

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: July 19, 2002

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA-94) - Covington District Substations

TO: Dennis Sjoquist - TFN/Snohomish
Snohomish Regional Manager

Proposed Action: Vegetation Management for the following facilities located in the Covington District:

Covington	King
Echo Lake	King
Lynch Creek	Pierce
Maple Valley	King
Narrows	Pierce
Raver, P.J.	King
South Tacoma	Pierce
Steilacoom	Pierce
Surprise Lake	Pierce
Tacoma	Pierce

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes total vegetation management (bareground) in the electrical substations, and, noxious weed management and maintenance of landscaping within the property boundaries of the listed facilities. These facilities are all located within the Covington District of the Snohomish Region.

Description of the Proposal: BPA proposes to manage vegetation inside and around electrical substations and associated facilities. Vegetation management within the substations will include bareground management by herbicides of all areas within the fenced perimeter of the facility including a bareground zone of up to 3 meters (10 feet) outside of the fenced area. The management of vegetation outside the substation and associated facilities will include: 1) bare ground management of perimeter roads and parking areas; 2) control of noxious weeds throughout property boundaries; 3) mowing, fertilizing, and weed control of landscaped lawn and mulched areas; 4) weed control in ornamental shrub areas; and 5) areas requiring only mechanical control to manage unwanted/danger trees, grasses, and shrubs.

Analysis: The attached checklist shows the resources that were found during this analysis and what mitigation measures are required to protect those resources. In addition, each facility is supported by a file containing drawings, aerial photographs, topographic maps, and the mitigation measures to be applied. Applicable findings are discussed below.

Planning Steps:***1. Identify facility and the vegetation management need.***

See proposed action.

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

All of the sites are fee-owned by BPA and consist of pre-existing electrical and non-electrical facilities restricted from public access and use.

3. Identify natural resources.

Wetlands, drinking water resources and riparian resources have been identified near some of the facilities as shown in Table 3.1 of the attached checklist. Mitigation measures, consistent with the FEIS are listed for these sites in Section 3 of the attached checklist.

4. Determine vegetation control and debris disposal methods.

For switchyards and up to ten feet outside of fenced areas, the goal is total vegetation management. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as native, low-growing, types, mulches, rock covers, etc. All of the vegetation management techniques are designed to be permanent.

5. Determine revegetation methods, if necessary.

Not applicable, except as mentioned above when landscaping requires replacement.

6. Determine monitoring needs.

Monitoring is two-fold. Monitoring for evaluation of BPA/contractor treatment practices to ensure vegetation management practices will be handled through contract specifications. Environmental monitoring to ensure environmentally sound application practices will be determined in the future as outlined in the BPA/NMFS/USFWS Biological Assessment.

7. Prepare appropriate environmental documentation.

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

/s/ Mark W. Hermeston

Mark W. Hermeston
Physical Scientist (Environmental) - KEP-4
Licensed Hydrogeologist (WA 663)

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

DATE: 07/25/2002

Attachment

cc:

L. Croff – KEC-4
T. McKinney – KEC-4
P. Key – LC-7
M. Hermeston – KEP-4
J. Meyer – KEP-4
J. Sharpe – KEPR-4
M. Martin – KEPR-Covington
M. Johnson – TF/DOB-1
L. Alvarez - TFN/Snohomish
S. Davis – TFN/Snohomish
D. Atkinson – TFN/Snohomish
Environmental File – KEC-4
Official File – KEP-4 (EQ-14)

Mhermeston:mh:4722:7/22/02 (KEP-KEP-4-W:\EP\2002 FILES\EQ\EQ-14\FEIS-0285-SA-94-Cov-sa.doc)

COVINGTON DISTRICT ELECTRIC YARD AND NON-ELECTRIC FACILITY CHECKLIST

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe facility: (More than one facility may be listed and analyzed.)

Substation/Facility Name	Maximum Size of Area to be Treated	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
Covington	80	47.20.54.1330N 122.7.8.0627W	King	WA
Echo Lake	28	47.29.00.0000N 121.52.00.0000W	King	WA
Lynch Creek	2.49	46.52.35.9895N 122.17.5.6633W	Pierce	WA
Maple Valley	33.85	47.28.8.2256N 122.11.4.5473W	King	WA
Narrows	2.38	47.17.10.5049N 122.33.29.8139W	Pierce	WA
Raver, P.J.	32.1	47.20.10.4088N 121.55.57.3541W	King	WA
South Tacoma	3.04	47.5.29.1867N 122.22.14.0360W	Pierce	WA
Steilacoom	0.5	47.10.14.9142N 122.34.48.0176W	Pierce	WA
Surprise Lake	0.49	47.14.41.8288N 122.19.20.3388W	Pierce	WA
Tacoma	31.4	47.15.29.5773N 122.22.6.2112W	Pierce	WA

1.2 Describe vegetation needing management:

Substation (Total vegetation management needs no further description.)

Required at all of the facilities listed above.

Non-Electrical Facility (Describe all landscaping vegetation management.)

Landscaping is required at Covington, Echo Lake, Maple Valley, Raver, Steilacoom, and Tacoma substations in addition to total vegetation management.

2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

2.1 List the types of landowners and land uses around your facility.

These sites are all fee-owned by BPA and are surrounded by a combination of private, state and federal lands. The surrounding land is used for residential, agricultural, and forested uses.

2.2 Determine if there is a need to notify surrounding landowners of vegetation management activities. If so, why and how?

None.

2.3 List any specific measures to be taken based on surrounding landowners/use.

None.

3. IDENTIFY NATURAL RESOURCES

3.1 Water Resources

List or describe any water resources (streams, rivers, lakes, wetlands, undeveloped springs, etc.) near the facility.

Substation/ Facility Name	Water Resources (Within 400 feet)	Aquatic T&E Species	Direct Pathway	Mitigation ^{1, 2,3}
Covington	Jenkins Creek/Shallow Groundwater	No	Yes	GW/SW
Echo Lake	BPA Well/Surfacewater/Wetland	No	Yes	SW
Lynch Creek	Pierce County Aquifer/Shallow Groundwater/Wetland	No	Yes	GW/SW
Maple Valley	City of Renton Aquifer	No	Yes	GW
Narrows	Shallow Groundwater	No	Yes	GW
Raver, P.J.	BPA Well	No	No	None
South Tacoma	BPA Well/Grinding Wells (2)	No	No	None
Steilacoom	Shallow Groundwater	No	Yes	GW
Surprise Lake	Surfacewater	No	Yes	SW
Tacoma	Shallow Groundwater/Surfacewater/Wetland	No	Yes	GW/SW

¹ Do not use chemicals with a groundwater (**GW**) or surfacewater (**SW**) label advisory.

² Only use chemicals Practically Non-Toxic to Slightly Toxic (**TOX**) to aquatic species.

³ All chemicals are selected from BPA's List of Approved Herbicides, ESP E-VGM-004

Does the substation/facility drainage have a direct pathway to the water body?

See Table above.

What measures will you take to limit potential impacts to water resources? As appropriate, list any buffers that will be applied.

In addition to the Table above, the following mitigation measures apply at the following facilities:

Covington: Maintain riparian habitat (existing low-growing plant species) along Jenkins Creek.

No chemical treatment inside secondary containment lagoon. Glyphosate okay between liner and fence.

Echo Lake: No chemical treatment inside sediment control pond when water is present.

Lynch Creek: No chemical application to wetland and ditches on north and east side of substation fences when water is present.

Tacoma: No chemical treatment past fence adjacent to pond along northwest portion of substation.

3.2 Herbicide Use Near Irrigation Sources and Domestic and Public Drinking Water Supplies

List or describe any irrigation or domestic/public water source.

See Table above.

Does the substation/facility drainage have a pathway to the water supply?

Echo Lake, Raver and South Tacoma substations contain BPA wells.

The wells at Echo Lake and Raver are 140 and 200 feet deep, respectively. Both wells are used for potable and non-potable uses. Both wells are cased and grouted in accordance with state regulations. Well logs indicate varying layers of clay and shale.

South Tacoma Substation contains two grounding wells at 380 and 495 feet deep, and a drinking water well at 100 feet. The grounding wells are used for electrical purposes and are tightly grouted outside and inside the casing. Well logs indicate varying layers of clay and shale. The water well is grouted with zeolitic clay and is drilled into very permeable glacial tills.

Lynch Creek and Maple Valley substation directly overlie the Central Pierce County Aquifer and the City of Renton Aquifer, respectively.

What measures will you take to limit potential impacts to irrigation and drinking water supplies? As appropriate, list any buffers that will be applied.

The well at Echo Lake and Raver, and, the grounding wells at South Tacoma substations need no protection due to well construction and favorable geology that would restrict downward movement of chemicals.

The drinking water well at South Tacoma is relatively shallow in an area of unfavorable geology. This well requires no chemical applications within a 50-meter (164 foot) radius for any herbicide having a groundwater or surfacewater label advisory, or, a 15-meter (50 foot) radius for any other herbicide.

The drinking water aquifers at Lynch Creek and Maple Valley substations will be protected by not allowing the use of any herbicide with an EPA groundwater label advisory. In addition, the City of Renton requires that BPA forward copies of all herbicide application records within 72 hours of application (see attached City of Renton letter, dated February 29, 2000).

3.3 Threatened and Endangered Plant or Animal Species

Are there any T&E species in the area that could be affected? List if necessary.

None.

What measures will you take to limit potential impacts to each T&E species? As appropriate, list any buffers that will be applied.

NA

3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

No.

As appropriate, list any buffers, reseeding and/or ground disturbing restrictions that will be applied.

None.

3.5 Attach drawing showing location of all required buffers.

Drawings showing the locations of all facilities with buffers are attached.

4. DETERMINE VEGETATION CONTROL METHODS

Describe overall vegetation management scheme and schedule:

Initial: For switchyards, and up to ten feet outside of fenced areas, the goal is TVM. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as, native, low-growing types, mulches, etc.

Subsequent: These facilities and their vegetation management schemes are designed to be permanent.

Future: See above.

5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

Describe debris disposal and re-vegetation, if any.

Debris disposal will take place on site. Revegetation will be consistent with the permanent nature of the facilities but will incorporate native species where practical.

6. DETERMINE MONITORING NEEDS

6.1 Describe evaluation of BPA/contractor treatment practices to ensure vegetation management measures are working.

Monitoring will be undertaken through contract specifications.

6.2 Is there a need to monitor adjacent areas for potential herbicide movement/contamination? If so, describe monitoring plan. *(Unless monitoring for other reasons, this section should be consistent with BPA-systemwide herbicide monitoring plan not yet finalized.)*

Monitoring will be established at a later date consistent with the Maintenance BA.

7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

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.

February 29, 2000

Mark Martin
Sr. Environmental Specialist
Bonneville Power Administration (BPA)
28401 Covington Way SE
Kent, WA 98042

SUBJECT: EXEMPTION OF BPA MAPLE VALLEY SUBSTATION (2500 SE ROYAL HILLS DRIVE, RENTON) FROM AQUIFER PROTECTION AREA OPERATING PERMIT

Dear Mr. Martin,

The City of Renton Water Utility has determined that the referenced facility is currently exempt under City aquifer protection regulations from the requirement to obtain an annual operating permit. This is based upon review of the facility hazardous materials inventory statement on February 17, 2000.

This determination is based upon the current inventory of chemicals. Should you add inventory that is not exempt in the future, the facility may be subject to the requirement to obtain an operating permit.

The following determinations were made:

Item 1 on the inventory is battery acid contained in sealed units not opened as part of routine use. This is exempt per Section 8-8-3.M.4.h of the code.

Item 2 on the inventory is carbon dioxide contained in a fire extinguisher. This presents no risk to the aquifer and is exempt per Section 8-8-3.M.1.

Item 3 is a solution of ethylene glycol in water and is contained in closed loop stainless steel piping that is part of the cooling system for thyristor valves (voltage limiting devices). This system, which is not opened as part of routine use, is exempt per Section 8-8-3.M.4.h.

Item 4 is an 80-pound bag of calcium chloride used for melting snow and ice. This item is not exempt since it is classified as a hazardous material. The quantity present, however, does not meet or exceed the operating permit threshold. (Note: The code converts solids to liquids for purposes of determining the whether a permit threshold is exceeded. At a rate of 10 pounds of solid material to one gallon of liquid, 80 pounds represents 8 gallons. The permit threshold is 20 gallons.)

Item 5 is compressed nitrogen gas. This presents no risk to the aquifer and is exempt per Section 8-8-3.M.1.

Item 6 is compressed air and is, of course, exempt for the same reason!

Item 7 is trichloroethene contained in sealed electrical fuses. These fuses are not opened as part of routine use and are, therefore, exempt per Section 8-8-3.M.4.h.



Mark Martin
February 29, 2000
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It is still required that BPA forward copies of records of pesticide and fertilizer application to the Water Utility within 72 hours of application. This requirement is applicable to anyone applying these materials to more than one contiguous acre.

Thank you for calling the meeting and providing the information needed to determine whether a permit is currently required. Please contact me at 425-430-7211 should you increase your hazardous materials inventory in the future in order to determine whether an operating permit will be required. Thank you for your continued cooperation.

Sincerely,



Carolyn Boatsman
Aquifer Protection Specialist

Cc: Abdoul Gafour