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**United States Government** **Department of Energy**

**Bonneville Power Administration**

# memorandum

**DATE:** April 12, 2002

**REPLY TO ATTN OF:** KEPR/Covington

**SUBJECT:** Supplement Analysis for the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285/SA-55)

**TO:** Don Atkinson - TFN/Snohomish

**Proposed Action:** Vegetation Management along the Raver – Paul No. 1 Transmission Line ROW from structure 15/5 to 29/3. The transmission line is a 500 kV line.

**Location:** The ROW is located Pierce County, WA.

**Proposed by:** Snohomish Regional Headquarters, Bonneville Power Administration (BPA).

**Description of the Proposed Action:** BPA proposes to clear unwanted vegetation in the rights-of-ways and around tower structures that may impede the operation and maintenance of the subject transmission line, including both Reclaim and Danger Trees. Also, access road clearing will be conducted. 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 line. BPA's overall goal is to have low-growing plant communities along the rights-of-way to control the development of potentially threatening vegetation.

**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.*

The work involved will be to clear tall growing vegetation (including reclaim and danger trees) that currently pose a hazard to the lines; selectively cut, lop and scatter and stump treat brush and other tall growing vegetation that currently or will in the near future pose a threat to the lines, treat the associated stumps and re-sprouts with herbicides to ensure that the roots are killed preventing new sprouts. All work, except danger tree work, will take place in existing rights-of-ways.

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. Desirable low-growing plants will not be disturbed. The work will provide system reliability.

Access roads will be treated using machine and hand cutting.

The vegetation control is designed to provide a 3-5 year maintenance free interval. The overall vegetation management scheme will initially include selective removal and treatment of tall growing species utilizing cut and stump treat methods using practically non toxic to slightly toxic herbicides as outlined in the attached checklist.

Subsequent work will be needed the following growing season as follow-up to treat misses and any other re-growth.

Future cycles - As tall growing species are controlled, 5-8 year entry treatments will be needed.

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

The subject corridor traverses rural residential, farms, grazing lands, and small and private forestlands. Landowners will be notified of the upcoming work by letters, personal contact and door hangers.

*3. Identify natural resources.*

Riparian areas and T&E streams (see attached checklist at 3.1) have been identified in the areas of the proposed work. In addition, the project will cross steep slope and spanned canyon areas (see checklist at 3.7 and 3.8).

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

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 would undertake the proposed work. The unwanted vegetation would be removed by employing cut stump, basal and foliar treatment methods. Chemical means would be employed to prevent resprouts from the cut stumps. 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.

The contractor will receive a list of required mitigation measures (management prescriptions) to follow as well as a set of maps delineating the transmission line and potential sensitive resource areas. The contractor will follow manufacturers label instructions when applying herbicides.

Debris will be disposed by:

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.) Mowing and mulching along access roads.

*5. Determine revegetation methods, if necessary.*

Re-seeding will occur only along those places were soil disturbance has occurred.

*6. Determine monitoring needs.*

An inspector will monitor the work being performed at the time of the initial work. Follow-up inspections will be preformed during routine regular patrols. Additional required work would be identified at that time.

*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/ Mark A. Martin*
Mark A. Martin
Environmental Protection Specialist

CONCUR */s/ Thomas C. McKinney* DATE: *04/26/2002*
Thomas C. McKinney
NEPA Compliance Officer

Attachments

cc:
L. Croff – KEC-4
T. McKinney - -KEC-4
J. Meyer – KEP-4
J. Sharpe – KEPR-4
P.Key – LN-7
M. Johnson – TF/DOB-1
S. Davis – TFN/Snohomish
L. Alvarez – TFN/Snohomish
C. Pursiful – TFNK/Covington
Environmental File – KEC
Official File – KEP-4 (EQ-14)

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# Vegetation Management Checklist

Raver-Paul No. 1

15/5 to 29/3

Prepared by: **Don Atkinson**

Natural Resource Specialist

April 4, 2002

## 1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

### 1.1 Describe Right-of-way.

| Corridor Name | Corridor Length & kV | Easement width | Miles of Treatment |
|---|---|---|---|
| Raver-Paul No. 1, 500kv | 15/5 to 29/3 | 262.5 to 280.0 | Approx. 14 miles |

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:**

**Right-of-Way –** clearing in right-of-way using a combination of machine cutting and hand cutting.

**Transmission Structures –** clearing around structures as needed by a combination of machine and hand cutting

**Access Road clearing** - approximate miles – **19 of machine and hand cutting (this includes both on and off right-of-way access roads)**

**Reclaim ("C") Trees –** will be cut as part of this project

**Danger Tree clearing –** will be done as part of this project

### 1.2 Describe the vegetation needing management.

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

**Vegetation Types:**

**Western Red Cedar**

**Douglas Fir**

**Hemlock**

**Alder**

**Willows – mid span or where ground to conductor is low**

**Cottonwoods**

**Scotch Broom – along access roads and around structures**

**Blackberry**

**Density:**

**The density is variable through the project and ranges from Low (50 stems or less per acre) to High (450 + stems per acre).**

**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 treated. Low growing plants (plant communities) will not be** (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 spot herbicide treatments on species that re-sprout will be carried out to ensure that the roots are killed (follow-up treatment may take place during the next growing season). Herbicides will not be applies using high volume methods to ensure that non-target species are not treated.**

**Note: there is no Forest Service land in this project.**

**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** – Cut, lop and scatter, treat stumps where possible to prevent re-sprouting (on State and Private lands). Areas where densities are high, or that have lots of Scotch Broom will be mowed using a track mounted mowing head. Access roads and structure sites may also be mowed and chemically treated.

**Subsequent entries** – Follow-up/re-treatment, within the next growing season, with herbicides in areas that were not treated due to adverse weather conditions or where there was not a good kill. Access roads, structure sites and areas that were not treated immediately after cutting will be spot treated within one growing season.

**Future cycles** – This area is being managed on a 3 to 5 year cycle for brush and danger trees.

## 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.

Plum Creek Timber, Washington State DNR, Campbell Group (Kapowsin Tree Farm)

Small private landowners: rural residential, agriculture, pasture

**2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., door hangers, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.**
See Handbook — **Methods for Notification and Requesting Information** for requirements.

Letters or Personal contact and door hangers.

Met with the Campbell Group on March 19, 2002, to discuss ROW management activities within the Kapowsin Tree Farm, and information required by BPA's Contractors entering the tree farm (see attached letter).

**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.**.

See 2.4 for tree & brush agreement.

*Note-not all areas within the project area will be treated with chemicals, riparian areas, and areas where private landowners who do not want chemicals used **will not** be treated.

**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.

Raver-Paul No. 1 (See attached maps for locations)

| Span | | Landowner/use | Specific measures to be applied |
|---|---|---|---|
| From | To | | |
| 19/2 + 890 | 19/4 + 00 | Turok, Mike,<br>Domestic Water Supply | Contact landowner before cutting or treating with herbicides. |
| 24/4 + 340 | 24/5 + 90 | Gale, T.<br>Tree & Brush Agreement | Land owner will maintain |
| 25/1 + 25 | 25/1 + 250 | Horan, R. A.<br>Drain Field. | Need to protect drain field from heavy equipment |
| 26/4 + 520 | 27/1 + 360 | Stillman, C. G.<br>Sensitive Landowner | Contact landowner before cutting or treating with herbicides. |

**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.

Horse back riding from the 16 mile to the 23 mile.

**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 within the project area.

## 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.

Raver-Paul No. 1 (See attached maps for locations)

| Span | | Waterbody | T&E? | Treatment Zone | Herbicide | Application Technique | Buffer | Other |
|---|---|---|---|---|---|---|---|---|
| From | To | | | | | | | |
| 16/1+ 75 | 16/1 + 390 | Creek | no | Riparian | See Below | See below | See below | |
| 16/1 + 550 | 16/1 + 710 | Marsh/ Wetland | no | Riparian | See below | See below | See below | |
| 16/3 + 400 | 16/3 + 550 | Creek/ Wetland | no | Riparian | See below | See below | See below | |
| 17/2 + 210 | 17/2 + 720 | Creek, Springs & Wetland | no | Riparian | See below | See below | See below | |
| 17/4 + 125 | 17/4 + 975 | Marsh/ Wetland | no | Riparian | See below | See below | See below | |
| 14/4 + 975 | 18/1 + 1000 | Page Creek & wetlands | Yes | Riparian T&E | See below | See below | See below | Anadromous fish |
| 18/1 + 1000 | 18/1 + 1910 | So. Prairie Creek | Yes | Riparian T&E | See below | See below | See below | Anadromous fish |
| 19/2 + 200 | 19/2 + 510 | Wetland | no | Riparian | See below | See below | See below | |
| 20/3 + 650 | 20/3 + 800 | Creek | no | Riparian | See below | See below | See below | |
| 20/4 + 635 | 20/5+ 00 | Wilkeson Creek | yes | Riparian T&E | See below | See below | See below | Anadromous fish, Bull Trout |
| 20/5 + 800 | 20/5 + 900 | Creek Intermittent | no | Riparian | See below | See below | See below | |
| 21/4 + 180 | 21/4 + 280 | Creek Intermittent | no | Riparian | See below | See below | See below | |
| 22/3 + 100 | 22/3 + 425 | Creek & Wetland | no | Riparian | See below | See below | See below | |
| 22/3 + 600 | 22/3 + 1825 | Carbon River | yes | Riparian T&E | See below | See below | See below | Anadromous fish, Bull Trout |

## Raver - Paul No. 1 (see attached maps for locations)

| Span | | Waterbody | T&E? | Treatment Zone | Herbicide | Application Technique | Buffer | Other |
|---|---|---|---|---|---|---|---|---|
| From | To | | | | | | | |
| 22/4 + 00 | 22/4 + 400 | Marsh | no | Riparian | See below | See below | See below | |
| 23/1 + 325 | 23/2 + 890 | Marsh & Wetlands | no | Riparian | See below | See below | See below | |
| 23/3 + 30 | 23/3 + 500 | Creek & Wetlands | no | Riparian | See below | See below | See below | |
| 23/4 + 60 | 23/4 + 1125 | Creeks & Wetlands | no | Riparian | See below | See below | See below | |
| 23/5 + 625 | 23/5 + 725 | Creek Intermittent | no | Riparian | See below | See below | See below | |
| 24/1 + 300 | 24/1 + 400 | Creek Intermittent | no | Riparian | See below | See below | See below | |
| 24/2 + 60 | 24/2 + 450 | Creek & Ponds | no | Riparian | See below | See below | See below | |
| 24/5 + 250 | 24/5 + 925 | Creek & Ponds | no | Riparian | See below | See below | See below | |
| 25/1 + 360 | 25/1 + 1280 | Voight Creek | yes | Riparian T&E | See below | See below | See below | Anadromous Fish |
| 25/2 + 600 | 25/2 + 1030 | Wetlands | no | Riparian | See below | See below | See below | |
| 25/3 + 580 | 25/3 + 1320 | Wetlands | no | Riparian | See below | See below | See below | |
| 25/4 + 450 | 25/4 + 675 | Wetlands | no | Riparian | See below | See below | See below | |
| 26/1 + 200 | 26/1 + 690 | Creek Intermittent | no | Riparian | See below | See below | See below | |
| 26/3 + 330 | 26/3 + 450 | Spring | no | Riparian | See below | See below | See below | |
| 26/3 + 625 | 26/3 +730 | Spring | no | Riparian | See below | See below | See below | |
| 26/4 + 240 | 26/4 + 1140 | Coplar Cr. & wetlands | no | Riparian | See below | See below | See below | |
| 27/4 + 575 | 24/4 + 775 | Wetlands | no | Riparian | See below | See below | See below | |

## Raver - Paul No. 1 (see attached maps for locations)

| Span | | Waterbody | T&E? | Treatment Zone | Herbicide | Application Technique | Buffer | Other |
|---|---|---|---|---|---|---|---|---|
| From | To | | | | | | | |
| 28/1 + 60 | 28/1 + 180 | Wetlands | no | Riparian | See below | See below | See below | |
| 28/1 + 800 | 28/1 + 1010 | Creeks | no | Riparian | See below | See below | See below | |
| 28/2 + 1140 | 28/3 + 410 | Wetlands | no | Riparian | See below | See below | See below | |
| 28/3 + 720 | 28/3 + 1030 | Creek | no | Riparian | See below | See below | See below | |
| 28/4 + 240 | 28/4 + 820 | Wetlands | no | Riparian | See below | See below | See below | |
| 29/1 + 230 | 29/1 + 340 | Intermittent Creek | no | Riparian | See below | See below | See below | |
| 29/1 + 750 | 29/1 + 850 | Intermittent Creek | no | Riparian | See below | See below | See below | |
| 29/2 + 580 | 29/2 + 680 | Intermittent Creek | no | Riparian | See below | See below | See below | |
| 29/2 + 970 | 29/2 + 1070 | Intermittent Creek | no | Riparian | See below | See below | See below | |
| 29/3 + 190 | 29/3 + 625 | Puyallup River | yes | Riparian T&E | See below | See below | See below | Anadromous Fish & Bull Trout |

| | |
|---|---|
| **Riparian** | **RIPARIAN**: 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. No mechanical treatments.<br><br>**Herbicides**: Within 100 ft. of a stream, only cut-stump and localized treatments using practically toxic or Slightly toxic formulations of glyphosate, imazapyr, and Escort can be used up to the waters edge. Highly Toxic and very highly toxic (to fish) herbicides will not be used in this zone. Triclopyr (Garlon 4) may be used only more than 200 ft. from streams or water. |
| **Riparian T&E** | **RIPARIAN SALMON**: BPA, county, or private lands, within 122 m (400 ft.) of a listed salmon or bull trout stream. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. No mechanical treatments except along access roads and around structures.<br><br>**Herbicides**: No herbicide treatments allowed within the buffer zone. |

**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 restriction

Raver-Paul No. 1 (See attached maps for locations)

| Span | | Wells, Irrigation or Springs | Treatment Zone | Buffer |
|---|---|---|---|---|
| From | To | | | |
| 19/2 + 890 | 19/4 + 00 | Domestic water supply | Non Herbicide Area | From 19/2 + 890 to 19/4 +00 |
| 24/4 + 400 | 24/4 + 600 | Well | Non Herbicide Area | 100 ft. radius around well head |
| 28/2 + 820 | 28/2 + 1020 | Well | Non Herbicide Area | 100 ft. radius around well head |

| | |
|---|---|
| **NON-HERB** | **NON-HERBICIDE AREAS**<br>Water sources, springs, wells and other sensitive lands within 100 feet of sensitive Riparian areas or water sources. Hand Cutting Methods only, no Herbicides allowed.<br>WELLS: No herbicides allowed within 100 feet of wellhead. Use only herbicides that do not have ground or surface water advisories between 100 and 165 feet of wellhead. Approved herbicides include: glyphosate, imazapyr, tryclopyr, Escort, |

**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.

Raver-Paul No. 1 (See attached maps for locations)

| Span | | Waterbody | T&E? | Treatment Zone | Herbicide | Application Technique | Buffer | Other |
|---|---|---|---|---|---|---|---|---|
| From | To | | | | | | | |
| 17/4 + 975 | 18/1 + 1910 | Page Creek & So. Prairie Creek | yes | Riparian T& E | See Below | See below | See below | Anadromous Fish & Bull Trout |
| 20/4 + 635 | 20/5 + 00 | Wilkeson Creek | yes | Riparian T&E | See below | See below | See below | Anadromous Fish |
| 22/3 + 630 | 22/3 + 1980 | Carbon River | yes | Riparian T&E | See below | See below | See below | Anadromous Fish & Bull Trout |
| 25/1 + 360 | 25/1 + 1280 | Voight Creek | yes | Riparian T&E | See below | See below | See below | Anadromous Fish |
| 29/3 + 190 | 29/3 + 625 | Puyallup River | yes | Riparian T&E | See below | See below | See below | Anadromous Fish |

| | |
|---|---|
| **Riparian T&E** | **RIPARIAN SALMON**: BPA, county, or private lands, within 122 m (400 ft.) of a listed salmon or bull trout stream. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. No mechanical treatments except along access roads and around structures.<br>**Herbicides**: No herbicide treatments allowed within the buffer zone. |

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

None mapped. See resources for mitigation for salmon and Bull Trout.

**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**, however the areas that would possibly be visually sensitive would be along the Carbon and Puyallup Rivers. The Treatment planned for these areas is select tree cutting, which would meet any visual quality objectives.

**3.6 List areas with cultural resources and the measures to be taken in those areas.**
See Handbook – **Cultural Resources** for requirements.

None known within the right-of-way.

**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. See attached maps for exact locations.

Raver - Paul No. 1, (see attached maps for locations)

| Span | | Describe sensitivity | Method/mitigation measures |
|---|---|---|---|
| From | To | | |
| 16/3 + 00 | 16/3 + 400 | Steep slope | See below |
| 17/2 + 00 | 17/2 + 210 | Steep slope | See below |
| 17/4 + 00 | 17/4 + 125 | Steep slope | See below |
| 18/1 + 1000 | 18/2 + 00 | Steep slope | See below |
| 22/3 + 100 | 22/3 + 2225 | Steep slope | See below |
| 23/5 + 275 | 24/1 + 00 | Steep slope | See below |
| 24/4 + 300 | 24/4 + 400 | Steep Slope | See below |
| 25/1 + 360 | 25/1 + 1280 | Steep Slope | See below |
| 26/3 + 50 | 26/3 + 330 | Steep Slope | See below |
| 26/4 + 1140 | 27/2 + 00 | Steep Slope | See below |
| 28/1 + 125 | 28/2 + 00 | Steep Slope | See below |
| 29/1 + 70 | 29/1 + 230 | Steep Slope | See below |
| 29/1 + 750 | 29/1 + 850 | Steep Slope | See below |
| 29/3 + 190 | 29/3 + 625 | Steep Slope | See below |

| Zones | Treatment Alternatives |
|---|---|
| **SS** | BPA Fee owned State DNR, or private lands where a steep slope or visual resources precludes mechanical treatments except on access roads and around structures. Available: all manual and biological treatments. All herbicide treatments including cut-stubble treatment following a mechanical treatment on access roads and structure sites.<br><br>**Herbicides:** glyphosate, triclopyr (Garlon 3A and 4), imazapyr, dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments. In addition to the above herbicides, Escort, and clopyralid can be used spot foliar and broadcast treatments. 2,4-d amine can be added to the list to control noxious weed species. |

**3.8 List areas of spanned canyons and the type of cutting needed.**
See Handbook – **Spanned Canyons** for requirements.

## Monroe-Custer No. 1

| Span | | Describe sensitivity | Method/mitigation measures |
|---|---|---|---|
| **To** | **From** | | |
| 18/1 + 1000 | 18/1 + 1620 | Select Tree Cut | See below |
| 19/3 + 680 | 19/3 + 1070 | Select Tree Cut | See below |
| 20/4 + 1010 | 20/4 + 1200 | Select Tree Cut | See below |
| 22/3 + 660 | 22/3 + 1825 | Select Tree Cut | See below |
| 25/1 + 740 | 25/1 + 880 | Select Tree Cut | See below |
| 29/1 + 230 | 29/1 + 340 | Select Tree Cut | See below |
| 29/3 + 225 | 29/3 + 625 | Select Tree Cut | See below |

| Zones | Treatment Alternatives |
|---|---|
| **STC** | Any areas in the corridor with greater than 38.1 m (125 ft.) vertical distance between the ground surface and transmission lines. Here, removal is periodically required only of individual trees (single tree cuts) that could encroach into the transmission corridor danger zone.<br>**Herbicides:** None. |

## 4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — **Methods**

### 4.1 List Methods that will be used in areas not previously addressed in steps above.

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

| Zones | Treatment Alternatives |
|---|---|
| **LT** | **LEVEL TERRAIN**: BPA, county, or private lands where the ROW is Fairly flat and level. There are minimal environmental and treatment restrictions. Available: all manual, mechanical (when conditions make it feasible), and biological treatments: all herbicide treatments spot, localized, and broadcast treatment including cut-stubble treatment following a mechanical treatment where suitable.<br><br>**Herbicides:** glyphosate, triclopyr (Garlon 3A and 4), imazapyr, dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments. In addition to the above herbicides, Escort, and clopyralid can be used spot foliar and Broadcast treatments. 2,4-d amine can be added to the list to control Noxious weed species. |
| **MS**<br>**20% - 40%** | **MODERATE SLOPE:** BPA, county, or private lands where the ROW varies from flat to moderately steep terrain with stable soils. . Available: all manual, mechanical treatments using rubber tired mowers on slopes up to 20%, track mowers on slopes 40% to 60%, and specializes mowing equipment such as the Spyder (trade name) can be used on slopes up to 90% - 100% (when conditions make it feasible). All access roads and structure sites may also be mowed. Also available are biological treatments and all herbicide treatments spot, localized, and broadcast treatment including cut-stubble treatment following a mechanical treatment where suitable.<br><br>**Herbicides:** glyphosate, triclopyr (Garlon 3A and 4), imazapyr, dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments. In addition to the above herbicides, Escort, and clopyralid can be used spot foliar and Broadcast treatments. 2,4-d amine can be added to the list to control Noxious weed species. |
| **MS-SS**<br>**40% - 60%** | **MODERATE SLOPE to STEEP SLOPE:** BPA, county, or private lands where the ROW varies from moderate to steep terrain with stable soils. . Available: all manual, mechanical treatments (track mowers) on slopes 40% to 60%, and specializes mowing equipment such as the Spyder (trade name) can be used on slopes up to 90% - 100% (when conditions make it feasible). All access roads and structure sites may also be mowed. Also available are biological treatments and all herbicide treatments spot, localized, and broadcast treatment including cut-stubble treatment following a mechanical treatment where suitable.<br><br>**Herbicides:** glyphosate, triclopyr (Garlon 3A and 4), imazapyr, dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments. In addition to the above herbicides, Escort, and clopyralid can be used spot foliar and Broadcast treatments. 2,4-d amine can be added to the list to control Noxious weed species. |
| **UR-RU** | **URBAN-RURAL:** BPA, county, or private lands where the ROW is adjacent to rural and residential development. Land-use ranges from backyards, pasture, and open areas. Available: all manual, mechanical (when conditions make it feasible), and biological treatments: all herbicide treatments spot, localized, and broadcast treatment including cut-stubble treatment following a mechanical treatment where suitable.<br><br>**Herbicides:** glyphosate, triclopyr (Garlon 3A and 4), imazapyr, dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments. In addition to the above herbicides, Escort, and clopyralid can be used spot foliar and Broadcast treatments. 2,4-d amine can be added to the list to control Noxious weed species. |

## SEE CUT SHEET FOR CONTROL METHODS

## 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.

Mulching/Mowing

Lope and Scatter, some areas may be chipped due to landowner request.

**5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).**
See Handbook — **Reseeding/replanting** for requirements.

Not planned at this time. However, if soil disturbance occurs during the project, the area will be re-seeded with native grasses.

**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.**

Not planned at this time. However, areas needing re-seeding that were cut in the spring or early summer will be planted immediately after the disturbance occurs. Areas needing re-seeding that were cut during the summer, and reseeding is necessary, the area will be re-seeded in the fall just before the fall rains.

## 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.**

Work will be inspected during the project to insure contract compliance. The TLM line crew, and the NRS will also review the project area during working patrol, within one year.

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

The line crew, and the NRS will review the project area within one year, to evaluate the effectiveness of the vegetation control methods prescribed. Any areas needing re-treatment or mitigation.

## 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

**BONNEVILLE POWER ADMINISTRATION**

**RIGHT-OF WAY MAINTENANCE**

**VEGETATION CONTROL PRESCRIPTION**

**CONTRACTOR:** _____

**WORK ORDER NO.:** **00006123** **, RELEASE NO.:** _____

| LINE NAME |
|---|
| RAVER - PAUL NO. 1, 500 kv 15/5 to 22/3 + 1200 |
| OLYMPIA - GRAND COULEE NO. 1, 287 kv |
| |
| |
| |

| Treatment Zones | Abbrev. |
|---|---|
| Moderate Slope | MS |
| Mod. to Steep Slope | MS-SS |
| Steep Slope | SS |
| Riparian | R |
| Select Tree Cut | STC |

| TASK ORDER INFORMATION |
|---|
| DATE COMPLETED: |
| CONTRACTOR'S SIGNATURE |
| INSPECTOR'S SIGNATURE |

GENERAL INSTRUCTIONS: Cut, Lop and Scatter (C, L & S), Cut and Chip (C & C) or Cut and Stump Treat (C & S) as indicated in the Control Prescription or as directed by the Field Inspector. Do not cut Vine Maple or Willow unless indicated below or directed by the Field Inspector.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| 15/5 | 0 | 1321 | 262.5 | 1321 | 8.0 | | 8.0 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 16/1 | 0 | 290 | 263.5 | 290 | 1.8 | | 1.8 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 16/1 | 290 | 390 | 263.5 | 100 | 0.6 | 0.6 | | | | | R/LT | C, L & S Riparian - Intermittent Creek No Herbicide |
| 16/1 | 390 | 550 | 263.5 | 160 | 1.0 | | 1.0 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 16/1 | 550 | 710 | 263.5 | 160 | 1.0 | 1.0 | | | | | R/LT | C, L & S Riparian Wetland No Herbicide |
| 16/1 | 710 | 819 | 263.5 | 109 | 0.7 | | 0.7 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 16/2 | 0 | 910 | 263.5 | 910 | 5.5 | | 5.5 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 16/3 | 0 | 400 | 263.5 | 400 | 2.4 | | 2.4 | | | | SS | C, L & S and stump treat |
| 16/3 | 400 | 550 | 263.5 | 150 | 0.9 | 0.9 | | | | | LT | C, L & S Riparian Wetland/Creek No Herbicide |
| **TOTAL** | **FOR** | **PAGE** | **1** | | **21.7** | **2.5** | **19.4** | **0.0** | **0.0** | **0** | | |

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| **TOTAL** | **15/5** | **16/3** | | | **21.7** | **2.5** | **19.4** | **0.0** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** |
| 16/3 | 550 | 1400 | 263.5 | 850 | 5.1 | | 5.1 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 17/1 | 0 | 1137 | 263.5 | 1137 | 6.9 | | 6.9 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 17/2 | 0 | 210 | 263.5 | 210 | 1.3 | | 1.3 | | | | SS | C, L & S and stump treat |
| 17/2 | 210 | 720 | 263.5 | 510 | 3.1 | 3.1 | | | | | R/MS | C, L & S Riparian Wetland/Creek No Herbicide |
| 17/2 | 720 | 1809 | 263.5 | 1089 | 6.6 | | 5.5 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 17/3 | 0 | 900 | 263.5 | 900 | 5.4 | | 5.4 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 17/4 | 0 | 250 | 263.5 | 250 | 1.5 | | 1.5 | | | | SS | C, L & S and stump treat |
| 17/4 | 250 | 975 | 263.5 | 725 | 4.4 | 4.4 | | | | | R/LT | C, L & S Riparian Wetland/Creek No Herbicide |
| 17/4 | 975 | 1690 | 263.5 | 715 | 4.3 | 4.3 | | | | | R-T&E/LT | C, L & S Riparian - T&E Page Creek No Herbicide |
| 18/1 | 0 | 450 | 263.5 | 450 | 2.7 | 2.7 | | | | | R-T&E/LT | C, L & S Riparian - T&E Page Creek No Herbicide |
| 18/1 | 450 | 1000 | 263.5 | 550 | 3.3 | 3.3 | | | | | R/T&E | C, L & S Riparian - T&E, South Prairie Creek No Herbicide |
| 18/1 | 1000 | 1620 | 263.5 | 620 | 3.8 | | | 3.8 | | | STC-R | Select Tree Cut Riparian - T&E, South Prairie Creek No Herbicide |
| 18/1 | 1620 | 1920 | 263.5 | 300 | 1.8 | 1.8 | | | | | R/T&E | C, L & S Riparian - T&E, South Prairie Creek No Herbicide |
| 18/1 | 1920 | 2593 | 263.5 | 673 | 4.1 | | 4.1 | | | | SS | C, L & S and stump treat |
| 18/2 | 0 | 992 | 263.5 | 992 | 6.0 | | 6.0 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 18/3 | 0 | 928 | 263.5 | 928 | 5.6 | | 5.6 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 19/1 | 0 | 1136 | 263.5 | 1136 | 6.9 | | 6.9 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 19/2 | 0 | 260 | 263.5 | 260 | 1.6 | | 1.6 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 19/2 | 260 | 510 | 263.5 | 250 | 1.5 | 1.0 | 0.5 | | | | R/MS | C, L & S Riparian Wetland SEE NOTES No Herbicide |
| 19/2 | 510 | 890 | 263.5 | 380 | 2.3 | | 2.3 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| **TOTAL** | **FOR** | **PAGE** | **1 & 2** | | **99.9** | **23.1** | **72.1** | **3.8** | **0.0** | **0** | | |

**NOTES:** 17/4 250 to 1690 - see Plan & Profile for area that can be stump treated, South side of ROW, about 2.9 ac.

19/2 260 to 519 - see Plan & Profile for area that can be stump treated, South side of ROW, about 0.5 ac.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) | | |
| **TOTAL** | **15/5** | **19/2** | | | **99.9** | **23.1** | **72.1** | **3.8** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** | | |
| 19/2 | 890 | 972 | 263.5 | 82 | 0.5 | 0.5 | | | | | MS-SS | C, L & S | DOMESTIC WATER SUPPLY | SEE NOTES |
| 19/3 | 0 | 680 | 263.5 | 680 | 4.1 | 4.1 | | | | | MS-SS | C, L & S | DOMESTIC WATER SUPPLY | SEE NOTES |
| 19/3 | 680 | 1070 | 263.5 | 390 | 2.4 | | | 2.4 | | | STC | Select Tree Cut | DOMESTIC WATER SUPPLY | SEE NOTES |
| 19/3 | 1070 | 1779 | 263.5 | 709 | 4.3 | 4.3 | | | | | MS-SS | C, L & S | DOMESTIC WATER SUPPLY | SEE NOTES |
| 19/4 | 0 | 1106 | 263.5 | 1106 | 6.7 | | 6.7 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/1 | 0 | 1165 | 263.5 | 1165 | 7.0 | | 7.0 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/2 | 0 | 1144 | 263.5 | 1144 | 6.9 | | 6.9 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/3 | 0 | 650 | 263.5 | 650 | 3.9 | | 3.9 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/3 | 650 | 800 | 263.5 | 150 | 0.9 | 0.9 | | | | | R/LT | C, L & S | Riparian Wetland | No Herbicide |
| 20/3 | 800 | 907 | 263.5 | 107 | 0.6 | | 0.6 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/4 | 0 | 635 | 263.5 | 635 | 3.8 | | 3.8 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/4 | 635 | 1010 | 263.5 | 375 | 2.3 | 2.3 | | | | | R-T&E/LT | C, L & S | Riparian - T&E | No Herbicide |
| 20/4 | 1010 | 1200 | 263.5 | 190 | 1.1 | | | 1.1 | | | STC | Select Tree Cut | Riparian - T&E | No Herbicide |
| 20/4 | 1200 | 1512 | 263.5 | 312 | 1.9 | 1.9 | | | | | R/SS | C, L & S | Riparian - T&E | No Herbicide |
| 20/5 | 0 | 800 | 263.5 | 800 | 4.8 | | 4.8 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 20/5 | 800 | 900 | 263.5 | 100 | 0.6 | 0.6 | | | | | R/MS | C, L & S | Riparian - seasonal creek | Check before using herbicides |
| 20/5 | 900 | 1477 | 263.5 | 577 | 3.5 | | 3.5 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 21/1 | 0 | 640 | 263.5 | 640 | 3.9 | | 3.9 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 21/1 | 640 | 1225 | 263.5 | 585 | 3.5 | | 3.5 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | |
| 21/2 | 0 | 1070 | 263.5 | 1070 | 6.5 | | 6.5 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat | | |
| **TOTAL** | **FOR** | **PAGE** | **1 to 3** | | **169.3** | **37.7** | **123.2** | **7.3** | **0.0** | **0** | | | | |

**NOTES:** 19/.2 + 890 to 19/4 + 00 - Domestic water supply do not use herbicides

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| **TOTAL** | **15/5** | **21/2** | | | **169.3** | **37.7** | **123.2** | **7.3** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** |
| 21/3 | 0 | 1185 | 263.5 | 1185 | 7.2 | | 7.2 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 21/4 | 0 | 1140 | 263.5 | 1140 | 6.9 | | 6.9 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 21/4 | 180 | 280 | 263.5 | 100 | 0.6 | 0.6 | 7.0 | | | | R-LT | C, L & S Riparian - intermittenet draw No Herbicide |
| 21/4 | 280 | 1140 | 263.5 | 860 | 5.2 | | 5.2 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 22/1 | 0 | 1075 | 263.5 | 1075 | 6.5 | | 6.5 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 22/2 | 0 | 250 | 263.5 | 250 | 1.5 | | 1.5 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 22/2 | 250 | 1165 | 263.5 | 915 | 5.5 | | 5.5 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 22/3 | 0 | 100 | 263.5 | 100 | 0.6 | | 0.5 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 22/3 | 100 | 420 | 263.5 | 320 | 1.9 | 1.9 | | | | | R/MS | C, L & S Riparian - intermittenet draw/wetland No Herbicide |
| 22/3 | 420 | 630 | 263.5 | 210 | 1.3 | | 1.3 | | | | SS | C, L & S and stump treat |
| 23/3 | 630 | 1200 | 263.5 | 570 | 3.4 | | | 3.4 | | | STC | Select Tree Cut Riparian - T&E, Carbon River No Herbicide |
| **CHANGE TO** | | | | 0 | 0.0 | | | | | | | **OLYMPIA GRAND COULEE** |
| 46/6 | 1025 | 1325 | 125.0 | 300 | 0.9 | | | 0.9 | | | STC | Select Tree Cut Riparian - T&E, Carbon River |
| 46/6 | 1325 | 1515 | 125.0 | 190 | 0.5 | 0.5 | | | | | R-T&E | C, L & S Riparian - T&E, Carbon River No Herbicide |
| 46/6 | 1515 | 1792 | 125.0 | 277 | 0.8 | | 0.8 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat No Herbicide |
| | | | | 0 | 0.0 | | | | | | | **END OF PROJECT - CARBON RIVER** |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | No Herbicide |
| | | | | 0 | 0.0 | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | FOR | PAGE | 1 to 4 | | 212.2 | 40.7 | 165.6 | 11.6 | 0.0 | 0 | | |



NOTES:

**BONNEVILLE POWER ADMINISTRATION**

**RIGHT-OF WAY MAINTENANCE**

**VEGETATION CONTROL PRESCRIPTION**

**CONTRACTOR:** _____

**WORK ORDER NO.:** **00006123** **, RELEASE NO.:** _____

| LINE NAME |
|---|
| RAVER - PAUL NO. 1, 500 kv 22/3 + 1200 to 29/3 + 625 |
| OLYMPIA - GRAND COULEE NO. 1, 287 kv |
| |
| |
| |

| Treatment Zones | Abbrev. |
|---|---|
| Moderate Slope | MS |
| Mod. to Steep Slope | MS-SS |
| Steep Slope | SS |
| Riparian | R |
| Select Tree Cut | STC |

| TASK ORDER INFORMATION |
|---|
| DATE COMPLETED: |
| CONTRACTOR'S SIGNATURE |
| INSPECTOR'S SIGNATURE |

GENERAL INSTRUCTIONS: Cut, Lop and Scatter (C, L & S), Cut and Chip (C & C) or Cut and Stump Treat (C & S) as indicated in the Control Prescription or as directed by the Field Inspector. Do not cut Vine Maple or Willow unless indicated below or directed by the Field Inspector.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| 22/3 | 1200 | 1825 | 262.5 | 625 | 3.8 | | | 3.8 | | | STC | Select Tree Cut Riparian - T&E, Carbon River No Herbicide |
| 22/3 | 1825 | 1980 | 263.5 | 155 | 0.9 | 0.9 | | | | | R/T&E | C, L & S Riparian - T&E, Carbon River No Herbicide |
| 22/3 | 1980 | 2225 | 263.5 | 245 | 1.5 | | 1.6 | | | | SS | C, L & S and stump treat or Machine Cut & chem treat |
| **CHANGE TO THE** | | | | 0 | 0.0 | | | | | | | **OLYMPIA - GRAND COULEE NO. 1** |
| 46/6 | 125 | 460 | 125.0 | 335 | 1.0 | | 1.0 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 46/6 | 460 | 800 | 125.0 | 340 | 1.0 | 1.0 | | | | | R/T&E | C, L & S Riparian - T&E, Carbon River No Herbicide |
| 46/6 | 800 | 1025 | 125.0 | 225 | 0.6 | | | 0.6 | | | STC | Select Tree Cut Riparian - T&E, Carbon River No Herbicide |
| **CHANGE TO THE** | | | | 0 | 0.0 | | | | | | | **RAVER - PAUL NO. 1** |
| 22/3 | 2225 | 2386 | 263.5 | 161 | 1.0 | | 1.0 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| **TOTAL** | **FOR** | **PAGE** | **1** | | **9.7** | **1.9** | **3.6** | **4.4** | **0.0** | **0** | | |

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) | | | |
| **TOTAL** | **22/3** | **22/3** | | | **9.7** | **1.9** | **3.6** | **4.4** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** | | | |
| 22/4 | 0 | 200 | 263.5 | 200 | 1.2 | 1.2 | | | | | R-LT | C, L & S | Riparian Wetland/Creek | | No Herbicide |
| 22/4 | 200 | 896 | 263.5 | 696 | 4.2 | | 4.2 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/1 | 0 | 425 | 263.5 | 425 | 2.6 | | 2.6 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/1 | 425 | 954 | 263.5 | 529 | 3.2 | 3.2 | | | | | R/MS-SS | C, L & S | Riparian Wetland | | No Herbicide |
| 23/2 | 0 | 890 | 263.5 | 890 | 5.4 | 5.4 | | | | | R/MS-SS | C, L & S | Riparian Wetland | | No Herbicide |
| 23/2 | 890 | 988 | 263.5 | 98 | 0.6 | | 0.6 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/3 | 0 | 30 | 263.5 | 30 | 0.2 | | 0.2 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/3 | 30 | 500 | 263.5 | 470 | 2.8 | 2.8 | | | | | R/LT | C, L & S | Riparian Wetland/Creek | | No Herbicide |
| 23/3 | 500 | 993 | 263.5 | 493 | 3.0 | | 3.0 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/4 | 0 | 60 | 263.5 | 60 | 0.4 | | 0.4 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/4 | 60 | 1125 | 263.5 | 1065 | 6.4 | 4.9 | 1.4 | | | | R/MS | C, L & S | Riparian Wetland/Creek | See Notes | No Herbicide |
| 23/4 | 1125 | 1521 | 263.5 | 396 | 2.4 | | 2.4 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/5 | 0 | 275 | 263.5 | 275 | 1.7 | | 1.7 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 23/5 | 275 | 625 | 263.5 | 350 | 2.1 | | 2.1 | | | | SS | C, L & S and stump treat | | | |
| 23/5 | 625 | 725 | 263.5 | 100 | 0.6 | 0.6 | | | | | R/SS | C, L & S | Riparian Creek | | No Herbicide |
| 23/5 | 725 | 779 | 263.5 | 54 | 0.3 | | 0.3 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 24/1 | 0 | 300 | 263.5 | 300 | 1.8 | | 1.8 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 24/1 | 300 | 400 | 263.5 | 100 | 0.6 | 0.6 | | | | | R/SS | C, L & S | Riparian, Draw | | No Herbicide |
| 24/1 | 400 | 1100 | 263.5 | 700 | 4.2 | | 4.2 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| 24/2 | 0 | 60 | 263.5 | 60 | 0.4 | | 0.4 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat | | | |
| **TOTAL** | **FOR** | **PAGE** | **1 & 2** | | **53.8** | **20.6** | **28.9** | **4.4** | **0.0** | **0** | | | | | |

**NOTES:** 23/4, 60 to 1125 - see Plan & Profile for area that can be stump treated, South side of ROW, about 1.4 ac.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| **TOTAL** | **22/3** | **24/2** | | | **53.8** | **20.6** | **28.9** | **4.4** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** |
| 24/2 | 60 | 450 | 263.5 | 390 | 2.4 | 2.4 | | | | | R/LT | C, L & S Ponds - need to check, may no longer exist No Herbicide |
| 24/2 | 450 | 1200 | 263.5 | 750 | 4.5 | | 4.5 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 24/3 | 0 | 1100 | 263.5 | 1100 | 6.7 | | 6.7 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 24/4 | 0 | 340 | 263.5 | 340 | 2.1 | | 2.1 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 24/4 | 340 | 867 | 263.5 | 527 | 3.2 | | skip | | | | LT | T&B Agreement, T. Gale **Well at 24/4 +500** |
| 24/5 | 0 | 90 | 263.5 | 90 | 0.5 | | skip | | | | LT | T&B Agreement, T. Gale |
| 24/5 | 90 | 250 | 263.5 | 160 | 1.0 | | 1.0 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat See Notes No Herbicide |
| 24/5 | 250 | 925 | 263.5 | 675 | 4.1 | 2.6 | 1.5 | | | | R/LT | C, L & S Ponds - need to check, may no longer exist |
| 24/5 | 925 | 1143 | 263.5 | 218 | 1.3 | | 1.3 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 25/1 | 0 | 360 | 263.5 | 360 | 2.2 | | 2.2 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 25/1 | 360 | 740 | 263.5 | 380 | 2.3 | 2.3 | | | | | R-T&E/SS | C, L & S Riparian - T&E, Voight Creek No Herbicide |
| 25/1 | 740 | 880 | 263.5 | 140 | 0.8 | | | 0.8 | | | STC | Select Tree Cut Riparian - T&E, Voight Creek No Herbicide |
| 25/1 | 880 | 1280 | 263.5 | 400 | 2.4 | 2.4 | | 1.1 | | | R-T&E/SS | C, L & S Riparian - T&E, Voight Creek No Herbicide |
| 25/1 | 1280 | 1646 | 263.5 | 366 | 2.2 | | 2.2 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 25/2 | 0 | 600 | 263.5 | 600 | 3.6 | | 3.6 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 25/2 | 600 | 1030 | 263.5 | 430 | 2.6 | 2.6 | | | | | R/LT | C, L & S Riparian - wetland No Herbicide |
| 25/2 | 1030 | 1057 | 263.5 | 27 | 0.2 | | 0.2 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 25/3 | 0 | 580 | 272.5 | 580 | 3.6 | | 3.6 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 25/3 | 580 | 1320 | 272.5 | 740 | 4.6 | 3.4 | 1.2 | | | | R/LT | C, L & S Riparian - wetland No Herbicide |
| 25/3 | 1320 | 1652 | 272.5 | 332 | 2.1 | | 2.1 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| **TOTAL** | **FOR** | **PAGE** | **1 to 3** | | **106.2** | **36.3** | **61.1** | **6.3** | **0.0** | **0** | | |

**NOTES:** 24/5 + 250 to 925 - see Plan & Profile for area that can be stump treated, South side of ROW, about 1.5 ac.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| **TOTAL** | **22/3** | **25/3** | | | **106.2** | **36.3** | **61.1** | **6.3** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** |
| 25/4 | 0 | 450 | 272.5 | 450 | 2.8 | | 2.8 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 25/4 | 450 | 675 | 272.5 | 225 | 1.4 | 1.4 | | | | | R/LT | C, L & S Riparian - wetland No Herbicide |
| 25/4 | 675 | 958 | 272.5 | 283 | 1.8 | | 1.8 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 26/1 | 0 | 200 | 272.5 | 200 | 1.3 | | 1.3 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 26/1 | 200 | 690 | 272.5 | 490 | 3.1 | 3.1 | | | | | R/MS-SS | C, L & S Riparian- intermittent streams, check for water before using herbicides |
| 26/1 | 690 | 883 | 272.5 | 193 | 1.2 | | 1.2 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 26/2 | 0 | 694 | 272.5 | 694 | 4.3 | | 4.3 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 26/3 | 0 | 50 | 272.5 | 50 | 0.3 | | 0.3 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat |
| 26/3 | 50 | 330 | 272.5 | 280 | 1.8 | | 1.8 | | | | SS | C, L & S and stump treat |
| 26/3 | 330 | 730 | 272.5 | 400 | 2.5 | 0.7 | 1.8 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat **See riparian area** See Notes |
| 26/3 | 730 | 1398 | 272.5 | 668 | 4.2 | | 4.2 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 26/4 | 0 | 240 | 272.5 | 240 | 1.5 | | 1.5 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 26/4 | 240 | 1140 | 272.5 | 900 | 5.6 | 5.6 | | | | | R/MS-SS | C, L & S Riparian - wetlands and Coplar Creek See Notes No Herbicide |
| 26/4 | 1140 | 1798 | 272.5 | 658 | 4.1 | | 4.1 | | | | SS | C, L & S and stump treat See Notes |
| 27/1 | 0 | 1150 | 272.5 | 1150 | 7.2 | | 7.2 | | | | SS | C, L & S and stump treat See Notes |
| 27/2 | 0 | 1130 | 272.5 | 1130 | 7.1 | | 7.1 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 27/3 | 0 | 730 | 272.5 | 730 | 4.6 | | 4.6 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 27/4 | 0 | 575 | 272.5 | 575 | 3.6 | | 3.6 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 27/4 | 575 | 775 | 272.5 | 200 | 1.3 | 1.3 | | | | | R/MS | C, L & S Riparian - wetlands and creek No Herbicide |
| 27/4 | 775 | 1617 | 272.5 | 842 | 5.3 | | 5.3 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 27/5 | 0 | 870 | 272.5 | 870 | 5.4 | | 5.4 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |

| TOTAL | FOR | PAGE | 1 to 4 | | 176.5 | 48.4 | 119.4 | 6.3 | 0.0 | 0 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

**NOTES:** 26/3, 330 to 730 - See plan & profile for lacation of springs (2) approximately 0.7 acres of NO HERBICIDE

26/4 + 520 to 27/1 + 360 to 730 - Sensitiv e landowner, G. C. Stillman (588-4931) call before cutting or using herbicides.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| **TOTAL** | **22/3** | **27/5** | | | **176.5** | **48.4** | **119.4** | **6.3** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** |
| 28/1 | 0 | 60 | 262.5 | 60 | 0.4 | | 0.4 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 28/1 | 60 | 180 | 262.5 | 120 | 0.7 | 0.7 | | | | | R/MS | C, L & S Riparian - spring No Herbicide |
| 28/1 | 180 | 525 | 262.5 | 345 | 2.1 | | 2.1 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 28/1 | 525 | 800 | 262.5 | 275 | 1.7 | | 1.7 | | | | SS | C, L & S and stump treat |
| 28/1 | 800 | 1010 | 262.5 | 210 | 1.3 | 1.3 | | | | | R/SS | C, L & S Riparian - creek No Herbicide |
| 28/1 | 1010 | 1134 | 262.5 | 124 | 0.7 | | 0.7 | | | | SS | C, L & S and stump treat |
| 28/2 | 0 | 610 | 262.5 | 610 | 3.7 | | 3.7 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 28/2 | 610 | 1140 | 262.5 | 530 | 3.2 | 0.7 | 2.5 | | | | LT | C, L & S and stump treat or Machine Cut & chem treat **WELL 28/2 +920** See Notes |
| 28/2 | 1140 | 1379 | 262.5 | 239 | 1.4 | 1.0 | 0.4 | | | | R/LT | C, L & S Riparian - wetland See Notes |
| 28/3 | 0 | 410 | 262.5 | 410 | 2.5 | 1.8 | 0.7 | | | | R/LT | C, L & S Riparian - wetland See Notes |
| 28/3 | 410 | 720 | 262.5 | 310 | 1.9 | | 1.9 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 28/3 | 720 | 1030 | 262.5 | 310 | 1.9 | 1.9 | | | | | R/MS-SS | C, L & S Riparian - creek No Herbicide |
| 28/3 | 1030 | 1112 | 262.5 | 82 | 0.5 | | 0.5 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 28/4 | 0 | 240 | 262.5 | 240 | 1.4 | | 1.4 | | | | SS | C, L & S and stump treat |
| 28/4 | 240 | 820 | 262.5 | 580 | 3.5 | 3.5 | 3.5 | | | | R/LT | C, L & S Riparian - creek No Herbicide |
| 28/4 | 820 | 1388 | 262.5 | 568 | 3.4 | | 7.1 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 28/5 | 0 | 554 | 262.5 | 554 | 3.3 | | 3.3 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat Fiske Rd. 28/5 + 120 |
| 29/1 | 0 | 70 | 262.5 | 70 | 0.4 | | 0.4 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 29/1 | 70 | 230 | 262.5 | 160 | 1.0 | | 1.0 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 29/1 | 230 | 340 | 262.5 | 110 | 0.7 | 0.7 | | | | | R/STC | Select Tree Cut Riparian- intermittent creek, check for water before using herbicides |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 29/1 | 340 | 750 | 262.5 | 410 | 2.5 | | 2.5 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| **TOTAL** | **FOR** | **PAGE** | **1 to 5** | | **214.5** | **60.0** | **153.2** | **6.3** | **0.0** | **0** | | |



**NOTES:** 28/2 + 920 - See plan & profile for lacation of well approximately 0.7 acres of NO HERBICIDE buffer (100' radius).

28/2 + 1140 to 28/3 + 410 - See plan & profile for lacation of wetlands, there ia approximately 1.1 acres that can be chemically treated.

| LOCATION | | | (1) | (2) | (3) | C, L & S | C & S | STC | MACH. | NO. | ZONE | CONTROL PRESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STR. NO. | FROM | TO | WIDTH | LENGTH | ACRES | ACRES | ACRES | ACRES | ACRES | HOURS | | (REMARKS) |
| **TOTAL** | **22/3** | **29/1** | | | **214.5** | **60.0** | **153.2** | **6.3** | **0.0** | **0** | | **RAVER - PAUL NO. 1, 500kv** |
| 29/1 | 750 | 850 | 262.5 | 100 | 0.6 | 0.6 | | | | | R/SS | C, L & S Riparian- intermittent creek, check for water before using herbicides |
| 29/1 | 850 | 1286 | 262.5 | 436 | 2.6 | | 2.6 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 29/2 | 0 | 580 | 262.5 | 580 | 3.5 | | 3.5 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 29/2 | 580 | 680 | 262.5 | 100 | 0.6 | 0.6 | | | | | R/MS-SS | C, L & S Riparian- intermittent creek, check for water before using herbicides |
| 29/2 | 680 | 970 | 262.5 | 290 | 1.7 | | 1.7 | | | | MS-SS | C, L & S and stump treat or Machine Cut & chem treat |
| 29/2 | 970 | 1070 | 262.5 | 100 | 0.6 | 0.6 | | | | | R/MS-SS | C, L & S Riparian- intermittent creek, check for water before using herbicides |
| 29/2 | 1070 | 1485 | 262.5 | 415 | 2.7 | | 2.5 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 29/3 | 0 | 190 | 280.0 | 190 | 1.2 | | 1.2 | | | | MS | C, L & S and stump treat or Machine Cut & chem treat |
| 19/3 | 190 | 250 | 280.0 | 60 | 0.4 | 0.4 | | | | | R/SS | C, L & S Riparian - T&E stream, Puyallup River No Herbicide |
| 19/3 | 250 | 625 | 280.0 | 375 | 2.4 | | | 2.4 | | | R-STC | Select Tree Cut Riparian - T&E stream, Puyallup River No Herbicide |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0.0 | | | | | | | |
| | | | | 0 | 0.0 | | | | | | | |
| **TOTAL** | **FOR** | **PAGE** | **1 to 5** | | **230.9** | **62.2** | **164.7** | **8.7** | **0.0** | **0** | | |

**NOTES:**