Midway-Benton No. 1 Transmission Line Rebuild Project

Department of Energy
Bonneville Power Administration

Revision Sheet
DOE/EA-1912
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Summary

Bonneville Power Administration (BPA) released the Midway-Benton No. 1 Transmission Line Rebuild Project Preliminary Environmental Assessment (EA) in June 2012 for public comment. BPA sent the Preliminary EA to agencies and interested parties who requested a copy. Notification that the EA was available and instructions of how to request a copy was sent to the mailing list of potentially affected parties. BPA received four comments and have responded to these comments in this revision sheet.

This revision sheet documents the changes to be incorporated into the EA. The Preliminary EA, with the addition of these changes, constitutes the Final EA, which will not be reprinted.

Revisions to the EA

A number of minor changes were made and are presented below by the chapter and section in which they appeared in the Preliminary EA. The majority of the changes are related to the addition of information gathered through biological field studies conducted in May and June 2012, the relocation of three structures, and the elimination of one structure. Where text has been modified, deleted text is indicated in "strikethrough" format and new text is underlined.

Chapter 1- Purpose of and Need for Action

1.1 Introduction (page 1-1)

The second paragraph in this section has been revised as follows:

> BPA is proposing to rebuild <u>and continue to operate</u> its 115-(kV) wood-pole Midway-Benton No. 1 transmission line and the BPA-owned portion of the 115-kV wood-pole Benton-Othello No. 1 transmission line. The lines are aging and require replacing wood-pole structures and other components of the transmission line. The Midway-Benton No. 1 and Benton-Othello No. 1 transmission lines currently follow the 230-kV steel Midway-Benton No. 2 transmission line. At this time, BPA is not proposing any work on the Midway-Benton No. 2 transmission line.

Chapter 2 - Proposed Action and Alternatives

2.1 Overview of the Proposed Action and Alternatives (page 2-1 to 2-3)

The first paragraph in this section has been revised as follows:

BPA is proposing to replace the approximately 28.2-mile-long, 115-kV Midway-Benton No. 1 transmission line and approximately 11 miles of the 115-kV Benton-Othello No. 1 transmission line (Figure 1-1). BPA would continue to operate and maintain both transmission lines. Both transmission lines are located on lands managed by the DOE-RL as part of the Hanford Site and the Hanford Reach National Monument in Benton County, Washington.

Tables 2-1 and 2-3 have been revised as follows:

Table 2-1. Action Alternatives Summary

Specification		Action Alternatives	
		Proposed Action (Reroute Alternative)	**Rebuild-in-Place Alternative**
ROW			
Length (miles)	Midway-Benton No. 1 transmission line	28.2	27.9
	Benton-Othello No. 1 transmission line	11.0	11.0
	Scooteney Tap Transmission Line	0.8	—
ROW Width (feet)		100 (rerouted segment); 100 to 300 (existing ROW segments)	100 to 300 (existing ROW segments)
New ROW (miles)[1]		14.5	0
Abandoned ROW (miles)[2]		14.2	0
Structures			
Wood-pole Structures Removed and Not Replaced in Same Location (number)[3]		102	1
Wood-pole Structures in New Location (number)[4]	Wood, Two-Pole Suspension	~~114~~113	0
	Wood, Three-Pole Angle or Dead-End	12	0
	TOTAL	~~126~~125	0
Wood-pole Structures Replaced in Approximately Same Location (number)[5, 6]	Wood, Two-Pole Suspension[7]	207	302
	Wood, Three-Pole Angle or Dead-End	5	8
	TOTAL	212	310
Total Structures		~~338~~337	310
Structure Height Aboveground (feet)		55 to 100	55 to 100
Access Roads[8] (miles)			
New Roads		2.8	1.3
Improved Roads		~~31.1~~30.9	~~33.8~~34.0
Total Length		~~33.9~~33.7	~~35.1~~35.3

[1] Includes new ROW associated with the Reroute Alternative and the Scooteney Tap transmission line.
[2] Transmission line structures would be removed and the previously-maintained ROW would be restored to natural condition. While the ROW would be restored, BPA would retain the ROW in the abandonment sections.
[3] One structure removed and not replaced would be located along the Benton-Othello No. 1 transmission line. All other structures removed and not replaced would be located along the Midway-Benton No. 1 transmission line.
[4] Includes structures along the Scooteney Tap and Midway-Benton No. 1 transmission lines.
[5] Poles replaced in same location as previously constructed.
[6] Includes replacement structures associated with Midway-Benton No. 1, Scooteney Tap, and Benton-Othello No. 1 transmission lines.
[7] A wood, single-pole structure on the Benton-Othello No. 1 transmission line would be replaced with a two-pole structure.
[8] Access roads include all roads constructed or improved by BPA for the project. This distance does not include public or paved DOE-RL Hanford roads or roads that would not require improvement.

Table 2-2. Midway-Benton No. 1 and Benton-Othello No. 1 Transmission Line Segments.

Segment Number	First and Last Structure[1]	Number of New or Replaced Structures	Length in Miles	Proposed Action (Reroute Alternative)	Rebuild-in-Place Alternative
1	Midway-Benton 1/1 to 4/4	27	3.5	Remove existing structures and rebuild in place	
2 (Reroute)	Midway-Benton 4/5 to 19/2	~~126~~125 (including Scooteney Tap transmission line)	14.5 (Midway-Benton) 0.8 (Scooteney Tap transmission line)	Construct structures in new locations	No construction activities
3	Midway-Benton 4/5 to 18/4 existing structure numbering[2]	101	14.2	Remove existing structures; structures are not replaced	Remove existing structures and rebuild in place
4	Midway-Benton 19/3 to 31/1 Benton-Othello 1/1 to 11/7	185	10.2[3]	Remove existing structures and rebuild in place	

Notes:

[1] Each Benton-Othello No. 1 structure is designated a unique number based on the distance from the Benton Substation (the designated ~~state~~starting point), and each Midway-Benton No. 1 structure is designated by a unique number based on the distance from the Midway Substation and the number of structures within a given mile. For example, in the first mile from the Midway Substation, the first structure is designated as structure 1/1 and the second structure is structure 1/2. The first structure in the second mile is numbered structure 2/1.

[2] The existing structure numbering is only used in the context of Segment 3 in this EA. Further, because the Proposed Action and the Rebuild-in-Place Alternative are different lengths, the structure numbers differ in the segments between structure 14/4 of the existing ROW and the Benton Substation. For example, structure 4/5 of the current alignment (Segment 3) is located in a different location than structure 4/5 of the rerouted segment (Segment 2).In Segment 4, structure 18/5 of the Rebuild-in-Place Alternative is the same as structure 19/3 of the Proposed Action.

[3] A portion of the Benton-Othello No. 1 that would be replaced extends 0.8 mile into Segment 3, so that the total length of the Benton-Othello No. 1 that would be replaced is 11 miles. For analysis purposes, the structures within this 0.8 mile length are considered to be within Segment 4.

Chapter 3 – Affected Environment, Environmental Consequences, and Mitigation Measures

3.2 Land Use and Transportation

3.2.1 Affected Environment

Land Uses (page 3-5)

The second paragraph in this section has been revised as follows:

> The existing and proposed ROWs are located within or adjacent to existing utility corridors. With the exception of ~~three~~four paved roads that would be crossed by the Proposed Action and ~~two~~three paved roads that would be crossed by the Rebuild-in-Place Alternative, the study area is located on undeveloped land with no active uses.

3.2.2 Environmental Consequences—Proposed Action (Reroute Alternative)

Land Uses (page 3-6)

The second paragraph in this section has been revised as follows:

> While the Proposed Action would result in a net increase in lands occupied by the Midway-Benton No. 1 and Benton-Othello No. 1 transmission lines by approximately 0.3 additional mile of transmission line ROW (~~28~~27 additional wood-pole structures) and 2.8 additional mile of access road, there would be a net decrease in occupied land designated as Preservation. Segment 3, which would be removed under the Proposed Action, crosses approximately 4.2 miles of lands designated Preservation and 10 miles of land designated as Conservation/Mining. The 4.2 miles of line crossing Preservation lands would be removed from utility corridor use and restored to a condition similar to the surrounding landscape resulting in the net decrease. This allows the Proposed Action to be consistent with the underlying *Hanford Comprehensive Land Use Plan* designations. The new ROW for Segment 2 would be located entirely within land designated as Conservation/Mining.

3.3 Geology and Soils

3.3.2 Environmental Consequences—Proposed Action (Reroute Alternative)

Access Roads (page 3-12)

The first bulleted item in this section has been revised as follows:

- Approximately ~~39~~ 31 acres of soils within existing road beds ~~that~~ would be ~~regarded~~ regraded;

3.3.3 Environmental Consequences—Rebuild-in-Place Alternative

Access Roads (page 3-14)

The first bulleted item in this section has been revised as follows:

- Approximately ~~40~~ 34 acres of soils within existing road beds ~~that~~ would be ~~regarded~~ regraded;

3.4 Vegetation

3.4.1 Affected Environment (page 3-17)

First paragraph in this section has been revised as follows:

> The vegetation study area includes all areas within 500 feet of the existing and proposed ROWs, access roads, and staging areas. Botanical field studies for special-status plant species and noxious weeds were conducted from April through June at proposed structure locations, roads to be improved, new roads, potential staging areas, and potential pulling

and tensioning sites, as documented in a Biological Resource Study Summary (Point Environmental Consulting 2012b).

Level of Concern Ratings (p 3-17)

The last paragraph of this section has been revised as follows:

Figure 3.4-1 presents a map of level of concern ratings within the study area under both the Proposed Action and the Rebuild-In-Place Alternative. As part of the botanical field study, level of concern ratings were verified and updated (where needed) at existing and proposed structure locations, proposed new and improved access roads, staging areas, and potential stringing areas. Changes to levels of concern were incorporated into the revised acreage impact calculations (see revisions for Sections 3.4.2 and 3.4.3).

Special-Status Plant Species (page 3-19)

The last paragraph in this section has been revised as follows:

DOE-RL's biological resource inventory data obtained by BPA through the Mission Support Alliance (MSA), includes records for five non-ESA-listed sensitive plant species (i.e., State listed threatened or sensitive species or federal Species of Concern) with known locations within the study area (DOE-RL 2012) ~~(see Table 3.4-1;)~~. Special-status plants, such as Hoover's desert parsley, Suksdorf's monkey-flower, Great Basin gilia, small-flower evening primrose, dwarf evening-primrose, and gray cryptantha, have been documented along Segments 1, 3, and 4, and Suksdorf's monkey-flower has been documented within the Scooteney Tap extension area of proposed reroute (Segment 2). Based on the presence of big sagebrush (*Artemisia tridentata*) within all line segments, other special-status plant species could be present. ~~Botanical surveys are being conducted concurrently with the preparation of this Preliminary EA, and results will incorporated into the Final EA.~~ A complete list of sensitive plant species potentially occurring within the study area is presented in Appendix C, "Biological Resource Supplemental Information."

Surveys for special-status plants were completed in May and June 2012 (Point Environmental Consulting 2012b). Four special-status plant species (Columbia milkvetch, dwarf evening primrose, gray cryptantha, and Piper's daisy) were identified during field surveys. Five species that were reported in historic surveys were not found during the 2012 survey. Of the historically-recorded species not identified during the 2012 survey, the Suksdorf's monkey-flower and loeflingia may not have sprouted in 2012 due to dry spring weather; therefore, these species are assumed to be present at historic locations.

Table 3.4-1 presents special-status plant species documented or potentially present (based on habitat) within the study area.

Table 3.4-1 (page 3-20) has been replaced with the table below:

Table 3.4-1. Special-Status Plant Species Documented or Potentially Present (Based on Habitat) within the Study Area

Species	Federal Status[1]	State Status[2]	Biological Resources Management Plan Level of Concern	Habitat Association	Historical Location in or near Study Area	2012 Botanical Survey
Hoover's desert parsley *Lomatium tuberosum*	Species of Concern	Sensitive	III	Loose talus, where hot, dry, rocky, and unstable conditions support few other plant species	Associated with the talus slopes of Umtanum Ridge, south of Segment 1	None found.
Small-flower evening-primrose *Camissonia minor*	None	Sensitive	III	Gravelly basalt, sandy soils, and cryptogamic crust	Segment 1 near basal outcrops	None found.
Columbia milkvetch *Astragalus columbianus*	Species of Concern	Sensitive	III	The species occurs in the shrub-steppe vegetation zone in deep sandy loams, gravelly loams, lithosols and a flood bar composed of cobbly sand.	None	More than 100 plants found in Segment 1 in one location, with more than 15 located on a spur road, located on rocky soils (basalt) on the northern lower slopes of Umtanum Ridge.
Dwarf evening-primrose *Camissonia pygmaea*	None	Sensitive	III	Open environments associated with disturbed, unstable soil or gravel in steep talus, dry washes, banks, and road cuts	Segment 3, south of central Gable Mountain	Relatively abundant at the proposed BPA Staging Area.
Gray cryptantha *Cryptantha leucophaea*	Species of Concern	Sensitive	III	Shifting sand dunes	Segment 4, Hanford Dunes	Present throughout the Hanford Dunes (Segment 4).
Piper's daisy *Erigeron piperianus*	None	Sensitive	III	Dry, open places, often with sagebrush. It grows on level ground to moderate slopes of all aspects at elevations, ranging from 400 to 2250 feet.	None	One plant found in Segment 1 in the middle of an access road near the Midway Substation.
Suksdorf's monkey-flower *Mimulus suksdorfii*	None	Sensitive	III	High moisture with small-scale erosion that expose the mineral soils needed for seed germination	Segment 1 near basal outcrops Segment 2, Scooteney Tap transmission line extension area	None found. However, due to a relatively dry spring, this annual species may not have sprouted during the survey year.

Table 3.4-1. Special-Status Plant Species Documented or Potentially Present (Based on Habitat) within the Study Area (continued)

Species	Federal Status[1]	State Status[2]	Biological Resources Management Plan Level of Concern	Habitat Association	Historical Location in or near Study Area	2012 Botanical Survey
Loeflingia *Loeflingia squarrosa* var. *squarrosa*	None	Threatened	III	Found in low swales within sandy areas. The species does not seem to occur within a very well-developed cryptogamic crust.	None	None found. However, due to a relatively dry spring, this annual species may not have sprouted during the survey year.
Coyote tobacco *Nicotiana attenuata*	None	Sensitive	III	Dry, sandy bottom lands, dry rocky washes, and in other dry open places.	None	None Found. However, due to a relatively dry spring, this annual species may not have sprouted during the survey year.
Great Basin gilia *Gilia leptomeria*	None	Threatened	III	Dry, gravelly or sandy, fine reddish-to-blackish lithosols	Segment 1 near basal outcrops	None found. One individual of gilia plant that resembled *Gilia inconspicua* (Review Group 1)[3] was seen in Segment 3.
Thompson's sandwort *Eremogone franklinii var. thompsonii*	None	Review Group 1	II	Dry, sandy soils.	None	Distributed widely in the Hanford Dunes (Segment 4), with thousands of plants distributed as individual and scattered patches.
Yellow wildrye *Leymus flavescens*	None	Review Group 1	II	Open sands; most abundant in areas of active dune migration.	None	Several located within the Hanford Dunes (Segment 4).

Sources: DNR 2012b, DOE-RL 2012, Point Environmental Consulting 2012b

Notes:

[1] Federal species of concern is an informal term that refers to those species which the USFWS believes might be in need of concentrated conservation actions.

[2] State sensitive species are vulnerable or declining and could become endangered or threatened in Washington. State threatened species are "likely to become endangered in Washington."

[3] Review Group 1 species are "of potential concern" but that need more field work to assign another rank.

Noxious Weeds (page 3-20)

The last paragraph in this section has been revised as follows:

> Other non-native, invasive plant species that are of concern at the Hanford Site are Russian thistle (*Salsola tragus*) and cheatgrass because areas infested with these species

are prone to intensive wildfires (DOE-RL 2011). These species are so abundant at the Hanford Site that they are considered "naturalized," and control, rather than eradication, is the primary management objective for these species. In addition to increasing fire risks, invasive species are a major concern for protection of shrub-steppe habitats at the Hanford Site. Field studies ~~are being~~were conducted in spring of 2012 to identify noxious weed populations in the study area. ~~Field study results will be included in the Final EA.~~

Five species of noxious weeds were documented within the study area:

- Diffuse knapweed (*Centaurea diffusa*)
- Rush skeletonweed (*Chondrilla juncea*)
- Russian knapweed (*Acroptilon repens*)
- Dalmatian toadflax (*Linaria genistifolia dalmatica*)
- Yellow starthistle (*Centaurea solstitialis*)

Of the species listed above, diffuse knapweed and rush skeletonweed were the most widely distributed, with particularly large concentrations found in Segment 1, the western portions of Segments 2 and 3, and the southern half of Segment 4. Russian knapweed was found in seven locations, all of which were located in miles 2 and 3 of Segment 1. Yellow starthistle was less common than the other noxious weeds and only found in the northern portion of Segment 4. Dalmatian toadflax was found in two locations in Segment 4.

3.4.2 Environmental Consequences—Proposed Action (Reroute Alternative)

Removal of Existing Structures and Installation of New Structures (p 3-21)

The first paragraph in this section has been revised as follows:

Removing and installing structures under the Proposed Action would require trucks and other construction equipment (e.g., boom cranes, backhoes, and line trucks) that would disturb vegetation, damage cryptogamic crusts, disturb seed banks, and compact soils within an approximately 50-feet by 100-feet (0.1 acre) area at two-pole structures and within an approximately 100-feet by 100-feet (0.2 acre) area at three-pole structure sites (see Section 2.4.4). To minimize disturbance in sensitive areas, such as Levels III and IV habitats, the disturbance area could be reduced to 50 feet by 50 feet per structure (0.06 acre), if site-specific conditions allow (see Section 3.4.4). Based on typical construction work areas (i.e., not reduced), removing and installing structures would disturb approximately ~~30.1~~ 29.6 acres of vegetation, of which ~~18.4~~ 17.9 acres would be Level III plant communities and 3.2~~1~~ acres would be Level IV plant communities (Table 3.4-2).

The second paragraph in this section has been revised as follows:

Impacts, such as crushing or removing special-status plant through accessing work areas; using staging yards, stringing sites, or snubs; or excavating for structure removal, replacement, and/or new construction (including guy wire and counterpoise installation or removal) would be avoided if possible. Columbia milkvetch, dwarf evening-primrose, gray cryptantha, Piper's daisy, Suksdorf's monkey-flower, Loeflingia, Coyote tobacco,

and other associated special-status species (see Table 3.4-1) may be disturbed or destroyed in historic locations and in areas documented during the 2012 botanical surveys. Specific mitigation plans would be developed in coordination with DOE-RL and other interested parties (see Section 3.4.4). ~~in portions of Segment 1 and along the Scooteney Tap transmission line. Also, individuals and clusters of gray cryptantha are known to occur within a 3.5-mile-long project crossing of the Hanford Dunes in Segment 4. Suitable habitat for other special-status species is present within much of the project area, particularly in stands of vegetation classified as Level III and IV, and special-status plants may be disturbed or destroyed in these areas as well.~~

Table 3.4-2 (page 3-22) has been revised as follows:

Table 3.4-2. Vegetation Impacts from Installing and Removing Structures (in Acres)

Level of Concern	Proposed Action			Rebuild-in-Place Alternative		
	Temporary[1]	Permanent[2]	Total	Temporary[1]	Permanent[2]	Total
Level I	6.4 ~~6.8~~	0.5 ~~0.6~~	**6.9** ~~**7.3**~~	3.7 ~~4.1~~	0.1	**3.8** ~~**4.2**~~
Level II	1.6 ~~1.1~~	0.0 ~~0.1~~	**1.6** ~~**1.2**~~	1.7 ~~1.1~~	0.1	**1.8** ~~**1.3**~~
Level III	16.7	1.2 ~~1.7~~	**17.9** ~~**18.4**~~	10.3	0.5	**10.8** ~~**10.9**~~
Level IV	3.1	0.1	**3.2**	3.2	0.0	**3.2**
Total[3]	27.8 ~~**27.7**~~	1.8 ~~**2.4**~~	**29.6** ~~**30.1**~~	18.9 ~~**18.7**~~	**0.7**	**19.6** ~~**19.5**~~

[1] Temporary disturbance areas would be restored following construction.

[2] Permanent disturbance includes new disturbance around structures that would remain unvegetated. For structures that would be removed and rebuilt in the same locations, structures would be installed on previously disturbed ground and no new permanent impacts would occur.

[3] Totals may not be the sum of the individual entries due to rounding.

Access Roads (page 3-22)

The first paragraph of this section has been revised as follows:

Access road construction and improvement would require removal of existing vegetation, grading, compaction, and placement of crushed rock as a road base. Based on an assumed 14-foot-wide road bed, an additional 4.0 feet could be required for expanded roadbeds, where needed, and an additional 6.0 feet (3.0 feet on each side of the road bed) would be cleared of shrubby vegetation (see Section 2.2.6). Access road improvements, construction of new roads, and roadside clearing would permanently remove approximately ~~45.1~~ 44.7 acres of vegetation, of which ~~20.6~~ 21.3 acres would be Level III and 7.6 acres would be Level IV plant communities (Table 3.4-3). Implementation of the mitigation measures described in Section 3.4.4 would reduce construction-related impacts on vegetation resulting from access road improvements to ***moderate***.

Table 3.4-3 (page 3-23) has been revised as follows:

Table 3.4-3. Permanent Vegetation Impacts from Access Road Work (in Acres)

Level of Concern	Proposed Action			Rebuild-in-Place Alternative		
	New Road Bed[1]	Roadside Clearing[2]	Total	New Road Bed[1]	Roadside Clearing[2]	Total
Level I	5.3 ~~6.2~~	7.1	**12.4** **~~13.3~~**	3.9 ~~4.3~~	5.3 ~~5.7~~	**9.2** **~~10.0~~**
Level II	1.4 ~~1.6~~	2.0	**3.4** **~~3.6~~**	2.0 ~~1.6~~	2.6 ~~2.0~~	**4.6** **~~3.6~~**
Level III	9.6 ~~8.9~~	11.7	**21.3** **~~20.6~~**	8.6	12.5 ~~12.6~~	**21.1** **~~21.2~~**
Level IV	3.4	4.2	**7.6**	4.1	5.2	**9.3**
Total	**19.7** **~~20.1~~**	**25.0**	**44.7** **~~45.1~~**	**18.6** **~~18.5~~**	**25.6** **~~25.5~~**	**44.2** **~~44.0~~**

[1] New road bed includes cleared and compacted surfaces.

[2] Includes areas where vegetation would be managed under BPA's *Transmission System Vegetation Management Program Final Environmental Impact Statement/Record of Decision* (BPA 2000) and additional areas where road width may be expanded beyond the 14-foot standard road width.

Staging Areas (page 3-23)

This paragraph in this section has been revised as follows:

> Proposed staging areas would be in previously disturbed, cleared areas and would result in little-to no direct vegetation loss. The dwarf evening-primrose identified in a potential staging area would be avoided as practical (See Section 3.4.4). Noxious and invasive weeds at such sites would be managed according to the DOE-RL Integrated Vegetation Management EA (DOE-RL 2011). After completion of the project, staging areas would be returned to pre-project condition based on photo documentation and revegetated as needed. Overall, vegetation impacts at staging areas would be ***low***.

Noxious Weeds (page 3-24)

The first paragraph in this section has been revised as follows:

Construction activities would result in soil disturbance and removal of existing vegetation, which may introduce invasive plant species or spread one or more of the five noxious weed species documented within the study area. The aggressive nature of invasive species, their prevalence on the Hanford Site, and their preference for disturbed sites means that non-native species (such as cheatgrass, tumblemustard [*Sisymbrium altissimum*], and Russian thistle) are likely to colonize disturbed areas. In addition, increases in non-native species, particularly cheatgrass and Russian thistle, would increase the risks of fire and associated loss of big sagebrush cover within Levels II, III and IV shrub-steppe plant communities. While much of the areas that would be vulnerable to increased invasive species would be within areas already disturbed by existing structures and roads (i.e., Segments 1 and 4), installing structures in new locations for Segment 2 would create new areas of disturbance, likely resulting in more invasive species where current native vegetation is dominant (particularly in Levels III and IV areas). In addition, abandoned structure sites within Segment 3, which would be revegetated, would remain vulnerable to encroachment

by invasive species for many years, based on the difficulty of reestablishing shrub-steppe vegetation on previously disturbed ground.

3.4.3 Environmental Consequences—Rebuild-in-Place Alternative

Removal of Existing Structures and Installation of New Structures (page 3-25)

The first paragraph in this section has been revised as follows:

> The primary difference between the Rebuild-in-Place Alternative and the Proposed Action is that the Midway-Benton No. 1 transmission line would not be rerouted, and structures would generally be rebuilt in place, thereby resulting in lower amounts of ground disturbance and loss of vegetation. Structures would be rebuilt within areas previously disturbed from existing structures. However, adjacent vegetation would be temporarily disturbed by trucks and other construction equipment that would crush vegetation, damage cryptogamic crusts, disturb seed banks, and compact soils within work areas. Based on typical construction areas, removing and installing structures (including the installation of guy wires and counterpoise) for the Rebuild-in-Place Alternative would temporarily disturb approximately ~~18.7~~ 18.9 acres of vegetation, of which 10.3 acres would be Level III plant communities and 3.2 acres would be Level IV plant communities (see Table 3.4-2 as revised in the Revision Sheet). To minimize disturbance in sensitive areas, such as Levels III and IV habitats, the project disturbance area could be reduced to 50 feet by 50 feet per structure (0.1 acre), if site-specific conditions allow (see Section 3.4.4). While disturbance under the Rebuild-in-Place Alternative would be less than under the Proposed Action, vegetation impacts in Level III plant communities would still occur. Temporary impacts could be ***moderate*** although implementation of mitigation measures (see Section 3.4.4) would reduce construction-related impacts to ***low***. As with the Proposed Action, long-term impacts would be ***low*** to ***moderate*** with development and implementation of a restoration plan.

The second paragraph in this section has been revised as follows:

> Impacts from structure replacement and construction for the Rebuild-in-Place Alternative on populations of special status plants would be avoided if possible. Because the Rebuild-in-Place Alternative would not include the extension of Scooteney Tap transmission line, disturbance to Suksdorf's monkey-flower and associated species in this portion of the study area would be avoided. ~~Because of the overall lower disturbance within Levels III and IV vegetation,~~ Impacts on other special-status species from removal of existing structures and installation of new structures under the Rebuild-in-Place Alternative would be ***low*** to ***moderate*** (low in the long-term with development of a restoration plan as described in Section 3.4.4). As with the Proposed Action, signage, fences, or flagging would be installed where needed, to restrict vehicles and equipment to designated routes outside of sensitive plant communities ~~and~~.

Access Roads (page 3-25)

The first paragraph of this section has been revised as follows:

As with the Proposed Action, access road construction and improvement would require removal of existing vegetation, grading, compaction, and placement of crushed rock as a road base. Access road construction and improvement and roadside vegetation management under the Rebuild-in-Place Alternative would permanently remove approximately ~~44.0~~44.2 acres of vegetation, of which ~~21.2~~ 21.1 acres would be Level III plant communities and 9.3 acres would be Level IV plant communities (see Table 3.4-3). With implementation of mitigation measures (see Section 3.4.4) construction-related impacts on vegetation resulting from access road improvements would be ***low*** to ***moderate***.

3.5 Wildlife

3.5.1 Affected Environment

Special-Status Species (page 3-32)

The two paragraphs after the bulleted list have been revised as follows:

DOE-RL's biological resource inventory data include records of Level III species within the study area, including ferruginous hawk, Swainson's hawk (*Buteo swainsoni*), and burrowing owl (DOE-RL 2012). Project-specific surveys for ferruginous hawks and other hawks that nest in stick nests were conducted in April and May 2012 using protocols developed in consultation with the WDFW and DOE-RL and three active ferruginous hawk nests were found within the study area (Point Environmental Consulting 2012a). Two were located on steel-lattice towers of the Midway-Benton No. 2 transmission line, which follows the Midway-Benton No. 1 and Benton-Othello No. 1 transmission lines within Segment 4 and one was located on a basalt cliff 0.5-mile north of Segment 3 on the north side of Gable Butte (Point Environmental Consulting 2012b). Field studies found no Swainson's hawk or burrowing owl nesting within the study area. ~~Additional surveys will be conducted later in the 2012 nesting season for hawks and burrowing owl, and results of these surveys will be included in the Final EA.~~

Other Level III species present in the study area include the shrub-steppe-dependent sage sparrow and loggerhead shrike, which ~~are likely~~ were confirmed present within portions of Segments 2, 3, and 4 that contain late-successional (Levels III and IV) shrub-steppe. During the project wildlife surveys, potentially suitable habitat for snake hibernaculum were located in the following areas:

- Possible staging area south of Segment 2;
- Possible staging area adjacent to Segment 4; and
- At the structure footing of existing structures 17/1 and 17/2 (Segment 3).

One additional potential snake hibernaculum was located within the study area at the base of structure 4/3 in Segment 2 during a study conducted by MSA on behalf of DOE-RL. Table 3.5-1 lists all special-status species (or groups of species) likely to occur within the study area.

Table 3.5-1 (page 3-32 to 3-33) has been revised as follows:

Table 3.5-1. Special-Status Wildlife Species Known or Likely to Occur within Study Area

Species	Federal Status[1]	State Status[2,3,4]	Level of Concern	Distribution in Vicinity of Study Area[5]
Ferruginous hawk *Buteo regalis*	Species of Concern	Threatened	III	Three nest sites documented in study area. ~~Nesting occurs on steel-lattice towers associated with 230-kV lines located adjacent to the existing and proposed ROWs and on Gable Butte. Most foraging occurs off-site on and near croplands.~~
Swainson's hawk *Buteo swainsoni*	None	Monitor	III	No nest sites found in study area. Nesting has historically occured~~s~~ on steel-lattice towers associated with 230-kV lines located adjacent to the existing and proposed ROWs.
Golden eagle *Aquila chrysaetos*	None	Candidate	III	No individuals or nests observed in the study area. Not known to nest on the Hanford Site, but breeding pairs, migrants, dispersing juveniles, and wintering individuals may forage throughout the study area.
Burrowing owl *Athene cunicularia*	Species of Concern	Monitor	III	No individuals or burrows observed in the study area. Known to occur historically near Segment 2 (proposed center segment) and near the Hanford Dunes in Segment 4 (eastern segment).
Sage sparrow *Amphispiza belli*	None	Candidate	III	Occurs throughout Levels III and IV shrub-steppe habitat. Three individuals were observed within Segment 1, three individuals were observed within Segment 2, three individuals were observed within Segment 3, five individuals were observed within Segment 4, and two individuals were observed at a potential staging area.
Striped whipsnake *Masticophis taeniatus*	None	Candidate	III	No individuals observed, but potential snake hibernaculum were observed at four locations. ~~Uncommon presence, but individuals may be present throughout the study area.~~
Pale Townsend's big-eared bat *Corynorhinus townsendii pallescens*	Species of Concern	Candidate	III	Not reported on Hanford Site, but potentially present throughout the study area.
Townsend's ground squirrel *Spermophilus townsendii*	Species of Concern	Candidate	II	Documented in and near the Hanford Dunes. May be present throughout the Hanford Site, though none were observed during site surveys.
Black-tailed jackrabbit *Lepus californicus*	None	Candidate	II	Uncommon species presence, but potentially present throughout the study area. No individuals were observed directly, but one jackrabbit trail was observed in Segment 3.
Grasshopper sparrow *Ammodramus savannarum*	None	Monitor	II	Occurs throughout Levels III and IV shrub-steppe habitat. Individuals were observed throughout the study area.

Table 3.5-1. Special-Status Wildlife Species Known or Likely to Occur within Study Area

Species	Federal Status[1]	State Status[2,3,4]	Level of Concern	Distribution in Vicinity of Study Area[5]
Long-billed curlew *Numenius americanus*	None	Monitor	II	May nest and forage in cleared areas (Level I vegetation) located in scattered patches throughout the study area. Four individuals observed in or near Segment 2 and one near Segment 4.
Northern grasshopper mouse *Onychomys leucogaster*	None	Monitor	II	Associated with Hanford Dunes. No individuals were observed in the study area.
Sagebrush lizard *Sceloporus graciosus*	Species of Concern	Candidate	II	Commonly observed in sage brush habitat. No individuals were observed in the study area.
Peregrine falcon *Falco peregrinus*	None	Monitor	II	Nests in cliffs. Forages throughout the study area. No nest sites were identified in the study area~~found~~.
Prairie falcon *Falco meicanus*	None	Monitor	II	Four prairie falcon nests were found. All were located on cliffs, including three associated with Umtanum Ridge and one on the north side of Gable Butte.
Short-horned lizard *Phrynosoma douglassi*	None	Monitor	II	Occurs at low densities throughout the study area. No individuals were observed in the study area.
Night snake *Hypsiglena torquata*	None	Monitor	II	Associated with talus. Most likely in Segment 1 (western segment) and Segment 3 (existing center segment). No individuals were observed, but potential snake hibernaculum were observed at four locations.
Special-status bats (five species)[6]	None	Monitor	II	Roost near basalt outcrops. Forage throughout the area, but this species is more common near the Columbia River. No individuals were observed in the study area.
Special-status butterflies (eight species)[6]	None	Monitor	II	Occurs throughout Levels III and IV shrub-steppe habitat. No individuals were observed in the study area.

Sources: Duncan 2007, The Nature Conservancy 1999, WDFW 2008, USFWS 2011, Gitzen et al. 2002 , Hallock 1998

[1] Federal species of concern is an informal term that refers to those species which the USFWS believes might be in need of concentrated conservation actions

[2] State threatened species include "any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats."

[3] State monitor species are not considered species of concern, but are monitored for status and distribution. They are managed by the WDFW, as needed, to prevent them from becoming endangered, threatened, or sensitive.

[4] State candidate species are those planned for review for possible listing as state endangered, threatened, or sensitive. A species will be considered for designation as a state candidate if sufficient evidence suggests that its status may meet the listing criteria defined for state endangered, threatened, or sensitive.

[5] Includes the results of the 2012 field surveys.

[6] See Appendix C for a full list of the special-status bat and butterfly species.

3.5.2 Environmental Consequences—Proposed Action (Reroute Alternative)

Wildlife Disturbance (page 3-34)

The first paragraph in this section has been revised as follows:

> Incidental mortality from project construction under the Proposed Action would be avoided for most wildlife species because animals are typically highly mobile and will quickly flee if startled by construction equipment. However, small mammals and reptiles that take refuge and hibernate underground (construction would occur over winter) could be ~~harmed or killed~~ impacted during construction. Species that could be ~~harmed in this way~~ directly impacted by the Proposed Action include the abundant Great Basin pocket mouse and some less abundant state monitor species such as short-horned and sagebrush lizards, Townsend's ground squirrels, and northern grasshopper mouse. Direct disturbance of snake hibernaculum, including those possibly used by striped whipsnake, a Level III species, would ~~not occur because no talus habitat would be affected~~be avoided as much as practical. Overall, while some incidental mortality of small animals may occur as a result of the Proposed Action, for those species that are common and prolific reproducers, impacts would occur at the scale of individuals and would likely not have an effect on the local or regional populations. Therefore, incidental mortality impacts on wildlife would be ***low*** to ***moderate***.

Avian Disturbance (page 3-35)

The third paragraph in this section has been revised as follows:

> Disturbance during the migratory bird nesting season would be avoided through construction timing. Vegetation clearing is proposed to take place from October 2012 through March 2013, which is outside of the migratory bird breeding season. BPA would avoid impacts on nesting ferruginous hawks by avoiding construction within 0.6 mile of any active nest site from March 1 through August 1, as required by the Hanford Site Biological Resources Management Plan (DOE-RL 2001). BPA ~~is conducting~~ completed surveys for nesting hawks and burrowing owls in 2012 along the entire proposed and existing ROWs and will be developing site-specific timing restrictions to avoid disturbing hawk nest sites identified during surveys~~nesting hawks and burrowing owls~~. As no burrowing owl dens where found during surveys, no specific restrictions would be needed for burrowing owls. Based on the implementation of mitigation measures (see Section 3.5.4), no direct impacts on active nest sites ~~or dens in vegetation clearing sites~~ would occur.

Habitat Disturbance (page 3-35)

The first paragraph in this section has been revised as follows:

> Long-term habitat modification, loss, and degradation would be the most notable impact on wildlife from the Proposed Action because impacts would be long term and would affect many types of wildlife, including the several special-status species known to occur

within the study area. ~~The~~ Removal of existing structures and installation of new structures ~~Proposed Action~~ would result in temporary disturbance of approximately 19.8~~4~~ acres, including 19.4 acres of late successional shrub-steppe habitat ~~(levels III and IV)~~ and 0.4 acre of basalt outcrops (a Level IV habitat type) (Table 3.4-2). The Proposed Action would also result in the permanent loss of 30.2~~0~~ acres of late-successional shrub-steppe habitat ~~(Levels III and IV)~~ through structure removal and installation ~~placement~~ and access road construction/improvement ~~(Tables 3.4-2 and 3.4-3)~~. Loss of this habitat would directly reduce the local carrying capacity for shrub-steppe-dependent species, including sage sparrow and loggerhead shrike. See Tables 3.4-2 and 3.4-3 for overall habitat disturbances by level of concern.

Table 3.5-2 (page 3-36) has been revised as follows:

Table 3.5-2. Impact Determinations for Special-Status Wildlife Species

Impact Magnitude	Rationale[1]	Species	Level of Concern
Low	Nest disturbance would be avoided through seasonal timing restrictions. Minor reduction in habitat, based on large home range.	Ferruginous hawk *(*most foraging occurs off-site)	III
		Swainson's hawk	
		Burrowing owl	
		Long-billed curlew	II
	Likely absent above ground during proposed construction. Impacts to potential hibernaculum could be minimized or avoided through site-specific mitigation (see Section 3.5.4).	Striped whipsnake	III
		Night snake	II
	Minor reduction in habitat, based on large home range. Nesting occurs greater than 0.6 mile from proposed construction areas.	Golden eagle	III
		Peregrine falcon	II
		Prairie falcon	
Moderate	Nest disturbance would be avoided through seasonal timing restrictions.	Loggerhead shrike	III
		Sage sparrow	
		Grasshopper sparrow	II
		Black-tailed jackrabbit	
	Possible disturbance and incidental mortality during construction. Impacts would be limited to the site of action and at the scale of individuals and would not likely affect local or regional population levels for common and fast reproducing species.	Townsend's ground squirrel	II
		Northern grasshopper mouse	
		Short-horned lizard	
		Sagebrush lizard	

[1] For all species, habitat loss would require, as applicable, on-site restoration and/or off-site compensatory mitigation, in accordance with the *Hanford Site Biological Resources Management Plan* (DOE-RL 2001) and *Hanford Site Biological Resources Mitigation Strategy* (DOE-RL 2003).

3.5.3 Environmental Consequences—Rebuild-in-Place Alternative

Habitat Disturbance (Page 3-37)

The first paragraph in this section has been revised as follows:

> Temporary and permanent alteration of shrub-steppe habitat during access road construction and reconstruction, structure replacement, and the installation of new structures under the Rebuild-in- Place Alternative would reduce habitat for wildlife species associated with such habitats. These impacts would be minimized under the Rebuild-in-Place Alternative because, with the exception of seven structures, all would be constructed within the footprints of existing structures. The structure installation, ~~access road construction,~~ and associated work would result in the temporary disturbance of approximately ~~18.7~~ 13.5 acres of late-successional shrub-steppe habitat ~~(Levels III and IV) (Table 3.4-2)~~ and a permanent loss of approximately ~~30.3~~30.8 acres of late-successional shrub-steppe habitat ~~(Levels III and IV)~~ and 0.7 acres of basalt outcrop ~~(a Level IV habitat type)~~. See revised Tables 3.4-2 and 3.4-3 for overall habitat disturbances by level of concern.

3.5.4 Mitigation Measures—Proposed Action and Rebuild-in-Place Alternative (page 3-38)

The following mitigation measure has been added to this section:

- Minimize and, if practicable, avoid disturbance of potential snake hibernaculum.

3.8 Cultural Resources

3.8.1 Affected Environment (page 3-62)

The third and fourth paragraphs in this section have been revised as follows:

> Historic properties include prehistoric resources that predate European contact and settlement and historic resources that post-date that time. TCPs are another type of property~~ies~~ that ~~are~~can be eligible for inclusion in the NRHP because of their association with the cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community (Parker and King 1998). The area of potential effects (APE; defined in 36 CFR 800.16[d]), for cultural resources includes the existing ROW (Segments 1, 3, and 4), the proposed reroute ROW (Segment 2), the proposed new and reconstructed access roads that extend outside of the ROW, staging areas, and pulling sites.
>
> The earliest inhabitants in the region surrounding the APE were present by at least 12,000 years before present (B.P.). During the early portion of this period the people of the region would have been mobile, migrating between reliable habitation sites throughout the year. These habitation sites were likely situated near stable and predictable seasonal food resources, such as plants and ***anadromous*** fish, and can be seen in the archaeological record by the presence of a variety of artifacts such as stone and bone

tools, associated debris from the manufacture of those tools, and ***midden*** materials (i.e., plant remains and organic remains such as shell and bone) (Dampf et al. 2012).

Archaeological Resources (page 3-64)

The first paragraph in this section has been revised as follows:

In compliance with NHPA, BPA ~~is~~ identifiedying and documenteding cultural resources in the APE and evaluateding them for eligibility for listing in the NRHP. In the first step of identification, BPA conducted a literature review of known cultural sites (Dampf et al. 2012). This literature review identified a total of 153 prehistoric sites, 67 historic sites, and six multi-component sites (sites that have both pre-historic and historic resources) (226 total) within a mile search radius (0.5 mile on either side of the APE was included in the survey area due to the large number of previously recorded sites). Of these 226 sites, 14 sites were identified during the background research within the project APE, including 7 prehistoric sites, 5 historic sites, and 1 possible modern isolated find. The APE also passes through the edge of one archaeological district, 45DT102, Nookshai or the Gable Mountain-Gable Butte Cultural District. This district consists of archaeological resources including isolated and clustered rock cairns, talus pits and lithic scatters. The background research identified one site from the archaeological district, 45BN356, as being near or in the APE.

Built Resources (page 3-66)

The first paragraph in this section has been revised as follows:

BPA ~~is~~ also evaluat~~ing~~ed built resources (built environment which includes historic sites, buildings, structures, objects, districts, and landscapes) for inclusion in the NRHP. Currently, BPA is in the process of compiling a Multiple Property Submission (a thematic group listing of similar resources) to the NRHP for BPA's transmission infrastructure and defined the period of significance as 1937 to 1974. The existing Midway-Benton No. 1, Midway-Benton No 2, and the Benton-Othello No. 1 transmission lines are part of BPA's transmission infrastructure and were all constructed during the period of significance. BPA has determined that these lines are eligible for listing on the NRHP. ~~BPA is evaluating what effects the Proposed Action, Rebuild-in-Place Alternative, or the No Action Alternative may have on these lines.~~

Traditional Cultural Properties (page 3-66)

The first paragraph in this section has been revised as follows:

There are two known TCPs in the APE, Gable Mountain and Gable Butte. These two TCPs are sacred to and highly revered by American Indians and are periodically used by the tribes for ceremonies and other cultural practices. Both TCPs have not been formally determined eligible to the NRHP, but have been considered eligible in the past by BPA and consulting parties. BPA ~~is~~ consult~~ing~~ed with the Confederated Tribes and Bands of

the Yakama Nation, the Confederated Tribes of the Colville Reservation, the Nez Perce Tribe, the CTUIR, and the Wanapum Band to determine if there are any additional TCPs present within the APE and to determine any impact the Proposed Action, Rebuild-in-Place Alternative, or the No Action Alternative may have on identified TCPs. Through that consultation, affected tribes identified two additional TCPs within the APE.

3.8.2 Environmental Consequences—Proposed Action (page 3-66 to 3-67)

This section has been revised as follows:

BPA is required under the NHPA to consider the effects of the Proposed Action to sites eligible for listing on the NRHP. An additional four new sites were identified within the Proposed Action APE. Most of the sites located within the APE have either been determined not eligible for listing on the NRHP or they will be avoided during construction; therefore, the undertaking will have no effect on them. Of the sites that are eligible or potentially eligible for listing on the NRHP, site 45BN1314 is the only site that could be impacted if further avoidance or minimization efforts are not undertaken. After review of the site 45BN1314 boundaries, BPA found that it would avoid adversely affecting site 45BN1314. BPA would perform most work beyond the site boundary and would access the work areas from outside the site. Any work necessary within the site boundary would occur on timber matting to avoid impacting the site. Based on the implementation of these avoidance measures, the Proposed Action would have no adverse effect on site 45BN1314.~~Avoidance and minimization measures could include moving the structure out of the boundaries of site 45BN1314 or using mats to cover the site during construction. BPA, in consultation with DOE-RL, Washington State Historic Preservation Office (SHPO), and the consulting tribes, is currently evaluating methods to eliminate or reduce impacts to site 45BN1314 and these mitigation measures will be included in Section 3.8.4 of the Final EA.~~

BPA evaluated the Proposed Action impacts to built resources within the APE. As the Benton-Othello No. 1 transmission line would be rebuilt in place with a similar design and configuration, BPA has determined that the Proposed Action would have no adverse effect on the Benton-Othello No. 1 transmission line. Although a portion of the Midway-Benton No. 1 transmission line would be rerouted and would alter the setting of the line, the reroute of Segment 3 would not alter the essential function of the transmission line. Based on the Multiple Property Submission for the BPA Transmission Network, the reroute of Segment 3 would not have an adverse effect on the Midway-Benton No. 1 transmission line (Kramer 2012).

Removal of the line in Segment 3 would result in temporary ground disturbance in the Gable Mountain and Gable Butte TCPs. BPA ~~is currently~~ worked~~ing~~ with the consulting Tribes (the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Colville Reservation, the Nez Perce Tribe, the CTUIR, and the Wanapum Band) to determine and minimize any impacts to these TCPs. Depending upon the avoidance and minimization measures implemented based on consultation with the Tribes, the removal of the existing Midway-Benton No. 1 transmission line across the Gable Mountain and Gable Butte topographic TCP high points may result in a ***moderate***

to ***high*** short-term impact on the TCPs. Implementation of mitigation and minimization measures developed in coordination with the Tribes through the NHPA consultation process would reduce these ***moderate*** to ***high*** short-term impacts to the TCP. Over the long term, removal of the Midway-Benton No. 1 transmission line from the TCPs would have a ***high*** beneficial impact on cultural resources.

The Proposed Action would also impact two additional TCPs that were recently identified within the APE. Temporary ground disturbance caused by project construction and restoration would result in a ***moderate*** to ***high*** short-term impact on the TCPs. Implementation of the mitigation measures developed in coordination with the Tribes through the NHPA consultation process would help reduce the short-term impacts to the TCPs.

Based on the finding of the cultural resources study for the APE, BPA made a finding that the project would have an adverse effect on identified TCPs. BPA, in coordination with affected tribes, DOE-RL, Washington SHPO, and the Advisory Council for Historic Preservation (ACHP) developed a Memorandum of Agreement (MOA) for the project. The MOA was prepared to identify project stipulations and to address adverse effects to TCPs from the Proposed Action. The MOA was signed by BPA on December 6, 2012. BPA expects the Washington SHPO, ACHP, Confederated Tribes and Bands of the Yakama Nation, the Nez Perce Tribe, the CTUIR, and the Wanapum Band to sign the MOA in December 2012.

3.8.3 Environmental Impacts—Rebuild-in-Place Alternative (page 3-67 to 3-68)

This section has been revised as follows:

Under the Rebuild-in-Place Alternative, impacts could occur to known cultural resources within the APE. Field surveys confirmed three previously-identified cultural resources sites and five newly-identified sites in the APE (some of these sites would be along both the Rebuild-In-Place Alternative and the Proposed Action). Most of the sites located within the APE have either been determined not eligible or they will be avoided during construction. Of the sites that are eligible or potentially eligible for listing on the NRHP along the Rebuild-in-Place Alternative APE, 45BN1314 is the only site located in an impact area (in the same location as described for the Proposed Action). As with the Proposed Action, this site could be impacted if further avoidance or minimization efforts are not undertaken. BPA~~, in consultation with DOE-RL, SHPO, and the consulting tribes, is currently evaluating methods to eliminate or reduce impacts to site 45BN1314~~ would avoid adversely affecting site 45BN1314 by completing most work outside of the site boundaries and completing any work within the site boundaries on timber matting to avoid impacting the site.

BPA evaluated the Rebuild-in-Place Alternative impacts to built resources within the APE. As the Benton-Othello No. 1 and Midway-Benton No. 1 transmission lines would be rebuilt in place with a similar design and configuration, BPA has determined that the Rebuild-in-Place Alternative would have no adverse effect on these transmission lines.

BPA is currently consulting with the Tribes to identify any ethnobotanical populations of concern. Traditional food or medicinal plants identified in project workspaces would be disturbed by vegetation clearing, vehicle access, and ground disturbance activities. The direct replacement of most structures under the Rebuild-in-Place Alternative would minimize the impacts on these resources by using areas that were disturbed by the original installation of the transmission lines. The mitigation measures identified in Section 3.8.4 and 3.4.4 would minimize project-related impacts on these resources to ***low*** to ***moderate***.

The existing ROW currently runs adjacent to or over Gable Mountain and Gable Butte TCPs and two additional identified TCPs within the APE. Rebuilding the line in place would have temporary ***moderate*** to ***high*** impacts on these TCPs during structure replacement. Further, over the long term, the continued presence of the Midway-Benton No. 1 transmission line on Gable Mountain and Gable Butte would likely have a ***high*** long-term impact on the TCPs. As part of the NHPA Section 106 consultation process, BPA would implement the mitigation measures identified in Section 3.8.4 in addition to implementing additional mitigation measures developed with the consulting parties to reduce impacts to the Gable Mountain and Gable Butte TCPs and any other TCPs identified by the consulting Tribes.

3.8.4 Mitigation Measures—Proposed Action and Rebuild-in-Place Alternative (page 3-68)

The third and fourth bullets of this section have been revised as follows:

- Implement BPA's ~~Inadvertent~~ Unanticipated Discovery Procedure for ~~projects~~cultural resources. This procedure provides that: should ground-disturbing activities reveal any cultural materials (e.g., structural remains, Euro-American artifacts, or Native American artifacts), all activities in the vicinity of the find would cease. The BPA archaeologist, the Washington Department of Archaeology and Historic Preservation, and affected tribes would be notified immediately.

- The Inadvertent Discovery of Human Remains Procedure would also require crews to cease construction immediately within 200 feet of any human remains, suspected human remains, or any items suspected to be related to a human burial (i.e., funerary items, sacred objects, or objects of cultural patrimony) encountered during project construction. The area around the discovery will be secured and the Benton County Sheriff, the BPA archaeologist, the State Historic Preservation Officer, DOE-RL archeologist, and the affected tribes would be contacted immediately. All response processes would be coordinated with DOE-RL staff in accordance with the agreements and management plans for the Hanford Site.

3.8.7 Environmental Consequences—No Action Alternative (page 3-69)

This section has been revised as follows:

Under the No Action Alternative, the existing Midway-Benton No. 1 and Benton-Othello No. 1 transmission lines would not be rebuilt and impacts related to project construction would not occur. The continued presence of the Midway-Benton No. 1 transmission line

would continue to impact the Gable Mountain and Gable Butte TCPs and the other identified TCPs within the study area. Operation and maintenance activities would continue and would be similar to existing practices, however, the frequency and scope of maintenance activities would likely increase as existing structures deteriorate, and more structure repairs and replacements are required. This could in turn result in additional ground disturbance that would have the potential to affect cultural resources. Impacts associated with continued routine maintenance of the existing line as well as emergency additional repairs could range from ***low*** to ***high***, depending on the level and amount of disturbance, the location of the disturbance (i.e., within a TCP or not), and the eligibility of other resources for listing on the NRHP.

3.11.1 Affected Environment (page 3-82)

Public Health and Safety

The second paragraph has been revised as follows:

Electromagnetic fields can also interfere with electrical equipment, including radio and television interference. ***Electromagnetic interference*** (EMI) can occur from corona activity or as a result of ***spark-discharge activity*** from aging hardware. Corona activity is primarily a function of the operating line voltage, while spark-discharge activity on connecting hardware is usually associated with the aging condition of hardware (e.g., over time, hardware connections can become loose and corroded, thus causing small spark-gaps). ~~As with corona audible noise, corona~~

3.11.4 Mitigation Measures—Proposed Action and Rebuild-in-Place Alternative (page 3-88)

The bullets have been revised as follows:

- If blasting is required, take appropriate safety measures and follow all applicable regulations, including obtaining an explosives permit from DOE-RL Fire Department and obtaining a Prohibited Article Pass from DOE-RL Security. Lock up or remove all explosives from work sites at the end of the workday.
- All off road driving must adhere to the latest revision of the Fire Marshal Bulletin.
- Coordinate all helicopter landings daily with the Hanford Patrol.
- Develop a helicopter refueling protocol, if needed.

Chapter 4 - Consultation, Review, and Permit Requirements

4.3 Fish and Wildlife

4.3.2 Fish and Wildlife Conservation Act and Fish and Wildlife Coordination Act (page 4-2 to 4-3)

This paragraph has been revised as follows:

BPA coordinated with the WDFW and the USFWS in developing the scope of issues to be addressed in this EA. BPA also coordinated with WDFW and USFWS in developing a Biological Resources Study Plan prepared specifically for the proposed project to identify nesting hawks, burrowing owls and other wildlife (Point Environmental Consulting 2012a). Results of these studies have been incorporated into the Final EA and will be provided to WDFW and USFWS for further coordination, as appropriate.~~will be incorporated into the Final EA.~~

4.5 Cultural Resources (page 4-6)

The second paragraph has been revised as follows:

In compliance with NHPA, BPA ~~is identify~~identified~~ing~~ and documented~~ing~~ cultural resources in the study area and evaluated~~ing~~ them for eligibility for listing on the NRHP. BPA ~~is~~ also conducted~~ing~~ field surveys of the APE, in consultation with the tribes, to identify previously undocumented sites and to determine any impacts the project may have on the resources ~~(see Section 3.8)~~. The results of the cultural resources study are summarized in Section 3.8. Based on the finding of the cultural resources study for the APE, BPA made a finding that the project would have an adverse effect on cultural properties. BPA, in coordination with affected tribes, DOE-RL, ACHP, and Washington SHPO, developed a MOA for the project. The MOA was signed by BPA on December 6, 2012. BPA expects the Washington SHPO, ACHP, Confederated Tribes and Bands of the Yakama Nation, the Nez Perce Tribe, the CTUIR, and the Wanapum Band to sign the MOA in December 2012. The mitigation measures identified in Section 3.8.4 and in the MOA would minimize impacts from the Proposed Action on these resources.

Chapter 7 - References (page 7-3)

This list has been revised as follows:

Kramer, G. 2012. Bonneville Power Administration Transmission System National Register Multiple Property Submittal (Draft Submittal v2.0). Kramer & Company, Ashland, Oregon. Submitted to Bonneville Power Administration Portland, Oregon.

Point Environmental Consulting, Inc. 2012b. Midway-Benton No. 1, Benton-Othello No. 1 Transmission Line Rebuild Project Biological Resource Study Summary Report. Prepared for Bonneville Power Administration. August 1, 2012.

Appendix C - Biological Resources Supplemental Information

C.1.1 Special-Status Plants (page C-1)

Suitable habitat may be present for several state-listed plant species that have not yet been previously identified in the Proposed Action or Rebuild-in-Place Alternative ROWs, work areas, staging areas, and access roads. Botanical field surveys ~~are underway concurrently with the Preliminary EA~~ were completed between April and June 2012 to determine the presence or absence of these species (Table C-1). ~~and results from these surveys will be included in the Final EA~~Section 3 of the Final EA has been updated to

reflect the results of the field surveys.

C.1.2 Noxious Weeds (page C-3)

Noxious weeds potentially present within the project area are listed in Table C-2. Botanical field surveys ~~are underway concurrently with the Preliminary EA~~ were completed between April and June 2012 to determine the presence or absence of these species (Table C-2). ~~and results from these surveys will be included in the Final EA~~Section 3 of the Final EA has been updated to reflect the results of the field surveys.

Public Comment

This section presents comments received on the Preliminary EA and responses to those comments. Comments are numbered consecutively as they were received. BPA received a total of four comments. Table 1 provides the comment numbers and the associated author and their affiliation.

Table 1. Public Comments on the Preliminary Environmental Assessment

Comment Number[1]	Comment Author/Affiliation
MB1R12 0002	Buck/Wanapum Band
MB1R12 0003	Clear/Washington Department of Ecology
MB1R12 0004	Longenecker/Confederated Tribes of the Umatilla Indian Reservation
MB1R12 0005	Bartrand/Washington Department of Fish and Wildlife

[1] No comment was provided for MB1R12 0001.

Comment MB1R12 0002

Buck/Wanapum Band

It is a concern that BPA only defines the action as the construction of the transmission line. In most actions, such as this, the agency (DOE) defines the action as the construction, operation, and maintenance.

This is important, as the new line will operate at least 60 years. Wanapum will require certain prohibitions at certain times of the year. If BPA does not define the action as operation and maintenance, BPA will only be able to agree to prohibitions for construction.

That is just one example. When we add operation and maintenance, which again is generally standard then we begin to think differently about the impacts. We would like to see the discussion on operation and maintenance included in the action and expanded where it is currently very brief elsewhere in the current EA version.

Response to Comment MB1R12 0002:

Thank you for your comment regarding the acknowledgment of operations and maintenance of the line as well as construction as part of the Proposed Action. The EA considered the impacts of operation and maintenance, and BPA has revised sections to make sure this is clear. BPA has updated Sections 1.1 and 2.1 to clarify that continued operation and maintenance of the Midway-Benton No. 1 and Benton-Othello No. 1 transmission lines are included in the evaluation of the Proposed Action and the Rebuild-in-Place Alternative. Sections 2.2.4 (Operation and Maintenance) and 2.2.6 (Vegetation Management during Operation and Maintenance) and for the Proposed Action and Sections 2.3.4 (Operation and Maintenance) and 2.3.6 (Vegetation Management during Operation and Maintenance) for the Rebuild-in-Place Alternative discuss the operation and maintenance of the transmission lines. Further, throughout Chapter 3 of the Preliminary EA addresses the impacts associated with the operation and maintenance of the transmission lines.

As future operation and maintenance activities over the life of the transmission lines are difficult to predict, BPA has addressed the project-related impacts associated with operation and maintenance to the extent known at this time. Future operation and maintenance activities beyond routine patrols and vegetation management (see BPA's *Transmission System Vegetation Management Program Final Environmental Impact Statement / Record of Decision* [BPA 2000]) would require additional NEPA, NHPA, and ESA review prior to the undertaking.

Comment MB1R12 0003

Clear/Washington Department of Ecology

MB1R12 0003

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

July 20, 2012

Katey Grange
Bonneville Power Administration
PO Box 3621
Portland, OR 97208-3621

Re: Midway-Benton No. 1 Transmission Line Rebuild Project

Dear Ms. Grange:

Thank you for the opportunity to comment on the preliminary EA for the Midway-Benton No. 1 Transmission Line Rebuild Project. We have reviewed the document and have the following comment.

Toxics Clean-up

If contamination is observed when disturbing soil for transmission line rebuilding; sampling of the potentially contaminated media must be conducted. If contamination of soil or groundwater is readily visible, or is revealed by sampling; Ecology must be notified. Contact the Environmental Report Tracking System Coordinator at the Central Regional Office at (509) 575-2490 if contamination is encountered.

If you have any questions or would like to respond to these Toxics Clean-up comments, please contact **Valerie Bound** at (509) 454-7886.

Sincerely,

Gwen Clear

Gwen Clear
Environmental Review Coordinator
Central Regional Office
(509) 575-2012

667

Response to Comment MB1R12 0003:

BPA will ensure that if potential soil or groundwater contamination is observed during construction, sampling will occur. If sampling reveals soil or groundwater contamination or contamination is readily apparent, the Washington State Department of Ecology Environmental Report Tracking System Coordinator will be notified.

Comment MB1R12 0004

Longenecker/Confederated Tribes of the Umatilla Indian Reservation

Keeping in mind the verbal discussions that the Hanford Tribal Technical Working Group has had with you during monthly meetings for this project, I did not find it necessary to reiterate the discussion points made there. Instead, I wanted to add some new comments and questions that I had during a recent read of the EA that was distributed in June 2012.

The CTUIR CRPP will continue to stay involved with this project on the front end which includes pre-construction, construction, operations, and maintenance. Concerns will develop during construction and the life of the transmission line and the CRPP wants to continue to consult with BPA on these efforts. As for the future, the CRPP wants to make sure there is adequate funding for continued cultural resources activities associated with this project and life of the line. Perhaps there should be a cooperative agreement of sorts for Tribes to help with future activities associated with all future BPA activities (includes meetings, office, and field work) on Hanford.

As discussed in our technical meetings, in years to come, CTUIR would like to consult with BPA on the eventual removal of all lines on Gable Mountain. Removal of the Midway-Benton No. 1 is a good start.

P.2-8: 2.2.2. Access Roads: BPA states that they do not plan on improving existing access roads to remove the structures in Segment 3 (including the Gable Butte and Gable Mountain areas) unless necessary. Based on past experience with BPA and road access, the CRPP requires technical consultation if any road work is needed. All road work should be monitored at all times to ensure that the contractor is staying within the confines of the scope of work.

BPA says they will still maintain the Midway-Benton No. 2 transmission line in this segment, therefore the access roads for Midway-Benton No. 1 would be left in place. Is there only one access road for both lines? Do both lines parallel each other? The CRPP was hoping that after line removal of No. 1 that the access road and all improvements to the road would be removed as well.

P.2-14: 2.4: Construction Activities: BPA's general construction sequence for this activity would first include removal of structures, conductors, ground wire, and counterpoise. CRPP requests to be notified prior to activities at each structure and may at that time request further consultation regarding how a particular pole or structure is to be removed.

P.3-62: 3.8.1: Cultural Resources: The third paragraph in this section needs to be re-written. Historic properties do not include only prehistoric resources and TCPs are not properties that have to be eligible. In the 4th paragraph, there is a typo (he should be the).

P.3.66: Traditional Cultural Properties: Tribes need to discuss how to refer to Gable Mountain and Gable Butte. BPA refers to them as separate TCPs. Is there one TCP landscape that includes both major land forms or does oral history separate the Mountain from the Butte? This section will expand upon discussions with Tribes.

P. 3-68: 3.8.4: Mitigation Measures--: Bullets three and four need clarification. If BPA has two Inadvertent Discovery Plans, one for archaeological material and one for human remains, then they should be labeled as such. Bullet #3 should read "Implement BPA's Inadvertent Discovery of Archaeological Materials Procedure for Projects and bullet #4 should read "The Inadvertent Discovery of Human Remains Procedure. At Hanford we use the term, unanticipated discovery of cultural resources, to avoid unnecessary confusion with the discovery of human remains. I suggest taking a look at the titles of your procedures and add the exact titles here.

This is all I have for now. Thank you for all your time that you have given us to discuss this project, our concerns, and questions. Julie

Response to Comment MB1R12 0004:

BPA appreciates the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) continued involvement in this project.

BPA is committed to providing adequate funding for cultural resource activities associated with the Midway-Benton No. 1 Transmission Line Rebuild Project. To date, BPA has funded cultural resources surveys of the project area, which included tribal ethnographical and traditional cultural property assessments. As part of the EA, BPA committed in Section 3.8.4 (Mitigation Measures-Proposed Action and Rebuild-in-Place Alternative) to specific actions to minimize the impacts to cultural resources. BPA also signed a MOA with Washington SHPO, ACHP, and the consulting tribes committing to additional provisions to reduce and mitigate the adverse effects to TCPs crossed by the Proposed Action. In addition, DOE-RL provides funding for Hanford Site activities.

Section 2.2.2 Access Roads (page 2-8): BPA does not expect existing access roads in Segment 3 to need improvement because they are sufficient for the type of equipment that is required for pole removal. However, BPA acknowledges that additional consideration will be required if road improvements are necessary. If the construction contractor identifies a need to improve the access, they will be required to contact BPA first so it can be determined if additional surveys or consultations are needed, as specified in the MOA, and to ensure monitors are on site for ground disturbing activities.

Regarding the existing access roads in Segment 3, these roads serve both the Midway-Benton No. 1 and the Midway-Benton No. 2 transmission lines because the lines are adjacent to each other in the same right-of-way. So although BPA is proposing to remove the Midway-Benton No. 1 line in this segment, the access roads would need to remain in order to continue to operate and maintain the Midway-Benton No. 2 transmission line.

Section 2.4 Construction Activities (page 2-14): BPA will provide consulting tribes, including the Confederated Tribes of the Umatilla Indian Reservation, with a construction schedule so that all tribes are aware of the timing of construction activities. During construction, BPA will employ tribal monitors to be present during all ground-disturbing activities with the potential to affect cultural resources. BPA will conduct all construction activities in compliance with the mitigation measures included in the preliminary EA, Revision Sheet and attached Mitigation Action Plan, as well as the terms and conditions described in the MOA between BPA and the consulting tribes, Washington SHPO, ACHP, and DOE-RL.

Section 3.8.1 Affected Environment (page 3-62): The Revision Sheet reflects your comment.

Section 3.8.1 Traditional Cultural Properties (page 3-66): At this point, BPA has been referring to Gable Mountain and Gable Butte as two separate TCPs, as the Gable Mountain and Gable Butte Resource Management Plan identifies two separate boundaries for these features. BPA understands that some consulting tribes may have different boundaries or view Gable Mountain and Gable Butte as one TCP. BPA consulted with the Confederated Tribes of the Colville Indian Reservation, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes and Bands of the Yakama Nation, Nez Perce Tribe, and Wanapum Band to delineate the TCP

boundaries appropriate for each tribe. This information was used, as appropriate, to determine project-related impacts, minimization, and mitigation under the NHPA.

Section 3.8.4 Mitigation Measures--Proposed Action and Rebuild-in-Place Alternative (page 3-68): The Revision Sheet reflects your comment.

Comment MB1R12 0005

Bartrand/Washington Department of Fish and Wildlife

MB1R12 0005

State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 1701 South 24th Ave., Yakima WA 98902, (509) 575-2740, TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia WA

July 23, 2012

Bonneville Power Administration
Attn: Erich Orth, Project Manager
P.O. Box 14428
Portland, OR 97293-4428

Subject: TEP-TPP-3 / Comments on Midway-Benton No. 1 Transmission Line Rebuild Project

Dear Mr. Orth:

The areas of the existing Midway-Benton No. 1, No. 2; and the proposed "No.1 Reroute" alignments traverse some of the more intact sage- and wetlands within the main Hanford Area. The Rebuild activities should be timed to avoid the lesser-disturbed habitat areas during nest-building through fledging seasons and late-winter stress periods, generally, to cause the least disturbances during construction and reconstruction. For instance, work should be avoided near foraging habitats or known raptor breeding sites within the period of March 15 to July 31, with the actual avoidance period being dependent on the raptor nesting habitats potentially disturbed. Within documented sage grouse nesting areas; in mid-March though early-July a no-work/no-disturbance buffer of one-half mile should be maintained at all times.

We favor the Proposed Alternative that relocates the alignment to the south of Gable Mtn./Gable Butte, and also avoid much of the sensitive nearby bottomlands. We view new disturbances associated with the relocation and rebuild with much caution, however. Also, removal of abandoned, 70-year old infrastructure should be done with the least ground disturbance possible (e.g. remove only above-ground features using hand tools and a helicopter, etc).

Generally, the work and new disturbances should only occur within or near already disturbed or fragmented habitats. Conservation of existing soil horizon profiles, where previously undisturbed, and weed/cheatgrass control should be vigilantly carried out post project. Our recommendations to mitigate site disturbances and conduct baseline studies are encompassed in "Wind Power Guidelines", Washington Department of Fish and Wildlife, April 2009 (wdfw.wa.gov/publications/00294/.

Raptors are prevalent throughout the proposed project area. Mike Livingston, District Wildlife Biologist, represents WDFW in assisting with the identification of the species-specific timing of work on the Hanford Area to provide the best protections for sensitive birds and terrestrial species. He can be reached at 509-545-2201. Changes in Hanford

Midway-Benton No. 1 Rebuild
July 23, 2012
Page 2

contractor oversight and process made him unable to renew his expired security pass in time to conduct a field survey and meet the deadline for comments on this preliminary EA. We urge that Mr. Livingston is proactively engaged well-before the development of a Finding on the EA, an adopted alternative, and the formulation of a work plan and schedule; so as to assist in complete wildlife surveys being performed according to the best scientific knowledge.

Thank you for the opportunity to provide these comments. Please call me at (509) 457-9310 if you have questions or need more information

Sincerely,

Eric Bartrand
Area Habitat Biologist

EB:eb

Cc: Livingston
Teske

Response to Comment MB1R12 0005:

Thank you for your comments regarding potential disturbances to habitats and bird species in the Hanford Area. BPA has appreciated working with WDFW and Mr. Livingston, WDFW's District wildlife biologist, as well as with the USFWS and DOE-RL, during the drafting of the project study plan for determining potential impacts to wildlife species. WDFW's comments on the plan helped determine appropriate survey periods for ferruginous hawks and identify known sensitive species locations. Mr. Livingston's species location knowledge informed BPA's field studies conducted in May and June, 2012. For example, BPA included an additional early hawk survey as a result of Mr. Livingston's comments. The results of the field studies have been documented in a Biological Resource Study Summary, which has been sent to Mr. Livingston for review (August 2, 2012) and incorporated into this Revision Sheet (Point Environmental Consulting 2012b). BPA will continue to coordinate with Mr. Livingston through final mitigation planning and implementation.

As discussed in Section 3.6 (Water Resources) of the EA, no wetlands are present within the project area. BPA confirmed the absence of wetlands during the biological field studies conducted in May and June of 2012. Impacts to shrub-steppe habitat are evaluated in Section 3.4 (Vegetation) of the EA. In addition, no documented sage grouse nesting areas are located within 0.5 mile of the proposed and existing ROWs and no sage grouse were observed during the field surveys.

In addition, BPA designed the rebuild project to minimize impacts by following existing utility corridors, minimizing work areas, and using existing access roads (i.e. previously disturbed areas) as much as practical. Work in Segments 1 and 4 would largely occur within the existing, disturbed ROWs. Sections 3.3.4 and 3.4.4 of the EA discuss measures that would mitigate impacts on soils

and vegetation, including control of invasive plant species through post-project monitoring and revegetation.

The mitigation measures proposed for the project incorporate the minimization and mitigation measures outlined in the *Hanford Site Biological Resources Management Plan* (DOE-RL 2001) and *Final Environmental Assessment for Integrated Vegetation Management of the Hanford Site* (DOE-RL 2011). BPA believes that the mitigation measures also meet the intent of the measures outlined in WDFW's Wind Power Guidelines that are applicable to transmission line construction and operation and will implement the mitigation with continued coordination with WDFW and DOE-RL.