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United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: October 22, 2001

REPLY TO ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-27)

TO: Ben Tilley – TFE/Alvey
Natural Resource Specialist

Proposed Action: Vegetation Management along the Marion-Alvey #1 from structure 14/5 to 64/3 and the Marion-Lane #1 from structure 14/5 to 70/2. Both lines describe the same segment of ROW between structures 14/5 and 45/2.

Location: All ROW are located in Marion, Linn, and Lane Counties, OR, all being in the Eugene Region.

Proposed by: Bonneville Power Administration (BPA), Eugene Region.

Description of the Proposed Action: BPA proposes to clear unwanted vegetation in the rights-of-ways, around tower structures, and associated access roads that may impede the operation and maintenance of the subject transmission line. 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. All work will be executed in accordance with the National Electrical Safety Code and BPA standards

Analysis: This project meets the standards and guidelines for the Transmission System Vegetation Management Program Final Environmental Impact Statement (FEIS) and Record of Decision (ROD).

Planning Steps

1. Identify facility and the vegetation management need.

The work involved will be to clear tall growing vegetation that is currently or will soon pose a hazard to the lines; treat the associated stumps and re-sprouts with herbicides, mow and treat access roads and structure sites. All work will take place in existing rights-of-ways.

Also, all off right-of-way trees that are potentially unstable and will fall within a minimum distance or into the zone where the conductors swing will be removed. The width of the ROW varies from 100 to 517 feet. All work will be accomplished by selective vegetation control methods to assure that there is little potential harm to non-target vegetation and to low-growing plants. The work will provide system reliability.

The overall vegetation management scheme will be to initially control all tall growing species and noxious weeds. Stump herbicide treatments are planned for all species with potential to re-sprout. The access roads and tower sites will be cleared to improve access to the rights-of-way.

Within 2 to 4 years it will be necessary to re-control vegetation (mechanical) along the access roads and tower sites to ensure work access to the rights-of-way.

Future cycles of work will involve the treatments used in the previous phases of work.

2. Identify surrounding land use and landowners/managers.

The subject corridor traverses generally mountainous terrain. The transmission line crosses rural properties, agricultural land, grazing lands, industrial forest lands, BLM (Eugene District), and Lane County Lands.

Prior to work beginning, form letters will be sent out to all known landowners of the right-of-way. These letters will be sent out prior to the job starting. This will allow sufficient time for landowners to provide any overriding concerns, comments, or restrictions that may apply.

3. Identify natural resources.

Water wells, spring, riparian, riparian T&E habitat have been identified. Steep, moderately and level terrains have been identified in the areas of the proposed work. These areas have been tentatively identified during patrols and by using existing data sources. The Project Manager will positively identify the habitats as work progresses along the corridors. No other T&E/wildlife issues, visually sensitive areas, cultural resources or other natural resource issues have been identified along the other work corridor.

- Riparian, water supply wells, and springs. Refer to the attached vegetation checklist for locations. All buffers as outlined in the vegetation FEIS are in effect. Herbicides will not be used within the buffers. Manual vegetation methods may be used to trim trees and taller vegetation.
- Riparian T&E areas. Buffers as outlined in the Vegetation FEIS are in effect for streams and rivers with ESA listed fish. See the attached checklist for actual buffer locations and widths. Herbicides will not be applied within any buffers.
- No culvert work and/or ‘in stream’ work is to take place without prior consultation with the appropriate government agencies and permits are in place.

See attached ROW vegetation checklist for treatment methods and planned herbicide use in all other non-critical areas.

Prior to the beginning of the work, the contractor will be provided with a set of the project maps, as well as with a list of management prescriptions from the Vegetation Management FEIS.

The herbicides used for vegetation management will be consistent with what is specified in the Vegetation Management FEIS.

4. Determine vegetation control and debris disposal methods.

Initially, mechanical methods will be employed along access roads and around tower sites to control taller vegetation. As a follow up, unwanted vegetation would be removed by employing cut-stump, spot spraying, and follow-up stump treatment with 25% Garlon and 75% crop oil mix. The chemical means would be employed to prevent re-sprouts. Prevention of re-sprouts encourages low-growing

plant communities to establish themselves and flourish on the right-of-way. This impact avoidance approach both maximizes the use of limited resources and minimizes environmental impacts. Herbicides will be applied by licensed applicators following manufacturers' label instructions and BPA's management prescriptions. The herbicide used will be consistent with Vegetation Management FEIS.

All riparian and riparian T & E buffer zones are in effect and will be strictly enforced as outlined in the Vegetation Management FEIS and as shown in the attached vegetation checklist. Treatments on steep, moderate and level slopes will be consistent with the Vegetation Management FEIS and as shown on the attached checklist.

The contractor will receive a list of required mitigation measures (management prescriptions) to follow as well as a set of maps delineating the transmission line and potential sensitive resource areas. The contractor will follow manufacturers' label instructions when applying herbicides.

5. Determine re-vegetation methods, if necessary.

Reseeding /replanting regimes are not determined to be necessary at this time.

6. Determine monitoring needs.

An inspector will monitor the work being performed at the time of the initial work. Follow-up inspections will be preformed during line patrols by the line crew, helicopter reports and by the NRS. Additional required work would be identified at that time.

7. Prepare appropriate environmental documentation.

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
Environmental Engineer - KEP

CONCUR: */s/ Thomas C. McKinney* DATE: *10/24/01*
Thomas C. McKinney
NEPA Compliance Officer

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
Marion-Alvey /Marion-Lane	65+ miles 500kV	150' – 517'	51 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 – 35 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
Popular
Cedar
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 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 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.

Future cycles – Return for full ROW control in 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 forest lands, BLM (Eugene District), Lane County

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/landuse 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		
16\1	16\1 + 608'	Garden/Residential area	Contact landowner before spraying herbicides
16\5 + 1060'	17\1 + 850'	Christmas Tree Farm	No vegetation control/herbicide application
27\4 – 150'	27\4 + 600'	Christmas Tree Farm	No vegetation control/herbicide application
27\4 + 600'	28\1 + 350'	Christmas Tree Farm	No vegetation control/herbicide application
34\2 + 85'	34\2 + 230'	Fruit Orchard	Tree-trimming may be required.
34\3 + 485'	34\4	Restricted Spray Area	No herbicides to be applied in this area.
35\1	35\2	Residential Infrastructure & creek	No vegetation control/herbicide application

Span		Landowner/use	Specific measures to be applied
From	To		
35\5 + 200'	36\2 + 850'	Tree Farm	Tree-trimming and some removal of overgrown trees may be required. Landowner will be consulted prior to any work.
40\5 – 225'	40\6 + 200'	Christmas Tree Farm	Tree-trimming and some removal of overgrown trees may be required. Landowner will be consulted prior to any work.
42\1 + 768'	42\2 + 300'	Residential Infrastructure	No vegetation control/herbicide application
42\4 + 375'	43\1 + 750'	Christmas Tree Farm	Tree-trimming and some removal of overgrown trees may be required. Landowner will be consulted prior to any work.
50\5	51\3 + 925'	Christmas Tree Farm	Tree-trimming and some removal of overgrown trees may be required. Landowner will be consulted prior to any work.
51\3 + 925'	52\1 + 500'	Restricted Spray Area	No herbicides to be applied in this area.
65\1 + 115'	65\1 + 1150'	Orchards/residential/water source	No herbicides to be applied in this area.

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.

No herbicides to be applied on BLM land.

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							
23\1 + 549'	23\1 + 599'	Creek	NO	Manual cutting only	25% Garlon 4; 75% oil	Spot	35'	Buffer from 23\1 + 514' to 634'
23\2 + 100'	23\2 + 500'	Hamilton Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35'	Buffer from 23\2 + 65' to 535'

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
From	To							
25\1 + 300’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 25\1 + 265’ to 335’
25\4 + 361’	25\4 + 597’	South Santiam River	YES	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 25\4 + 326’ to 632’
31\1 + 415’	31\1 + 696’	Creek (splits under ROW)	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot`	35’	Buffer from 31\1 + 380’ to 731’
34\1 + 415’	34\1 + 559’	Calapooia River	YES	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	100’	Buffer from 34\1 + 315’ to 659’
35\4 + 425’	35\4 + 475’	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 35\4 + 390’ to 510’
37\3 + 1030’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 37\3 + 995’ to 1065’
40\3 + 695’	40\3 + 850’	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 40\3 + 660’ to 885’
44\3 + 900’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 44\3 + 865’ to 935’
45\3 + 1250’	45\3 + 1325’	Mohawk River	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 45\3 + 1215’ to 1360’
47\2 + 325’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 47\2 + 290’ to 360’
47\3 + 1325’	47\3 + 1450’	Cartwright Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 47\3 + 1290’ to 1485’
50\4 + 185’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 50\4 + 150’ to 210’
53\1 + 600’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 53\1 + 565’ to 635’
53\3 + 900’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 53\3 + 865’ to 935’
55\3 + 242’	55\3 + 280’	Slough	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 55\ 3 + 207’ to 305’
55\4 + 835’	55\4 + 940’	McKenzie River	YES	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	100’	Buffer from 55\4 + 735’ to 1040’
57\3 + 370’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 57\3 + 345’ to 405’
60\2+ 378’	60\2 + 550’	Wallace Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35”	Buffer from 60\2 + 343’ to 585’
60\4 + 550’	60\4 + 730’	Middle Fork Willamette River	YES	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	100’	Buffer from 60\4 + 450’ to 830’

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
From	To							
61\1 + 400’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 61\1 + 365’ to 435’
61\1+ 1500’	61\1 + 1700’	Beaver Pond	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 61\1 + 1465’ to 1735’
64\3 + 490’		Slough	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 64\3 + 455’ to 515’
65\2 + 650’	65\2 + 690’	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 65\2 + 615’ to 715’
65\3 + 50’	65\3 + 150’	Pond	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 65\3 + 15’ to 185’
49\5 – 140’	ML only from here	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 49\5 – 175’ to – 105’
49\5 + 250’		Pond	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 49\5 + 215’ to 285’
47\5 + 650’	47\5 + 750’	Parsons Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 47\5 + 615’ to 785’
51\1 + 180’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\1 + 145’ to 215’
51\1 + 770’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\1 + 745’ to 805’
51\1 + 1050’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\1 + 1015’ to 1085’
51\3 + 995’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\3 + 960’ to 1020’
51\6 + 930’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\6 + 895’ to 965’
51\6 + 1330’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\6 + 1295’ to 1365’
51\6 + 1450’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 51\6 + 1415’ to 1485’
52\1 + 670’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 52\1 + 635’ to 705’
52\1 + 800’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 52\1 + 765’ to 835’
52\3 + 220’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 52\3 + 185’ to 255’
52\3 + 420’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 52\3 + 385’ to 455’

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
From	To							
53\1 + 1130’		Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 53\1 + 1095’ to 1165’
60\1 + 150’	60\1 + 225’	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 60\1 + 115’ to 260’
60\1 + 490’	60\1 + 1004’	Willamette River	YES	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 60\1 + 455’ to 1040’
60\3 + 75’	60\3 + 600’	Meandering branches of Willamette River	YES	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 60\3 + 40’ to 635’
60\4 + 750’	60\4 + 885’	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 60\4 + 715’ to 920’
62\1 + 555’	62\1 + 670’	Creek	NO	Manual cutting/ chipping	25% Garlon 4; 75% oil	Spot	35’	Buffer from 62\1 + 520’ to 705’

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				
19\1 + 475’	19\1 + 900’	Spring (& protected fence row @ 19\1 + 650’ to 735’)	25% Garlon 4; 75% oil	164’ both sides	Spring protected by land use document w/ landowner. Located on 10 – 30% slope. Manual vegetation control only within buffer.
20\2 + 140’		Spring		164’ both sides	No vegeation management or herbicide application necessary within buffer.
20\3 + 750’	20\3 + 1350’	Spring & tributary	25% Garlon 4; 75% oil	164’ both sides	Located on 10 – 30% slope. Manual vegetation control only within buffer.
31\3 – 200’		Spring		164’ both sides	No herbicide application within buffer. Trees can be cut to a minimum of 20’ in height, per landowner request.
31\4 + 375’		Spring		164’ both sides	No vegetation control or herbicide application within buffer.
33\2 – 278’		Spring & tributary		164’ both sides	No herbicide application within buffer. Trees can be cut to a minimum of 20’ in height, per landowner request.
33\4 + 300’	33\4 + 350’	Spring tributaries		164’ both sides	No vegetation control or herbicide application within buffer.
54\1 + 146’	54\1 + 464’	Spring & tributary		164’ both sides	No herbicide application within buffer.
54\1 + 310’	54\1 + 400’	Spring & tributary		164’ both sides	No herbicide application within buffer.

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		
			Nothing listed in most current Oregon Heritage Data. Nothing found in Eview Application of Tview2.

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
To	From		
			None

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
To	From		
			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.

Span		Describe sensitivity	Method/mitigation measures
To	From		
			None found

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
To	From		
			NONE

3.8 List areas of spanned canyons and the type of cutting needed.
See Handbook – **Spanned Canyons** for requirements.

Span		Methods, cutting
To	From	
		Refer to detail sheet

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**, **Herbicides** for requirements for each of the methods.

Span		**Methods,** including herbicide active ingredient, trade name, application technique
To	From	
		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 treesTower 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.

Span		Reason for Reseed/plant	Type of Seed or Plants	Native?
To	From			
		None needed.		

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

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

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.

See above

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”.

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

Right-of-Way Maintenance Detail Sheets

Eugene Region: Alvey District

ADNO: 7374\7375 **LINE NAME:** Marion-Alvey/Lane (reference Marion-Alvey)

	LOCATION	WIDTH	LENGTH	SELECT CUT[1] ACRES	LOW CUT[2] ACRES	ACCESS ROAD ACRES	CHIP ACRES	SIDE LIMB	TOWER SITES	NOTES
From:	14\5 + 350'	300	1650	11.3						
To:	15\1									
From:	15\3 - 720'	300	3045	21.0						
To:	16\1									
From:	16\4	300	1650	11.3		1.0			17\2	**Do not disturb fruit orchard next to ROW**
To:	16\5 + 450'								(MA\ML)	
From:	17\3 + 400'	300	1600	11.0		0.6				
To:	17\4 + 500'									
From:	18\1 + 300'	300	450	3.1						
To:	18\1 + 750'									
From:	19\1	300	4550	31.3						**NO HERBICIDES from 19\1 -160' to 19\2 + 200'**
To:	19\6									*(Protected Spring & fence row--Landowner Agreement # 85069)*
From:	19\6	300	2368	16.3		0.6				**NO HERBICIDES from 19\6 + 1230' to 20\1 + 250'**
To:	20\1 + 500'									*(Happy Home Creek & tributary)*
From:	20\3	300	8070	55.6		3.0			20\2	**NO HERBICIDES from 20\3 + 750' to 20\3 + 1350'**
To:	21\5 + 1220'								(ML)	*(Spring and tributary present)*
From:	22\1 + 375'	300	860	5.9						
To:	22\2 + 100'									
From:	22\4 + 175'	300	2425	15.1		1.0	1.6			**NO HERBICIDES from 23\1 + 514' to 634' and from**
To:	23\2 + 500'									**23\2 + 65' to 535'--Chip debris near Hamilton Creek**
From:	24\1 + 300'	300	7754	53.4		3.0				**NO HERBICIDES from 25\1 + 257' to 327'**
To:	25\3 + 475'									
From:	25\4 + 250'	300	500				3.4			**NO HERBICIDES from 25\4 + 326' to 632' AND**
To:	25\4 + 750'									*(South Santiam River)*
From:	25\5 - 150'	300	75				0.5			**NO HERBICIDES FROM 25\5 - 201' TO 25\5 - 61'**
To:	25\5 - 75'									*(McDowell Creek)--Chip debris near creek and road*
From:	26\2								26\2-4	25\5 + 550'--ditch/fence row
To:	26\5									27\2 + 660'--Hwy. 20 crossing
From:	27\4 - 400'	300							7	Tower sites: 27\1, 3, 4 (both lines) 28\5 (Marion-Lane)
To:	28\1 + 350'									**Christmas Tree Farms (2) --cut/top what is necessary**
From:	28\1 + 350'	300	500	3.4						
To:	28\2 + 150'									

Right-of-Way Maintenance Detail Sheets

Eugene Region: Alvey District

ADNO: 7374/7375 **LINE NAME:** Marion-Alvey/Lane (reference Marion-Alvey)

	LOCATION	WIDTH	LENGTH	SELECT CUT[1] ACRES	LOW CUT[2] ACRES	ACCESS ROAD ACRES	CHIP ACRES	SIDE LIMB	TOWER SITES	NOTES
From:	29\1	300	1460		10.0					
To:	29\2 + 135'									
From:	29\2 + 175'	300	975		6.7					Small SB in pasture needs mowed and sprayed
To:	29\3									
From:	29\3	300	7315	50.4		1.0				
To:	30\6									
From:	31\1 + 160'	300	1500	10.3						**NO HERBICIDES from 31\1 + 380' to 731'**
To:	31\2 + 100'									*(Creek that splits into 2 channels)*
From:	31\4								2	Tower sites: 31\4 (both lines)
To:										
From:	32\3 + 500'	300	1312	9.0		0.6				Tree-row crossings @: 31\3 AOL, 31\5, & 32\2
To:	32\5 + 700'									*Chipping may be required*
From:	33\1 + 820'	300	1330	9.1		0.6				Road crossing at 33\4 + 100' to 150'--chip all debris
To:	33\3									
From:	34\1 + 300'	300	300				2.0	???		**NO HERBICIDES from 34\1 + 315' to 659'--*Calapooya River***
To:	34\1 + 600'									Fruit orchard @ 34\2 + + 85' to 230'--possible trimming
From:	34\3 + 485'	300	934	6.4						**NO HERBICIDES from 34\3 + 485' to 34\4--PO request**
To:	34\4 + 300'									Chip debris visible from hwy crossing.
From:	34\5 - 200'	300							5	All TS upto 35\2 (exclude 35\2 on Marion-Alvey)
To:	34\5 + 250'									
From:	35\4 - 300'	300	600	4.1		0.3	0.5			**NO HERBICIDES from 35\4 + 385' to 510'--*creek***
To:	35\4 + 300'									
From:	35\4 + 300'	300	4080		28.0					**Tree Farm at 35\5 + 200' to 36\2 + 850'--consult landowners**
To:	36\3 - 180'									
From:	36\3 - 180'	300								***OSU TEST SITE-DO NOT DISTURB***
To:	36\4 + 325'									
From:	36\4 + 325'	300	3875	26.7		0.7				
To:	37\3 + 400'									
From:	37\3 + 1300'	300'	900	6.2						
To:	37\4 + 500'									
From:	37\5 - 200'	300'	4100	28.2		0.3				Also do 38\4 + 880' to 38\5 (375')
To:	38\4 + 400'									

Right-of-Way Maintenance Detail Sheets

Eugene Region: Alvey District

ADNO: 7374\7375 **LINE NAME:** Marion-Alvey/Lane (reference Marion-Alvey)

	LOCATION	WIDTH	LENGTH	SELECT CUT[1] ACRES	LOW CUT[2] ACRES	ACCESS ROAD ACRES	CHIP ACRES	SIDE LIMB	TOWER SITES	NOTES
From:	38\5 - 200'	300'	5800	39.9						Also do 40\1 + 570' to 40\1 + 1055' (485')
To:	40\1 + 300'									
From:	40\2 - 350'	300'	2190	17.5			???			**NO HERBICIDES from 40\3 + 660' to 885'**
To:	40\4									*40\4 to 41\1--residences close by--consult on individual basis*
From:	41\1	517.5	6825	81.1			6.0			**NO HERBICIDES from 42\1 + 768' to 42\2 + 300'**
To:	42\2									
From:	42\2 + 300'	517.5	9961	118.3			1.0			X-mas tree farm from 42\4 + 375' to 43\1 + 750'
To:	44\3 + 400'									
From:	44\3 + 1442'	517.5	3528	41.9		1.5				
To:	45\2									
	LINES SPLIT									
	MARION-ALVEY (150' width)									
From:	45\2	150'	5400	18.6		2.8	???			**NO HERBICIDES from 45\3 + 1215' TO 1360'--Mohawk R.**
To:	46\1 + 800'	MA								*Possible pine and poplar tree farms--consult landowners*
From:	46\2 + 300'	150	11995	41.3						**NO HERBICIDES from 47\2 + 290' to 360'**
To:	48\3 + 470'	MA								**NO HERBICIDES from 47\3 + 285' to 360'--Cartwright Ck.**
From:	48\3 + 620'	150	7871	27.1						**NO HERBICIDES from 47\3 + 1290' to 1485'**
To:	50\2 + 860'	MA								
From:	50\3	150	3075	10.6						**NO HERBICIDES from 50\4 + 150' to 210'**
To:	50\6 + 200'	MA								**X-mas tree farm at 50\5 to 51\3 + 925' --check date**
From:	51\3	150'	900	3.1		1.3	???			**X-mas tree farm--top or remove what is necessary**
To:	51\3 + 900'	MA								**NO HERBICIDES from 51\3 + 650' to 850'--Camp Ck.**
From:	52\1	150	3085	11.3		0.7				**X-mas tree farm at 52\2 - 1000' to 52\3 + 250'**
To:	52\4 + 200'	MA								**NO HERBICIDES from 53\1 + 565' to 635'**
From:	52\4 + 840'	150	11040	38.1		1.2				**NO HERBICIDES from 53\3 + 865' to 935'**
To:	54\5	MA								**NO HERBICIDES from 54\1 + 146' to 464'--spring & creek**
From:	55\3 + 275'	150'	625	2.1		0.3	1.0			**NO HERBICIDES from 55\3 + 207' to 305'**
To:	55\3 + 850'	MA								
From:	55\4 + 700'	150'	200	0.7					55\4	**NO HERBICIDES from 55\4 + 735' to 1040'**
To:	55\4 + 900'	MA								*(McKenzie River)*
From:	56\4 + 1600'	150'	5275	18.1						**NO HERBICIDES from 57\3 + 345' to 405'**
To:	57\4 + 1143'	MA								
From:	57\4 + 1293'	150'	532	1.8						
To:	57\5 + 157'	MA								
From:	58\4	150'	5492	18.9		5.3				

Right-of-Way Maintenance Detail Sheets

Eugene Region: Alvey District

To:	59\3	MA								

Right-of-Way Maintenance Detail Sheets

Eugene Region: Alvey District

ADNO: 7374\7375 **LINE NAME:** Marion-Alvey/Lane (reference Marion-Alvey)

	LOCATION	WIDTH	LENGTH	SELECT CUT[1] ACRES	LOW CUT[2] ACRES	ACCESS ROAD ACRES	CHIP ACRES	SIDE LIMB	TOWER SITES	NOTES
From:	60\2 + 350'	150'	100	0.3		0.6				**NO HERBICIDES from 60\2 + 343' to 585'--Wallace Ck.**
To:	60\2 + 450'	MA								
From:	60\2 + 1000'	150'	900	3.1						
To:	60\3 + 475'	MA								
From:	60\4	150'	10389	35.8		2.4				**NO HERBICIDES from 60\4 + 450' to 830'**
To:	62\4	MA								*(Middle Fork Willamette River)*
										NO HERBICIDES from 61\1 + 365' to 435'
										NO HERBICIDES from 61\1 + 1465' to 1735'--Beaver Pond
From:	63\4	300'	2457	16.9					63\1\2\3	Lookout Point-Alvey #1 & #2 join in--ROW 300' wide
To:	63\6 + 350'									
From:	64\3	300'					???			*Residential--consult landowners on individual basis*
To:	Alvey Sub									**NO HERBICIDES from 64\3 + 455' to 515'**
										NO HERBICIDES from 65\1 + 115' to 1150'
										NO HERBICIDES from 65\2 + 615' to 715'
										NO HERBICIDES from 65\3 + 15' to 185'
	MARION-LANE (150' width)									
From:	45\2	150	12628	43.5		1.2				
To:	47\4	ML								
From:	47\5	150	1250	4.3						**NO HERBICIDES from 47\5 + 615'to 785'**
To:	48\1	ML								*(E. & W. fork of Parson's Creek)*
From:	48\2	150	400	1.4						**NO HERBICIDES from 49\5 - 175' to - 105' AND 215' to 285'**
To:	48\2 + 400'	ML								**NO HERBICIDES from 51\1 + 145' to 215' AND 735' to 805'**
From:	49\2 + 720'	150	5849	20.1						**NO HERBICIDES from 51\1 + 1015' to 1085'**
To:	50\3 + 534'	ML								**NO HERBICIDES from 51\3 + 960' to 1030'**
From:	50\3 + 1354'	150	5893	20.3					54\4 (2)	**NO HERBICIDES from 51\6 + 895' to 965' AND 1295' to 1365'**
To:	51\6 + 297'	ML							55\1 (2)	**NO HERBICIDES from 51\6 + 1415' to 1485'**
From:	51\6 + 1700'	150	12100	41.7		2.0			4	**NO HERBICIDES from 52\1 + 635' to 705' AND 765' to 835'**
To:	54\3 + 350'	ML								**NO HERBICIDES from 52\3 + 185' to 255' AND 385' to 455'**
										NO HERBICIDES from 53\1 + 1095' to 1165'
From:	58\4	150'					???	???	56\6\7	Possible "C" trees on north side of ROW
To:	58\5	ML								May need trimmed or removed--chipping required
From:	59\1	150'							5	All towers in area covered in blackberries
To:	59\5	ML								
From:	60\1 - 100'	150'	2850	9.8						*Brush used for flood control--only cut what is necessary*
To:	60\3 + 600'	ML								**NO HERBICIDES from 60\1 + 115' to 260' AND 455' to 1040'**

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Eugene Region: Alvey District

From:	60\4 + 600'	150'	500	1.7					60\4	**NO HERBICIDES from 60\3 + 40' to 635'**
To:	60\5	ML								**NO HERBICIDES from 60\4 + 715' to 920'**

Right-of-Way Maintenance Detail Sheets

Eugene Region: Alvey District

ADNO: 7374\7375 **LINE NAME:** Marion-Alvey/Lane (reference Marion-Alvey)

	LOCATION	WIDTH	LENGTH	SELECT CUT[1] ACRES	LOW CUT[2] ACRES	ACCESS ROAD ACRES	CHIP ACRES	SIDE LIMB	TOWER SITES	NOTES
From:	62\1 + 410'	150'	390	1.3					2	**NO HERBICIDES from 62\1 + 520' to 705'**
To:	62\2	ML								tower sites: 61\1 & 61\2
From:	62\5								5	tower sites: 62\5, 63\2, 66\2\3\4
To:	66\4									
From:	68\3					0.6				Eugene-Lane line joins in
To:	68\4									*Area is in rural backyard--consult landowners*
From:	69\2 + 175'	250'	2645	15.2		0.3				
To:	69\5									One tree to be trimmed on sub side of 126 on EA line
From:	70\1 + 335'	150'	750	2.6		0.7	???	???		Possible 10-20 "C" trees on west side, midspan
To:	70\2									May need side limbed, removed, and/or chipped
TOTALS				**1097.5**	**44.7**	**33.6**	**16**		**36**	