

United States Government

Department of Energy  
Bonneville Power Administration

# memorandum

DATE: December 20, 2004

REPLY TO  
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS  
(DOE/EIS-0285/SA 237) Shelton-Fairmount No. 4 **Project #: V-O-05/02**

TO: Jim Jellison  
Natural Resource Specialist - TFO/Olympia

**Proposed Action:** Vegetation Management along the Shelton-Fairmount No. 4, 230 kV  
(Reference line) Transmission Line Corridor from structures 2/1 to 34/2.

**Location:** The project line is located in Mason and Jefferson counties Washington, from Shelton  
substation ahead on line 34 miles along the Hood Canal. The project is located in BPA's  
Olympia Region.

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

**Description of the Proposal:** BPA proposes to remove tall growing and noxious vegetation  
from the right of way and access roads that can potentially interfere with the operation,  
maintenance, and reliability of the transmission lines. Unwanted, tall growing, and noxious  
vegetation, danger trees, and reclaim trees will be removed and/or controlled inside the ROW  
using selective and nonselective methods that may include hand cutting, mowing, and herbicidal  
treatment. Vegetation management work will occur between structures 2/1 to 34/2 of the  
Shelton-Fairmount No. 4 transmission line. This proposal covers approximately 1009 acres of  
land and encompasses the entire easement widths of all the transmission lines within the Shelton-  
Fairmount No. 4, 230 kV (reference line) line corridor.

**Analysis:** A Vegetation Management Checklist was completed for this project in accordance  
with the requirements identified in the Bonneville Power Administrations Transmission System  
Vegetation Management Program FEIS (DOE/EIS-0285).

The subject corridor traverses public and private lands in Mason and Jefferson Counties  
Washington. Landowners include Washington State DNR, private timber companies, and private  
rural residential lands. No tribal lands are involved.

Section 3 of the checklist identifies the natural resources present in the area of the proposed  
work. The following summarizes natural resources occurring in the project area along with  
applicable mitigation measures.

Water Resources: Water bodies (streams, rivers, lakes, wetlands) occurring in the project area are listed in section 3.1 of the Vegetation Management Checklist. Trees in riparian zones will be selectively cut to include only those that are within 50 feet of the conductor at maximum sag. Trees will be topped where shrubs are not present to provide shade and a silt buffer.

No ground disturbing vegetation management methods will be implemented thus minimizing the risk for soil erosion and sedimentation near the streams. The following herbicide buffers will be implemented for the project. Outside a 100' buffer from any stream, ponds, or wetlands Triclopyr BEE (common formulations, Garlon 4 & Tahoe 4E) may be applied. Formulations of Triclopyr TEA (common formulations Garlon 3A & Tahoe 3A) may be applied for spot or localized applications up to the waters edge. For any initial or follow up broadcast treatment with Triclopyr TEA on sprouting stumps or brush a 35' buffer will be maintained from any stream, ponds, wetlands, or sensitive areas.

Two drinking water wells were identified along the right of way. No herbicide application will be made within a 164-foot radius of the wellhead as specified in the EIS. For location information see section 3.2 of the attached project checklist.

Threatened and Endangered Species/Essential Fish Habitat: Pursuant to its obligations under the Endangered Species Act, BPA has made a determination of whether its proposed project will have any effects on any listed species. A species list was reviewed from the United States Fish and Wildlife Service (USFWS) on October 13th, 2004, identifying threatened and endangered species and Critical Habitat Units potentially occurring in the project area. In addition a review of species under the jurisdiction of NOAA Fisheries was conducted. A determination of "No Effect" was made for all ESA listed species and designated critical habitat for the project. A determination of "No Effect" was made for Essential Fish Habitat waters that occur in the project area.

Cultural Resources: No cultural resources are known for the project area. If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the appropriate tribe, the BPA Environmental Specialist, and the BPA archeologist will be contacted.

Monitoring: The entire project will be inspected during the work period. Additionally the line will be patrolled annually after treatment to monitor the effectiveness of the treatment and any issues associated with the project.

**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. This Supplement Analysis also finds the proposed actions will not affect threatened or endangered species. Therefore, no further NEPA documentation is required.

/s/ James R. Meyer for  
Greg P. Tippetts  
Physical Scientist (Environmental)

CONCUR: /s/ Thomas C. McKinney  
Thomas C. McKinney  
NEPA Compliance Officer

DATE: 12/20/2004

Attachment:  
Vegetation Management Checklist  
Effects Determination

cc:  
L. Croff – KEC-4  
T. McKinney – KEC-4  
J. Meyer – KEP-4  
J. Sharpe – KEPR-4  
G. Tippetts – KEPR/Olympia  
H. Adams – LC-7  
J. Hilliard Creecy – T-DITT2  
M. Johnson – TF/DOB-1  
D. Krauss – TFO/Olympia  
T. Grover – TFOF/Olympia  
Environmental File – KEC-4  
Official File – KEP-4 (EQ-14)

**Vegetation Management Checklist  
Shelton-Fairmount Corridor**

**Project #: V-O-05/02**

# 1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

## 1.1 Describe Right-of-way.

| Corridor Name   | Corridor Length & kV | Easement width             | Miles of Treatment                      |
|---|----------------------|----------------------------|---|
| Shelton-Fairmount No. 1, 2, 3 and 4; ADNO's 8350, 8352, 8353,8354 | 32 mi., 2-230, 2-115 | 527.5, variable R/W widths | 32 mi. starting at str. 2/1 to str 34/2 |

### Right Of Way:

#### Right-of-Way – clearing in right-of-way

A combination of mulching the easement because of the Scotch broom and the cut, lop and scatter of tall growing species will be utilized to treat hazardous vegetation and this will be followed up with a herbicide treatment.

#### Transmission Structures – clearing around

All structures will be cut and chemically treated to 30 feet from the center of the pole or from the legs of each steel tower.

#### Access Road clearing - approximate miles – 2.67 miles

All access roads will be either C, L&S, mulched or chipped due to the encroachment of Scotch broom, blackberries, low and tall growing brush and trees then either stump or foliar chemical treatment will be applied.

## 1.2 Describe the vegetation needing management.

### Vegetation Types:

|              |             |                              |
|--------------|-------------|------------------------------|
| Douglas fir  | True Fir    | Hemlock                      |
| Alder        | Maple       | Willows                      |
| Cottonwood   | Wild Cherry | Noxious Weeds - Scotch Broom |
| Blackberries | Cascara     | Wild Filbert                 |

## 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.

Cut stump or follow-up herbicide treatments on sprouting-types species will be carried out to ensure that the roots are killed. Vegetation that will grow tall will be selectively eliminated before it reaches a height or density to begin competing with low-growing species.

## 1.4 Describe overall management scheme/schedule.

**Initial entry** – All tall growing vegetation will be cut and chemically treat the stumps to prevent grow-in trees. Access, right-of-way roads and structure sites are to be cut and treated.

**Subsequent entries** – A follow-up chemical treatment is scheduled to begin in the late spring or early summer of 2005.

**Future cycles** – Every 4 years, a maintenance contract will be necessary to treat sprouts. The use of herbicides on the initial and subsequent cycles should reduce the quantity and cost of work.

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

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

#### Landowners/Managers/Uses:

Rural Residential Property

Simpson Timber Company

Green Crow Company

Washington State DNR

Hama Hama Xmas Trees Growers

### 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.

Olympia Region will send letters to the property owners about 2-4 weeks prior to cutting the brush. Door to door contact will be made where it is warranted.

### 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.

| Span                    |                | Landowner/use  | Specific measures to be applied   |
|-------------------------|----------------|----------------|-----------------------------------|
| From                    | To             |                |                                   |
| 4/1+675                 | 4/4 + 100      | Charles Symthe | Xmas tree agreement               |
| 4/4+975                 | 5/1 +800       | Charles Symthe | Xmas tree agreement               |
| 9/4+350                 | 10/1 +825      | No name        | Xmas trees, no agreement          |
| 10/2 + 600              | 10/3           | Douglas Fir    | T&B Agreement LU#59617            |
| 10/3 + 0<br>Under S-F#4 | 10/4 +300 only | Douglas Fir    | T&B Agreement LU#59617            |
| 19/3 + 750              | 20/2 + 550     | James Freed    | Xmas tree, Application in process |
| 24/3 + 800              | 25/1 + 0       | James Freed    | Xmas tree, Application in process |
| 26/2 + 447              | 26/3 +800      | Hama Hama      | Xmas tree agree. LU#861842        |
| 26/3 + 1200             | 27/1 +650      | Hama Hama      | Xmas tree agree. LU#861842        |
| 26/3 +1200              | 27/1 +650      | Hama Hama      | Xmas tree agree. LU#861842        |
| 28/3 + 350              | 28/4 +300      | Hama Hama      | Xmas tree agree. LU#861842        |
| 29/5 + 650              | 30/2 +0        | No name        | Xmas trees, no agreement          |
| 33/1 + 750              | 1050           | Spencer Keene  | Xmas trees, LU#980058             |

**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.**

I need to work with the property owners who do not have an approved Xmas tree agreement and request that they submit an application for a formal agreement.

**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.**

N/A

**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.**

I have contacted Tom Strong, Cultural Resource Specialist of the Skokomish Tribe his knowledge of any cultural sites on the Longview-Chehalis#3 easement. He is not aware of any cultural sites.

**3. IDENTIFY 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.**

| Span      |      | Water body          | T&E/EFH | Method            | Herbicide                   | Application Technique  | Buffer      | Other             |
|-----------|------|---------------------|---------|-------------------|-----------------------------|------------------------|-------------|-------------------|
| From      | To   |                     |         |                   |                             |                        |             |                   |
| 2/9+100   | 450  | Wetlands            | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 3/5+300   | 1100 | Marsh & Johns Creek | EFH     | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 4/1 +0    | 800  | Marsh               | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 4/4 +100  | 1000 | Wetlands            | No      | Skip              | Garlon 3A/Escort or Arsenal |                        |             |                   |
| 8/5 + 400 | 1275 | Swamp               | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 9/1 +50   | 400  | Weaver Creek        | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 9/2 +650  | 1799 | Skokomish River     | T&E/EFH | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |

|            |      |               |         |                   |                             |                        |             |                   |
|------------|------|---------------|---------|-------------------|-----------------------------|------------------------|-------------|-------------------|
| 10/2 + 600 | 150  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 10/5+250   | 550  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 10/5+800   | 900  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 11/3+500   | 700  | No name creek | T&E/EFH | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 11/5+350   | 450  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 11/5+350   | 450  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 13/1+600   | 900  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 13/4 + 200 | 300  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 13/5 + 450 | 550  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 13/5 + 900 | 1000 | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 14/1+350   | 500  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 14/2+150   | 350  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 14/2+1000  | 1100 | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 15/1+500   | 750  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 15/2 + 250 | 350  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 15/3+100   | 300  | Wetlands      | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |

|                    |                              |                      |             |                         |                                   |                           |                |                      |
|--------------------|------------------------------|----------------------|-------------|-------------------------|-----------------------------------|---------------------------|----------------|----------------------|
| 15/3+700           | 800                          | Wetlands             | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 16/2 +640          | 710                          | No name<br>creek     | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 16/3 +315          | 385                          | No name<br>creek     | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 16/3 +800          | 950                          | Wetlands             | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 16/4 230<br>Under  | 650<br>S-F#3                 | No name<br>creek     | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 16/4+500           | 600                          | Wetlands             | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 16/5+0<br>Under    | 500<br>S-F#3                 | Wetlands             | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 17/2+ 175          | 375                          | S. Fork<br>Finch Ck. | T&E/<br>EFH | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 17/2+ 500          | 700                          | N. Fork<br>Finch Ck. | T&E/<br>EFH | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 17/5+ 750<br>Under | 850<br>S-F#3<br>line<br>only | Wetlands             | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 17/6 + 815         | 885                          | No name<br>creek     | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 18/1 + 415         | 485                          | No name<br>creek     | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 18/2+ 200          | 400                          | Miller<br>creek      | T&E/<br>EFH | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 18/3 + 330         | 400                          | No name<br>creek     | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 18/5 + 450         | 650                          | Sund<br>Creek        | T&E/<br>EFH | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |

|                       |                                       |                         |             |                         |                                   |                           |                |                      |
|-----------------------|---------------------------------------|-------------------------|-------------|-------------------------|-----------------------------------|---------------------------|----------------|----------------------|
| 19/1+ 900<br>Between  | 1050<br>S-F#2<br>& 3<br>lines         | Wetlands                | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 19/4+ 400             | 950                                   | Wetlands                | No          | Skip                    |                                   |                           |                |                      |
| 19/4+ 600<br>Under    | 800<br>S-F#<br>1&2                    | No name<br>creek        | No          | Skip                    |                                   |                           |                |                      |
| 20/2 + 150            | 350                                   | No name<br>creek        | EFH         | Skip                    |                                   |                           |                |                      |
| 20/2 + 750            | 950                                   | No name<br>creek        | EFH         | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 20/2 + 850            | 1050                                  | No name<br>creek        | EFH         | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 20/2 +<br>1100        | 1300                                  | No name<br>creek        | EFH         | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 20/4 + 900<br>Between | 1250<br>S-<br>F#2&<br>3 line<br>only. | Wetlands                | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 21/1 + 350            | 550                                   | Lilliwaup<br>River      | T&E/<br>EFH | C,L&S                   | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 21/3 +360<br>Under    | 550<br>S-<br>F#1#<br>2                | Wetlands                | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 21/4 + 400<br>Under   | 500<br>S-F#3                          | Wetlands                | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 22/5 + 400            | 650                                   | Wetlands                | No          | C, L&S                  | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 22/5 + 800            | 1000                                  | S. Fork of<br>Eagle Ck. | T&E/<br>EFH | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 23/1 + 115            | 185                                   | No name<br>creek        | No          | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
| 23/2 + 715            | 915                                   | N. Fork<br>Eagle Ck.    | T&E/<br>EFH | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |

|                    |                |                    |         |                   |                             |                        |             |                   |
|--------------------|----------------|--------------------|---------|-------------------|-----------------------------|------------------------|-------------|-------------------|
| 23/6 + 915         | 985            | Melbourne Creek    | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 24/1 +65           | 135            | No name creek, Int | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 24/2 + 0 Under     | 500 S-F#1&2    | Wetlands           | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 24/5 + 200         | 400            | Jorsted Creek      | T&E/EFH | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 25/3 + 600         | 850            | Wetlands           | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 25/4 + 640         | 710            | No name creek      | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 26/3 + 900         | 1100           | S. Fork John Ck    | T&E/EFH | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 27/1 + 1000        | 1200           | N. Fork John CK    | T&E/EFH | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 28/1+ 450 Diagonal | 850 Across R/W | Hama Hama River    | T&E/FHE | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 28/4 + 550         | 800            | Wetlands           | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 28/5 + 200 Under   | 300 S-F#3      | Wetlands           | No      | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 29/1 + 650 Under   | 850 S-F#3      | Waketicken Creek   | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 29/1 + 850 Under   | 1050 S-F#1&2   | Waketicken Creek   | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 30/1 + 715         | 785            | No name creek      | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 32/2 + 465         | 535            | No name creek      | No      | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |

|                      |                    |               |    |                   |                             |                        |             |                   |
|----------------------|--------------------|---------------|----|-------------------|-----------------------------|------------------------|-------------|-------------------|
| 30/4 + 550           | 650                | Wetlands      | No | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 30/4 + 1115          | 11850              | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/1 + 75            | 150                | Wetlands      | No | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/2 + 400           | 500                | Wetlands      | No | C, L&S            | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/5 + 65            | 135                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/5 + 135 Parallels | 1100 Under S-F#3   | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/5 + 1115          | 1185 Under S-F#1&2 | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/6 + 115           | 185                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 31/6 + 300           | 370                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 32/1 + 950           | 1075               | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 32/4 + 365           | 435                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 32/4 + 715           | 785                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 32/5 + 300           | 370                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 33/3 + 465           | 535                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |
| 33/3 + 815           | 885                | No name creek | No | Cut & Stump treat | Garlon 3A/Escort or Arsenal | Spot Treat w/in buffer | Waters Edge | Selective Cutting |

|                |      |                  |    |                         |                                   |                           |                |                      |
|----------------|------|------------------|----|-------------------------|-----------------------------------|---------------------------|----------------|----------------------|
| 33/3 +<br>1275 | 1335 | No name<br>creek | No | Cut &<br>Stump<br>treat | Garlon<br>3A/Escort<br>or Arsenal | Spot Treat<br>w/in buffer | Waters<br>Edge | Selective<br>Cutting |
|----------------|------|------------------|----|-------------------------|-----------------------------------|---------------------------|----------------|----------------------|

**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).**

| Span          |     | Well/irrigation/or<br>spring | Herbicide    | Buffer      | Other notes/measures |
|---------------|-----|------------------------------|--------------|-------------|----------------------|
| From          | To  |                              |              |             |                      |
| 2/9+425       | 575 | Well                         | No herbicide | 164' Radius | Under S-F#1          |
| 33/1 +<br>600 | 900 | Well                         | No Herbicide | 164' Radius | Under S-F#1, 2 &3    |

**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.**

| Span          |      | T&E Species                         | Method/mitigation or avoidance measures   |
|---------------|------|-------------------------------------|---|
| From          | To   |                                     |   |
| 9/2+ 650      | 1350 | Chum Salmon<br>Skokomish River      | Selective cutting of trees in riparian zone and/or cutting trees tops that are within 50' of the conductor at max sag. Shrubs will not be cut that are less than 10' height where the ground to conductor clearance is less than 50' at max sag. Herbicide treatments within 100' up to 1 Yard of waters edge with only practically non-toxic (to Aquatic species) chemicals (Garlon 3A / Tahoe 3A or Arsenal). No chemical treatment within one yard of the waters edge. Top trees when shrubs are not present to provide shade and a silt buffer. |
| 9/2+ 650      | 1350 | Chinook Salmon<br>Skokomish River.  | Same treatment as noted in 9/2+ 650 to 1350.  |
| 9/2+ 650      | 1350 | Bull Trout<br>Skokomish River.      | Same treatment as noted in 9/2+ 650 to 1350.  |
| 11/3 +<br>500 | 700  | Chum Salmon No<br>Name Creek.       | Same treatment as noted in 9/2+ 650 to 1350.  |
| 12/4          | 12/5 | Bald Eagle                          | One Bald Eagle nesting territory has been identified to exist in the area of this span approximately ¼ mile off of the ROW. Bald Eagles may also occur in other areas along the transmission line corridor. Vegetation Management activities will occur outside of the Critical nesting period for Bald Eagles from 2-1 to 8/15. No trees exhibiting the characteristics of nesting or roosting trees for the species will be removed prior to consultation with USFWS.   |
| 17/2 +<br>175 | 375  | Chum Salmon S.<br>Fork Finch Creek. | Same treatment as noted in 9/2+ 650 to 1350.  |

|                           |                    |                                       |   |
|---------------------------|--------------------|---------------------------------------|---|
| 17/2 +<br>500             | 700                | Chum Salmon N.<br>Fork Finch Creek.   | Same treatment as noted in 9/2+ 650 to 1350.  |
| 18/2 +<br>200             | 400                | Chum Salmon<br>Miller Creek.          | Same treatment as noted in 9/2+ 650 to 1350.  |
| 18/5 +<br>450             | 650                | Chum Salmon<br>Sund Creek.            | Same treatment as noted in 9/2+ 650 to 1350.  |
| 21/1 +<br>350<br>Diagonal | 550<br>R/W<br>Xing | Chum Salmon<br>Lilliwaup River        | Same treatment as noted in 9/2+ 650 to 1350.  |
| 21/1 +<br>350<br>Diagonal | 550<br>R/W<br>Xing | Chinook Salmon<br>Lilliwaup River     | Same treatment as noted in 9/2+ 650 to 1350.  |
| 22/5 +<br>800             | 1000               | Chum Salmon S.<br>Fork Eagle Creek.   | Same treatment as noted in 9/2+ 650 to 1350.  |
| 23/2+<br>715              | 915                | Chum Salmon N.<br>Fork Eagle Creek.   | Same treatment as noted in 9/2+ 650 to 1350.  |
| 24/5+<br>200              | 400                | Chum Salmon<br>Jorsted Creek.         | Same treatment as noted in 9/2+ 650 to 1350.  |
| 26/3+<br>900              | 1100               | Chinook Salmon S.<br>Fork John Creek. | Same treatment as noted in 9/2+ 650 to 1350.  |
| 26/3+<br>900              | 1100               | Chum Salmon S.<br>Fork John Creek.    | Same treatment as noted in 9/2+ 650 to 1350.  |
| 27/1+<br>1000             | 1200               | Chinook Salmon N.<br>Fork John Creek. | Same treatment as noted in 9/2+ 650 to 1350.  |
| 27/1+<br>1000             | 1200               | Chum Salmon N.<br>Fork John Creek.    | Same treatment as noted in 9/2+ 650 to 1350.  |
| 28/1 +<br>450             | 850                | Chinook Salmon<br>Hama Hama River     | Same treatment as noted in 9/2+ 650 to 1350.  |
| 28/1 +<br>450             | 850                | Chum Salmon Hama<br>Hama River        | Same treatment as noted in 9/2+ 650 to 1350.  |
| 32/2                      | 33/4               | Marbled Murrelet                      | Critical habitat for Marbled Murrelets has been identified in the area between the spans listed. The habitat unit starts approximately 800 feet North West of the transmission line corridor. Visual and audible sightings of the species have been identified in the area. Marbled Murrelets may also occur in other areas along the transmission line corridor. Vegetation Management activities will occur outside of the Critical timing periods for Marbled Murrelets from 4-26 to 9-18. No trees exhibiting the characteristics of nesting trees for the species will be removed. |

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

| Span                      |                    | Species                                       | Measures  |
|---------------------------|--------------------|---|---|
| From                      | To                 |   |   |
| 3/5+<br>300               | 1100               | Essential Fish Habitat (EFH) Coho Johns Creek | Selective cutting of trees in riparian zone and/or cutting trees tops that are within 50' of the conductor at max sag. Shrubs will not be cut that are less than 10' height where the ground to conductor clearance is less than 50' at max sag. Herbicide treatments within 100' up to 1 Yard of waters edge with only practically non-toxic (to Aquatic species) chemicals (Garlon 3A / Tahoe 3A or Arsenal). No chemical treatment within one yard of the waters edge. Top trees when shrubs are not present to provide shade and a silt buffer. |
| 9/2+<br>650               | 850                | EFH Coho Salmon Skokomish River               | Same treatment as noted in 3/5+300 to 1100.   |
| 11/3+<br>500              | 700                | EFH Coho Salmon No name creek                 | Same treatment as noted in 3/5+300 to 1100.   |
| 17/2+<br>175              | 375                | EFH Coho Salmon S. Fork Finch Creek           | Same treatment as noted in 3/5+300 to 1100.   |
| 17/2+<br>500              | 700                | EFH Coho Salmon N. Fork Finch Creek           | Same treatment as noted in 3/5+300 to 1100.   |
| 18/5+<br>450              | 650                | EFH Coho Salmon Sund Creek                    | Same treatment as noted in 3/5+300 to 1100.   |
| 20/2<br>+ 215             | 1235               | EFH Coho Salmon No Name Creek                 | Same treatment as noted in 3/5+300 to 1100.   |
| 21/1<br>+ 350<br>Diagonal | 550<br>R/W<br>Xing | EFH Coho Salmon Lilliwaup River               | Same treatment as noted in 3/5+300 to 1100.   |
| 22/5+<br>865              | 935                | EFH Coho Salmon S. Fork Eagle Creek           | Same treatment as noted in 3/5+300 to 1100.   |
| 23/2+<br>715              | 915                | EFH Coho Salmon N. Fork Eagle Creek           | Same treatment as noted in 3/5+300 to 1100.   |
| 24/5+<br>200              | 400                | EFH Coho Salmon Jorsted Creek                 | Same treatment as noted in 3/5+300 to 1100.   |
| 26/3+<br>900              | 1100               | EFH Coho Salmon S. Fork John Creek            | Same treatment as noted in 3/5+300 to 1100.   |
| 27/1+<br>1000             | 1200               | EFH Coho Salmon N. Fork John Creek            | Same treatment as noted in 3/5+300 to 1100.   |
| 28/1<br>+ 450             | 850                | EFH Coho Salmon Hama Hama River               | Same treatment as noted in 3/5+300 to 1100.   |
| 29/1<br>+ 850             | 1050               | Steel Head Waketick Creek                     | Same treatment as noted in 3/5+300 to 1100.   |

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

N/A

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

| Span |      | Describe sensitivity | Method/mitigation measures   |
|------|------|----------------------|--|
| From | To   |                      |  |
| 2/1  | 34/2 | Cultural Sites       | The Skokomish Tribe does not know of any cultural sites on this transmission corridor. If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the local tribe(s) will be contacted as well as the BPA Environmental Specialist. |

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

| Span          |        | Describe sensitivity | Method/mitigation measures   |
|---------------|--------|----------------------|--|
| To            | From   |                      |  |
| 8/5<br>+400   | 600    | Steep Slopes         | Maintain low growing brush for soil stability.                     |
| 9/3<br>+0     | 9/4 +0 | Steep Slopes         | Maintain low growing brush for soil stability.                     |
| 17/2+<br>225  | 375    | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 17/2<br>+ 525 | 675    | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 18/5<br>+550  | 700    | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 20/2<br>+ 750 | 1025   | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 26/3<br>+800  | 1200   | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 27/1<br>+650  | 1300   | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 28/1<br>+450  | 850    | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 29/1<br>+700  | 1300   | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |
| 33/3<br>+350  | 1000   | Steep Slopes         | Selective cutting of trees in the draw to maintain soil stability. |

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

| Span      |      | Methods, cutting  |
|-----------|------|---|
| From      | To   |   |
| 17/2+25   | 375  | Ground to conductor clearance is greater than 125', selective cutting of conifer trees when the tops of the trees are within 50' of the conductor at max sag. |
| 17/2 +525 | 675  | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 18/5+550  | 700  | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 20/2 +750 | 1025 | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 26/3+800  | 1200 | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 27/1+650  | 1300 | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 28/1+450  | 850  | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 29/1+700  | 1300 | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |
| 33/3+350  | 1000 | Selectively cut conifer trees when the tops of the trees are within 50' of the conductor at max sag.  |

**4. DETERMINE VEGETATION CONTROL METHODS**

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

| Span |      | Methods, including herbicide active ingredient, trade name, application technique   |
|------|------|---|
| To   | From |   |
| 2/1  | 34/2 | For non-sensitive areas (spans) cut stump/basal treatment with 25% Garlon 4/Tahoe 4E and 75% Forest Crop Oil (FCO). A 50/50 % mixture of Garlon 3A/Tahoe 3A and/or 5% of Arsenal and water for stump treatment will be used in the non-T&E listed creek riparian zones and within the 100' buffer up to one yard of the high water mark of a T&E listed creek. A late spring and early summer follow-up foliar treatment with Garlon 3A/Tahoe 3A and Escort on all hardwood species except the use of Arsenal on Big Leaf Maple, Wild Cherries and Cottonwood sprouting stumps and/or brush in non-T&E/EFH buffers. Initially, foliar treat Scotch broom as well as a follow up treatment in the spring-summer. Basal treatment is essential for Big Leaf Maple, Cottonwood and Wild Cherries sprouts, outside the buffer zones, rather than foliar treatment in order to deliver enough herbicide product to the roots to cause mortality of the target trees. |

## **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

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

#### **Debris Disposal:**

**Chip** (Mechanical brush disposal unit cuts brush into chips 4 in. or less in diameter, and spread over ROW, piled on ROW, or trucked off site. Trunks too large for the chipper are limbed and the limbs chipped. Trunks are placed in rows along the edge of the right-of-way or scattered, as the situation requires.)

**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.)

**Mulch** (Mulching is a debris treatment that falls between chipping and lop-and-scatter. The debris is cut into 1-to-2-ft. lengths, scattered on the right-of-way and left to decompose. This method is used when terrain and conditions do not allow the use of mechanical chipping equipment.)

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

N/A

Native grasses and vegetation are present on the entire right-of-way that will seed into the areas that will have lightly disturbed soil predominately located on the right-of-way roads. BPA expects 2-3 vehicles of the brush contractor and 1 contract inspector's vehicle will be present on the site. A brush machine will mulch the structure sites and right-of-way roads where Scotch Broom and Black Berries are present.

### **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.**

Monitoring of the success of the brush-cutting program will begin the spring in which evaluation of soil erosion as a result of the brush-cutting program will be made. If grass seeding is necessary, native grass seed will be applied.

## **6. DETERMINE MONITORING NEEDS**

### **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 the herbicide treatment will begin in the spring and follow up treatment of cut stump/basal or foliar treatment of target vegetation. The mixture of the product is 25% Garlon 4/Tahoe 4E and 75% FCO for stump treatment or 97% water, 3% Garlon 3A Tahoe 3A with 2 oz/ac. of Escort or 5% of Arsenal for foliar treatment. Depo-RTU will be utilized to reduce drift when necessary.

**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**

**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