

# Alvey-Fairview Transmission Line Rebuild Project

## Final Environmental Assessment

Bonneville Power Administration  
DOE/EA-1891  
May 2014

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### Summary

The Bonneville Power Administration (BPA) is proposing to rebuild its Alvey-Fairview transmission line which runs from Eugene to Coquille, Oregon. The aging, 97.5-mile-long 230-kilovolt (kV) line requires replacement of its wood-pole structures and other line components and needs improvements to its access road system, the roads that provide access to the transmission line right-of-way for ongoing operations and maintenance.

BPA released the Draft Environmental Assessment (EA) for the Alvey-Fairview Transmission Line Rebuild Project on February 7, 2014 for public comment; the comment period ran through to March 3, 2014. The EA describes the project, its potential environmental impacts, and mitigation measures to reduce these impacts. BPA sent the Draft EA to agencies and interested parties and notified other potentially affected parties about the availability of the Draft EA, as well as how to request a copy.

This document provides changes made to the text of the Draft EA, as well as the comments received on the Draft EA and BPA's responses to those comments. The Draft EA, with the addition of these changes and the response to comments, constitutes the Final EA. The Draft EA is available on the [Project webpage](#) or by calling 1-800-622-4520.

### Changes to the EA

A number of minor changes were made to the Draft EA and are presented below by the chapter and section in which they appear in the Draft EA. The majority of the changes are related to changes in quantities of danger tree removal and clarifications in construction timing restrictions for northern spotted owl and marbled murrelet. Where text has been modified, the original text is provided in context of where it was published in the Draft EA and then immediately followed by the revised or new Final EA text.

# Changes to Chapter 2—Proposed Action and Alternatives

## 2.1 Proposed Action

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### 2.1.1 Rights-of-way and easements

The second paragraph in Section 2.1.1 (page 2-2) has been revised from the Draft EA text below:

On BLM land, BPA has existing access-rights to use most roads to access the transmission line right-of-way. BPA would continue to use these existing access-rights roads, and as part of this project would either use the roads as is (direction of travel), or reconstruct or improve these roads (see Table 2-2 below). In a few locations, however, BPA currently does not have access-rights to use certain roads on BLM land. As part of the Proposed Action, BPA submitted an *Application for Transportation and Utility Systems and Facilities on Federal Lands Application (SF-299)* to the BLM (April 4, 2013) (BPA, 2013). This application requested a BLM right-of-way grant for new access-rights on 6.4 miles of road on BLM land so that crews can get to transmission structures for construction and yearly operation and maintenance activities (see Table 2-3 below). These roads are referred to as “new access-rights roads on BLM land” in this document.

The Final EA text reads as follows:

On BLM land, BPA has existing access-rights to use most roads to access the transmission line right-of-way. BPA would continue to use these existing access-rights roads, and as part of this project would either use the roads as is (direction of travel), or reconstruct or improve these roads (see Table 2-2 below). In a few locations, however, BPA currently does not have access-rights to use certain roads on BLM land. As part of the Proposed Action, BPA submitted an *Application for Transportation and Utility Systems and Facilities on Federal Lands Application (SF-299)* to the BLM (April 4, 2013; revised form sent March 17, 2014) (BPA, 2013; BPA, 2014). This application requested a BLM right-of-way grant for new access-rights on 6.4 miles of road on BLM land in the Weaver Road area so that crews can get to transmission structures for construction and yearly operation and maintenance activities (see Table 2-3 below). These roads are referred to as “new access-rights roads on BLM land” in this document.

The following rows in Table 2-1 (page 2-3) has been revised from the Draft EA table text below:

**Table 2-1. Proposed Action description**

| Proposed description   | Quantity                        |
|--|---------------------------------|
| Vegetation removal   |                                 |
| Removal of danger trees outside transmission line right-of-way | 100 (approximately 1 tree/mile) |

The Final EA table text reads as follows:

**Table 2-1. Proposed Action description**

| Proposed description   | Quantity               |
|--|------------------------|
| Vegetation removal   |                        |
| Removal of danger trees outside transmission line right-of-way | Estimated as up to 100 |

### 2.1.5 Access roads

#### Access-rights roads on BLM land

The table title and following rows in Table 2-5 (pages 2-14 through 2-15) have been revised from the Draft EA table text below:

**Table 2-5. Environmental design features/mitigation measures for new access-rights roads on BLM land**

|   |
|---|
| <ul style="list-style-type: none"> <li>• Restrict access road reconstruction and improvement work during the critical breeding periods to minimize disturbance from noise to spotted owls and marbled murrelets.</li> <li>• Follow Oregon Department of Fish and Wildlife's (ODFW) in-stream guidelines for stream culvert placement, which is typically from July 1—September 15.</li> </ul> |
|---|

The Final EA table text reads as follows:

**Table 2-5. Environmental design features/mitigation measures for access-rights roads on BLM land**

|  |
|--|
| <ul style="list-style-type: none"> <li>• Restrict access road reconstruction and improvement work during the critical breeding periods for marbled murrelets and northern spotted owls as described in Section 2.1.7 to minimize disturbance.</li> <li>• Follow Oregon Department of Fish and Wildlife's (ODFW) in-stream guidelines for stream culvert placement, which is typically from July 1—September 15, or during ODFW biologist-approved extensions.</li> </ul> |
|--|

### 2.1.6 Vegetation removal

The first and second paragraphs in the Section 2.1.6 (page 2-15) have been revised from the Draft EA text below:

As part of the Proposed Action, vegetation would be removed to facilitate construction and ensure safe operation of the line. A total of about 266 acres of grasses, low-growing shrubs, and agricultural crops would be disturbed or

cleared for construction activities; an estimated 100 danger trees would be cut adjacent to the transmission line right-of-way (danger trees), and 180 trees would be cleared for access road work (Table 2 6).

Danger trees are trees located outside of the transmission line right-of-way; they are trees that have the potential to fall or grow into or grow too close to the conductor and cause flash-overs or line outages. Routine vegetation management activities have recently removed danger trees along the transmission line right-of-way. However, following construction, additional danger trees could be identified that require removal depending on whether the conductor sags differently such that a tree would potentially touch or grow too close to the wires. BPA estimates that there could be an estimated 100 danger trees that may require removal following construction. These trees would likely be relatively evenly dispersed along the 97.5-mile transmission line right-of-way (or, on average, one tree per mile).

The estimated 100 danger trees that could require removal are dispersed over the 97.5-mile long transmission line right-of-way (or, on average, one tree per mile). In addition, the 180 trees needing removal for the access road work (new road construction, existing road widening, or to provide sufficient clearance for construction equipment) are dispersed over the access road system, and are not located in one specific area. All areas disturbed would be reseeded following construction. BPA would remove these trees so that long construction vehicles, such as trucks with trailers carrying the wood-pole structures, could navigate turns along the access road system. Table 2-6 summarizes vegetation removal from the Proposed Action.

The Final EA text reads as follows:

As part of the Proposed Action, vegetation would be removed to facilitate construction and ensure safe operation of the line. A total of about 266 acres of grasses, low-growing shrubs, and agricultural crops would be disturbed or cleared for construction activities; up to 100 danger trees could be cut adjacent to the transmission line right-of-way, and 180 trees would be cleared for access road work (Table 2 6).

Danger trees are trees located adjacent to the transmission line right-of-way; they are trees that have the potential to fall or grow into or grow too close to the conductor and cause flash-overs or line outages. BPA estimates that up to 100 danger trees could require removal. The location and the number of danger trees would be identified after the line would be built when the relationship of the newly rebuilt line to existing trees can be determined.

The 180 trees needing removal for the access road work (new road construction, existing road widening, or to provide sufficient clearance for construction equipment) are dispersed over the access road system, and are not located in one specific area. All areas disturbed would be reseeded following construction. BPA would remove these trees so that long construction vehicles, such as trucks with trailers carrying the wood-pole structures, could navigate turns along the access road system. Table 2-6 summarizes vegetation removal from the Proposed Action.

Selected rows in Table 2-6 (page 2-16) have been revised from the Draft EA table text below:

**Table 2-6. Summary of vegetation removal**

| Proposed Activity  | Quantity                                      |
|--|---|
| Removal or disturbance of low-growing vegetation within the transmission line right-of-way | About 266 acres as needed                     |
| Removal of danger trees outside transmission line right-of-way                             | Estimated 100 (approximately 1 tree/mile)     |
| Removal of other trees along access roads <sup>1</sup>                                     | 180 (dispersed across the access road system) |
| BLM <sup>2</sup> Coos Bay District   | 1   |
| BLM Eugene District  | 6   |
| BLM Roseburg District  | 29  |
| Non-federal lands  | 144   |

1. The trees to be removed for access road construction include 23% conifer, 73% deciduous, 4% unidentified; 84% are 16 inch dbh (diameter at breast height [dbh]) or smaller. 2. Removal of trees on BLM land would occur as a result of existing access-rights road work, not new access-rights road work.

The Final EA table text reads as follows:

**Table 2-6. Summary of vegetation removal**

| Proposed Activity  | Quantity                                      |
|--|---|
| Removal or disturbance of low-growing vegetation within the transmission line right-of-way | About 266 acres as needed                     |
| Removal of danger trees adjacent to transmission line right-of-way                         | Up to 100                                     |
| Removal of trees along access roads <sup>1</sup>   | 180 (dispersed across the access road system) |
| BLM <sup>2</sup> Coos Bay District   | 1   |
| BLM Eugene District  | 18  |
| BLM Roseburg District  | 16  |
| Non-federal lands  | 145   |

1. The trees to be removed for access road construction include 23% conifer, 73% deciduous, 4% unidentified; and 84% of them are 16 inch dbh (diameter at breast height [dbh]) or smaller. All removal of trees on BLM land would occur as a result of existing access-rights road work, not new access-rights road work.

## 2.1.7 Construction activities

### Anticipated construction schedule

The bullet points in the Anticipated construction schedule section (page 2-17) have been revised from the Draft EA text:

The following seasonal construction restrictions would be implemented for construction of the Proposed Action to avoid or minimize impacts to fish and wildlife:

- In-water work:
  - Umpqua, South Umpqua, and Coquille subbasins: In-water work would be conducted between July 1 and September 15 or during ODFW biologist approved extensions.
- Other wildlife restrictions:
  - Northern spotted owl critical breeding period: No work within established disturbance distance between March 1 and July 7.
  - Marbled murrelet critical breeding period: No work within established disruption distance and limited work within disturbance distance between April 1 and August 5.
  - Marbled murrelet daily timing restrictions: Apply August 6 through September 15.

The Final EA text reads as follows:

The following seasonal construction restrictions would be implemented for construction of the Proposed Action to avoid or minimize impacts to fish and wildlife:

- In-water work:
  - Umpqua, South Umpqua, and Coquille subbasins: In-water work would be conducted between July 1 and September 15 or during ODFW biologist approved extensions.
    - ODFW has approved in-water work window extensions for 12 locations within these subbasins (Brandt, 2014).
- Other wildlife restrictions:
  - Northern spotted owl critical breeding period: No work within established disturbance distance between March 1 and July 7 (Glenn, 2014).

- Two exceptions to the above timing restrictions include: 1) road maintenance on well-traveled roads and 2) transmission line work on lattice-steel structures. This work may be conducted during the entire breeding season because it does not pose a risk of disrupting nesting spotted owls (USFWS, 2003).
- Marbled murrelet MAMU A locations (areas within 100 yards of suitable nesting habitat; described in Section 3.6):
  - April 1 to August 5: No work allowed
  - August 6 to September 15: Start work two hours after dawn and end work two hours before dusk
  - September 16 to March 31: No restrictions
  - Two exceptions to the above timing restrictions include: 1) road maintenance on well-traveled roads, and 2) transmission line work on lattice-steel structures. This work may be conducted during the entire breeding season without daily dawn/dusk timing restrictions because these activities have low likelihood of disrupting nesting marbled murrelets (USFWS, 2003).
- Marbled murrelet MAMU B locations (areas within .25 miles of suitable nesting habitat; described in Section 3.6):
  - April 1 to September 15: Start work two hours after dawn and end work two hours before dusk
  - September 16 to March 31: No restrictions
  - Two exceptions to the above timing restrictions include: 1) road maintenance on well-traveled roads, and 2) transmission line work on lattice-steel structures. This work may be conducted during the entire breeding season without daily dawn/dusk timing restrictions, because these activities have low likelihood of disrupting nesting marbled murrelets (USFWS, 2003).

## 2.2 No Action Alternative

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Section 2.2 (page 2-18 through 2-19) has been revised from the Draft EA text below:

Under the No Action Alternative, BPA would not rebuild the transmission line or upgrade access roads, bridges, or culverts, as a single coordinated project. Construction activities associated with the Proposed Action would not occur. However, the reliability and safety concerns that prompted the need for the

Proposed Action would remain. BPA would continue to operate and maintain the existing transmission line in its current condition, replacing aged and rotting structures as they deteriorate, maintaining access roads to allow access to structures on an as-needed basis, and managing vegetation for safe operation.

Given the current poor condition of the transmission line, the No Action Alternative would likely result in more frequent and more disruptive maintenance activities along the transmission line than has been required in the past. It might be possible to plan some of this maintenance, but some repairs would likely occur on an emergency basis as various parts of the transmission line continue to deteriorate. Access road improvements or construction may be required under the No Action Alternative to allow access to the structures for both planned and unplanned maintenance activities.

The Final EA text reads as follows:

Under the No Action Alternative, BPA would not rebuild the transmission line or upgrade access roads, bridges, or culverts, as a single coordinated project. Construction activities associated with the Proposed Action would not occur. However, the reliability and safety concerns that prompted the need for the Proposed Action would remain. BPA would continue to operate and maintain the existing transmission line in its current condition, replacing aged and rotting structures as they deteriorate, maintaining access roads to allow access to structures on an as-needed basis, and managing vegetation for safe operation.

Given the current poor condition of the transmission line, the No Action Alternative would likely result in more frequent and more disruptive repair activities along the transmission line than has been required in the past. It might be possible to plan some repairs, but many would likely occur on an emergency basis as various parts of the transmission line continue to deteriorate.

The overall scale and scope of the repairs that would be done under the No Action Alternative would be smaller than what is planned under the Proposed Action. The maintenance program addresses immediate needs to keep the transmission line functioning, and would likely not include more comprehensive improvements such as access road work to improve water runoff, and general fish-friendly culvert replacements. Access road improvements or construction under the No Action Alternative would be limited to improvements necessary to allow access to specific structures for as-needed repairs and maintenance.

## 2.3 Comparison of alternatives

Table 2-7 (page 2-19) has been revised from the Draft EA table text below:

**Table 2-7. Comparison of the Proposed Action and No Action Alternative**

| Purpose of Project             | Proposed Action  | No Action   |
|--------------------------------|--|---|
| Minimize environmental impacts | Environmental impacts from construction would occur (See Table 2-8 for a comparison of the environmental impacts of the alternatives). Construction-related impacts would be primarily short-term, and would be mitigated through appropriate Best Management Practices (BMPs) and mitigation measures described in Table 2-9. | There would be no construction-related environmental impacts at this time. However, but maintenance impacts due to repair work would increase as existing structures need replacement and roads repair is required deteriorate and require additional maintenance (See Table 2-8 for a comparison of the environmental impacts of the alternatives). Emergency repairs could negatively impact vegetation, wildlife, soils and other resources, and any downed lines resulting from structure failure could have a potential for causing fires in the vicinity. |
| Demonstrate cost-effectiveness | Total costs would be about \$25 to \$35 million.   | No cost for construction would be expended at this time, but costs would accrue maintenance costs related to increasing ongoing repairs would continue to increase to maintain the deteriorating line. and Repair costs could eventually be higher than under the Proposed Action.  |

The Final EA table text reads as follows:

**Table 2-7. Comparison of the Proposed Action and No Action Alternative**

| Purpose of Project             | Proposed Action   | No Action  |
|--------------------------------|---|--|
| Minimize environmental impacts | Environmental impacts due to rebuilding the line would be primarily short-term, and would be mitigated through appropriate Best Management Practices (BMPs) and mitigation measures described in Table 2-9. (See Table 2-8 for a summary of impacts for each resource). | The environmental impacts of rebuilding the line would not occur in the two construction seasons as is proposed for the Proposed Action. However, impacts to the environment would still occur, but spread over time as structures need replacement and road repair is required. As some of these repairs would likely be done on an emergency basis, there may not be time to accommodate planning efforts to coordinate with landowners or avoid or lessen impacts to environmental resources. Therefore, impacts to resources would likely be greater with the No Action Alternative than with the Proposed Action. (See Table 2-8 for a summary of impacts for each resource). |
| Demonstrate cost-effectiveness | Total costs would be about \$30 to \$45 million.  | The cost of rebuilding the line would not occur at one time, but would be spread over years as repairs are required. Because repairs and mobilization of construction crews would be done on an as-needed basis, the No Action Alternative would be less efficient and could eventually cost more than the Proposed Action.  |

The following rows in Table 2-8 (pages 2-22 and 2-23) have been revised from the Draft EA table text below:

**Table 2-8. Comparison of the environmental impacts to resources from No Action Alternative and Proposed Action**

| Wetlands, floodplains, and groundwater |  |
|--|--|
| Proposed Action                        | <p><b>Floodplains</b></p> <p>Replacement of 36 wood pole transmission structures would temporarily disturb approximately 1.6 acres of floodplains. These impacts would be short-term, would not alter the floodplain ecological characteristics, and would only have the potential to slightly decrease the existing ecological characteristics of the floodplains. Impacts to floodplains would be <b>low</b>. Construction of four new access roads and reconstruction of two existing access roads in floodplains would disturb approximately 1.9 acres of floodplains. This would result in a long-term impact but would only minimally decrease flood-storage capacity and would not alter the course of floodwaters, resulting in a <b>low-to-moderate</b> impact to floodplains.</p>  |
| Cultural resources                     |  |
| Proposed Action                        | <p>Archaeological resources: Three of eight sites would not be disturbed by the Proposed Action, while five sites could be affected by structure and hardware replacement activities. New structures would be placed in the hole from which the existing structures would be removed, to the extent possible, and only a small amount of augering would be required. Access road construction could disturb four sites; the main impact would be disturbance of artifacts on or near the ground surface. The potential impact on cultural resources due to tree removal would be expected to be low because there would be no tree removal in areas of known sites and only surface disturbance would occur.</p> <p>Historic/architectural resources: the Proposed Action would not alter the integrity of materials, design, or workmanship of the transmission line and would likely have no adverse effect on the transmission line, Alvey Substation, Reston Substation, or Fairview Substation. The Proposed Action would have no adverse effect on the Oregon &amp; California/Southern Pacific Railroad.</p> <p>BPA would implement BMPs described in Table 2-9 to minimize impacts to cultural resources if any previously undiscovered cultural resources are discovered during construction.</p> |

The Final EA table text reads as follows:

**Table 2-8. Comparison of the environmental impacts to resources from No Action Alternative and Proposed Action**

| Wetlands, floodplains, and groundwater |  |
|--|--|
| Proposed Action                        | <p><b>Floodplains</b></p> <p>Replacement of 36 wood pole transmission structures would temporarily disturb approximately 1.6 acres of floodplains. These impacts would be short-term, would not alter the floodplain ecological characteristics, and would only have the potential to slightly decrease the existing ecological characteristics of the floodplains. Impacts to floodplains would be <b>low</b>. Construction of four new access roads and reconstruction of two existing access roads in floodplains would disturb approximately 1.5 acres of floodplains. This would result in a long-term impact but would only minimally decrease flood-storage capacity and would not alter the course of floodwaters, resulting in a <b>low-to-moderate</b> impact to floodplains.</p>  |
| Cultural resources                     |  |
| Proposed Action                        | <p>Archaeological resources: Three of eight sites would not be disturbed by the Proposed Action, while five sites could be affected by structure and hardware replacement activities. New structures would be placed in the hole from which the existing structures would be removed, to the extent possible, and only a small amount of augering would be required. Access road construction could disturb four sites; the main impact would be disturbance of artifacts on or near the ground surface. The potential impact on cultural resources due to tree removal would be expected to be low because there would be no tree removal in areas of known sites and only surface disturbance would occur.</p> <p>Historic/architectural resources: the Proposed Action would not alter the integrity of materials, design, or workmanship of the transmission line and would likely have no adverse effect on the transmission line, Alvey Substation, Reston Substation, or Fairview Substation. The Proposed Action would have no adverse effect on the Oregon &amp; California/Southern Pacific Railroad.</p> <p>BPA would implement BMPs described in Table 2-9 to minimize impacts to cultural resources. BPA would coordinate with the SHPO and tribes to develop a mitigation plan for the adverse impacts at two of the sites and implement impact minimization and avoidance measures at four others. If any previously undiscovered cultural resources are discovered during construction, all work would be halted, the BPA archeologist would be contacted and the SHPO and tribes would be contacted. Work would not resume until the archeologist visited the site and discussed any findings with the SHPO and tribes.</p> |

The Wetlands section in Table 2-9 (page 2-28), a row in the Streams and Fish section (page 2-30), and a row in the Wildlife section (page 2-31) have been revised from the Draft EIS table text below:

**Table 2-9. Environmental design features/mitigation measures included as part of the Proposed Action**

| Streams and fish  |
|---|
| <p><b>In-water work BMPs and specifications:</b></p> <ul style="list-style-type: none"> <li>• Install culverts, bridge crossings in accordance with NMFS/ODFW fish passage requirements.</li> </ul>   |
| Wildlife  |
| <ul style="list-style-type: none"> <li>• Implement the following construction timing restrictions: <ul style="list-style-type: none"> <li>▪ Northern spotted owl critical breeding period: No work within established disturbance distance between March 1 and July 7.</li> </ul> </li> <li>• Marbled murrelet (MAMU A): <ul style="list-style-type: none"> <li>▪ April 1 to August 5: No work allowed</li> <li>▪ August 6 to September 15: Start work two hours after dawn and end work two hours before dusk</li> <li>▪ September 16 to March 31: No restrictions</li> </ul> </li> <li>• Marbled murrelet (MAMU B): <ul style="list-style-type: none"> <li>▪ April 1 to September 15: Start work two hours after dawn and end work two hours before dusk</li> </ul> </li> </ul> |

The Final EA table text reads as follows:

**Table 2-9. Environmental design features/mitigation measures included as part of the Proposed Action**

| Wetland, floodplains, surface and groundwater  |
|--|
| <p><b>In-water work BMPs and specifications:</b><br/>(The following bullet point was added to the Final EA)</p> <ul style="list-style-type: none"> <li>• Use equipment mats in wetland areas where temporary access is called for if ground surface is wet.</li> </ul>   |
| Streams and fish   |
| <p><b>In-water work BMPs and specifications:</b></p> <ul style="list-style-type: none"> <li>• Install culverts, bridge crossings in accordance with NMFS/ODFW fish passage requirements, including following the provisions outlined by ODFW Assistant Fish Passage Coordinator (Loffink, 2014).</li> </ul>  |
| Wildlife   |
| <ul style="list-style-type: none"> <li>• Implement the following construction timing restrictions: <ul style="list-style-type: none"> <li>▪ Northern spotted owl critical breeding period: No work within established disturbance distance between March 1 and July 7. Two exceptions to these timing restrictions include: 1) road maintenance on well-traveled roads and 2) transmission line work on lattice-steel structures. This work may be conducted during the entire breeding season because it does not pose a risk of disrupting nesting spotted owls (USFWS, 2003).</li> </ul> </li> <li>• Marbled murrelet (MAMU A): <ul style="list-style-type: none"> <li>▪ April 1 to August 5: No work allowed</li> <li>▪ August 6 to September 15: Start work two hours after dawn and end work two hours before dusk</li> <li>▪ September 16 to March 31: No restrictions</li> </ul> </li> <li>• Marbled murrelet (MAMU B): <ul style="list-style-type: none"> <li>▪ April 1 to September 15: Start work two hours after dawn and end work two hours before dusk</li> <li>▪ September 16 to March 31: No restrictions</li> <li>▪ Two exceptions to the above timing restrictions for MAMU A and MAMU B locations include: 1) road maintenance on well-traveled roads, and 2) transmission line work on lattice-steel structures. This work may be conducted during the entire breeding season without daily dawn/dusk timing restrictions because these activities have low likelihood of disrupting nesting marbled murrelets (USFWS, 2003).</li> </ul> </li> </ul> |

# Changes to Chapter 3—Affected Environment and Environmental Consequences

## 3.1 Land use and recreation

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### 3.1.1 Affected environment

The bullet points on pages 3-5 to 3-6 have been revised from the Draft EA text below:

- Late-Successional Reserves—These areas provide habitat for northern spotted owl and marbled murrelet, as well as other species associated with late-successional and old-growth habitat protect and enhance conditions of late-successional and old-growth forest ecosystems that serve as habitat for related species, including the northern spotted owl and marbled murrelet; and these areas maintain a functional, interacting, late-successional and old-growth forest ecosystem.
- Riparian Reserves—In addition to providing for water quality and aquatic habitat. These areas provide dispersal pathways for wildlife species within the Matrix allocations and habitat for special-status (***threatened*** or ***endangered species***, proposed threatened or endangered species, and ***candidate species***, state listed species, BLM sensitive species, BLM assessment species) and other terrestrial species; these are a component of the BLM's Aquatic Conservation Strategy.

The Final EA text reads as follows:

- Late-Successional Reserves—These areas provide habitat for northern spotted owl and marbled murrelet, as well as other species associated with late-successional and old-growth habitat.
- Riparian Reserves—In addition to providing for water quality and aquatic habitat, these areas provide dispersal pathways for wildlife species within the Matrix allocations and-habitat for ***threatened*** or ***endangered species***, proposed threatened or endangered species, and ***candidate species***.

### 3.1.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The fourth paragraph in the Agricultural and forestry uses section (page 3-7) has been revised from the Draft EA text below:

The transmission line right-of-way is cleared of vegetation as part of routine operations and maintenance, including sections that traverse forested areas and

BLM's late-successional reserve and matrix lands. Since structure replacement would occur within the existing transmission line right-of-way, construction impacts on forestry activities would be limited to danger tree removal (approximately one tree removed per mile), temporary disruption of forestry activities (i.e., if the property owner crosses the transmission line right-of-way with equipment, they might have to change their route), or temporary access changes to properties, so the Proposed Action would have a low impact on forestry land uses.

The Final EA text reads as follows:

The transmission line right-of-way is cleared of vegetation as part of routine operations and maintenance, including sections that traverse forested areas and BLM's late-successional reserve and matrix lands. Since structure replacement would occur within the existing transmission line right-of-way, construction impacts on forestry activities would be limited to danger tree removal (if needed), temporary disruption of forestry activities (i.e., if the property owner crosses the transmission line right-of-way with equipment, they might have to change their route), or temporary access changes to properties, so the Proposed Action would have a low impact on forestry land uses.

The first paragraph, third bullet in the Residential and recreational uses section (page 3-9) of the Draft EA reads as follows:

- Frona County Park—Access road reconstruction would occur in BPA's right-of-way adjacent to the north side of this park. In addition, a temporary direction of travel route would extend 200 feet into the north side of the park. The transmission line is not visible from the developed portion of the park, and construction activities would be about 400 feet away from the picnic area, playground, and camp sites. Noise and dust could temporarily affect park visitors.

The Final EA text reads as follows:

- Frona County Park—Access road reconstruction would occur in BPA's right-of-way adjacent to the north side of this park. In addition, a temporary direction of travel route would extend 200 feet into the north side of the park. The transmission line is not visible from the developed portion of the park, and construction activities would be about 400 feet away from the picnic area, playground, and camp sites. Noise and dust could temporarily affect park visitors.

## 3.2 Geology and soils

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### 3.2.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The fifth paragraph in Section 3.2.2 (page 3-12) has been revised from the Draft EA text below:

Impacts on soils due to danger tree removal along the transmission line would include soil erosion and dust, but with mitigation measures listed in Table 2-9, those impacts would be low because danger tree removal would be limited (one tree per mile).

The Final EA text reads as follows:

Impacts on soils due to danger tree removal (if needed at all) along the transmission line would be limited and include soil erosion and dust generation. In combination with mitigation measures listed in Table 2-9, these impacts would be low.

## 3.3 Vegetation

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### 3.3.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The first paragraph in the General vegetation section (page 3-21) has been revised from the Draft EA text below:

Construction impacts would be generally associated with vegetation removal and noxious weed propagation. Tree removal has the potential to increase available sunlight, water and nutrients, increase temperature variability, and diversify the age structure of the adjacent riparian and forested communities (evergreen forests, deciduous forest, and mixed coniferous/deciduous forests). However, the estimated 100 danger trees that could be removed would be spread over an average of only one danger tree per line mile, so the potential to alter adjacent vegetation communities is low. Given the density of vegetation in the areas, it would be expected that tree/shrubs would quickly revegetate areas where trees would be removed. Residual dormant seeds in the existing soil seed bank would also contribute to subsequent shrub and tree recruitment and disturbed site revegetation.

The Final EA text reads as follows:

Construction impacts would be generally associated with vegetation removal and noxious weed propagation. Tree removal has the potential to increase available sunlight, water and nutrients, increase temperature variability, and diversify the age structure of the adjacent riparian and forested communities (evergreen forests, deciduous forest, and mixed coniferous/deciduous forests). Up to 100 danger trees may be removed along the entire line; However, the potential to alter adjacent vegetation communities is low. Given the overall density of vegetation in the areas where danger tree removal is possible, it would be expected that smaller trees/shrubs would quickly revegetate areas where trees would be removed. Residual dormant seeds in the existing soil seed bank would also contribute to subsequent shrub and tree recruitment and disturbed site revegetation.

## 3.4 Streams and fish

### 3.4.1 Affected environment

#### Streams

Table 3-8 (page 3-26) of the Draft EA has been replaced with the following table in the Final EA:

**Table 3-8. Named streams by subbasins within the transmission line right-of-way with impaired water quality parameters**

| Subbasin                       | Waterbody Name            | Water Quality Standards not met as indicated by DEQ's 303(d) List   | Established Total Maximum Daily Loads (TMDLs)      | Parameter of Concern                    |
|--------------------------------|---------------------------|---|--|---|
| Coast Fork Willamette (RM1-22) | Camas Swale Creek         | Dissolved Oxygen  |  |   |
| Umpqua (RM 22 - 61)            | Bear Creek (South Umpqua) |   | Temperature  |   |
|                                | Bear Creek (North Umpqua) |   |  | Habitat Modification                    |
|                                | Buck Creek                |   | Temperature  |   |
|                                | Burke Creek               | Biological Criteria   |  |   |
| Umpqua (RM 22 - 61) (cont.)    | Elk Creek                 | Aquatic Weeds or Algae, Biological Criteria, Dissolved Oxygen       | Dissolved Oxygen, E. <i>Coli</i> , pH, Temperature | Flow Modification, Habitat Modification |
|                                | Calapooya Creek           | Iron  | Dissolved Oxygen, E. <i>Coli</i> , pH, Temperature | Flow Modification, Habitat Modification |
|                                | Mill Creek                |   |  | Habitat Modification                    |
|                                | Umpqua River              | Aquatic Weeds or Algae, pH  | E. <i>Coli</i> , Fecal Coliform, Temperature       | Flow Modification                       |
|                                | Williams Creek            |   |  | Flow Modification, Habitat Modification |
|                                | East Fork Coquille River  | Temperature   |  | Habitat Modification                    |
| Coquille (RM 76 - 98)          | North Fork Coquille River | Biological Criteria, Dissolved Oxygen, E. <i>Coli</i> , Temperature |  | Flow Modification, Habitat Modification |

Source: DEQ, 2010.

### 3.4.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The third paragraph in the Streams section (page 3-29) has been revised from the Draft EA text below:

Other than sedimentation from temporary erosion, the Proposed Action would not be expected to contribute to impaired water quality for the parameters identified in Table 3-8; no metals, fecal coliform, fertilizers, temperature loading discharges, and alkaline or acidic liquids would be used as part of the Proposed Action, and the Proposed Action would not affect dissolved oxygen levels or contribute to nitrogen or phosphate. With implementation of erosion control measures described in Table 2-9, the amount of sedimentation potentially entering streams would be low and the Proposed Action would not inhibit any water quality recovery efforts on streams crossed by the transmission line.

The Final EA text reads as follows:

Other than sedimentation from temporary erosion, the Proposed Action would not be expected to contribute to impaired water quality for the parameters identified in Table 3-8; no metals, e-coli, fecal coliform, fertilizers, temperature loading discharges, and alkaline or acidic liquids would be used as part of the Proposed Action, and the Proposed Action would not affect dissolved oxygen levels or contribute to nitrogen, or phosphate, or algae. The installation of culverts, including fish-passable culverts, would improve flow control and would provide localized habitat improvements. With implementation of erosion control measures described in Table 2-9, the amount of sedimentation potentially entering streams would be low and the Proposed Action would not inhibit any water quality recovery efforts on streams crossed by the transmission line.

The fifth paragraph in the Streams section (page 3-29) has been revised from the Draft EA text below:

Danger tree removal would have a little to no temperature impact on streams with total maximum daily load limits for temperature because the estimated removal of approximately one tree per mile would not reduce stream shading. Danger tree removal would focus on the mature trees and not the understory, thus the ground surface would remain intact and post-removal site runoff would not be expected to be different from existing conditions. Mitigation in the form of riparian tree plantings at selected bridge and culvert replacement sites could eventually increase shading and help to offset any potential temperature impacts to habitat.

The Final EA text reads as follows:

Danger tree removal would have a little to no temperature impact on streams with total maximum daily load limits for temperature because the estimated removal of up to 100 trees along the entire project is unlikely to reduce stream shading (the existing conductor will be reused and many towers will be slightly taller, so tree removal resulting from changes in the conductor height near streams is unlikely). Danger tree removal would focus on the mature trees and not the understory, thus the ground surface would remain intact and post-removal site runoff would not be expected to be different from existing conditions. Mitigation in the form of riparian plantings at selected bridge and culvert replacement sites could eventually increase shading and help to offset potential temperature impacts to habitat.

## 3.5 Wetlands, floodplains, and groundwater

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### 3.5.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The last paragraph in the Wetlands and waters section (page 3-37—3-38) has been revised from the Draft EA text below:

See Table 2-9 for proposed wetland mitigation through the use of mitigation banks. Temporary impacts associated with pole replacement would consist of construction access by heavy equipment within a 25-foot radius of the structure, construction of temporary roads, and the installation of guy wire anchors and grounding wires at some structures. Impacts to wetlands would occur as wetland vegetation is crushed and soil is compacted by construction equipment. Temporary impacts from structure replacement would be expected to be less than 2,800 square feet (0.06 acre) per structure for a total of 3.45 acres of temporary wetland impact and 0.48 acre of temporary impacts to jurisdictional waters for the Proposed Action.

The Final EA text reads as follows:

See Table 2-9 for proposed wetland mitigation through the use of mitigation banks. Temporary impacts associated with pole replacement would consist of construction access by heavy equipment within a 25-foot radius of the structure, construction of temporary roads, and the installation of guy wire anchors and grounding wires at some structures. Impacts to wetlands would occur as wetland vegetation is crushed and soil is compacted by construction equipment. However, construction activities would be planned to the extent possible during drier weather to minimize impacts to wetland areas. Temporary impacts from

structure replacement would be expected to be less than 2,800 square feet (0.06 acre) per structure for a total of 3.45 acres of temporary wetland impact and 0.48 acre of temporary impacts to jurisdictional waters for the Proposed Action.

The first paragraph in the Floodplains section (page 3-42) has been revised as follows:

The construction of new access roads and reconstruction of existing access roads would result in low impacts to floodplains. As listed in Table 3-12, six access road segments would be constructed or reconstructed within the 100-year floodplains of the Camas Swale Creek, Calapooya Creek, East Fork Coquille River, and Middle Creek. These construction activities would result in a total disturbance area of 1.9 acres. Some temporary access road construction would occur within floodplains, but these temporary access roads would be removed and returned to their original contours following construction. Roadway improvements associated with construction and reconstruction activities would result in long-term alteration of the floodplain, but would only minimally decrease flood-storage capacity and would not alter the course of floodwaters. In addition, like the construction activities for the transmission structures, the access road construction activities would result in soil compaction and removal of vegetation, which could increase erosion, interfere with subsurface water flow in the floodplain, and hinder the capacity of the floodplain to dissipate water energy during floods. However, the proportion of each floodplain potentially cleared or compacted would be small. In addition, implementation of BMPs would minimize the potential for impacts to floodplains. Therefore, impacts of the Proposed Action to floodplains would be low-to-moderate.

The Final EA text reads as follows:

The construction of new access roads and reconstruction of existing access roads would result in low impacts to floodplains. As listed in Table 3-12, six access road segments would be constructed or reconstructed within the 100-year floodplains of the Camas Swale Creek, Calapooya Creek, East Fork Coquille River, and Middle Creek. These construction activities would result in a total disturbance area of 1.5 acres. Some temporary access road construction would occur within floodplains, but these temporary access roads would be removed and returned to their original contours following construction. Roadway improvements associated with construction and reconstruction activities would result in long-term alteration of the floodplain, but would only minimally decrease flood-storage capacity and would not alter the course of floodwaters. In addition, like the construction activities for the transmission structures, the access road construction activities would result in soil compaction and removal of vegetation, which could increase erosion, interfere with subsurface water flow in the

floodplain, and hinder the capacity of the floodplain to dissipate water energy during floods. However, the proportion of each floodplain potentially cleared or compacted would be small. In addition, implementation of BMPs would minimize the potential for impacts to floodplains. Therefore, impacts of the Proposed Action to floodplains would be low-to-moderate.

Selected rows in Table 3-12 (page 3-42) have been revised from the Draft EA table text below:

**Table 3-12. Access roads proposed for new construction and reconstruction within the 100-year floodplain**

| Floodplain               | Construction activity proposed   | Disturbance area (square feet) in 100-year floodplain <sup>1</sup> |
|--------------------------|--|--|
| Camas Swale Creek        | Construction of approximately 807 feet of road between 6/3 and 6/5   | 16,145.3   |
| Calapooya Creek          | Construction of approximately 637 feet of road from Fort McKay Road to 50/8  | 12,744.3   |
|                          | Reconstruction of approximately 295 feet of road from Fort McKay Road to 54/1  | 5,896.9  |
| East Fork Coquille River | Construction of approximately 1,268 feet of road from Sitkum County Line Road to 85/8  | 25,350.2   |
|                          | Reconstruction of approximately 993 feet of road from Myrtle Point-Sitkum Road to 93/2 and to connect to a temporary road that provides access to 93/1     | 15,881.7   |
| Middle Creek             | Reconstruction of approximately 319 feet of road from CBWR to connect to an access road proposed for improvement that provides access to 95/8 through 96/2 | 6,389.5  |
| <b>Total<sup>2</sup></b> | <b>Construction of approximately 2,712 feet of road<br/>Reconstruction of approximately 1,607 feet of road</b>   | <b>82,408<br/>(1.9 acres)</b>                                      |

<sup>1</sup> Disturbance area assumes a road width of 14 feet plus 3-foot shoulders on each side, for a total width of 20 feet, except for the reconstruction of the access road from Myrtle Point-Sitkum Road, which has a reduced width of 12 feet plus 2-foot shoulders for a total width of 16 feet because of its location within a wetland.

<sup>2</sup> Slight difference in the total is due to rounding.

The Final EA table text reads as follows:

**Table 3-12. Access roads proposed for new construction and reconstruction within the 100-year floodplain**

| Floodplain               | Construction activity proposed   | Disturbance area (square feet) in 100-year floodplain <sup>1</sup> |
|--------------------------|--|--|
| Calapooya Creek          | Construction of approximately 637 feet of road from Fort McKay Road to 50/8  | 12,744.3   |
|                          | Reconstruction of approximately 295 feet of road from Fort McKay Road to 54/1  | 5,896.9  |
| East Fork Coquille River | Construction of approximately 1,268 feet of road from Sitkum County Line Road to 85/8  | 25,350.2   |
|                          | Reconstruction of approximately 993 feet of road from Myrtle Point-Sitkum Road to 93/2 and to connect to a temporary road that provides access to 93/1     | 15,881.7   |
| Middle Creek             | Reconstruction of approximately 319 feet of road from CBWR to connect to an access road proposed for improvement that provides access to 95/8 through 96/2 | 6,389.5  |
| <b>Total<sup>2</sup></b> | <b>Construction of approximately 2,712 feet of road<br/>Reconstruction of approximately 1,607 feet of road</b>   | <b>66,263<br/>(1.5 acres)</b>                                      |

<sup>1</sup> Disturbance area assumes a road width of 14 feet plus 3-foot shoulders on each side, for a total width of 20 feet, except for the reconstruction of the access road from Myrtle Point-Sitkum Road, which has a reduced width of 12 feet plus 2-foot shoulders for a total width of 16 feet because of its location within a wetland.

<sup>2</sup> Slight difference in the total is due to rounding.

## 3.6 Wildlife

### 3.6.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The fifth paragraph in the Common wildlife section (page 3-46) has been revised from the Draft EA text below:

Of the estimated 100 danger trees that could be removed along the transmission line right-of-way, very few would be removed in riparian areas. Wildlife could be temporarily displaced by the removal of danger trees. Because of the dispersed and small scale of danger tree removal the impacts of danger tree removal on wildlife would be moderate.

The Final EA text reads as follows:

While up to 100 danger trees could be removed along the transmission line right-of-way, very few would likely be removed in riparian areas. Wildlife could be temporarily displaced by the removal of danger trees. Because of the dispersed and small scale of danger tree removal the impacts of danger tree removal on wildlife would be moderate.

The third and fourth paragraphs in the Northern Spotted Owl subsection of the Threatened, endangered, candidate, and special-status species section (pages 3-47 to 3-48) have been revised from the Draft EA text below:

Federal guidelines suggest a minimum of 60 percent canopy cover in a northern spotted owl home range (USFWS, 2011a). A home range is defined as 1.5 miles from an activity center in the Oregon Coast Range, and 1.2 miles from an activity center in the Willamette Valley Province. Danger tree removal could occur within northern spotted owl habitat; however, the removal would not affect the function of nesting, roosting, foraging, or dispersal habitats because canopy cover would remain above the 60 percent threshold (USFWS, 2011a).

Danger tree removal could occur along previously disturbed areas such as utility corridors or road alignments; therefore, the Proposed Action would not create newly disturbed areas. The Proposed Action would likely have a low impact on spotted owl **critical habitat** because only 13 trees (estimated at 0.13 acre) would be removed or modified.

The Final EA text reads as follows:

Federal guidelines suggest a minimum of 60 percent canopy cover in a northern spotted owl home range (USFWS, 2011a). A home range is defined as 1.5 miles from an activity center in the Oregon Coast Range, and 1.2 miles from an activity center in the Willamette Valley Province. Danger tree removal (if needed) could occur within northern spotted owl habitat; however, the amount of habitat likely affected within any one home range would be 0.05 acre or less. This small scale of tree removal would be minor and would not affect the function of nesting, roosting, foraging, or dispersal habitats because canopy cover would remain above the 60 percent threshold (USFWS, 2011a).

Danger tree removal, if needed, would occur along previously disturbed areas of the utility corridor; therefore, the Proposed Action would not create newly disturbed areas. The Proposed Action would likely have a low impact on northern spotted owl **critical habitat**.

The Marbled Murrelet subsection of the Threatened, endangered, candidate, and special-status species section (page 3-48) has been revised from the Draft EA text below:

The disruption distance from marbled murrelet nests is 100 yards; the disturbance distance is 0.25 mile (USFWS, 2003). No construction work, such as heavy equipment activities or chainsaw use, would occur within the disruption distance of any suitable marbled murrelet nesting habitat during the critical breeding period (April 1 to August 5).

Structure replacement, re-stringing of conductor using a bucket truck, and danger tree removal would occur during the breeding season within the disturbance distance (0.25 mile) of ten of the suitable marbled murrelet nesting habitat areas. However, this work would be temporary and would not occur within the disruption distance (100 yards). Furthermore, BPA would restrict construction activities as described in Table 2-9. Therefore, there would likely be moderate impacts to marbled murrelet, such as disruption of natural marbled murrelet behavior and temporary nest abandonment leaving eggs or nestlings vulnerable to predation.

No trees that provide nesting structure would be removed. Furthermore, the Proposed Action could remove or modify only six danger trees within designated critical habitat (USFWS, 2011b). Therefore, the impacts to marbled murrelet would be low as nesting and foraging habitat would remain.

The Final EA text reads as follows:

The disruption distance from marbled murrelet nests is 100 yards (MAMU A areas); the disturbance distance is 0.25 mile (MAMU B, areas) (USFWS, 2003). No construction work, such as heavy equipment activities or chainsaw use, would occur within the disruption distance (MAMU A areas) of any suitable marbled murrelet nesting habitat during the critical breeding period of April 1 to August 5.

There are 19 MAMU A locations where suitable marbled murrelet nesting habitat areas are at an elevated risk of disruption because project activities would occur within 100 yards. However, in MAMU A locations, no transmission line construction or danger tree removal would occur during the marbled murrelet critical breeding season and daily timing restrictions would be implemented during the late breeding season as described in Table 2-9.

There are 10 MAMU B locations where suitable marbled murrelet nesting habitat areas are at an elevated risk of disturbance because project activities would occur within .25 mile. In MAMU B locations, structure replacement, re-stringing of conductor using a bucket truck, and danger tree removal (if needed) would occur

during the breeding season with implementation of daily timing restriction as described in Table 2-9.

No trees that provide nesting structure would be removed. Therefore, the impacts to marbled murrelet would be low as nesting and foraging habitat would remain.

### **Access roads**

The first two paragraphs in the Northern Spotted Owl subsection of the Threatened, endangered, candidate, and special-status species section (pages 3-49 to 3-50) have been revised from the Draft EA text below:

There would likely be no to low impacts to nesting northern spotted owls from access road work within the disruption distance (35 yards) or the disturbance distance (0.25 mile) of the three known spotted owl activity centers because BPA would apply seasonal restrictions to access road construction during the critical breeding period (March 1—June 30). Furthermore, the effects from increased noise and activity levels during project activities would be temporary.

The removal of trees for access road work would occur within suitable northern spotted owl habitat; however, the scale of tree removal, on average two trees per mile, would likely maintain the function of nesting, roosting, foraging, or dispersal habitats because canopy cover would remain above the 60 percent threshold described previously (USFWS, 2011). Additionally, all tree removal for road work is located along existing access roads which are previously disturbed edge areas; therefore, new edge areas would not be created and there would be minimal loss of interior forest.

The Final EA text reads as follows:

There would likely be no to low impacts to nesting northern spotted owls from access road work within the disruption distance (35 yards) or the disturbance distance (0.25 mile) of the three known northern spotted owl activity centers because BPA would apply seasonal restrictions to access road construction during the critical breeding period (March 1—July 7). Furthermore, the effects from increased noise and activity levels during project activities would be temporary.

The removal of trees for access road work would occur within suitable northern spotted owl habitat; however, the scale of tree removal, estimated at only 13 trees (approximately 0.13 acre), would likely not affect the overall function of nesting, roosting, foraging, or dispersal habitats because canopy cover would remain above the 60 percent threshold described previously (USFWS, 2011). Additionally, all tree removal for road work is located along existing access roads

which are previously disturbed edge areas; therefore, new edge areas would not be created and there would be minimal loss of interior forest.

## 3.7 Cultural resources

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### 3.7.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The first paragraph in the Archaeological resources section (page 3-54) has been revised from the Draft EA text below:

The potential impacts of the Proposed Action are discussed in descriptive terms, but without the relative ratings of high, moderate, or low. In addition, any potential effects on currently undiscovered sites would be mitigated pursuant to the mitigation procedures set out in Table 2-9. An adverse effect to cultural resources is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (36 CFR 800.5(a)(1)).

The Final EA text reads as follows:

The potential impacts of the Proposed Action to cultural resources would be moderate. Any potential effects on currently undiscovered sites would be mitigated pursuant to the mitigation procedures set out in Table 2-9. An adverse effect to cultural resources is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (36 CFR 800.5(a)(1)).

#### Access roads

The first paragraph in the Access roads section (page 3-55) of the Draft EA reads as follows:

Access road construction could disturb four sites: Site 35LA1328, Site 1907-101, Site 1907-201, and Site 1907-301. For these construction activities, the main impact on cultural resources would be disturbance of artifacts on or near the ground surface. Road improvements would occur to the access road running along the edge of 35LA1328. Surface and near surface artifacts would likely be disturbed during road construction activities at Site 1907-201. A direction of travel in line mile 91 would cut through Site 1907-101, and a new road would be

built through Site 1907-301. Tree removal would occur along the access roads as part of the Proposed Action. The potential impact on cultural resources would be expected to be low because only surface disturbance would occur. Again, there is the potential that these activities could impact undiscovered cultural resources, if any exist, but these impacts would be minimized as described in Table 2-9.

The Final EA text reads as follows:

Access road construction could disturb four sites: Site 35LA1328, Site 1907-101, Site 1907-201, and Site 1907-301. For these construction activities, the main impact on cultural resources would be disturbance of artifacts on or near the ground surface. Road improvements would occur to the access road running along the edge of 35LA1328. Surface and near surface artifacts would likely be disturbed during road construction activities at Site 1907-201. A direction of travel in line mile 91 would cut through Site 1907-101, and a new road would be built through Site 1907-301. Tree removal would occur along the access roads as part of the Proposed Action. The potential impact on cultural resources would be expected to be low because only surface disturbance would occur. Again, there is the potential that these activities could impact undiscovered cultural resources, if any exist, but these impacts would be minimized as described in Table 2-9.

## 3.10 Noise, public health, and safety

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### 3.10.1 Affected environment

#### Electric and magnetic fields

The last paragraph of Section 3.10.1 (page 3-70) of the Draft EA has been removed from the Final EA. The removed paragraph read:

There are no national guidelines or standards for magnetic fields. Oregon does not have a limit for magnetic fields from transmission lines. BPA does not have a guideline for magnetic field exposures. The guidelines that do exist for public and occupational magnetic-field exposures are intended for measuring short-term magnetic field exposures and are not applicable to determining the effects of long-term exposures.

The following text has been added to the end of Section 3.10.1 (page 3-70) in the Final EA:

There are no national standards for magnetic fields, and Oregon and BPA do not have magnetic field limits for transmission lines. Guidelines created by national and international organizations range from 833 to 9,040 mG for public magnetic-

field exposure and from 4,200 to 27,100 mG for occupational magnetic-field exposure.

Decades of scientific studies are inconclusive as to whether magnetic fields can potentially cause health effects. Scientific studies and reviews of research on the potential health effects of power line electric and magnetic fields have found there is insufficient evidence to conclude exposure to either field leads to long-term health effects, such as adult cancer, neurodegenerative diseases (such as Alzheimer's or Lou Gehrig's disease), or adverse effects on reproduction, pregnancy, or growth and development of an embryo. Uncertainties do remain about possible links between childhood leukemia and childhood magnetic field exposures at levels greater than 3-4 mG. There are also suggestions that short-term exposures to magnetic fields greater than 16 mG may be related to an increased risk of miscarriage. However, animal and cellular studies provide limited support for a causal relationship between magnetic field exposure and an increased risk of childhood cancer or miscarriage.

### **3.10.2 Environmental consequences—Proposed Action**

#### **Transmission line right-of-way**

The first paragraph in the Noise section (page 3-70) has been revised from the Draft EA text below:

Construction noise would temporarily result in higher noise levels during structure replacement and danger tree removal. Typical construction equipment used for the Proposed Action and the associated noise levels by equipment type are presented in Table 3-18.

The Final EA text reads as follows:

Construction noise would temporarily result in higher noise levels during structure replacement, access road reconstruction, and possible danger tree removal. Typical construction equipment used for the Proposed Action and the associated noise levels by equipment type are presented in Table 3-18.

## 3.13 Greenhouse gases

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### 3.13.2 Environmental consequences—Proposed Action

#### Transmission line right-of-way

The third paragraph in Section 3.13.2 (page 3-80) has been revised from the Draft EA text below:

The total amount of greenhouse gas emission from the Proposed Action, including construction equipment, danger tree removal, and tree removal for access road work, would be low at approximately 3,128 metric tons of carbon dioxide equivalent. This equates to less than 0.002 percent of the 167,470,000 metric tons of carbon dioxide emitted annually in BPA’s four-state service territory (EPA, 2011) and is below EPA’s 25,000 metric tons reporting threshold. The individual components of the total greenhouse gas emissions are described below.

The Final EA text reads as follows:

The total amount of greenhouse gas emission from the Proposed Action, including construction equipment, possible danger tree removal, and tree removal for access road work, would be low at approximately 3,128 metric tons of carbon dioxide equivalent. This equates to less than 0.002 percent of the 167,470,000 metric tons of carbon dioxide emitted annually in BPA’s four-state service territory (EPA, 2011) and is below EPA’s 25,000 metric tons reporting threshold. The individual components of the total greenhouse gas emissions are described below.

## Changes to Chapter 5—Persons, tribes, and agencies receiving the EA

### 5.1 Federal agencies and officials

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The list of federal agencies and officials has been revised from the Draft EA list to include the following in the Final EA list:

U.S. Department of Agriculture, Natural Resources Conservation Service

## Changes to Chapter 7—References

The following references were added to Chapter 7 in the Final EA:

- Bonneville Power Administration (BPA). 2014. Application for Transportation and Utility Systems and Facilities on Federal Lands Application (SF-299) for the Alvey-Fairview Rebuild Wood Pole Replacement Project. March 17, 2014.
- Brandt, Jason, ODFW Habitat Conservation Biologist. February 24, 2014. “BPA Alvey-Fairview Transmission Line Rebuild project in-water work timing extensions.” Letter to Justin Isle, Aquatic Contracting.
- Glenn, Betsy, USFWS Northern Spotted Owl Lead. January 17, 2014. “Critical nesting period.” Email to Jeff Reams, Turnstone Environmental Consultants.
- Loffink, Ken, ODFW Assistant Fish Passage Coordinator. February 6, 2014. “Fish Passage Approval for Bonneville Power Association’s (BPA) Fairview to Alvey Transmission Line Project, PA-16-0017—PA-16-0030 (Umpqua Basin), PA-17-0016—PA-17-0019 (Coos/Coquille Basin), PA-02-0108—PA-02-110 (Willamette Basin).” Letter to Justin Isle, Aquatic Contracting, and Richard Heredia, BPA.

## Public Comments

This section presents comments received on the Draft EA and responses to those comments. Comments were received via letter, comment form, and on the [Project webpage](#). The official public comment period was from February 7, 2014 to March 2, 2014.

BPA received comments from 21 entities in writing through comment forms and letters. Each comment submittal was given an identifying number that corresponds to the order it was received. Table 1 provides the comment number and the associated author and affiliation.

**Table 1. Draft EA Comment Submittals**

| Comment Number | Comment Author / Affiliation   |
|----------------|--|
| AFTLR14 0001   | Hackett/Public   |
| AFTLR14 0002   | Wheeler/Coquille Indian Tribe  |
| AFTLR14 0003   | Citizen1/Public  |
| AFTLR14 0004   | Aldrich/Public   |
| AFTLR14 0005   | Citizen2/Public  |
| AFTLR14 0006   | Arthur/Public  |
| AFTLR14 0007   | Bellamy/Public   |
| AFTLR14 0008   | Nash/Public  |
| AFTLR14 0009   | Langdon/Public   |
| AFTLR14 0010   | Johnson/Public   |
| AFTLR14 0011   | Romoser/Coquille Canoe Club  |
| AFTLR14 0012   | Brady/Public   |
| AFTLR14 0013   | Robison/Public   |
| AFTLR14 0014   | Gaskins/Public   |
| AFTLR14 0015   | Allen/Public   |
| AFTLR14 0016   | Bowers/Public  |
| AFTLR14 0017   | Talburtt/Public  |
| AFTLR14 0018   | Etzel/Public   |
| AFTLR14 0019   | Fowler and Ausbeck/Bureau of Land Management (BLM) Coos Bay and Roseburg Districts |
| AFTLR14 0020   | Paulete/BLM Eugene District  |
| AFTLR14 0021   | Williams/USDA-NRCS Oregon  |

**Comment AFTLR14 0001 Hackett**

*Last year your surveyors proposed building a gravel road through the middle of my existing well. I have not heard anything more on the subject when I pointed out that harming my well would make my property uninhabitable. I can not express this vehemently enough--I do not want a gravel road either through my well or across my pasture. Access is currently not restricted when the ground is dry and this road would attach to an existing road that is not even accessible to large pole trucks. My comment to BPA is: there isn't a road now and I don't want one in the future.*

**Response to Comment AFTLR14 0001 Hackett**

Thank you for your comment. On March 19, 2014, BPA provided the landowner with a map representing the BPA right-of-way as it crosses the landowner's property. BPA also provided follow-up contact information should the landowner have further questions.

In subsequent discussions with the landowner (March 25, 2014) it was confirmed that the well in question would not be impacted by the Rebuild Project and that no new roads are proposed on the property.

## **Comment AFTLR14 0002 Wheeler/Coquille Indian Tribe**

*I am the Director of the Coquille Indian Tribe's Culture and Education Department. Thank you for recently forwarding a copy of the draft EA for the Alvey-Fairview Transmission Line rebuild proposal. The Tribe has a Congressionally-defined service area that comprises Coos, Curry, Douglas, Lane and Jackson Counties in the State of Oregon. The Coquille Indian Tribe has completed an initial review of the Alvey-Fairview transmission line rebuild proposal between the cities of Eugene and Coquille, Oregon. Several sections of the proposed project implicate known or reported archeological sites. Some of this information may have been gathered during past project monitoring. The Tribe wishes to consult with the BPA to resolve these matters. Please contact me at [bridgettwheelers@coquilletribe.org](mailto:bridgettwheelers@coquilletribe.org) or (541) 751-2004 to discuss this matter. Thank you for your time. Sincerely, Bridgett Wheeler*

## **Response to Comment AFTLR14 0002 Wheeler/Coquille Indian Tribe**

Thank you for your comment. BPA initiated consultation with the Coquille Indian Tribe on December 20, 2011, under Section 106 of the National Historic Preservation Act. BPA's cultural resources staff recently contacted the Coquille Tribe during the week of March 3, 2014, to discuss this comment letter and will continue to consult the Tribe throughout the Rebuild Project.

Consultation with the Tribe has revealed that impacts to cultural resources would be moderate. Specifically, eight archeological sites were identified within the project Area of Potential Effect; two sites would be adversely affected by access road work; and, four sites would require the implementation of avoidance and impact minimization measures. BPA will work with State Historic Preservation Office and the consulting Tribes to develop a mitigation plan for the adverse impacts at the two sites and implement impact minimization and avoidance measures at the four other sites. Mitigation measures would likely include additional site characterization before construction, and on-site monitoring during construction.

If, during construction, previously unidentified cultural resources that would be adversely affected by the Proposed Action are found, BPA would follow cease all activities in the vicinity of the find. The BPA archaeologist, the Oregon State Historic Preservation Office, and consulting tribes would also be notified immediately. Also, see Table 2-9 for additional information on cultural resources mitigation measures.

## Comment AFTLR14 0003 Citizen 1

Please have your studies look at:

(1) Do these lines have health effects on residents? I'm very far from the lines.

(2) What type of fire protection is offered should a natural disaster or accident situation cause a downed line.

I need more information about:

### Response to Comment AFTLR14 0003 Citizen 1

Thank you for your comment. Please see Section 3.10.1 of the Environmental Assessment, which has been updated to briefly summarize scientific research on magnetic field exposure and potential health effects—decades of research have been inconclusive. As described in Section 3.10.2 and illustrated in Table 3-20, rebuilding the line would not change existing electrical or magnetic field levels or potential public exposure.

Regarding the comment on protection from downed lines, making sure transmission structures are sound and maintaining vegetation a safe distance from the conductors is the most effective protection against potential downed lines or electrical arcing. In addition, the BPA transmission system continuously monitors line current. If the system detects a fault, which would indicate a potential arcing situation, the line would automatically turn off to prevent additional arcing and fire potential. BPA sends crews to assess fault locations and relies on local emergency services if fires are identified.

Comment AFTLR14 0004 Aldrich

See numbers  
on print

- 1) Gate at South Property line is falling apart and hard to operate.
- 2) Culvert that is existing, does not have enough cover to support heavy equipment.  
The two reconstruct roads leading up to 15/3 do not show culverts.  
This area is always wet, because of a spring, uphill, runs year around.
- 3) Acquire Access Road Easement.  
This is an existing dirt road, that is documented to exist in 1925 or before. That is before BPA Power Line Easement.

I have met with your HDR people, twice, on sight. I've asked the reconstruction be done to Lane County Roads and Driveways Codes, including Fire Safety Codes. Road Grades are required to be 16 percent maximum. I also require a crowned road with ditches on both sides. There will be no need for Drain Dips, but a culvert will need to be installed at the West of the of the intersection, that would be crossing the existing access road,

At this time there is no sign that BPA will conform to Lane County Road and Driveway Code and my desires. I did apply for a land Use Agreement through BPA to reconstruct my existing road. The agreement has been approved for signing. One of the conditions required by BPA is a 15 percent maximum grade.

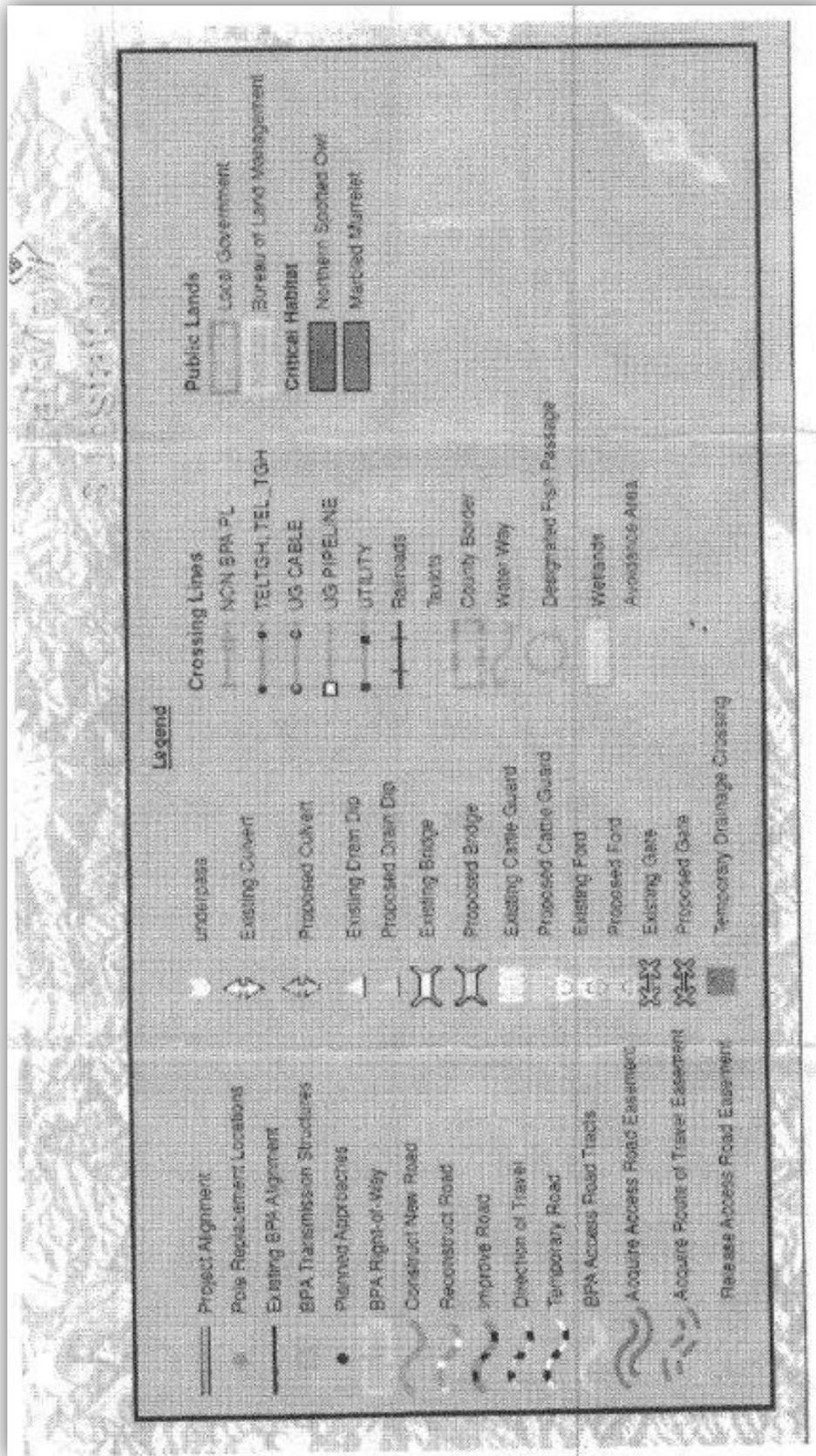
I need an explanation why BPA will not do what I have asked as part of the new easement agreement, yet requires me to exceed the county code - please respond.

- 4) The culvert at C-015-002 is rusted through. There is another culvert just East of C-015-002 which has very little cover, may not support heavy equipment.
- 5) The culvert at this location is new this year (2014), for I have replaced it.
- 6) The Direction of Travel section of road should by PBA standards have a HS-20 rating. There is not the required base rock. The road looks good under dry conditions, because I keep the ruts filled with new gravel.

Surface gravel will not support heavy equipment under rainy (wet) winter conditions. Once the road surface seal is broken by heavy equipment travel, water will enter the sub-grade. With no base rock the road will be damaged and a hazard will be created for heavy equipment and other vehicles traveling the road. I ask that BPA look at this section of road under heavy rain conditions. I will be glad to help digging test holes to show the lack of base rock. There are at least three locations that may have springs under the road, for they are very soft.

7) At the point the existing access road crosses the high pressure gas line, is there enough cover over the gas line for heavy equipment travel?



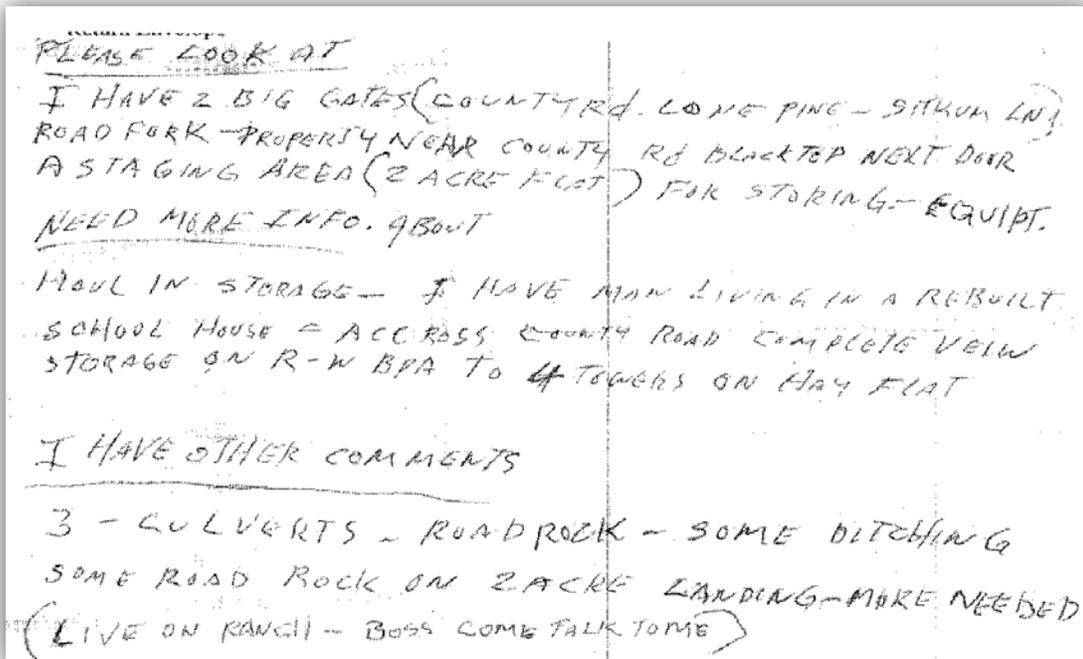


### Response to Comment AFTLR14 0004 Aldrich

Thank you for your comment. The Alvey-Fairview Transmission Line Rebuild Project would not include work near the gate at the landowner's south property line, so this gate would not be replaced as part of the Rebuild Project. The rusted culvert C-015-002 identified by the landowner, as well as two other culverts on the property, C-015-003 and C-015-004, would be replaced or constructed as part of access road improvements for the Rebuild Project. These three culverts are accounted for in the numbers provided in Table 2-1 (page 2-3) in Chapter 2 of the EA, which lists the quantity of culverts that would be built or replaced as part of the Rebuild Project.

BPA proposes to obtain an access road easement for the road referenced in the comment letter leading up to structure 15/3. BPA plans on improving the road at its current grade but acknowledges the landowner's request to improve the road to Lane County standards. In discussions with the landowner (on March 1, 2014), BPA agreed to consider the landowner's requests for the road—crowning, culvert construction, and percent grade, as well as materials for the direction of travel portion of the road.

### Comment AFTLR14 0005 Citizen 2



### Response to Comment AFTLR14 0005 Citizen 2

Thank you for your comment. The commenter's contact information was not included with this comment submittal. BPA was unable to determine which property the

comments pertain to based on the information contained in the comment and was unable to contact the landowner regarding these comments.

### Comment AFTLR14 0006 Arthur

I have these other comments:  
*I have no complaint about the line. Would hope you  
leave the site as good as is now or better.*

### Response to Comment AFTLR14 0006 Arthur

Thank you for your comment. BPA recognizes the importance of minimizing its impact on project sites. Where possible, the Rebuild Project would use existing infrastructure, such as access roads, for construction of the Proposed Action.

Please refer to Table 2-9 for the environmental design features and mitigation measures that would be implemented to avoid or reduce impacts from the Rebuild Project. For example, Table 2-9 outlines how BPA would return temporarily disturbed areas to the original (pre-construction) contours and conduct site restoration and revegetation measures as soon as practicable following construction. BPA would also reseed disturbed areas with native grasses and forbs to ensure appropriate vegetation coverage and soil stabilization prior to the beginning of the rainy season (November 1).

### Comment AFTLR14 0007 Bellamy

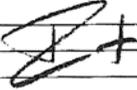
I have these other comments:  
*RIGHT OF WAY HAS to be graded before  
WORK IS STARTED. (POTHOLES etc.)*

### Response to Comment BTEA13 0007 Bellamy

Thank you for your comment. If the road or driveway in question would need to be used by BPA for construction of the Rebuild Project, BPA would fill pot holes prior to using the road and then repair any damage after construction.

### Comment BTEA13 0008 Nash

I have these other comments:

Build 

### Response to Comment AFTLR14 0008 Nash

Thank you for your comment. We recognize and appreciate your support of the Alvey-Fairview Transmission Line Rebuild Project. BPA intends to begin project construction in June 2014.

### Comment AFTLR14 0009 Langdon

I have these other comments:

My Biggest Concern is that in the Past the Power Company had no concern about the Land. They never Rocked the Road and Always left Very Deer Ruts on the Ground. We have Owned this Property For over 100 years and we like to think that we take care of the Land - And Be Good Steward. the Power Company doesn't do that AT ALL

Name/Address: \_\_\_\_\_

Y: \_\_\_\_\_

PI \_\_\_\_\_

The comment period ends March 3, 2014.

With new construction we Really dread the day that it all Gets started.

Please Rock the Road -  
Don't Destroy our Farm Ground!



### Response to Comment AFTLR14 0009 Langdon

Thank you for your comment. We acknowledge your concern about past use of the access road without rocking it, resulting in deep ruts. BPA has identified sections of access road that would need improvement before line rebuilding activities would begin. Improvements on this landowner's property would include the application of three inches of gravel, installation of drainage features, including a new culvert, two waterbars, and installation of two new gates.

In the event of damage caused by the construction-related activities, BPA would work with the landowner to repair the damage and/or pay for any damages.

### Comment AFTLR14 0010 Johnson

I need more information about: *are there any proposed changes to the three pole line which crossed my property at 9910 4 tone Pine Lane?*

### Response to Comment AFTLR14 0010 Johnson

Thank you for your comment. The wood poles that cross through the landowner's property are part of BPA's Bandon-Fairview transmission line, so they would not be altered as part of the Alvey-Fairview Transmission Line Rebuild Project.

## Comment AFTLR14 0011 Romoser/Coquille Canoe Club

Please have your studies look at:

maintaining power (electricity) internet and road access for Dora Sitkum Residents drivers and Coquille canoe club owners while transmission line is rebuilt.

I have these other comments:

It is imperative that all residents, log truck and other drivers and cabin owners served by the transmission line have daily road access to jobs, schools, appointments, groceries, library, fire and emergency services. It is over an hour's drive from Brewster Valley (Sitkum) to Coos Bay. This is one way. It is imperative that there be a limited disruption of power and electricity and everyone needs to be notified when the power will be turned off and for how long.

## Response to Comment AFTLR14 0011 Romoser/Coquille Canoe Club

Thank you for your comment. While BPA would need to take the Alvey-Fairview line out of service during reconstruction, the outage would be scheduled so that the local electric utility would be served via alternate transmission lines and there would be no disruptions to local electrical service as a result of the Rebuild Project. Furthermore, no road closures or road improvements are planned for Sitkum Lane as part of the Rebuild Project so there would be no access impacts to residents or recreationists in this area. Table 2-8 (page 2-20) in Chapter 2 of the EA summarizes potential impacts to recreation and other resources.

### Comment AFTLR14 0012 Brady

I need more information about:

Locations of culverts, access roads, and any temporary workspace that may encroach upon Northwest Pipeline right of way in the Eugene & Roseburg Districts

### Response to Comment AFTLR14 0012 Brady

Thank you for your comment. As part of the design process, BPA reviews all easements and utilities that cross BPA access roads and transmission line rights-of-way. These crossings, including buried gas pipelines, are considered during design and included (where information is available for them) in construction drawings to ensure safe construction.

### Comment AFTLR14 0013 Robison

I have these other comments:

Coos County Parks has one facility in close proximity to the transmission lines (Rock Prairie Park) which is where law access has been granted to BPA. If this access is going to change the Parks Dept would like to be advised. We are in favor of the transmission line rebuild and look forward to the upgrade.

### Response to Comment AFTLR14 0013 Robison

Thank you for your comment. Rock Prairie Park is not on the Alvey-Fairview Transmission Line so it would not be impacted by the Rebuild Project.

### Comment AFTLR14 0014 Gaskins

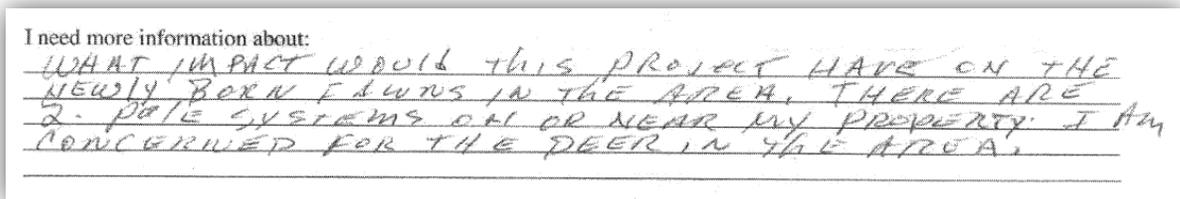
I have these other comments:

I have an agreement that any road built on my property will be temporary & the ground will be returned to the former state when your pole replacement is done.  
Thanks

### Response to Comment AFTLR14 0014 Gaskins

Thank you for your comment. The current access road plan does not show construction of any new or existing roads on the landowner's property. Access on the property would be within the existing transmission line easement, and BPA would return the ground to pre-construction conditions. BPA mailed the landowner a copy of the access road plan and provided follow-up contact information should the landowner have further questions.

### Comment AFTLR14 0015 Allen



### Response to Comment AFTLR14 0015 Allen

Thank you for your comment. In general the Alvey-Fairview Transmission Line Rebuild Project would not have a significant effect on deer and fawns (please see Section 3.6 starting on page 3-44 of the EA). It is possible that mother deer may hide their fawns near where construction crews may need to work. In these cases, the fawns would likely either stay put if nothing approaches too close to them, or would dash away a short distance before hiding again. The mother deer would likely not be far away from the fawns and would return after a short time. The presence of the construction crews could delay the mother deer's ability to reach a fawn that is hidden close to a construction site. For very young fawns this could pose a problem if the time between feedings was significantly disrupted. BPA considers the likelihood of encountering fawns to be low, and the likelihood even lower that construction activities would result in any harm to them because fawns would likely avoid the construction area due to the noise.

On March 13, 2014, BPA provided follow-up contact information should the landowner have further questions.

## Comment AFTLR14 0016 Bowers

Please have your studies look at:

Quit wasting money on studies,  
We need more infrastructure such as Power lines.  
Spend more time listening to landowners that  
have knowledge about their property, that will help  
you in the long run. ~~the~~ the money you spent (wasted)  
on studies already, you could of had a second line  
put in already.

I have these other comments:

Comas Swale: Me + my Dad own  
about a 1.5 mile of your right of way, the only time  
you can go out there without making a mess is the  
month of August.  
There will be no New Roads built  
in Comas Swale!!! like I said work  
with landowner and things will go smooth

## Response to Comment AFTLR14 0016 Bowers

Thank you for your comment. As a federal agency, BPA is required to conduct a number of studies before a project is approved, is subject to a variety of federal laws, and must obtain permits or concurrence from the agencies that implement these laws. The studies that are being conducted represent a small percentage of the overall cost of the project. In addition, BPA agrees that landowner input is valuable to a successful project and works hard to solicit and respond to that input.

While a previous iteration of the Transportation Plan reflected construction of a temporary road within the transmission line easement on the landowner's property, the updated Transportation Plan now shows only a direction of travel within the easement and no road construction. A direction of travel is defined as the location that BPA or its construction contractor would use to access the structures within the ROW without the need for a new road. If conditions allow, BPA will work with the landowner to coordinate access once his crop is harvested and the weather is dry.

BPA provided the landowner with a copy of the current Transportation Plan for the landowner's property and also provided follow-up contact information should the landowner have further questions. BPA contacted the landowner on March 18, 2014 and during this call, the landowner brought up the possibility of replacing a culvert (C-004-

003) on his property. This existing culvert is not currently proposed for replacement, but BPA will follow-up with the project's access road engineers to verify.

#### Comment AFTLR14 0017 Talburt

I have these other comments:

As an adjacent property owner I would like to have some of the poles you take down next to me - I have a tractor & can move them myself -

#### Response to Comment AFTLR14 0017 Talburt

Thank you for your comment. BPA has not yet identified the contractor for construction of the Alvey-Fairview Transmission Line Rebuild Project, and it has not yet been determined whether BPA or the contractor will be responsible for disposal of poles that would be removed and replaced. Depending on which party is responsible, the landowner may need to coordinate with the contractor or sign a release form provided by BPA.

BPA will follow-up with the landowner after it has been determined who is responsible for disposal of the poles.

#### Comment AFTLR14 0018 Etzel

Please have your studies look at:

The possibility of moving the pond from directly under your power line to approximately 200 feet west and combine with a nearby contributory material from new pond could be used to fill old pond.

I have these other comments:

Due to vegetation control existing pond is not useable because water temperature in the summer.

#### Response to Comment AFTLR14 0018 Etzel

Thank you for your comment. The Proposed Action for the Alvey-Fairview Transmission Line Rebuild Project would be limited to reconstruction of the transmission line facility

and ancillary facilities such as access roads, bridges, and culverts (see Chapter 2 of the EA). Moving a pond is outside of the scope of the Rebuild Project.

### **Comment AFTLR14 0019 Fowler and Ausbeck/BLM Coos Bay and Roseburg Districts**

Email sent to BPA on February 25, 2014.

#### **Topic 001**

*Page 2-14, Table 2-5*

*FYI: could delete PDFs that are not needed for the new access-rights roads as most of these are not needed for only culvert cleaning.*

*For example: "Set clearing at approximately 35 feet "... These new access-rights roads do not involve new construction..."*

#### **Response to Topic 001**

The title of Table 2-5 has been updated to delete the word "new". BPA will omit the typical drawings (the "pdfs" referenced in this comment) from the BLM SF-299 form application materials.

#### **Topic 002**

*Page 2-14 Table 2-5*

*OR simply retitle the Table*

*Table 2-5. Environmental design features/mitigation measures for ~~new~~ access-rights roads on BLM land*

*This would apply the pdfs to any road on BLM. If that case, most of these could be applicable.*

#### **Response to Topic 002**

Same response as Topic 001.

#### **Topic 003**

*Page 2-16 Table 2-6*

*Unclear from the text as to whether these 100 danger trees are:*

- a) currently under BPA's 44LD authorization to cut;*
- b) part of this action OR are they part of BPA's cyclic operational maintenance; and*
- c) does BPA need new authorization from BLM to cut.*

*The EA needs to be very clear as to what is currently under BPA's authorization and what actions need new authorization. Text infers that these 100 trees are "OUTSIDE of the right-of-way" and consequently OUTSIDE of BPA's current authorization to cut.*

*If these trees are outside of BPA's current authorization, then BLM needs to authorize this part of this action. BLM would need additional information in this EA to make that Decision (location, size, whether NSO/Mamu habitat or not). In addition, these trees would be subject surveys for to Survey & Manage and possibly ESA species.*

### **Response to Topic 003**

The 100 danger trees were estimated during the routine danger tree patrol in early 2012 as a result of minor changes in line construction from the planned rebuild design. BPA has existing authority to remove trees in and adjacent to its right-of-way and is not seeking additional authorization for tree removal. Section 2.1.6 and Table 2-6 of the EA have been updated to clarify that the location and number of trees (if any) that could require removal as a result of construction will not be known until after the line has been rebuilt and another danger tree patrol has been performed.

### **Topic 004**

*Page 2-16 Table 2-6*

*The number of trees in this table are not the same as listed on the Alvey-Fairview BLM Road Work.xls spreadsheet of detailed road work to be performed on BLM roads.*

*According to the spreadsheet, the number of trees to be removed from BLM lands is: roads*

*BLM Coos Bay District=1*

*BLM Eugene District=18*

*BLM Roseburg District=16*

### **Response to Topic 004**

The tree removal quantities listed in Table 2-6 on page 2-16 for the Eugene and Roseburg Districts have been updated to be consistent with the Alvey-Fairview BLM Road Work spreadsheet. The number of trees listed in Table 2-6 for the BLM Coos Bay District is consistent with the information provided in the Alvey-Fairview BLM Road Work spreadsheet.

## **Topic 005**

*Page 2-17*

*FYI: Coos Bay programmatic BiOp with USFWS has different dates for Northern Spotted Owl. Double check with USFWS as to what dates they will authorize for this project and input those dates into the Final EA.*

*Disturbance time period apply from March 1 to Sept 30.*

*Disruption distances apply during Critical Breeding Period (March 1 to June 30) and Late Breeding Period (July 1 to Sept 30).*

*(FY08-13 Programmatic BiOp FWS Reference No. 13420-2008-F-0118)*

### **Response to Topic 005**

The northern spotted owl and marbled murrelet seasonal restrictions reported in the Draft EA follow the guidance provided by Betsy Glenn of the USFWS (Glenn, 2014), which is consistent with the dates discussed with USFWS during preparation of the Biological Assessment for the Alvey-Fairview Transmission Line Rebuild Project. The text in Section 2.1.7 (page 2-17) and Table 2-5 (pages 2-14 to 2-15) were updated to reflect the dates provided by Betsy Glenn.

## **Topic 006**

*Page 2-17*

*FYI: Coos Bay programmatic BiOp with USFWS has different dates for marbled murrelet. Double check with USFWS as to what dates they will authorize for this project and input those dates into the Final EA.*

*Disturbance time period apply from March 1 to Sept 30.*

*Disruption distances apply during Critical Breeding Period (April 1 to Aug 5) and Late Breeding Period (Aug 5 to Sept 15)*

### **Response to Topic 006**

Same response as Topic 005.

## **Topic 007**

*Page 2-31 Table 2-9*

*See comment for page 2-17 regarding restriction dates.*

### **Response to Topic 007**

Construction timing restrictions in Table 2-9 are consistent with the suggested timing restriction changes described in Topic 005, so no changes to restriction dates listed in Table 2-9 have been made.

### **Topic 008**

*Page 3-48 Top of page*

*The EA should also address whether any of these trees to be removed a within NSO suitable habitat. There is suitable habitat outside of designated critical. UFSFWS might want that information in the biological assessment.*

### **Response to Topic 008**

Tree removal from northern spotted owl suitable habitat (outside of designated critical habitat) is discussed in Section 3.6.2 (page 3-47 through 3-48) of the EA and in the Alvey-Fairview Transmission Line Rebuild Project Biological Assessment. While there are three known or estimated northern spotted owl nests within 0.25 mile of the transmission line, no trees are proposed for removal within nest patches or core areas of known or estimated owl sites. Tree removal would likely occur within home ranges of known and estimated northern spotted owl sites within nesting, roosting, foraging, and dispersal habitat; however, the amount likely to be removed within any one home range would be 0.05 acre or less. This small scale of tree removal would be minor, since canopy cover would be maintained above 60 percent and all multi-canopy, uneven aged tree structure that currently exists would remain after Rebuild Project completion.

Please note that the statement on the top of page 3-48 refers to critical habitat only; clarifying language has been added to Section 3.6.2 on page 3-47. Please refer to the Alvey-Fairview Transmission Line Rebuild Project Biological Assessment for additional discussion of northern spotted owl suitable habitat.

### **Topic 009**

*Page 3-48 Paragraph 3*

*The EA should also address whether any of these trees to be removed a within murrelet suitable habitat. There is suitable habitat outside of designated critical. UFSFWS might want that information in the biological assessment.*

### **Response to Topic 009**

Section 3.6.2 (page 3-48) of the EA discusses tree removal impacts in marbled murrelet nesting areas and critical habitat and states that no potential nest trees are proposed for

removal in suitable habitat (outside of designated critical habitat). Clarifying language has been added to the marbled murrelet subsection on page 3-48. In addition, tree removal from marbled murrelet suitable habitat is accounted for in the Alvey-Fairview Transmission Line Rebuild Project Biological Assessment.

#### **Topic 010**

*Page 2-3 Table 2-1*

*In review of the previous version of the EA (v. 3.0 at p. 2-12), in mid-January of this year, it was noted that the characterization of danger tree removal was misleading. The expectation is that these would primarily be larger and older trees such as would be primarily found on BLM lands rather than private lands, particularly if they were privately-owned timber lands. Additionally, there would not be a high occurrence of hazard trees on the expanses of pasture and crop land crossed by the right-of-way. Consequently, the trees to be removed would likely be more closely spaced than one per mile.*

#### **Response to Topic 010**

Table 2-1(page 2-3) has been updated and no longer approximates one tree per mile.

#### **Topic 011**

*Page 2-14 Table 2-5*

*“Restrict access road reconstruction and improvement work during the critical breeding periods (March 1—August 5) and apply daily timing restrictions from August 6—September 15 to minimize disturbance from noise to spotted owls and marbled murrelets.”*

#### **Response to Topic 011**

Same response as Topic 005.

#### **Topic 012**

*Page 2-14 Table 2-5*

*In previous review of the EA, it was noted that this does not accurately report the critical breeding seasons and seasonal restrictions for the marbled murrelet and northern spotted owl.*

#### **Response to Topic 012**

Same response as Topic 005.

### **Topic 013**

*Page 2-17*

*In Marbled Murrelet Management Zone 1 (up to 35 miles inland from the shore) and any portions of Zone 2 that may lie within a restriction corridor, activities that occur within disruption thresholds of suitable nesting habitat are seasonally restricted from April 1st through August 5th, both dates inclusive. Afterwards, daily operating restrictions apply until September 15th. Daily operating restrictions prohibit commencement of operations until two hours after sunrise, and require cessation of activities two hours before sunset. In Zone 2, outside restriction corridors, no seasonal restriction applies, but daily operating restrictions are required from April 1st through August 5th, both dates inclusive.*

### **Response to Topic 013**

All of the marbled murrelet suitable habitat sites and known occupied sites are located within Marbled Murrelet Management Zone 1; none are within Marbled Murrelet Management Zone 2, so those restrictions do not apply. The daily timing restrictions used in the EA are based on USFWS consultation guidance (Glenn, 2014), which is consistent with the dates discussed with USFWS during preparation of the Alvey-Fairview Transmission Line Rebuild Project Biological Assessment. Construction activity timing restrictions in Section 2.1.7 have been updated to reflect the dates provided by Betsy Glenn.

### **Topic 014**

*Page 2-17*

*For the northern spotted owl, activities that occur within disruption thresholds of suitable nesting, roosting and foraging habitat are seasonally restricted from March 1st through July 15th, both dates inclusive. If the action would remove suitable nesting, roosting and foraging habitat within one-quarter mile of a known northern spotted owl site, estimated site, or unsurveyed suitable habitat then seasonal restrictions would apply from March 1st to September 30th, both dates inclusive.*

### **Response to Topic 014**

Same responses as Topics 005 and 008.

### **Topic 015**

*Page 2-15 Section 2.1.6*

*The misleading characterization of the density/arrangement of danger trees appears again.*

### **Response to Topic 015**

Same response as Topic 003. The characterization of the density and arrangement of danger trees has been updated in Section 2.1.6.

### **Topic 016**

*Page 2-16 Table 2.6*

*The table indicates that 29 trees would be removed on Roseburg District BLM lands. How does this equate with the 16 trees indicated in the Excel spreadsheet for Road Work on All Roads on BLM Lands that identifies 16 trees to be cut? Similarly, the table says six trees would be removed on the Eugene District but the road spreadsheet indicates 18 trees*

### **Response to Topic 016**

The tree removal quantities listed in Table 2-6 on page 2-16 have been updated for the BLM Eugene and Roseburg Districts to be consistent with the Alvey-Fairview BLM Road Work spreadsheet submitted with the BLM SF-299 form.

### **Topic 017**

*Page 2-17 Section 2.1.7*

*The seasonal restrictions for the marbled murrelet and northern spotted owl are inaccurate, and do not even agree with those displayed in Table 2-5, on p. 2-14, which are also inaccurate-. See my comment above. Change to: Restrict access road reconstruction and improvement during the critical breeding period for murrelets (April 1 to August 5) and spotted owls (March 1 to July 7) and apply daily timing restrictions near murrelet sites from April 1 to September 15 to minimize disturbance*

### **Response to Topic 017**

Same response as Topic 005.

### **Topic 018**

*Page 2-18 Section 2.1.8*

*As previously noted, on pp. 2-3 and 2-15, the removal of danger trees is poorly addressed. In these prior two instances, attempts are made to portray an average number per miles of route which is not realistic. This is further substantiated by the discussion here which acknowledges that "much of the transmission line right-of-way crosses agricultural fields where there are no threats of danger trees."*

## **Response to Topic 018**

Same response as Topic 003.

## **Topic 019**

*Page 2-19 Table 2-7*

*It is wrong to say that there would be no construction-related environmental impacts under No Action. Maintenance impacts (i.e. pole replacements) would not be distinguishable from replacement impacts save that the level of activity might be spatially limited, with the timing of replacements unpredictable.*

*Also, a cost is a cost, and costs will be incurred under either alternative, whether it is total reconstruction of existing structures under the Proposed Action, or emergency repairs under No Action when structures fail*

## **Response to Topic 019**

Section 2.2 (page 2-18 through 2-19) has been revised to clarify the description of the No Action Alternative and Table 2-7 has been updated to more accurately portray the differences in costs and environmental impacts between the Proposed Action and the No Action Alternative. Under the No Action Alternative, structure replacement would likely occur on an emergency basis and at separate locations, not allowing for planning avoidance or minimization measures for environmental resources. Under the Proposed Action, the entire transmission line and all associated structures would be rebuilt at generally the same time (e.g. two consecutive construction seasons) and as one complete project.

## **Topic 020**

*Page 2-20 Table 2-8*

*There are no discernible differences in impacts under the Proposed Action and No Action. Systematic and comprehensive replacement of all wood structures in one action vs. periodic replacement of individual structures as they fail will have essentially the same impacts. The only substantive differences would be in the timing and duration of impacts.*

## **Response to Topic 020**

Same response as Topic 019.

## **Topic 021**

*Page 2-31 Table 2-9*

*Seasonal restrictions for the northern spotted owl and marbled murrelet again do not reflect the seasonal restrictions contained in biological opinions issues by the Roseburg office of the U.S. Fish and Wildlife Service.*

### **Response to Topic 021**

Same response as Topic 005.

## **Topic 022**

*Page 3-5 and 3-6*

*The characterization of the intended function of the land use allocations is incorrect.*

*Late-Successional Reserves are intended to provide habitat for the threatened northern spotted owl and marbled murrelet, as well as other species associated with late-successional and old-growth habitat.*

*Riparian Reserves, in addition to providing for water quality and aquatic habitat, are intended to provide dispersal pathways for wildlife species within the Matrix allocations.*

### **Response to Topic 022**

The text in Section 3.1.1 has been revised to reflect the function of the land use allocations, as specified in the comment.

## **Topic 023**

*Page 3-8 Access roads/agricultural and forestry uses*

*The description of the removal of roughly two trees per acre in association road renovation suffers from the same flawed logic as the danger tree discussion. A large percentage of the access network is likely located outside of forested area, so the number of trees per acre removed in forested areas would certainly exceed two per mile of road.*

### **Response to Topic 023**

Section 3.6.2 of the EA (page 3-49) has been revised to remove the “two trees per mile” referenced in this comment. This was the only instance that the “two trees per mile” was used in the Draft EA.

**Topic 024**

*Page 3-9 environmental consequences from access-rights roads on BLM land*

*The text says that 36 trees removed along roads on BLM lands. The Road Work on All Roads on BLM Lands spreadsheet identifies a total of 35 trees; one on Coos Bay, 16 on Roseburg, and 18 on Eugene. Table 2-6 says one on Coos Bay, six on Eugene, and 29 on Roseburg. What is correct?*

**Response to Topic 024**

Same response as Topic 016.

**Topic 025**

*Page 3-9 Section 3.1.3*

*As noted above, with respect to Table 2-8, it is misleading to state that no construction impacts would occur because no construction would occur. Systematic and comprehensive replacement of all wood structures in one action vs. periodic replacement of individual structures as they fail will have essentially the same impacts. The only substantive differences would be in the timing and duration of impacts.*

**Response to Topic 025**

Same response as Topic 019. BPA believes the summary of the impacts in Table 2-8 and in Section 3.1.3 accurately reflect the No Action Alternative.

**Topic 026**

*Page 3-14 Section 3.2.3*

*As noted above, with respect to Table 2-8, it is misleading to state that no construction impacts would occur because no construction would occur. Systematic and comprehensive replacement of all wood structures in one action vs. periodic replacement of individual structures as they fail will have essentially the same impacts. The only substantive differences would be in the timing and duration of impacts*

**Response to Topic 026**

Same response as Topic 019. BPA believes the impacts described in Table 2-8 and Section 3.2.3 accurately reflect the No Action Alternative.

**Topic 027**

*Page 3-23 Section 3.3.3*

*Again, the No Action alternative would have impacts. Emergency replacement of failed wooden structures would have substantially the same immediate and localized effect at the replacement site as replacement associated with a complete replacement under the Proposed Action.*

**Response to Topic 027**

Same response as Topic 019. BPA believes the impacts described in Section 3.3.3 accurately reflect the No Action Alternative.

**Topic 028**

*Page 3-33 Section 3.4.3*

*See preceding comments.*

*“Although impacts associated with rebuilding the transmission line would not occur as a consolidated project, it would be expected that over time wood-pole structures would be replaced and roads reconstructed or improved as needed, creating the same impacts as described for the Proposed Action.”*

*This is essentially what should have been said in the preceding sections noted. Replacement v. construction, impacts the same save for location and time of occurrence.*

**Response to Topic 028**

Same response as Topic 019. BPA believes the impacts described in Section 3.4.3 accurately reflect the No Action Alternative.

**Topic 029**

*Page 3-47 Northern Spotted Owl*

*Where did these seasonal restriction dates come from? July 7 is not a date that this office has ever seen used as the end of the critical breeding season, as previously noted.*

**Response to Topic 029**

Same response as Topic 005.

**Topic 030**

*Page 3-48 Marbled Murrelet*

*As previously described, with respect to Table 2-5 and Section 2.1.7, this is an incomplete discussion of seasonal restrictions, and in this case daily operating restrictions, that vary dependent upon which management zone one is located in.*

**Response to Topic 030**

Same responses as Topics 005 and 013.

**Topic 031**

*Page 3-49 Northern Spotted Owl*

*See previous remarks regarding the seasonal restriction dates for the northern spotted owl.*

**Response to Topic 031**

Same response as Topic 005.

**Topic 032**

*Page 3-50 Marbled Murrelet*

*See previous remarks regarding management zones, seasonal restriction dates, and daily operating restrictions with regard to the marbled murrelet.*

**Response to Topic 032**

Same responses as Topics 005 and 013.

**Topic 033**

*Page 3-51 through rest of document*

*From this point forward, impacts under No Action and the Proposed Action should be the same varying only by the timing and duration of activities.*

**Response to Topic 033**

Same response as Topic 019.

## **Comment AFTLR14 0020 Paulete/BLM Eugene District**

Email sent to BPA on March 3, 2014.

*The Eugene District BLM staffs reviewed your Draft EA for the Alvey-Fairview Transmission Line Rebuild Project (February 2014). We are a cooperating agency with you on this document, and have the following comments to contribute to you in this regard.*

*We are satisfied that our views are adequately reflected and addressed in your analysis, and thank you for your responsiveness to our comments during the internal review.*

*We look forward to continue working with you through this process, and on future projects.*

## **Response to Comment AFTLR14 0020**

Thank you for your comment and for reviewing the Draft EA.

## Comment AFLR14 0021 Williams/USDA-NRCS Oregon

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

### ALVEY-FAIRVIEW TRANSMISSION LINE REBUILD

*"I'd like to tell you..."*

USDA NRCS requests the following comments be considered after the formal comment period closed.  
Submitted 3/14/14 3:45 pm

Please have your studies look at:

The Draft EA seems to indicate that a road through the USDA-NRCS WRP easement is still planned. Specifically, Table 3-12 of the EA (page3-42) shows the proposed construction of 807 feet of road between poles 6/3 and 6/5. Based on the information and maps that NRCS reviewed, this proposed road would be within the WRP Easement.

To the extent that BPA is planning to construct a road within the existing BPA right of way on the WRP easement, the USDA Office of the General Counsel (OGC) has opined that the construction of a such a road is not within the rights afforded to BPA under its Right of Way. The BPA right of way across the WRP easement was granted to BPA through eminent domain as set forth in the Declaration of Taking dated May 3, 1956. The Easement for Transmission Line, attached as Exhibit A to the Declaration of Taking, states that the rights of BPA are to "construct, maintain, repair, rebuild, operate and patrol one line of electric power transmission structure... and the further right to clear the right-of-way...and to keep the same clear of brush, timber, inflammable structures and fire hazards (provided, however, that the words "fire hazards" shall not include growing crops, and to dispose of such brush, timber and inflammable structures..." Based on OGC's review and analysis of BPA's rights under this easement, OGC concluded that the BPA easement does not convey an express or implied right to BPA to construct a road within the right of way. While BPA does have the express right to maintain, repair and rebuild the line, there is no express right to construct a road. Further, since there has not been a road within the right of way during the past 60+ years of line maintenance, OGC does not believe that there would be an implied right to construct a road within the right of way as it does not appear that a road is necessary to effectuate BPA's express right to maintain, rebuild or repair the line.

Since the WRP easement does not permit the landowner to consent to the construction of a road through the easement, BPA, to the extent they wish to move forward with the road construction process, would need to request a modification or subordination of the WRP Warranty Easement Deed. That request would need to be submitted to NRCS State Office Programs @ 1201 NE Lloyd Blvd, Suite 900, Portland Oregon, 97232.

I need more information about:

- The Draft EA states the BPA is planning on constructing a new access road on the WRP easement, however subsequent discussions with BPA indicate that is no longer the plan, will another Draft EA be available for comment to analyze the final plan? If so, when is the expected release date?

I have these other comments:

- USDA and the NRCS is not listed in Chapter 5.1 as a Federal Agency with jurisdiction and authority. We received a copy of the Draft EA but are not listed.
- NRCS requested "orally" during field visits to be a cooperating agency, but have not been kept informed of project progress. This is despite their knowledge of our WRP easement, wetland restoration work and management of the site for a Federally listed Endangered Plant (population and habitat).

- The BPA has some very good BMP's included in their planned work. Include all of their BMP's for wetland and sensitive sites while crossing the NRCS WRP (Transmission Lines 6/3 to 6/5).
- Get clear assurance that the access to the lines through WRP is specified to be temporary access and that the entire section of the WRP corridor is classified as sensitive wetlands and will be treated according to special wetland BMP's.
- Stay within the proposed narrower footprint of 16' width for sensitive wetland areas for the entire corridor of impact through the WRP easement.
- NRCS request BPA implements their BMP to "*In sensitive vegetation areas, install construction "envelopes" of silt fencing, weed free straw wattles, or other barrier materials around construction sites to prevent vehicle turnround, materials storage, or other disturbance outside of designated construction areas*". We'd like for them to contain the disturbance at the site as much as possible. With silt fencing up, contractors would know that they need to stay within the corridor of the silt fencing.
- NRCS requires consultation with the NRCS State Plant Material Specialist on the seed mix to be used on the WRP a minimum of 90 days prior to any construction activity taking place on the WRP easement. NRCS must approve the seed mix to be used on the property to ensure the mix is appropriate for and compatible with the previously completed restoration efforts.
- Request that tillage or scarification of the soil through the WRP corridor not occur unless it is absolutely necessary or deemed necessary by NRCS staff. If necessary, request that any tillage or scarification equipment used for re-vegetation purposes be cleaned thoroughly to minimize potential for establishment of noxious and invasive plants.
- NRCS requests that no mulches or fertilizers be used (with seeding, or otherwise) within the WRP project area.
- The EA indicates that several BA's were completed and made determination of project effects upon a number of T&E species, including Bradshaw's lomatium. NRCS can provide information about the location of the plants and population monitoring data if BPA would like to do an in-depth analysis of impacts on the plant population or do consultation with U.S. Fish and Wildlife Service. We'd welcome BPA to monitor the potential impacts to the plant and provide any reasonable further mitigation of potential impacts to this Federally listed Endangered plant.

## **Response to Comment AFTLR14 0021 Williams/USDA-NRCS Oregon**

Thank you for your comment. Since the Draft EA was published, BPA determined it will not construct a new access road between structure 6/3 and 6/5 (within the USDA NRCS WRP easement). Table 3-12 (page 3-42) has been updated to reflect this. In addition, the total disturbance area in the 100-year floodplain has been revised from 1.9 acres to 1.5 acres; this update is reflected in Table 2-8 (page 2-22), Table 3-12 (page 3-42), and the first paragraph on page 3-42 in Section 3.5.2.

BPA will not be releasing another Draft EA for comment; your agency will receive the Final EA addressing your comments. BPA also revised Chapter 5 to include USDA-NRCS as a federal agency that received the EA.

Regarding serving as a cooperating agency on the EA, BPA staff thought NRCS did not want to be a cooperating agency for the EA unless BPA requested that NRCS issue a new right of way agreement or otherwise make changes to the existing property that would require NRCS action. Since BPA is no longer proposing to build a road between structure 6/3 and 6/5, no potential changes to any easements are required and thus, no NRCS action is required. BPA apologizes for failing to communicate this to USDA-NRCS sooner.

In terms of mitigation measures, the area between structure 6/3 and 6/5 is sensitive vegetation and thus, BPA will implement all mitigation measures described in Table 2-9 of the EA for sensitive vegetation. Access to these areas would be limited to the time necessary for construction. BPA would also limit the width that is utilized for ingress and egress to 16 feet or less; however, more space may be needed in the areas around towers to position equipment and allow other vehicles and equipment to pass if necessary.

BPA will coordinate with the NRCS State Plant Material Specialist on the seed mix proposed for the transmission line easement. The current proposal is to use the Northwest Prairie Economy Mix (without lupine species) from Silver Falls Seed Company for restoration/revegetation in the Willamette Valley. BPA will also work with USDA-NRCS to determine if tillage or scarification is necessary and will direct its contractor to avoid using mulch or fertilizer between structure 6/3 and 6/5.

Finally, BPA submitted a Biological Assessment for the Alvey Fairview Transmission Line Rebuild Project to USFWS for impacts to several species, including Bradshaw's lomatium. Because no populations of Bradshaw's lomatium were identified within the transmission line and WRP easement, no new access roads are planned, and work would be done during the dry season with as little disturbance to the ground surface and hydrology as possible, BPA concluded the impact to Bradshaw's lomatium in this area would be low. BPA will comply with any terms and conditions for Bradshaw's lomatium that the USFWS requires.