

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: April 4, 2003

REPLY TO
ATTN OF: KEP/4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-140- SalemAlbany1)

to: Mark Newbill
Natural Resource Specialist– TFE/Chemawa

Proposed Action: Vegetation Management for the Salem Albany #1 115 kV transmission line from Salem Substation to Albany Substation.

Location: The project is located in the BPA Eugene Region, Marion, Linn, and Benton County, Oregon.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to remove unwanted vegetation along the right-of-way, access roads, switch platforms, microwave beam paths, and around tower structures of 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 Salem-Albany #1 115 kV transmission line rights-of-way for "on" right-of-way control and 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 ranging from 100 feet to 262 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 a variety of land ownerships and land uses including; agricultural, Brown's Island (Salem), Ankeny National Refuge, urban residential, City of Albany, and City of Salem. 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.

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. Site specific requirements for work around these resources, including buffers are contained in Section 3.1 of the attached checklist.

Irrigation sources, Wells, and Springs:

Several locations were identified in the project area. Site-specific requirements for working around these resources, including no herbicide applications, are contained in Section 3.2 of the attached checklist.

Threatened and Endangered Species/Essential Fish Habitat (EFH):

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.

Visually Sensitive Areas:

Several areas were identified where the project crosses roadways. Vegetation management methods and mitigation measures were specifically developed for each area. The measures are summarized in Section 3.5 of the attached checklist.

Cultural Resources:

No known 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% web oil mix. 4% Crossbow in 4% web oil emulsion/water will be used on noxious weed control. These applications will occur in late summer to early fall after farm crops have been harvested. Appropriate buffers will be used in high urban populations and close proximity to farmland. 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. In mowing areas, the mowers will cut slightly above grade. This prevents erosion and stimulates native grass.

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 Natural Resource Specialist and TLM crew. Helicopter patrols (3 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
Thomas C. McKinney
NEPA Compliance Officer

DATE: 04/17/2003

Attachment

cc:

L. Croff – KEC-4
T. McKinney – KEC-4
C. Leiter – KEP-4
J. Meyer – KEP-4
S. Barndt – KEPR-4
P. Key – LC-7
D. Hollen – TF/DOB-1
B. Tilley – TFE/Alvey
T. Jones – TFE/Alvey
K. Barber – TFEK/Chemawa
Environmental File – KEC-4
Official File – KEP-4 (EQ-14)

**Vegetation Management Checklist
for
Salem-Albany #1 115 kV**

Prepared by:
Mark Newbill
Natural Resource Specialist
TFE/Chemawa

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
Salem-Albany #1 (wood poles) Marion, Linn & Benton Co.	25 miles & 115kv	1/1-1/2	150 ft	1/1 to 24/14 (From Salem Substation to Albany Substation)
		1/2-18/1	100 ft	
		18/1-20/9	262 ft	
		21/1-23/10	100 ft	
		23/10-24/14	200 ft	

The vegetation control method used on the Right-of-Way (ROW) will be hand cutting or machine mowing in brushy areas. In Urban settings; topping, side liming, and pruning trees by climbing or bucket truck is standard residential work. Debris will be chipped and hauled off site.

The project will include Switch Platforms, Danger Trees, or Microwave Beam Paths.

1.2 Describe the vegetation needing management.

See handbook — [List of Vegetation Types](#), [Density](#), [Noxious Weeds](#) for checkboxes and requirements.

Vegetation type: Douglas-fir, Wild Cherry, Cedar, Cottonwood, Big leaf Maple, Ash, Red Alder, Pine and many varieties of Fruit and Ornamental trees

Low Density (0-50 stems per acre)

Noxious weeds: Poison oak, Blackberries, and Scotch Broom.

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.

Removing small fir trees and hardwoods allows grass and small shrubs to expand. Many areas are in private residence (backyard) will work with landowners to create win – win situation. Planting the right tree in the right place can achieve this goal. Removal of tall growing hardwoods from fencerows in rural farmland is the goal.

1.4 Describe overall management scheme/schedule.

See Handbook - [Overall Management Scheme/Schedule](#).

Initial entry – Cut and or prune trees back a safe distance from the line. Usually control occurs in late spring / summer after growth and dry weather conditions allow access. Crews will use bucket trucks or climb trees and chip all woody debris. This is an urban Forestry operation for some locations down the line. Work around wet areas, wetlands and farmland will occur after harvest in late summer/ early fall. Hand cutting or machine mowing will be used in selected locations. Chemical treatments will be limited to stump treatments (hardwoods; 25 % Garlon 4 in web oil) and noxious weed control around wood poles (4% Crossbow in 4 % web oil emulsion / water mix). Appropriate buffers will be used in high urban population and close proximity to farmland. Application will be made with backpack sprayers only.

Subsequent entries – Return every two years to trim trees as needed to maintain adequate line clearance.

Future cycles – Try to achieve a 2-4 year trimming cycle. Remove trees from problem areas and insert low growing trees that require ZERO trimming. In Rural areas try to achieve a 4-year cycle.

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.

Agricultural

Brown's Island (Salem)

Ankeny National Wildlife Refuge

Rural Residential

Urban Residential

City of Albany

City of Salem

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.

Every landowner is sent a Letter notifying them of the scope and timetable for the Project. Letters will be sent out 2 weeks prior to start date.

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](#).

None Known

Span		Landowner/use	Specific measures to be applied
To	From		
1/1	2/6	Browns Island	Hand cutting / wet area
26	3/4	Ag	Structure sites only
3/4	5/5	Rural	Hand cutting or machine mowing
5/6	5/10	Ag	Structure sites only
5/10	9/8	Rural hill side	Hand cutting \ machine mowing.
9/9	18/1	Railroad	Do Not cut x-mas trees
18/1	19/10	Ag	Hand cutting or machine mowing
19/10	23/8	Residential	Structure sites only
23/8	24/11	Ag. / Rural Lands	Urban Forestry
			Hand cutting or machine in dry season & buffer around wetland

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.

See 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.

None known

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.

None known

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
To	To							
1/1	1/2	Willamette River	Yes	Hand-cutting	Garlon 4	Stump	35 Ft	
2/5	2/6	Browns Island Slough	No	Hand-cutting	Garlon 4	Stump	35 Ft	
2/7	2/8	Wetland PEMC	No	Hand-cutting	None	NA	35 Ft	Late summer
2/8	2/9	Wetland PEMAd	No	Hand-cutting	None	NA	35 Ft	Late Summer
3/1	3/2	Wetland PEMAd	No	Hand-cutting	None	NA	35 Ft	Late Summer
3/2	3/3	Pettijohn Creek	No	Hand-cutting	Garlon 4	Stump	35 Ft	
5/3	5/4	Higgins Ck	No	Hand-cutting	Garlon 4	Stump	35 Ft	
5/10	6/1	Croisan Ck	No	Hand-cutting	Garlon 4	Stump	35 Ft	
6/10	7/1	Unnamed Creek	No	Hand-cutting	Garlon 4	Stump	35 Ft	
7/8	8/1	Battle Ck	No	Hand-cutting	Garlon 4	Stump	35 Ft	
8/7	8/8	Wetland PUBHh	No	Hand-cutting	None	NA	35 Ft	Late Summer
9/5	9/7	River Bend Resv	No	Hand-cutting	Garlon 4	Stump	35 Ft	
10/8	10/9	Unnamed Creek	Yes	Hand-cutting	Garlon 4	Stump	35 Ft	
12/7	12/8	Unnamed Creed	No	Hand-cutting	Garlon 4	Stump	35 Ft	
12/8	12/9	Bashaw Ck	No	Hand-cutting	Garlon 4	Stump	35 Ft	
13/8	13/9	Wetland PEMAd	No	Hand-cutting	None	NA	35 Ft	Late Summer
14/6	14/7	N. Santiam River	Yes	Hand-cutting	Garlon 4	Stump	35 Ft	
16/3	16/4	Crooks Creek	No	Hand-cutting	Garlon 4	Stump	35 Ft	Late summer
16/9	16/10	Wetland PEMAd	No	Hand-cutting	None	N/A	35 Ft	
18/6	18/7	Unnamed Creek	No	Hand-cutting	Garlon 4	Stump	35 Ft	
19/7	19/8	Unnamed Creek	No	Hand-cutting	Garlon 4	Stump	35 Ft	

19/10	20/1	Willamette River	Yes	Hand-cutting	Garlon 4	Stump	35 Ft	
20/9	21/1	Unnamed Creek	No	Hand-cutting	Garlon 4	Stump	35 Ft	
22/2	22/3	Thorton lake	No	Hand-cutting	Garlon 4	Stump	35 Ft	
23/8	23/9	Will. River	Yes	Hand-cutting	Garlon 4	Stump	35 Ft	Late summer
23/10	Structure	Wetland PEMA	No	Hand-cutting	None	N/A	35 Ft	Late Summer
23/11	24/1	Wetland PEMC	No	Hand-cutting	None	N/A	35 Ft	Late summer
24/2	24/3	Wetland PUBHx	No	Hand-cutting	None	N/A	35 Ft	Late summer
24/3	24/4	Wetland PUBHx	No	Hand-cutting	None	N/A	35 Ft	
24/7	24/8	Wetland PSSC	No	Hand-cutting	Garlon 4	Stump	35 Ft	Late summer
24/8	24/9	Wetland PSSC	No	Hand-cutting	None	N/A	35 Ft	
24/9	24/10	Calpooia River	Yes	Hand-cutting	Garlon 4	Stump	35 Ft	Late summer
24/13	24/14	Wetland PUBF	No	Hand-cutting	None	N/A	35 Ft	Late summer

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.

Herbicide will not be used in farmland irrigation, ditches, wells or springs.

See Table 2.3 for commercial farm locations.

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		
1/1	1/2	Anadromous Fish Runs	Listed in 3.1—Water Resources
10/8	10/9		
14/6	14/7		
19/10	20/1		
23/8	23/9		
24/9	24/10		

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

See Handbook — [Protecting Other Species](#) for requirements.

Small shrubs will be left for bird habitat

3.5 List any visually sensitive areas and the measures to be taken at these areas.

See Handbook — [Visual Sensitive Areas](#) for requirements.

The line criss-crosses City streets, County Roads, and US Highways. Trees will be topped or left if adequate clearance exists. All woody debris will be chipped back 50 feet from the blacktop.

Locations of road crossings are listed below.

Span		Describe sensitivity Road Crossing	Method/mitigation measures
To	From		
1/9	1/10	Doaks Ferry Rd	Tree topping as needed to maintain line Clearance
1/11	1/12	Eola Rd	Tree topping as needed to maintain line Clearance
2/7	2/8	Eola Rd	Tree topping as needed to maintain line Clearance
4/2	4/3	US HWY 22	Tree topping as needed to maintain line Clearance
5/1	5/2	So Pacific RR	Tree topping as needed to maintain line Clearance
5/9	5/10	Popular Rd	Tree topping as needed to maintain line Clearance
7/1	7/2	Greenwood Rd	Tree topping as needed to maintain line Clearance
8/6	8/7	Rodgers Rd	Tree topping as needed to maintain line Clearance
8/7	8/8	SO. Pacific RR	Tree topping as needed to maintain line Clearance
10/2	10/3	Hoffman Rd	Tree topping as needed to maintain line Clearance
10/13	11/1	HWY 51	Tree topping as needed to maintain line Clearance
12/5	12/6	Stapleton Street	Tree topping as needed to maintain line Clearance
13/4	13/5	Highland Rd	Tree topping as needed to maintain line Clearance
13/9	13/10	SO. Pacific RR	Tree topping as needed to maintain line Clearance
14/8	14/9	Haley Rd	Tree topping as needed to maintain line Clearance
16/8	16/9	Parker Rd	Tree topping as needed to maintain line Clearance
18/6	18/7	Suver Rd	Tree topping as needed to maintain line Clearance
21/2	21/3	SO. Pacific RR	Tree topping as needed to maintain line Clearance
21/12	21/13	Camp Adair Rd	Tree topping as needed to maintain line Clearance
22/13	22/14	Mint Ave	Tree topping as needed to maintain line Clearance
23/12	23/13	Ryals Lane	Tree topping as needed to maintain line Clearance
24/13	24/14	Independence Rd	Tree topping as needed to maintain line Clearance
26/13	27/1	HWY 20	Tree topping as needed to maintain line Clearance
28/2	28/3	Bryant drive	Tree topping as needed to maintain line Clearance
28/7	28/8	Oregon Electric RR	Tree topping as needed to maintain line Clearance

3.6 List areas with cultural resources and the measures to be taken in those areas.

See Handbook – [Cultural Resources](#) for requirements.

None Known

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

Hand cutting will be used on every slope >10 %.

Span		Describe sensitivity	Method/mitigation measures
To	From		
4/2	4/3	Slope >10 %	Hand cutting
5/4	5/5	Slope >10%	Hand cutting
8/5	8/7	Slope >10 %	Hand cutting
19/10	20/2	Slope >10 %	Hand cutting

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

See Handbook – [Spanned Canyons](#) for requirements.

N/A

4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — [Methods](#)

4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — [Manual](#), [Mechanical](#), [Biological](#), and [Herbicides](#) for requirements for each of the methods.

The project area is a combination of urban forestry and rural brushy / wet areas around corners of Agricultural land. Tree topping / pruning by manual method will be used in the Urban. Hand cutting and Mechanical (machine mowers) will be used on Rural, Railroads, and Ag crops during the late summer months due to wet soil conditions.

In areas with stump treatment a 25 % Garlon 4 in Web Oil will be used to treat resprouting hardwoods. Primary targets are Cottonwood, Wild Cherry, and Ash, Big leaf Maple and Red Alder species. Herbicide will not be used on rainy days or around water bodies including farmlands. Crossbow 4 % in water will be used on noxious weed control. This will occur in the late summer / early fall after farm crops have been harvested.

No Biological will be used.

Methods, including herbicide active ingredient, trade name, application technique
Select Cut = Cut, lop, and scatter Low Cut= machine mowing or extensive chainsaw cutting Access roads = 25 width X 15 height (mowing and extended saw cutting) Chipping = woody debris is run through a commercial chipper - prevent fire hazard Side-Limb = removing encroaching limbs from otherwise stable trees Wood poles = cutting brush flat in a 30 ft radius for TLM maintenance requirements Stump treatment= backpack application w / 25 % Garlon 4 / 75 % web oil mixture to be applied to hardwood species. Backpack Foliar spray= sprays leaves and stems from targeted sprouting species and noxious weeds. The chemical is a 4 % Crossbow / water mix .

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.

For urban forestry and road crossings, all woody debris will be chipped. Standard cut, lop, and scatter in other rural areas. Machine mowing will mulch all woody debris. All methods reduce fire hazards.

5.2 List areas of reseeded or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — [Reseeding/replanting](#) for requirements.

None planned. Open sunlight and naturally disturbed areas enhance native grasses to flourish. Sufficient native plants already exist. In mowing areas, the mowers cut slightly above grade. This prevents erosion and stimulates existing grass. Seeding is not needed.

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.

NRS will be on site 1 day per week during the project. After 2 months, NRS will make a site visit to evaluate control and plan follow-up treatments.

TLM makes annual ground patrol. BPA helicopters patrol 3 times a year.

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

If mitigation was put in place, on site visit will be conducted to monitor. Otherwise no mitigation is expected.

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, Project is consistent with EIS.

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

None