

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: September 5, 2001

REPLY TO
ATTN OF: KEP/Z992

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-25)

TO: Elizabeth Johnson – TFR/The Dalles
Jim Jellison – TFO/Olympia

Proposed Action: Vegetation Management along selected ROW sections of the Ostrander-Pearl transmission line. The ROWs include sections of the Ostrander-Pearl 500 kV line; the Ostrander-McLoughlin 500 kV line; the Big Eddy-Chemawa 230 kV line and the Big Eddy-McLoughlin 230 kV line.

Location: The ROW is located in Clackamas County, Oregon, within the Olympia Region.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposed Action: BPA proposes to clear unwanted vegetation in the rights-of-way and around tower structures that may impede the operation and maintenance of the subject transmission lines. The project also includes clearing approximately 3 miles of access road and cutting of some danger trees. All work will be in accordance with the National Electrical Safety Code and BPA Standards. BPA plans to conduct vegetation control with the goal of removing tall-growing vegetation that is currently or will soon be a hazard to the transmission lines and to promote low-growing plant communities in the right-of-way and to clear vegetation from new rights-of-way corridors.

See Section 1.1 of the attached checklist for pertinent information on each section of referenced transmission line.

Analysis: This project meets the standards and guidelines for the Transmission System Vegetation Management Program Final Environmental Impact Statement (FEIS) and Record of Decision (ROD).

Planning Steps

1. Identify facility and the vegetation management need.

A variety of vegetation needs control including Douglas Fir, True Fir, Hemlock, Pine, Alder, Maple, Oak, Willow, Birch, Poplar, Cedar, Cottonwood, Cherry, and residential and orchard trees. A number of noxious weeds are also in need of control including, blackberries, poison oak, scotch broom and tansey.

The work involved in the ROW includes: clearing tall growing vegetation that is currently or will soon pose a hazard to the lines; treating the associated stumps and re-sprouts with herbicide to ensure that the roots are killed preventing new sprouts and selectively eliminating tall growing vegetation before it reaches a height or density to begin competing with low-growing vegetation. All work will take place in existing rights-of-ways, access road corridors, and around transmission structures. All work will be accomplished by selective vegetation control methods to assure that there is little potential harm to non-target vegetation and to low-growing plants. The work will provide system reliability and fire protection.

The vegetation control is designed to provide a 3-4 year maintenance free schedule. The overall vegetation management scheme will initially include selective removal and treatment of tall growing species in the fall of 2001 with follow up treatment in the spring and summer of 2002 to treat misses and any other re-growth. Future cycles will be every 3-4 years to control re-sprouts, noxious weeds and invading tall growing species.

2. Identify surrounding land use and landowners/managers.

The subject corridors traverse residential, rural, and agricultural lands. They are either all fee owned, all easement or a combination of the two. Surrounding landowners and land managers will be contacted by letter within 2 weeks prior to commencing work.

3. Identify natural resources.

Riparian areas, T&E streams, springs, and wetlands have been identified in areas of the proposed work. Mitigation measures include use of buffers, selective use of herbicides, and selective cutting as identified in Section 3.1 of the attached checklist and as identified in the Vegetation Control Prescription, also attached.

Two wells have also been identified along the project corridors. Mitigation measures again include the use of buffers as identified in the attached documents.

No other T&E/wildlife issues, visually sensitive areas, cultural resources or other natural resource issues have been identified along the other work corridors.

Prior to the beginning of the work, the contractor will be provided with a set of the project maps, as well as with the attached list of management prescriptions from the Vegetation Management FEIS.

The herbicides used for vegetation management will be consistent with what is specified in the Vegetation Management FEIS.

4. Determine vegetation control and debris disposal methods.

A licensed contractor will undertake the proposed work. Unwanted vegetation will be removed by employing manual (hand cutting), mechanical and herbicide application methods. Chemical means would be employed to prevent resprouts of broad leaf species. Prevention of resprouts encourages low-growing plant communities to establish themselves and flourish on the right-of-way. This impact avoidance approach both maximizes the use of limited resources and minimizes environmental impacts. Herbicides used would be applied by licensed applicators following manufacturers' label instructions and BPA's management prescriptions. Herbicide used would be consistent with the guidance outlined in the Vegetation Management FEIS.

Debris disposal methods will be by lop and scatter when vegetation is light and by mowing or mulching in areas of heavier vegetation.

The attached Vegetation Control Prescription lists the proposed herbicides, methods of application, application techniques and buffers to be used.

5. *Determine revegetation methods, if necessary.*

Reseeding will be determined during operations and will likely occur on access roads. Seeding, if necessary will occur in early spring and late fall periods.

6. *Determine monitoring needs.*

An inspector will monitor the work being performed at the time of the initial work. Additional required work would be identified at that time and scheduled for the following spring if necessary.

7. *Prepare appropriate environmental documentation.*

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/ Elaine Stratton
Elaine Stratton
Environmental Protection Specialist - KEP

CONCUR: /s/ Thomas C. McKinney
Thomas C. McKinney
NEPA Compliance Officer

DATE: 9/5/2001

Attachments

**ADDENDUM TO THE
STATEMENT OF WORK**

Ostrander-Pearl/Big Eddy-Chemewa Corridor

Description of work:

Cut Stump, Lop and Scatter Treatment	559.2 acres
Cut/Mowing and Stump Treatment	17.0 acres
Structure clearing	All Structures
Side trimming off Right-of-way trees	100 hours
Noxious weed treatment	30 acres
Access Roads – Mowing & Treatment	30 acres
Danger Trees & Slash Disposal	100 hours

GENERAL

1. The following right-of-ways consist of many age classes of trees and brush that grow tall, including but not limited to conifers, Rocky Mountain maple, willow, cascara, alder species, chokecherry, big leaf maple, and alder species. Through the use of hand cutting, machine cutting or by a combination thereof, the Contractor shall control the vegetation on the transmission line right-of-way and access roads, as specified in the Treatment Detail Sheet. The Contractor will make an effort to leave the low growing vegetation on the right-of-way.
2. The contractor shall cut, mow, or a combination thereof, Cascara, vine maple, wild filbert, willow, and bitter/choke cherry, when the ground to conductor clearance is less than 50 feet. When the clearance is higher than 50 feet these species shall be left untreated unless they are in a road or tower treatment zone.
3. Access roads both on and off of the Right-of-way require control. Approximately 30 acres of treatment is required. Most access road work is within the row.
4. This project will include a variety of treatments to control the target vegetation. The Contractor will enter the right-of-way more than once during the contract period to meet the control level required. The contract period will begin in September 2001 and terminate Sept 30, 2002.
5. The Contractor shall furnish a minimum of one mowing machine equipped according to the following specifications:

A rubber tire machine capable of using at least a 6 foot rotating mowing deck that has an enclosed housing cutting mechanism to aid in mulching brush, slash, and other residues. The mower shall be equipped with a minimum 100 horsepower PTO.

OR

A track machine equipped with a minimum of a 50-gal/min. hydraulic pump and a 4-foot mowing head mounted on the end of the boom. The boom attached mower shall reach at least 30 feet each side and the boom shall be equipped with a positive type locking device to restrict the elevation of the boom to a maximum height of 15 feet.

Equipment shall meet OSHA requirements for heavy equipment operations in forest environments. Contractor must have required equipment/machinery in his/her possession and provide a description of the equipment at time of bid.

6. The Contractor will control all trees and brush that will grow tall (target vegetation) which are greater than 1 foot tall in the right-of-way as designated by the details of this contract. Trees and brush in this height class that are visible will be controlled. Target vegetation that is hidden by desirable species will not be counted in the final evaluation by BPA.

The Contractor will cut the entire width of the right-of-way. To identify width of the corridor, the contractor will locate the centerline of the outside line(s) and use a tape measure to locate and flag the both edges of the right of way before work begins.

7. All hardwood species that grow tall will be treated with an approved herbicide to prevent re-sprouting **unless there is a sensitive issue that prevents the use of herbicides.** Herbicides are listed in the treatment zones and detail sheets. The preferred treatment will be cut stump treatments using a 25% mix of Garlon 4 with approved oil. Some of the areas are suitable for basal treatment and should be mixed and applied according to the label. All conifers will be manually cut according to the standard.

8. If basal application is practical and the target vegetation is less than 14 feet, located under the conductor of each line plus 15 feet to the outside of the lines, or has more than 40 feet of conductor clearance, the vegetation can be left standing if controlled with herbicide methods. Vegetation located on other parts of the right-of-way that is less than 30 feet tall or has more than 40 feet of conductor clearance can also be left standing if controlled with herbicide methods. All trees that do not meet this criterion must be cut to standard.

9. When the ground to conductor clearance exceeds 125 feet (STC), control only vegetation that is within 50 feet of line clearance.

10. After completion of the work the contractor will be paid up to 90% of the price of the contract. The remainder will be paid based on the 2002 spring evaluations.

11. Pacific yew (*Taxus brevifolia*) may be cut. But at least one entire whorl of live branches must be left attached to the stump.

12. Cutting, removal, or damaging threatened, endangered, or sensitive plants are not permitted.

13. Permitted activities shall be immediately halted should an undocumented cultural resource site or threatened, endangered, or sensitive plant/wildlife species is discovered.

14. All woody vegetation within 30 feet of the center of a tower or wood pole that would inhibit safe access or maintenance work on a tower will be controlled. This includes vegetation such as blackberries, briars, poison oak, poison ivy, and other species that by size or density may hinder routine inspection and maintenance work or make it more hazardous. Stumps will not exceed 4 inches in height and all debris and slash will be pulled out of the control area.

15. Access roads shall have all vegetation except grasses controlled so that stumps do not exceed 2 inches height in the roadbed and 4 inches in height off of the roadbed. The control area is 14 feet wide (7 foot centers) and fifteen feet high. Limbs will be trimmed back flush to the trunk as possible when trees are rooted outside of the control area. All debris will be pulled back 10 feet from the access road as prescribed.

16. Narrow right-of-way edges with encroaching adjacent tree limbs are characteristic of this corridor. Once the line has been cut to the appropriate width, the contractor and inspector will check for encroaching side limbs from adjacent trees. If the line clearance is less than 25 feet, the contractor will side limb these identified trees. This work will be performed at an hourly rate. Estimated hours of work is 100 hours.

17. SKIP AREAS: These areas generally have little or no indication of tall growing trees. However, the Contractor is still instructed to review these areas for occasional tall growing tree or trees present.

18. NOXIOUS WEED CONTROL: Scotch Broom and other noxious weeds may be present on areas of the right-of-way. The contractor and inspector will identify areas needed control and provide treatment of up to 30 acres of noxious weed control using appropriate methods.

19. As stated in the contract, the crew supervisor will be fluent in the English language. Crew foreman or supervisors must be able to fluently speak, read, write, and comprehend the English language.

20. If landowners have houses or facilities within 200 feet of the Right-of-way, the contractor will contact them in person or leave a door hanger at the house one-day prior to treatment.

EVALUATION

1. The contractor is expected to achieve the following level of control of target species.

<u>Tree height class</u>	<u>% control</u>
0-5 feet tall	90%
5-10 feet tall	95%
10 feet tall +	100%

In addition visual and performance inspection will be made. Criteria will include the Contractors ability to perform according to the specifications, ability to safely perform the work, and a visual inspection of the control work.

Vegetation Management Checklist

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Ostrander-Pearl	15 miles/500kV	Varies from 687.5 – 250'	15 +/-
Ostrander-McLo	10 miles/500kV		Note: Row splits apart in several locations. Reference lines are the Ostrander-Pearl & BE-Chemawa.
BE-Chemawa	15 miles/230kV		
BE-McLo	10 miles/230kV		

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](#).

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

Transmission Structures – clearing around

Access Road clearing - approximate miles – 3

Reclaim (“C”) Trees

Danger Tree clearing

1.2 Describe the vegetation needing management.

See handbook — [List of Vegetation Types](#), [Density](#), [Noxious Weeds](#) for checkboxes and requirements.

Vegetation Types:

Douglas Fir /True Fir /Hemlock /Pine /Alder /Maple /Oak /Willows /Birch /Poplar /Cedar /Cottonwood

Wild Cherry /Residential/orchard tree-trimming

/Noxious Weeds -

Blackberries /Poison Oak /Scotch Broom /Tansey

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.

- Tall-growing vegetation that is currently or will soon be a hazard to the line will be removed. (In places where tall growing vegetation must be left in place, it may not be possible to promote low-growing plants.)
- 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 – All tall growing tree & brush species need to be cut and treated to prevent grow-into trees. Access roads & structures will be mowed and treated where practicable. Noxious weed will be treated & danger trees will be cut to reduce side limbs from encroaching into row. Contractor will begin work in fall of 2001 and return in the spring and summer of 2002 for followup treatments.

Subsequent entries – Every 3-4 years, a maintenance contract will be necessary to pick up resprouts, noxious weeds, and invading tall growing species. Use of herbicides on the initial and subsequent entries should reduce quantity and cost of work.

Future cycles – Same as above.

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 along row mainly consists of pasture lands, Christmas tree farms, and some single family subdivision lots. No Federal, State, or local governments have property rights with this row.

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.

Method of notification will be a letter sent to landowners 2 weeks prior to commencing work. NRS will work with landowners to resolve issues prior to contractor’s work.

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](#).

Below, is the current conditions of the row. Not all Christmas tree farms have permits according to LIS information. Once work commences on row, more permits may be requested and issued.

Info for Ostr-Pearl/Ostr-Mclo/BE-Chem/BE-Mclo Corridor until splits in the row occur

Span		Landowner/use	Specific measures to be applied
To	From		
4/1	1/1+700	Christmas tree farms – various owners. Some w/o permits.	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
5/1+500	4/4+500	Christmas tree farm – permitted.	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
5/3+900	5/3+600	Christmas tree farm – permitted.	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
5/4+250	5/4-800	Christmas tree farm – permitted.	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
		<i>Ostr-Pearl/BE-CH split @ 6/1 & 77/1, respectively.</i>	
BE-CH 77/3-200	BE-CH 77/2+450	Christmas tree farm – permitted.	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.

Span		Landowner/use	Specific measures to be applied
To	From		
BE-CH 78/4	BE-CH 78/4	Christmas Trees w/o permit	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
BE-CH 78/6	BE-CH 78/6	Trees topped w/o permit	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
O-P 7/3	O-P 7/3	Trees topped w/o permit. Landowner may be trouble.	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
O-P 7/4	O-P 7/4	Trees topped w/o permit..	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
		<i>Ostr-Pearl/BE-CH rejoin @ 7/4 & 78/6, respectively.</i>	
8/3	8/3	Trees topped w/o permit	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.
		<i>Ostr-Pearl/BE-CH split @ 10/1 & 81/1, respectively.</i>	
		<i>Ostr-Pearl/BE-CH rejoin @ 10/4 & 81/4, respectively.</i>	
11/6	11/4-125	Christmas tree permit	Row boundaries will be flagged & scattered vegetation/danger trees may be cut & treated in scattered locations.

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.

Some existing Christmas tree agreements that remain active. Several others have been cancelled according to the LIS for reasons unstated. Other uses applied and granted are for drainfields, water lines, driveways, etc.

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

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.

Info for Ostr-Pearl/Ostr-Mclo/BE-Chem/BE-Mclo Corridor until splits in the row occur:

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
To	From							
2/1+450	2/1+250	Foster Creek.	Yes	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
4/2	3/6	Stream/Pond	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr. & pond.
4/3+1000	4/3+800	Clear Creek	Yes	Handcut & selective	Rodeo	Spot spray stumps	200'	Debris to be fell away from cr.
4/4-200	4/3+1400	Creek & Pond	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr. & pond.
5/4	5/3+900	Creeks & wetland	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr. & wetland.
5/5	5/5	Well	No	Handcut & selective	Rodeo	Spot spray stumps	200' radius	Debris to be fell away from well.
5/5+1300	5/5+1100	Stream	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
						<i>Ostr-Pearl/BE-CH split @ 6/1 & 77/1, respectively.</i>		
O-P 6/4+400	O-P 6/3	Streams (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
BE-CH 77/2	BE-CH 77/1	Streams (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
BE-Ch Henrici Road	BE-CH 78/1	Streams (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
						<i>Ostr-Pearl/BE-CH rejoin @ 7/4 & 78/6, respectively.</i>		
8/1+1000	8/1+800	Abernathy Cr.	Yes	Handcut & selective	Rodeo	Spot spray stumps	200	Debris to be fell away from cr.
9/2	8/2	Streams (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.

Span		Waterbody	T&E?	Method	Herbicide	Application Technique	Buffer	Other
To	From							
								cr.
9/2+600	9/2+400	Thimble Cr.	Yes	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
10/1	9/5	Streams (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
						<i>Ostr-Pearl/BE-CH split @ 10/1 & 81/1, respectively.</i>		
BE-CH 81/1	BE-CH 80/5	Streams (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
BE-CH 81/3	BE-CH 81/3	Well	No	Handcut & selective	Rodeo	Spot spray stumps	200' radius	Debris to be fell away from well.
						<i>Ostr-Pearl/BE-CH rejoin @ 10/4 & 81/4, respectively.</i>		
11/2	11/1	Caulfield Cr. & Pond	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr. & Pond.
11/6+900	11/6+900	Caulfield Cr.	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
12/1+1050	12/1+1050	Mud Cr.	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
13/1+500	13/1+500	Stream (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
13/4	13/4	Spring	No	Handcut & selective	Rodeo	Spot spray stumps	328' radius	Debris to be fell away from spring.
14/1-450	14/1-450	Stream (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.
14/4+100	14/4+100	Spring	No	Handcut & selective	Rodeo	Spot spray stumps	200' radius	Debris to be fell away from spring.
15/1+600	15/1+600	Stream (See plan & profile)	No	Handcut & selective	Rodeo	Spot spray stumps	100'	Debris to be fell away from cr.

3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners may be able to provide this info if requested).

See Handbook — [Herbicide Use Near Irrigation, Wells or Springs](#) for buffers and herbicide restrictions.

Span		Well/irrigation/or spring	Herbicide	Buffer	Other notes/measures
To	From				
5/5	5/5	Well	Rodeo	200' radius	Spot spray stumps. Handcut selective. Debris to be fell away from well
BE-CH 81/3	BE-CH 81/3	Well	Rodeo	200' radius	Spot spray stumps. Handcut selective. Debris to be fell away from well
13/4	13/4	Spring	Rodeo	328' radius	Spot spray stumps. Handcut selective. Debris to be fell away from well
14/4+ 100	14/4+ 100	Spring	Rodeo	200' radius	Spot spray stumps. Handcut selective. Debris to be fell away from well

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.

See list above for T&E streams & mitigation. No other T&E plants or animals have been identified.

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

See Handbook — [Protecting Other Species](#) for requirements.

None

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

See Handbook — [Visual Sensitive Areas](#) for requirements.

Selective cutting & local/spot spraying will help to screen visual effects of operation. Low growing vegetation will be left wherever possible along roadsides & row.

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

See Handbook – [Cultural Resources](#) for requirements.

None identified – minor soil disturbance expected.

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.

Most of the row is gentle rolling hills or level ground. COTR/inspector/contractor shall shut down any operations immediately that may disturb soil or create possible erosion problems. Contract will be scheduled to run for a full year to avoid working in saturated conditions.

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

See Handbook – [Spanned Canyons](#) for requirements.

Span		Methods, cutting
To	From	
4/3+ 1000	4/3+ 800	Approx. 100' vertical distance between ground (Clear Cr.) and line. Identify & handcut all trees that are w/in 50' of line & fell away from stream. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
5/3+ 800	5/3+900	Approx. 110' vertical distance between ground (stream & wetland) and line. Identify & handcut all trees that are w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
5/5+ 1300	5/5+ 1100	Approx. >125' vertical distance between ground (stream) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
6/1+ 300	6/1+ 200	Approx. 120' span. Identify & handcut all trees that are w/in 50' of line. Spot spray hardwood stumps. Maintain all other low growing vegetation.
6/4+3 100	6/4+ 70	Approx. >125' vertical distance between ground and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
8/1+ 1000	8/1+800	Approx. 115' vertical distance between ground (Abernathy Cr.) and line. Identify & handcut all trees that are w/in 50' of line & fell away from stream. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
8/5+ 800	8/5+500	Approx. 110' vertical distance between ground (streams) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
9/5+ 650	9/5+550	Approx. >125' vertical distance between ground (stream) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
10/1+ 300	10/1+ 260	Approx. 115' vertical distance between ground (stream) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
11/6+ 900	11/6+ 800	Approx. >125" vertical distance between ground (Caulfield Cr.) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
12/1+ 1000	12/1+ 1100	Approx. >125" vertical distance between ground (Mud Cr.) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
13/1+ 500	13/1+ 400	Approx. >125" vertical distance between ground (stream) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
77/1+ 600	77/1+ 500	Approx. 110' vertical distance between ground (stream) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.
78/1+ 300	78/1+ 200	Approx. >125" vertical distance between ground (stream) and line. Identify & handcut all trees w/in 50' of line & fell away from stream/wetland. Spot spray hardwood stumps w/ Rodeo. Maintain all other low growing vegetation.

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.

See cut sheet and accompanying zones for veg. control methods & herbicides.

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 & scatter when slash loading is light. Mow/mulch slash if heavy concentrations occur.

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.

Reseeding will be determined during operations. Seeding will likely occur on access roads if at all.

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

N/A

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

Seeding would occur in fall or spring if necessary.

6. DETERMINE MONITORING NEEDS

See handbook — [Monitoring](#) for requirements.

6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.

Monitoring will occur during operations in the fall to determine how much & when contractor will need to do in the spring as followup work. Target vegetation control will be scrutinized for respraying in the spring. Desired environmental results will be reviewed along streams, springs, wells, and soil. If any negative impact is apparent, measures will be taken immediately to mitigate. Once contract is completed, an analysis on the treatment will be done to make recommendations for the next treatment cycle.

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

Site will need to be reviewed annually by working patrol and NRS to insure treatment was effective.

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”.

N/A

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

N/A