BLM Preferred Alternative

The BLM's Preferred Alternative follows the Proposed Route for Segment 8 for approximately 92 miles and then follows Alternative 8B to the Hemingway Substation. The Preferred Alternative generally avoids crossing the BOPNCA and the IDANG OCTC, but adversely affects private lands and slickspot peppergrass habitat to the north of the BOPNCA. The BLM selected the Proposed Route and Alternative 8B as its Preferred Route because this alignment:

- Follows designated corridors and existing linear infrastructure for approximately 76 percent of its length;
- Generally avoids the BOPNCA (crossing a 2-mile portion of it within an approved utility corridor), and it is likely the enhancement requirements of the BOPNCA enabling legislation that created the National Conservation Area (P.L. 103-64, Sec. 1(5), 3(a)(2), and 4(a)(2)) can be met in this area;
- Avoids the IDANG OCTC; and
- Avoids a National Register Historic District.

Segment 9 – BLM Preferred Alternative

The BLM's Preferred Alternative combines the Proposed Route for Segment 9 with Alternative 9E, which avoids private lands to the southwest of the BOPNCA but is longer and impacts more sagebrush habitat in Owyhee County. The BLM selected the Proposed Route and Alternative 9E (revised) as its Preferred Route because this alignment, as it relates to the BOPNCA:

- Follows a pinchpoint between the Saylor Creek Training Area and Bruneau Dunes State Park. A total of 8.8 miles of the alignment through this pinchpoint is unavoidably located on public land in the BOPNCA. However, 6.7 miles of that alignment is in a designated corridor on public lands within the BOPNCA. It is likely that the impacts on the BOPNCA in this area can be mitigated to meet the enhancement criteria of the enabling legislation. Alternative 9E does deviate a distance of 2.2 miles outside of this corridor to

avoid private lands just west of the BOPNCA boundary. A proposed land use plan amendment would allow this portion of the alignments outside of the designated corridor;

- Avoids the BOPNCA, except where it is located in the above the pinchpoint and for 2.5 miles between Oreana and Murphy, Idaho, to avoid sage-grouse preliminary priority habitat (PPH). A total of 1.5 miles of the 2.5 miles in the BOPNCA between Oreana and Murphy is located in a designated corridor on public land, and it is likely that the impacts on the BOPNCA in this area can be mitigated to meet the enhancement criteria of the enabling legislation. A proposed land use plan amendment would allow this portion of the alignment outside of the designated corridor; and
- Is not located in sage-grouse PPH.

The BLM has indicated that even its own Preferred Alternatives for Segments 8 and 9 would require offsetting mitigation and an enhancement offering to be considered in a BLM decision. The Companies do not agree. The BLM Preferred Alternatives largely follow designated utility corridors, which are National Energy Corridors, through the BOPNCA. The enabling legislation and the RMP both explicitly permit such crossings, and the RMP explicitly states that locating utilities within the corridor is consistent with the enabling legislation. However, in the spirit of cooperation, the Companies will offer both mitigation and enhancement, in proportion to the area disturbed, if the BLM Preferred Alternatives are selected and approved in a ROD.

4.0 IMPACT OF THE PROJECT ON BOPNCA

This section largely summarizes the results of the Final EIS analysis, with the exception of the Final EIS assertions regarding the relationship of predator and prey populations. The section presents first the impacts of the Proposed Routes (i.e., the RAC-subcommittee-recommended routes), then the impacts of the BLM Preferred Routes (i.e., Proposed 8 as modified by Alternative 8B and Proposed 9 as modified by Alternative 9E).

This summary focuses on those resources emphasized in the enabling legislation. Enabling legislation for the BOPNCA, while focusing on the conservation, protection and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, also mentions important historic and cultural resources (including significant archaeological resources) that should be protected and appropriately managed.

The two tables below show the disturbance impacts of the Companies' Proposed Routes and the BLM Preferred Routes. The Companies have focused the discussion on these routes because other routes have substantial disadvantages. Table 5, below, shows the total estimated disturbance from construction, including all those areas that will be reclaimed as part of the Project-wide mitigation plan, while Table 6, below, shows the total estimated long-term site occupancy from permanent facilities associated with the Project, including the transmission towers and their permanent access roads. Totals may appear off by up to an acre due to rounding.

Table 5 Acres of Construction-Related Project Disturbance within BOPNCA on BLM-Managed Lands

Segment	Route	Acres of Disturbance from Construction of Project within BOPNCA (Federal lands)		
		Natural Vegetation	Disturbed Vegetation1/	Total
8	BLM Preferred	38	49	87
	Proposed	20	300	321
9	BLM Preferred	76	188	264
	Proposed	116	830	947
Combined	BLM Preferred	114	237	351
	Proposed	137	1,131	1,267

1/ The "disturbed vegetation" class includes areas with roads, cheat grass invasion, and other disturbances to the naturally occurring vegetation in the area prior to construction.

Table 6. Acres of Operation-Related Disturbances within BOPNCA on BLM-Managed Lands

Segment	Route	Acres Occupied during Operation of Project within BOPNCA (Federal lands)		
		Natural Vegetation	Disturbed Vegetation1/	Total
8	BLM Preferred	3	5	8
	Proposed	2	27	28
9	BLM Preferred	7	21	28
	Proposed	14	56	69
Combined	BLM Preferred	10	26	36
	Proposed	15	82	97

1/ The "disturbed vegetation" class includes areas with roads, cheat grass invasion, and other disturbances to the naturally occurring vegetation in the area prior to construction.

4.1 Cultural Resources

The Proposed Route for Segment 8 would avoid the utility avoidance/restricted area around a National Register Historic District within the BOPNCA. The crossing of the Snake River would likely encounter some cultural issues because the site density near the river is higher for both prehistoric and historic resources. Some direct effects on archaeological sites may need to be addressed through avoidance micrositing with the Segment 8 Proposed Route, but indirect effects can be minimized by paralleling closely the existing line. The Preferred Route for Segment 8 avoids the District.

Previous surveys in the area of Segment 9 have been limited, which may account for the low known site density, but they have demonstrated that the area was a center for cultural interactions, suggesting that actual site density may be moderate to high. The Proposed Route would cross a National Register Historic District and parallel NHTs through the BOPNCA. The Proposed Route crosses 9 NHT segments, while the Preferred Route for Segment 9 does not cross any NHT segments.

The BOPNCA RMP emphasizes managing areas along the Oregon NHT as VRM Class II, to provide reasonable protection for the NHT. The Segment 9 Proposed Route is not consistent with these VRM requirements and would require an amendment to the land use plan reclassifying specified areas affected by the transmission line to VRM Class III. Reclassification areas would require micrositing to ensure a one-half mile buffer from NHTs and to minimize visual impacts to the cultural resources.

The Programmatic Agreement for this project provides for the development, review, and approval by BLM and the Idaho SHPO of a Historic Properties Treatment Plan (HPTP) for unavoidable adverse effects to historic properties eligible for listing, or listed on, the National Register of Historic Places. Once a route is selected for Segment 8 and for Segment 9, the Companies will develop an HPTP to fully mitigate for adverse effects on trails and other cultural sites and areas.

4.2 Vegetation Resources

4.2.1 General Vegetation

Segment 8 would cross very little wetland area and no forested areas within BOPNCA, regardless of route chosen. The vast majority of the vegetation is shrubland, most of it disturbed by previous human activities. The other two important vegetative types are grassland and agriculture in the Segment 8 area.

Similarly, both the Preferred and Proposed Routes for Segment 9 largely impact already-disturbed vegetation, including disturbed sagebrush and disturbed grasslands within the BOPNCA. See Tables 5 and 6, above, for estimates of disturbance acres for construction and for long-term site occupancy of transmission infrastructure for the BLM Preferred and the Companies' Proposed Routes.

Ecological site potential is an approach developed by the Natural Resources Conservation Service (NRCS) for classifying ecological sites on the basis of soil and climate characteristics, then further classifying them based on vegetation (NRCS 2014d). The NRCS proposes a model to identify the "state" of an ecological site, where State 1 is the reference "natural" or "pre-settlement" vegetation type for that ecological site. Other States are identified based on whether

it is likely that the vegetation observed can once again achieve State 1 (typically identified as States 1.2, 1.3, etc.) or whether conditions have changed so much that a "threshold" has been crossed (State 2). If a threshold has been crossed such that the site is very unlikely to be able to achieve any version of State 1, then NRCS recommends identifying a State 3 as the mitigation goal, which is a practical estimate of what vegetation the degraded or altered site, in its State 2, can reasonably be expected to support. The Companies support this approach and recommend the following:

> "Baseline" should continue to be defined as the current conditions on the ground. It should be further quantified with a field survey for the route selected by the BLM for approval. The field survey should include vegetation sampling and the more qualitative Rangeland Health assessment, that will encompass adjacent land to the proposed restoration site and evaluate the ability of mitigation activities to be successful in the larger context of its surrounding landscape.

Instead of proposing the "return" of the site to baseline conditions, the Companies propose that a reasonable mitigation goal be assigned to each ecological site crossed by the Project based on its baseline condition. For much of the BOPNCA, where past land uses have degraded many ecological sites to a State 2 condition, that mitigation goal will be a reasonably achievable State 3. Where past land uses have not seriously degraded an ecological site and it is currently in a variation of State 1, a reasonably achievable goal might be another variation of State 1. Thus, the objective of compensatory mitigation could be revised to read, "The compensatory mitigation program addresses the "residual effects" which persist after standard mitigation has been implemented. This additional mitigation is required to move the impacted area to a reasonably achievable mitigation goal vegetation type, specific for each ecological site impacted."

The BLM has encouraged the Companies to use the NRCS Ecological Site Potential approach to determining the potential for reclamation and restoration within BOPNCA. Table 7 shows the ecological sites mapped for Proposed Segment 8 and Segment 9 in the BOPNCA. It also shows that there are important portions (38% for Segment 8 and 12% for Segment 9) where data are not available. The Companies will work with the BLM to further develop these data.

Table 7. Ecological Sites Mapped for Proposed Segment 8 and Segment 9 in the BOPNCA

Segment	Ecological Site Name[1/]	Relative Proportion of the Route Occupied by Ecological Site	ESD Status[2/]
Segment 8	CHURNING CLAY 12-16 ARCA13/POA	0.5%	Final
	SANDY LOAM 8-12 ARTRW8/ACHY-HECOC8	2.2%	Draft
	CALCAREOUS LOAM 7-10 ATCO-PIDE4/ACHY-ACTH7	2.4%	Draft
	LOAMY 8-12 ARTRW8/PSSPS-ACTH7	11.6%	Final
	STONY 10-12 ARTRW8/PSSPS	16.0%	Draft
	CLAYPAN	29.4%	Final
	No Data	38.0%	NA
Segment 9	Non-vegetated land	0.2%	NA
	SHALLOW LOAMY 8-12 ARTRW8/PSSPS	0.2%	Final
	LOAMY 10-13 ARTRW8/PSSPS	0.3%	Final
	CHURNING CLAY 12-16 ARCA13/POA	0.3%	Final
	SALINE BOTTOM 8-12 SAVE4/LECI4	1.9%	Draft
	SILTY 7-10 KRLA2/ACHY	2.4%	Draft
	SAND 8-12 ARTRT/ACHY	3.3%	Draft
	No Data	12.1%	NA
	SANDY LOAM 8-12 ARTRW8/ACHY-HECOC8	17.7%	Draft
	LOAMY 8-12 ARTRW8/PSSPS-ACTH7	18.1%	Final
	CALCAREOUS LOAM 7-10 ATCO-PIDE4/ACHY-ACTH7	43.5%	Draft

1/ NRCS 2014c.
2/ NRCS 2014d and Sutter 2014.
3/ Ecological site description not available for soil map unit.

4.2.2 Invasive Plant Species

The establishment of invasive plant species can affect the quality of habitat through competition with, and eventual replacement of, desirable native species. Replacement of native species can have various environmental effects including changes in fire regime (increasing the frequency and severity of fires), changes in the nutrient regime of soils, and increased soil erosion. For example, cheatgrass (*Bromus tectorum*) can proliferate rapidly in disturbed arid and semi-arid sagebrush grasslands, and can increase the rate and severity of fires, thereby creating a cycle of disturbance that ultimately increases the rate of cheatgrass establishment and spread. This has occurred in many places within the BOPNCA and cheatgrass eradication and replacement with native vegetation is a major focus of the BOPNCA reclamation and restoration program.

To effectively implement measures for limiting the spread or introduction of invasive plant species, the Companies have prepared and submitted in the August 2013 POD detailed framework Reclamation and Noxious Weed Plans, whose measures will be implemented prior to, during, and after construction to limit the introduction or spread of invasive plant species due to construction and operation and maintenance activities.

4.2.3 Wetlands

Construction of the Proposed or the Preferred Route for Segment 8 would not affect wetland areas within the BOPNCA.

Approximately 0.2 acre of wetlands and riparian areas would be affected by construction of the Preferred Route of Segment 9 within the BOPNCA. Approximately 1.1 acres of wetlands and riparian areas would be affected by construction of the Proposed Route within the BOPNCA.

During detailed design for the Project, once a route has been approved, the Companies' engineers will work to avoid impacts to wetlands and to minimize impacts to riparian areas both inside and outside the BOPNCA. Unavoidable impacts to wetlands and riparian areas will be subject to full compensatory mitigation requirements of the U.S. Army Corps of Engineers 404 permit process.

4.2.4 Special Status Plant Species

Slickspot peppergrass (*Lepidium papilliferum*) was listed as threatened under the ESA on October 8, 2009 (74 *Federal Register* 52014). On August 8, 2012, the Idaho District Court vacated and remanded the USFWS decision to list slickspot peppergrass. For the purposes of the Final EIS, the BLM decided to continue to conference with the USFWS and will treat slickspot peppergrass as a species proposed for listing and manage the habitat as such. Since the Final EIS was published, the USFWS reopened the comment period on both the proposed listing as Threatened and on the designation of Critical Habitat. Those comment periods closed June 5, 2014, and the USFWS is preparing a final rule for the listing and the critical habitat. The Companies anticipate that the BLM will continue to conference with the USFWS on this species in anticipation of its re-listing and of the listing of critical habitat. In the interim, the Companies assume the BLM will treat the proposed listing of critical habitat as if it were final and will continue to account for impacts to potential habitat.

This species occurs in semi-arid, sagebrush-steppe habitats of the Snake River Plain and adjacent foothills in southwestern Idaho and the Owyhee Plateau in south-central Idaho. It occurs only in slickspot microsites, which have soils much higher in clay content and significantly higher in sodium than adjacent areas.

Table 8, below, shows the potential impacts to slickspot peppergrass proposed critical habitat and potential habitat for the BLM Preferred and the Companies' Proposed Routes within the BOPNCA.

Table 8. Estimated Construction Impact (acres) on Proposed Critical and Potential Habitat for Slickspot Peppergrass on Federal Lands, BOPNCA

Segment	Route	Acres of LEPA Habitat Types, BLM and BOR Lands, BOPNCA	
		Proposed Critical Habitat	Potential Habitat
8	BLM Preferred	26	0
	Proposed	8	58
9	BLM Preferred	0	20
	Proposed	0	0
Combined	BLM Preferred	26	20
	Proposed 8 & 9	8	58

The BOPNCA RMP requires that "surface disturbing activities be located at least ½ mile from occupied sensitive plant habitat." The RMP also requires the implementation of certain conservation measures in slickspot peppergrass habitat. Therefore, an amendment to the RMP would be required for the Segment 8 Proposed Route to be in conformance with the RMP.

In the Biological Assessment, Appendix M of the Final EIS, the BLM stated that Project activities "may affect slickspot peppergrass and slickspot peppergrass habitat" and that "therefore, the BLM determined that the Project may affect, and is likely to adversely affect, slickspot peppergrass." The BLM goes on to state that "proposed critical habitat would be crossed by the ROW of Segment 8" and that the "Project may affect, and is likely to adversely affect, proposed critical habitat for slickspot peppergrass." For Alternatives 8D, 8E, 9G, and the Preferred Routes for Segment 9, they concluded that the Project will have no effect on slickspot peppergrass. The Final EIS also concluded there would be no effect on any other sensitive plant species. The Companies expect that the Supplemental EIS will conduct a similar analysis of the RAC-recommended routes and come to a similar conclusion.

Although the BLM concluded that the Project may affect slickspot peppergrass as the portions of the Project may cross slickspot peppergrass habitat, the Project will implement routing and siting measures and environmental protection measures to minimize impacts to and largely avoid slickspots. The U.S. Fish and Wildlife Service (USFWS) stated in the Biological Opinion and Conference Opinion, that the "proposed action is not likely to jeopardize the continued existence of slickspot peppergrass." The Companies expect that further conferencing with the USFWS regarding the RAC-recommended routes will come to a similar conclusion.

4.3 Wildlife Resources

4.3.1 General Wildlife

The dominant habitat type along the Proposed Route of Segment 8 and Segment 9 within BOPNCA is disturbed grassland, followed by disturbed shrubland. These habitats support small mammals, birds, big game, and many other species. These habitats, already fragmented with existing roads and transmission lines, would be further fragmented with the construction and operation of an additional line.

4.3.2 Raptor Impacts

The Final EIS states, "The five raptor species that are the most common in the Analysis Area have specific habitat requirements and nesting habits. Ferruginous hawk, prairie falcon, golden eagle, and burrowing owl are open-country birds, living in grasslands and shrublands. Ferruginous hawks build their nests on the ground, hillsides, rock outcrops, creek banks, buttes, bluffs, sagebrush, and human made structures in unforested areas with good visibility. Prairie falcon and golden eagle nest most commonly on cliffs or bluffs, but also in trees, manmade structures, or other sites. Burrowing owls are closely associated with prairie dogs or other burrowing animals, as they re-use existing burrows for their nest sites. Red-tailed hawks also prefer open to semi-open habitats such as sagebrush shrublands, and in Wyoming are often found nesting in cottonwoods (*Populus* spp.; Preston and Beane 2009). The Forest Service and BLM, based on the best available science, are using one-mile buffers around the nests of all raptor species to minimize direct and indirect effects. The [FEIS] Proposed Route for Segment 8 lies within 1 mile of the highest number of raptor nests, 307, of any of the segments. This segment runs through the SRBOP, home to the largest concentration of nesting raptors in North America.[1]"

1 Final EIS, Section 3.10, Page 3.10-18

The Companies anticipate that the BLM will conduct a similar analysis for the RAC-recommended routes. Using the same data set as for the Final EIS, the Companies conducted a preliminary analysis that shows that the presently Proposed Segment 8 is within a mile of 178 raptor nests while Proposed Segment 9 is within a mile of 608 raptor nests, 541 of which are on federally managed lands. The question remains whether such proximity is an adverse effect. The Companies believe there is considerable evidence in the literature that shows no adverse effect on raptors from transmission lines.

As stated in correspondence to the BLM on August 8, 2012, Karen Steenhof, raptor biologist, wrote:

"In 1981, less than a year after Secretary of the Interior Cecil Andrus withdrew 482,000 acres of public land to protect birds of prey nesting in the Snake River Canyon in southwestern Idaho, Pacific Power and Light Company (PP&L: now PacifiCorp) began construction of a 500-kV transmission line across what is now the Morley Nelson Snake River Birds of Prey National Conservation Area. Raptor Expert Morley Nelson assisted PP&L with routing the line so it would not adversely affect raptors and with designing platforms for transmission towers that would encourage raptor nesting (Nelson and Nelson 1976, Nelson 1982).

From 1981 through 1989, Bureau of Land Management (BLM) and PP&L biologists monitored the response of raptors and ravens to the transmission line (Engel et al. 1992, Steenhof et al. 1993). They found that the 500-kV transmission line enhanced opportunities for raptor perching, nesting, and roosting. Unlike smaller distribution lines, large transmission lines do not present an electrocution hazard for large birds because the wires are too far apart for raptor wings to contact more than one wire at a time. Collision with transmission lines does not appear to be an issue for birds of prey in desert environments.

Raptors and ravens were attracted to the 500-kV line, and productivity of hawks and eagles nesting on transmission towers was as good as and sometimes better than that of those nesting in the canyon. In some cases, transmission line towers provided more secure nesting substrate than natural nesting sites. By 1989, 8 pairs of Golden Eagles, 11 pairs of Ferruginous Hawks, 33 pairs of Red-tailed Hawks, and 81 pairs of ravens were nesting on the transmission line between Midpoint, Idaho and Summer Lake, Oregon (Steenhof et al. 1993). In addition, biologists documented 13 communal night roosts of Common Ravens on the transmission line, including one roost on transmission line towers within the MNSRBOPNCA with more than 2100 ravens, one of the largest raven communal roosts ever documented in the world (Engel et al. 1992). Ravens used the roosts from spring to autumn, and as many as 700 roosted on a single tower."

It is clear from the existing literature and observations within the BOPNCA that transmission lines do not adversely affect and apparently enhance the raptor and raven populations. The Final EIS asserts that the enhancement of raptor and raven populations could have an adverse effect on small mammal populations and therefore reduce raptor and raven populations:

"If the Project's transmission line and structures becomes an attractant to raptor and raven, and their numbers increase along the Project, this factor coupled with the reduced shrub cover in areas recovering from construction disturbances (i.e., a reduction in hiding cover for small animals) could result in increased predation rates on prey species, including small mammals. The primary mammalian prey species for diurnal predatory birds in the Project area include, but are not limited to, ground squirrel, black-tailed jackrabbits, cottontails, while many nocturnal raptor

species take voles, mice, and rats (Snake River Birds of Prey RMP 2008). Increase (sic) predation rate on prey has the potential to subsequently impact raptor populations. For example, the population size and health of golden eagles in SRBOP has been linked to the population size of jackrabbits (Steenhof et al. 1997; Snake River Birds of Prey RMP 2008); as a result, increase predation rates on jackrabbits in SRBOP has the potential to impact the population size and health of golden eagles in SRBOP.[2]

The Companies do not find this assertion consistent with the best available science. There is no convincing information in the literature that predators are limiting (small) mammal prey populations (Korpimäki and Krebs 1996, Krebs 2002); there is even less evidence that this is the case with avian predators (Newton 1993, 1998). Thus, the statement that an influx of avian predators using the new transmission structures for hunting perches to procure prey is unfounded. Steenhof et al. (1993) documented that common ravens (*Corvus corax*) and red-tailed hawks (*Buteo jamaicensis*) were the 2 most common nesting birds (i.e., 114 out of 134 total nests) using towers along a 350-mi newly built transmission line (0.4 nest/mi). It is unlikely that this relative small number of nesting birds would have any impact on their prey base along the 350 mile line. Also, common ravens roosted in large numbers on transmission towers of this line (Engel et al. 1992). However, ravens were already roosting in the general area where the transmission line was built (Engel et al. 1992) and shifted their roost to a safer location. Large raven roosts were likely the result of locally abundant food sources associated with agriculture that is present year-round (Engel et al. 1992). Thus, there was not an influx in the area due to the building of the transmission line as suggested by the BLM, rather there was a redistribution of the existing population. Roosting ravens dispersed in the morning to feed at feed-lots and other agriculture associated enterprises (Engel et al. 1992). There was no evidence that these birds used the transmission towers to exploit small mammal populations.

The BLM also states that increased predation of prey may impact specialized predators, such as golden eagles, because of over exploitation of the prey afforded by more perching opportunities with the new line. Extensive research has been conducted by the BLM in the BOPNCA since the early 1970s on birds of prey. Golden eagles (*Aquila chrysaetos*), prairie falcons (*Falco mexicanus*), and red-tailed hawks (*Buteo jamaicensis*) are 3 of the most extensively studied birds of prey species in relation to their prey (Kochert et al. 1999; Marzluff et al. 1997; Steenhof and Kochert 1988, Steenhof et al. 1997, 1999) in the BOPNCA. Steenhof et al. (1997) showed that jackrabbit abundance influenced eagle production (number of young fledged per pair) during about 2/3 of the 23 years study. Prairie falcon reproductive rates are closely tied to ground squirrel relative abundance (Steenhof et al. 1999, USDI 1996). Ground squirrel abundance is related to climatic fluctuations over time (Van Horne et al. 1997, 1998). Thus, there is no evidence that even specialized avian predators are limiting their principal prey populations in the BOPNCA. In fact, it is the reverse; prey populations limit avian predator populations. Therefore, BLM's statement that building of a new transmission line would cause an influx of avian predators that would deplete small mammal populations which, in turn, would affect nesting avian predators has no factual basis and is not supported by fundamental research on prey-predator populations conducted by the BLM in the BOPNCA.

[2] Final EIS, Section 3.10, Page 3.10-29

The Companies maintain that there is no evidence that constructing and operating the Proposed Routes for Segments 8 and 9 will have an adverse effect on the resources and values for which the enabling legislation designated the BOPNCA. In particular, construction and operation of these two segments will not have any long-term adverse impact on raptors and ravens or on their prey or the prey's habitat.

5.0 PROPOSED COMPENSATORY MITIGATION AND ENHANCEMENT APPROACH

As previously referenced, the November 14, 2013 ROD for the Project states,

"The Proponents' proposal, including environmental protection measures, and BLM standards and requirements for surface-disturbing activities for routes in the NCA would conserve and protect NCA resources."

Also as stated in Section 4.3.2, there is no adverse effect on raptors or their prey species due to the lattice structures, rather these structures provide additional nesting, perching, and roosting substrates. The Project would have no adverse impacts on the values for which BOPNCA was designated and may enhance the BOPNCA in important ways. However in the interest of receiving a ROW grant for both Segments 8 and 9, the Companies have proposed this Draft MEP, which includes additional compensatory mitigation to fully offset all impacts to habitat in the BOPNCA from the long-term presence of the Project back to "baseline." It also provides enhancement to raise the value of the BOPNCA above that baseline to further advance the protection and enhancement of the objects and values of the BOPNCA.

The Companies recognize that although access roads within the BOPNCA provide benefits, they may also increase public access and thereby may increase the risk of vandalism, weed infestation, litter, etc. This potential increase in risk is accounted for in the MEP. The Companies further acknowledge that BLM standards for mitigation within the NCA require offset of impacts "back to baseline." The Companies, in consultation with the BLM, assume that "baseline" is the affected environment as presented in the Final EIS. This has been described in Section 4.0, above.

The Companies' MEP considers the following key elements:

1. Robust Project-wide avoidance, minimization, restoration, and compensatory mitigation measures
2. Additional mitigation proposed herein;
3. Mitigation and enhancement ratios;
4. Effectiveness of restoration projects within the BOPNCA (i.e., recognizes monetarily that restoration projects are not 100% effective);
5. Lag time required for restoration to be fully successful;
6. Long-term maintenance and monitoring;
7. Protection of important cultural sites through property purchase;
8. Long-term law enforcement emphasis to change inappropriate public misuse of the BOPNCA, which in turn enhances the lawful visitor experience; and
9. Enhancement of the visitor experience through education, research, and public outreach.

5.1 Avoidance and Minimization through Routing and Environmental Protection Measures

The POD prepared to support the ROD, submitted August 2013, fully incorporated all the Environmental Protection Measures (EPMs) specified in the Final EIS and provided substantial additional detail in Environmental Protection Plans. By submitting the August 2013 POD the Companies explicitly incorporated the EPMs and Plans as part of the Project design and Best Management Practices (BMPs). See Appendix A for a list of the EPMs and Plans that apply to the BOPNCA.

The routes analyzed in the Final EIS represented several years of cooperative work with the BLM and other agencies (see Section 3.4 for siting history). From the initial siting and routing efforts through work with the Boise RAC subcommittee in 2013 and 2014, the Companies have made every effort to avoid sensitive areas where feasible. Where complete avoidance was not feasible, the Companies have incorporated many EPMs that minimize impacts, including limited operating seasons.

5.2 Reclamation and Project-Wide Compensatory Mitigation

In addition to the avoidance and minimization measures that are part of the Project design and description, the Companies also committed to Project-wide reclamation for construction-related disturbances. Please see the following plans, submitted as part of the August 2013 POD and made a part of the ROD, for additional details on commitments to reclamation:

- Environmental Compliance Management Plan
- Reclamation Plan
- Noxious Weed Plan
- Stormwater Pollution Prevention Plan

Recognizing that there will be residual impacts on important resources even after avoidance, minimization, and reclamation measures are in place, the companies have prepared and submitted a revised package of compensatory mitigation plans that cover impacts to sage-grouse habitat, to forested migratory bird habitat, waters of the U.S., and historic trails. Appendix A contains a table demonstrating the applicability of the various EPMs to the BOPNCA and a table showing the applicability of the plans to the BOPNCA.

The Final EIS does not show sage-grouse habitat, forested habitat for migratory birds, or substantial wetlands within the BOPNCA. Therefore, the compensatory mitigation plans designed for sensitive habitats Project-wide largely do not apply to the BOPNCA.

Impacts to historic trails will be fully compensated through the trails mitigation plan, currently in draft, that will be finalized in consultation with the BLM and the Idaho SHPO for trails impacts in Idaho, including but not limited to, those within the BOPNCA. As specified in the Programmatic Agreement, site-specific Segment Plans will be developed, reviewed, and approved as appendices to the Project-wide Historic Properties Treatment Plan as historic properties that cannot be avoided are identified and appropriate treatments proposed and accepted.

In conclusion, the Companies have committed to extraordinary measures to avoid and minimize impacts, reclaim areas after construction, and provide for third party monitoring and reporting to assure measures are applied. Beyond those measures, the Companies have committed to provide substantial funding in Project-wide compensatory mitigation.

The Companies recognize that the NLCS administration asserts that, in order to allow the Project to cross the BOPNCA, additional mitigation and enhancement measures are necessary, even above and beyond those now part of the Project Description as explained above. Section 5.3 discusses the concept of additional mitigation, while Section 5.4 discusses enhancement of the values for which the BOPNCA was established.

5.3 Restoration and BOPNCA Mitigation Goals

In consultation with the BLM, the Companies offer a compensatory mitigation proposal to bring the BOPNCA to "baseline" based on the long-term operational footprint. The Companies understand that although BLM does not require additional compensatory mitigation for the existence of transmission infrastructure on public lands generally, that the NLCS policy is to require additional compensatory mitigation because the baseline before the transmission line is built included the area to be occupied by the tower pads and access roads. The footprint of long-term site occupancy by the Project infrastructure is shown in Table 6, above.

There has been substantial discussion regarding what constitutes "baseline," and more importantly, mitigation goals, for the various ecological sites crossed by the Project within the BOPNCA. The Companies believe that baseline is, and should continue to be, defined as the current condition of the vegetation. Mitigation goals should be based on a science-based likelihood of success, and the NRCS state and transition model methods provide that approach. The Companies are now, and have consistently been offering, a 1:1 ratio for the long-term footprint of the Project. The components of compensatory mitigation include funding for habitat restoration and law enforcement (refer to Section 6.1).

At a 1:1 ratio, for every acre of long-term occupancy, regardless of the disturbed or undisturbed nature of the baseline vegetation prior to construction, the Companies are proposing to fund one acre of off-site small-project restoration work within the BOPNCA, estimated $1,800 per acre. The Oversight Committee will be in charge of determining the desired future condition of that work, determining the kind of restoration needed, and monitoring for success. See Section 6 for details of the Portfolio.

New access roads within the BOPNCA may provide additional opportunities for inappropriate public use as well as for the more positive benefits of firebreaks and emergency access. In consultation with the BLM, the Companies therefore also offer funding for law enforcement to help compensate for the additional indirect effects of new roads. The Companies, based on information from BLM, estimate that a full-time equivalent (FTE), including salary, transportation, and overhead costs, to be approximately $140,000 annually. Since the new road will not require an entire FTE of law enforcement attention to change public behavior, the Companies propose to provide one quarter FTE of funding as mitigation for additional roads, or $35,000 annually, for 10 years. The reasoning for limiting the funding to 10 years is that focused law enforcement, including advertising, messaging, and patrol, should substantially reduce inappropriate behavior in 10 years.

For the routes the Companies have proposed within the BOPNCA, the total "footprint" includes 97 acres, while for the BLM-Preferred routes, there are 36 acres of long-term project occupancy. Restoration costs of $174,780 and law enforcement of $35,000 annually for 10 years brings the total offered for mitigation to $524,780 for the Companies' Proposed Routes for Segments 8 and 9. The Companies believe that this mitigation offer for the long-term presence of the transmission line fully compensates for the long-term presence of the transmission line and meets this requirement of the NLCS policy.

5.4 Enhancement Ratios

The Companies offer, in the spirit of cooperation and with the intent of fully supporting a BLM decision for Segment 8 and Segment 9 in 2014, the following enhancement ratios. These were used in the calculation of the necessary level of enhancement to offset the habitat disturbed by Project construction on lands managed by the BLM and for the enhancement of the resources and values for which the BOPNCA was designated.

National Energy Corridors were established that cross the BOPNCA, which the RMP acknowledges and memorializes as utility corridors in the RMP. Locating utilities within these corridors is consistent with the RMP and with the enabling legislation for the BOPNCA and therefore should require no additional enhancement to be consistent with the enabling legislation. One of the reasons the corridors were established in these locations was that they had minimum impact on the BOPNCA. Another was that they largely cross disturbed vegetation—sagebrush and grassland habitat invaded by cheatgrass, which in some cases has resulted due to fires.

The Companies propose to compensate for impacts using the following ratios against the construction disturbance footprint:

Within designated utility corridors on BLM-managed Public Lands:

- 1:1 ratio for impacts to presently undisturbed ecological sites within the BOPNCA; and
- 0.5:1 ratio for impacts to presently disturbed ecological sites within the BOPNCA.

Outside designated utility corridors on BLM-managed Public Lands:

- 2:1 ratio for impacts to presently undisturbed ecological sites within the BOPNCA; and
- 1:1 ratio for impacts to presently disturbed ecological sites within the BOPNCA.

The Companies believe it is important to recognize the baseline condition of the ecological sites crossed by the Project. Where those areas have already been degraded and have crossed a threshold that will make restoration to "climax" vegetation extremely unlikely, the ratios offered are less. Where the project will impact some of the relatively rare remaining undegraded vegetation, the risks of that vegetation being invaded from adjacent land uses by cheatgrass or other noxious weeds is higher, and the ratio of funding for off-site intensive restoration projects should be higher.

Temporary project impacts will be restored to previous conditions to the extent practicable and in accordance with the Project Reclamation Pan. The Companies acknowledge that reclamation will require several years before it is successful. In order to address the temporary loss of fully functional habitat while the reclaimed areas rejuvenate and mature, the Companies therefore offer the above enhancement ratios based on ***construction*** impacts on BLM-managed Public

Lands within the BOPNCA, which provides over ***ten times*** the enhancement acres over using the operational impact estimate. Using the construction footprint estimate thereby substantially increases the proposed enhancement within the MEP.

6.0 ENHANCEMENT PORTFOLIO PROPOSAL

This section is based on project types and estimated costs for the Proposed Routes for Segments 8 and 9. This basis is used because these routes cross through the BOPNCA for several miles and are likely to have the largest impact on the BOPNCA. Other routes, including the BLM preferred alternative as presented in the Final EIS, impact much less of the BOPNCA. The project types used within this Draft MEP to determine appropriate levels of funding for enhancement and to address the enabling legislation, for which the BOPNCA was established, include habitat restoration, law enforcement, visitor enhancement, property purchase, removal of existing power lines and associated facilities, and a management fund (refer to Section 6.1). The Companies propose to scale the habitat restoration, law enforcement, property purchase, and visitor enhancement components of this Draft MEP based on the acreage of construction impact on the BOPNCA of the routes approved. The Companies offer removal of portions of two Idaho Power existing lines within the BOPNCA regardless of alternative chosen. The Companies also offer management funding of $50,000 a year for 20 years, which is also a fixed amount regardless of alternatives for both Segments 8 and 9 selected. Please see Sections 6.1.5 and 6.3 for additional discussion.

The following discussion of project types and activities was developed using input from BLM staff, information from the Final EIS, the BOP RMP, enabling legislation, and NLCS manuals. The project types and mix were developed to demonstrate that enhancement could be accomplished and would be of sufficient quality and quantity to allow routes through the BOPNCA and to identify the maximum financial contribution from the Companies. One of the key features of the MEP is the development of an Oversight Committee (Section 6.2.2). The Oversight Committee would be responsible for reviewing proposed projects and addressing the following:

- Funded projects are consistent with the projects described below; however, project types and mix can change from those described below (agreed upon funding will be made available based on the ratios, estimated costs, and acres of construction impact, not upon the type and/or mix of projects finally selected by the committee).
- Methods, success criteria, monitoring, etc. are sufficiently detailed prior to funding any habitat restoration project and are appropriate for the conditions in the BOP. The Oversight Committee may include adaptive management as part of a habitat restoration project.
- Habitat restoration projects take advantage of natural and man-made fire breaks or incorporate newly-created fire breaks where practicable.
- Habitat restoration projects may incorporate research, but the primary purpose of the project is to restore habitat to support raptor prey species.
- Coordination with current and future BLM-funded and implemented projects within the BOPNCA will occur to maximize funding and project extent.

6.1 Project Types

Based on discussions with the BOPNCA Manager and other BLM staff, the Companies propose the following general outline, approaches and proposed project mix, regardless of route:

1. Habitat restoration (60% or more)
2. Purchase of high-priority private inholding (approximately 104 acres)
3. Law Enforcement
4. Visitor Enhancement (approximately 10%)
5. Removal of an existing line and substation

Note that these project types were selected to allow for an estimate of the total fund value, not to restrict the BLM or the Oversight Committee in the use of the funds to just these project types or in this proportion. The Companies expect that the Oversight Committee will be given the opportunity to determine the best project mix at the time of implementation, and to manage adaptively based on the success of early projects.

Costs are estimated based on information provided by the BLM, in the cases of habitat restoration, law enforcement, and visitor enhancement. The case of the property purchase was determined by recent market transactions. These costs and this level of enhancement were based on the estimated amount of disturbance, both temporary and permanent, caused by the Project as proposed. They are also based on the ratios of disturbance acres to enhancement acres provided in Section 5.4. Additional details on how the fund would be financed and managed are found in Section 6.2, below. Appendix B provides details on the calculations based on the disturbance "footprint" of construction and operation. Though Appendix B now addresses only the BLM Preferred and the Companies' Proposed Routes, the impacts of other routes could also be calculated and fund values estimated if needed.

6.1.1 Habitat Restoration

6.1.1.1 Proposal

There are many opportunities for habitat restoration in the BOPNCA. Two of the most important restoration activities are the conversion of non-native grasslands to native perennial plant communities and noxious weed control. These restoration projects target the enhancement of habitat for prey species for raptors.

As detailed in the RMP, grazing is permitted within the BOPNCA but the livestock often have adverse impacts to riparian areas. Projects that work with grazing permittees to fence spring and immediate contributing areas from livestock and to develop alternate, off-site watering facilities for livestock would also substantially contribute to restoration and enhancement of riparian areas.

6.1.1.2 Cost Estimate

The BLM's estimated average cost of habitat restoration within the BOPNCA through utilizing smaller-scale intensive treatments is $1,500 per acre. Through discussion with the BOPNCA manager and based on the Companies' experience, the average success rate of such projects is approximately 80 percent. In order to address the risk of project failure and the need to conduct additional measures, the Companies will provide additional compensatory mitigation of $300 per acre totaling $1,800 per acre for habitat restoration, which accounts financially for the 20 percent failure rate. Based on preliminary estimates of the construction footprint for the Proposed Routes for Segments 8 and 9, the total for direct funding of habitat restoration is estimated at $2,526,660.

6.1.1.3 Effectiveness

The proposed habitat restoration techniques have been implemented over the last several years in the BOPNCA. Based on the success of these intensive restoration techniques, the Companies assume that these techniques are effective in restoring natural vegetation. However, the Companies realize that the success rate of these projects is not 100 percent. Through discussion with the BOPNCA manager and based on the Companies experience, the average success rate of such projects is approximately 80 percent. The Companies have taken this explicitly into account in estimating the overall cost per acre. Thus the Companies' estimated cost assumes that full effectiveness in transforming areas with invasive species such as cheat-grass to native vegetation can be achieved over time with a need to repeat treatments on 20 percent of the acreage.

The BOPNCA RMP, Section 2.3 (page 2-3) states "The greatest benefit to raptors is the stabilization of raptor prey populations, most notably the Piute ground squirrel. To stabilize and increase the small mammal prey base, remnant upland native shrub habitat must be preserved, inter-connected, and expanded. Restoring degraded areas to shrub/bunchgrass habitat with a forb component and biological soil crust provides additional habitat for small mammals, invertebrates, lizards, snakes, and birds." In accordance with the RMP, habitat restoration projects should be located in areas where it is most beneficial to raptor prey populations, rather than focusing on currently burned areas and seed / plant mixes should include shrubs that are suitable for small mammals. Therefore, appropriately focused habitat restoration projects will assist with the stabilization of raptor prey populations thereby benefiting raptors long-term.

6.1.2 Property Purchase

6.1.2.1 Proposal

The majority of the significant cultural resources within the BOPNCA are found in the canyon itself and are largely historic and precontact-era Native American archaeological sites, with some additional historic sites, including a historic bridge.

While important resources have been identified on BLM lands, many more are likely located on private land, given the landforms and proximity to the river of private lands within the canyon. These sites could be much better documented and preserved under BLM management. According to BLM staff, there are one or more parcels, surrounded by BLM lands, with substantial cultural and natural resource values within the canyon. Once purchased and deeded to the United States, this land could be managed together with adjacent BLM lands and would not require additional funding for separate management.

While the Project will not have a direct effect on the Guffey Butte–Black Butte Archaeological District, the Proposed Routes included herein may have other impacts on cultural resources within the BOPNCA. Therefore, the Companies propose to provide funding for the purchase, transaction fees, and ownership transfer of lands to the BLM for management in perpetuity as one element of this MEP.

6.1.2.2 Cost Estimate

The estimated cost of purchasing this land is unknown but is estimated at no more than $3,000 per acre, including transaction fees. Alternatively, the BLM could pursue conservation easements on one or more parcels at a lesser price per acre. The Companies therefore propose to

offer $320,000 to the BLM to complete the purchase of one or more important parcels, the actual application of which would be determined by the Oversight Committee, if the Proposed Routes are approved.

6.1.2.3 Effectiveness

The staff of the BOPNCA has identified private parcels, inholdings within the NCA, that likely contain important cultural resources as well as important habitat for raptors and their prey species. The Companies assume that moving these parcels into BLM management, when coupled with other mitigation and enhancement projects, will protect the existing cultural resources and will protect and ultimately enhance the habitat values of those lands. Because the Companies defer to an Oversight Committee on the selection of the parcels and the determination of fee or conservation easement purchases, a more complete estimate of effectiveness cannot be made.

The BOPNCA RMP, Section 2.2 (page 2-2) states "Acquire lands that contain significant natural or cultural resources as opportunities arise." Furthermore, the RMP, in Section 2.11 (page 2-15) states "As opportunities arise, acquire scattered State and private lands within the NCA to improve management." This measure will help the BLM meet these management actions as well as others identified in the RMP. Conservation of such lands will not only conserve and protect cultural resources but will also conserve and protect any habitat therein used by birds of prey and their prey base.

6.1.3 Law Enforcement

6.1.3.1 Proposal

In conversation with the BLM, law enforcement, particularly with regards to inappropriate public use, is a critical part of successfully managing the BOPNCA. The Companies recognize the importance of longer-term funding for law enforcement, since changing public perception and behavior can take years of focused efforts, including increased patrols, public service messages using various media, school-based education programs, etc.

6.1.3.2 Cost Estimate

Based on an estimate provided by staff of the BOPNCA, the Companies assume that a fully equipped law enforcement officer costs the BLM $140,000 annually per full-time equivalent (FTE), which includes costs for training, equipment, weapons, vehicle, etc. The Companies have already offered ¼ FTE of law enforcement ($35,000 annually) for 10 years to compensate for indirect effects of additional roads for their modified Proposed Routes (mitigation). In addition, as part of the MEP, the Companies are offering ¾ FTE for the first 10 years ($105,000 annually) and ½ FTE for the following 10 years ($70,000 annually) or $1,750,000 over 20 years as part of the MEP for the Proposed Routes.

6.1.3.3 Effectiveness

BOPNCA staff have provided evidence that focused law enforcement efforts can change the behavior of visitors even in the absence of law enforcement personnel. The Companies assume that a similar focus in law enforcement to change behavior, not just to punish inappropriate behavior, when coupled with signage and education programs, can be highly effective in reducing illegal activities like dumping and explosive target shooting within the BOPNCA.

Therefore it is reasonable to assume that a long-term investment in public education as carried out by a focused law enforcement effort (between mitigation and enhancement proposals, a full FTE over 10 years, then half an FTE over an additional 10 years) would be highly effective, not only in preventing the increase in illegal behavior perhaps encouraged by the presence of new roads associated with the Project, but also in permanently reducing illegal behavior in the BOPNCA, thereby further protecting the objects and values for which the NCA was established.

6.1.4 Visitor Enhancement

6.1.4.1 Proposal

Through discussion with Patricia Roller, informing and educating the public regarding the natural resources and values of the BOPNCA and enforcing the management rules would further enhance the objects and values of the BOPNCA and the public experience.

There are many opportunities for enhancement of visitor experiences within the BOPNCA. For example, the funding could be used to assist with funding of the "Raptor Camp," which provides opportunity for the public and local youth to learn of the values of and natural resources within the BOPNCA, including cultural significance of the area. Another possible use of funds would be to further educate the public and promote responsible use of the BOPNCA through the development of public service announcements and educational materials specifically addressing law enforcement issues, such as discouraging the use of exploding targets, in order to raise public awareness. Other uses include cultural resource education and outreach, visitor education materials such as displays, videos, and brochures, and funding for other ongoing visitor programs. The Companies encourage the Oversight Committee to consider educational programs focused on youth in the area and explore opportunities of long-term education and outreach with the community to continue to involve the community with the management and conservation of the BOPNCA. The Oversight Committee would be responsible for a selection of projects.

6.1.4.2 Cost Estimate

Support for this element is estimated at $50,000 per year for 10 years, for a total of $500,000 if the Companies' Proposed Routes are approved.

6.1.4.3 Effectiveness

Based on the experience of the BOPNCA staff, visitor enhancement programs that focus on youth and those that model and encourage appropriate use of the NCA have been effective in reducing inappropriate behavior and in educating the next generation in appreciation of the unique values of the NCA.

6.1.5 Line and Substation Removal

6.1.5.1 Proposal

Swan Falls to Bowmont

Idaho Power Company (Idaho Power) has identified a portion of an existing transmission line within the BOPNCA that can be removed. The existing Swan Falls to Bowmont transmission line is a 46-kV line that is authorized by BLM ROW grant I-16259. The line occurs within a 40-foot-wide ROW and crosses approximately10.8 miles of public lands managed by the BLM (Figure 3). Idaho Power would remove approximately seven 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 would 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 kilovolt lines, including 0.25 mile on BLM lands, will be re-constructed. Further, approximately 4 miles of the existing 46-kV line on existing BLM ROW between the Gage and Ferry substations would need to be converted to a 12.5-kV distribution line. This will require a neutral conductor to be strung on the existing structures and may require structure replacements. Idaho Power is also proposing to remove the existing Gage Substation and associated equipment/apparatus. The Gage substation is on BLM managed land.

Mountain Home to Bennet

Idaho Power Company has identified a portion of an existing transmission / distribution line within the BOPNCA that can be removed. The existing Mountain Home to Bennett transmission line (Line 210) is a 69-kV line with distribution underbuild (Figure 4). The 5.6 miles of the line on the BOPNCA without any distribution underbuild would 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 Saylor Creek (Glenns Ferry), all of which is on private lands. Idaho Power will conduct maintenance on the remaining portion of the line; this would be determined as part of the engineering analysis to support the removal.

6.1.5.2 Cost Estimate

The cost to the Companies to implement the removal and reconnection activities as described, is currently estimated at $1,922,000 for both the Swan Falls to Bowmont and the Mountain Home to Bennet lines.

6.1.5.3 Effectiveness

Removal of these portions of line would decrease the current disturbance footprint within the BOPNCA and address two concerns that have been raised regarding the Project and resources in the BOPNCA; removal of existing infrastructure to enhance raptor habitat and protection of slickspot peppergrass and its habitat. As shown on Figure 3, the northern portion of the line on BLM-managed lands crosses through identified slickspot peppergrass element occurrences and a BLM management area. Removal of the line and structures would negate the need for operations and maintenance in the area and eliminate potential impacts to slickspot peppergrass from Idaho Power activities. Idaho Power would rehabilitate disturbed areas following removal of the section of line and maintenance on the remaining portion of the line in accordance with the Project Reclamation Plan.

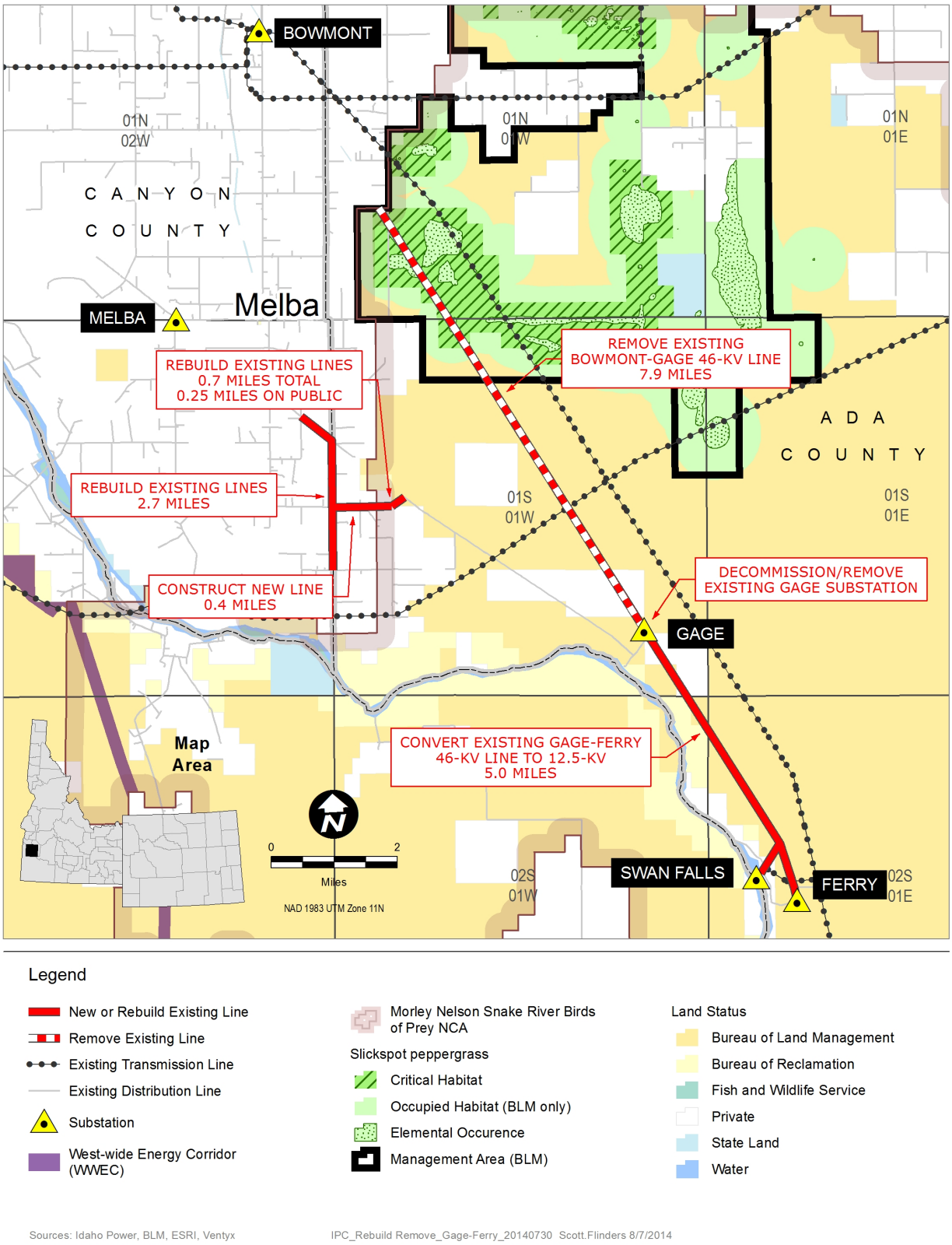

Figure 3. Proposed Swan Falls to Bowmont Transmission Line Modifications

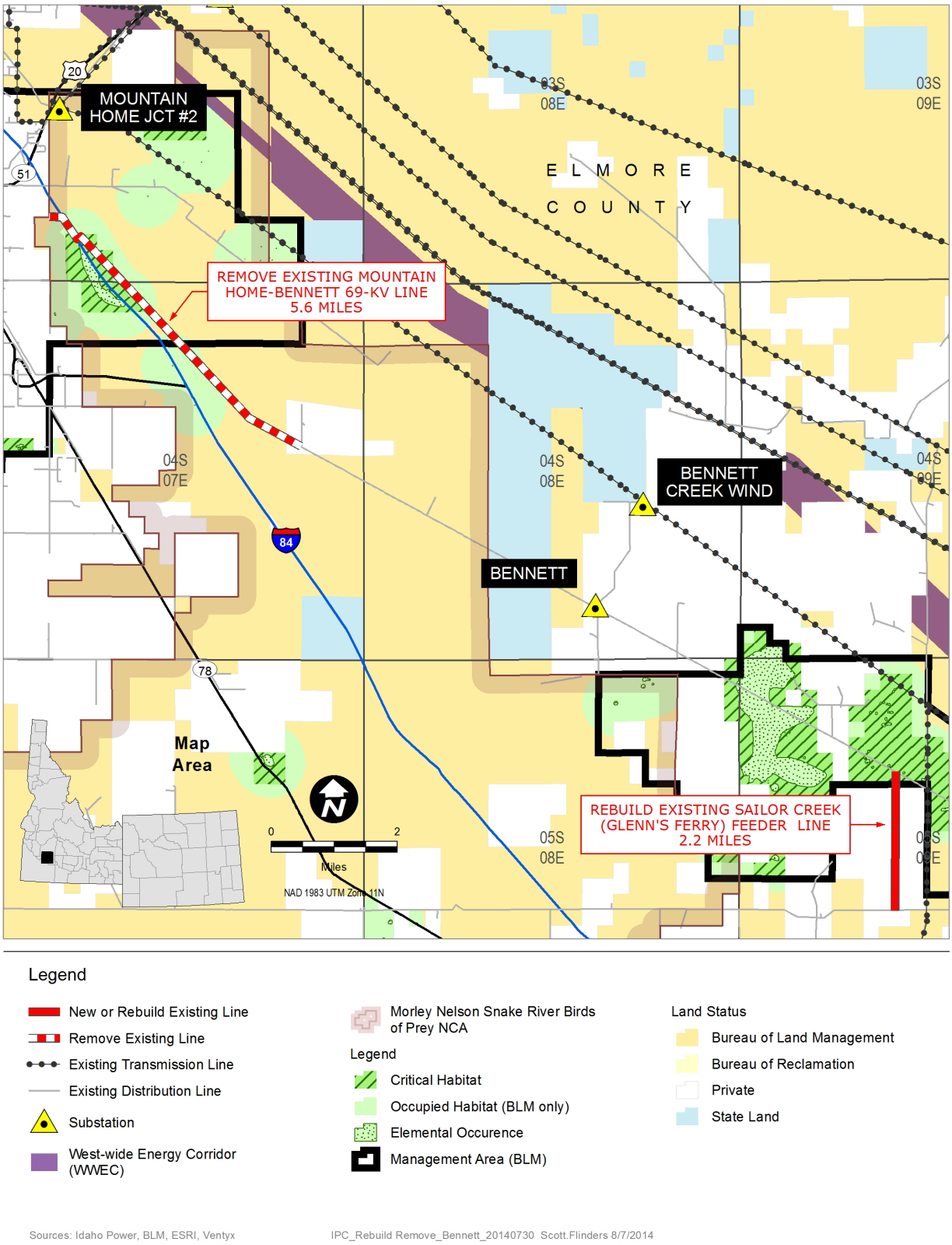

Figure 4. Proposed Mountain Home to Bennet Transmission Line Modifications

In the event the BLM would request that one or more structures be in place (conductor and hardware would be removed leaving any cross arms in place) and agree to take responsibility of maintaining those structures, the Companies would not remove the identified structures in order to provide continued perching and nesting opportunities to birds of prey.

Through discussions with the Boise RAC subcommittee, the Companies acknowledge this Committee's desire to strategically install nesting platforms to further enhance nesting opportunities for birds of prey. The Companies have not included this as an element of the Portfolio at this time because an agreement on advisability and placement must be reached with the USFWS and with BLM. The Oversight Committee may then elect to fund the installation of nest platforms on structures left in place as one of the selected enhancement projects. The installation of any nest platform must take into consideration current nesting and perching opportunities as well as the potential impact to the Companies regarding ability to maintain infrastructure within the BOPNCA. The Companies would expect to coordinate with the Oversight Committee regarding appropriate nest platform locations.

6.2 Portfolio Fund

The Companies intend to fully fund the agreed MEP, and to do so by providing the full amount to the BLM or to an approved third-party fund manager with a one-time payment for each Segment. The Companies anticipate that the fund manager will prudently invest the funds to add value to the funds and to provide for even more opportunities for enhancement for the BOPNCA. However, the value of the fund is calculated without assuming accumulation of any interest.

6.2.1 Management Fund

The funding will cover the direct costs of restoration projects, property purchase, law enforcement, and visitor enhancement programs. It will also include management funding, which is intended to provide sufficient funding for annual costs such as monitoring, reporting, and administration of the fund and the Oversight Committee (Committee). The management funding will also cover the cost of administering the mitigation and enhancement fund itself, which may be accrued by a third party fund administrator.

The intent of the management fund is to provide sufficient funding to support needed monitoring, reporting, and administration of the MEP. The Companies estimate that total monitoring, reporting, and administration costs will not exceed $50,000 per year for 20 years and offer a total of $1,000,000 regardless of which routes are approved but assuming both Segment 8 and 9 are approved.

6.2.2 Basis for Funding

The Companies assert that the requirement for funding additional mitigation and enhancement programs for the BOPNCA be considered as proportional to the impact of the route ultimately approved for construction, with two important exceptions. The Companies' offer of the two line removals and the offer of a $1,000,000 management fund are independent of alternatives selected, provided that both Segment 8 and 9 are approved. Note that federal policy regarding mitigation has always required that compensatory mitigation be proportional to impact, and the companies expect this policy to be followed in the acceptance of the MEP.

The Companies are not experts in any of the proposed projects with the exception of the line removals. The Companies will take full responsibility for execution of the agreed line removals

with BLM oversight for compliance with agreed EPMs and Environmental Protection Plans. However, the Companies do not plan to execute any of the other projects within the BOPNCA. Instead, they propose to provide funding to the BLM for these projects. Since BLM is to execute the projects with the guidance, monitoring, and reporting of the Oversight Committee, the Companies expect the BLM to also be responsible for the execution. This means that the BLM will utilize adaptive management and continually evaluate the success of projects. Because the value of the MEP has been established proportional to impact and because the BLM will be responsible for execution, the Companies will be responsible for the full agreed-upon value of the MEP but will not be liable for any further costs associated with this MEP beyond the agreed value of the fund.

The mechanism of providing said funding will be determined at a later date through coordination with the BLM, based on the mechanisms available to the Companies as regulated utilities, and may include a third party fund manager.

6.2.2.1 Timing for Funding

Through development of this MEP, the Companies commit to providing funding, commensurate with acres occupied and impacted by Project facilities, to forward the "conservation, protection and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith" for which the BOPNCA was created. The Companies will provide a proportional amount of the total, based on federally managed lands within the BOPNCA crossed by the approved routes by segment, as a term and condition of receiving a NTP. For Proposed Segment 8, 28 percent would be provided prior to issuance of an NTP for Segment 8. For Proposed Segment 9, 72 percent of the amount would be provided prior to issuance of an NTP for Segment 9. These percentages are based on the number of miles crossed for each segment. The Companies may request the NTP for each Segment separately and propose this means of recognizing the relative impact of the two segments. The intent is to provide the full amount of the funding for both Segments as their construction is imminent. Percentages would vary if other routes were authorized.

6.2.2.2 Fund Value for Proposed Routes

As specified in the project descriptions in Section 6.1, the fund value for the RAC-Recommended Routes is summarized in Table 9, below.

Additional details are found in Appendix B, where assumptions for each project type are specified.

Table 9. MEP Fund Value for Proposed Routes for Segments 8 and 9

Project Type	Mitigation Component	Enhancement Component	Totals
Habitat Restoration	$174,780	$2,526,660	**$2,701,440**
Property Purchase	NA	$320,000	**$320,000**
Law Enforcement	$350,000	$1,750,000	**$2,100,000**
Visitor Enhancement	NA	$500,000	**$500,000**
Management Fund	Covered under enhancement	$1,000,000	**$1,000,000**
Line Removal	NA	$1,922,000	**$1,922,000**
Subtotal by Component	**$524,780**	**$8,018,660**	**$8,543,440**

6.2.2.3 Fund Value for Final EIS BLM-Preferred Alternatives

The BLM-Preferred Alternatives have far less impact on the BOPNCA than the Companies' Proposed Routes. Based on the miles crossed, the Final EIS Preferred Alternatives have about 20 percent of the impact of the Proposed Routes. Therefore, the fund value for those alternatives is substantially less, in proportion to impact. The management fund and the offer of removal of lines remains the same provided both Segments 8 and 9 are approved. Table 10, below, summarizes the fund value by component for the Final EIS BLM-Preferred Alternatives.

Table 10. MEP Fund Value for BLM-Preferred Routes for Segments 8 and 9

Project Type	Mitigation Component	Enhancement Component	Totals
Habitat Restoration	$64,800	$709,200	**$774,000**
Property Purchase	NA	$64,000	**$64,000**
Law Enforcement	$70,000	$350,000	**$420,000**
Visitor Enhancement	NA	$100,000	**$100,000**
Management Fund	Covered under enhancement	$1,000,000	**$1,000,000**
Line Removal	NA	$1,922,000	**$1,922,000**
Subtotal by Component	**$134,800**	**$4,145,200**	**$4,280,000**

6.2.3 Oversight Committee

The Companies propose the establishment of an Oversight Committee (Committee) that will provide guidance and oversight for the management and implementation of the fund.

6.2.3.1 Committee Composition

The Companies will work with the BLM to determine a broad stakeholder base for the Committee. Preliminary considerations for membership could include:

- BLM Director of BOPNCA (chair)
- Representative from Boise State University Raptor Research Center
- Representative from the Idaho Governor's Office of Species Conservation

- Representative from the Idaho Department of Fish and Game
- Representative from counties crossed by the proposed routes
- Representative from one or more involved NGOs (Peregrine Fund, Hawks Unlimited, Audubon Society, etc.)
- Representative from the Great Basin Consortium
- Representative from NRCS

6.2.3.2 Committee Responsibilities

- Committee Governance: The Committee will identify governance rules that include, but are not limited to, the following:
  - How requests to participate from groups/individuals not initially identified will be evaluated and addressed.
  - How decisions will be made (e.g., by majority or consensus).
  - How and when to solicit project proposals and criteria that will be used to evaluate proposals.
  - How often and where to meet.
  - Responsibility for preparing annual and five-year reports.
- Project Selection: While the fixed funding amount in this MEP was developed from a preliminary list of likely projects, the Committee will have the responsibility and authority to determine the actual funding allocation (project mix) and types of projects. If project types vary from those considered in this MEP, they must be consistent with the intent of the MEP and must be related to Project-related impacts.
- Implementation Oversight: The Committee will be responsible for providing oversight of the implementation of projects and for assuring that the funding is used as intended and is properly documented.
- Oversight of Monitoring and Reporting: The Committee will also be responsible for assuring that the projects funded through this MEP are successful, and that appropriate monitoring and reporting are conducted. Reports should be available to the public as well as to the Companies as completed.
- The Committee will be responsible for ensuring that selected projects have considered, and are designed for, long-term sustainability. For example, habitat restoration projects should include contingencies to address noxious weeds, fires (e.g., recovery and/or fire breaks), etc.

6.2.3.3 Committee Administration and Compensation

The Companies anticipate that the Committee will need to meet a maximum of two times per year and that most if not all meetings can be conducted by webinar or telephone conference. The Companies expect that management funding will include a component of compensation for Committee members requesting compensation and to cover the costs of the organization and management of the Committee over the life of the restoration projects. The Companies further assume that all restoration projects will be implemented within 5 years following the completion

of construction and will achieve success within 20 years after completion of construction of the Project.

6.3 Monitoring and Reporting

6.3.1 Monitoring and Reporting for Project-wide Mitigation

This MEP specifically addresses *additional* mitigation and enhancement projects and activities, over and above the considerable commitment the Companies have already made to Project-wide avoidance, minimization, reclamation, and compensatory mitigation. However, the MEP does not relieve the Companies of their obligations under Project-wide environmental protection measures and plans. Environmental Protection Measures and Environmental Protection Plans will be applicable as appropriate throughout the BOPNCA. Those measures and Plans call for monitoring and reporting for which the Companies are responsible, though much of the monitoring and reporting will be conducted through a third-party compliance inspection contractor (CIC; See the Environmental Compliance and Monitoring Plan and other relevant plans already submitted and approved as part of the Project (BLM 2013 ROD)).

6.3.2 Monitoring and Reporting for Line and Substation Removal

The Companies will be responsible for routine environmental compliance, which includes monitoring and reporting during construction as well as post-construction monitoring and reporting of reclamation, during line and substation removal and associated reconstruction of existing lines. Environmental Protection Plans developed for the Project will be applicable (see the Environmental Compliance and Monitoring Plan, Reclamation Plan, Noxious Weed Plan, SWPP Plan, and other relevant plans already submitted and approved as part of the Project [BLM 2013 ROD]).

6.3.3 Monitoring and Reporting for BOPNCA-Required Additional Mitigation and Enhancement

The Companies anticipate that the use of the funding proposed herein will be accompanied by a rigorous program of monitoring and reporting. As proposed, the Committee will be responsible for determining the methods and timing of monitoring and reporting for each project funded, including restoration, property purchase, law enforcement, visitor enhancement, and any other projects funded.

In particular, the Companies anticipate that each restoration project recommended for funding to the Committee should present expected future conditions and criteria for determining success and be accompanied by a monitoring and reporting plan. The level of monitoring and reporting and success criteria may differ from project to project. The Committee maintains the flexibility of establishing and requiring appropriate monitoring and reporting and success criteria commensurate with the project that the Committee has elected to fund. The projects funded by the Committee would be treated as any other mitigation project in this regard. The Committee will be responsible for determining the entity or entities responsible for implementing the project and for its monitoring and reporting as well as funding to address potential for project failure. The value of Management Funding, discussed above, includes the cost of monitoring and reporting. It is expected that an overall monitoring report would be prepared for all projects so funded annually for the first 5 years, followed by a summary report every 5 years thereafter for 20 years. Monitoring reports would be made public and copies provided to the Companies.

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APPENDIX A
APPLICABILITY OF ENVIRONMENTAL PROTECTION PLANS AND MEASURES TO THE BOPNCA

Table 1 describes the Environmental Protection Plans (EPPs) that the Companies will use to ensure environmental protection during construction, operation, and maintenance. All EPPs are stand-alone documents that contain complete lists of all Environmental Protection Measures (see Table 2) and other specific stipulations and methods for that environmental resource. The management plans and plan methodologies have been developed jointly by the Companies and the BLM with input from the USFS and other cooperating agencies. The Companies will be responsible to ensure their contractors and employees follow these plans. EPPs which apply to Morley Nelson Snake River Birds of Prey National Conservation Area (SRBOP or NCA) are identified.

Table 1

Environmental Protection Plans Applicable to the Morley Nelson Snake River Birds of Prey National Conservation Area

EPP Description	Appendix Designation (POD)	Applicable to SRBOP
The **Environmental Compliance Management Plan** is the primary guidance document that states how the Companies uphold, document, and manage compliance with the ROW grant, the POD, landowner agreements, and all federal, state, and local permits. It is a centralized Project environmental compliance reference and is thereby intended to facilitate environmental compliance across the entire Project.	Appendix C	Yes
The **Framework Reclamation Plan** includes construction mitigation, reclamation, and revegetation measures for each land management area crossed by the ROW within BLM-managed and National Forest lands. It will combine the Companies' best management practices (BMPs) with site-specific mitigation developed in consultation with agencies. Some measures will apply Project-wide, while others will be designed for specific areas.	Appendix D	Yes
The **Framework Noxious Weed Plan** provides methods to control the potential occurrence/infestation of noxious and invasive weeds during and following construction of the Project. The purpose of the plan is to ensure noxious weeds are identified and controlled during the construction of Project facilities and all federal, state, county, and other local requirements are satisfied.	Appendix E	Yes
The **Framework Stormwater Pollution Prevention Plan** includes measures for temporary and permanent erosion and sediment control that will be used during construction, operation, and maintenance of the transmission line and ancillary facilities.	Appendix F	Yes

Environmental Protection Plans and Documents (continued)

Description	**Appendix Designation (POD)**	**Applicable to SRBOP**
The **Framework Spill Prevention, Containment, and Countermeasures Plan** includes measures for spill prevention practices, requirements for refueling and equipment operation near waterbodies, procedures for emergency response and incident reporting, and training requirements.	Appendix G	Yes
The **Plant and Wildlife Conservation Measures Plan** presents the measures proposed by the Companies for avoidance and minimization of impacts to plant and wildlife species as related to construction activities for the Project and outlines specific conservation measures to be implemented in the event that state or federally listed species, BLM sensitive species, or USFS special status species or their habitats are identified within or adjacent to the Project ROW.	Appendix H	Yes
The **Framework Stream, Wetland, Well, and Spring Protection Plan** provides measures to protect these resources from potential impacts during construction, operation, and maintenance activities. The goals of this plan are to control Project-related erosion and sedimentation into streams and wetlands, minimize disturbance and erosion of streambeds and banks, and protect springs and wells in the Project area from impacts due to blasting and hazardous materials contamination.	Appendix I	Yes
The **Framework Paleontological Resources Protection Plan** identifies the mitigation measures needed to avoid or reduce Project-related impacts to paleontological resources, wherever feasible. This plan provides important background and contextual information useful for the paleontological resources mitigation program.	Appendix J	Yes
The **Agricultural Protection Plan** includes measures intended to mitigate or provide compensation for agricultural impacts that may occur due to construction of the Project. The measures are intended to be implemented on partially or wholly owned private agricultural land unless directed otherwise by the landowner.	Appendix K	No
The **Framework Traffic and Transportation Management Plan** includes measures that require compliance with federal policies and standards relative to planning, siting, improvement, maintenance, and operation of roads for the Project.	Appendix L	Yes
The **Framework Blasting Plan** outlines methods to prevent adverse impacts to human health and safety, property, and the environment that could potentially result from the use of explosives during Project construction and mitigate risks and potential impacts associated with blasting procedures that may be required for construction.	Appendix M	Yes
The **Framework Erosion, Dust Control and Air Quality Plan** provides measures to ensure protection of the air quality that will be affected by the Project. This plan is to be implemented during the construction, operation, and maintenance phases of the Project. These measures are intended to minimize dust and emissions from construction-related activities.	Appendix N	Yes

Environmental Protection Plans and Documents (continued)

Description	**Appendix Designation (POD)**	**Applicable to SRBOP**
The **Framework Fire Prevention and Suppression Plan** includes measures to be taken by the Companies and their contractors to ensure that fire prevention and suppression measures are carried out in accordance with federal, state, and local regulations. The plan addresses the specific requirements of the USFS and BLM and provides BMPs for fire management on privately owned lands.	Appendix O	Yes
The **Framework Hazardous Materials Management Plan** reduces the risks associated with the use, storage, transportation, production, and disposal of hazardous materials (including hazardous substances and wastes). This plan identifies Project-specific mitigation measures and other specific stipulations and methods to address spill prevention, response, and cleanup procedures for the Project.	Appendix P	Yes
The **Framework Construction Emergency Preparedness and Response Plan** provides an overview of methods to be implemented if the need for emergency management is imminent. This document will describe the existing support structure, chain of command, and emergency communications protocols.	Appendix Q	Yes
The **Operations, Maintenance, and Emergency Response Plan** includes measures to be employed while conducting routine, corrective, and emergency operations and maintenance activities. Measures identified are in compliance with applicable state and federal laws and policies; and will ensure consistency across and within federal jurisdictions; allowing for the Companies to access the transmission line and ancillary facilities in a timely, cost effective, and safe manner.	Appendix R	Yes
The **Cultural Resources Protection Plan** identifies the mitigation measures needed to avoid or reduce Project-related impacts to cultural resources, wherever feasible. This plan provides important background and contextual information useful for the cultural resources protection program and appends the Programmatic Agreement (PA), Project-wide Historic Properties Treatment Plan (HPTP), Monitoring Plan, Inadvertent Discovery Plan, and Native American Graves Protection and Repatriation Act (NAGPRA) Plan of Action.	Appendix S	Yes
The **Preconstruction Checklist** identifies when specific actions related to completion of plans are to take place as well as when Contractor-secured permits are to be applied for.	Appendix T	Yes
The **Framework Flagging, Fencing, and Signage Plan** describes the methods that will be used in the field to delineate limits of disturbance and protect sensitive environmental and cultural resources during Project construction.	Appendix U	Yes
PacifiCorp's Transmission Construction Standards provides standards for all aspects of transmission line construction.	Appendix V	Yes
PacifiCorp's Transmission and Distribution Vegetation Management Program Specification Manual and Idaho Power Company's Transmission Clearing Specifications and Framework for Managing Noxious Weeds cover the vegetation management programs for both distribution and transmission. They include program descriptions, specifications, and protocols.	Appendix W	Yes

Environmental Protection Plans and Documents (continued)

Description	**Appendix Designation (POD)**	**Applicable to SRBOP**
The **Land Description of Project Components on Federally Managed Public Lands** provides an Aliquot part subdivision down to the quarter-quarter section for the transmission line ROW, regeneration stations, substations, permanent and temporary access roads, and temporary multipurpose areas and fly yards.	Appendix X	Yes
Other Information includes Project documents such as the Biological Opinion and permits that have been issued.	Appendix Y	Yes
The **Environmental Protection Measures** are a list of all EPMs to be implemented for the Project and are organized by resource to provide an easy reference document.	Appendix Z	Yes

Table 2
Environmental Protection Measures Applicable to the Morley Nelson Snake River Birds of Prey National Conservation Area

EPM Number	Environmental Protection Measures	Applicable to SRBOP
OPERATIONS AND MAINTENANCE		
G-1	Resource Management Plan (as amended) design criteria, Best Management Practices (BMPs), and mitigation requirements will apply on BLM-managed lands.	Yes
G-2	Forest Plan Standards and Guidelines (as amended) will apply on National Forest System (NFS) lands. Ground-disturbing and vegetation management activities will comply with all Agency-wide, regional, and state BMPs.	Yes
G-3	Third-party Environmental Compliance Inspection Contractor (CIC) Monitors approved by the Agencies will monitor construction activities. Monitoring activities will be structured in accordance with the Environmental Compliance Management Plan included as Appendix C of the Plan of Development.	Yes
G-4	All wildlife and plant surveys/preconstruction surveys will be considered as "casual use" activities and will not be restricted or prevented to occur due to overlapping season and temporal restrictions.	Yes
OM-1	The Companies will comply with the road maintenance standards of the federal or state agency controlling the land.	Yes
OM-2	Roads will be maintained to have crossroad drainage in order to minimize the amount of channeling or ditches needed. Water bars will be installed at all alignment changes (curves), significant grade changes, and as requested by the federal or state agency.	Yes
OM-3	All access road drainage structures, constructed and installed for the Companies' use only, will be maintained or repaired by the Companies during O&M activities or emergency response.	Yes
OM-4	Although routine and corrective O&M is of limited duration and impact, the Companies will attempt to adhere to specific closure periods and areas and are proposing not to conduct any routine and corrective O&M activities during the timeframes and at the locations identified in Appendix R of the Plan of Development to the greatest extent practical. The appropriate federal or state agency will notify the Companies of any spatial or temporal restrictions that are in effect for the Project area (e.g., fire restrictions) that would be applicable to corrective O&M activities.	Yes
OM-5	Existing improvements (fences, gates, etc.) will be repaired or replaced if they are damaged by O&M activities, as agreed to by the parties involved.	Yes
OM-6	The Agencies may restrict general public access to closed federal or state roads and access roads that the Companies maintain (the Companies will maintain access roads constructed for the Companies' use only). In cases of restricted access, the Companies will physically close the road with a gate. Gates will be locked with both a lock supplied by the Companies and with a federal agency lock. Access management will be updated as necessary to reflect current road closures and gate locations.	Yes
OM-7	Any integrated vegetation management (IVM) control method, including those listed in Appendix R of the Plan of Development, may be used to control the growth of trees and tall shrubs to maintain clearances (the IVM recommended wire and border zones as indicated in Appendix R of the Plan of Development) and improve access to facilities.	Yes
OM-8	Any IVM control method including those listed in Appendix R of the Plan of Development may be used to control the growth of additional vegetation to maintain clearances, the IVM recommended wire and border zones as indicated in Appendix R, and improve access to facilities.	Yes
OM-9	Where possible, low-growing vegetation and small tree species within the right-of-way (ROW) that will not grow into the minimum required clearance distance will be left in place; trees may be removed on a subsequent maintenance cycle as they increase in size. Hazard trees are typically those trees or snags within or adjacent to the ROW that are likely to interfere with or fall into transmission lines or associated facilities. Hazard trees and other "hot spots" (high priority areas requiring vegetation management actions) are identified during routine line inspections and removed annually. In addition to hazard trees, other critical conditions that may require immediate attention include trees that interfere with transmission conductors and trees whose growth will not allow safe clearance until the next scheduled maintenance cycle.	Yes
OM-10	Any vegetation control method may be used for vegetation maintenance on access roads; this is typically scheduled at the same time as vegetation maintenance within the ROW. However, in cases where vegetation grows quickly, removal may occur annually. Vegetation that will not interfere with the safe operation of vehicles and equipment will be left in place.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
OM-11	Slash will be lopped and scattered throughout the surrounding land. Stumps resulting from vegetation treatments will not be over 1 foot tall (unless the tree is not able to be safely cut at or below one foot from the ground surface), and lopped slash will be left as close to the ground as possible. Lopped slash will be a maximum of 18 inches in length for small trees and limb wood. If the federal land managing agency determines that fuel levels are unacceptable, they shall notify the Companies and develop a mutually agreed upon method to reduce fuels. This may include, but is not limited to, chipping.	Yes
OM-12	Hazard trees will be felled in a direction away from the ROW. Slash and limbs that fall within the ROW will be treated as described above; boles of trees greater than 8 inches will be left in place.	Yes
OM-13	Any chemical control will be done in accordance with any applicable local, state, and federal rules and regulations. Pesticides or other chemical control will be selected from the BLM and USFS lists of previously approved pesticides and in accordance with any pesticide plans. If the federal land managing agency determines that a previously approved pesticide and/or plan is unacceptable, they shall notify the Companies.	Yes
OM-14	Before beginning an O&M project on federal or state land, the Companies or their subcontractors will clean all equipment that will operate off-road or disturb the ground. Tracks, skid plates, and other parts that can trap soil and debris will be removed for cleaning when feasible, and the entire vehicle and equipment will be cleaned at an off-site location.	Yes
OM-15	To help limit the spread and establishment of noxious weed species in disturbed areas, desired vegetation needs to be established promptly after disturbance. The Companies will rehabilitate significantly disturbed areas as soon as possible after ground-disturbing activities and during the optimal period. Seed and mulch will be certified “noxious weed free” and seed mix will be agreed to in advance by the landowner or land managing agency.	Yes
OM-16	Routine and corrective O&M activities in streams with sensitive fish species will occur from July 1 to September 1 in an effort to minimize impact to spawning and migration activities. These activities include, but are not limited to, culvert installation and/or replacement and stream bank stabilization. Fording streams at existing crossings on existing roads (e.g., dip, culvert, bridge) will occur as necessary throughout the year.	Yes
OM-17	Woody vegetation management within 50 feet of streams will be conducted by hand crews.	Yes
OM-18	Herbaceous plants and low-growing shrubs will be left in place if they do not interfere with the safe O&M of Project lines and equipment as described in Appendix R of the Plan of Development.	Yes
OM-19	The Companies will use existing stream crossings or new, permanent crossings that were approved as part of the Project, and will not create additional crossings without prior agency permitting and approval.	Yes
OM-20	Only pesticides approved by the land managing agency as safe to use in aquatic environments and reviewed by the Companies for effectiveness will be used within 100 feet of sensitive aquatic resources or in areas with a high leaching potential.	Yes
OM-21	Prior to the start of O&M activities, all supervisory personnel will be instructed on the protection of natural resources, including sensitive plant and wildlife species and habitats. If a contractor is used, the construction contract will address (a) the sensitive plant species that may be present in a particular area based on previous surveys and literature review; (b) the federal and state laws regarding protection of plants and wildlife; (c) the importance of these resources; (d) the purpose and necessity of protecting them; and (e) methods for protecting sensitive resources (e.g., Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and BLM wildlife policy).	Yes
OM-22	Sensitive plant populations that occur within or near the ROW and work areas will be marked on the ground, where practical, to ensure that they are avoided. If species are discovered during the work, the Companies will establish a spatial buffer zone, will contact the appropriate Agency within 24 hours, and will continue with the O&M activities outside of the established buffer unless otherwise directed. The Agency may evaluate the adequacy of the buffer on a case-by-case basis. Unless the Companies are informed otherwise, work outside of the buffer area will continue. If the Companies need to work within the buffer area, the Agencies and Companies will work together to develop a solution that is acceptable to both parties and will allow for the Companies to complete the work in a timely manner or within the scheduled outage window, if applicable. After the O&M activities are completed, or will no longer poses a threat to the plant population, the marking (stakes), if used, will be promptly removed to protect the site’s significance and location from unwanted attention. As needed, marking will be reinstated during the land rehabilitation period.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
OM-23	If sensitive wildlife species are discovered during O&M activities, and the animals are not directly within ground disturbance areas, they will be protected by marking the edges of the ROW and new access roads in the general vicinity to ensure that workers do not leave those areas. If the animals are within work areas that have, or will have, ground disturbance, the Companies will establish an appropriate buffer zone and will contact the federal or state land manager immediately. The federal or state agency may evaluate the adequacy of the buffer on a case-by-case basis. Unless the Companies are informed otherwise, work outside of the buffer area will continue. If the Companies need to work within the buffer area, the Agencies and Companies will work together to develop a solution that is acceptable to both parties and will allow for the Companies to complete the work in a timely manner or within the scheduled outage window, if applicable. After the O&M activities are completed, or will no longer pose a threat to the species, the marking (stakes) will promptly be removed to protect the site's significance and location from unwanted attention. As needed, marking will be reinstated during the land rehabilitation period.	Yes
OM-24	The Companies will provide crews and contractors with maps showing environmentally sensitive areas; these maps will include work zones as well as ROW areas where ground disturbance will be avoided.	Yes
OM-25	In the event any sensitive plants require relocation, permission will be obtained from the federal agency. If avoidance or relocation is not practical, the topsoil surrounding the plants will be salvaged, stored separately from subsoil, and respread during the restoration process.	Yes
OM-26	If sensitive wildlife species are killed or injured due to O&M activities, the appropriate federal agency will be notified.	Yes
OM-27	All on-site personnel will be made aware that all birds of prey are protected by federal and state laws.	Yes
VISUAL		
VIS-1	The 500-kV transmission line lattice steel towers will be specified to have a dull galvanized finish. The proposed surface finish is a galvanized finish, treated after the initial galvanizing process to produce a dulled finish to reduce surface reflectivity. This process results in an installed tower with more visual absorption and thus allows the towers to blend in better with the landscape.	Yes
VIS-2	The three subconductors (500-kV) and two subconductors (230-kV) that make up the conductor bundles will be specified to have a non–specular finish. Similar to the dulled finish of the transmission structures, the conductors reduce surface reflectivity. This process results in eliminating the shiny ribbon effect often seen in older untreated transmission lines and thus allows the conductors to blend in better with the landscape.	Yes
VIS-3	The proposed 230-kV transmission lines between Windstar and Aeolus will use a steel H-frame structure configuration similar to the existing 230-kV line in the same general location. The steel pole H-frame will utilize self-weathering steel. Self-weathering steel is manufactured from a group of steel alloys that were developed to eliminate the need for painting. This type of steel alloy forms a stable rust-like appearance if exposed to the weather for several years. In areas where the 230-kV structures are skylined, dull galvanized steel will be considered to minimize visual impacts. Dulled galvanized steel has a galvanized finish, treated after the initial galvanizing process to produce a dulled finish to reduce surface reflectivity. This process results in an installed tower with more visual absorption and thus allows the towers to blend in better with the terrain, while at the same time preserving the corrosion resistant properties of the galvanized coating on the steel.	No
VIS-4	No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate limits of survey or construction activity except as required under the timber sale contracts.	Yes
VIS-5	To minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape, the alignment of any new access roads or cross-country routes will follow the landform contours where practicable, providing that such alignment does not impact resource values additionally or result in new impacts to resources that were previously avoided.	Yes
VIS-6	To minimize sensitive feature disturbance and/or visual contrast in designated areas on federal lands, structures will be placed so as to avoid sensitive features such as, but not limited to, riparian areas, water courses and cultural sites and/or to allow conductors to clearly span the features, within the limits of standard tower design. Where conflicts arise between resources, the applicable land manager will be consulted.	Yes
VIS-7	To reduce visual impacts on federal land, including potential impacts on recreation values and safety, towers will be placed at the maximum feasible distance from the highway, canyon and trail crossings within limits of standard design and to the extent practical.	Yes
VIS-8	Crossings of rivers shall be at approximately right angles where practical. Strategic placement of structures will be done both as a means to screen views of the transmission line and ROW and to minimize the need for vegetative clearing.	Yes
VIS-9	Insulators will be made of materials that have reduced potential to reflect and refract light. Glass insulators that are highly reflective will not be permitted in scenic areas on federally managed lands.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
VIS-10	For segments of the line 1) within the 0- to 0.5-mile zone of Interstate highways where existing lines of the same voltage are paralleled and 2) within the 0- to 0.5-mile zone of residences where existing lines of the same voltage are paralleled, new towers will be located adjacent to existing towers, within the limits of standard transmission line design and considering the ruling span length of adjacent proposed and existing lines.	Yes
VIS-11	Site-specific "micrositing," within the limits of standard engineering design, will be required near certain sensitive areas, as identified by the agencies, where proposed transmission facilities will impact visual quality; these situations include: • Crossings over major highways; • Crossings of high quality historic trails; • Crossings over the North Platte and Snake Rivers; • Sensitive travelways, use areas, residential areas, recreational facilities as identified by the agencies (including national recreation and scenic trails, campgrounds, recreation areas, and trailheads), and other areas identified by management plans; and • To avoid bisecting forest patches within the Sawtooth NF. The Companies will consult with the applicable local land management agency during transmission line design.	Yes
VIS-12	The lighting specified for the marshaling yards will be the minimum required to meet safety and security standards. All light fixtures within 1,000 feet of a residence will be hooded to eliminate any potential for glare and to prevent light from spilling off the site or up into the sky. Additionally, the fixtures will have sensors and switches to permit the lighting to be turned off at times when it is not required.	Yes
VIS-13	To reduce visual contrast in areas where overstory vegetation is removed for access, tower pads, or conductor clearance, specific sections of the ROW on federal land will have uneven edges (trees will be removed from the edge of the ROW out or away from the ROW boundary) to give a natural appearance, where not in conflict with regulatory requirements (e.g., NERC, WECC, and Occupational Safety and Health Administration requirements). This will be a onetime application (not applicable to operations and maintenance) and conducted with agency approval.	Yes
VIS-14	To mitigate potential visual impacts on federal land, the construction and maintenance plan, to be developed by the Companies, will include measures to reduce ROW scarring and enhance restoration. The plan will be approved by the land management agency prior to ground clearing and construction.	Yes
VIS-15	If Alternative 7K is selected, Natina stain (or an equivalent product) will be applied to towers (including lattice towers) placed on NFS lands within the Sawtooth NF to reduce visual effects at the middleground level. Note that this is an agency imposed measure.	No
CULTURAL		
CR-1	All work conducted in accordance with the Historic Properties Treatment Plan (HPTP) will be performed by qualified archeologists with trained assistants.	Yes
CR-2	An Inadvertent Discovery Plan will be included as part of the HPTP. This plan will specify what steps will be taken if a subsurface cultural resource is discovered during construction, including stopping construction in the vicinity of the find, notification of the appropriate land management agency, identification of a qualified archaeologist to conduct an evaluation of the find, and the development of an approved data recovery program or other mitigation measures.	Yes
CR-3	The Cultural Resources Protection Plan will include provisions for the preparation and curation of artifacts from federal lands and for the preparation of a final report based on the data recovered for activities on federal lands.	Yes
CR-4	Literature reviews and Class III surveys will be completed for cultural resources. A literature review will be conducted on public and private lands and will cover a study area of one-half mile on either side of the proposed and alternate transmission line alignments as well as areas identified for use as multi-purpose areas and access roads. Class III surveys covering the Area of Potential Effect (APE) as specified in the Programmatic Agreement will be completed. A Class II Sample Survey was conducted that consisted of an intensive pedestrian survey of 15 percent of the length of all alternatives. One-mile long by 500-foot wide transect strips were surveyed along proposed and alternative routes on federal lands only, for use in detailed analysis in the EIS. This also included a detailed preliminary assessment of effects on historic trails on all lands within the APE, including existing trail condition and a visual effects assessment.	Yes
CR-5	If construction will adversely affect any properties listed on, or eligible for listing on, the National Register of Historic Places (NRHP), mitigation will be required. Mitigation will be in accordance with the HPTP and may include, but not be limited to, one or more of the following measures: a) avoidance through the use of relocation of structures through the design process, realignment of the route, relocation of temporary workspace, or changes in the construction and/or operational design; b) the use of	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
	landscaping or other techniques that will minimize or eliminate effects on the historic setting or ambience of standing structures; and c) data recovery, which may include the systematic professional excavation of an archaeological site or the preparation of photographic and/or measured drawings documenting standing structures.	
CR-6	Avoidance areas will be flagged or otherwise marked prior to construction activities. Flagging or other marking will be removed once construction is completed in an area.	Yes
CR-7	To minimize unauthorized collecting of archaeological material or vandalism to known archaeological sites, all workers will attend mandatory training on the significance of cultural resources and the relevant federal regulations intended to protect these resources.	Yes
CR-8	If human remains are discovered, construction will be halted and the coroner will be notified and measures specified in the HPTP will be followed.	Yes
CR-9	On NFS lands, a management plan should be developed for each historic property nominated to the NRHP. The plan should be drafted during the nomination process. The National Heritage Strategy should be used to guide decisions on issues related to the Heritage Program.	No
RECLAMATION		
WEED 1 – 3, and 6 – 18	(Described under Weeds)	Yes
WQA 32, 34, and 35	(Described under Water Quality)	Yes
REC-1	The Companies' personnel and their contractor will be trained on noxious and invasive weed identification to facilitate avoidance of infestations where possible or identification of new infestations.	Yes
REC-2	Preconstruction weed treatment will be conducted prior to the start of ground-disturbing activities and at the time most appropriate for the target species.	Yes
REC-3	Preconstruction weed treatment will be limited to the areas that are expected to have surface-disturbing activities. The Final Reclamation Plan will include a schedule showing the phased in-service dates for different segments. Preconstruction weed treatment will be scheduled accordingly.	Yes
REC-4	Preconstruction treatment may use mechanical control, hand spraying, grazing, or pesticides. The Final Reclamation Plan will discuss those options, as applicable.	Yes
REC-5	All pesticide applications will comply with label restrictions, federal, state and/or county regulation, the Companies' specifications and landowner agreements. No spraying will occur prior to notification of the applicable land management agency. On federal or state controlled lands, a pesticide use plan will be submitted prior to any pesticide application as recommended in the BLM herbicide EIS (http://www.blm.gov/wo/st/en/prog/more/veg_eis.html). The pesticide use plan will include the dates and locations of application, target species, pesticide, adjuvants, and application rates and methods (e.g., spot spray vs. boom spray). No pesticide will be applied to any private property without written approval of the landowner. The Final Reclamation Plan will contain a list of pesticides that may be used, target species, best time for application, application rates, and if they are approved for use on BLM-managed and NFS lands.	Yes
REC-6	Pesticides may be applied using a broadcast applicator mounted on a truck or all-terrain vehicle (ATV), backpack sprayers, or with hand sprayers as conditions dictate. Pesticide applications will be conducted only by licensed operators or under the supervision of a licensed operator. Vehicle-mounted sprayers (e.g., handgun, boom, and injector) may be used in open areas readily accessible by vehicle. Where allowed, a broadcast applicator will likely be used. In areas where noxious weeds are more isolated and interspersed with desirable vegetation, noxious and invasive weeds will be targeted by hand application methods (e.g., backpack spraying), thereby avoiding other plants. Preconstruction pesticide applications will not occur within 100 feet of known special status species. Calibration checks of equipment will be conducted at the beginning and periodically during spraying to ensure proper application rates are achieved.	Yes
REC-7	All areas treated will be documented using GPS technologies and included in the annual report.	Yes
REC-8	Areas of existing noxious weeds and invasive species will be avoided where possible to reduce the risk of spread.	Yes
REC-9	Project vehicles will arrive at the job site clean of all soil and herbaceous material. The Construction Contractor will ensure vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots, or rhizomes before the vehicles and equipment access the Project. The CIC will inspect vehicles to ensure compliance.	Yes
REC-10	When the Construction Contractor demobilizes from the job site where identified infestations of noxious weeds are present, they will use appropriate decontamination measures as defined in the Final Reclamation Plan.	Yes
REC-11	Soil stockpiles from areas that did not have noxious weeds or invasive species present, will not be placed	Yes

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	adjacent to populations of noxious weeds or invasive species, where practicable.	
REC-12	Areas disturbed by Project activities are susceptible to the establishment and spread of noxious weeds. Erosion control measures identified in the SWPPP(s) will also assist in preventing the establishment of weeds on exposed soils.	Yes
REC-13	Project-related storage and multi-purpose areas, fly yards, and other areas that are subject to regular long-term disturbance will be kept weed-free through regular site inspections and pesticide applications, subject to the consent of the landowner.	Yes
REC-14	Where preconstruction surveys have identified noxious or invasive weed species infestations, topsoil and other soils will be placed next to the infested area and clearly identified as coming from an infested area. Movement of stockpiled vegetation and salvaged topsoil will be limited to eliminate the transport of soil-borne noxious weed seeds, roots, or rhizomes, and marked as containing noxious seed materials to avoid mixing with weed-free soil. Topsoil will be returned to the area it was taken from and will not be spread in adjacent areas. If the topsoil is not suitable for backfill, then it will be spread in another previously disturbed area and clearly identified for future weed treatments as applicable. As directed by the BLM or USFS, the Construction Contractor may be required to provide additional treatments (i.e., pre-emergent pesticides) to prevent return of noxious weeds.	Yes
REC-15	Straw or hay that may be used as a BMP to control erosion and sedimentation must be certified weed free. If certified weed-free materials are not available, then alternative BMPs will be used. The use of alternative BMPs will be coordinated with the construction storm water inspector.	Yes
REC-16	The topsoil layer will be removed, taking care not to mix it with the underlying sub-soil. Where topsoil separation is employed, topsoil will be stored in a separate stockpile.	Yes
REC-17	Certified weed-free straw, mulch, gravel, and other BMPs as appropriate, will be used as described in the SWPPP to stabilize the stockpile and limit erosion and standing water, control dust, and control the establishment of noxious or invasive weeds in stockpiled soils.	Yes
REC-18	Topsoil and sub-surface soils will be replaced in the proper order during reclamation.	Yes
REC-19	Where it is necessary to spread soils (subsurface soils or waste rock resulting from excavations or foundation drilling), it will be done where practicable and in close proximity to where the disturbance occurred (within the ROW). Material will be spread uniformly to match existing contours, covered with topsoil when available, and reseeded.	Yes
REC-20	Temporarily disturbed lands within the ROW will be recontoured to blend with the surrounding landscape. Recontouring will emphasize restoration of the existing drainage patterns and landform to preconstruction conditions, to the extent practicable. (Tower pads will not be recontoured.)	Yes
REC-21	De-compaction: Areas within the ROW, laydown or multi-purpose areas, and other areas of extensive vehicle travel will typically contain compacted soils. These soils will be de-compacted on a case-by-case basis through negotiation with the landowner or land management agency.	Yes
REC-22	Final Cleanup: Final cleanup will ensure that all construction areas are free of any construction debris including, but not limited to: assembly scrap metals, oil or other petroleum-based liquids, construction wood debris, and worker-generated litter. Permanent erosion control devices will be left in place.	Yes
REC-23	The Companies will utilize soil amendments (e.g., fertilizer, wood or straw mulches, tackifying agents, or soil stabilizing emulsions) on a case-by-case basis and with landowner or land management agency approval. Specific soil amendments will be identified in the Final Reclamation Plan and be consistent with the SWPPPs.	Yes
REC-24	Broadcast seeding will apply the seed directly on the ground surface. The type of broadcast spreader will depend on the size of the area to be seeded, and the terrain. Seed will be placed in direct contact with the soil, ideally at a depth of approximately 0.5 to 1-inch deep. It will then be covered by raking or dragging a chain or harrow over the seed bed to remove air pockets.	Yes
REC-25	Drill seeding will be used on areas of sufficient size with moderate or favorable terrain to accommodate mechanical equipment. Drill seeding provides the advantage of planting the seed at a uniform depth.	Yes
REC-26	Hydroseeding, which is the spraying of seeds and water onto the ground surface, or hydroseeding/hydromulching, which is the spraying of seeds, mulch and water, may be implemented on steeper slopes. Tackifier may be added to facilitate adherence of hydromulch to slopes greater than 25 percent.	Yes
REC-27	Reclamation treatments, such as seeding, will be based on site-specific conditions and the appropriate seed mix approved for those conditions. Seeding will help to reduce the spread of noxious weeds by revegetating exposed soils.	Yes
REC-28	If areas are not immediately seeded after construction, due to weather or scheduling constraints, all noxious weeds will be eradicated before seeding, preferably in the spring.	Yes
REC-29	Upon completion of construction, 70 percent of the disturbed area along the transmission line within the ROW, at substations, and at related facilities will be revegetated with approved vegetation (refer to Appendix D – Framework Reclamation Plan).	Yes

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VEGETATION		
REC-2–17, 23–29	(Described under Reclamation)	Yes
WEED-6, 7, and 11	(Described under Weeds)	Yes
VEG-1	During construction, blading of native plant communities will be minimized, consistent with safe construction practices. Where feasible, shrubs will be cut at or near ground level to facilitate re-growth after construction. The footprint of construction and operations facilities will be kept to the minimum necessary. Blading near watercourses will be minimized and BMPs identified in the SWPPPs will be implemented to reduce the risk of materials entering watercourses.	Yes
VEG-2	Where feasible, locate new access roads to minimize the number of trees removed during construction. However, new access roads will not be relocated if the change would result in an increase in the overall disturbance (acres); require additional cut and fill activities, or impact other sensitive resources (e.g., sagebrush plant community, sensitive species habitat, and/or cultural resources or viewshed).	Yes
VEG-3	In areas where revegetation will be completed, topsoil salvage and replacement will be used for all cut or fill areas and for areas larger than 1 acre where soils will be disturbed during construction.	Yes
VEG-4	Prior to the start of construction and maintenance activities, all contractor vehicles and equipment (including personal protective equipment) will be cleaned of soil and debris capable of transporting invasive plant seeds or other propagules. All vehicles and equipment will be inspected by Agency-approved inspectors and certified as weed free by agency approved personnel, in order to ensure they have been cleaned properly. The Construction Contractor will identify the location of all cleaning stations, how materials cleaned from vehicles at these stations will be either captured or treated so that cleaning station locations will not become infected, and who will confirm/certify that vehicles leaving cleaning stations and/or entering construction sites are free of invasive plant materials in the Final Reclamation and Noxious Weed Plans.	Yes
VEG-5	The Agency-approved Environmental CIC will approve primary noxious weed-free straw or other erosion control materials on federally managed lands prior to application.	Yes
VEG-6	The Companies will consult with the appropriate land management agency to determine tree seedlings to be planted in decommissioned roadbeds and other temporarily disturbed areas on federally managed lands (where trees were removed) to assure seedlings are matched to site conditions.	Yes
VEG-7	The Companies will notify the USFS when topsoil salvage operations are scheduled and seek assistance with field identification of topsoil material.	No
VEG-8	Annual post-construction monitoring and treatment of invasive plants on closed roads (access roads dedicated for use by the Companies only), temporary roads, fly yards, and other disturbed areas in the ROW shall continue for 3 years in areas where infestations or populations of noxious weeds have been identified. If after 3 years, post-construction conditions are not equivalent to or better than preconstruction conditions (in accordance with applicable permit), monitoring and treatment will continue until these conditions are met. If adjacent land uses are contributing to the introduction and/or persistence of invasive plant species within areas disturbed by the Project, then the Companies will not be required to treat noxious weeds for more than 3 years.	Yes
VEG-9	The Companies will meet the terms and stipulations within the timber sale contracts for timber removal operations on the Medicine Bow-Routt, Caribou-Targhee, and Sawtooth NFs.	No
VEG-10	All timber and other vegetative resources to be sold or removed from federal lands will be appraised and sold at the appraised value. Note that this is an agency imposed measure.	Yes
TES-PLANTS		
OM-21–22 and 24–25	(Described under Operations and Maintenance.)	Yes
TESPL-1	Blowout Penstemon – Surface disturbance will be allowed in suitable habitat where species-specific surveys have determined that no populations are present. The species-specific surveys will be conducted the year prior to construction, and the proposed disturbance areas will be redesigned to avoid direct impact to populations.	No

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TESPL-2	Colorado Butterfly Plant – Surface disturbance will be allowed in suitable habitat where species-specific surveys have determined that no populations are present. The species-specific surveys will be conducted the year prior to construction, and the proposed disturbance areas will be redesigned to avoid direct impact to populations.	No
TESPL-3	Qualified botanists shall conduct preconstruction surveys during a season when target species are readily identifiable for special status or globally rare species. Where feasible, micrositing of Project facilities shall avoid direct impacts to identified populations. Survey reports documenting the surveys, their results, and recommendations must be provided to the applicable land management agencies for approval prior to construction. Agency botanists may evaluate individual sites based on site-specific conditions. Documentation of the evaluation of avoidance of impacts to sensitive and globally rare plants must be provided to the Agencies prior to construction.	Yes
TESPL-4	Slickspot Peppergrass – Environmental monitors will survey for and mark slickspots and aboveground populations of slickspot peppergrass within 50 feet of the construction area prior to ground disturbance (including roads) in potential or occupied slickspot peppergrass habitat. No construction shall occur within 50 feet of any slickspot peppergrass plants or slickspots found by the environmental monitor. Also, construction shall not occur within 50 feet of previously known occupied slickspot peppergrass areas, based on Idaho CDC data, even if aboveground plants are not observed by the environmental monitor. Within proposed critical habitat, impacts to Primary Constituent Elements, such as native sagebrush/forb vegetation, will be avoided to the extent practicable. Seeding during reclamation in areas of suitable habitat will use methods that minimize soil disturbance such as no-till drills or rangeland drills with depth bands. Reclamation will use certified weed-free native seed. Excess soils will not be stored or spread on slickspots. Note that this species is not expected to occur in Segment D.	Yes
TESPL-5	Sand dune and cushion plant communities will be avoided, where feasible.	No
TESPL-6	Goose Creek Milkvetch – Surface disturbance will be allowed in suitable habitat for Goose Creek milkvetch where species-specific surveys have determined that no populations are present. The species-specific surveys will be conducted the year prior to construction, and the proposed disturbance areas will be redesigned to avoid direct impacts to populations. Note that this species is not expected to occur in Segment D.	No
TESPL-7	Ute Ladies'-tresses – Qualified botanists shall conduct preconstruction surveys during a season when target species are readily identifiable for special status or globally rare species. Where feasible, micrositing of project facilities shall avoid direct impacts to identified populations. Survey reports documenting the surveys, their results, and recommendations must be provided to the applicable land management agencies for approval prior to construction. Agency botanists may evaluate individual sites based on site-specific conditions. Documentation of the evaluation of avoidance of impacts to sensitive and globally rare plants must be provided to the Agencies prior to construction.	No
WEEDS		
REC-2–15, 17	(Described under Reclamation)	Yes
OM-13–15 and 20	(Described under Operations and Maintenance)	Yes
VEG-4 and 8	(Described under Vegetation)	Yes
FISH-3	(Described under Fish)	Yes
SOIL-11 and 12	(Described under Soils)	Yes
WEED-1	The Companies shall consult with each appropriate local land management agency (USFS and BLM) office to determine appropriate seed mix and commercial seed source for revegetation. The Final Reclamation Plan shall specify the approved seed mixes for federal lands. Disturbed soil will not be allowed to support the growth of noxious weeds or invasive weedy species. Prevention of noxious weeds will apply to all phases of the Project.	Yes
WEED-2	Weed control and prevention measures shall adhere to all agency standards and guidelines. These measures shall be developed in consultation with local, state, and federal weed agencies; all implemented measures will follow the principle of integrated weed management.	Yes
WEED-3	Soil stockpiles in areas containing noxious weeds and invasive plant species shall be kept separate from soil removed from areas that are free of noxious weed and invasive plant species, and the soil will be replaced in or near the original excavation. If requested by the applicable land management agency, soil	Yes

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	stockpiles shall be covered with plastic if the soil stockpile will be in place for two weeks or more and is not being actively used. On lands managed by the USFS or per private landowner request, stockpiles will not be covered with plastic.	
WEED-4	Gravel and other materials used for road construction on federally managed lands shall come from certified weed-free sources.	Yes
WEED-5	Where feasible, construction will begin in weed-free areas before operating in weed-infested areas. The feasibility of this measure will be determined after survey data is completed to identify weed-free and weed-infested areas.	Yes
WEED-6	All movement of construction vehicles outside of the ROW will be restricted to pre-designated access, contractor-acquired access, or public roads. All construction sites and access roads, including overland access routes, will be clearly marked or flagged at the outer limits prior to the onset of any surface-disturbing activity. All personnel shall be informed their activities must be confined within the marked or flagged areas.	Yes
WEED-7	Prior to arrival at the work site, all Construction Contractor vehicles and equipment will be cleaned using high-pressure air or water equipment. The cleaning activities will concentrate on tracks, feet, or tires and the undercarriage with special emphasis on axles, frame, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out. The locations of vehicle cleaning stations will be identified by the Construction Contractor. Additional wash stations will be required as identified by the BLM, USFS, and CIC. Wash stations shall be no more than one acre in size and preferably located in areas that have previously been disturbed. The Construction Contractor shall provide a detailed design identifying all of the components of the wash stations, including rock surface and geomembrane layer to provide a barrier between noxious weeds and seeds and the soil for approval by the BLM or USFS Authorized Officer or his/her designated representative. The Construction Contractor shall also provide a description of how residue from the wash station will be disposed of for approval by the BLM, BOR, or USFS Authorized Officer or his/her designated representative.	Yes
WEED-8	When moving from weed contaminated areas to other areas along the transmission line ROW, all construction vehicles and equipment will be cleaned using compressed water or air in designated wash stations before proceeding to new locations. All washing of construction vehicles and equipment must be performed in approved wash stations.	Yes
WEED-9	Construction personnel will inspect, remove, and appropriately dispose of weed seed and plant parts found on their clothing and equipment.	Yes
WEED-10	Immediately following construction, the Construction Contractor will implement the reclamation of disturbed land as outlined in Appendix D – Framework Reclamation Plan as required. Continuing revegetation efforts will ensure adequate vegetative cover, reducing the potential for the invasion of noxious weeds.	Yes
WEED-11	Discing or other mechanical treatments that would disturb the soil surface within native habitats will be avoided in favor of pesticide application, which is an effective means of reducing the size of noxious weed populations, as well as preventing the establishment of new colonies.	Yes
WEED-12	Implement preventive measures, such as quarantine and closure, to reduce and contain existing noxious weed populations. Flagging will alert personnel and prevent access into areas where noxious weeds occur. Construction disturbance will be minimized in these areas until control measures have been implemented (with the exception of reclamation treatments, as applicable).	Yes
WEED-13	If discing or tilling is an appropriate and feasible weed treatment method, it will only be permitted in bladed areas.	Yes
WEED-14	Seed selection will be based on site-specific conditions, and the appropriate seed mix will be identified for those conditions based on the presence and treatment of noxious weeds in the Project area. The CIC or weed specialist may recommend modified seeding application rates and timing of implementation to achieve site-specific weed management objectives.	Yes
WEED-15	Additional weed and/or erosion control measures recommended during monitoring will follow the preventive and control measures outlined in the Noxious Weed Plan. Continued cooperation with the current BLM, BOR, or USFS noxious weed coordinator and local weed management areas is also encouraged.	Yes
WEED-16	A certified pesticide applicator, approved in the states of Wyoming or Idaho, will perform the application using pesticides selected and approved by BLM or USFS in accordance with applicable laws, regulations, and permit stipulations. All pesticide applications must follow U.S. Environmental Protection Agency label instructions. Application of pesticides will be suspended in accordance with the Companies' vegetation management specifications (e.g., strong winds, etc.).	Yes
WEED-17	Pesticides will be transported to the Project site daily with the following provisions:	Yes

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	• Only the quantity needed for that day's work will be transported. • Concentrate will be transported only in approved containers in a manner that will prevent tipping or spilling, and in a location isolated from the vehicle's driving compartment, food, clothing, and safety equipment. • Mixing will be done offsite, over a drip catching device and at the following distances from open or flowing water, wetlands, or other sensitive resources: 100 feet for practically non-toxic to slightly toxic pesticides; 250 feet for moderately toxic or label advisory for ground/surface water; and 250 feet for highly toxic to very highly toxic pesticides. No pesticides will be applied at these areas unless authorized by appropriate regulatory agencies. • All pesticide equipment and containers will be inspected for leaks daily. • Disposal of spent containers will be in accordance with the pesticide label.	
WEED-18	Pesticide contractors will be state-certified to apply pesticides and will obtain, and have readily available, copies of the appropriate material safety data sheets for the pesticides used. All pesticide spills will be reported in accordance with applicable laws and requirements.	Yes
STREAMS and WETLANDS		
OM- 16-20	(Described under Operations and Maintenance)	Yes
VIS-6 and 8	(Described under Visual)	Yes
REC-1–22, and 29	(Described under Reclamation)	Yes
FISH-1 and 3	(Described under Fish)	Yes
WQA-1, 2, 4 – 6, 13 – 18, 21, 23 – 29, and 45 – 48	(Described under Water Quality)	Yes
TRANS-13, and 16 – 18	(Described under Transportation)	Yes
WET-1	Impacts on wetland and riparian areas will be avoided unless physically or economically infeasible or where activities are permitted. Land management agencies' plans (RMPs, MFPs, and Forest Plans) that have standards, guidelines, stipulations, or avoidance buffers will be adhered to. Where these do not exist, Inland Fish Strategy (INFISH) buffers will be followed.	Yes
WET-2	Wetland delineations will be performed prior to construction to support CWA Section 404 permitting and to minimize Project impacts. The delineation will identify both wetland and non-wetland waters of the United States that would be affected by the Project.	Yes
WET-3	Where impacts on wetlands are not avoidable, site-specific crossing plans and measures to mitigate impacts will be submitted to the appropriate regulatory agency, as well as the land-managing agency. The Companies and/or Construction Contractor will obtain all necessary permits prior to discharging dredged or fill material to waters of the U.S. and state.	Yes
WET-4	To meet USACE requirements for CWA 404 permitting, the Companies will submit a mitigation plan that is accepted by the USACE. The framework for this plan is included in the Final EIS.	Yes
WET-5	Limit construction equipment operating in streams and wetlands to that needed to clear temporary access, erect towers, pull conductor, and perform ground disturbing activities.	Yes
WET-6	Limit clearing of vegetation at the edges of a stream or wetland to the minimal area necessary for required conductor clearance and vehicle passage. Reclaim at least 70 percent of potential ground cover within 100 feet from the edges of all perennial streams, lakes, and other water bodies, or to the outer margin of the riparian ecosystem where wider than 100 feet.	Yes
WET-7	Salvage and respread topsoil in areas subject to temporary disturbance where grading and excavation will occur.	Yes
WET-8	Prohibit the use of imported soil, tree stumps, riprap, or brush to stabilize the construction corridor within wetlands.	Yes
FISH		
OM-16	(Described under Operation and Maintenance)	Yes
BLA-2	(Described under Public Safety)	Yes

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FISH-1	On BLM-administered land, all culverts, whether temporary or permanent, must be designed to meet BLM Gold Book standards (Surface Operating Standards and Guidelines for Oil and Gas Exploration Development). On NFS lands, Forest Plan standards and guidelines shall apply.	Yes
FISH-2	When taking water from TES fish-bearing streams for road and facility construction and maintenance activities, intake hoses shall be screened with the most appropriate mesh size (generally 3/32 of an inch), or as determined through coordination with NMFS and/or USFWS.	Yes
FISH-3	All wetlands and waters in the project area are assumed to contain aquatic invasive species and all equipment contacting water will be properly disinfected. After work is complete in a waterbody, any equipment involved in construction in that waterbody must be washed to remove any propagules of aquatic invasive species and to prevent the spread of those species to other waterbodies.	Yes
WILDLIFE		
WILD-1	Requests for exceptions from closure periods and areas will be submitted by the Companies or the Construction Contractor per the Companies' direction to the appropriate BLM Field Office in which the exception is requested through the Environmental CIC. Established exception processes on BLM-managed lands will be followed. The agency, the CIC, or a contractor chosen by the Companies and approved by the agency, will conduct any surveys and coordinate with any other agencies as necessary. Factors considered in granting the exception include; animal conditions, climate and weather conditions, habitat conditions and availability, spatial considerations (e.g., travel routes and landscape connectivity), breeding activity levels, incubation or nestling stage, and timing, intensity, and duration of the Proposed action. Requests will be submitted in writing no more than 2 weeks prior to the proposed commencement of the construction period, to ensure that conditions during construction are consistent with those evaluated. The Authorized Officer, on a case-by-case basis, may grant exceptions to seasonal stipulations, and has the authority to cancel this exception at any time. A good faith effort will be made to act on exceptions within 5 business days of receiving a request, to allow for orderly construction mobilization. The CIC will conduct any required site visit and report the status to BLM for consideration of the decision to accept or deny the request. There is no exception process for NFS lands; all closure periods will be adhered to. Any proposed modifications to closure periods will be discussed on a case-by-case basis with the USFS.	Yes
WILD-2	Vehicular speeds during construction and operations will be limited to 25 mph on all unsurfaced access roads. Crew and vehicle travel will be restricted to designated routes while on state designated big game winter range (except for areas within the ROW).	Yes
WILD-3	The Project will be designed and constructed in compliance with Avian Power Line Interaction Committee (APLIC) guidance in order to reduce impacts to avian species. Any changes to the Project's design, as requested by federal, state, or local jurisdictions, as well as any changes considered by the Companies, will also be in compliance with APLIC guidance.	Yes
WILD-4	Preconstruction pedestrian or aerial nest surveys will be conducted in suitable habitat during the appropriate nesting time periods needed to identify new raptor nest locations, and to establish the status of previously identified raptor nests. Appropriate buffers will be applied to active nests during construction. All encounters of nesting raptors in the survey area will be reported to the biological monitor and to appropriate agencies.	Yes
WILD-5	Surveys will be conducted along the route across the Caribou-Targhee NF, prior to construction, for caves, abandoned mines, and adits. If suitable bat roosts are identified, the Companies will consult with the USFS to determine appropriate protective measures.	No
WILD-6	Guy wires will be marked with bird deterrent devices on federal lands to avoid avian collisions with structures, as directed by local land manager.	Yes
WILD-7	Flight diverters will be installed and maintained where the transmission line crosses rivers at the locations identified in Appendix H, Table 4-1.. Additional locations may be identified by the Agencies or the Companies. The flight diverters will be installed as directed in the Companies' approved Avian Protection Plans and in conformance with the MBTA and Eagle Acts as recommended in the current APLIC collision manual.	Yes
WILD-8	Preconstruction pedestrian or aerial surveys will be completed during appropriate nesting time periods, needed to identify each raptor species. The Companies will provide survey results to the Authorized Officer for approval. (See WILD-1)	Yes
WILD-9	To the extent feasible, all vegetation clearing will be conducted prior to the onset of the avian breeding season (generally April 15 through July 31, depending on local conditions and federal land management plan requirements) in order to minimize impacts to migratory birds. Where this is not feasible, preconstruction surveys within the disturbance footprint shall be conducted within seven days prior to clearing. If an active nest (containing eggs or young) of a bird species protected under the MBTA is found during either preconstruction surveys or construction activities, the nest will be identified to	Yes

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	species, inconspicuously marked, and vegetation left in place until any young have fledged.	
WILD-10	Snags will be maintained along the outer portions of the Project's ROW in order to reduce the impacts to cavity nesting habitat to the extent practical and where not in conflict with the Companies' vegetation management specifications.	Yes
WILD-11	Any areas that may require blasting will be identified and a blasting plan will be submitted to the appropriate agency for approval. Blasting within 0.25 mile of a known sensitive wildlife resource will require review and approval by the appropriate agency.	Yes
WILD-12	The Companies will annually document the presence and location of large stick nests on any towers constructed as a result of this Project. Nests will be categorized to species or species group (raptors or ravens), to the extent possible. This will begin following the first year of construction and continue through year 10 of operations. Results will be provided annually to the applicable land management agency and to the USFWS. Note that this is an agency imposed measure.	Yes
TES-WILDLIFE		
TESWL-1	H-frame structures will be equipped with anti-perch devices to reduce raven and raptor use, and limit predation opportunities on special status prey species on federally managed lands. Note that this is an agency imposed measure based on the Casper and Rawlins RMPs.	Yes
TESWL-2	In the event that an ESA-listed species not covered by the Biological Opinion (BO) is discovered during surveys, construction will cease, the USFWS will be notified, and Section 7 consultation will be initiated. In addition, the transmission line or structures will be relocated to minimize direct impacts to newly discovered ESA species, to the extent practical.	Yes
TESWL-3	Black-footed Ferret – Preconstruction surveys will be conducted for the black-tailed prairie dog (in addition to those already proposed for the white-tailed prairie dog) in Segment 1W.[1/]	No
TESWL-4	The Environmental CIC, an agency biologist, or agency designee will accompany the Construction Contractor site engineers during the final engineering design or prior to ground-disturbing activities to verify and flag the location of any known occupied structures (e.g., nests, burrows, colonies, dens) utilized by sensitive species. This will include, but not be limited to, artificial burrows that have been constructed as part of research/restoration efforts, prairie dog colonies, and raptor nests, which could be impacted by the Project based on the indicative engineering design. The final engineering design will be "microsited" (routed) to avoid direct impact to these occupied structures to the extent practical within engineering standards and constraints.	Yes
TESWL-5	Grouse Species – The Companies will provide the Agencies a list of the protocols that the Companies will use during greater sage-grouse and sharp-tailed grouse preconstruction surveys. The Agencies will either approve these protocols, or suggest alternative protocols to be used.	Yes
TESWL-6	Sharp-tailed Grouse – In areas where sharp-tailed grouse leks occur in proximity to greater sage-grouse leks, surface disturbance will be avoided within 4 miles of occupied or undetermined greater sage-grouse leks from March 1 to July 15. In areas where sharp-tailed grouse leks occur in isolation from greater sage-grouse leks, surface disturbance will be avoided within 1.2 miles of occupied or undetermined sharp-tailed grouse leks from March 15 to July 15.	No
TESWL-7	Yellow-billed cuckoo - A preconstruction survey for the yellow-billed cuckoo will be conducted at any proposed crossing of suitable habitat. If these birds are detected within 1 mile of the centerline (within existing habitat), construction will not occur until the young have fledged or the nest is abandoned. The crossing-specific plan will contain proposed monitoring measures to assure compliance with this measure.	Yes
TESWL-8	Sage-Grouse – On federal lands, there will be no surface occupancy (NSO) within 0.6 mile of the perimeter (or centroid if the perimeter has not been mapped) of occupied greater sage-grouse leks located within Core areas in Wyoming, and NSO within 0.25 mile in non-Core areas (as required by BLM IM WY-2012-19 and BLM land management plans). "No surface occupancy," as used here, means no new surface facilities, including roads, will be placed within the NSO area. Other activities (i.e., non-surface occupancy) may be authorized, with the application of appropriate seasonal stipulations, provided the resource's protected area is not adversely affected.	Yes
TESWL-9	Sage-Grouse – On federal lands, surface disturbance will be avoided within 4 miles of occupied or undetermined greater sage-grouse leks from March 1 to July 15. This distance (i.e., 4 miles) may be reduced on a case-by-case basis by the applicable agency, if site-specific conditions will allow the Project to be located closer to the lek than 4 miles (e.g., topography prevents the Project from being visible from the lek, or a major disturbance such as a freeway or existing transmission line is located between the Project and the lek).	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
TESWL-10	Sage-Grouse – If Winter Concentration Areas for the greater sage-grouse are designated, there will be no surface disturbances within the designated areas from November 1 through March 15.	Yes
TESWL-11	Sage-Grouse – No structures that require guy wires will be used in occupied sagebrush obligate habitats within the area managed under the Kemmerer RMP.	No
TESWL-12	Colorado River T&E Fishes – A payment of a one-time fee, based on a fee schedule provided by the USFWS, will be made based on the amount of water used during construction of any segments that cross the Colorado River system.	No
TESWL-13	Midget faded rattlesnake – Preconstruction surveys for occupied or potential midget faded rattlesnake hibernacula (i.e., rock outcrops with south to east aspect) will be conducted. The Companies shall prepare a plan identifying measures to reduce impacts to midget faded rattlesnake if they are discovered. This plan shall require approval by BLM and the WGFD prior to its implementation	No
TESWL-14	For the protection of aquatic and riparian/wetland dependent species, surface disturbing and disruptive activities will be avoided in the following areas: 1) identified 100-year floodplains; 2) areas within 500 feet of perennial waters, springs, wells, and wetlands; and 3) areas within 100 feet of the inner gorge of ephemeral channels on federally managed lands. Where it is not possible to avoid wetland and riparian habitat, crossing-specific plans will be developed. These plans will: 1) demonstrate that vegetation removal is minimized; 2) show how sediment will be controlled during construction and operation within wetland and riparian areas; 3) attempt to intersect the wetland or riparian habitat at its edge; and 4) provide measures to restore habitat and ensure conservation of riparian microclimates. This plan will be submitted to the appropriate land management agency and approved prior to construction of any portion of the Project within sensitive riparian habitat. Note that this is an agency imposed measure.	Yes
TESWL-15	Anti-perch devices will be required on power poles located within one-quarter mile of prairie dog towns within the BLM's Rawlins Field Office. Note that this is an agency imposed measure.	No
TESWL-16	Sage-Grouse – If the Kemmerer RMP is amended to allow Proposed Route 4 or Alternatives 4C or 4E to be selected, existing fences within 1 mile of the portion of the Gateway West Project located on lands managed by the Kemmerer RMP will be modified with FireFly Grouse Flight diverters (or a similar product) in order to prevent greater sage-grouse mortalities. Additional site-specific reclamation, such as transplanting sagebrush seedlings within previous disturbed habitats, will also be required to off-set the net loss of sagebrush habitats within the Rock Creek/Tunp management area. Note that this is an agency imposed measure.	No
PALEONTOLOGICAL RESOURCES		
PALEO-1	If significant fossil materials are discovered during Project construction, all surface-disturbing activities in the vicinity of the find will cease until notification to proceed is given by the Authorized Officer. The site will be protected to reduce the risk of damage to fossils and context. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer.	Yes
PALEO-2	Paleontological resources (as defined by omnibus Public Land Management Act – Paleontological Resources Preservation Section) on federally managed land shall be managed and protected using scientific principles and expertise. Appropriate plans for inventory, monitoring, and the scientific and educational use of these resources shall be developed in accordance with applicable agency laws, regulations and policies.	Yes
PALEO-3	Where fossil-bearing sediments are exposed by construction, the sediments must be covered with a 4-inch layer of soil where feasible to reduce unauthorized removal or disturbance of resources.	Yes
PALEO-4	To ensure compliance with the Paleontological Resources Preservation Section of the Public Land Management Act, the Companies' Paleontological Resources Protection Plan for the Project (see PALEO-2) shall specify that: • Monitoring of excavation and grading in sensitive sediments, especially access roads and tower sites, must occur when construction is near or in those geologic formations. • Monitoring of excavations in sensitive sediments, screening the excavated spoils, and processing of bulk sediment samples for microinvertebrate fossils must occur where there is a significant potential for data recovery from those spoils. Monitoring must be performed by a qualified paleontologist and in consultation with a designated paleontologist in each state, NF, or BLM district. The Authorized Officer will designate the appropriate paleontologist depending on project location.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
	Note that this is an agency imposed measure.	
PALEO-5	Field surveys will be completed prior to surface disturbance in areas with potential fossil yields of Class 3, 4, or 5, in accordance with criteria stated in the Paleontological Resources Protection Plan and as required by the land management agency. Note that this is an agency imposed measure.	Yes
GEOLOGIC HAZARDS		
BLA-1, 2	(See description under Public Safety)	Yes
GEO-1	Review the final location of the preferred alternative with affected mine operators and lessees to ensure all measures are taken to protect against subsidence.	Yes
GEO-2	A site-specific soil analysis shall be conducted prior to construction to verify any areas identified as unstable or marginally unstable on federal lands. A site-specific geotechnical analysis shall be conducted of federal lands prior to construction to locate areas where there is landslide risk. If such areas are identified, the Companies will develop mitigation and submit a report to the appropriate land management agency.	Yes
SOILS		
WQA-1–17	(Described under Water Quality)	Yes
SOIL-1	The Wyoming BLM State Reclamation Policy and applicable Agency management plan requirements for soil management will be followed on federal lands in the state of Wyoming.	No
SOIL-2	The Companies will submit a Compaction Monitoring Plan for review and Agency approval prior to construction that specifies the conditions under which construction will either not start or will be shut down due to excessively wet soils. Conditions will be measurable in the field and easy to demonstrate to construction workers.	Yes
SOIL-3	During decommissioning, some obviously compacted areas, such as established newly constructed access roads, will require loosening prior to revegetation. If necessary to re-establish vegetation, the Companies will use a ripper blade, till, or similar instrument to loosen the surface soil layer.	Yes
SOIL-4	Detrimental soil disturbance such as compaction, erosion, puddling, and displacement will be minimized through implementing measures identified in the SWPPP. Measures may include road ripping, frequent waterbars, cross-ditching (e.g., rolling dips) or other methods to reduce compaction while preventing gully formation. Ripping pattern should be altered to a crossing, diagonal, or undulating pattern of tine paths to avoid concentrated runoff patterns that can lead to gullies.	Yes
SOIL-5	The Companies are responsible for monitoring to ensure soil protection is achieved, and providing a monitoring report on reseeding success and/or other methods to stabilize soils to the USFS by the end of each growing season for areas on NFS lands for 3 years or until requirements are met for the applicable permit.	No
SOIL-6	Reclamation of all temporary disturbances on NFS lands (such as road cuts) should include replacement of material to original contours and re-compaction to pre-disturbance compaction percentage (which should be identified during reclamation at adjacent locations to the disturbance). Guidelines for streambank re-compaction to maximize vegetative regrowth and mechanical stability are covered in USACE publication ERDC TN-EMRRP-SR-26.	No
SOIL-7	In order to meet Forest Plan Soil Standards on NFS lands, the Reclamation Plan (approved by the USFS) will describe on-site restoration using topsoil salvaging.	No
SOIL-8	When feasible, reroute all construction or maintenance activities around wet areas so long as the route does not cross into sensitive resource areas and at the approval of the CIC.	Yes
SOIL-9	Limit access of construction equipment to the minimum area feasible, remove and separate topsoil in wet or saturated areas subject to temporary disturbance, and stabilize subsurface soils with a combination of one or more of the following: perform grading to dewater problem areas, utilize weight dispersion mats, and maintain erosion control measures such as surface drilling and back-dragging. After construction is complete, regrade and recontour the area, replace topsoil, and reseed to achieve the success standard desirable plant covers as stated in the Reclamation Plan.	Yes
SOIL-10	Vegetation removal and soil disturbances (including temporary road improvements) will be minimized in areas where soil constraints occur. In areas of overland construction, where vegetation removal is required, mowing or cutting and/or back-dragging a cat blade will be the primary method used (also refer to Appendix D –Framework Reclamation Plan).	Yes
SOIL-11	Prior to construction, soils will be evaluated to determine if they are expansive and if they may have potential effects on the proposed facilities. Where they represent a potential hazard, solutions recommended by the Project's geotechnical engineer, such as excavation and replacement of the	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
	expansive soils with compacted backfill, will be required. If imported backfill material is used, it must be from a BLM/USFS-approved source and certified as free of invasive weeds and propagules (i.e., seeds and root fragments).	
SOIL-12	Limit disturbance of soils and vegetation removal to the minimum area necessary for access and construction.	Yes
SOIL-13	Inform all construction personnel, before they are allowed to work on the Project, of environmental concerns, pertinent laws and regulations, and elements of the erosion control plan.	Yes
SOIL-14	Slope and berm graded material, where possible, to reduce surface water flows across the graded area.	Yes
SOIL-15	Replace excavated materials in disturbed areas and minimize the time between excavation and backfilling.	Yes
SOIL-16	Direct the dewatering of excavations onto stable surfaces to avoid soil erosion.	Yes
SOIL-17	Re-establish native vegetation cover in highly erodible areas as quickly as possible following construction where determined necessary (refer to Appendix D –Framework Reclamation Plan).	Yes
SOIL-18	Construction water and water used for dust control will come from permitted sources identified by the Construction Contractor and a map showing the locations of these sources will be provided to the CIC. If the quality of the water is found to be causing any environmental changes (i.e., dying vegetation, excessively hard crusting of soils), the Construction Contractor will test the quality of the water and provide the results to the BLM for review.	Yes
SOIL-19	All Project personnel will be educated on dust control procedures.	Yes
SOIL-20	To prevent accelerated wind or water erosion on dirt roads, gravel mulches may be added if other mitigation measures are not adequate or if the area is not in a sensitive receptor zone. Gravel of approximately 0.75 to 1.5 inches in diameter should be used and cover a minimum of 90 percent of the soil surface. Slopes steeper than 3:1 may require additional sediment and erosion control structures.	Yes
SOIL-21	Surface roughening aids establishment of vegetative cover, reduces runoff velocities, increases infiltration, and reduces erosion by providing sediment trapping. Graded areas with smooth surfaces increase the potential for accelerated erosion; therefore, surfaces should be left in a roughened condition whenever possible.	Yes
SOIL-22	On steep slopes (greater than 30 percent) or in areas of concentrated flows (e.g., waterways) erosion control matting or riprap may be used to stabilize the surface and increase infiltration times.	Yes
SOIL-23	Areas graveled for stabilization will be inspected to ensure depressions caused by vehicle traffic are filled and runoff is not being directed toward wetlands or other receiving waters.	Yes
SOIL-24	Roughened surfaces should be periodically inspected for rills and washes. Areas exhibiting accelerated erosion will be filled and reseeded as necessary or determined by the BLM or USFS Authorized Officer or his/her designated representative.	Yes
SOIL-25	Construction, operation, and maintenance activities will be restricted when the soil is too wet to adequately support construction or maintenance equipment (i.e., when heavy equipment creates ruts in excess of 4 inches deep, over a distance of 50 feet or more in wet or saturated soils). This standard will not apply in areas with fine-grained soils, which easily form depressions even in dry weather.	Yes
WATER QUALITY		
WET-3	(Described under Streams and Wetlands)	Yes
FISH-1	(Described under Fish)	Yes
SOIL-9, 10, and 12-25	(Described under Soils)	Yes
WQA-1	The appropriate NPDES permits for construction activities that disturb one acre or more of land will be obtained from the Department of Environmental Quality and USEPA or their designees.	Yes
WQA-2	NPDES permit requirements will be met. This includes implementing and maintaining appropriate BMPs for minimizing impacts to surface water.	Yes
WQA-3	One or more responsible persons will be designated to manage stormwater issues, conduct the required stormwater inspections, and maintain the appropriate records to document compliance with the terms of the NPDES permit.	Yes
WQA-4	The SWPPPs will be modified as necessary to account for changing construction conditions.	Yes
WQA-5	The SWPPPs will identify areas with critical erosion conditions that may require special construction activities or additional industry standards to minimize soil erosion.	Yes
WQA-6	Stormwater BMPs will be inspected and maintained on all disturbed lands during construction activities, as described in the SWPPP and appropriate NPDES permit.	Yes
WQA-7	Approved sediment and erosion control BMPs will be installed and maintained until disturbed areas meet final stabilization criteria.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
WQA-8	Temporary BMPs will be used to control erosion and sediment at multi-purpose areas (equipment storage yards, fly yards, lay down areas) and substations.	Yes
WQA-9	The construction schedule may be modified to minimize construction activities in rain-soaked or muddy conditions.	Yes
WQA-10	Damaged temporary erosion and sediment control structures will be repaired in accordance with the SWPPP and appropriate NPDES permit.	Yes
WQA-11	Upon completion of construction, permanent erosion and sediment BMPs will be installed along the transmission line within the ROW, at substations, and at related facilities in accordance with the SWPPPs and appropriate NPDES permit.	Yes
WQA-12	In areas of droughty soils, the soil surfaces will be mulched and stabilized to minimize wind erosion and to conserve soil moisture in accordance with the SWPPPs.	Yes
WQA-13	Construction industry standard practices and BMPs will be used for spill prevention and containment.	Yes
WQA-14	Construction spills will be promptly cleaned up and contaminated materials hauled to a disposal site that meets local jurisdictional requirements.	Yes
WQA-15	All multi-purpose areas and fly yards will contain fueling areas with containment of a minimum of 110 percent capacity of the largest vehicle to be refueled therein. Fueling of vehicles will take place within the transmission line ROW under the guidance of the ROW grant/special-use authorization. The SPCC plan will specify BMPs.	Yes
WQA-16	If an upland spill occurs during construction, berms will be constructed with available equipment to physically contain the spill and prevent migration of hazardous materials toward waterways. Absorbent materials will be applied to the spill area. Dry materials will not be cleaned up with water or buried. Contaminated soils and other materials will be excavated and temporarily placed on and covered by plastic sheeting, or suitable containers, in a containment area a minimum of 100 feet away from any wetland or waterbody, until proper disposal is arranged in appropriately designated and approved areas off-site.	Yes
WQA-17	If a spill occurs which is beyond the capability of on-site equipment and personnel, an Emergency Response Contractor will be identified and available to further contain and clean up the spill.	Yes
WQA-18	For spills in standing water or where spilled materials reach water, floating booms, skimmer pumps, and holding tanks will be used as appropriate by the contractor to recover and contain released materials on the surface of the water. Other actions will be taken, as necessary, to clean up contaminated waters.	Yes
WQA-19	If pre-existing contamination is encountered during operations, work will be suspended in the area of the suspected contamination until the type and extent of the contamination is determined. The type and extent of contamination; the responsible party; and local, state, and federal regulations will determine the appropriate cleanup method(s) for these areas.	Yes
WQA-20	The SPCC Plan will include details on the types and quantities of absorbent and protective materials (e.g., visqueen, booms) that must be readily available to construction personnel and requirements for the restocking of materials.	Yes
WQA-21	Storage of materials such as fuels, other petroleum products, chemicals, and hazardous materials including wastes will be located in upland areas at least 500 feet away from streams, 400 feet for public wells, and 200 feet from private wells.	Yes
WQA-22	Pumps and temporary fuel tanks for the pumps will be stored in secondary containment. Containment will provide a minimum volume equal to 110 percent of the volume of the largest storage vessel located in the yard.	Yes
WQA-23	Avoid placement of road bed material in channels (perennial, intermittent or ephemeral). Road bed material contains considerable fines that would create sedimentation in coarse cobble dominated stream channels. Even in seasonally dry reaches those fines could be transported during flow periods and negatively impact fish spawning reaches below.	Yes
WQA-24	On federal lands, consult with appropriate land management agency staff prior to siting and design for stream crossings (location, alignment, and approach for culvert, drive-through, and ford crossings). This may include a hydrologist, engineer and, for perennial and many intermittent streams, an aquatic biologist.	Yes
WQA-25	All culverts on NFS lands, both permanent and temporary, shall be designed and installed to meet desired conditions for riparian and aquatic species as identified in the applicable Forest Plan. Culverts should not be hydraulically controlled. Hydraulically controlled culverts create passage problems for aquatic organisms. Culvert slope should not exceed stream gradient and should be designed and implemented (typically by partial burial in the streambed) to maintain streambed material in the culvert.	No
WQA-26	Culvert sizing on NFS lands should also comply with Guidance for Aquatic Species Passage Design, USFS Northern Region & Intermountain Region.	No
WQA-27	On non-federal lands, culvert placement should comply with state BMPs.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
WQA-28	Migration of construction-related sediment to all adjacent surface waterbodies will be prevented.	Yes
WQA-29	If the Project proposes to obtain water from wells or surface water sources to suppress dust, written approval from the landowner or regulatory agency will be obtained prior to appropriation.	Yes
WQA-30	In the event of a spill, cleanup will be immediate. The Construction Contractor will keep spill kits in their vehicles to allow for quick and effective response to spills. Items to be included in the spill kit at a minimum are: • Protective clothing and gloves • Absorptive clay, "kitty litter," or other commercial absorbents • Plastic bags and a bucket • Shovel • Fiber brush and screw-in handle • Dust pan • Caution tape • Highway flares (use on established roads only) • Detergent	Yes
WQA-31	The response to a hazardous material spill will vary with the size and location of the spill, but general procedures include: • CIC and BLM, BOR, or USFS notification • Traffic control • Dressing the cleanup team in protective clothing • Stopping any leaks • Containing spilled material • Cleaning up and removing spilled pesticide and contaminated absorptive material and soil • Transporting spilled pesticide and contaminated material to an authorized disposal site	Yes
WQA-32	Physical response actions are intended to ensure all spills are immediately and thoroughly contained and cleaned up. However, the first priority in responding to any spill is personal and public safety. Construction personnel will be notified of evacuation procedures to be used in the event of a spill emergency, including evacuation routes. In general, the first person on the scene will: • Attempt to identify the source, composition, and hazard of the spill. • Notify appropriately trained personnel immediately. • Isolate and stop the spill, if possible, and begin cleanup (if it is safe). • Initiate evacuation of the area, if necessary. • Initiate reporting actions.	Yes
WQA-33	Persons should only attempt to cleanup or control a spill if they have received proper training and possess the appropriate protective clothing and cleanup materials. Untrained individuals should notify the appropriate response personnel. In addition to these general measures, persons responding to spills will consult Appendix P – Framework Hazardous Materials Management Plan, Appendix R – Operations, Maintenance, and Emergency Response Plan, and the MSDSs or USDOT Emergency Response Guidebook (to be maintained by the Construction Contractor onsite during all construction activities), which outlines physical response guides for hazardous materials spills.	Yes
WQA-34	In general, expert advice will be sought to properly cleanup major spills. After contaminated soil is recovered, all machinery used will be decontaminated, and recovered soil will be treated as hazardous waste. Contaminated cleanup materials (absorbent pads, etc.) and vegetation will be disposed of in a similar manner. For spills, cleanup may be verified by sampling and laboratory analysis at the discretion of the Companies.	Yes
WQA-35	If construction activity occurs within a wetland with standing water or a flowing stream, prior to construction, absorbent booms will be placed on the water surface either around or downstream of the construction zone. In addition to this measure, cleanup materials, including absorbent spill pads and plastic bags, will be placed onsite at flowing streams and "wet" wetlands when construction is occurring within 200 feet of these areas (also refer to Appendix F –Framework Stormwater Pollution Prevention Plan).	Yes
WQA-36	Emergency spill response kits will be maintained at all locations where hazardous materials are stored, in sufficient quantities based on the amount of materials stored onsite. Spill response equipment should be compatible with types of materials stored onsite. Spill response equipment should be inventoried regularly to ensure spill response equipment is adequate for the type and quantities of materials being used. The following equipment, are examples of spill response equipment for use in cleanup situations: • Shovels • Absorbent pads/materials	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
	• Personal protective gear • Medical first-aid supplies • Bung wrench (nonsparking) • Phone list with emergency contact numbers • Storage containers • Communications equipment	
WQA-37	The Construction Contractor and subcontractors shall provide spill prevention and response training to appropriate construction personnel. Persons accountable for carrying out spill response activities will be designated prior to construction and informed of their specific duties and responsibilities with respect to environmental compliance and hazardous materials. The training shall inform appropriate personnel of site-specific environmental compliance procedures. Training of personnel should be completed at least once a year. All training events should be documented, including the date and names of those personnel in attendance. These records shall be maintained with the SPCC Plan and/or Hazardous Materials Management Plan. At a minimum, this training shall include the following: • An overview of regulatory requirements • Methods for the safe handling/storage of hazardous materials • Spill prevention procedures • Emergency response procedures • Use of personal protective equipment • Use of spill cleanup equipment • Procedures for coordinating with emergency response teams • Procedures for notifying agencies • Procedures for documenting spills • Identification of sites/areas requiring special treatment, if any	Yes
WQA-38	Notification and documentation procedures for spills that occur during Project construction, operation, or maintenance will conform to applicable federal, state, and local laws and regulations. Adherence to such procedures will be the top priority once initial safety and spill response actions have been taken.	Yes
WQA-39	Notification will begin as soon as possible after discovery of a spill. The individual who discovers the spill will contact the Contractor's supervisory personnel and the CIC. If the Construction Contractor determines the spill may seriously threaten human health or the environment, he/she will orally report the discharge as soon as possible, but no later than 24 hours from the time they become aware of the circumstances, as directed below. A written report must be submitted to Wyoming or Idaho Department of Environmental Quality (DEQ) within 15 days. Prior to initiating notification, the Construction Contractor (or individual initiating notification) should obtain as much information as possible, including: • current threats to human health and safety, include known injuries, if any • spill location, including landmarks and nearest access route • reporter's name and phone number • time spill occurred • type and estimated amount of hazardous materials involved • potential threat to property and environmental resources, especially streams and waterways • status of response actions	Yes
WQA-40	The following mandatory notifications will be made by the Construction Contractor. These numbers should be documented in the SPCC plan, along with the contact information for the cleanup contractor. Select and notify the appropriate government agencies based on geographic location of the spill site. • Wyoming DEQ (24 hours) at (307) 777-7781. • Idaho Communication Center (24 hours) at (800) 632-8000 or (208) 846-7610. • If spill threatens human health, call 911, and the appropriate county response center. • National Response Center (NRC) (800) 424-8802. The NRC should be notified of a reportable spill as required by 40 CFR 110, 40 CFR 117, and/or 49 CFR 171. The Construction Contractor will verify and update these emergency phone numbers before and during construction. The Construction Contractor (or other person in charge) will notify the CIC of all spills or potential spills within construction areas.	Yes
WQA-41	When a spill poses a direct and immediate threat to health and safety and/or property, the land management agency and landowners potentially affected by a spill will be notified directly by the Construction Contractor. Immediate notification of land management agencies and landowners is required for all situations in which the spill poses a direct and immediate threat to health and safety and/or property. Failure to report a spill could result in substantial penalties and fines.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
WQA-42	The Construction Contractor will maintain records for all spills. State and federal agencies that have been verbally notified of a spill will be informed in writing within 10 days for state agencies and 30 days for federal agencies.	Yes
WQA-43	The Construction Contractor shall record spill information in a daily log. The following is a list of items that should be included in the daily log (as appropriate, based on the spill incident): • time and date of each log entry • name of individual recording log entry • list of all agencies notified, including name of individual notified, time, and date • type and amount of material spill • resources affected by spill • list of response actions taken, including relative success • copies of letters, permits, or other communications received from government agencies throughout the duration of the spill • copies of all outgoing correspondence related to the spill • photographs of the response effort (and surrounding baseline photographs if relevant)	Yes
WQA-44	During the Project's operation and maintenance phase, the Companies will ensure its facilities, personnel, and contractors comply with federal, state, and local laws and regulations pertaining to the use, storage, transport, and disposal of hazardous materials and adhere to required emergency response and cleanup procedures in the event of a hazardous material spill. The Companies and all operations and maintenance subcontractors shall develop hazardous materials management and response plans and properly train employees for handling, packaging, and shipping hazardous materials and responding to hazardous materials spills or emergency events.	Yes
WQA-45	Reclaim stream channels/bottoms and wetlands to their approximate preconstruction configuration/contours, unless the original stream bank contours are excessively steep and/or unstable and a more stable final contour can be specified or where permanent stream crossings must be created to maintain access throughout the life of the Project.	Yes
WQA-46	Stabilize stream banks, wetlands, and adjacent upland areas by establishing permanent erosion control measures and vegetation cover after the completion of construction (refer to Appendix N – Framework Erosion, Dust Control, and Air Quality Plan and Appendix D – Framework Reclamation Plan).	Yes
WQA-47	Use permanent waterbars, if needed, on slopes above streams or wetland boundaries, on travel routes, and along the ROW to minimize sediment flow from adjacent uplands into the stream or wetland.	Yes
WQA-48	Remove all prefabricated equipment pads, swamp mats, and geotextile fabric used for stream and wetland crossings on completion of construction.	Yes
LAND USE		
TRANS-5	(See description under Transportation)	Yes
LU-1	Signs shall be posted at access points to access roads where public access is restricted by a land use plan, and on private, state, and Tribal lands at the request of the landowner, agency, or Tribal government. Signs shall indicate the restriction or regulation, location, penalty for violation, and appropriate contact information for reporting violations. Signage shall be maintained and replaced as part of the routine maintenance.	Yes
AGRICULTURE		
AGRI-1	Consult with the Farm Service Agency and landowners to determine how construction may affect the CRP status of the land currently enrolled in CRP.	No
TRANSPORTATION		
FIRE-6	(See description in Public Safety (Blasting, Fire, Contamination)	Yes
TRANS-1	A Final Traffic and Transportation Management Plan will be developed and implemented to provide site-specific details showing how the Project will comply with the EPMs listed in this attachment. The Final Traffic and Transportation Management Plan will be submitted to, and approved by, the appropriate federal, state, and local agencies with authority to regulate use of public roads, and approved prior to the issuance of a Notice to Proceed with construction.	Yes
TRANS-2	If a construction method requires the closure of a state- or county-maintained road for more than 1 hour, a plan will be developed to accommodate traffic as required by a county or state permit.	Yes
TRANS-3	On county- and state-maintained roads, caution signs will be posted on roads, where appropriate, to alert motorists of construction and warn them of slow traffic. Traffic control measures such as traffic control personnel, warning signs, lights, and barriers will be used during construction to ensure safety and to minimize traffic congestion.	Yes
TRANS-4	To reduce traffic congestion and roadside parking hazards, an equipment yard will be provided for primary parking for employee personal vehicles.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
TRANS-5	Unauthorized vehicles will not be allowed within the construction ROW or along roadsides near the ROW.	Yes
TRANS-6	Construction vehicles will follow a 25 mph speed limit on unposted project roads.	Yes
TRANS-7	Landowners will be notified at least 48 hours prior to the start of construction within 0.25 mile of a residence.	Yes
TRANS-8	Emergency vehicle access to private property will be maintained.	Yes
TRANS-9	Roads in residential areas will be restored as soon as possible, and construction areas near residences will be fenced off at the end of the construction day, without blocking residential traffic.	Yes
TRANS-10	Roads negatively affected by construction and as identified by the applicable jurisdictional agency and/or landowner will be returned to preconstruction condition. The method of preconstruction condition documentation will be coordinated by the Construction Contractor and the applicable jurisdictional agency and/or landowner.	Yes
TRANS-11	Roads developed specifically for this project that are identified by the Companies as no longer necessary will be reclaimed as specified in the Final Reclamation Plan. Culverts will be removed.	Yes
TRANS-12	The Companies will attempt to identify existing two-track trails as preferred access roads for construction when existing maintained (e.g., gravel or asphalt) roads are not available.	Yes
TRANS-13	Roads will be designed so proper drainage is not impaired and roads will be built to minimize soil erosion. Consult with appropriate Agencies during the design stage.	Yes
TRANS-14	Access roads built for the Project on federal lands shall be closed to the public unless otherwise agreed upon with the land management agency. Signs shall indicate the restriction or regulation, location, penalty for violation, and appropriate contact information for reporting violations. Signage and road closure measures shall be evaluated during routine visits and maintained or replaced as necessary as part of routine maintenance. Access roads constructed solely for use by the Companies will be maintained by the Companies as needed for the Companies' use in accordance with the ROW grants/special use authorization.	Yes
TRANS-15	Roads to be abandoned may be left intact through mutual agreement of the land management agency, landowner, the tenant, and the Companies, unless located in flood areas or drainage hazard areas or otherwise restricted by federal, state, or local regulations.	Yes
TRANS-16	All temporary culverts and associated fill material will be removed from stream crossings after construction. All permanent culverts will be engineered by the Construction Contractor and approved by the Companies prior to installation.	Yes
TRANS-17	The road or highway within the ROW corridor shall be used to the maximum extent possible for construction and maintenance of the new ROW.	Yes
TRANS-18	To help set public expectations for when temporary access roads are decommissioned, signs shall be posted on all temporary roads and overland access routes identifying them as reclamation areas. Signs will state "Restoration in Progress – No Vehicle Traffic Allowed."	Yes
TRANS-19	During wet road conditions, any ruts deeper than 4 inches remaining on the roads from the Project will be repaired.	Yes
AIR QUALITY		
FISH-3	(Described under Fish)	Yes
TESWL-12	(Described under TES-Wildlife)	Yes
SOIL-18 and 19	(Described under Soils)	Yes
AIR-1	Minimize idling time for diesel equipment whenever possible.	Yes
AIR-2	Ensure that diesel-powered construction equipment is properly tuned and maintained, and shut off when not in direct use.	Yes
AIR-3	Prohibit engine tampering to increase horsepower.	Yes
AIR-4	Reduce construction-related trips as feasible for workers and equipment, including trucks.	Yes
AIR-5	Dust suppression techniques will be applied, such as watering construction areas or removing dirt tracked onto a paved road as necessary to prevent safety hazards or nuisances on access roads and in construction zones near residential and commercial areas and along major highways and interstates.	Yes
ELECTRICAL ENVIRONMENT		
EE-1	During final design, limit the conductor surface gradient in order to meet the IEEE Radio Noise Guideline.	Yes
EE-2	During construction, identify objects such as fences, metal buildings, pipelines, and other metal objects within or near the proposed ROW that have the possibility for induced potentials and currents and implement electrical grounding of these objects according to the utility's and National Electric Code	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
	standards.	
EE-3	During final design and construction, identify areas where large equipment is anticipated and provide sufficient conductor clearance to ground to meet the NESC 5 mA rule or limit size or access of large equipment.	Yes
PUBLIC SAFETY (Blasting, Fire, Contamination)		
WQA-13 - 20	(Described under Water Quality)	Yes
WEED-24, 25	(Described under Weeds)	Yes
WILD-11	(Described under Wildlife)	Yes
BLA-1	The Blasting Plan will identify blasting procedures including safety, use, storage, and transportation of explosives that will be employed where blasting is needed, and will specify the locations of needed blasting.	Yes
BLA-2	All blasting will be performed by registered licensed blasters who will be required to secure all necessary permits and comply with regulatory requirements in connection with the transportation, storage, and use of explosives, and blast vibration limits for nearby structures, utilities, wildlife, and fish (where blasting is conducted in waterbodies).	Yes
BLA-3	Appropriate flags, barricades, and warning signals will be used to ensure safety during blasting operations. Blast mats will be used when needed to prevent damage and injury from fly rock.	Yes
BLA-4	Blasting in the vicinity of pipelines will be coordinated with the pipeline operator, and will follow operator-specific procedures, as necessary.	Yes
BLA-5	Damages that result from blasting will be repaired or the owner fairly compensated.	Yes
BLA-6	Proper blasting techniques, including proper cover of charges, will be followed.	Yes
BLA-7	Matting will be used in rock blasting operations to minimize and control dust.	Yes
BLA-8	Notification of blasting activities will be provided to nearby residents.	Yes
BLA-9	The Construction Contractor will prepare site specific blasting plans.	Yes
BLA-10	The Blasting Plan for the proposed Project will also stipulate the following: • Explosives will not be stored on federal land without prior written permission from the land-management agency. Copies of this permission will be posted on each magazine. • Seventy-two hours advance notice of blasting activities will be given to the land-management agency, railroads, highway departments, and local communities; occupants of nearby residences, buildings, and businesses; and local farmers. • Warning signs will be erected and maintained at all approaches to the blast areas and flaggers will be stationed on all roadways passing within 1,000 feet of blasting activities. • Explosives will not be primed or fused until just before use. • Blasting will take place during daylight hours only and will be monitored with three axis seismographs to ensure safe vibration levels are not exceeded. • Vibration measured as peak particle velocity will not exceed 4 inches per second adjacent to an underground pipeline and 2 inches per second for any aboveground structure (including water wells).	Yes
FIRE-1	Train all personnel about the measures to take in the event of a fire including; fire dangers, locations of extinguishers and equipment, emergency response, and individual responsibilities for fire prevention and suppression.	Yes
FIRE-2	Equip all construction equipment operating with internal combustion engines (including off-highway vehicles, chainsaws, generators, heavy equipment, etc.) with spark arresters. Qualified spark arresters will be in a maintained and nonmodified condition and meet U.S. Department of Agriculture Forest Service Standard 5100-1a, or the Society of Automotive Engineers Recommended Practices J335 or J350. Refer to 43 Code of Federal Regulations §8343.1.	Yes
FIRE-3	Restrict motorized equipment, including worker transportation vehicles, to the designated and approved work limits. Operate all vehicles on designated roads or park in areas where vegetation is less than 8 inches tall. Vehicles, including the undercarriages, will be cleared of vegetation accumulations and checked periodically to ensure no buildup of flammable vegetation.	Yes
FIRE-4	Require all motor vehicles and equipment to carry, and individuals using handheld power equipment to have, specified fire prevention equipment. Carry shovels, water, and fire extinguishers on all equipment and vehicles. Equipment will carry extinguishers rated ABC-10 pound minimum and vehicles will carry ABC-2.5 pound minimum.	Yes
FIRE-5	Provide a list of equipment capable of being adapted to fighting fires to local fire protection agencies.	Yes
FIRE-6	Notify the appropriate fire suppression agencies of scheduled road closures.	Yes

EPM Number	Environmental Protection Measures	Applicable to SRBOP
FIRE-7	Prohibit burning of slash, brush, stumps, trash, explosives storage boxes, or other Project-generated debris unless authorized by the applicable land management agency.	Yes
FIRE-8	Designate a Fire Guard on each construction crew prior to the start of construction activities each day and provide a communications system for maintaining contact with fire control agencies.	Yes
FIRE-9	The Companies shall comply with fire restrictions and/or waivers as applicable.	Yes
FIRE-10	If a fire spreads beyond the suppression capability of workers with these tools, all will cease fire suppression action and leave the area immediately via pre-identified escape routes.	Yes
FIRE-11	Initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If fire ignitions cannot be prevented or contained immediately, or it may be foreseeable to exceed the immediate capability of workers, the operation must be modified or discontinued. No risk of ignition or re-ignition will exist on leaving the operation area.	Yes
FIRE-12	Prior to any operation involving potential sources of fire ignition from vehicles, equipment, or other means, review weather forecasts and potential fire danger. Prevention measures to be taken each workday will be included in the specific job briefing. Consideration for additional mitigation or discontinuing the operation must be given in periods of extreme wind and dryness.	Yes
FIRE-13	Operate welding, grinding, or cutting activities in areas cleared of vegetation within range of the sparks for that particular action. A spark shield adequate for the sparks may be used to prevent sparks from carrying. A spotter equipped with a round-nose shovel and two ABC-rated 5-pound fire extinguishers and a 5-gallon backpack waterpump is required to watch for ignitions during, and one hour after, the activity. Water may be used to wet down surrounding vegetation but does not take the place of an adequately cleared area and spark shield.	Yes
FIRE-14	No smoking will be allowed while operating equipment or while walking or working in areas with vegetation.	Yes
FIRE-15	Smoke only in cleared areas.	Yes
FIRE-16	In areas where smoking is allowed, completely extinguish all burning tobacco and matches and discard them in ash trays, not on the ground.	Yes
FIRE-17	Do not allow any fires or barbecues on the transmission line ROW, at material yards, substations, access roads, or other construction areas.	Yes
FIRE-18	Clear away all flammable material to a minimum of 10 feet, including snags (fallen or standing dead trees) from areas of operation where a spark, fire, or flame could be generated.	Yes
FIRE-19	If a fire does start by accident, take immediate steps to extinguish it (if it is safe to do so) using available fire suppression equipment and techniques taught at field crew emergency response training provided by the Construction Contractor or the Companies.	Yes
CON-1	All construction staff will be trained on the types of contamination that could be encountered and how to respond if contamination is encountered.	Yes
NOISE		
NOISE-1	Identify and provide a public liaison person before, and during, construction to respond to concerns of neighboring receptors, including residents, about construction noise disturbance.	Yes
NOISE-2	Establish a toll-free telephone number for receiving questions or complaints during construction, and develop procedures for responding to callers.	Yes
NOISE-3	Implement and maintain a noise complaint review process to deal with residents' or other potential queries and complaints as they arise. Such complaints will be logged and investigated on an individual basis to facilitate resolution of the issue of concern.	Yes

1/ TESWL-3 has been offered by the Companies; however, although the Companies are encouraged to protect all prairie dog towns, formal black-footed ferret surveys within those towns will no longer be required by the BLM.

AGRI – agriculture; AIR – air quality; BLA – blasting; CON – contamination; CR – cultural resources; EE – electrical environment; FIRE – fire; FISH – fish; G – general; GEO – geologic hazards; LU – land use; NOISE – noise; OM – operations and maintenance; PALEO – paleontological resources; REC – reclamation; SOIL – soils; TESPL – threatened, endangered, and sensitive (TES) plants; TESWL – TES wildlife; TRANS – transportation resources; VEG – vegetation; VIS – visual; VR – visual resources; WEED – weeds; WET – streams and wetlands; WILD – wildlife; WQA – water quality

APPENDIX B
DETAILED CALCULATION SPREADSHEET FOR MEP VALUE

Proposed Mitigation Portfolio, ACRES (August 2014)

Segment	Route	Route Miles Across federal lands in SRBOP	Acres of Project occupancy INSIDE designated corridors			Acres of Project Occupancy OUTSIDE designated corridors			Total Project-Occupied Acres within SRBOP
			Natural Vegetation	Disturbed Vegetation*	Total	Natural Vegetation	Disturbed Vegetation*	Total	
Segment 8	BLM Preferred	2	t	t	0	3	5	8	8
	Proposed	18	0	0	0	2	27	28	28
Segment 9	BLM Preferred	11	3	7	10	4	14	18	28
	Proposed	46	0	0	0	14	56	69	69
Combined	BLM Preferred 8 & 9	13	3	7	10	7	19	26	36
	Proposed 8 & 9	64	0	0	0	15	82	97	97
	Companies' Proposed Ratios		1	1		1	1		

* Vegetation that is now disturbed, before any construction impacts

Segment	Route	Route Miles Across BLM lands in SRBOP	Companies' Proposed Mitigation Acres INSIDE designated corridors			Companies' Proposed Mitigation Acres OUTSIDE designated corridors			Total Companies' Proposed Mitigation Acres
			Natural Vegetation	Disturbed Vegetation*	Total	Natural Vegetation	Disturbed Vegetation*	Total	
Segment 8	BLM Preferred	2	0	0.0	0	3	5	8	8
	Proposed	37	0	0.0	0	2	27	28	28
Segment 9	BLM Preferred	11	3	7	10	4	14	18	28
	Proposed	52	0	0	0	14	56	69	69
Combined	BLM Preferred 8 & 9	13	3	7	10	7	19	26	36
	Proposed 8 & 9	89	0	0	0	15	82	97	97

Proposed Mitigation Portfolio, COST BASIS (August 2014)

COST FACTORS	Companies	
Cost/acre of reclamation	$	1,800
Law Enforcement	$	35,000

(based on small intensive projects within SRBOP and 80% success rate)
assumes 0.25 FTE for 10 years at $140,000 per FTE

Reduction of fixed costs from Companies' Proposed to BLM Preferred Routes based on relative miles crossed: 0.2

	Per-Segment Distribution by SRBOP Miles Crossed		
		Miles	Percent
BLM Preferred	Segment 8	2.0	15%
	Segment 9	11.2	85%
	TOTAL	**13.2**	
Companies Proposed	Segment 8	17.9	28%
	Segment 9	46.0	72%
	TOTAL	**63.9**	

Segment	Route	Route Miles Across BLM lands in SRBOP	Total Cost of Reclamation by Companies' Mitigation Acres
Segment 8	BLM Preferred	2	$ 14,400
	Proposed	37	$ 50,580
Segment 9	BLM Preferred	11	$ 50,400
	Proposed	52	$ 124,200
Combined	BLM Preferred 8 & 9	13	$ 64,800
	Proposed 8 & 9	89	$ 174,780

Proposed Mitigation Portfolio, COST SUMMARY (August 2014)

Segment	Route	Route Miles Across BLM lands in SRBOP	Reclamation cost	Law Enforcement (10 years)			Grand Total Companies' Mitigation Offer
Segment 8	BLM Preferred	2	$ 14,400	$ 10,606			$ 25,006
	Proposed	36.6	$ 50,580	$ 98,044			$ 148,624
Segment 9	BLM Preferred	11.2	$ 50,400	$ 59,394			$ 109,794
	Proposed	52.3	$ 124,200	$ 251,956			$ 376,156
Combined	BLM Preferred 8 & 9	13.2	$ 64,800	$ 70,000			$ 134,800
	Proposed 8 & 9	88.9	$ 174,780	$ 350,000			$ 524,780

Proposed Enhancement Portfolio, ACRES (August 2014)

Segment	Route	Route Miles Across BLM lands in SRBOP	Acres of Disturbance from Construction of Project INSIDE designated corridors			Acres of Disturbance from Construction of Project OUTSIDE designated corridors			Total Construction-Disturbed Acres within SRBOP
			Natural Vegetation	Disturbed Vegetation*	Total	Natural Vegetation	Disturbed Vegetation*	Total	
Segment 8	BLM Preferred	2	t	1	1	37	49	86	87
	Proposed	18	0	0	0	20	300	321	321
Segment 9	BLM Preferred	11	29	81	110	47	107	154	264
	Proposed	46	0	0	0	116	830	947	947
Combined	BLM Preferred 8 & 9	13	29	82	111	84	156	240	351
	Proposed 8 & 9	64	0	0	0	137	1131	1267	1267

* Vegetation that is now disturbed, before any construction impacts

Companies' Proposed Ratios	1	0.5	2	1

Segment	Route	Route Miles Across BLM lands in SRBOP	Companies' Proposed Enhancement Acres INSIDE designated corridors			Companies' Proposed Enhancement Acres OUTSIDE designated corridors			Total Companies' Proposed Enhancement Acres
			Natural Vegetation	Disturbed Vegetation*	Total	Natural Vegetation	Disturbed Vegetation*	Total	
Segment 8	BLM Preferred	2	t	0.5	1	74	49	123	124
	Proposed	18	0	0.0	0	40	300	341	341
Segment 9	BLM Preferred	11	29	41	70	94	107	201	271
	Proposed	46	0	0	0	233	830	1063	1063
Combined	BLM Preferred 8 & 9	13	29	41	70	168	156	324	394
	Proposed 8 & 9	64	0	0	0	273	1131	1404	1404

Proposed Enhancement Portfolio, COST BASIS (August 2014)

COST FACTORS	Companies	
Cost/acre of reclamation	$ 1,800	(based on small intensive projects within SRBOP and 80% success rate)
Land Purchase	$ 320,000	(based on 104-acre parcel purchase and comps at $3000/acre)
Visitor Enhancement	$ 500,000	(based on $50,000 per year for 10 years)
Law Enforcement	$ 1,750,000	(based on $140,000/yr FTE for fully equpt ranger, 0.75 FTE for enhancement)

LE assumes 10 years, 0.75 FTE plus 10 more years at 0.5 FTE

distribution of fixed costs of land purchase, visitor enhancement, and endowment fund across the two segments done by segment length on BLM lands within the SRBOP

Reduction of fixed costs from Companies' Proposed to BLM Preferred Routes based on relative miles crossed 0.2

	Per-Segment Distribution by SRBOP Miles Crossed		
		Miles	Percent
BLM Preferred	Segment 8	2.0	15%
	Segment 9	11.2	85%
	TOTAL	**13.2**	
Companies Proposed	Segment 8 + D&E	17.9	28%
	Segment 9 + G	46.0	72%
	TOTAL	**63.9**	

Segment	Route	Route Miles Across BLM lands in SRBOP	Total Cost of Reclamation by Companies' Enhancement
Segment 8	BLM Preferred	2	$ 222,300
	Proposed	18	$ 613,260
Segment 9	BLM Preferred	11	$ 486,900
	Proposed	46	$ 1,913,400
Combined	BLM Preferred 8 & 9	13	$ 709,200
	Proposed 8 & 9	64	$ 2,526,660

Proposed Enhancement Portfolio, COST SUMMARY (August 2014)

Segment	Route	Route Miles Across BLM lands in SRBOP	Reclamation cost	land purchase cost	law enforcement	visitor enhancement cost	Management Fund	Grand Total Companies' Enhancement Offer	Idaho Power Line Removal Cost to Companies
Segment 8	BLM Preferred	2	$ 222,300	$ 9,697	$ 53,030	$ 15,152	$ 151,515	$ 451,694	$1,922,000
	Proposed	18	$ 613,260	$ 89,640	$ 490,219	$ 140,063	$ 280,125	$ 1,613,307	$1,922,000
Segment 9	BLM Preferred	11	$ 486,900	$ 54,303	$ 296,970	$ 84,848	$ 848,485	$ 1,771,506	$1,922,000
	Proposed	46	$ 1,913,400	$ 230,360	$ 1,259,781	$ 359,937	$ 719,875	$ 4,483,353	$1,922,000
Combined	BLM Preferred 8 & 9	13	$ 709,200	$ 64,000	$ 350,000	$ 100,000	$ 1,000,000	$ 2,223,200	$1,922,000
	Proposed 8 & 9	64	$ 2,526,660	$ 320,000	$ 1,750,000	$ 500,000	$ 1,000,000	$ 6,096,660	$1,922,000