DOE F 1325.8 e Electronic Form Approved by CGIR - 01/20/95
(8-89)

**United States Government** **Department of Energy**

**Bonneville Power Administration**

# memorandum

DATE: May 8, 2003

REPLY TO ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-151-Big Eddy-Ostrander 1

TO: Ed Tompkins
Natural Resource Specialist-TFO/LMT

**Proposed Action:** Removal of danger trees along the Big Eddy-Ostrander-1 transmission line corridor. This corridor also includes segments of the Big Eddy-Troutdale, Ostrander-Troutdale, Big Eddy-McLoughlin and Bid Eddy-Chemawa transmission lines. Referencing the Big-Eddy-Ostrander-1 transmission line, the project extends from tower 39/3 to 72/2.
The portion of the ROW extending from 39/3 west to 44/5+313 falls within the Zigzag Ranger District of the Mt. Hood National Forest, Clackamas County, Oregon. All work conducted within the Mt. Hood National Forest has been previously addressed in the Supplement Analysis for the Transmission System Vegetation Management Program (DOE/EIS-0285/SA-113-1) dated 12/02/2002 and will conform to the requirements therein.
This Supplement Analysis evaluates that portion of the project proposed for the remainder of the transmission line corridor extending from 44/5+313 west to 72/2.

**Location:** The project is located in Clackamas County, Oregon in the Bonneville Power Administration's Olympia Region.

**Proposed by:** Bonneville Power Administration (BPA).

**Description of the Proposal:** BPA proposes to manually remove danger trees located along the indicated transmission line rights-of-ways that are approaching electrical clearance zones defined in accordance with the National Electrical Safety Code and BPA Standards. Manual removal involves chainsaws, brush cutters, or hand tools. BPA would then treat the associated hardwood stumps with herbicides using spot and localized treatments to ensure that the roots are killed and to prevent new sprouts. Spot treatments and localized treatments consist of direct applications of herbicide to an individual target plant or small group of plants using minimal amounts of herbicide. See Section 1.1 of the attached checklist for pertinent information on each section of referenced transmission line included in the proposal.

**Analysis:** Please see the attached checklist for the resources present. Applicable findings and mitigation measures are discussed below.

**Planning Steps:**

***1. Identify facility and the vegetation management need.***

Work will take place along the Big Eddy-Ostrander 500 kV transmission line corridor extending between towers 39/3 to 72/2 having a maximum easement width of 300 feet.

The work involved will be to remove danger trees from BPA's transmission line right-of-way that may affect the integrity and operation of the transmission line. All danger trees marked as potentially unstable and that may fall into the minimum distance or into the safety zone of the power line, as well as trees that could blow into that zone or enter the zone if the conductor swings, will be removed. Hardwood trees in this zone will be stump cut treated with herbicide after falling to prevent re-sprouting.

The danger tree species needing clearing are described in Section 1.2 of the attached checklist and includes both conifers and deciduous varieties.

The initial entry anticipates 5-10 years before a subsequent entry for danger trees.

***2. Identify surrounding land use and landowners/managers and any mitigation.***

As noted above, the portion of the ROW extending from 39/3 west to 44/5+313 falls within the Zigzag Ranger District of the Mt. Hood National Forest, Clackamas County, Oregon. All work conducted within the Mt. Hood National Forest has been previously addressed in the Supplement Analysis for the Transmission System Vegetation Management Program (DOE/EIS-0285/SA-113-1) dated 12/02/2002.

The remainder of the project passes through rural forests; pasture lands, Christmas trees, orchards and residential areas. These landowners are contacted by letter or by e-mail approximately 3 weeks prior to the start of the project. Door to door contact will be made where it is warranted. Door hangers have been used at properties where special treatments are anticipated.

***3. Identify natural resources and any mitigation.***

The project area is bisected by several drainages including Clear Creek and the Sandy River, both of which contain resident and anadromous fish populations and essential fish habitat. The project area itself has been maintained as rights-of-way for many years and supports an artificially maintained, variable composition, early seral stage vegetation community. Some areas, generally those adjacent to stream channels and valleys, support older vegetation communities because the transmission line over them is sufficiently high so that regular vegetation control was not warranted. Protective measures include selective cutting and herbicide use in addition to the use of buffer zones as described in Sections 3.1 and 3.2 of the attached checklist and summarized below:

**Riparian Habitat:**

Includes all wetlands, streams, creeks, rivers and ponds meeting the definition of riparian habitat. See Section 3.1 for a listing of Riparian habitats identified within 200 feet of any proposed danger tree cutting for this project.

**Riparian Habitat Mitigation:**

Only Non-toxic and slightly toxic formulations of Garlon 3A would be used to the waters edge when applied as spot or localized treatments.

**T&E Species:**

As detailed in Section 3.3 of the attached checklist, the proposed project passes within 200 feet of streams containing listed anadromous fish. No other T&E plant or animal species were identified in the proposed work corridor.

**T&E Species Mitigation:**

No herbicide of any kind would be used within 100 feet of any T&E Stream. Only non-toxic to slightly toxic (to aquatic species) formulations of Garlon 3A would be used between 100 and 400 feet from a TES stream. Application methods would be limited to spot and localized treatments including wick, cut-stump, basal-stem, stem-injection and spot foliar treatment. Herbicide application methods along with buffer and low toxicity of the herbicide proposed for use should prevent any adverse impacts. The proposed project should have **No Effect** on listed anadromous fish present in the project area.

**Essential Fish Habitat/Mitigation:**

EFH for all life stages of lower Columbia Chinook salmon, lower Columbia steelhead trout and SW WA/lower Columbia Coho salmon is found within the Sandy River Basin. No action proposed as part of this project should impact riparian areas adjacent to streams supporting anadromous fish species. Herbicide application methods and buffers should prevent any herbicide from reaching areas used by anadromous fish in detectible quantities. No ground disturbing activities that could increase erosion and sediment transport are proposed. Selective removal of danger trees, along with spot and localized treatment of the roots would affect specific individual plants leaving the relatively dense cover of existing shrub and herbaceous species to provide soil stability and prevent soil erosion.

Due to the targeted nature of the project, loss of effective shade should be minimal and would not result in changes in stream temperature.

The habitat remediation measures are adequate to prevent long-term adverse effects on EFH, and as such, the proposed action is not likely to affect EFH for the lower Columbia Chinook salmon, lower Columbia steelhead trout, and SW WA/lower Columbia Coho salmon.

**Cultural Resources:**

There are no known cultural resources or traditional use plants in the proposed project area. The project does not include any ground disturbance areas. In the event that project activities unearth or discover any cultural/historic or prehistoric materials, work will cease immediately; and will not resume until a professional archaeologist has evaluated the site.

**Visually Sensitive Areas:**

The proposed project passes through the Columbia Gorge National Scenic Area; however, danger trees proposed for removal are not viewable from major transportation routes along the NSA.

No other natural resources were identified in the project area.

The mitigation measures proposed for this project are consistent with the EIS and there should not be an effect on any of the resources identified.

***4. Determine vegetation control and debris disposal methods.***

Debris will be disposed of using either lop and scatter techniques or chipping as described below:

**Lop and Scatter** (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)

**Chipping** (Branches up six inches in diameter are chipped and piled or spread or hauled off site, according to property owner wishes. Trunks are treated the same as in Lop and Scatter.)

***5. Determine revegetation methods, if necessary.***

Not Applicable

***6. Determine monitoring needs.***

Monitoring of the effectiveness of this treatment will occur during the cutting operation and during follow up treatment of cut stump/basal or foliar treatment of target vegetation. The mixture of the herbicide product for the follow-up treatment is 3% Garlon 3A and 97% water.

***7. Prepare appropriate environmental documentation.***

**Findings:** This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. Therefore, no further NEPA documentation is required.

*/s/ Elaine Stratton*
Elaine Stratton
Environmental Protection Specialist- KEP-4

CONCUR:*/s/ Thomas C. McKinney* DATE:05/12/2003
Thomas C. McKinney
NEPA Compliance Officer

Attachment

cc:
L. Croff – KEC-4
T. McKinney – KEC-4
C. Leiter – KEP-4
J. Meyer – KEP-4
E. Stratton – KEP/PSB-2
P. Key – LC-7
D. Hollen – TF/DOB-1
D. Kraus – TFO/Olympia
S. Martin – TFO/AMPN-1
D. Swanson – TFOP/LMT
Environmental File – KEC
Official File – KEP-4 (EQ-14)

Estratton:es:4722:5/9/2003 (KEP-KEP/CSB-2-W:\EP\2002 & 2003 FILES\EQ\EQ-14\FEIS-0285-SA-151-Big Eddy Ostrander.doc)

# Vegetation Management Checklist

## 1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

### 1.1 Describe Right-of-way.

See Handbook — **List of Right-of-way Components** for checkboxes and the requirements for the components **Rights-of-way**, **Access Roads**, **Switch Platforms**, **Danger Trees**, and **Microwave Beam paths**.

| Corridor Name | Corridor Length & kV | Easement width | Miles of Treatment |
|---|---|---|---|
| BIGE-OSTR-1 | 500KV | 300 | 39/3 to 72/2 |
| BIGE-TROUT | 230KV | 125 | 39/3 to 77/1 |
| OSTR-TROUT | 500KV | 125 | 12/3 to 23/4 |
| BIGE-MCLOUGH | 230KV | 300 | 44/5 to 61/2 |
| BIGE-CHEM | 230KV | 300 | 62/2 to 63/5 |

Danger Tree Cutting

### 1.2 Describe the vegetation needing management.

See handbook — **List of Vegetation Types**, **Density**, **Noxious Weeds** for checkboxes and requirements.

**Vegetation Types**:

Douglas fir

Red Alder

Big Leaf Maple

Western Hemlock

Cottonwood

### 1.3 List measures you will take to help promote low-growing plant communities. If promoting low-growing plants is not appropriate for this project, explain why.

See Handbook — for requirements and checkboxes.

N/A

### 1.4 Describe overall management scheme/schedule.

See Handbook - **Overall Management Scheme/Schedule**.

**Initial entry –** All trees identified by Danger Tree crew will be cut. Any hardwood species will have stump treatment with herbicide to minimize sprouting.

**Subsequent entries –** The initial entry anticipates 5-10 years before a subsequent entry for danger trees.

**Future cycles – Same as above.**

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

### 2.1 List the types of landowners and land uses along your corridor.

See Handbook — **Landowners/Managers/Uses** for requirements, and **List of Landowners/Managers/Uses** for a checkbox list.

**Landowners/Managers/Uses:**

Rural forest

Pasturelands

Christmas Trees

Orchards

Residential

### 2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., door hanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.

See Handbook — **Methods for Notification and Requesting Information** for requirements.

Olympia will send letters to the property owners about 3 weeks prior to cutting the brush. Door to door contact will be made where it is warranted. Door hangers have been used at properties where special treatments are anticipated. Conversations with property owners on site, emails, and phone calls are all used.

### 2.3 List the specific land owner/land use measures — determined from the handbook or through your consultations with the entities — that will be applied.

See handbook — **Requirements and Guidance for Various Landowners/Uses** for requirements and guidance, also **Residential/Commercial**, **Agricultural**, **Tribal Reservations**, **FS-managed lands**, **BLM –managed lands**, **Other federal lands**, **State/ Local Lands.**.

| Span | | Landowner/use | Specific measures to be applied |
|---|---|---|---|
| **From** | **To** | | |
| BE-TR 39/3 | 77/1 | Rural areas, wooded areas | Cut, Lop, Scatter tall-growing veg. |
| OSTR-TR 12/3 | 23/4 | | |
| BE-OSTR 61/2 | 72/2 | Rural areas, wooded areas. | Cut, Lop, Scatter slash. |
| Same as above. | Same as above. | Residential areas; managed fields. | Cut and chip slash, and pile chips or spread chips. |

### 2.4 Review any existing landowner agreements (e.g. tree/brush Permits or Agreements). List in table above any provisions that need to be followed and where they are located.

See handbook — **Landowner Agreements** for requirements.

N/A

**2.5 List any known casual informal use of the right-of-way by non-owner publics. List any constraints or measure's to take due to the informal use.**

See handbook — **Casual Informal Use of Right-of-way** for requirements.

Unknown

**2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.**

See handbook — **Other Potentially Affected Publics** for requirements and suggestions.

Unknown

## 3. IDENTIFY NATURAL RESOURCES

See Handbook — **Natural Resources**

**3.1 List any water resources (streams, rivers, lakes, wetlands) that may be impacted by vegetation control activities. For each water body describe the control methods and requirements or mitigation measures that will be used.**

See Handbook — **Water Resources** for requirements for working near water resources including buffer zones.

With the exception of the following stream crossings, none of the crossings in this project have tree cutting within 200 feet of the water.

| Span | | Water body | T&E | Method | Herbicide | Application Technique | Buffer |
|---|---|---|---|---|---|---|---|
| From | To | | | | | | |
| BE-TR 62/1 +950 | BE-TR 62/1 +1140 | Sandy River | Yes | Cut, Lop, Scatter | Garlon 3a | Cut Stump | 100 feet |
| BE-TR 62/2 -475 | BE-TR 62/2 -200 | Sandy River | Yes | Cut, Lop, Scatter | Garlon 3a | Cut Stump | 100 feet |
| BE-OSTR 46/5 +350 | BE-OSTR 46/5 +650 | Clear Creek | Yes | Cut, Lop, Scatter | Garlon 3a | Cut Stump | 100 feet |
| OSTR-TR 21/4 +930 | OSTR-TR 23/3 +400 | PEMC Wetlands | No | Cut, Lop, Scatter | Garlon 3a | Cut Stump | 100 feet |

**3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).**

See Handbook — **Herbicide Use Near Irrigation, Wells or Springs** for buffers and herbicide restrictions.

None known

**3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.**

See Handbook — **T&E Plant or Animal Species** for requirements and determining presence.

Other than the fish species identified in 3.1 above, no species indicated in a review of the project in T-View.

**3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.**

See Handbook — **Protecting Other Species** for requirements.

N/A

**3.5 List any visually sensitive areas and the measures to be taken at these areas.**

See Handbook — **Visual Sensitive Areas** for requirements.

| Span | | Describe sensitivity | Method/mitigation measures |
|---|---|---|---|
| From | To | | |
| 3/3 | 13/1 | Columbia River Gorge NSA | Individual tree-cutting activity is not viewable from major travel routes in the NSA. Slash is lopped to a maximum height of two feet. |

**3.6 List areas with cultural resources and the measures to be taken in those areas.**

See Handbook – **Cultural Resources** for requirements.

| Span | | Describe sensitivity | Method/mitigation measures |
|---|---|---|---|
| From | To | | |
| | | No Known Sites | Avoidance of all known cultural sites. |

**3.7 List areas with steep slopes or potential erosion areas and the measure and methods to be applied in those areas.**

See Handbook – **Steep/Unstable Slopes** for requirements.

| Describe sensitivity | Method/mitigation measures |
|---|---|
| N/A | All natural vegetation that is not tall growing will be left undisturbed for erosion control. Less than 5 percent of all vegetation ground cover will be treated in this activity. |

**3.8 List areas of spanned canyons and the type of cutting needed.**

See Handbook – **Spanned Canyons** for requirements.

N/A

## 4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — **Methods**

### 4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — **Manual**, **Mechanical**, **Biological**, **and Herbicides** for requirements for each of the methods.

| Span | | **Methods,** including herbicide active ingredient, trade name, application technique |
|---|---|---|
| **From** | **To** | |
| 3/3 | 39/6 | For non-sensitive areas (spans) cut stump/basal treatment with 50% Garlon 3A and 50% water. Summer foliar application on resprouts of 3% Garlon 3A and 97% water, and dye. |

## 5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

### 5.1 Describe the debris disposal methods to be used and any special considerations.

See Handbook — **Debris disposal** for a checkbox list and requirements.

**Debris Disposal:**

**Lop and Scatter** (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)

**Chipping** (Branches up six inches in diameter are chipped and piled or spread or hauled off site, according to property owner wishes. Trunks are treated the same as in Lop and Scatter.)

### 5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — **Reseeding/replanting** for requirements.

No seeding planned as part of this project

### 5.3 If not using native seed/plants, describe why.

N/A

### 5.4 Describe timing and any follow-up that will need to take place to ensure germination/success of seeding/planting.

N/A

## 6. DETERMINE MONITORING NEEDS

See handbook — **Monitoring** for requirements.

### 6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.

Monitoring of the effectiveness of this treatment will occur during the cutting operation and during follow up treatment of cut stump/basal or foliar treatment of target vegetation. The mixture of the herbicide product for the follow-up treatment is 3% Garlon 3A and 97% water. There is virtually no drift that occurs with this mixture.

**6.2 Describe any follow-up or monitoring needed to determine if mitigation measures were effective.**

Annually patrol the transmission line by the line crew and the Natural Resource Specialist will periodically monitor the right-of-way for effective mitigation measures.

## 7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

See handbook — **Prepare Appropriate Environmental Documentation** for requirements. . Also prepare Supplement Analysis — **Supplement Analysis** — for signature.

**7.1 Describe any potential project impacts or project work that are different than those disclosed in the Transmission System Vegetation Management Program EIS. Describe how those differences impact natural resources and if the differences are "substantial".**

All proposed brush cutting and chemical treatment activities on this corridor is noted in the EIS.

**7.2 Is there a need for additional NEPA documentation (i.e. Forest Service requirement, Record of Decision, supplemental EIS)? If so, attach.**

No