

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: December 5, 2002

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-114) (Chehalis-Raymond #1, ADNO 8114)

TO: Jim Jellison - TFO/Olympia
Natural Resource Specialist

Proposed Action: Vegetation Management for portion of the Chehalis-Raymond #1 115 kV transmission line

Location: Project location is within Lewis and Pacific counties, Washington and is within the Olympia Region.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to clear targeted vegetation within the Right-of-Ways along access roads and around towers that may impede the operation and maintenance of the subject transmission lines. See Section 1.4 of the attached checklists for a complete description of the proposed action.

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 a portion of the Chehalis-Raymond #1 115 kV transmission line. The project extends between towers 4/1 and 45/12 having an easement width of 100 feet between towers 4/1 and 43/9 and between towers 44/9 and 44/12. The easement width between towers 43/10 and 44/8 is 25 feet. The ROW is located in Lewis and Pacific counties, Washington in the Olympia Region.

Tall growing vegetation of the types listed in Section 1.2 of the attached Checklist are present in the ROW and will soon pose a hazard to the lines. Project involves clearing tall growing vegetation and treatment of the associated stumps and re-spouts with approved herbicides to ensure that the roots are killed.

Vegetation on access roads and around tower sites that impede the operation and maintenance of the transmission line will also be cleared and/or treated.

A follow-up chemical foliar treatment is scheduled to begin in the spring of 2003. Control methods and requirements, as outlined in Section 3.1 and 3.3 of the attached Vegetation Management Checklist, will be employed to mitigate any environmental effects to natural resources or to Threatened or Endangered species habitat. Evaluation of soil erosion as a result of brush cutting will also be made at this time. If grass seeding is necessary, native seed will be applied. The vegetation management program is designed to provide a 3-4 year maintenance free interval after the follow-up treatment.

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

The subject corridor traverses a mixture of residential, urban, rural, and agricultural lands. It includes private and public lands.

A letter will be sent by mail to notify landowners in proximity to the project transmission lines about 2 weeks prior to the vegetation control activities. Door-to-door contact may also be employed to notify landowners, if warranted.

3. *Identify natural resources and any mitigation.*

Section 3 of the attached checklist identifies the natural resources present in the area of the proposed work. The following resources found along with applicable mitigation measures:

Riparian Habitat:

Includes all wetlands, streams, creeks and ponds meeting the definition of riparian habitat. See Section 3.1 of the checklists for a complete listing of identified water resources.

Riparian Habitat Mitigation:

- County or private lands, within 30.5 m (100 ft.) of a stream or open water. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. On slopes less than 20% there will be no disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no disturbance within the buffer.
- Within 50 ft. to edge of surface water only cut-stump and localized or spot chemical treatments using practically non-toxic to slightly toxic formulations of glyphosate, triclopyr (TEA) formulation, imazapyr, and metsulfuron-methyl (Escort). Moderately toxic to very highly toxic herbicides (to aquatic species) or those herbicides containing a groundwater or surface water label advisory will not be used in this zone. Triclopyr (Garlon 4) may be used only more than 100 ft. from streams or water.

Protected Watershed:

Protected watersheds were identified near line 17/1, between 29/2 and 29/4, and near 41/4. See Section 3.2 of the attached Checklist for a detailed listing.

Protected Watershed Mitigation:

- Protected watershed is in a skip area; no herbicides will be applied, only selective cutting.

T & E Species:

Section 3.3 of the attached checklist presents any Threatened or Endangered Species identified in the area of the proposed work.

T & E Species Mitigation:

- **Marbled Murelet:** Seasonal restrictions of no noise greater than ambient, i.e. chainsaws, within 0.25 mile of known habitat or occupancy during core breeding season from April 1 to August 5; and no motorized equipment will be used within 0.25 mile of known habitat or occupancy within 2 hours after sunrise or within 2 hours before sunset during the late breeding season from August 6 to September 15.
- **Bald Eagle:** Seasonal restrictions of no chainsaw activity from January 1 to August 5. The bald eagle zone is in a skip area; pasture land.

Cultural Resources:

No known cultural resources are present.

Cultural Resources Mitigation:

If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the local tribe will be contacted as well as the BPA Environmental Specialist.

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

Vegetation will be removed using manual, mechanical, and chemical methods. For non-sensitive areas, a mixture of 25% Garlon 4 and 75% Forest Crop Oil (FCO) will be used for stump treatment. In riparian zones, a 50/50 mixture of Accord or Garlon 3A with water will be used for stump treatment. Structure sites and ROW roads will be stubble treated with 90% water, 6% FCO, 3% Garlon 4, and 1% Tordon 22K.

Debris will either be disposed on-site or trucked off-site using either chip, lop and scatter, or mulch techniques as described in Section 5 of the attached checklists.

5. *Determine revegetation methods, if necessary.*

Re-vegetation is not necessary for this project. Reseeding will occur naturally in any areas that are lightly disturbed.

6. Determine monitoring needs.

Monitoring of the effectiveness of the herbicide treatment will begin Spring 2003. The line crew and Natural Resource Specialist will periodically monitor the right-of-way for effective mitigation measures.

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/ Aaron Shurtliff

Aaron Shurtliff
Physical Scientist

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

DATE: 12/12/2002

Attachment

cc:

L. Croff – KEC-4
T. McKinney – KEC
M. Hermeston – KEP-4
J. Meyer – KEP-4
J. Sharpe – KEPR-4
Greg Tippets – KEPR/Olympia
P. Key – LC-7
D. Hollen TF/DOB-1
Daniel Krauss – TFO/OLYMPIA
Shawn Martin – TFO/OLYMPIA
Darrell Underwood – TFOK/CHEHALIS
Environmental File – KEC-4
Official File – KEP (EQ-14)

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 |
|-------------------------------|----------------------------|----------------|--------------------|
| Chehalis-Raymond ADNO 8114 | 41mi(4/1 to 45/12) 1-115Kv | 100 | 41 mi. |

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 herbicide treatment.

Transmission Structures – clearing around

All structures will be cut to 35 feet from the center of the pole and from each leg of the steel towers and the stumps will be treated with herbicide.

Access Road clearing - approximate miles – 5.71 miles

All access roads will mulched due to the encroachment of Scotch broom and stubble treat the stumps or foliar treatment of the sprouts in the spring.

Reclaim (“C”) Trees

Refer to the prescription cut sheets that notes the location of the draws and the edge of the right-of-ways where reclamation activities will be occurring. All most the entire corridor, trees will need to be cut along both edges of the easement

Danger Trees

No danger trees will be cut at this entry. This line will need to be surveyed soon for danger trees; I saw many locations of trees that meet the criteria of the danger trees.

1.2 Describe the vegetation needing management.

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

Vegetation Types:

Douglas Fir

True Fir

Hemlock

Alder

Maple

Willows

Cottonwood

Wild Cherry

Noxious Weeds - Scotch Broom

Blackberries

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.

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.

See Handbook - 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 foliar treatment is scheduled to begin in the spring of 2003.

Future cycles – Every 3-4 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.

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

Landowners/Managers/Uses:
Resident Rural Property Owners
Timber Managed Lands
DNR Managed Lands

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 2 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.

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 | | |
| 24/10+300 | 25/1+470 | Private owner | Trees are in compliance with Xmas tree agreement. |
| 37/9+0 | 479 | Private owner | I need to contacted property owner that the trees are out of compliance. |

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.

I will be contacting Private owner regarding the Xmas trees that are out of compliance and a letter will also be sent to them.

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.

41/3 +400 to 4//4 +500, a motorcycle racetrack appears to be an unofficial use of the easement. I will be researching for a land use permit for such use of the easement.

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.

I have contacted the Richard Bellon, Archeologist with the Chehalis tribe near Rochester, Washington. They are not aware of any cultural sites.

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.

| Span | | Water body | T&E | Method | Herbicide | Application Technique | Buffer | Other | |
|--------|-----|------------|-------------------|--------|-----------|-----------------------|--------|--------------------|-------------------|
| From | To | | | | | | | | |
| 5/2+ | 465 | 535 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 5/8+ | 565 | 635 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 7/1+ | 265 | 335 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 7/3+ | 365 | 435 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 9/4+ | 0 | 250 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 9/8+ | 265 | 335 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 10/11+ | 556 | 800 | No name creek | No | Skip | | | | Selective Cutting |
| 12/4+ | 565 | 665 | No name creek | No | Cut Stump | Garlon 3A | Spot | 35' to Waters edge | Selective Cutting |
| 16/1+ | 465 | 535 | No name creek | No | Skip | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 16/2+ | 465 | 535 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 16/3+ | 235 | 310 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 17/7+ | 450 | 570 | Sand creek Wtlds. | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 17/10+ | 500 | 570 | Stowe creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 18/2+ | 465 | 535 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |

| | | | | | | | | |
|-----------|-----|-----------------|----|-----------|-----------|------|-------------|-------------------|
| 18/4+415 | 485 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 18/7+400 | 650 | Pond | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 19/3+0 | 300 | Chehalis River | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 20/4+750 | 965 | McCormick creek | No | Skip | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 20/5+0 | 150 | McCormick creek | No | Skip | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 20/5+215 | 285 | McCormick creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 21/8+565 | 635 | Walville creek | No | Cut Stump | Garlon 3A | Spot | 100' buffer | Selective Cutting |
| 22/4+565 | 635 | Rock creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 22/9+465 | 535 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 23/4+700 | 900 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 24/2+115 | 185 | Rock creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 24/10+215 | 285 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 25/3+215 | 285 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 25/9+ 395 | 460 | Fern creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 25/10+0 | 605 | Fern creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 26/1+0 | 200 | Fern creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 26/3+365 | 435 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 27/4+235 | 305 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |

| | | | | | | | | |
|-----------|------|---------------|----|-----------|-----------|------|-------------|-------------------|
| 27/9+620 | 690 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 28/1+250 | 350 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 28/2+165 | 235 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 28/4+365 | 435 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 29/10+590 | 660 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 30/2+ 410 | 490 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 30/5+265 | 335 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 32/4+735 | 810 | Walker creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 33/1+565 | 635 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 33/6+465 | 535 | Green creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 33/8+215 | 285 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 34/6+1565 | 1635 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 35/2+315 | 385 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 35/3+665 | 735 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 35/7+390 | 460 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 36/5+640 | 710 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 36/8+240 | 310 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 37/8+265 | 335 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |

| | | | | | | | | |
|----------|-----|-------------------------|----|-----------|-----------|------|-------------|-------------------|
| 37/8+531 | 601 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 38/9+0 | 150 | Mill creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 39/8+665 | 735 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 40/3+0 | 500 | No name creek Wtlds. | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 40/7+765 | 860 | Whitcomb creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 41/2+265 | 450 | Wilson creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 41/3+0 | 350 | Fairchild creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 41/4+690 | 760 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 42/6+35 | 105 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 43/3+0 | 300 | No name creek Wtlds. | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 43/8+215 | 285 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 44/4+65 | 135 | No name creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 45/11+0 | 100 | Pond | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective Cutting |
| 45/12+0 | 125 | Butte creek | No | Cut Stump | Garlon 3A | Spot | Waters edge | Selective 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).

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

| Span | | Well/irrigation/ spring | Herbicide | Buffer | Other notes/measures |
|--------------|--------------|----------------------------|------------------------|-------------------------|---------------------------|
| From | To | | | | |
| 17/1+300 | 940 | Water Shed | Skip Area | | |
| 29/2+300 | 29/4+25 0 | Water Shed | No herbicide treatment | No need for a buffer | Selective Cutting Only |
| 41/4+ 800 | 41/ | Water Shed | No herbicide treatment | No need for a buffer | Selective Cutting Only |

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.

| Span | | Species | Measures |
|------|------|------------------|---|
| From | To | | |
| 11/1 | 11/6 | Bald Eagle | Seasonal restrictions of no chainsaw activity from January 1 to August 5. The eagle zone is in a skip area (pasture land). |
| 21/6 | 22/1 | Marbled Murrelet | Seasonal restrictions of not producing noise greater than ambient within 0.25 mile of known habitat or occupancy during core breeding season from April 1 to August 5; and no motorized equipment will be used within 0.25 mile of known habitat or occupancy within 2 hours after sunrise or within 2 hours before sunset during the late breeding season from August 6 to September 15. |
| 23/8 | 24/1 | Marbled Murrelet | Same seasonal restrictions as for structure 23/8 to 24/1 |
| 24/4 | 24/9 | Marbled Murrelet | Same seasonal restrictions as for structure. 23/8 to 24/1 |
| 27/4 | 30/5 | Marbled Murrelet | Same seasonal restrictions as for structure. 23/8 to 24/1 |
| 32/6 | 33/6 | Marbled Murrelet | Same seasonal restrictions as for structure. 23/8 to 24/1 |
| 34/6 | 35/4 | Marbled Murrelet | Same seasonal restrictions as for structure. 23/8 to 24/1 |
| 37/3 | 37/4 | Marbled Murrelet | Same seasonal restrictions as for structure. 23/8 to 24/1 |
| 37/7 | 38/5 | Marbled Murrelet | Same seasonal restrictions as for structure. 23/8 to 24/1 |

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.

N/A

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 | | |
| 34/2 | 60/2 | Cultural Sites | Chehalis tribe, Richard Bellon, Archeologist Resource Manager is not aware 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 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.

See Handbook – Steep/Unstable Slopes for requirements.

N/A

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.

See attached prescription cut sheets.

| Span | | Methods, including herbicide active ingredient, trade name, application technique |
|------|-------|---|
| From | To | |
| 4/1 | 45/12 | For non-sensitive areas (spans) cut stump/basal treatment with 25% Garlon 4 and 75% Forest Crop Oil (FCO). 50/50 Accord or Garlon 3A/Water for stump treatment in the riparian zones. Stubble treat structure sites and the right-of-way roads with 90% Water, 6% FCO, 3% Garlon 4 and 1% Tordon 22 K. Follow-up treatment-foliar application of the above chemicals as noted under stubble treatment, except FCO. Foliar treat Scotch broom. |

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:

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).

See Handbook — Reseeding/replanting for requirements.

N/A

Native grasses 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 in 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

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 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 and 75% FCO or 90% water, 3% Garlon 4 with Depo-RTU drift retardant. 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 the effectiveness of the vegetation management activities on the right-of-way and assess other resources that may have been adversely affected. BPA's vegetation maintenance activities may increase the public use of the right-of-way due to better accessibility. This may cause damage to the natural resources.

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 are 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