

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: March 31, 2003

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-135– Lower Monumental-McNary Corridor Maintenance)

TO: William Erickson
Natural Resource Specialist – TFP/Walla Walla

Proposed Action: Vegetation Management for the Lower Monumental – McNary Transmission Line Corridor from Towers 13/1 to 14/1 and 18/1 to 19/5. The right-of-way has an easement width of 125 feet and contains one 500kV Single Circuit Transmission Line. The proposed work will be accomplished in the indicated sections of the transmission line corridor as referenced in the attached checklist.

Location: The subject right-of-way is located in Walla Walla County, Washington in the Walla Walla Region.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: The work will include the removal of vegetation around transmission line structures, access road clearing along the right-of-way and other noxious weed management. The work will be accomplished by an Integrated Vegetation Management approach using a combination of manual, mechanical and herbicidal treatments.

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.

BPA proposes to clear unwanted vegetation that may impede the operation and maintenance of the subject transmission line. This vegetation occurs in the access roads, around tower structures and BPA right-of-ways. 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 and reduce noxious weeds.

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

The surrounding land is used for agricultural and grazing purposes being either dry cropland or rangeland. The segment of right-of-way from 13/1 to 14/1 is owned by the Department of Natural Resources while Agri Northwest owns the section from 18/1 to 19/5. Mitigation measures to be used while working in these areas will be:

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

3. *Identify natural resources and any mitigation.*

No T&E Streams have been identified within 400 feet of the corridor. No other streams have been identified within 100 feet of the corridor. Also, no T&E species or habitat exists within ½ mile of the work area.

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

Brush will be cleared using mechanical or hand methods as described in the attached checklist. The sites will then be treated with herbicide to prevent weed growth and brush re-invasion. No debris disposal is anticipated.

Initial entry:

Listed noxious weeds are present in the ROW. A cooperative effort to control noxious weeds is also proposed with landowners and the Walla Walla County Noxious Weed Control Board. These listed noxious weeds are non-native species that need to be controlled to prevent any additional spread of these weeds and encroachment of habitat for native species on the right-of-way. These noxious weed species will be controlled using an Integrated Vegetation Management Approach (IVM) using a combination of manual, mechanical herbicides, and biological methods.

Subsequent and Future Cycles:

Roads: Initial treatment should last for 5-8 years with out any follow up treatment.

Noxious Weeds: The areas will be reviewed for weed infestation during patrol and maintenance. Follow-up herbicide treatments would be recommended on a 3-4 year basis after initial treatment. Also the addition of bio-controls would be considered.

5. *Determine revegetation methods, if necessary.*

All efforts will be made to include native species into seed mixtures; however, introduced species are more competitive with noxious weeds. Seeding should be completed when there is enough moisture to allow for 2 months of growth. Seeding can be completed in early fall, late winter or early spring.

6. Determine monitoring needs.

The site will be inspected during the initial treatment. In addition, routine patrols by BPA ground and aerial crews will monitor the site for treatment effectiveness. The Local Weed Control Board Patrol will also inspect for weeds on an annual basis.

7. Prepare appropriate environmental documentation.

Besides this Vegetation Management Supplement Analysis, 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

Thomas C. McKinney
NEPA Compliance Officer

DATE: 04/02/2003

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
D. Hollen – TF/DOB-1
M. Richardson – TFP/Walla Walla
R. Duncan – TFP/Walla Walla
G. Wilfong – TFPF/Pasco
Environmental File – KEC - 4
Official File – KEP-4 (EQ-14)

Vegetation Management Checklist

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way Walla Walla county road brush management & noxious weed management.

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
Lower Monumental McNary 13/1 to 14/1	78 miles 500kv	125	1 miles
Lower Monumental McNary 18/1 to 19/5	78 miles 500kv	125	1.5 miles

Right Of Way: 2.5 mile
 Transmission Structures – clearing around
 Access Road clearing - approximate miles –2.5
 Other Noxious weed Management

1.2 Describe the vegetation needing management.

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

Vegetation Types:

Noxious Weeds - Knapweed species, and county listed weeds
Other/Description – low brush and weeds around structures and roads
 Weed density ranges from light to heavy.

- In the following places the landowner may be provided herbicides for noxious weed control. Noxious weed board performs almost all of the work. If BPA does provide herbicides to landowners in the future, they will be provided with the appropriate environmental information.

Others as requested - Tordon 22K (Picloram), Trooper/Vanquish (Dicamba), 2,4-d. TELAR

Tordon is being considered since it is one of the most effective products know to control knapweeds and other broadleaf species. Care must be taken due to its persistence and ground and surface water issues.

Suggested Seed mixture to reduce and prevent noxious weeds.

Approved and Suggested seeds	*Native	Reason for seeding
Mixes can be developed form the following seed species. Based on site and adaptation. <u>Name</u> Sheep fescue (Festuca ovina) N Smooth Brome I Canada bluegrass (Poa compressa) N Big Bluegrass N Intermediate Wheatgrass I Bluebunch Wheatgrass N Pubesent Wheatgrass N Sand dropseed N	N=Native I=Introduced	Re-seeding and Fertilization after noxious weed treatments has been shown to be effective in preventing the re-establishment of noxious weeds and which reduces the need for future herbicide applications

Needlegrass N Crested Wheatgrass I Perennial Ryegrass I Sickle-keeled lupine N And/or Lupinus bicolor N clovers Alfalfa I		
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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.

N/A

1.4 Describe overall management scheme/schedule.

See Handbook - Overall Management Scheme/Schedule.

Initial entry –Listed noxious weeds are present in the ROW. A cooperative effort to control noxious weeds is also proposed with landowners and the Walla Walla County Noxious Weed Control Board. These listed noxious weeds are non-native species that need to be controlled to prevent any additional spread of these weeds and encroachment of habitat for native species on the right-of-way. These noxious weed species will be controlled using an Integrated Vegetation Management Approach (IVM) using a combination of manual, mechanical herbicides, and biological methods.

Brush will be cleared using mechanical or hand methods. The sites will then be treated with herbicide to prevent weed growth and brush re-invasion.

Noxious Weeds - The selection of methods and herbicides for noxious weed management will be based on their location and proximity to water resources. Treatment will be Spot, localized and broadcast treatments (see descriptions page 12). Non-selective treatments using ground and aerial broadcast treatment may be required in areas of high infestation of weeds on the ROW, and access roads and tower sites. Localized and Broadcast Granular treatments will also be considered.

Subsequent and Future Cycles:

Roads: Initial treatment should last for 5-8 years with out any follow up treatment.

Noxious Weeds: The areas will be reviewed for weed infestation during patrol and maintenance. Follow-up herbicide treatments would be recommended on a 3-4 year basis after initial treatment. Also the addition of bio-controls would be considered.

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.

Agricultural

- Agricultural
- Grazing lands

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.

Personal contacts

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.

Most of the acres are either dry cropland or rangeland.

Agricultural

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

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.

Limited use on Private land

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

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.

No T&E streams within 400 ft. No other stream within 100feet

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 Known

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.

None Known

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

See Handbook — Protecting Other Species for requirements.

Control and Management of Noxious weeds will improve habitats.

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

See Handbook — Visual Sensitive Areas for requirements.

None known

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

See Handbook — Cultural Resources for requirements.

No Ground disturbing activities planned.

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.

N/A

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.

See Handbook — Manual, Mechanical, Biological, and Herbicides for requirements for each of the methods.

Manual: Hand tools and chainsaws

Mechanical: None, within 50 feet of streams or wetlands. Only on Access Roads and Tower sites

Herbicide: glyphosate, dicamba (Trooper/Vanquish), Telar, Escort, clopyralid, picloram, and 2-4-d may be prescribed for wick, and spot-foliar treatments (localized). Broadcast treatment can be completed using ground broadcast methods with the appropriate buffers.

APPLICATION METHOD DESCRIPTIONS

Spot Herbicide Application

A spot application treats individual plant(s) with the least amount of chemicals possible. The methods include, but are not limited, to the following:

Wick and carpet roller applications.

The herbicide is wiped on the plant(s) (noxious weeds) using hand held or equipment mounted rope wicks, sponges, fiber covered wipers, or carpet wiper designs. This application device uses saturated ropes, wick or sponges that are used to apply the herbicide selectively on the plant. This method is effective where drift or sensitive water sources are a concern.

Localized Herbicide Application

“Localized” herbicide application is the treatment of individual or small groupings of plants. This application method is normally used only in areas of low-to-medium target-plant density.

The application methods for this application group include, but are not limited to, the following:

Low-volume foliar treatment.

Herbicides are applied with the use of a backpack sprayer, all terrain vehicle (ATV), or tractor with a spray gun. Herbicide is applied to the foliage of individual or clumps of plants during the growing season, just enough to wet them lightly. A relatively high percentage of herbicide is used mixed with water. Thickening agents are added where necessary to control drift. Dyes may also be added to see easily what areas have been treated.

Localized granular application.

Granular or pellet forms of herbicide are hand-applied to the soil surface beneath the drip lines of an individual plant, or as close to a tree trunk or stem base as possible. Herbicide is applied when there is enough moisture to dissolve and carry the herbicide to the root zone—but not so much water that it washes the granules off-site.

Broadcast Ground Herbicide Application

Broadcast herbicide applications treat an area, rather than individual plants. Broadcast applications are used to treat rights-of-way that are thickly vegetated (heavy stem density), access roads, and noxious weeds. The application methods for this group include, but are not limited to, the following:

High-volume foliar treatments.

Herbicides are applied by truck, ATV, or tractor with a spray gun, broadcast nozzle, or boom. A hydraulic sprayer mounted on a rubber-tired tractor or truck or tracked-type tractor is used to spray foliage and stems of target vegetation with a mixture of water and a low percentage of herbicide. The herbicide mixture is pumped through hoses to a hand-held nozzle. A worker activates the nozzle and directs the spray to the target vegetation. Boom application methods involve a fixed nozzle or set of nozzles that spray a set width as the tractor passes over an area.

Broadcast granular treatment.

Granular forms of herbicide are spread by hand, belly grinder, truck or tractor. The herbicide is spread over a relatively large area, such as in an electric yard, or around tower legs.

VEGETATION

The following mitigation measures would be observed to reduce impacts on vegetation:

As much as practical, be careful not to disturb low-growing plants. When possible, use only selective vegetation control methods (such as spot herbicide applications) that have little potential to harm non-target vegetation.

- Use only those biological control agents (insects) that have been tested to ensure they are host-specific.
- When possible, wash vehicles that have been in weed-infested areas (removing as much weed seed as possible) before entering areas of no known infestations.
- Consider, if appropriate, reseeding after noxious weed treatments.
- Where cost-effective and to the extent practicable, use regionally native plants for landscaping.
- Use seeds, seedlings, or plants that are consistent with management objectives and adapted to climatic conditions, soils, landscape position, and the site itself.

- Use native seed/plants if the species meet the objectives of the re-vegetation project, if the costs are reasonable, and if the seeds/plants are readily available in the quantity and quality needed to perform the project.
- If native *seed mixes are not reasonably priced or available in needed quantities*, consider a seed mix with some percentage of native seeds.
- Use high-purity seed; take actions to prevent purchase of seed contaminated with noxious weeds.
- Apply mitigation measures (such as timing restrictions, or specific method use) resulting from T&E determinations or consultations.
- Follow herbicide product label directions for appropriate uses, restrictions etc.
- Use herbicide-thickening agents (as appropriate), label instructions, and weather restrictions to reduce the drift hazard to non-target plants.
- Do not apply pellet herbicides within three times (3X) the crown width (or drip line) of an off-right-of-way tree.
- In the rare case of an herbicide spill, follow all herbicide spill requirements, including containment and clean-up procedures.
- Visit rights-of-way after treatments to determine whether target vegetation was controlled and whether non-target plants were affected.

SOILS

The following mitigation measures would be observed to reduce impacts on soils:

- Do not use ground-disturbing mechanical equipment to clear on slopes over 20%.
- Use mechanical clearing or heavy equipment when the ground is sufficiently dry to sustain the equipment and excessive rutting will not occur.
- Re-seed or re-plant seedlings on slopes with potential erosion problems and/or take other erosion control measures as necessary.

WATER RESOURCES

The following mitigation measures would be applied for water resources.

- In riparian areas, use selective control methods and take care not to affect non-target vegetation.
- In riparian areas, leave vegetation intact, where possible.
- 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.

- Follow herbicide product label directions for appropriate uses, restrictions etc.
- Use herbicide thickening agents (as appropriate), label instructions, and weather restrictions to reduce the drift hazard to water resources.
- Ensure that there is no danger of granular herbicides being washed from the areas of application.
- Notify inspector and the State of any amount of herbicide spill in or near water.
- Always use siphon prevention devices/methods when filling herbicide tanks from domestic water supplies.
- Consider climate, geology and soil types in selecting the herbicide with lowest relative risk of migrating to water resources.
- Protect surface water and groundwater by observing all riparian buffer widths and herbicide-free zone.
- Before herbicide application, thoroughly review the right-of-way to identify and mark, if necessary, the buffer requirements.
- Monitor to determine whether desired results for water resources were achieved or whether follow-up mitigation measures are necessary (e.g., erosion control measures).
- Table VI-2: 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 habitats)				
	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}	10.7 m ^{3,4} (35 ft.)	30.5 m ⁴ (100 ft.)	30.5 m ⁵ (100 ft.)
Moderately Toxic, or if Label Advisory for Ground/ Surface Water	7.6 m ^{3,4} (25 ft.)	10.7 m ^{3,4} (35 ft.)	30.5 m ^{3,4} (100 ft.)	76.2 m ⁴ (250 ft.)	76.2 m ⁵ (250 ft.)
Highly Toxic to Very Highly Toxic	10.7 m ^{3,4} (35 ft.)	30.5 m ^{3,4} (100 ft.)	Noxious weed control only. Buffer as per local ordinance.	Noxious weed control only. Buffer as per local ordinance.	76.2 m ⁵ (250 ft.)

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

AQUATIC SPECIES

- Apply all appropriate mitigation measures outlined in the **Water** section of this chapter.
- Apply all appropriate T& E mitigation measures outlined in **Wildlife** section.

WILDLIFE SPECIES

The following mitigation measures would apply for wildlife species.

- Apply mitigation measures (such as timing restrictions, or specific method use) resulting from determinations or consultations.

AGRICULTURE

The following mitigation measures would apply to agricultural areas.

- Prevent the spread of noxious weeds by cleaning seeds from equipment before entering cropland.
- If using herbicides on grazing lands, comply with grazing restrictions as required per herbicide label.
- For rights-of-way adjacent to agricultural fields, observe appropriate buffer zones necessary to ensure that no drift will affect crops.
- If using herbicides near crops for consumption, comply with herbicide-free buffer zones, if any, as per label instructions.
- For rights-of-way near organic farms, observe appropriate buffer zones, or provide for the owner to maintain the right-of-way, by way of a vegetation management agreement.
- If reseeding, determine whether any of the adjacent properties are being, or will in the immediate future be, used for growing grass seed, especially high-purity strains.
- If reseeding near grass seed fields, consult with the area seed certification and registration authority to determine whether buffer zones are necessary, appropriate grass mixtures allowed, and appropriate modes of seeding used.

OTHER FEDERAL LANDS

- Notify and cooperate with other federal agencies when scheduling site-specific right-of-way vegetation control activities on their lands.

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.

N/A

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.

See previous

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

Soils and adaptation of introduced species are more competitive with noxious weeds. Efforts will be made to include native species into seed mixtures.

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

Seeding should be completed when there is enough moisture to allow for 2 months of growth. Seeding can be completed early and late fall, or late winter or early 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. And Weed board members

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

Routine patrols by BPA ground and aerial patrols. The Local Weed Board Patrols and inspects for weeds on a yearly basis.

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.

None