Boyer-Tillamook Access Road Improvement Project
Final Environmental Assessment

Bonneville Power Administration
DOE/EA-1941
January 2014

SUMMARY

Bonneville Power Administration (BPA) is proposing to improve about 13.5 miles of access road along the existing 115-kV Boyer-Tillamook transmission line in Tillamook and Yamhill counties, Oregon. In September 2013, BPA issued a preliminary Environmental Assessment (EA) for the project, which describes the project, the potential environmental impacts of the project, and mitigation measures to reduce impacts. This document provides changes made to the text of the preliminary EA, as well as the comments received on the preliminary EA and BPA's responses to those comments. The preliminary EA, with the addition of these changes and the response to comments, constitutes the final EA. The preliminary EA is available on the project webpage at www.bpa.gov/goto/BoyerTillamookAccessRoads or by calling 1-800-622-4520.

CHANGES TO THE EA

A number of minor changes were made to the preliminary EA and are presented below by the chapter and section in which they appear in the preliminary EA. The majority of the changes are related to changes in the restoration planting plan (increase in the number and types of trees to be planted) and the construction schedule. Where text has been modified, deleted text is indicated as "strikethrough" format and new text is underlined.

CHANGES TO CHAPTER 2 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The fourth paragraph on page 2-4 has been revised as follows:

> In addition to the roadbed work, a number of landslide areas along the uphill side of project roads would be cleared and stabilized. An estimated 775 cubic yards of rip rap would be placed in 21 areas that need stabilization ~~landslides, streambed, and other locations~~. Quantities would range from 5 to 158 cubic yards depending on the location. In addition, riprap would be used to armor streambeds, culvert inlets and outlets, bridge abutments, pilings, and other structures against scour, water, or ice erosion.

2.1.3 OPERATION AND MAINTENANCE

The following revisions have been made to this section (page 2-13):

> Ongoing operation and maintenance of the Boyer-Tillamook transmission line and its access roads would continue and would not change due to the Proposed Action.

However, because a number of existing road issues would be addressed by the Proposed Action, fewer maintenance and repair activities would be expected to occur in the future if the project were implemented.

Access roads would continue to be used by BPA personnel at least once a year during annual inspections and maintenance of the Boyer-Tillamook transmission line. Access road maintenance activities are ~~would be~~ conducted as needed. Typical road maintenance activities ~~could~~ include grading and graveling road surfaces, replacing riprap, removing downed or encroaching trees, and controlling noxious weeds.

Vegetation maintenance along access roads is ~~would be~~ guided by BPA's Transmission System Vegetation Management Program Environmental Impact Statement and Record of Decision (BPA 2000). The vegetation management program includes consultation with landowners and local weed management agencies concerning vegetation management needs and methods. Vegetation management methods could include manual methods (e.g., chainsaws), mechanical methods (e.g., brush hogs), and chemical methods (i.e., herbicides).

BPA conducts environmental review for site specific maintenance activities as appropriate.

CHANGES TO CHAPTER 3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.2 Land Use, Recreation, and Transportation

3.2.2.1 Construction Impacts

The first sentence in this section on page 3-7 has been revised as follows:

> Impacts to land use and recreation during construction of the project would mostly be temporary, with construction expected to last from 2 to 4 months, although work may need to be spread out over two to three seasons due to work timing restrictions protecting fish and wildlife.

3.3 Geology and Soils

3.3.2.1 Construction Impacts

The second from last paragraph in this section on page 3-15 has been revised as follows:

> Approximately 200 trees would be removed with roots left intact. In these cases, the potential for increased soil erosion would be partially mitigated because the roots would remain in place, but the benefits of evapotranspiration would be temporarily eliminated. In the long term, low-growing vegetation such as grasses and shrubs would return and provide soil stability. In addition, a total of ~~490~~ 547 trees would be replanted at four of the stream crossing construction sites (see Section 3.4.2, Water Resources). Once roadside slopes are stabilized, replanting

would begin to improve slope stability once the trees become established. The levels of root cohesion would increase as the newly planted forest matures.

3.4 Water Resources

3.4.2.1 Construction Impacts

The following revisions have been made to this section:

The first sentence in the third paragraph on page 3-22 has been revised as follows:

> The proposed improvements to six culverts and bridges—which would also involve widening stream channels, armoring banks with ~~fish-friendly~~ appropriately sized riprap, and increasing the size of the floodplain (see Section 2.1.3, Proposed Action and Alternatives, Bridge and Arch Pipe Construction)—directly impact 2,030 square feet (0.04 acre) of streams but would have several effects on water resources (see Table 3-3).

The last sentence in the third paragraph on page 3-22 has been revised as follows:

> All riprap used in streams would be ~~fish friendly and~~ consistent with SLOPES design criteria and ODFW fish passage requirements.

The number of trees to be replanted for restoration has increased and the species composition of plantings has changed due to revisions by BPA to provide a better restoration of the plant community. The second to last sentence in the first paragraph on page 3-23 has been revised as follows:

> Additionally, a total of ~~490~~ 547 trees would be replanted at four of the stream crossings to provide streambank protection and restore the riparian buffer. These are described in Table 3-4 below.

Table 3-4 on page 3-24 has been revised as follows:

~~Table 3-4. Tree Restoration at Surface Water Crossings~~

~~Specifications~~					~~Number of Plants~~			
~~Scientific Name~~	~~Common Name~~	~~Plant Type~~	~~Spacing~~	~~Purpose~~	~~UT to Sourgrass Creek~~	~~Hester Creek~~	~~Lower Lawrence Creek~~	~~Upper Lawrence Creek~~
~~*Salix lucida*~~	~~Pacific willow~~	~~Live cuttings~~	~~2 foot on center~~	~~Streambank protection~~	~~49~~	~~101~~	~~12~~	~~13~~
~~*Alnus viridis*~~	~~Sitka alder~~				~~49~~	~~101~~	~~12~~	~~13~~
~~*Acer macrophyllum*~~	~~Big leaf maple~~	~~Bare root – 5 foot height~~	~~15 foot on center~~	~~Riparian buffer~~	~~20~~	~~7~~	~~2~~	~~0~~
~~*Pseudotsuga menziesii*~~	~~Douglas fir~~				~~20~~	~~7~~	~~2~~	~~0~~
~~*Alnus rubra*~~	~~Red alder~~				~~59~~	~~21~~	~~2~~	~~0~~
~~**TOTAL TREES PLANTED**~~					~~**197**~~	~~**237**~~	~~**30**~~	~~**26**~~

Table 3-4. Tree Restoration at Surface Water Crossings

Specifications					Number of Plants			
Scientific Name	**Common Name**	**Plant Type**	**Spacing**	**Purpose**	**UT to Sourgrass Creek**	**Hester Creek**	**Lower Lawrence Creek**	**Upper Lawrence Creek**
Salix lucida	Pacific willow	Live cuttings	Minimum 2 foot on center	Streambank protection	50	50	12	13
Alnus viridis	Sitka alder				50	50	12	13
Acer macrophyllum	Big Leaf maple	Bare root 5 foot height		Riparian buffer	25	7	0	0
Alnus rubra	Red alder				75	20	0	0
Picea sitchensis	Sitka spruce				25	0	0	0
Thuja plicata	Western red cedar				50	0	0	0
Tsuga heterophylla	Western hemlock				75	20	0	0
TOTAL TREES PLANTED					**350**	**147**	**24**	**26**

The last sentence of the second paragraph on page 3-24 has been revised as follows:

> A total of ~~490~~ 547 trees would be replanted at four of the stream crossings to provide streambank protection and restore the riparian buffer, as described above.

3.4.3 Mitigation – Proposed Action

The fifth from last bullet on page 3-26 has been revised as follows:

- Plant a total of ~~490~~ 547 trees across four stream crossing improvement locations to provide streambank stability and riparian buffer establishment.

3.4.4 Unavoidable Impacts Remaining After Mitigation

The next to last sentence in this section on page 3-26 has been revised as follows:

> Natural stream processes may be constrained by riprap placement; however, ~~fish-friendly~~ appropriately sized riprap and proper channel grading would be implemented consistent with SLOPES criteria and ODFW fish passage requirements to protect fish and water quality.

3.5 Wetlands and Floodplains

3.5.2.1 Construction Impacts

The first sentence of the second paragraph on page 3-29 has been revised as follows:

The replacement of the undersized culvert at the crossing of road AR-6 over an unnamed tributary to Sourgrass Creek would create approximately 405 ~~acres~~ square feet of impacts to wetland W-5/4-1.

The last sentence of the third paragraph on page 3-29 has been revised as follows:

The replanting of ~~490~~ 547 trees at four stream crossing locations would aid in restoration of these areas (see Table 3.4).

3.5.3 Mitigation – Proposed Action

The first bullet on page 3-31 has been revised as follows:

- Plant a total of ~~490~~ 547 trees across four stream crossing improvement locations to provide streambank stability and riparian buffer establishment.

3.6 Vegetation

3.6.2.1 Construction Impacts – General Vegetation

The last paragraph on page 3-42 has been revised as follows:

Disturbed riparian areas would be planted with a total of ~~490~~ 547 native trees for streambank protection and riparian buffer enhancements. ~~The number of trees planted for riparian buffers at each site was based on a 2:1 ratio for trees planted to trees removed as suggested by NMFS (Annie Birnie, pers. comm., December 2012).~~ No trees would be removed at the lower Lawrence Creek site because that site is adjacent to an agricultural field without riparian vegetation. Live cuttings of willows and alders would be incorporated into the streambank protection for each bridge and planted in a minimum density of 2 feet on center (see Section 3.4, Water Resources, Table 3-4). Revegetated areas would be monitored annually until a 70-percent establishment rate is met.

The last two paragraphs on page 3-43 have been revised as follows:

Because the area of soil disturbance is relatively small (3.13 acres), and soil disturbance and tree removal would be distributed throughout the 13.42-mile project corridor, the remaining canopy, understory trees, shrubs, and crown sprouts are expected to regrow, and existing trees would continue to provide shade and stabilize soils, thereby mitigating most impacts of the Proposed Action. A total of ~~490~~ 547 riparian trees would be replanted to improve the riparian buffer and streambank stability. Additionally, most of the vegetation to be permanently removed is in relatively low quality, production forest; there would be minimal disturbance to high-quality, mature native forests. Most trees that would be removed would not be replanted, to allow for construction of project features or the safe passage of vehicles. Entire trees, including the stumps, would be removed in areas where the roadbed or associated features are constructed. Stumps would remain and would provide benefits to soil stabilization and erosion prevention in areas where trees are cut to allow the safe passage of vehicles. Only three of the trees to be removed are larger than 33 inches in diameter (three Douglas-firs). Roughly 90 percent (466) of

the trees to be removed are less than 19 inches in diameter. Thus, the Proposed Action would not have a major impact on the productivity or quality of adjacent plant communities, resulting in a ***low*** impact to vegetation.

Near the location of the unnamed tributary to Sourgrass Creek culvert replacement, 176 trees, a combination of Douglas-fir and red alder, would be removed between structures 5/4 and 5/5. Most clearing at this location would occur prior to construction of the roadbed at a wider turn radius than is existing. Other tree removal would be associated with the conversion of the undersized culvert to an arch pipe. Trees cleared to allow for passage of vehicles and the stumps would be retained in the soil. All but three of these trees are smaller than 20 inches in diameter, and 88 of them have a diameter of less than 8 inches. At this large area of clearing, the remaining canopy likely would not mitigate the effects. A total of ~~197~~ 350 trees would be replanted at this location to provide streambank stability and restore the riparian buffer. The loss of trees would not have a major impact on the productivity or quality of adjacent plant communities, and restoration plantings would aid in site recovery; however, this reduction in wooded habitat and the potential for weed recruitment would have a ***moderate*** impact to this area.

3.6.3 Mitigation – Proposed Action

The third from last bullet in this section on page 3-45 has been revised as follows:

- Plant a total of ~~490~~ 547 trees across four stream crossing improvement locations to provide streambank stability and riparian buffer establishment.

3.7 Fish and Wildlife

3.7.1.2 Special-Status Fish and Wildlife Species

The first row on Table 3-8 on page 3-49 has been revised as follows:

Type	Species	Federal Status	Critical Habitat	State Status	Distribution in Vicinity of Project Area
Fish	Coho salmon (Oregon Coast ESU)	Threatened	~~None~~ Designated within project area	Sensitive - Vulnerable	Occurs in three project area streams: unnamed tributary into Sourgrass Creek, Lawrence Creek, and Hester Creek (Hutchinson 2012).

3.7.2.1 Construction Impacts

The last sentence in the second paragraph in this section on page 3-55 has been revised as follows:

Additionally, all crossings would be graded and reinforced with ~~fish-friendly~~ appropriately sized rock at specifications determined by SLOPES design criteria and ODFW fish passage requirements to protect aquatic species.

Table 3-10 on page 3-61 has been revised as follows:

Table 3-10. Impact Determinations for Wildlife and Fish Species

Impact Magnitude	Rationale[1]	Species	Federal Status
None	Unfragmented old growth habitat does not exist in the project area.	Red tree vole	Candidate
	No nests or feeding areas occur within or near the project area.	Bald eagle	Delisted
Low	Overall improvements in habitat and compliance with design criteria outlined in the NMFS BA. Restoration planting of ~~490~~ 547 riparian trees.	Oregon Coast ESU Coho Salmon	Threatened
		General fish species	None
Low to Moderate	Possible disturbance and incidental mortality during construction. Impacts would be limited to the site of construction activities and at the scale of individuals and would not likely affect local or regional population levels for common and fast reproducing species.	General wildlife species	None
Low to Moderate	Species is not known to be present in the project area, but the area does contain suitable habitat for dispersal. Trees that would be removed are not suitable for nesting and do not have the PCEs required for critical habitat.	Marbled murrelet	Threatened
	Species could be present in the project area, but habitat is limited to dispersal. Trees that would be removed are not suitable for nesting and do not have the PCEs required for critical habitat.	Northern spotted owl	Threatened

3.7.3.1 Fish

The second and third bullets in this section on page 3-62 have been revised as follows:

- Isolate work areas at the unnamed tributary to Sourgrass Creek, Hester Creek, unnamed tributary to Louie Creek, and the unnamed tributary to Alder Creek crossings and utilize a biologist to capture, transport, and release any fish found in the work area.
- ~~Place fish-friendly rock in all stream crossings where instream work is done.~~ Determine the depth and gradient of the streambed, channel dimensions, and streambed material sizing consistent with SLOPES design criteria and ODFW fish passage requirements.

3.7.3.2 Wildlife

The following mitigation bullets were added on page 3-63:

- Prohibit work from March 1 through August 5 in designated areas to protect migratory birds, including marbled murrelets and Northern spotted owls. Additionally, work will be conducted from 2 hours after sunrise to 2 hours before sunset from August 6 through September 15 in these designated areas.

- Complete additional mitigation measures to minimize impacts to marbled murrelets and northern spotted owls recommended by the USFWS as appropriate.

3.9 Socioeconomics, Environmental Justice, and Public Services

3.9.2.1 Construction Impacts

The first sentence on page 3-78 has been revised as follows:

> Construction activities would occur over a period of 2 to 4 months, although work may need to be spread out over two to three seasons due to work timing restrictions to protect fish and wildlife.

3.11 Air Quality and Greenhouse Gasses

3.11.2.1 Construction Impacts – Air Quality

The first sentence of this section, on page 3-87, has been revised as follows:

> Air quality effects from the Proposed Action would occur during construction, which would take approximately 2 to 4 months to complete, although work may need to be spread out over two to three seasons due to work timing restrictions to protect fish and wildlife.

PUBLIC COMMENTS

BPA released the preliminary EA in September 2013 for public comment. BPA sent the EA, or a notification of the EA's availability, to agencies and potentially affected or interested parties. The public comment period extended from September 19, 2013 to October 21, 2013. Federal agencies were given additional time to comment, per Council of Environmental Quality guidance[1], due to the government shutdown in the fall of 2013. This section presents comments received on the preliminary EA and responses to those comments.

BPA received comments from eight entities in writing through comment forms and letters. Each comment submittal was given an identifying number that corresponds to the order in which the submittal was logged into BPA's comment file. Table 1 provides the comment submittal number and the associated author and affiliation.

Table 1. Public Comments on the Preliminary Environmental Assessment

Comment Number	Comment Author / Affiliation
BTEA13 0001	Mary Farley / landowner
BTEA13 0002	WJ Greene / landowner
BTEA13 0003	Glenn Kellow / landowner
BTEA13 0004	James Wettstein / landowner
BTEA13 0005	Mark Vroman / landowner
BTEA13 0006	Amber Johnson / Oregon Department of Fish and Wildlife
BTEA13 0007	Carrie Landrum / Oregon Department of State Lands
BTEA13 0008	Karen Nelson / U.S. Army Corps of Engineers

[1] Council of Environmental Quality. 2013. Memorandum for Heads of Federal Departments and Agencies: Implementing NEPA after Budget Lapse Shutdown. Issued: October 18.

Comment BTEA13 0001

BONNEVILLE POWER ADMINISTRATION

Boyer-Tillamook Access Road Improvement Project
Preliminary Environmental Assessment
Public Comment Form

Project webpage: www.bpa.gov/goto/BoyerTillamookAccessRoads

BPA is accepting public comments on the proposed Boyer-Tillamook Access Road Improvement Project preliminary environmental assessment through **October 21, 2013**. Please use this form to submit comments about the project, including those relating to how the Preliminary EA addresses such issues as:

- resources that could be affected (e.g., environmental, cultural, transportation, community resources, etc.)
- how you or others could be affected
- suggestions on how to reduce potential impacts from the project
- other concerns you may have

Comments:

When I was notified of this project on March 13 I phoned Jim Seaman who assured me this would not involve any work on Blaine Road in Beaver OR + that was my only interest.
Thank you.

Name:

Addres

City: Zip:

Phone N nail Address:

☐ Please send future correspondence regarding the project to me via e-mail (2334)
☐ Please send future correspondence regarding the project to me via US Postal Service (2423)
☒ Please take me off your mail list

You may return comment forms in the enclosed postage paid envelope or fax them to 503-230-4019. You can also call in comments to 1-800-622-4519, or submit them online at *www.bpa.gov/comment*.

Response to Comment BTEA13 0001

Thank you for your comment. Activities associated with the Boyer-Tillamook Access Road Improvement Project will not occur on Blaine Road in Beaver, Oregon.

Comment BTEA13 0002

BONNEVILLE POWER ADMINISTRATION

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- how you or others could be affected
- suggestions on how to reduce potential impacts from the project
- other concerns you may have

Comments: Send MAPS of area affected

Name:

Addre

City:

Phon E-mail Address:

☐ Please send future correspondence regarding the project to me via e-mail (2334)
☒ Please send future correspondence regarding the project to me via US Postal Service (2423)
☐ Please take me off your mail list

You may return comment forms in the enclosed postage paid envelope or fax them to 503-230-4019. You can also call in comments to 1-800-622-4519, or submit them online at *www.bpa.gov/comment*.

Response to Comment BTEA13 0002

BPA sent maps of the affected area to the landowner on October 18, 2013.

Comment BTEA13 0003

BONNEVILLE POWER ADMINISTRATION

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- how you or others could be affected
- suggestions on how to reduce potential impacts from the project
- other concerns you may have

Comments:

As land owners in the Boyer-Tillamook Access area, we are in agreement with the BPA's proposed plan, as is.

We greatly appreciate the continued communications with BPA, and look forward to a positive working relationship with the agency.

Nai

Add

City:

Phon

☒ Please send future correspondence regarding the project to me via e-mail (2334)
☐ Please send future correspondence regarding the project to me via US Postal Service (2423)
☐ Please take me off your mail list

You may return comment forms in the enclosed postage paid envelope or fax them to 503-230-4019. You can also call in comments to 1-800-622-4519, or submit them online at *www.bpa.gov/comment*.

Response to Comment BTEA13 0003

Thank you for your comment.

Comment BTEA13 0004

BONNEVILLE POWER ADMINISTRATION

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- resources that could be affected (e.g., environmental, cultural, transportation, community resources, etc.)
- how you or others could be affected
- suggestions on how to reduce potential impacts from the project
- other concerns you may have

Comments:

if there are any trees being cut down in my area I would be interested in removing them for fire wood. I do agree with the proposed improvements

Name

Addr

City: / : OR Zip:

Phone Number: E-mail Address:

☐ Please send future correspondence regarding the project to me via e-mail (2334)
☒ Please send future correspondence regarding the project to me via US Postal Service (2423)
☐ Please take me off your mail list

You may return comment forms in the enclosed postage paid envelope or fax them to 503-230-4019. You can also call in comments to 1-800-622-4519, or submit them online at *www.bpa.gov/comment*.

Response to Comment BTEA13 0004

BPA will contact affected landowners regarding tree removal for the Boyer-Tillamook Access Road Improvement Project. Leaving felled trees for firewood can be an option if requested by the underlying landowner. Please also see Chapter 2, Section 2.1.1 Roads in the Preliminary EA for information on tree removal areas.

Comment BTEA13 0005

BONNEVILLE POWER ADMINISTRATION

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- how you or others could be affected
- suggestions on how to reduce potential impacts from the project
- other concerns you may have

Comments: 10-25-13

#Agency Creek Mnnagemnt
Owns Commercial Timberland
All Timber cutting, Tree Removal
Needs to be Marked and Pre-Viewed
BY Company Foresters
Contact A.C.M. prior to Cutting!

Thanks!

Name:

Address:

City:

Phone Nur

☐ Plea...
☐ Please send future correspondence regarding the project to me via US Postal Service (2423)
☐ Please take me off your mail list

You may return comment forms in the enclosed postage paid envelope or fax them to 503-230-4019. You can also call in comments to 1-800-622-4519, or submit them online at *www.bpa.gov/comment*.

Response to Comment BTEA13 0005

Thank you for your comment. If trees are marked for removal on Agency Creek Management Company property, BPA will review marked trees with the company prior to tree cutting and removal associated with the Boyer-Tillamook Access Road Improvement Project. The same will be done for any property with trees marked for removal for this project.

Comment BTEA13 0006

Oregon
John A. Kitzhaber, M.D., Governor

Department of Fish and Wildlife
Northwest Region
4907 3rd Street
Tillamook, OR 97141
(503) 842-2741
Fax (503) 842-8385
www.dfw.state.or.us

October 18, 2013

Jim Semrau
BPA Project Manager
Bonneville Power Administration
Public Affairs-DKC-7
PO Box 14428
Portland, OR 97293-4428

RE: Boyer-Tillamook Access Road Improvement Project

Dear Mr. Semrau,

Thank you for the opportunity to comment on the proposed Boyer-Tillamook Road Improvement project. Oregon Department of Fish and Wildlife (ODFW) has some concerns and recommendations that should be addressed to ensure the protection of the natural resources of the area:

1. The use of 29 Douglas fir trees to be used for stream restoration at surface water crossings (Table 3-4) may be of concern due to the prevalence of Swiss Needle Cast (SNC) found within the Nestucca Basin. Bonneville Power Administration might consider planting hemlock or red cedar, or at least SNC resistant Douglas fir as an alternative.
2. Overall, ODFW would recommend more rigorous monitoring for re-vegetation survival within the project area. Currently, the environmental assessment outlines a plan as follows, "Re-vegetated area would be monitored annually until a 70-percent establishment rate is met." Our recommendations would include setting criteria for successful riparian plantings at 80% survival by species after three years.
3. In addition, ODFW would like to know what the fate is of trees removed from right-of-way and if possible can they be used elsewhere for in-stream structure and habitat improvements?

Thank you for the opportunity to review and provide comment on the proposed work plan. I am available to assist in any way possible with these matters. If you have any further questions regarding this review, please contact me at (503) 842-2741 ext. 252.

Sincerely,

Amber Johnson
Habitat Conservation Biologist
4907 Third Street
Tillamook, OR 97141
t: (503) 842-2741 ext. 252
f: (503) 842-8385

Response to Comment BTEA13 0006

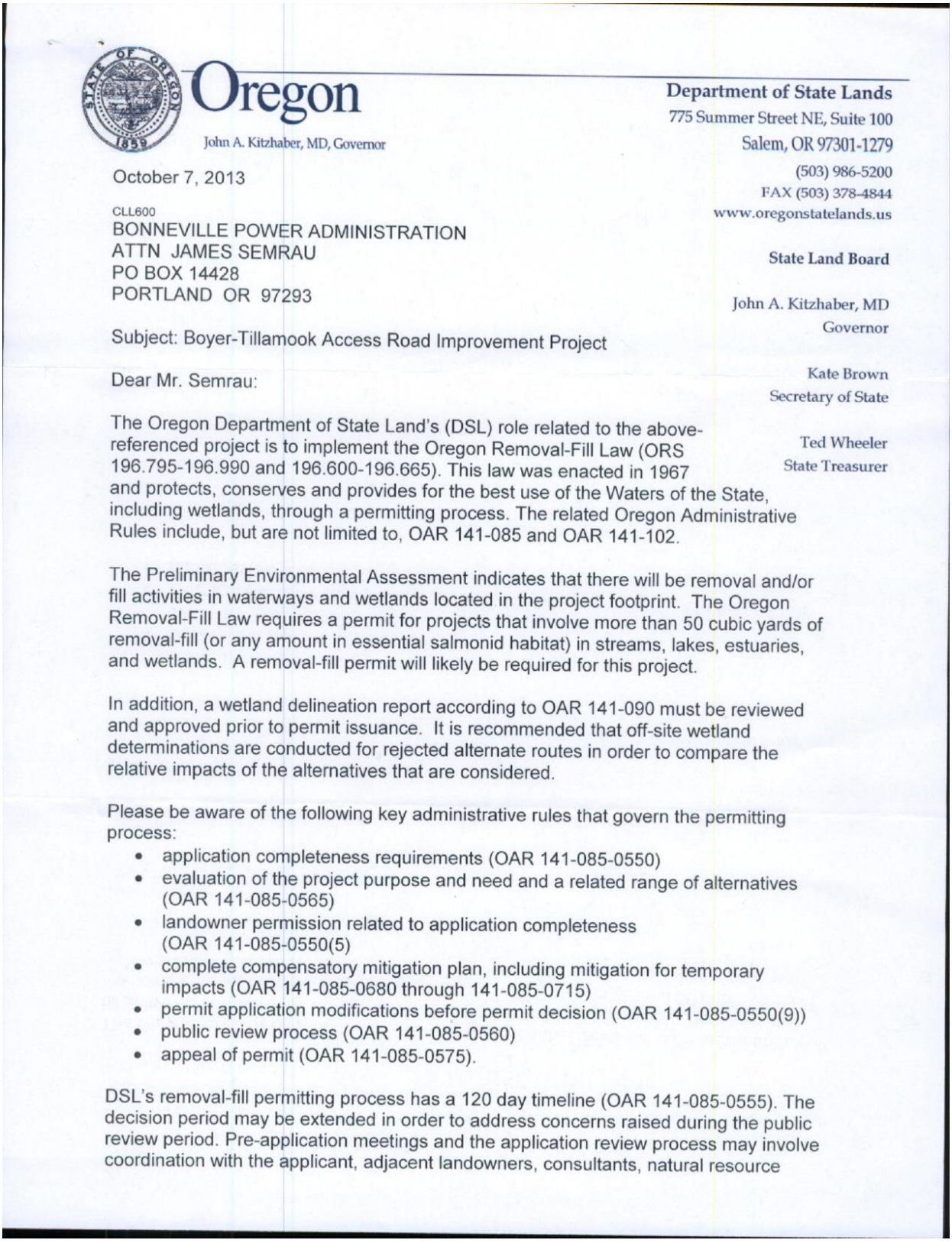
Thank you for your comments regarding the proposed tree removal and replanting activities.

Regarding the first comment, BPA has reconsidered the species mix for tree replantings for the proposed project given the prevalence of Swiss needle cast disease in the area and the region's high density of past Douglas fir replantings following fire and logging events. The revised proposed species mix does not include Douglas fir and instead includes 70 percent western hemlock, 20 percent western red cedar, and 10 percent Sitka spruce. This change is reflected in the revised Table 3-4 included in the Final EA. Please contact BPA with any other questions on species mix options for the affected area.

Regarding the second comment, a 70 percent vegetation establishment rate for replantings is required for soil stabilization by the National Pollutant Discharge Elimination System (NPDES) permit program. BPA generally follows these establishment criteria for construction projects.

Regarding the third comment, BPA will be working with individual landowners to determine the preferred use of felled trees. Where feasible, trees or large woody debris will be left in or near the stream channel for improving in-stream structure and fish habitat (see Chapter 2, Section 2.1.1 Roads; and Chapter 3, Section 3.7.3 Mitigation – Proposed Action [for fish]). If ODFW would like the trees for habitat improvements off-site, this could be done if the underlying landowner is in agreement. ODFW would need to contact BPA and the underlying landowner to facilitate tree removal.

Comment BTEA13 0007



Oregon

John A. Kitzhaber, MD, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.oregonstatelands.us

State Land Board

John A. Kitzhaber, MD
Governor

Kate Brown
Secretary of State

Ted Wheeler
State Treasurer

October 7, 2013

CLL600
BONNEVILLE POWER ADMINISTRATION
ATTN JAMES SEMRAU
PO BOX 14428
PORTLAND OR 97293

Subject: Boyer-Tillamook Access Road Improvement Project

Dear Mr. Semrau:

The Oregon Department of State Land's (DSL) role related to the above-referenced project is to implement the Oregon Removal-Fill Law (ORS 196.795-196.990 and 196.600-196.665). This law was enacted in 1967 and protects, conserves and provides for the best use of the Waters of the State, including wetlands, through a permitting process. The related Oregon Administrative Rules include, but are not limited to, OAR 141-085 and OAR 141-102.

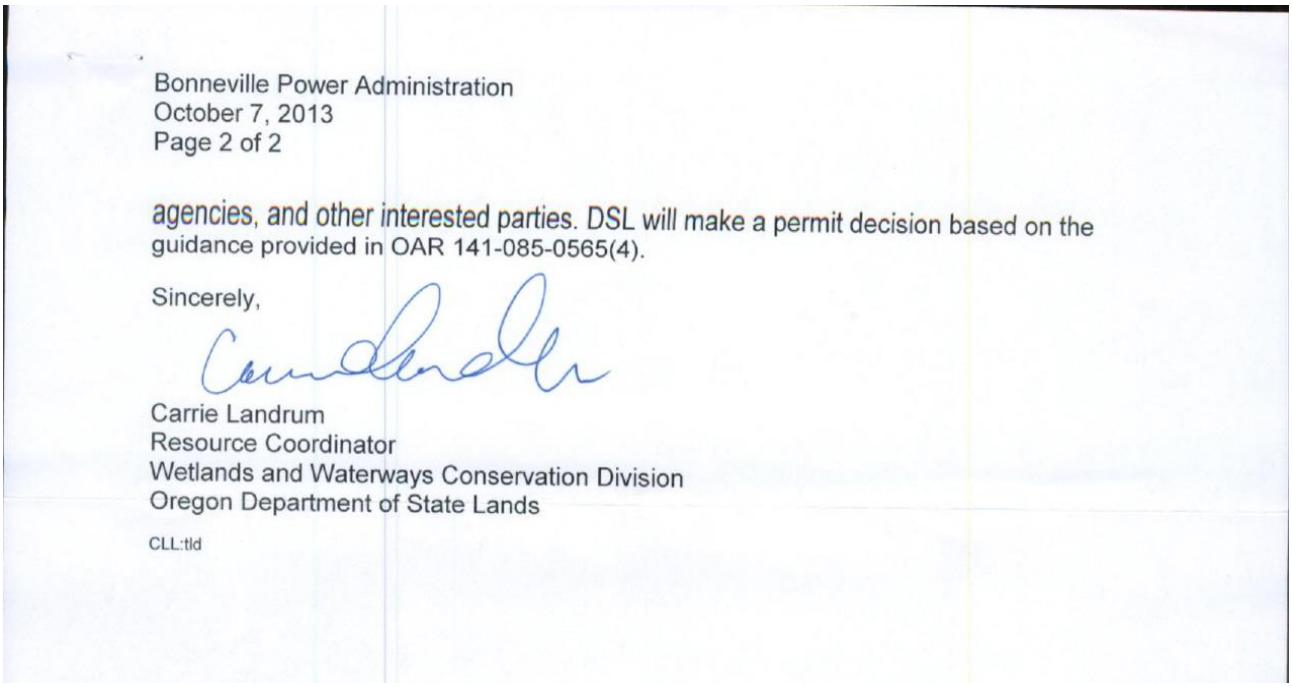
The Preliminary Environmental Assessment indicates that there will be removal and/or fill activities in waterways and wetlands located in the project footprint. The Oregon Removal-Fill Law requires a permit for projects that involve more than 50 cubic yards of removal-fill (or any amount in essential salmonid habitat) in streams, lakes, estuaries, and wetlands. A removal-fill permit will likely be required for this project.

In addition, a wetland delineation report according to OAR 141-090 must be reviewed and approved prior to permit issuance. It is recommended that off-site wetland determinations are conducted for rejected alternate routes in order to compare the relative impacts of the alternatives that are considered.

Please be aware of the following key administrative rules that govern the permitting process:

- application completeness requirements (OAR 141-085-0550)
- evaluation of the project purpose and need and a related range of alternatives (OAR 141-085-0565)
- landowner permission related to application completeness (OAR 141-085-0550(5)
- complete compensatory mitigation plan, including mitigation for temporary impacts (OAR 141-085-0680 through 141-085-0715)
- permit application modifications before permit decision (OAR 141-085-0550(9))
- public review process (OAR 141-085-0560)
- appeal of permit (OAR 141-085-0575).

DSL's removal-fill permitting process has a 120 day timeline (OAR 141-085-0555). The decision period may be extended in order to address concerns raised during the public review period. Pre-application meetings and the application review process may involve coordination with the applicant, adjacent landowners, consultants, natural resource



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agencies, and other interested parties. DSL will make a permit decision based on the guidance provided in OAR 141-085-0565(4).

Sincerely,

Carrie Landrum
Resource Coordinator
Wetlands and Waterways Conservation Division
Oregon Department of State Lands

CLL:tld

Response to Comment BTEA13 0007

Thank you for your comment. BPA has been working with the Oregon Department of State Lands (DSL) to obtain an Oregon Removal-Fill permit. To date, DSL has reviewed and approved the wetland delineation for the Boyer-Tillamook Access Road Improvement Project. BPA will continue to work with DSL to obtain the necessary permits prior to project implementation.

Comments BTEA13 0008

E-mail from USACE, 10/25/13:
I was able to review Chapters 1 and 2. A couple questions:

What type of equipment is required to mobilize a crew, and to perform maintenance once a year, and for emergency response? How many people are in each crew?

Is a complete road system really necessary? Cannot transmission line intersections with existing highways and rural roads be utilized for mobilizing crews and their equipment? Could all terrain excavator-type vehicles (similar to a Spyder...GOOGLE) be retrofitted with equipment necessary to provide maintenance and repair...and still provide transmission system reliability efficiently? There are many impacts and costs associated with a continuous access point for the corridor, and there appear to be alternatives beyond "No Action." Corps looks for the least environmentally damaging practical alternative (LEDPA). Decommissioning roads have long term benefits to both water resources and budgets..no maintenance, no bridges...no grading...if there are alternatives for access.

Are there other users of the corridor roads?

The photos in the report are very useful. If there is a handy template for slope/waterbar increments, please share. I'll continue review later in the week. Thank you for the time extension.

E-mail from USACE on November 18, 2013:
We look for alternatives analysis, and the LEDPA (least environmentally damaging practicable alternative). Given there is information sufficient for the LEDPA determination, then you're good to go.

Our EA template guides us to address the following:
Purpose
Need
Water Dependency Determination
Proposed Work
Avoidance and Minimization
Compensatory Mitigation
Existing Conditions
Scope of Analysis (NEPA/33CFR 325 Appendix C - "Permit Area"/ESA "Action Area"/Public Notice Comments) Alternatives Analysis (both in Location, and Layout)
***
Factual Determinations:
Physical Substrate
Water circulation, fluctuation, and salinity Suspended particulate/turbidity Contaminant availability Aquatic ecosystem and organisms Proposed disposal site Cumulative effects on the aquatic ecosystem Secondary effects on the aquatic ecosystem
****
Public Interest Review:
Conservation
Economics
Aesthetics
General environmental concerns
Wetlands
Historic properties

Fish and wildlife values
Flood hazards
Floodplain values
Land use
Navigation
Shore erosion and accretion
Recreation
Water supply and conservation
Water quality
Energy needs
Safety
Food and fiber production
Mineral needs
Considerations of property ownership
Prime and unique farmland
Noise
Air quality
National parks, Seashores, Wilderness, Research etc.
Traffic/Transportation Patterns
Listed Species
Mixing zone (hydrology)
Baseflow
Aquifer recharge
Substrate
Currents, circulation, drainage patterns Needs and welfare of the people Effects, policies and other laws

Sounds familiar, right!

I was able to flip briefly through the rest of the document. Looks good. Yet, in regards to the alternatives, I hope everyone had the opportunity to think outside of the box ... what alternatives were not brought forth in the document? How do we know that a delay in response time is more important than long-term protection of resources? If a less impactful access would delay power to customers by 24 hours after a storm, what effects would that have? What is more important...annual impacts associated with a road, or customers waiting an additional 24 hours once/twice a year? This is what we have to consider, and your input is essential.

Response to Comments BTEA13 0008[2]

Thank you for your comments regarding the need of the USACE to consider environmental impacts when reviewing BPA's Clean Water Act Section 404 permit application. Regarding the maintenance and emergency response questions, Section 2.1.6 describes activities that BPA would implement during routine maintenance activities. Types of maintenance equipment would be similar to those described in Section 2.1.1 for road work improvement activities, such as a road grader and heavy gravel truck. In the case of an outage, a standard work truck, a utility truck with aerial lifts, a boom truck, and a reel-puller vehicle are examples of vehicles that would use the access roads to conduct repairs. Typical crews include two to seven workers depending on the maintenance or repair activity.

The need for BPA's access road system is described in Sections 1.1 and 1.2. BPA has statutory obligations under the Federal Power Act (16 U.S.C. 791-828c) and the Federal Columbia River

[2] The USACE comments (BTEA13 008) were received outside of the public comment period for the preliminary EA. Due to the federal government shutdown, BPA will consider these as part of its response to public comments.

Transmission System Act (16 U.S.C. 838b[b-d]) to provide reliable transmission service. BPA's transmission system delivers power across the region, including to local utilities, so outages on BPA's system can have far reaching consequences. When a loss of electricity occurs, all services provided by electrical energy cease. Illumination is lost. Lighting used by residential, commercial, industrial, and municipal customers for safe movement and security is affected. Residential consumers lose heat. Electricity for cooking and refrigeration is also lost, so residential, commercial, and industrial customers cannot prepare or preserve food and perishables. Residential, commercial, and industrial customers experience comfort/safety and temperature impacts, increases in smoke and pollen, and changes in humidity due to loss of ventilation. Mechanical drives stop, causing impacts as elevators, food preparation machines, and appliances for cleaning, hygiene, and grooming are unavailable to residential customers. Commercial and industrial customers also lose service for elevators, food preparation, cleaning, office equipment, heavy equipment, and fuel pumps. In addition, roadways experience gridlock where traffic signals fail to operate. Mass transit that depends on electricity, such as light rail systems, can be impacted. Sewage transportation and treatment can also be disrupted. Electricity loss also affects alarm systems, communication systems, cash registers, and equipment for fire and police departments. Loss of power to hospitals and people on life-support systems can be life threatening.

In the case of an outage, BPA needs to reach a damaged line as quickly as possible to restore or maintain power to fulfill its obligation to provide reliable service and mitigate any potential impacts from power loss. In circumstances where weather, terrain, and surface conditions allow, ATVs or temporary access routes can be used where there are no existing roads, such as across a level farm field. However, as described in Sections 3.3 and 3.6, the Boyer-Tillamook transmission line crosses difficult terrain, including dense forests, steep ravines, and hillsides, where access with maintenance and repair vehicles or even ATVs would be impossible or, at best, dangerous without roads. Decommissioning access roads, particularly in this type of terrain, would therefore not be a viable option. BPA would also not be able to give detailed consideration to an alternative that would lead to increased delays in restoring power to customers because it would not meet the project's purpose and need (see Sections 1.1 through 1.3).

The access road system for the Boyer-Tillamook transmission line does include a large number of public roads and roads used by private landowners (see Section 3.2.2). Also, as described in Section 2.1, there are just 528 feet (0.1 mile) of new access road proposed, consisting of two short road spurs off of existing roads. The only impacts to wetlands (0.01 acre) would be from replacing two culverts (see Section 3.5).

BPA will continue working with the USACE to address these issues during the Section 404 permit application that will be submitted to the USACE. As described in Section 4.3.1, BPA would apply for a Section 404 permit for all impacts to waters of the U.S. BPA's proposal to impact approximately 0.01 acre of wetland during replacement of the two culverts (see Section 3.5.2) would likely be authorized under the USACE's Nationwide Permit (NWP) program. In designing the culvert replacement work, BPA has taken or will take all appropriate and practicable steps to avoid and minimize adverse impacts to the wetlands, including designing construction activities to minimize impacts, flagging wetland boundaries near construction areas, placing geotextile fabric around work areas with associated wetlands to avoid depositing excavated material into the wetlands, and others (see Sections 3.5.2

and 3.5.3). In addition, the stream crossing improvements would benefit water resources and fish habitat: the existing culverts are undersized and clogged, restrict fish passage, and may increase the potential for sedimentation of downstream waterbodies (see Sections 3.4 and 3.7). Thus, new stream crossings would correct these issues and improve water quality and habitat for Endangered Species Act-listed fish and other aquatic species (see Section 3.7).