

United States Government

Department of Energy  
Bonneville Power Administration

# memorandum

DATE: September 5, 2002

REPLY TO  
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS  
(DOE/EIS-0285/SA 108, Satsop-Aberdeen #2.

TO: James A. Jellison – TFO/Olympia

**Proposed Action:** Vegetation Management along the Satsop-Aberdeen #2 230kV transmission line corridor from structure 1/1 through structure 11/5 (reference line). Other lines which are present in the proposed corridor are the Satsop-Aberdeen #3 230 kV, South Elma-Cosmopolis 115kV, and Aberdeen tap to South Elma-Cosmopolis 115kV. Right of way width averages 238 feet.

**Location:** The project area is located in Grays Harbor County, Washington.

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

**Description of the Proposal:** BPA proposes to remove unwanted vegetation along the right-of-way, access roads and around tower structures along the subject transmission line corridors. Approximately 11 miles of right-of-way will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Approximately 0.8 miles of access roads will be cleared using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Tower sites will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Vegetation management is required for unimpeded operation and maintenance of the subject transmission line. See Section 1 of the attached checklist for a complete description of the proposal.

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

## **Planning Steps:**

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

Unwanted vegetation, reclaim trees and danger trees will be removed and/or controlled using selective and nonselective methods that will include hand cutting, mowing, and herbicidal treatment. All methods of herbicide treatment will be used (except aerial) dependent on site conditions/restrictions. This proposal covers approximately 324 acres of land between towers 1/1 through 11/5 on the Satsop-Aberdeen #2 230kV line (corridor reference line). The entire width of the corridor needs to be managed.

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

The subject corridor traverses private, and public lands in Garys Harbor County, used for residential, rural residential, farming and grazing purposes. No other federal and no tribal lands are involved.

Landowners requiring notification or under tree and brush agreements are shown in Section 2.3 and 2.4 of the attached checklists. 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:** Includes all wetlands, streams, and creeks meeting the definition of riparian habitat. Several areas were identified. See Section 3.1 of the checklists for a complete listing.

### **Riparian Habitat Mitigation:**

- County or private lands, within 30.5 m (100 ft.) of a stream or open water. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. On slopes less than 20% there will be no disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no disturbance within the buffer.
- Within 50 ft. to edge of surface water only cut-stump and localized or spot chemical treatments using practically non-toxic to slightly toxic formulations of glyphosate, triclopyr (TEA) formulation, imazapyr, and metsulfuron-methyl (Escort). Moderately toxic to very highly toxic herbicides (to aquatic species) or those herbicides containing a groundwater or surface water label advisory will not be used in this zone. Triclopyr (Garlon 4) may be used only more than 100 ft. from streams or water.

### **Drinking Water Supply:**

One well was identified 1050 feet from structure 5/4 on the Satsop-Aberdeen #2 line corridor. See section 3.2 for a complete description.

### **Drinking Water Supply Mitigation:**

- Drinking water wells: No chemical application of a herbicides containing a groundwater or surface water label advisory within a 164-foot radius any water wells. Garlon 3A may be used up to a 50 foot radius of the drinking water supply. Garlon 3A will not be used within 100 feet of the drinking water well.

**T & E Species:**

Reviews of BPA database show Endangered Bull Trout are present in the Chehalis River. No herbicides will be applied within 100 feet of the waters edge. Spot spraying of non-toxic to practically non-toxic herbicides may be applied 100-200 feet from the waters edge. No other T & E species were found to be present in the project area.

**4. *Determine vegetation control and debris disposal methods.***

Vegetation will be removed using manual, mechanical, and chemical methods. Debris will be disposed onsite using either chip, lop and scatter, or mulch techniques as described in Section 5 of the attached checklists.

**5. *Determine re-vegetation methods, if necessary.***

Native grasses and low growing species are present in the areas of the right-of-way that will be managed. These populations will seed into the areas that will have lightly disturbed soil predominately located on the right-of-way roads. BPA expects 2-3 vehicles of the brush contractor and 1 contract inspector's vehicle will be present on the site. A brush machine will mulch the structure sites and right-of-way roads where Scotch Broom and blackberries are present.

Re-vegetation needs will be determined onsite. Any areas identified with limited ground cover will be replanted with native plant species.

**6. *Determine monitoring needs.***

The entire project will be inspected during the work period, and, the line will be patrolled annually after treatment to monitor the effectiveness of the treatment measures. Environmental monitoring to ensure sound application practices will be determined in the future as outlined in the BPA/NMFS/USFWS Biological Assessment currently being prepared.

**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. This Supplement Analysis also finds the proposed actions will not affect threatened or endangered species. Therefore, no further NEPA or ESA documentation is required.

/s/ Greg P. Tippetts

Greg P. Tippetts

Physical Scientist (Environmental)

CONCUR /s/ Thomas C. McKinney

Thomas C. McKinney

NEPA Compliance Officer

DATE: 09/17/2002

Attachment

cc:

L. Croff – KEC-4

T. McKinney – KEC-4

P. Key – LC-7

M. Hermeston – KEP-4

J. Meyer – KEP-4

J. Sharpe – KEPR-4

M. Johnson – TF/DOB-1

O. Albro – TFO/Olympia

D. Krauss – TFO/Olympia

G. Westling – TFOF/Olympia

Environmental File – KEC-4

Official File – KEP-4 (EQ-14)

Gtippetts:gt:4722:9/6/2002 (KEP-KEPR-4-W:\EP\2002 FILES\EQ\EQ-14\FEIS-0285-SA-108-Satsop-Aberdeen.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
Satsop-Aberdeen No. 1 ADNO 8325	11 mi., 2-230 & 2- 115Kv	237.5	11 mi.

#### **Right Of Way:**

##### **Right-of-Way** – clearing in right-of-way

A combination of mulching the easement because of the Scotch broom and the cut, lop and scatter of tall growing species will be utilized to treat hazardous vegetation and this will be followed up with an herbicide treatment.

##### **Transmission Structures** – clearing around

All structures will be cut to 35 feet from the center of the pole and from the legs of the steel towers; the stumps will be treated with herbicide.

##### **Access Road clearing** - approximate miles – 0.8 miles

All access roads will mulched due to the encroachment of Scotch broom and stubble treat the stumps.

##### **Reclaim (“C”) Trees**

1 span, 7/1 to 7/2, has been identified where reclaiming the edges of the right-of-way is essential.

##### **Danger Trees**

No DT's have been identified to be cut on this corridor.

### 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**

**Cottonwood**

**Wild Cherry**

**Noxious Weeds - Scotch Broom**

**Blackberries**

**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.

Cut stump or follow-up herbicide treatments on sprouting-types 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.

**1.4 Describe overall management scheme/schedule.**

See Handbook - Overall Management Scheme/Schedule.

**Initial entry** – All tall growing vegetation will be cut and chemically treat the stumps to prevent grow-in trees. Access, right-of-way roads and structure sites are to be cut and treated.

**Subsequent entries** – A follow-up chemical treatment to begin in the spring of 2003.

**Future cycles** – Every 3-4 years, a maintenance contract will be necessary to treat sprouts. The use of herbicides on the initial and subsequent cycles should reduce the quantity and cost of work.

**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.

Landowners/Managers/Uses:

Resident Rural Property Owners

Timber Managed Lands

Northwest Energy

Satsop Development Park

**2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., door hanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.**

See Handbook — Methods for Notification and Requesting Information for requirements.

Olympia will send letters to the property owners about 2 weeks prior to cutting the brush. Door to door contact will be made where it is warranted.

**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.

NA

**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.

N/A

**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.

**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.

I have contacted the Chehalis tribe near Rochester, Washington. They are not aware of any cultural sites.



### 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		Water body	T&E	Method	Herbicide	Application Technique	Buffer	Other
From	To							
2/1+ 315	385	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
4/1+ 350	1363	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
4/2+ 550	800	No name creek/Pond	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
4/4+ 575	645	Elizabeth Creek	No	Skip				
5/1+ 400	470	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
5/2+ 250	425	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
5/2+ 1015	1175	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
5/3+ 850	1150	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
5/4+ 600	700	No name creek	No	Skip	Garlon 3A	Spot	Waters edge	Selective Cutting
6/2+ 1000	1070	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
6/3+ 215	285	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
6/3+ 550	620	No name creek	No	Skip	Garlon 3A	Spot	Waters edge	Selective Cutting

7/1+ 100	500	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
7/1+ 350	650	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
7/1+ 600	670	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
8/4+ 1400	1900	Chehalis River	Yes	Skip	Garlon 3A	Spot	100' buffer	Selective Cutting
10/1+ 1298	1368	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
11/3+300	400	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting
11/3+950	1250	No name creek	No	Cut Stump	Garlon 3A	Spot	Waters edge	Selective Cutting

**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				
5/4+ 1050	5/5	Water Supply	Garlon 3A	150'	100' 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
From	To		
8/4+ 1400	1900	Bull Trout	Maintain a buffer of 100'. No herbicide w/in 100' of water edge. Spot spray 100-200' away from waters edge w/non to practically non-toxic herbicide.

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

See Handbook — Protecting Other Species for requirements.

NA

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

See Handbook — Visual Sensitive Areas for requirements.

NA

**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
From	To		
1/1	11/5	Cultural Sites	Chehalis tribe does not know of any cultural sites on this transmission corridor. If site is discovered during the course of vegetation control, work will be stopped in the vicinity and the local tribe will be contacted as well as the BPA Environmental Specialist.

**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.

NA

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

See Handbook – Spanned Canyons for requirements.

NA

#### 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.

Span		Methods, including herbicide active ingredient, trade name, application technique
To	From	
1/1	11/5	For non-sensitive areas (spans) cut stump/basal treatment with 25% Garlon 4 and 75% Forest Crop Oil (FCO). 50/50 Accord or Garlon 3A/Water for stump treatment in the riparian zones; Stubble treat structure sites and the right-of-way roads with 90% Water, 6% FCO, 3% Garlon 4 and 1% Tordon 22 K. Follow-up treatment—foliar application of the above chemicals as noted under stubble treatment, except FCO. Foliar treat Scotch broom.

#### 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.

###### **Debris Disposal:**

**Chip** (Mechanical brush disposal unit cuts brush into chips 4 in. or less in diameter, and spread over ROW, piled on ROW, or trucked off site. Trunks too large for the chipper are limbed and the limbs chipped. Trunks are placed in rows along the edge of the right-of-way or scattered, as the situation requires.)

**Lop and Scatter** (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)

**Mulch** (Mulching is a debris treatment that falls between chipping and lop-and-scatter. The debris is cut into 1-to-2-ft. lengths, scattered on the right-of-way and left to decompose. This method is used when terrain and conditions do not allow the use of mechanical chipping equipment.)

**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			
		N/A		

Native grasses are present on the entire right-of-way that will seed into the areas that will have lightly disturbed soil predominately located on the right-of-way roads. BPA expects 2-3 vehicles of the brush contractor and 1 contract inspector’s vehicle will be present on the site. A brush machine will mulch the structure sites and right-of-way roads where Scotch Broom and Black Berries are present.

**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.**

Monitoring of the success of the brush-cutting program will begin the spring in which evaluation of soil erosion as a result of the brush-cutting program will be made. If grass seeding is necessary, native grass seed will be applied.

**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.**

Monitoring of the effectiveness of the herbicide treatment will begin in the spring and follow up treatment of cut stump/basal or foliar treatment of target vegetation. The mixture of the product is 25% Garlon 4 and 75% FCO or 90% water, 3% Garlon 4 with Depo-RTU drift retardant. There is virtually no drift that occurs with this mixture.

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

Annually patrol the transmission line by the line crew and the Natural Resource Specialist will periodically monitor the right-of-way for effective mitigation measures.

**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”.**

All proposed brush cutting and chemical treatment activities on this corridor is noted in the EIS.

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

No