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United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: August 27, 2003

REPLY TO ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-176 The Dalles-Chenoweth & Chenoweth-Harvey)

TO: Elizabeth Johnson
Natural Resource Specialist - TFN/The Dalles

Proposed Action: Vegetation Management for The Dalles-Chenoweth & Chenoweth-Harvey 115 kV transmission lines.

Location: Project location is in BPA Redmond Region in Wasco County, Washington.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to clear targeted vegetation within the Right-of-Way, along access roads and around towers that may impede the operation and maintenance of the subject transmission lines. See Section 1.4 of the attached checklists for a complete description of the proposed action.

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 Dalles-Chenoweth & Chenoweth-Harvey 115 kV transmission lines. The project area includes the BPA right-of-way along the entire length of The Dalles-Chenoweth line and along the Chenoweth-Harvey line from towers 1/1 to 1/4, both running parallel to each other for a total length of approximately 2 miles. Easement widths vary from 100 to 400 feet along the ROW. The ROW is located in Wasco County, Washington in the BPA Redmond Region.

Tall growing vegetation of the types listed in Section 1.2 of the attached checklist are present in the ROW and will soon pose a hazard to the lines. Project involves clearing tall growing vegetation and treatment of the associated stumps and re-spouts with approved herbicides 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.

Cut-stump or follow-up spot herbicide treatments on species that re-sprout will be carried out to ensure that the roots are killed (follow-up treatment may take place during the next growing season). Herbicides will not be applied using high volume methods to ensure that non-target

species are not treated. This vegetation management program is designed to provide a 6-year maintenance free interval after the follow-up treatment.

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

The project area consists of industrial lands owned by Northwest Aluminum and the Port of The Dalles.

Landowners were contacted and notified of the proposed work along the ROW. Northwest Aluminum requested advanced notification prior to commencing work, that all slash be chipped, and that contractors check in with the guards during entry and exit. The Port of The Dalles had no major concerns regarding the proposed work.

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 cites resources found along with applicable mitigation measures:

Riparian Habitat:

Includes all wetlands, streams, creeks and ponds meeting the definition of riparian habitat. Riparian areas were identified which may include essential fish habitat. See Section 3.1 of the attached checklist for a complete listing of identified water resources.

Riparian Habitat Mitigation:

- Spot treat with approved practically non-toxic to slightly toxic herbicide up to waters edge of wetlands.
- No mechanical equipment will be used within 35 feet of wetlands.
- On slopes less than 20% no ground disturbing mechanical equipment will be used within 35 feet of the stream or wetland. On slopes greater than 20% no ground disturbing mechanical equipment will be used within the buffer.

T & E Species:

Section 3.3 of the attached checklist presents any Threatened or Endangered Species identified in the area of the proposed work. The ROW crosses streams containing bull trout, listed anadromous fish and/or their essential habitat. By following the mitigation measures listed below, the proposed work will have no effect on listed anadromous fish or their essential habitat.

T & E Species Mitigation:

- No herbicides will be used within a 200-foot buffer of the waters edge on both sides.
- On slopes less than 20%, there will be no disturbance within 35 feet of the stream or water source. On slop greater than 20%, there will be no disturbance within the buffer.
- Trees inside the buffer will only be cut if within 50 feet of transmission lines.

Cultural Resources: There are no known Cultural Resources within the project area. If a 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.

4. Determine vegetation control and debris disposal methods.

Treatment of project area will consist of mowing access roads & structures and selected areas with tall growing vegetation. Handcutting will be performed in all other areas of ROW vegetation control. Garlon 4 or 3A will be mixed with forest crop oil and spot sprayed on all stumps within 15 minutes of cutting except in riparian areas. Only aquatic formulations of glyphosate will be spot sprayed in riparian areas on tall growing tree stumps once cut. A foliar application of Garlon 3A or 4 will be used on noxious weeds. All herbicides will be mixed and applied according to label.

5. Determine revegetation methods, if necessary.

No ground disturbance or exposed soil is expected during the duration of this project. However, if soil disturbance occurs during the project, the area will be reseeded.

6. Determine monitoring needs.

The project area will be inspected during treatment. In addition, it will be reviewed during routine patrols by the line crew and within one year by the NRS.

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 have no effect on threatened or endangered species. Therefore, no further NEPA or ESA documentation is required.

/s/ Aaron Shurtliff
Aaron Shurtliff
Physical Scientist

CONCUR: */s/ Thomas C.McKinney* DATE: 08/28/2003
Thomas C. McKinney
NEPA Compliance Officer

Attachment

cc:
L. Croff - KEC-4
T. McKinney - KEC-4
J. Meyer - KEP-4
F. Walasavage – KEP/Celilo
J. Sharpe - KEPR-4
P. Key - LC-7
J. Hilliard Creecy - T-DITT2
D. Hollen - TF/DOB-1
R. Melzer – TFR/Redmond
R. Fouse Jr. – TFR/Redmond
W. Banker – TFRK/The Dalles
Environmental File – KEC-4
Official File – KEP (EQ-14)

Ashurtliff:as:5376:8/28/2003 (KEP-KEPR-4-W:\EP\2002 & 2003 FILES\EQ\EQ-14\FEIS-0285-SA-176-The Dalles-Chenoweth-Harvey.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
The Dalles-Chenoweth Chenoweth-Harvey	2 miles/115kV 1 mile/115 kV	100-400’	Approx. 2

Right-of-Way – clearing in right-of-way – approx. 50 acs.
Transmission Structures – clearing around each one.
Access Road clearing - approximate miles – 1 mile

1.2 Describe the vegetation needing management.

See handbook — **List of Vegetation Types**, **Density**, **Noxious Weeds** for checkboxes and requirements.

Russian olive, choke cherry, willow poplars, locust.

Low (50 stems or less/ per acre)

Noxious weeds – knapweed/thistle. Contractor is required to control noxious weeds on row, around structures and along access roads. Where applicable, noxious weeds will be treated with a foliar application of an approved herbicide and applied according to label requirements. Herbicide and surfactant/adjuvant will be approved by COTR prior to application. All buffers will be maintained according to buffer table in EIS. Wasco County Weed Dept. is very aggressive in managing noxious weeds and currently has a contract with BPA to help manage weeds w/in Wasco County. However, vegetation mgmt & noxious weed control will be done simultaneously w/brush contractors to effectively control spread of weeds.

Work shall commence October 2003 and completed by October 2003.

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.

Bonneville’s overall goal is to have low-growing plant communities along the rights-of-way to control the development of potentially threatening vegetation. In some areas where the line is w/in 40’ or less distance to ground, this is not possible.

- Tall-growing vegetation that is currently or will soon be a hazard to the line will be removed.
- 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 – This project is a maintenance entry. Vegetation will be cut with chain saws/mowers w/ some herbicide treatment.

Subsequent entries – Every 6 yrs., the row will need to be manually/mechanically/chemically treated.

Future cycles - Same as subsequent entry.

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.

Industrial lands – Northwest Aluminum & Port of The Dalles

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.

Port of The Dalles – 8/25/03 - Called Scot Hege, Port director, to let him know what I was planning for the row. Scot appreciated the call but had no concerns other than the contractors need to watch out for industrial traffic.

Aluminum Plant – 8/25/03 – discussed work with plant manager Dave Krause. Dave was agreeable to the work. He requested advance notification; slash to be chipped and the contractors check in with the guards every entry & exit.

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.**.

See 2.2

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.

Reviewed LIS for permits - None identified.

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. ROW mostly within fenced aluminum plant grounds and restricts public access.

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 identified.

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.

- § In riparian areas, use selective control methods and take care not to affect non-target vegetation.
- § Leave vegetation intact, where possible.
- § Reseed all soil disturbed sites within 400 feet of a stream.
- § Any discharge of material (displaced soils, and in certain circumstances, vegetation debris) within a water of the U.S. may be subject to U.S. Army Corps of Engineers regulations under the Clean Water Act.
- § Do not permit debris from tree falling, cutting, or disposal to fall into or be placed in any watercourse, spring, pond, lake, or reservoir, unless there is approval from the appropriate authorities for stream habitat projects.
- § Do not burn piled vegetative debris in or next to watercourses.
- § For all methods using machinery or vehicles (i.e. chainsaws, trucks, graders) keep the equipment in good operating condition to eliminate oil or fuel spills.
- § Do not wash equipment or vehicles at a stream.
- § Notify inspector and the State of any amount of herbicide spill in or near water.
- § Consider climate, geology, and soil types in selecting the herbicide/adjuvant with lowest relative risk of migrating to water resources.
- § Use herbicide-thickening agents (as appropriate), label instructions, and weather restrictions to reduce the drift hazard to water resources.
- § When using granular formulations, consider overall climate and daily weather in ensuring herbicides are not washed offsite.
- § Always use appropriate anti-siphon devices/methods when filling herbicide tanks from any water sources.
- § Before herbicide application, thoroughly review the right-of-way to identify and mark, if necessary, the buffer requirements of competing resources.
- § The buffers in tables III-1 and III-2 are to be used unless other agencies, local authorities, or T&E consultations require more strict buffers. In cases of more strict local buffers, those would apply.

§ For noxious weed treatment, try to apply buffer zones, recognizing that treatment may be necessary within zones for control in compliance with local weed boards and Federal noxious weed laws.

Table III-1: Buffer Widths to Minimize Impacts on Non-target Resources

Herbicide & Adjuvant Ecological Toxicities and Characteristics	Buffer Width from Habitat Source per Application Method (i.e., stream, wetland, or sensitive habitat)				
	Spot	**Localized**	**Broadcast[1]**	**Aerial[2]**	**Mixing, Loading, Cleaning**
Practically Non-Toxic to Slightly Toxic	Up to Edge[3,4]	Up to Edge[3,4]	10.7m[3,4] (35 ft.)	30.5m[4] (100 ft.)	30.5m[5] (100 ft.)
Moderately Toxic, or if Label Advisory for Ground/ Surface Water	7.6m[3,4] (25 ft.)	10.7m[3,4] (35 ft.)	30.5m[3,4] (100 ft.)	76.2m[4] (250 ft.)	76.2m[5] (250 ft.)
Highly Toxic to Very Highly Toxic	10.7 m[3,4] (35 ft.)	30.5m[3,4] (100 ft.)	Noxious weed control only. Buffer as per local ordinance	Noxious weed control only. Buffer as per local ordinance	76.2m[5] (250 ft.)

The buffers in this table are to be used unless other agencies, local authorities, or T&E consultations require more strict buffers. In cases of more strict local buffers, those would apply.
See table 7a for general aquatic toxicities of and label advisories of the active ingredients.

1 Using ultra low volume (ULV) nozzles with orifice size and spray pressure set to produce droplets at a minimum of 150 microns, boom or nozzle heights at the lowest possible height, and cross-wind speed of less than 10 mph.3
2 Using ULV nozzles with orifice size and spray pressure set to produce droplets at a minimum of 150 microns, minimizing air shear relative to nozzle angle and aircraft speed, boom length at 70% or less of wingspan/rotor, swath adjustment not to exceed 60 feet based on maximum cross-wind speed of less than 10 mph, minimum safety clearance application height, and herbicide tank mixture dynamic surface tension is less than 50 dynes/cm.3
3 Goodrich-Mahoney, J.W., Determination of the Effectiveness of Herbicide Buffer Zones in Protecting Water Quality, Electric Power Research Institute, Report No. TR-113160, September 1999
4 Calculated from: A Summary of Ground Application Studies, Spray Drift Task Force, 1997
5 BPA Best Management Practice

Table III- 4: Mechanical Buffer Zones

Ground-disturbing Mechanical Methods	Buffer Width From Habitat Source, i.e., Stream or Wetland
Slopes under 20%	10.7 m (35 ft.)*
Slopes over 20%	No disturbance

The buffers in this table are to be used unless other agencies, local authorities, or T&E consultations require more strict buffers. In cases of more strict local buffers, those would apply.

***Natural Resources Conservation Service (NRCS), Conservation Practice Standard, Riparian Forest Buffer, Code 391A, 1997**

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer
From	To						
2/4	2/4+ 200	Wetland	No	Handcut individual trees.	Approved aquatic glyphosate formulation	Cut stump/Spot spray	Spot treat to water's edge. No machinery w/in 35' of wetland.
2/12	2/13	Chenoweth Cr.	Yes	Handcut individual trees if w/in 50' of lines.	None		200' slope distance - both sides. No machinery w/in 35' of stream or on slopes ≥20%.

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.

None identified.

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		
2/12	2/13	Anadromous Fish	Cut only trees within 50' of conductor. No herbicides within 200' feet of creek – both sides.

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

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

None identified.

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

See Handbook — **Visual Sensitive Areas** for requirements.

Selective clearing techniques as well as promoting low growing plant communities will maintain the integrity of visually sensitive areas. No large-scale clearing or clear cuts will occur with this maintenance entry.

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

See Handbook – **Cultural Resources** for requirements.

None identified. No soil disturbing activities planned for this project.

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.

None.

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

See Handbook – **Spanned Canyons** for requirements.

None.

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.

Treatment of project area will consist of mowing access roads & structures and selected areas with tall growing vegetation. Handcutting will be performed in all other areas of row veg control. Garlon 4 or 3A will be mixed with forest crop oil and spot sprayed on all stumps within 15 minutes of cutting except in riparian areas. Only aquatic formulations of glyphosate will be spot sprayed in riparian areas on tall growing tree stumps once cut. A foliar application of garlon 3A or 4 will be used on noxious weeds. All herbicides will be mixed and applied according to label.

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.

Lop and Scatter of small incidental trees. Otherwise, mulch slash with mowers. If mowers cannot reach slash than contractor will be required to chip material.

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.

Not planned at this time. However, if soil disturbance occurs during the project the area will be reseeded.

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

No soil disturbance anticipated for project. Reseeding/replanting not required.

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

See above.

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.

§ Right-of-way will be visited during operations and routinely thereafter contractor has completed work to determine if target vegetation was cut and treated effectively, whether desired results were achieved for riparian as well as non-riparian areas and if mitigation measures were appropriately utilized and effective.

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

Annually field verify results of previous veg. mgmt schemes and look for new alternatives for treatment, etc.

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".

NA

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

NA