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United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: May 23, 2003

REPLY TO ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-157- Lower Monumental-Ashe/Midway

TO: William Erickson – Natural Resource Specialist

Proposed Action: Vegetation Management for the Lower Monumental-Ashe (500 kV) and Midway-Benton #1 (115 kV) and #2 (230 kV) Transmission Lines. The Lower Monumental-Ashe right-of-way has an easement width of 125 feet while the Midway-Benton lines are on the same right-of-way having an easement width of 287.5 feet. The proposed work will be accomplished in the indicated sections of the transmission line corridors as referenced on the attached checklist.

Location: The subject rights-of-way are located in Benton County, WA, in the Walla Walla Region.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: The work will include the performance of vegetation management along roads and around tower pads along the indicated transmission line sections. Total length of the proposed access road vegetation work is approximately 3.8 miles. Approximately 45 transmission line structures will also receive vegetation management. The planned work includes the control of vegetation by using manual cutting, mowing and application of herbicides to reduce brush encroachment along the access roads and associated transmission towers.

Analysis: Applicable findings and mitigation measures are discussed below.

Planning Steps:

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

   BPA purposes to clear unwanted vegetation that may impede the operation and maintenance of the subject transmission line access roads and around associated tower structures. The work will provide system reliability. All work will be in accordance with BPA standards.

   Initial entry:
   Using hand cutting or mechanical means, BPA will complete brush management on the access roads and towers. Vegetation is currently encumbering passage along the access roads and to the towers of the power lines. If needed, the associated stumps and stubble will be treated with herbicides to ensure that the roots are killed preventing new sprouts and selectively eliminating vegetation that prevents access to the power lines or creates a fire hazard.

Trucks and equipment will be kept on designated access roads so as not to disturb desirable plants on the ROW.

Slash and debris will be pulled at least 10 feet from the road surface and loped and scattered, or it will be mulched mechanically. Herbicides may be used to prevent the re-growth of bush species.

Reseeding will occur if there is limited vegetation to re-establish the site, or soil disturbance has removed the existing vegetation. Areas with disturbed soils will be replanted or reseeded with low-growing grasses.

Subsequent entry:
The vegetation management program will be designed to provide a 3-8 year maintenance free interval. The overall vegetation management scheme will be to initially clear and remove all encumbering vegetation using a combination of manual, mechanical and herbicide treatments.

Future cycles:
Future cycles of work will involve hand cutting, mechanical and, if necessary, herbicide treatments. The ROW access roads will be examined for encumbering vegetation during routine patrols and removed or treated as necessary.

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

The entire site is on the Department of Energy Hanford Reservation. BPA has contracted with Pacific Northwest National Laboratory (PNNL) to perform a cultural and ecological review of the proposed work area. As referenced in the attached checklist, the review has shown that there are both cultural and ecological resources present and has offered recommendations for work activities in order to limit impacts during the proposed work. Results of the review are discussed in section 3 below.

3. Identify natural resources and any mitigation.

The PNNL has identified areas of a critical cultural nature in the work area east of the Ashe Substation. They include areas on Ringold Island, the area on the west bank of the Columbia River adjacent to Ringold Island and the ¼ mile area of the right-of-way from the river to Tower 37/3 (Lower Monumental-Ashe line). Extra precautions must be placed on work in those areas.

In order to provide no impacts on the cultural resources, recommendations stated in the attached checklist will be followed. Guidance will be provided to the TLM crews when they are working in the area.

Based on PNNL's ecological resources report, it is the finding of PNNL that no plant or animal species protected under the Endangered Species Act, candidates for such protection, or species listed by the Washington State government as threatened or endangered were observed in the vicinity of any of the sections of the subject access road work. However, areas of concern were identified.

Gray cryptantha, a federal species of concern and a Washington State sensitive plant species were observed near Tower 37/4 (Lower Monumental-Ashe).

Also, an active red-tailed hawk nest was observed on Tower 37/3 (Lower Monumental-Ashe) and a great blue heron rookery consisting of three nests was observed in Tower 37/1 (Lower Monumental-Ashe) on Ringold Island.

In order to limit impacts on the ecological resources, recommendations stated in the attached checklist will be followed. Guidance will be provided to theTLM crews when they are working in the area.

The Columbia River is also located near the work area. Buffers and herbicide use as outlined in the checklist and approved in Vegetation Management EIS will be used when conducting work in that area.

4. Determine vegetation control and debris disposal methods.

In areas of concern, to limit impacts, work will be accomplished per the attached checklist based upon recommendations provided by PNNL. In areas with no concern, all-manual, mechanical, and herbicidal treatments as discussed in the attached checklist, will be used.

Debris disposal will be done by mulching and pulling un-mulched debris back 10 feet from road surfaces and 50 feet from tower areas.

Herbicides will include glyphosate, picloram, imazapyr, 2,4-d, triclopry and dicamba. These will be used for spot-foliar, cut stubble and broadcast treatments. Escort and clopyralid can be used for spot foliar and broadcast treatments.

5. Determine revegetation methods, if necessary.

Native seeds will be considered in all mixes. Seeding should be completed in the early fall when there is enough moisture to allow for seedlings to develop to the 4-5 leaf stage before winter or in the late fall or winter when the soil temperature is below 40 degrees F. Broadcast seeding with follow up harrowing is one method of seeding for small area. Mulching with weed free straw or hydro mulching may be required to prevent wind erosion in the spring.

6. Determine monitoring needs.

The site will be inspected during treatment. In addition, routine observation by BPA ground and aerial patrols will determine if any follow-up measures will be needed.

7. Prepare appropriate environmental documentation.

Besides the subject cultural and ecological review performed by Pacific Northwest National Laboratory, no other environmental documentation should be necessary.

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/ Ken Hutchinson
Ken Hutchinson
Environmental Scientist – KEPR/Walla Walla

CONCUR: */s/ Thomas C. McKinney* DATE: 05/29/2003
Thomas C. McKinney
NEPA Compliance Officer

Attachment

cc:
L. Croff – KEC-4
T. McKinney – KEC-4
C. Leiter – KEP-4
J. Meyer – KEP-4
K. Hutchinson – KEPR/Walla Walla
P. Key – LC-7
J. Hilliard Creecy – T-DITT2
D. Hollen – TF/DOB-1
R. Duncan – TFP/Walla Walla
M. Richardson – TFP/Walla Walla
G. Wilfong – TFPF/Pasco
Environmental File – KEC
Official File – KEP-4 (EQ-14)

Khutchinson:kh:4722:5/27/2003 (KEP-KEPR/WALLA WALLA-W:\EP\2002 & 2003 FILES\EQ\EQ-14\FEIS-0285-SA-157-LoMo-Ashe.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**

Hanford Ostrander and the Hanford John Day line. Access road Vegetation Management

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Lower Monumental	46 miles, 500 kV	125	37/1- to Sub
Midway Benton #1 and #2	27 miles, 115 kV (#1), 230 kV (#2)	287.5	26/4+ 250 to 27/7+500

Access Roads: Maintenance crews use access roads to get to the transmission-line towers, substations, and other facilities

Requirements: Access roads have to be sufficiently free of vegetation so that our crews and their necessary machinery and vehicles can safely and efficiently travel over them to the electric facility for emergency and routine maintenance work. Vegetation management will also reduce the potential of fire hazards from vehicles that use these roads during dry weather.

Current Practice: Access roads that we maintain are generally unimproved dirt or gravel roads. We keep them clear of trees and brushy vegetation, using manual cutting tools, machines on wheels or tracks, and herbicide sprayed with backpack sprayers and truck-mounted booms.

Access roads and Tower sites will be treated using non-selective methods that include, hand cutting, herbicides and mechanical means.

Right Of Way:

Transmission Structures – 45 structures

Access Road clearing - approximate miles 3.8 miles– up to 12 acres

Tower Clearing Specifications:

- Control all brush species within 50 ft. of steel transmission structures and 25 feet around wood pole structures. Cut stumps are not to be taller than 4 in. These species include big sagebrush, gray rabbitbrush, green rabbitbrush, and other vegetation that, by size or density, might hinder routine inspection and maintenance work or make roads and work areas hazardous.
- Pull all un-mulched debris and slash out of the cut area around transmission structures.
- Ground broadcast an appropriate herbicide to prevent re-establishment of treated brush species.

Access Roads Specifications:

- Control all vegetation except grasses, to enable safe driving.
- The access road is to be 16 ft. wide. Cut stumps are not to be taller than 2-3 inches in the roadbed.
- Cut stumps horizontal to the ground to prevent personal injuries and tire puncture.
- Pull all un-mulched debris back 10 feet from the access road.
- Ground broadcast an appropriate herbicide to prevent re-establishment of treated brush species.

1.2 Describe the vegetation needing management.

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

Rangeland: Sagebrush Bunchgrass. Rainfall 6-10 inches
Big sagebrush, gray and green rabbit brush, and other brush species

Sandy and Sandy Loam soil to silt loam. 6-12 inch

Noxious weeds:

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 — **Promoting Low-Growing Plant Communities** for requirements and checkboxes.

Not Promoting Low Growing Plant Communities, Describe Why?

Project only entails the clearing of roads and tower sites to facilitate access maintenance.

1.4 Describe overall management scheme/schedule.

See Handbook - **Overall Management Scheme/Schedule**.

Description of the Proposed Action: BPA proposes to clear unwanted vegetation in the access roads and around tower structures that may impede the operation and maintenance of the subject transmission line. All work will be in accordance with BPA standards. BPA plans to conduct vegetation control with the goal of removing growing vegetation that is currently encumbering access to the transmission line.

The work will provide system reliability.

Initial entry:
Using hand cutting or mechanical means, BPA will complete brush management on the access roads and towers. Vegetation is currently encumbering the access roads and towers of the power lines; If needed, treat the associated stumps and stubble with herbicides (spot, localized, and broadcast treatments) to ensure that the roots are killed preventing new sprouts and selectively eliminating vegetation that prevents access to the power lines or creates a fire hazard.

Vegetation management will occur before and after access road maintenance that may include grading, blading and shaping, and rock placement. Reseeding will occur if there is limited vegetation to re-establish the site, or soil disturbance has removed the existing vegetation. Areas with disturbed soils will be replanted or reseeded with low-growing grasses.

Keeping trucks and equipment on designated access roads will not disturb desirable plants on the ROW. All work will take place in existing access roads or ROW.

Slash and debris will be pulled at least 10 feet from the road surface and loped and scattered, or it will be mulched mechanically. Herbicides may be used to prevent the re-growth of bush species.

Subsequent entry:
The vegetation management program will be designed to provide a 3-8 year maintenance free interval. The overall vegetation management scheme will be to initially clear and remove all encumbering vegetation using a combination of manual, herbicide and mechanical treatments **as** outlined in the initial treatment

Future cycles:
Future cycles of work will involve hand cutting and mechanical treatments. During routine patrols, the ROW will be examined for encumbering vegetation and removed as necessary.

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.

The entire site is on the Hanford Reservation. East of the Columbia Generation Plant
See Handbook — **Methods for Notification and Requesting Information** for requirements.
BPA is to contact DOE before work begins.

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.**.

The PNNL has identified various mitigations for biological issue and Cultural issue. Note Specific Sections for details

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 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.

Site currently closed to the public

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.

BPA has contracted with Pacific Northwest National Laboratory to perform a cultural and Ecological review during this process. They will lead the consultation with the Yakima, Umatilla, Wanapum, Colville, and Nez Pierce tribes. Results of this review are noted in the Cultural section of this checklist.

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
To	From							
37/1	37/2+400	Columbia River	Yes	Manual Herbicide mechanical	2,4-d dicamba, clopyralid, chlorsulfuron metsulfuron picloram	Spot, localized Ground Broadcast,	See specs	Work within ¼ mile of river requires contact of PNNL

OTHER STREAMS: Lands 400 ft of a stream, water and wetlands. Available: all manual, spot and localized herbicide, and biological treatments. No mechanical treatments within 50 feet of streams or wetlands.

Manual: Hand tools and chainsaws.

Mechanical: None, on down slope to river. Around Structure only. None on Ringold Island

Herbicide: Only Non-toxic formulations and slightly toxic (to aquatic species) formulations of glyphosate (such as Rodeo®), dicamba (Trooper/Vanquish), Telar, Escort, clopyralid, picloram, and 2-4-d may be prescribed for wick, and spot-foliar treatments (localized). Ground Broadcast treatments can be completed with the appropriate buffers on access roads and tower sites.

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 crosswind speed of less than 10 mph.
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

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

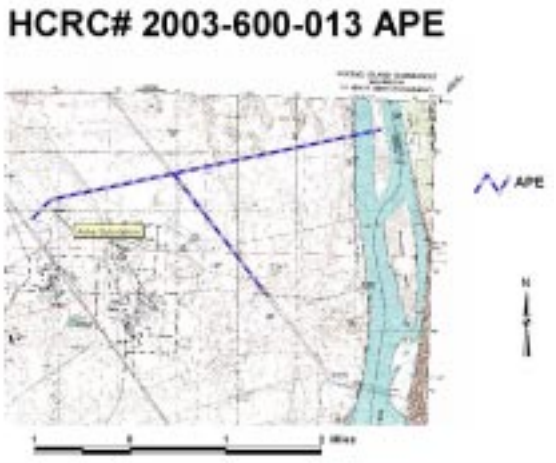
3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.

See Handbook — **T&E Plant or Animal Species** for requirements and determining presence.

BPA contracted with the Pacific Northwest National Laboratory to perform a Biological review of the project. THE PNNL has identified the biological nature of the area east of Ashe Substation, including Ringold Island of the Hanford Reservation.

The following recommendations need to be implemented in order to limit biological effects of our maintenance activities.

This 'Right-of-Way Management Technical Note' is to be used as a guide to identify activity mitigations and work periods that comply with the PNNL recommendations.



The Blue line area of this transmission line has area of biological concern.

Based on the submitted ecological resources report, it is the finding of PNNL that no plant or animal species protected under the Endangered Species Act, candidates for such protection, or species listed by the Washington State government as threatened or endangered were observed in the vicinity of any of the sections of the Lower Monumental-Ashe Transmission line access roads.

Areas of concern are as follows:

Gray cryptantha (*Cryptantha leucophaea*), a federal species of concern and a Washington State sensitive plant species were observed near Tower 37/4. The *Hanford Site Biological Resources Mitigation Strategy* (DOE 2003) stipulates a 1:1 replacement of rare plants, including Washington State sensitive species such as gray cryptantha. Therefore, PNNL recommends that the gray cryptantha near Tower 37/4 should not be disturbed to avoid mitigation.

An active red-tailed hawk (*Buteo jamaicensis*) nest was observed on Tower 37/3.

A great blue heron (*Ardea herodias*) rookery consisting of three nests was observed in Tower 37/1 on Ringold Island.

PNNL recommends that work in the vicinity of the active red-tailed hawk nest on Tower 37/3 and in the vicinity of the great blue heron nests on Tower 37/1 be avoided during the nesting season. If work is to be initiated, it should be accomplished outside of the nesting season, or during emergency situations only.

Nesting season for the red tailed hawk is generally from February 15th through August 31st.

The nesting season for the great blue heron is generally from April 1st through June 30th.

VEGETATION MANAGEMENT SENSITIVE PLANT SPECIES:

Land with no environmental constraints. Available: all manual, mechanical, biological, and herbicidal treatments. Limit vegetation management after April 15th.

Manual: Hand tools and chainsaws.

Mechanical: Can be used on roads and towers, during fall and winter season for all areas suitable for mechanical treatment. Must be performed in a manner so that the soil is not disturbed.
Herbicide: Glyphosate, Picloram, Imazapyr, picloram, 2,4-d, Escort, clopyralid, Triclopyr (Garlon 3A and Garlon 4), Dicamba may be prescribed for spot-foliar treatments of individual noxious weeds and brush.

3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.
See Handbook — **Protecting Other Species** for requirements.

See above

Grass seeding with mixtures indicated in Section 5.2.

The proposed activities are not likely to adversely affect the local population of jackrabbits.

To minimize potential impacts to nesting migratory birds, it is recommended that all ground or vegetation disturbing activities take place prior to April 2004.

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

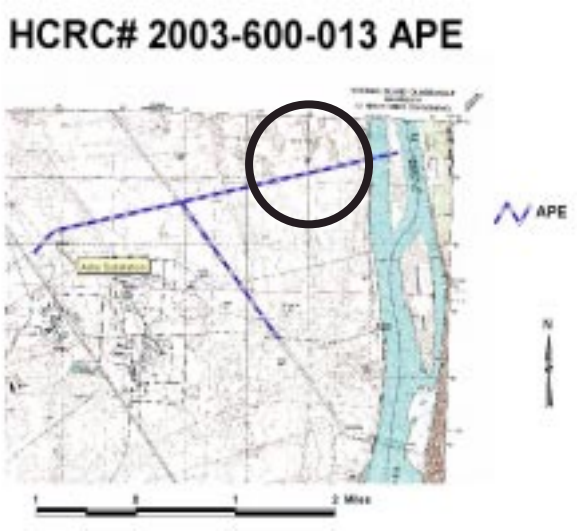
See Handbook — **Visual Sensitive Areas** for requirements.

None

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

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

The PNNL has identified an area of critical cultural nature of the area east of Ashe Substation, including Ringold Island of the Hanford Reservation.



The circled area of this transmission line has areas of cultural concern.

The sections of transmission line right-of-way that are of particular concern are:

- On Ringold Island,
- The area on the west bank of the river, and
- The ¼ mile area of the right-of-way from the river to structure 37/3.

Extra precaution must be placed on work in those areas.

In the future, during all BPA activities, BPA workers shall ensure that the following stipulations are implemented when conducting maintenance:

- All workers will watch for cultural materials (e.g. bones, artifacts) during all work activities. If any are encountered, work in the vicinity will stop until an HCRL archaeologist has been notified, assessed the significance of the find, and, if necessary arrange for mitigation of the impacts to the find.
- BPA employees and contractors will also follow the policy for discovery of cultural materials if artifacts are encountered.
- BPA will avoid ground disturbance outside existing rights-of-way and road easements. All activities and staging areas must remain on the BPA Right of Way.
- The HCRL will be notified of any changes to project locations or if the scope of and future projects change.

- A cultural resource monitor will be present during maintenance activities that are within ¼ mile of the Columbia River and on the Island. Archeological monitors will be the responsibility of the HCRL. Monitors will be authorized to halt work in a specific location, while recovering materials and data.
- When monitors are present, the monitors will be authorized to halt work for up to one working day or such longer time as may be agreed upon between the monitors and the site manager, to record and recover features and objects.
- There are many sensitive sites on Ringold Island. BPA will access the island from the east bank of the island, and use the specific trail to access the tower. Only light equipment will be used to make repairs. No ground disturbance will occur unless further is completed.
- No activity will take place of west of the structure on the island.
- At Structure 37/2 (West crossing tower), maintenance activities will be restricted to a 50-foot radius around the tower. Work will be restricted to the upper terrace of the site. No work activities are allowed over the bank of the river.
- When monitoring is needed, BPA will contact the Pacific Northwest National Laboratory. (509) 376-4626. Tribes should also be notified and invited to participate when monitoring is required.
- The TLM Foreman III will be responsible for making crews aware of the sensitivity of the island and the requirements of this tech note before work begins in the area.

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.

Erosion treatments and seeding will be applied to eroding areas.

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.

WHEN THERE ARE NO ENVIRONMENTAL CONSTRAINTS

Land with no environmental constraints. Available: all manual, mechanical, biological, and herbicidal treatments

Manual: Hand tools and chainsaws.

Mechanical: Can be used on roads and towers, all areas suitable for mechanical treatment. No ground disturbing activities on slopes over 20%.

Herbicide: Glyphosate, Picloram, Imazapyr, picloram, 2,4-d, Triclopyr (Garlon 3A and Garlon 4), Dicamba may be prescribed for spot-foliar, cut stubble and broadcast-foliar treatments. In addition, Escort and clopyralid can be used for spot foliar and broadcast treatments.

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.

☑ 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.)

☑ Other – Pull un-mulched debris back 10 feet from road surface and 50 feet from tower area.

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.

If re-seeding is needed, mixtures of the following grasses will be used

Approved and Suggested seeds	*Native	Reason for seeding
Mixes can be developed from the following seed species. Based on site and adaptation. Sandy and Sandy loam soils, silt loams 6-12 inch precipitation Name Indian Ricegrass N Thickspike wheatgrass N Bluebunch Wheatgrass N Sand dropseed N Needlegrass N Siberian wheatgrass I Crested Wheatgrass I Sheep Fescue N Big Bluegrass N	N-Native I=Introduced	Re-vegetate area where soil disturbance has occurred and to re-establish ground cover to prevent erosion.

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

Natives will be considered in all mixes.

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

Native seeds will be considered in all mixes. Seeding should be completed in the early fall when there is enough moisture to allow for seedling to develop to the 4-5 leaf stage before winter or in the late fall or winter when the soil temperature is below 40 degrees F. Broadcast seeding with follow up harrowing is one method of seeding for small area. Mulching with weed free straw or hydro mulching may be required to prevent wind erosion in the spring.

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.

Site will be inspected during treatment. In addition routine patrols by BPA ground and aerial patrols.

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

Routine patrols by BPA ground and aerial patrols.

7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

See handbook — **Prepare Appropriate Environmental Documentation** for requirements.

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

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

No