DOE F 1325.8e Electronic Form Approved by CILR – 10/08/2002
(08-89)

United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: February 19, 2003

REPLY TO ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-126- Alvey Fairview

TO: Benjamin Tilley – TFE/Alvey

Proposed Action: Vegetation Management for the Alvey Fairview 230kV transmission line from structure 1/1 through structure 64/7.

Location: The project is located in the BPA Eugene Region in Coos, Douglas, and Lane Counties, Oregon.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to remove unwanted vegetation along the right-of-way, along access roads and around tower structures along the subject transmission line corridor that may impede the operation and maintenance of the identified transmission lines. BPA plans to conduct vegetation control with the goal of removing tall growing vegetation that is currently or will soon be a hazard to the transmission line. BPA's overall goal is to have low-growing plant communities along the rights-of-way to control the development of potentially threatening vegetation.

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

Planning Steps:

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

   Work will take place along the Alvey-Fairview 230 kV transmission line rights-of-way for access road clearing of noxious weeds and tall growing species. The proposed treatment will be performed in designated areas along the ROW's with an easement width of 125 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 project corridor passes through rural, residential, agricultural, grazing lands, industrial forestlands, and the Bureau of Land Management (BLM). Landowners requiring notification or under tree and brush agreements are shown in Section 2.4 of the attached checklist. 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. No herbicides will be applied on specific corridors that pass through BLM managed lands.

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:
Riparian habitat includes rivers, wetlands, streams, and creeks meeting the definition of riparian habitat. Many areas were identified for this project. Sit specific requirements for work around these resources, including buffers are contained in Section 3.1 of the attached checklist.

Irrigation sources, Wells, and Springs:
A spring and irrigation ditches were identified in the project area. Site-specific requirements for working around these resources, including buffers, are contained in Section 3.2 of the attached checklist.

Threatened and Endangered Species/Essential Fish Habitat (EFH): Northern Spotted Owls and anadromous fish were identified in the project area. A variety of conservation or avoidance measures were implemented to maintain a "no effect" determination on listed species and EFH. Measures include buffers from water resources, vegetation management techniques, and timing of entry to critical areas, etc. For a complete listing see Section 3.3 in the attached checklist.

Cultural Resources: No know cultural resources are present through out the project area. The project does not include any ground disturbance areas. In the event that project activities unearth or discover any cultural/historic or prehistoric materials, work will cease immediately; and will not resume until a professional archaeologist has evaluated the site.

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, lop and scatter, and mulching are the three methods that will be used for debris disposal (see Section 4 and 5).

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 will occur in the form of inspection while work is being done in the area. When convenient, subsequent monitoring will occur by the Foreman 1 and his crew, as well as by the NRS. Helicopter patrols (4 times/year) and working patrols (yearly) will also keep the NRS updated on problem areas.

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.

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/ Brett M. Sherer
Brett M. Sherer – KEP/4
Environmental Engineer

CONCUR:*/s/ Thomas C. McKinney* DATE:02/27/2003
Thomas C. McKinney
NEPA Compliance Officer

Attachment

cc:
L. Croff – KEC-4
T. McKinney – KEC-4
J. Meyer – KEP-4
M. Hermeston – KEP-4
J. Sharpe – KEPR-4
S. Barndt – KEPR-4
P. Key – LC-7
D. Hollen – TF/DOB-1
M. Newbill – TFE/Chemawa
T. Jones – TFE/Alvey
T. Cupp – TFEF/North Bend
Environmental File – KEC-4
Official File – KEP (EQ-14)

Bsherer:bs:4722:2/25/2003 (KEP-KEP-4-W:\EP\2002 & 2003 FILES\EQ\EQ-14\FEIS-0285-SA-126-AlveyFairview.doc)

Vegetation Management Checklist

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

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

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Alvey-Fairview #1 (Alvey-Reston Section)	69 miles	125’	35 miles

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

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
Wild Cherry
Madrone
Pine (various spp.)
Western Red Cedar
Noxious Weeds - Scotchbroom, tansy ragwort, thistle (several species)
Blackberries
Density: Medium - High (150 -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 resprouting-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 resprout. Access roads (on & off ROW) and tower sites will be cleared and sprayed 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 resprouting species.

Future cycles – Return for full ROW control in 5 – 6 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., doorhanger, 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		
9\7 + 404’	9\9 + 388’	BLM—Eugene District	No herbicides to be applied.
16\3	16\4 + 117’	BLM—Eugene District	No herbicides to be applied.
17\4 + 232’	17\7 – 25’	BLM—Eugene District	No herbicides to be applied.
20\8	23\2 + 1308’	BLM—Eugene District	No herbicides to be applied. Both private and BLM land but all inclusive in N. Spotted Owl CHU# 78
25\2 + 840’	25\3 + 506’	BLM—Eugene District	No herbicides to be applied.
38\4	38\5 165’	Tree & Brush Agreement	Mary Kourtijan—Do NOT cut any trees. Christmas tree farm.
14\8 – 200’	15\1 + 150’	Tree & Brush Agreement	James and Pauline Payne—Do NOT cut any trees. Christmas tree farm.

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							
8\2 + 233’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
9\2 + 74’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
9\7 + 325’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
9\7 + 590’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
11\5 + 560’	11\5 + 605’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
12\6 + 85’	12\6 + 565’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	3 crossings in this area
13\1 + 490’		Bennett Creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
13\2 + 235’	13\3 + 210’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	2 crossings in this area
13\9 + 380’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
14\7 + 975’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	

15\1 + 270’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
15\3 + 720’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
15\7 + 135’	15\7 + 705’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	2 crossings in this area
17\4 + 475’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
18\4 + 425’	18\4 + 690’	Unnamed pond	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
18\6 + 215’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
21\3 + 585’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
21\6 + 400’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
21\7 + 410’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
21\8 + 605’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
22\2 + 598’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
22\3 + 365’	22\3 + 1365’	Unnamed creek	No	CLS w/ stump treat	None	None	35’	4 crossings in this area
23\2 + 470’	23\2 + 2115’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	5 crossings in this area

23\5 + 1267’	23\5 + 1840’	Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	2 crossings in this area
24\1 + 950’	24\1 + 1055’	Unnamed creek	No	CLS	Garlon 4	Cut stump	35’	2 crossings in this area
24\3 + 1195’	24\3 + 1305’	Theft Creek	Yes	No work in this area	N/A	N/A	N/A	
26\9 + 525’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
27\1 + 1038’		Lees Creek	Yes	No work in this area	N/A	N/A	N/A	
27\2 + 1084’		Curtis Creek	Yes	No work in this area	N/A	N/A	N/A	
28\3 + 485’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
28\6 + 987’		Cox Creek	Yes	No work in this area	N/A	N/A	N/A	
29\2 + 340’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
30\2 + 160’		Bennett Creek	Yes	No work in this area	N/A	N/A	N/A	
31\1 + 432’		Elk Creek	Yes	No work in this area	N/A	N/A	N/A	
32\3 + 495’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
35\4 + 545’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	

39\2 + 440’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
47\1 + 701’	47\1 + 902’	Williams Creek	Yes	No work in this area	N/A	N/A	N/A	
48\3 + 591’	48\3 + 665’	Calapooya Creek	Yes	No work in this area	N/A	N/A	N/A	
50\5 + 430’	50\5 + 505’	Calapooya Creek	Yes	No work in this area	N/A	N/A	N/A	
52\8 + 428’		Burke Creek	Yes	No work in this area	N/A	N/A	N/A	
54\1 + 177’	54\1 + 255’	Calapooya Creek	Yes	No work in this area	N/A	N/A	N/A	
54\2 + 546’	54\2 + 860’	Umpqua River	Yes	No work in this area	N/A	N/A	N/A	
56\3 + 252’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
58\8 + 655’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
58\9 + 160’		Unnamed creek	No	CLS w/ stump treat	Garlon 4	Cut stump	35’	
62\3 + 197’		Elgarose Creek	Yes	No work in this area	N/A	N/A	N/A	
62\4 + 365’		Willow Creek	Yes	No work in this area	N/A	N/A	N/A	
63\8 + 554’		Doerner Creek	Yes	CLS	N/A	N/A	N/A	

64\5 + 580’		Callahan Creek	Yes	CLS	N/A	N/A	N/A	
66\9 + 55’		Flournoy Creek	Yes	No work in this area	N/A	N/A	N/A	
36\4 _ 100’	36\4	Wetland (U)	No	No work in this area	N/A	N/A	N/A	
42\5 - 75’	42\5	Wetland (U)	No	No work in this area	N/A	N/A	N/A	
42\6		Wetland (U)	No	CLS	N/A	N/A	N/A	
43\1	43\1 + 375’	Wetland (U)	No	CLS	N/A	N/A	N/A	
47\2	47\5	Wetland (U)	No	No work in this area	N/A	N/A	N/A	
48\8	48\9	Wetland (U)	No	CLS	N/A	N/A	N/A	
50\5	50\6	Wetland (U)	No	No work in this area	N/A	N/A	N/A	
50\7	51\1	Wetland (U)	No	No work in this area	N/A	N/A	N/A	
56\3	56\4	Wetland (U)	No	CLS	N/A	N/A	N/A	
57\7	57\7 + 200’	Wetland (U)	No	CLS	N/A	N/A	N/A	
58\8	58\9	Wetland (U)	No	CLS	N/A	N/A	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.

Span		Well/irrigation/or spring	Herbicide	Buffer	Other notes/measures
To	From				
11\6 + 355’	11\6 + 375’	Spring	Garlon 4	50’	
43\2 + 118’		Irrigation ditch	Garlon 4	50’	
48\6 + 554’		Irrigation ditch	Garlon 4	50’	No herbicides will be applied on or adjacent to 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
23\2 AOL		Northern Spotted Owl	20 miles east of ROW. Will complete work in adjacent area before start of breeding season (March 1)

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

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

Measures
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.

Method/mitigation measures
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.

Method/mitigation measures
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.

Method/mitigation measures
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.

Methods, cutting
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 resprouting 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