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United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: March 7, 2003

REPLY TO ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA- 129 Ashe-Marion #2 [Mile 150-157]

TO: Elizabeth Johnson
Natural Resource Specialist– TFR/The Dalles

Proposed Action: Vegetation Management for the Ashe-Marion #2 500 kV transmission line from structure 150/2 through structure 157/7 (reference line). The Buckley-Marion #1 transmission line is also present within the proposed corridor. Right of way width averages 135 feet.

Location: The project location is within Wasco County, Oregon near the city of Pine Grove, and is within the Redmond Region.

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 7 miles of right-of-way will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Approximately 7 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 checklist for the resources present. Applicable findings and mitigation measures are discussed below.

Planning Steps:

1. Identify facility and the vegetation management need.

Unwanted vegetation 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 115 acres of land between towers 150/2 through 157/1 on the Ashe-Marion #2 500 kV transmission line corridor (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 federal land in Wasco County, used primarily for grazing and timber production.

Landowners requiring notification are shown in Section 2.3 and 2.4 of the attached checklist. Any remaining landowners will be contacted (letters, personal contact, door hangers, etc.) by BPA before and during the project. Any input received will be incorporated into the prescription/cut sheets.

3. Identify natural resources and any mitigation.

Section 3 of the attached checklist identifies the natural resources present in the area of the proposed work. The following resources found along with applicable mitigation measures:

Riparian Habitat:

Includes all wetlands, streams, and creeks meeting the definition of riparian habitat. Several areas were identified. See Section 3.1 of the checklist 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.

Irrigation Source, Wells, or Springs:

Includes water sources, springs, wells and other sensitive lands within 100 ft. of sensitive riparian areas or water sources. A water tank and spring box has been identified adjacent to access road ACB-79-AR-4. See Section 3.2 of the checklist for a full discription.

Irrigation Source, Wells, or Springs Mitigation:

No herbicides are planned for use in this area.

T&E Species and EFH:

No known Threatened and Endangered Species or Essental Fish Habitat are present in the proposed project area.

Cultural Resources:

No known cultural resources are present in the proposed project area.

Cultural Resources Mitigation:

The Warm Springs Confederated Tribes are to be contacted to determine the potential presence of traditional-use plants or other cultural resources and to determine the desired level of Tribal involvementin planning efforts. Restrictions or mitigation measures such as seasonal constraints for vegetation control, avoidance of certain areas, or using methods that do not affect non-target plants may be required and included in the contract.

Steep/Unstable Slope Mitigation:

Steep/Unstable Slopes are not discretely specified in the attached checklist, but are present in the proposed project area. These areas are specified in the cut sheet provided to the contractor for this project. See Section 3.7 of the attached checklist for a full discription of mitigation methods for steep slopes and potential erosions areas.

Spanned Canyons:

Several Spans are identified in Section 3.8 of the attached checklist.

Spanned Canyon Mitigation:

Vegetation that is not anticipated to grow into transmission line safety zones will not be removed.

4. Determine vegetation control and debris disposal methods.

Vegetation will be removed using manual, mechanical, and chemical methods will be implemented on all lands except for USFS lands where herbicide application is not permitted. Full descriptions can be found in Section 4 of the attached checklists. Debris will be disposed onsite using either lop and scatter, or mulch techniques as described in Section 5 of the attached checklist.

5. Determine revegetation methods, if necessary.

No soil disturbance is expected; therefore it is not likely that reseeding or replanting will be necessary.

6. Determine monitoring needs.

The right of way will be visited in late summer to determine whether target vegetation was cut and treated effectively, whether desired results were achieved for riparian and non-riparian areas, and if mitigation measures were appropriately utilized and effective. A right of way management will be developed from this review and implemented next cutting cycle.

7. Prepare appropriate environmental documentation.

Findings: This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. Therefore, no further NEPA documentation is required.

/s/ Oden W. Jahn
Oden W. Jahn
Physical Scientist (Environmental)

CONCUR:*/s/ Thomas C. McKinney* DATE:03/10/2003
Thomas C. McKinney
NEPA Compliance Officer

Attachment

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

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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
Ashe-Marion #2 (150/2-157/1)	25 miles – 500kV	135 foot wide	7
Buckley-Marion (24/2-31/1)	25 miles - 500kV	135 foot wide	7

- ☑ Right-of-Way – clearing in right-of-way
- ☑ Transmission Structures – clearing around
- ☑ Access Road clearing - approximate miles – 7miles

Work to commence April 2003 and completed by June 2003.

Rights-of-way Requirements:

Control all tall-growing species that are now or would be a hazard to the line.

Cut stumps are not to be taller than 4 – 6 in.

Control all tree and brush species within about 50 ft. of transmission structures. Cut stumps are not to be taller than 2 – 4 in. Pull all debris and slash out of the 50-ft. area around transmission structures.

Access roads Requirements:

Control all vegetation except grasses, to enable safe driving.

The access road is to be 14’ wide with a 15-ft.- high clearance. Limbs should not hang down into the access road.

Cut stumps are not to be taller than 2 – 4 in. in the roadbed.

Cut stumps horizontal to the ground to prevent personal injuries and tire puncture.

Trim limbs back as flush to the trunk as possible when trees are rooted outside of the access road.

Pull all debris back from the access road as prescribed.

1.2 Describe the vegetation needing management.

Tall growing pine, fir, and hardwoods. Density is low medium. Access roads & structures need treatment. Some treatment of noxious weeds to occur along access roads on Tribal & privately owned segments.

Noxious weeds – Knapweed, star thistle, etc. Contractor is required to control noxious weeds on non-USFS lands and along access roads. On non-USFS lands, 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.

Noxious weeds will not be controlled by herbicide on USFS lands except by Wasco County Weed Board group and with an approved environmental analysis. Other control methods may include biological.

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.

Promoting Low Growing Plants. 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 this is not possible.

- ☑ Tall-growing vegetation that is currently or will soon be a hazard to the line will be removed.
- ☑ 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. On non-USFS land, hardwoods will be cut and stump treated w/herbicide to prevent resprouting.

Subsequent entries – Every 5-8 yrs., the row will need to be manually/mechanically cut.

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.

Land use consists of grazing and some timber production. Ownership is private and USFS.

- ☑ Forest Service – Mt. Hood National Forest – Barlow Ranger District

Private landowners will be notified by letter.

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.

Notification letter will be sent at least 4 weeks prior to commencement of operations. Will discuss any issues raised with the various landowners and incorporate mitigation or resolutions in the contract.

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.**.

For all lands:

Prevent the spread of noxious weeds by cleaning seeds from equipment before entering cropland.

If on grazing lands and there is potential for pine needle poisoning, do not lop and scatter pine tree vegetative debris—machine-chip or haul debris off-site.

If using herbicides on grazing lands, comply with grazing restrictions as required per herbicide label.

If using herbicides near crops for consumption, comply with pesticide-free buffer zones, if any, as per label instructions.

For rights-of-way adjacent to agricultural fields, observe appropriate buffer zones necessary to ensure that no drift will affect crops.

Confederated Tribe of Warm Springs:

Discuss the project w/tribal representative and address specific land-use or environmental resources along the corridor that need consideration, including appropriate mitigation measures identified in this EIS. Notification letter will ask the Tribe to determine the potential presence of traditional-use plants or other cultural resources and to determine the desired level of Tribal involvement in planning efforts. Restrictions or mitigation measures such as seasonal constraints for vegetation control, avoidance of certain areas, or using methods that do not affect non-target plants may be required and included in the contract.

Forest Service:

Discuss the project w/USFS representatives and address specific land-use or environmental resources along the corridor that need consideration, including appropriate mitigation measures identified in this EIS. No herbicides will be used on USFS lands.

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.

No tree or agricultural agreements with landowners.

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.

Hunters/recreationists may occasionally use the row. The planned entry is not expected to affect their use.

2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.

See handbook — Other Potentially Affected Publics for requirements and suggestions.

None known at this time.

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.

General requirements:

Leave vegetation intact, where possible.

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.

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.

Ashe Marion Corridor

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
From	To							
150/3 +850	150/3 +950	Intermittent Cr.	No	Hand cut Individual trees w/in 50' of conductor.	None	NA	50' Both sides – No machinery to operate w/in zone.	Spanned Canyon ±120' conductor ht.
151/1 +1000	151/1 +1300	Intermittent Crs.	No	Hand cut – Individual trees w/in 50' of conductor.	None	NA	50' Both sides – No machinery to operate w/in zone.	Spanned Canyon ±120' conductor ht.
151/2 +950	151/2 +1050	Intermittent Cr.	No	Hand cut Individual trees w/in 50' of conductor.	None	NA	50' Both sides – No machinery to operate w/in zone.	Spanned Canyon ±120' conductor ht.

152/1 +750	152/1 +850	Intermittent Cr.	No	Hand cut Only tall growing veg.	Aquatically approved herbicide.	Cut/stump treatment on hardwoods only.	50’ Both sides – No machinery to operate w/in zone.	
153/2 +550	153/2 +650	Intermittent Cr.	No	Hand cut Individual trees w/in 50’ of conductor.	None	NA	50’ Both sides – No machinery to operate w/in zone.	Spanned Canyon ±100’ conductor ht.
153/3 +900	153/4 -100	Intermittent Crs.	No	Hand cut Individual trees w/in 50’ of conductor.	None	NA	50’ Both sides – No machinery to operate w/in zone.	Spanned Canyon ±110’ conductor ht.
153/4 +1000	153/4 +1100	Intermittent Cr.	No	Hand cut – Individual trees w/in 50’ of conductor.	None	NA	50’ Both sides – No machinery to operate w/in zone.	Spanned Canyon ±200’ conductor ht.
154/1 +1000	154/1 +1100	Intermittent Cr.	No	Hand cut Only tall growing veg.	Aquatically approved herbicide.	Cut/stump treatment on hardwoods only.	50’ Both sides – No machinery to operate w/in zone.	
154/4 +1200	154/4 +1300	Intermittent Cr. – Kelly Cr.	No	Hand cut Individual trees w/in 50’ of conductor.	None	NA	50’ Both sides – No machinery to operate w/in zone.	Spanned Canyon ±110’ conductor ht.
155/1 +250	155/1 +350	Intermittent Cr.	No	Hand cut Only tall growing veg.	Aquatically approved herbicide.	Cut/stump treatment on hardwoods only.	50’ Both sides – No machinery to operate w/in zone.	
155/1 +1200	155/1 +1300	Intermittent Cr.	No	Hand cut Only tall growing veg.	Aquatically approved herbicide.	Cut/stump treatment on hardwoods only.	50’ Both sides – No machinery to operate w/in zone.	
155/2 +1350	155/2 +1450	Intermittent Cr.	No	Hand cut Only tall growing veg.	Aquatically approved herbicide.	Cut/stump treatment on hardwoods only.	50’ Both sides – No machinery to operate w/in zone.	

156/2 +850	156/2 +950	Intermittent Cr.	No	Hand cut Individual trees w/in 50' of conductor.	None - USFS	NA	50' Both sides – No machinery to operate w/in zone.	Spanned Canyon ±110' conductor ht.
156/2 +1300	156/2 +1400	Intermittent Cr.	No	Hand cut Individual trees w/in 50' of conductor.	None - USFS	NA	50' Both sides – No machinery to operate w/in zone.	Spanned Canyon ±110' conductor ht.
156/3 +950	156/3 +1050	Intermittent Cr.	No	Hand cut Individual trees w/in 50' of conductor.	None - USFS	NA	50' Both sides – No machinery to operate w/in zone.	Spanned Canyon ±110' conductor ht.

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.

Water tank & spring box identified adjacent to access road ACB-79-AR-4, T6S, R12E, Sec. 6, Lot 1. No herbicides planned for this area.

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.

No T&E plant or animal species identified or known at this time.
No essential fish habitat identified or known at this time.

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 or known at this time.

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

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

None identified or known at this time.

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

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

None identified. Will contact Warm Springs Confederated Tribes to determine the potential presence of traditional-use plants or other cultural resources and to determine the desired level of Tribal involvement in planning efforts. Restrictions or mitigation measures such as seasonal constraints for vegetation control, avoidance of certain areas, or using methods that do not affect non-target plants may be required and included in the contract.

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.

Areas having steep/unstable slope conditions are specified on the cut sheet provided to the contractor.

Only vegetation within 50' of the line will be hand cut on steep slopes >20%. All other vegetation will be left to reduce costs and prevent erosion.

Requirements:

Do not use ground (soil)-disturbing mechanical equipment to clear on slopes over 20%.
Avoid using granular or total vegetation management (non-selective) herbicides on slopes over 10%.

Do not use herbicides with a high potential for surface runoff.

Perform mechanical clearing when the ground is dry enough to sustain heavy equipment.

Reseed or replant seedlings on slopes with potential erosion problems and/or take other erosion control measures as necessary.

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

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

Avoid removing vegetation where it will not grow-up into the safety zones of the transmission line.

Ashe Marion Corridor

Span		Methods, cutting
From	To	
150/3	151/1	Conductor height is >110'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
150/1	150/2	Conductor height is >120'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
151/2	151/3	Conductor height is >120'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
153/1	153/2	Conductor height is >120'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
153/2	153/3	Conductor height is >100'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
153/3	153/4	Conductor height is >110'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
153/4	154/1	Conductor height is >200'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.
154/4	155/1	Conductor height is >150'. In this span, trees whose tops are w/in 50' of conductor will be hand cut.

156/2	156/3	Conductor height is >110'. In this span, trees whose tops are w/in 50' of conductor will be hand cut. No herbicide to be used on USFS lands.
156/3	156/4	Conductor height is >120'. In this span, trees whose tops are w/in 50' of conductor will be hand cut. No herbicide to be used on USFS lands.

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.

Hand cutting, mowing, and herbicide spot treatment on all lands except for USFS lands are the methods prescribed.

General:

When crews are working during the fire season (defined by the fire protection district with jurisdiction in the area), each crew shall have the proper fire-suppression tools and materials, as required by the responsible fire control agency.

Cut conifers below the lowest live limb to eliminate the continued growth of lateral branches. For safety, cut all brush stumps flat where possible. (Angular cuts leave a sharp point that could cause injuries if fallen upon.) For cutting trees close to "live" power lines, use only qualified personnel.

Mechanical Requirements:

Do not use ground-disturbing mechanical equipment to clear on slopes over 20%.

Perform soil-disturbing or heavy mechanical clearing when the ground is sufficiently dry to sustain heavy equipment and excessive rutting will not occur.

Use measures to control the spread of noxious weeds.

Do not use ground-disturbing mechanical methods in areas with cultural resources unless determined appropriate through consultations.

Do not use ground-disturbing mechanical methods in riparian areas.

Herbicides Requirements

Follow product label directions, as required by FIFRA, including "mandatory" statements (such as registered uses, maximum use rates, application restrictions, worker safety standards, restricted entry intervals, environmental hazards, weather restrictions, and equipment cleaning).

Follow all product label "advisory" statements (such as techniques for mixing, applying and cleaning within the mandatory requirements, recommendations for protection clothing, guidelines for differing soil types, etc).

Always have a copy of the herbicide label and Material Safety Data Sheets (MSDS) at work sites during all mixing and applications.

Ensure that all herbicide applications are conducted in the presence of a licensed applicator valid for the state where the work is located.

Keep records of each application, including the active ingredient, formulation, application rate, date, time, location, etc. Records must be available to state and Federal inspectors, and may need to be supplied to landowners (e.g. Forest Service and WA DNR).

Ensure the use of EPA-approved herbicides that have been reviewed by Bonneville for effectiveness and environmental considerations.

Never leave herbicides or equipment unattended in unrestricted access areas.
Before application, thoroughly review the right-of-way to identify and mark, if necessary, the buffer requirements.

Protect drinking water sources by following all buffer zone restrictions.

Observe restricted entry intervals specified by the herbicide label and post public warning signs where required.

Spot Stump Application Requirements:
For spot treatment, cut stumps flat, 15.2 – 20.3 cm (6 – 8 in.) above ground (except for access roads and around structures sites which should be 5 – 10 cm (2 – 4 in.) above ground) to facilitate treatment and reduce trip and fall hazards. Treatment should occur within 8 hours to prevent resprouting.

Directly spray the root collar area, sides of the stump, and/or the outer portion of the cut surface, including the cambium, until thoroughly wet, but not to the point of runoff. This would avoid, or minimize, deposition to surrounding surfaces.

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** (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 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.

None

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

No soil disturbance expected.

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

NA

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 late summer 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. ROW mgmt plan will be developed from this review and implemented next cutting cycle.

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

None