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(8-89)

United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: September 9, 2002

REPLY TO ATTN OF: KEPR-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-109) - (Santiam-Alvey # 1 and #2 access road and structure clearing)

TO: Benjamin Tilley
Natural Resource Specialist

Proposed Action: Vegetation Management for the Santiam-Alvey # 1 and #2 transmission line.

Location: Throughout the Santiam-Alvey # 1 and #2 corridor located within Linn and Lane counties in Oregon.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: Tall-growing vegetation that is currently or will soon be a hazard to the line will be removed. Vegetation that will grow tall will be selectively eliminated before it reaches a height or density to begin competing with low-growing species. Cut-stump or follow-up herbicide treatments on re-sprouting-type species will be carried out to ensure that the roots are killed. Desirable low-growing plants will not be disturbed. Only selective vegetation control methods that have little potential to harm non-target vegetation will be used.

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

Planning Steps:

1. Vegetation management need.

The work will take place on Santiam-Alvey # 1 and #2 230 kV transmission line right-of-way for access road clearing and transmission structure clearing of noxious weeds and tall growing species. The proposed treatment will be performed in designated areas along the ROW with an easement width of 125 to 225 feet. See attached checklist and documents for exact locations of treatment within the corridor.

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

The subject corridor passes through rural, agricultural, industrial forestlands and BLM. Form letters will be sent to applicable landowners several weeks prior to job start date for them to respond and comment on the proposed actions. No herbicides will be applied on three specific locations where the corridor passes through BLM – Eugene District lands (see checklist).

3. Identify natural resources and any mitigation.

Anadromous fish runs were identified in certain sections of the Santiam-Alvey # 1 and #2 ROW. Mitigation measures to assure no affect on these T & E species are described in Sections 3.1 and 3.3 of the checklist. No herbicides will be applied near these waterbodies.

No known cultural resources are present. The work will not cause any soil disturbance, therefore cultural resources, if present, will not be affected (see Section 3.6).

4. Determine vegetation control and debris disposal methods.

Herbicide application will be for spot/stump treatment of re-sprouting species and conducted using backpack sprayers containing 25% Garlon 4 and 75% crop oil mix. Mechanical removal of vegetation will be accomplished using various methods with debris being scattered to prevent increased fire hazards. Chipping will be done where visually sensitive areas exist as well as per landowner request (see Section 4 and 5).

5. Determine re-vegetation methods, if necessary.

Re-vegetation is not necessary for this project.

6. Determine monitoring needs.

NRS will patrol roads and tower sites every few months. TLM line crew will inspect roads in winter months during working patrol. Helicopter patrol will help determine when tall-growing species need attention.

Erosion potential will be monitored during each inspection. Growth rate and return of species along tower sites and access roads will be monitored to predict accessibility in the foreseeable future. Sensitive areas will be monitored for vegetation growth of native and weed species.

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/ Shawn L. Barndt
Shawn L. Barndt
Physical Scientist – KEPR-4

CONCUR: */s/ Thomas C. McKinney* DATE: 09/17/2002
Thomas C. McKinney
NEPA Compliance Officer

Attachment

cc:
L. Croff – KEC-4
T. McKinney – KEC-4
M. Hermeston – KEP-4
J. Meyer – KEP-4
B. Sherer – KEP-4
J. Sharpe – KEPR-4
P. Key – LC-7
M. Johnson – TF/DOB-1
A. DelaCruz – TFE/Alvey
T. Jones – TFE/Alvey
G. Burbach – TFEF/Alvey
M. Newbill – TFE/Chemawa
Environmental File – KEC
Official File – KEP-4 (EQ-14)

Sbarndt:sb:4722:9/10/2002 (KEP-KEPR-4-W:\EP\2002 FILES\EQ\EQ-14\FEIS-0285-SA-109-Santiam-Alvey.doc)

Vegetation Management Checklist

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Santiam-Alvey #1 & #2	65+ miles 230kV	125' – 225'	57 miles

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**.

Right Of Way:
Right-of-Way – clearing in right-of-way
Transmission Structures – clearing around
Access Road clearing - approximate miles – 9 miles (27 acres)

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
Poplar
Cottonwood
Wild Cherry
Noxious Weeds - Scotchbroom, tansy ragwort, thistle (several species)
Blackberries

Density:
High (250 + stems/per acre)

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.

Tall-growing vegetation that is currently or will soon be a hazard to the line will be removed. (In places where tall growing vegetation must be left in place, it may not be possible to promote low-growing plants.)

Cut-stump or follow-up herbicide treatments on re-sprouting-type 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.

Desirable low-growing plants will not be disturbed. Only selective vegetation control methods that have little potential to harm non-target vegetation will be used.

1.4 Describe overall management scheme/schedule.

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

Initial entry – Full ROW control of tall-growing species and noxious weeds. Stump treatment planned on species with the potential to re-sprout. Access roads (on & off ROW) and tower sites will be cleared for improved access.
Subsequent entries – Subsequent entry possible within 2 to 4 years to maintain accessibility to access roads and tower sites until next full ROW control cycle. A follow-up herbicide application will occur 6 – 12 months after the initial entry to control re-sprouting species.
Future cycles – Return for full ROW control in 5 years. Repeat initial entry behavior at that time.

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.

Rural, agricultural, grazing lands, industrial forestlands, BLM (Eugene District)

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.

Form letters are sent out to all landowners on BPA's most current landowner list of the lines detailing our intended actions and a method for landowners to respond and comment on the proposed actions.

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		
37\2+ 150'	37\4 + 100'	BLM—Eugene District	No herbicides to be applied.
38\5- 200'	39\3	BLM—Eugene District	No herbicides to be applied.
45\1 – 150'	45\1 + 150'	BLM—Eugene District	No herbicides to be applied.

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.

Refer to table above.

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.

Refer to table above

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.

Refer to table above

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		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
From	To							
24\2 + 1080’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
25\4 + 888’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
26\1 + 882’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
26\2 + 580’	26\5 + 152’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	Follows under #1 line
27\2 + 396’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
27\3 + 250’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
28\1 – 100’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
28\2 + 415’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
28\2 + 1250’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
28\3 + 650’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
29\1 + 1170’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
29\3 + 746’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
29\3 + 975’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
29\4 + 310’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	

29\4 + 615’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
29\4 + 938’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
29\4 + 1140’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
30\1 + 760’	30\1 + 1500’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
31\3 + 1690’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
31\4 + 570’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
32\4 + 1570’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
33\2 + 615’	33\2 + 744’	Calapooia River	Yes	Remove 1 bush near edge	None	None	N/A	
34\1 – 85		Drain ditch	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
34\1 + 480’		Drain ditch	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
36\1 + 580’	36\5 + 650’	Brush Creek	No	CLS	None	None	N/A	Meanders through entire area
37\3 + 147’	37\3 + 349’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
37\4 + 346’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
37\5 + 397’	37\5 + 480’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
37\6 + 382’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\2 + 505’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\3 + 437’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\3 + 803’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\3 + 973’	38\4	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	

38\4 + 402’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\4 + 689’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\5 + 141’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
38\6 + 592’	38\6 + 713’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
39\1 + 379’	39\1 + 626’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
39\2 + 590’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
39\3 + 640’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
39\3 + 1275’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
39\4 + 323’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
39\5 + 367’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
40\2	40\2 + 119’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
40\2 + 592’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
40\2 + 932’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
45\4 + 419’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
46\2 + 383’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
46\2 + 870’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
46\2 + 1483’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
48\3 + 470’	48\3 + 961’	Mohawk River	Yes	CLS	None	None	N/A	Meanders to 48\4 + 1100’
49\3 +819’	49\3 + 996’	Parsons Creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	

52\5 + 497’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
53\1 + 810’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
53\2 + 605’	53\2 + 620’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
53\3 – 52’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
53\3 + 232’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
55\1 + 250’ 55\2 + 403’	55\1 + 1770’ 55\2 + 424’	McKenzie River	Yes	CLS, chip & remove debris	None	None	N/A	
58\4 + 310’ 59\1 + 485’	58\4 + 775’ 59\1 + 536’	Middle Fork Willamette River	Yes	CLS, chip & remove debris	None	None	N/A	Pudding Ck. Within @ 58\4 + 1709’ to 1762’
1\4 + 602’		Unnamed creek	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	
2\5 + 607’		Unnamed creek	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	
5\1 + 640’		Unnamed creek	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	
7\2 + 417’	7\2 + 644’	Thomas Creek	Yes	CLS, chip & remove debris	None	None	N/A	
11\5 + 275’		Unnamed creek	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	
17\3 + 365’	17\3 + 695’	Unnamed creek & drain field	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	
20\4 + 436’		Unnamed creek	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	

21\4 + 860’	21\4 + 1490’	Unnamed creeks (5) & pond	No	CLS w/ Stump treat	Garlon 4	Cut stump	35’	
22\2 + 612’	22\2 + 747’	South Santiam River	Yes	CLS, chip & remove debris	None	None	N/A	

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.

No herbicides will be applied to any area with residential infrastructure.

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		T&E Species	Method/mitigation or avoidance measures
To	From		
		Anadromous fish runs	Refer to 3.1 –Water Resources

3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.
See Handbook — **Protecting Other Species** for requirements.

Encouragement of grasses will help to improve forage potential for large game along access roads.

Shade-providing plants near water bodies will be trimmed to help provide clear access along the roads and improve forage diversity without compromising shade potential of the crossing.

3.5 List any visually sensitive areas and the measures to be taken at these areas.
See Handbook — **Visual Sensitive Areas** for requirements.

Chipping of debris near visible roadways—refer to attached detail sheet.

3.6 List areas with cultural resources and the measures to be taken in those areas.
See Handbook – **Cultural Resources** for requirements.

No known cultural resources present. No ground-disturbing activity will occur. If evidence is found of cultural resources (artifacts, features, burial sites), work will cease immediately and the appropriate authorities will be contacted.

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.

Removal of vegetation on steep slopes restricted to tall-growing species that are a hazard to the transmission line.

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

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

Removal of vegetation in spanned canyons restricted to tall-growing species that are a hazard to the transmission line.

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.

Methods, including herbicide active ingredient, trade name, application technique
Select Cut= cut, lop and scatter to extent necessary to prevent fire hazard. Low Cut= Remove all vegetation at ground level, CLS to prevent fire. Chip Acres= select cut and chip all debris generated Access Road Acres= select/low cut method on access roads Side-limb=remove limbs/tops of large trees Tower Sites=low cut method 30-50' radius around tower site Herbicide application—spot/stump treatment of re-sprouting species. Backpacks will be used with a 25% Garlon 4 / 75% crop oil mix. ----Refer to attached detail sheet for span by span analysis

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.

Cut, lop and scatter to the extent to prevent increased fire hazard.

Chipping will be done where visually sensitive areas exist as well as per landowner request.

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.

Native, naturalized, and non-native grasses are present on the entire ROW that will naturally reseed into the areas that have been lightly disturbed by vegetation management activities.

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

N/A

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

N/A

6. DETERMINE MONITORING NEEDS

See handbook — **Monitoring** for requirements.

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

Monitor brush control as it is happening on a daily basis. Monitoring will also occur every few months as the situation lends itself. Working patrol will determine when subsequent entry for access road and tower site clearing will be needed (performed in the winter). Helicopter patrol will help determine when tall-growing species need attention. Ground patrols by the NRS will occur every few months.

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

Survey vegetation growth of native and weed species in sensitive areas. Monitor for erosion potential during every inspection. Monitor growth rate and return of species along tower sites and access roads to predict accessibility in the foreseeable future.

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".

None

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

None