

United States Government

Department of Energy  
Bonneville Power Administration

# memorandum

DATE: March 23, 2005

REPLY TO  
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS  
(DOE/EIS-0285/SA-247) Santiam Toledo #1 Project #: **V-E-04/06**

TO: Mark Newbill  
Natural Resource Specialist - TFE/CHEMAWA

**Proposed Action:** The project activities will be conducted along the Right-of-Way (ROW) of the 230 kV Santima-Toledo #1 transmission line corridor between towers 6/2 to 66/2. This corridor also includes the Albany-Burnt Woods 115 kV line, which generally runs parallel to the Santiam-Toledo line for about 22 miles (structures 6\1 to 26\5). The corridor along this section of the proposed project ranges from 100 to 225 feet in width and crosses approximately 60 miles of terrain through rural residential, City of Albany, City of Corvallis, industrial & State forestlands and private farmland.

**Location:** The proposed project is located in Linn, Benton and Lincoln Counties, Oregon, in the BPA Eugene Region.

**Proposed by:** Bonneville Power Administration (BPA).

**Description of the Proposal:** BPA proposes to conduct vegetation management activities along its Santiam-Toledo transmission line corridor, which includes the Albany-Burnt Woods line. Vegetation management activities will address tall vegetation, overgrown access routes, danger trees, and noxious weeds within the ROW and contiguous access roads. BPA's overall goal is to have low-growing plant communities along the rights-of-way to control the development of potentially threatening vegetation. Specifically, vegetation management will involve the following actions:

- Clearing (mowing, cutting, and spraying) vegetation at 28 tower sites.
- Selective cutting (cutting, lopping and scattering) of vegetation at 391.2 acres of ROW.
- Clearing (mowing, cutting, and spraying) access roads in or adjacent to ROW.
- Felling identified danger trees along margins of the easement.
- Treating (spraying) noxious weeds at an undefined number of tower sites.
- Applying low volumes of foliar herbicide 6–12 months after initial application to control resprouting plants and noxious weeds, and possible application two years after initial application to maintain accessibility to access roads and tower sites, and attempt to achieve a 5-year vegetation control cycle.

**Analysis:** A Vegetation Management Checklist was completed for this project in accordance with the requirements identified in the Bonneville Power Administration's Transmission System Vegetation Management Program FEIS (DOE/EIS-0285).

Section 3 of the checklist identifies the natural resources present in the area of the proposed work. The following summarizes natural resources occurring in the project area along with applicable mitigation measures.

**Water Resources:** Waterbodies (streams, rivers, lakes, wetlands) occurring in the project area are listed in section 3.1 of the Vegetation Management Checklist. Trees in riparian zones will be selectively cut to include only those that will grow into the minimum approach distances of the conductor at maximum sag. Shrubs will not be cut that are less than 10 feet high where ground to conductor clearance allows. No ground disturbing vegetation management methods will be implemented thus eliminating the risk for soil erosion and sedimentation near the streams. Adjacent to water resources only spot (cut-stump) and localized chemical treatments using practically non-toxic triclopyr (TEA) will be used.

No drinking water, irrigation wells, or water supplies were identified along the rights of way for this project.

**Threatened and Endangered Species:** Pursuant to its obligations under the Endangered Species Act, BPA has made a determination of whether the proposed project will have an effect on any listed species. A species list was obtained from the United States Fish and Wildlife Service (USFWS) on January 7, 2004 for threatened and endangered species potentially occurring in the project area. The list was confirmed as still current in January 2005. In addition, a review of species under the jurisdiction of NOAA Fisheries was conducted. A determination of No Effect was made for all ESA listed species and designated critical habitat for the project.

**Essential Fish Habitat:** A review of NOAA database identified an Essential Fish Habitat (EFH) stream occurring in the project area. Measures identified for water resources will be followed for EFH. A determination was made that this project will not adversely affect essential fish habitat.

**Cultural Resources:** No cultural resources are known for the project area. If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the BPA Environmental Specialist, and the BPA archeologist will be contacted.

**Re-Vegetation:** Native grasses are present on the entire right-of-way and are expected to seed into the areas that will have lightly disturbed soil predominately located on the right-of-way roads.

**Monitoring:** The entire project will be inspected during the work period. Additionally, monitoring for the follow-up herbicide treatment will be in the fall of 2005.

**Findings:** This Supplement Analysis finds that (1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; (2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. This Supplement Analysis also finds the proposed actions will not affect threatened or endangered species. Therefore, no further NEPA documentation is required.

/s/ James R. Meyer for  
 Brett M. Sherer  
 Environmental Engineer

CONCUR: /s/ Thomas C. McKinney                      DATE: 3/30/2005  
 Thomas C. McKinney  
 NEPA Compliance Officer

Attachments:  
 Santiam Toledo #1 05 Vegetation Management Checklist  
 USFWS Species List Reference # 1-7-04-SP-0089  
 Effects Determination

cc:  
 L. Croff – KEC-4  
 T. McKinney – KEC-4  
 J. Meyer – KEP-4  
 J. Sharpe – KEPR-4  
 H. Adams – LC-7  
 J. Hilliard Creecy – T-DITT2  
 K. Barber – TFEK/CHEMAWA  
 J. Domschot – TFE/ALVEY  
 A. Sundberg – TFE/ALVEY  
 Environmental File – KEC-4  
 Official File – KEP (EQ-14)

# **Vegetation Management Checklist**

**Santiam-Toledo #1**

**Project #: V-E-04/06**

Eugene Region  
Mark A. Newbill, NRS  
Santiam-Toledo Project

# 1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

## 1.1 Describe Right-of-way.

The vegetation control method used on the Right-of-Way (ROW) will be hand cutting and machine mowing.

The project will include: Access roads, tower sites, switch platforms, danger trees, and microwave beam paths.

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Santiam-Toledo	60 miles and 230 Kv	125 feet	6/2 to 66/2
Includes the Albany-Burnt Woods line	27 miles and 115 Kv	100 feet	6\1 to 26\5
Linn, Benton, & Lincoln Co.			

## 1.2 Describe the vegetation needing management.

**Vegetation type:** Douglas-fir, Hemlock, Cedar, Big Leaf Maple, Red Alder, Cottonwood, Wild Cherry, Oak, and Ash.

Med. Density (50-250 stems per acre)

**Noxious weeds:** Blackberries, Poison oak, 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.

Removing small fir trees and hardwoods allows grass and small shrubs to expand. They shade out the undesirables and thus promote the LGPC. Removal of tall growing hardwoods from fencerows and edges of fields in rural farmland is another goal.

Areas in private or rural residence (backyard) we will work with landowners to create win – win tree situation. Planting the “right tree” in the “right place” can achieve this goal.

In forestry settings, removing noxious weeds from expanding is consistent with 2002 farm bill and Oregon Dept. of Agriculture policies. Removing small conifers and hardwoods allows the establishment for other small growing plants to get established. Once the low growing plant communities (LGPC) get established, they help reduce the number of invasive weeds and trees while improving wildlife habitat.

## 1.4 Describe overall management scheme/schedule.

**Initial entry** – In farmland, hand cutting and machine mowers will be used to control brush (edges of fields / fence rows) and blackberries around the tower sites. Use of Garlon 4 / web oil in a 25 % mixture will be applied as a stump treatment for hardwood species. In forested areas (Private and State Lands), hand cutting and machines will be used to clear tall growing tree species and unwanted brush / scotch broom. Project will begin in the late winter – early spring to avoid problems with endangered species.

**Subsequent entries** – Return 6 months (following late summer / fall) to apply a foliar herbicide treatment. Use Garlon 3A and Escort (2 % in water mix) to broadcast spray over machine mowed

areas. Backpack spray any individual target species (trees or noxious weeds) in hand cutting areas, fencerows, and around gates. Herbicide buffers will be followed around water sources (see table 3.1) and the project detail sheet.

**Future cycles** – Try to achieve a 5-year vegetation control cycle.

## **2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS**

### **2.1 List the types of landowners and land uses along your corridor.**

Rural Residential

City of Albany

City of Corvallis

Private Farmland

Private Timber land

Oregon State Forest Land

McDonald State Forest, Oregon State University

### **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.**

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.**

None Known

### **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 Above Table

### **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.**

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.**

None known

### 3. IDENTIFY 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 Detailed Species Determination Attached.

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer
To	From						
17\4	17\3	North Santiam River	Yes	HCO	None	DNA	50 ft
19\4	19\3	North Santiam River	Yes	HCO	None	DNA	50 ft
22\4	22\3	Drocks Ck	No	HCO	None	DNA	35 ft
25\2	25\1	Willamette River	Yes	HCO	None	DNA	100 ft
29\7	29\6	Unnamed ck 122+10	No	HCO	N/A	DNA	35 ft
29\9	29\8	Unnamed Ck 134+00	No	HCO	N/A	DNA	35 ft
30\2	30\1	Unnamed Ck 147+87	No	HCO	N/A	DNA	35 ft
30\5	30\4	Unnamed Ck 167+84	No	HCO	N/A	DNA	35 ft
30\6	30\5	Unnamed Ck 171+54	No	HCO	N/A	DNA	35 ft
30\8	30\7	Unnamed Ck 180+57 & 185+42	No	HCO	N/A	DNA	35 ft
31\3	31\4	Unnamed Ck 272+10	No	HCO	N/A	DNA	35 ft
32\5	32\6	Mt. View Ck 333+90/ 333+30	No	HCO	N/A	DNA	35 ft
33\7	33\8	Frazier Ck 403+81	No	HCO	N/A	DNA	35 ft
34\6	34\7	Jackson Ck 452+68	No	HCO	N/A	DNA	35 ft
34\9	35\1	Unnamed ck 474+13	No	HCO	N/A	DNA	35 ft
35\6	35\7	Unnamed Ck 503+35	No	HCO	N/A	DNA	35 ft
35\9	36\1	Unnamed Ck 523+88	No	HCO	N/A	DNA	35 ft
36\1	36\2	Unnamed CK 534+45	No	HCO	N/A	DNA	35 ft

36\3	36\4	Wetland	No	HCO	N/A	DNA	50 ft
36\4	36\5	Unnamed Ck 550+35	No	HCO	N/A	DNA	35 ft
36\6	36\7	Unnamed Ck 559+76 & 561+70	No	HCO	N/A	DNA	35 ft
36\8	37\1	Unnamed Ck 572+52	No	HCO	N/A	DNA	35 ft

<b>Span</b>		<b>Waterbody</b>	<b>T&amp;E?</b>	<b>Method</b>	<b>Herbicide</b>	<b>Application Technique</b>	<b>Buffer</b>
<b>To</b>	<b>From</b>						
38\6	38\7	Unnamed Ck 656+39	No	HCO	N/A	DNA	35 ft
38\7	38\8	Skunk Ck 663+38	No	HCO	N/A	DNA	35 ft
39\5	39\6	Unnamed Ck 704+68	No	HCO	N/A	DNA	35 ft
40\6	40\7	Mary's River 765+06	Yes	HCO	N/A	DNA	35 ft
41\3	41\4	Blakesley Ck 802+00	No	HCO	N/A	DNA	35 ft
42\9	43\1	Mary's River 889+52	Yes	HCO	N/A	DNA	35 ft
44\5	44\6	Unnamed Ck 973+60	No	HCO	N/A	DNA	35 ft
44\8	44\9	Unnamed Ck 982+75	No	HCO	N/A	DNA	35 ft
44\9	45\1	Unnamed Ck 994+20	No	HCO	N/A	DNA	35 ft
45\3	45\4	Unnamed CK 1008+16	No	HCO	N/A	DNA	35 ft
45\10	46\1	Unnamed Ck 1050+25	No	HCO	N/A	DNA	35 ft
46\3	46\4	Mary's River	Yes	HCO	N/A	DNA	35 ft
46\9	47\1	Tum Tum Ck 1096+46	No	HCO	N/A	DNA	35 ft
47\1	47\2	Tum Tum Ck 1103+25	No	HCO	N/A	DNA	35 ft
47\4	47\5	Scheele Ck 1122+33	No	HCO	N/A	DNA	35 ft
47\6	47\7	Tum Tum Ck 1130+18 1134+94	No	HCO	N/A	DNA	35 ft
47\7	47\8	POND 1137+40	No	HCO	N/A	DNA	35 ft

48\4	48\5	Tum Tum CK 1183+50	No	HCO	N/A	DNA	35 ft
49\5	49\6	Unnamed Ck 1251+46	No	HCO	N/A	DNA	35 ft
50\1	50\2	Tum Tum Ck 1273+65	No	HCO	N/A	DNA	35 ft
50\3	50\4	Unnamed Ck 1301+00	No	HCO	N/A	DNA	35 ft
50\4	51\1	Hymes Ck 1312+08	No	HCO	N/A	DNA	35 ft
52\1	52\2	Unnamed Ck 1365+90	No	HCO	N/A	DNA	35 ft
52\2	52\3	Unnamed Ck 1380+55	No	HCO	N/A	DNA	35 ft
52\5	53\1	Tum Tum Ck 1421+08	No	HCO	N/A	DNA	35 ft
53\1	53\2	Tum Tum Ck 1425+80 1432+61	No	HCO	N/A	DNA	35 ft
53\2	53\3	Unnamed CK 1436+95 1447+45	No	HCO	N/A	DNA	35 ft
53\4	53\5	SWAMP	No	HCO	N/A	DNA	35 ft
55\3	56\1	Unnamed Ck 1626+25	No	HCO	N/A	DNA	35 ft
56\4	56\5	Unnamed Ck 1663+25	No	HCO	N/A	DNA	35 ft
57\2	57\3	Unnamed Ck 1691+57	No	HCO	N/A	DNA	35 ft
57\3	57\4	Unnamed Ck 1706+44	No	HCO	N/A	DNA	35 ft
57\4	58\1	Little Elk Ck 1725+00	Yes	HCO	N/A	DNA	35 ft
58\5	59\1	Unnamed Ck 1784+48	No	HCO	N/A	DNA	35 ft
59\1	59\2	Unnamed Ck 1801+ 03	No	HCO	N/A	DNA	35 ft
59\2	59\3	Unnamed Ck 1808+58	No	HCO	N/A	DNA	35 ft
60\1	60\2	Unnamed Ck 1855+79	No	HCO	N/A	DNA	35 ft
60\2	60\3	Unnamed Ck 1862+37	No	HCO	N/A	DNA	35 ft
60\3	60\4	Unnamed Ck 1869+53 1873+92 1876+66	No	HCO	N/A	DNA	35 ft

61\1	61\2	Unnamed Ck 1898+30	No	HCO	N/A	DNA	35 ft
62\1	62\2	Unnamed Ck 1961+81	No	HCO	N/A	DNA	35 ft
62\2	62\3	Unnamed Ck 1974+40 1978+00 1980+33 1982+32	No	HCO	N/A	DNA	35 ft
62\3	63\1	Unnamed Ck 1993+87 2001+04	No	HCO	N/A	DNA	35 ft
63\6	63\7	Unnamed Ck 2053+97	No	HCO	N/A	DNA	35 ft
64\2	64\3	Big Elk Ck 2103+67	Yes	HCO	N/A	DNA	50 ft
64\3	65\1	Big Elk Ck 2122+23	Yes	HCO	N/A	DNA	50 ft
65\1	65\2	Big Elk Ck 2137+05	Yes	HCO	N/A	DNA	50 ft
65\2	65\3	Yaquina River 2154+26	Yes	HCO	N/A	DNA	100 ft
66\1	66\2	Yaquina River 2191+01	Yes	HCO	N/A	DNA	100 ft

**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).**

Herbicides will not be used within 200 feet of any irrigation, wells or springs

**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.**

Span		T&E Species	Method/mitigation or avoidance measures
To	From		
		Marbled murrelette	Project period is in the non-breeding season and this will avoid disturbance. See Detailed Species Determination attached.
		Spotted owl	Project period is in the non-breeding season and this will avoid disturbance. See Detailed Species Determination attached.

17\3	17\4	Anadromous Fish	Buffers will be used. See table 3.1 See CH2M Hill Effects Determination for Project
19\3	19\4		
25\1	25\2		
64\2	64\3		
64\3	65\1		
65\1	65\2		
65\2	65\3		
66\1	66\2		

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

Small shrubs and vine maple will be left for bird habitat

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

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	Method/mitigation measures
To	From		
8\14	9\1	Rahn Hill Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
10\1	10\2	Brock Dr	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
10\3	10\4	Leffler Grand Dr	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
11\4	11\5	Miller's Cemetary Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
12\2	12\3	So Pacific RR	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
16\2	16\3	Kelly Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
21\3	21\4	I-5; So. PAC RR; HWY 99 to Millersburg	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
23\1	23\2	Burlington Northern RR	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
27\1	27\2	Scenic Dr	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
27\5	27\6	Metge Lane off Palistine Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
32\8	32\9	NW Lewisburg Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
34\3	34\4	NW Cresent valley Dr	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
42\4	42\5	Wren Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.

42\7	42\8	US HWY 20	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.
51\3	51\4	Clem Rd	Top / trim trees as needed. Chip and clean-up debris from each of these road crossings.

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

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.**

The project area has both flat grass farmland and rolling hills ( 1 to 24 mile). Then rural residential (25-34), followed by Forest / Timber Land from 34 to 51 miles, and the last section from 51-66 mile is over the Oregon coast mountain range. The towers are often built from ridge to ridge and the landings are flat (created at the time of construction). Much of the ROW from mile 51-66 has terrain over 10 % slope. These areas will be Hand Cut to minimize any potential erosion.

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

During the last vegetation cycle many large trees encroaching the catenary (conductor) were removed from every canyon span. We have no plans to remove any more trees from canyons at this time or even the next 2 subsequent cycles. We have maintained a least a 50'- foot clearance with past efforts.

**4. DETERMINE VEGETATION CONTROL METHODS**

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

Attached is a contract detail sheet with specific span- by- span prescription and analysis as to what will be accomplished (see attachment).

**5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

**5.1 Describe the debris disposal methods to be used and any special considerations.**

All limbs and woody debris generated from manual cutting will be chipped and hauled away from any sensitive site. That includes all street, road, highway, and railway crossings. In non-sensitive sites (forest land), standard cut, lop, and scatter methods will be used when hand cutting. Machine mowing mulches and grinds woody debris into small pieces.

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

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**

**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 6 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**

**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