

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: August 5, 2002

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA 102, Chehalis to Centralia lines # 1 & 2.

TO: James A. Jellison – TFO/Olympia

Proposed Action: Vegetation Management along the Chehalis-Centralia No.1 69kV transmission line from structure 6/5 through structure 12/4, and the Chehalis-Centralia No.2 69kV transmission line from structure 11/7 through structure 15/19. Right of way width varies. The lines are connected through Centralia substation.

Location: The project area is located within the city of Centralia and unincorporated Lewis County, Washington.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to remove unwanted vegetation along the right-of-way, access roads and around tower structures along the subject transmission line corridors. Approximately 10 miles of right-of-way will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Approximately 1.3 miles of access roads will be cleared using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Tower sites will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Vegetation management is required for unimpeded operation and maintenance of the subject transmission line. See Section 1 of the attached checklist for a complete description of the proposal.

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

Planning Steps:

1. Identify facility and the vegetation management need.

Unwanted vegetation, reclaim trees and danger trees will be removed and/or controlled using selective and nonselective methods that will include hand cutting, mowing, and herbicidal treatment. All methods of herbicide treatment will be used (except aerial) dependent on site conditions/restrictions. This proposal covers approximately 45.4 acres of land between towers 6/5 through 12/4 on the Chehalis-Centralia No.1 line and 9.7 acres of land between towers 11/7 through 15/19 on the Chehalis-Centralia No.2 line for a total of 55.1 acres.

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

The subject corridor traverses private, City of Centralia, and Lewis County lands used for residential, rural residential, farming and grazing purposes. No other federal and no tribal lands are involved.

Landowners requiring notification or under tree and brush agreements are shown in Section 2.3 and 2.4 of the attached checklists. Any remaining landowners will be contacted (letters, personal contact, door hangers, etc.) by BPA before and during the project. Any input received will be incorporated into the prescription/cut sheets.

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, and creeks meeting the definition of riparian habitat. Several areas were identified. See Section 3.1 of the checklists for a complete listing.

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.

Drinking Water Supply:

One well was identified 75 feet from structure 6/15 on the Chehalis –Centralia No.1 line. See section 3.2 for a complete description.

Drinking Water Supply Mitigation:

- Drinking water wells: No chemical application of a herbicides containing a groundwater or surface water label advisory within a 164-foot radius any water wells. Garlon 3A may be used up to a 50 foot radius of the drinking water supply.

T & E Species:

Review of BPA databases show no T & E species in the project area.

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

Vegetation will be removed using manual, mechanical, and chemical methods. Debris will be disposed onsite using either chip, lop and scatter, or mulch techniques as described in Section 5 of the attached checklists.

5. *Determine re-vegetation methods, if necessary.*

Native grasses and low growing species are present in the areas of the right-of-way that will be managed. These populations 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 blackberries are present.

Re-vegetation needs will be determined onsite. Any areas identified with limited ground cover will be replanted with native plant species.

6. *Determine monitoring needs.*

The entire project will be inspected during the work period, and, the line will be patrolled annually after treatment to monitor the effectiveness of the treatment measures. Environmental monitoring to ensure sound application practices will be determined in the future as outlined in the BPA/NMFS/USFWS Biological Assessment currently being prepared.

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

/s/ Greg P. Tippetts

Greg P. Tippetts
Physical Scientist (Environmental)

CONCUR /s/ Thomas C. McKinney

Thomas C. McKinney
NEPA Compliance Officer

DATE: 08/07/2002

Attachments

cc:

L. Croff – KEC-4
T. McKinney – KEC-4
P. Key – LC-7
M. Hermeston – KEP-4
J. Meyer – KEP-4
J. Sharpe – KEPR-4
M. Martin – KEPR/Covington
M. Johnson – TF/DOB-1
O. Albro – TFO/Olympia
D. Krauss – TFO/Olympia
G. Westling – TFO/Olympia
Environmental File – KEC-4
Official File – KEP-4 (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-Centralia No. 2 ADNO 8106	4 mi. 69kV	Variable	4 mi.

Right Of Way:

Right-of-Way – clearing in right-of-way to the full width of the R/W.

Transmission Structures – clearing around structures 35' from hub.

Access Road clearing - approximate miles – 0.1 miles

Top and/or side trim trees in the single pole easement from 15/11 to 15/19.

Reclaim (“C”) Trees from structure 15/9 to 15/10.

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 – Where appropriate, a follow-up chemical treatment to begin in the late summer of 2002.

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:

Residential

Rural

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 Region 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		
12/	12/	Port of Centralia	Tree Agreement
12/	13/1	Port of Centralia	Tree Agreement
13/18	14/2	Cambridge Apts.	Tree & Brush Agreement (Un-official use of R/W).
14/17	14/17+ 100	Scott Hoerner	Xmas Trees (Un-official)
14/18	14/18+100		Fruit trees-6 Cherries (un-official use of R/W.)
15/2	15/2+100		Nursery Stock (un-official use of R/W).

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.

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.

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

I have contacted Chehalis tribe near Rochester, WA. 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							
14/15+ 200	14/15+ 250	Ck. No name	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Skip-Grassland
15/10	15/10+75	Slough	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Selective Cutting
15/10+75	15/10+233	Slough	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Selective Cutting
15/11	15/11+ 250	Skooku mchuck River	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.

N/A

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.

N/A

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

See Handbook — Protecting Other Species for requirements.

Span		Species	Measures
From	To		
15/11+ 100	15/11+ 250	Local fish	Select cut trees whose tops are within 50' of the conductor at max sag. Fall trees away from creek channel.

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		
		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		
11/7	15/9	Cultural sites	Chehalis tribe does not know of any cultural sites on this transmission corridor. Upon discovery of any cultural sites, work stoppage in the vicinity will occur and the local tribe will be contacted as well as 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.

Span		Describe sensitivity	Method/mitigation measures
From	To		
		N/A	

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

See Handbook – Spanned Canyons for requirements.

Span		Methods, cutting
From	To	
		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	
11/7	15/11	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.) This treatment is utilized in backyards, active pastures and near busy hi-ways.

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.) This treatment is the predominantly utilized throughout the corridor.

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.) This treatment is utilized primarily along access, right-of-way roads and structure sites.

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.

Span		Reason for Reseed/plant	Type of Seed or Plants	Native?
From	To			
		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 Blackberries 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

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 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

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-Centralia No. 1 ADNO 8104	6 mi. 69kV	Variable	6 mi.

Right Of Way:

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

Transmission Structures – clearing around

Access Road clearing - approximate miles – 1.2 miles

Reclaim (“C”) 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 – Where appropriate, a follow-up chemical treatment to begin in the late summer of 2002.

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:

Residential

Rural

Grazing 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 Region 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		
6/9	6/12+200		Xmas Tree Agreement
8/15+100	8/16+150		LU#
8/17	8/1/+165	Joel Olson	Application of T&B Agreement
9/1	9/1+325	John Marth	Douglas fir/Maple trees in yard
10/10+225	10/10+300		Un-official use of R/W. Application for T&B

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.

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.

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

I have contacted Chehalis tribe near Rochester, WA. 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							
9/7+ 100	9/7/175	Ck. No name	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Skip-Grassland
10/3+265	10/3+335	Ck. No name	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Selective Cutting
10/5+135	10/5+205	Ck. No name	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Selective Cutting
10/6+465	10/6+535	Ck. No-name	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Selective Cutting
11/8+100	11/6+170	Ck. No-name	No	Cut Stump	Garlon 3A	Spot	Waters Edge	Skip-Grassland

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/or spring	Herbicide	Buffer	Other notes/measures
From	To				
6/14+275		Well	Garlon 3A	164'	40' Rt of C/L.

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.

N/A

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

See Handbook — Protecting Other Species for requirements.

Span		Species	Measures
From	To		
9/7+ 100	9/7+ 175	Local fish	Select cut trees whose tops are within 50' of the conductor at max sag. Fall trees away from creek channel. Skip area.
4/5+ 400	600	Local fish	Select cut trees whose tops are within 50' of the conductor at max sag. Fall trees away from creek channel.

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		
		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		
1/1	12/4	Cultural sites	Port Gamble tribe does not know of any cultural sites on this transmission corridor. Upon discovery of any cultural sites, work stoppage in the vicinity will occur and the local tribe will be contacted as well as 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.

Span		Describe sensitivity	Method/mitigation measures
From	To		
		N/A	

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

See Handbook – Spanned Canyons for requirements.

Span		Methods, cutting
From	To	
		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	
1/1	11/9	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.) This treatment is utilized in backyards, active pastures and near busy hi-ways.

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.) This treatment is the predominantly utilized throughout the corridor.

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.) This treatment is utilized primarily along access, right-of-way roads and structure sites.

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.

Span		Reason for Reseed/plant	Type of Seed or Plants	Native?
From	To			
		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 Blackberries 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

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 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