

# memorandum

DATE: July 1, 2002

REPLY TO  
ATTN OF: KEPR-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS  
(DOE/EIS-0285/SA-78)

TO: Randy Melzer  
Redmond Deputy Regional Manager – TFR/REDMOND

**Proposed Action:** Vegetation Management for ten Substations in the Redmond District.  
(See list of facilities listed under planning step 1).

**Proposed by:** Bonneville Power Administration (BPA).

**Description of the Proposal:** BPA proposes total vegetation management (bare ground) 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 Redmond District of the Redmond Region.

**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 (copies will be maintained at the district office, with the regional environmental contact and at the (Pollution Prevention and Abatement office, Portland, Oregon). Applicable findings are discussed below.

**Planning Steps:**

**1. Identify facility and the vegetation management need.**

Fort Rock Substation Lake County, OR	Grizzly Substation Jefferson County, OR	Hampton Substation Deschutes County, OR	Harney Substation Harney County, OR
La Pine Substation Deschutes County, OR	Ponderosa Substation Crook County, OR	Redmond Substation Deschutes County, OR	Sand Spring Comp Substation Deschutes County, OR
Summer Lake Substation Lake County, OR	Sycan Comp Substation Lake County, OR		

BPA proposes to manage vegetation inside and around electrical substations and associated facilities. Vegetation management within the substations will include bare ground management by herbicides of all areas within the fenced perimeter of the facility including a bare ground 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.

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

Land use surrounding the facilities includes but is not limited to, pasture/grazing, and agriculture/farming activities (see checklists for a more detailed description). Surrounding Landowners include private farmers/ranchers and local utilities, (see checklists for a more detailed description). No mitigation necessary.

**3. Identify natural resources and any mitigation.**

Drinking water resources and water 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.**

There will be no debris disposal and re-vegetation associated with the bare ground management. For other areas debris disposal will take place on site. 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 re-vegetation methods, if necessary.**

Re-vegetation will be consistent with the permanent nature of the facilities but will incorporate native species where practical.

**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/ John Howington  
 John Howington  
 Physical Scientist (Environment) KEPR-4

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

DATE: 07/01/2002

cc:

L. Croff – KEC-4  
 T. McKinney – KEC-4  
 M. Hermeston – KEP-4  
 J. Meyer – KEP-4  
 F. Walasavage – KEP/Celilo  
 J. Sharpe – KEPR-4  
 M. Johnson – TF/DOB-1  
 P. Key – LC-7  
 R. Fouse-TFR/Redmond  
 G. Parks-TFR/Redmond  
 E. Johnson– TFR/The Dalles  
 D. Kittrell – TFRB/Redmond  
 D. Chabot – TFRG/Malin  
 G. McMullen – TFRV/Redmond  
 Environment File – KEC-4  
 Official File – KEP (EQ-14)

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
FORT ROCK	Bareground Acres: 8.65 Fenced Acreage: 8.67 Site Acreage: 14	S10, T27S, R15E, WM	LAKE	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The site is owned by BPA and is shared with PGE. The surrounding land is owned by private landowners who utilizes the land for grazing purposes.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
NONE		

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

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

After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. There are no drainage pipes, outfalls, or wells present at either site nor a direct pathway to any streams, springs, or canals.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
NONE			NO WELLS HAVE BEEN IDENTIFIED AT THIS FACILITY

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **FORT ROCK**

Facility ID: FORT

Region: REDMOND

Address: ARROW GAP RD

Latitude: 43 14 36.0984 N

Longitude: 120 55 13.4980 W

City, State, Zip SILVER LAKE, OR, 97638

Description of the Facility:

Topographic Description of the area:

## Physical Site Information.

Surface Soil:	COBBLEY SILTY SAND	Neighboring wells?	NO	Annual Precip:	9
Sub-Surface Soil:		Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	RAPID	Crops:		Leases:	
Depth to GW:	85FT	Floodplain:	N		

### Surface Water Evaluation:

This facility does not require an SPCC plan. Oil volumes do not meet regulatory requirements.

Volume verified by Bob White. There is no oil stored at Fort Rock and the diesel tank has been replaced with propane for the EG Sets.

All capacitors have been removed from this facility.

### Description of Drainages:

Geological information on ground water confining layers:

## Identification of Water Resources.

Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
Notes on the Facility's Containment System(s):			

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
GRIZZLY	Bareground Acres: 11.40 Fenced Acreage: 11.4 Site Acreage: 28.7	S35, T12S, R14E, WM	JEFFERSON	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The site is shared by BPA and PGE. BPA facility maintenance workers keep the entire substation site weed-free through a reimbursable agreement with PGE. The substation is located on land managed by the USFS-Crooked River National Grasslands which surrounds the substation on all sides. The land has been designated for the establishment and maintenance of large significant land tracts where native grasses and sagebrush ecosystems can thrive undisturbed. To the north and across the county road is the Rimrock Springs wildlife refuge managed by also by the Grasslands.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.



### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
RIMROCK SPRINGS WILDLIFE MGMT AREA	WETLANDS	NW - 1 MILE
SEASONAL STREAM	STREAM	S - 1,000'

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

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

The Substation is located on USFS lands and the surrounding National Grasslands are managed by the USFS, use only those herbicides approved for use on USFS lands (See appendix F of the Vegetation EIS). After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. A wetland, approximately 1-mile northwest of the substation has been identified within the wildlife refuge. Additionally, there is a seasonal stream about 1,000 feet south of the substation. A non-potable well is located 30 feet from the southeast corner of the control house building. The well is cased and grouted in accordance with state regulations to a depth of 30 feet. Well logs indicate brown sandstone to the 220 foot depth. Do not apply any chemical having a groundwater label advisory. Do not apply granular formulated chemicals. Currently the Substation is using Gysophate herbicide which has no water advisory. No buffers needed at this 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.

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
1	220	148	

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **GRIZZLY** Facility ID: GRIZ Region: REDMOND

Address: 5531 SE RAMMAS ROAD

Latitude: 44 28 56.4845 N

Longitude: 121 1 10.1755 W

City, State, Zip MADRAS, OR, 97741

### Description of the Facility:

Grizzly Substation has ten Reactors, three containing 6,828 gallons of oil and seven with 7,670 gallons for a total oil volume of 74,174 gallons and three Station Service Transformers, each with 40 gallons of oil. Miscellaneous BPA equipment includes Current and Potential Transformers with a total oil volume of 769 gallons.

PGE owns and maintains miscellaneous equipment on the substation with a total oil volume of 4,992 gallons.

### Topographic Description of the area:

Grizzly Substation is bordered on the north by Rammas Road and to the east by the entrance road, parking area, and maintenance storageYard. The substation is bordered to the west and south by an open field. A drainage ditch located east of the facility flows south to a pooling area. Drainage from Outfall #3, located in the southwest corner of the facility, enters a ditch flowing 1,700 feet to a pooling area.

### Physical Site Information.

Surface Soil:	COBBLEY SANDY SILT	Neighboring wells?	YES	Annual Precip:	12
Sub-Surface Soil:	COBBLEY CLAY	Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	VERY SLOW	Crops:		Leases:	
Depth to GW:		Floodplain:	N		

### Surface Water Evaluation:

This facility requires a SPCC plan due to oil volumes and pathway to adjacent water bodies.

Yard is sloped -1.0% to the south. Yard drainage piping outfalls to the south into a stram which eventually enters wetlands.

### Description of Drainages:

Grizzly Substation has a subsurface drainage pipe system consisting of eight parallel runs of 6" open jointed pipes that drain from the east and west into a central run of 8" solid concrete piping draining from north to south terminating at Outfall #2. Also tied into this run is drainage from the 4" perforated PVC pipe in the cable trench. Drainage from the oil spill containment system flows from the liners to vaults equipped with an oil sensor and electronic oil stop valve before discharging at the southwest corner of the facility at Outfall #3.

### Geological information on ground water confining layers:

### Identification of Water Resources.

#### Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
REACTORS/OIL STORAGE TANK	LINER TO STORAGE VAULT TO SENSOR VAULT TO 8" ELECTRONIC OIL STOP VALVE	8" SOLID CONCRETE & PVC	VAULT CAPACITY: 10,475 GALS.

#### Notes on the Facility's Containment System(s):

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
HAMPTON	Bareground Acres: 1.00 Fenced Acreage: 1 Site Acreage: 10	S13, T21S, R19E, WM	DECHUTES	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on BLM land. Pastureland surrounds the substation site and is the only existing use of the land at this time.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
STREAM	STREAM	E - 1,300'

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

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

After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. There are no drainage pipes, outfalls, or wells present at this site. Surface runoff drains southeasterly and there is no direct pathway to any streams, wells, or canals.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
NONE			NO WELLS HAVE BEEN IDENTIFIED AT THIS FACILITY

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **HAMPTON**

Facility ID: HAMP

Region: REDMOND

Address: 3655 W. HWY. 126

Latitude: 43 45 30.5180 N

Longitude: 120 23 36.4338 W

City, State, Zip REDMOND, OR, 97756

Description of the Facility:

Topographic Description of the area:

## Physical Site Information.

Surface Soil:	SIL SND, STON SIL SND	Neighboring wells?	NO	Annual Precip:	12
Sub-Surface Soil:		Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	MOD RAP-RAP	Crops:		Leases:	
Depth to GW:	170-240FT	Floodplain:	N		

### Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

Yard is sloped -1.0% to the east.

### Description of Drainages:

Geological information on ground water confining layers:

## Identification of Water Resources.

Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
Notes on the Facility's Containment System(s):			

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
HARNEY	Bareground Acres: 2.00 Fenced Acreage: 2 Site Acreage: 3.66	S9, T24S, R30E, WM	HARNEY	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on BPA fee-owned land. Pastureland surrounds the substation site and is the only existing use of the land at this time.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.



### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
SAGE HEN CREEK	CREEK	S - 3,000'

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

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

After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. There are no drainage pipes, outfalls, or wells present at this site. Surface runoff drains southeasterly and there is no direct pathway to any streams, wells, or canals.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
NONE			NO WELLS HAVE BEEN IDENTIFIED AT THIS FACILITY

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **HARNEY**

Facility ID: HARN

Region: REDMOND

Address: HWY 20

Latitude: 43 30 35.2834 N

Longitude: 119 7 22.0712 W

City, State, Zip BURNS, OR, 97720

Description of the Facility:

Topographic Description of the area:

### Physical Site Information.

Surface Soil: SANDY SILT	Neighboring wells?	Annual Precip: 10
Sub-Surface Soil:	Sole Source Aquifer? N	Public Property:
Soil Permeability: SLOW	Crops:	Leases:
Depth to GW: 17.5FT	Floodplain: N	

### Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

Field verified 08/97. Harney Substation: Reactor number I-459 contains 1710 gallons of oil. Harney substation has containment pond. Containment pond inlet looks as if it in need of repair. No pathway to surface or ground water.

### Description of Drainages:

### Geological information on ground water confining layers:

### Identification of Water Resources.

#### Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
HARNEY	LAGOON		
Notes on the Facility's Containment System(s):			

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
LA PINE	Bareground Acres: 4.00 Fenced Acreage: 4 Site Acreage: 7.5	S18, T22S, R11E, WM	DESCHUTES	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on Deschutes National Forest Bend-Fort Rock District. According to the USFS, the surrounding land is used for timber production and recreation.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
NONE		

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

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

Adjacent to the substation and within the La Pine-Chiloquin right-of-way, the USFS has identified this area as sensitive habitat for the pumice grape fern. Some seasonal restrictions apply to this area if mowing is used to control vegetation outside the yard. The Substation is located on USFS lands and the surrounding National Grasslands are managed by the USFS, use only those herbicides approved for use on USFS lands (See appendix F of the Vegetation EIS). A non-potable well is located near the northwest corner of the control house. The well is 40 feet deep, water table is approximately 15 feet deep. The well is cased and grouted in accordance with state regulations. Well logs indicate varying layers of clay, gravel and pumice. Two abandoned and one exiting grounding wells are located outside of the yard west of the parking area. The grounding well is used for electrical purposes only and are tightly grouted outside and inside the casing. Well logs indicate varying layers of clay and gravel. A ditch surrounding the outside of the substation collects the surface runoff diverting the water southeasterly to a grassy, bitterbrush, sagebrush area adjacent to the right-of-way. Do not apply any chemical having a groundwater label advisory. Do not apply granular formulated chemicals. There is no direct pathway to any streams, wells, or canals. No buffers needed.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
	495		GROUNDING WELL 1987 BACKFILL CEMENT + BENTONITE

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **LA PINE**

Facility ID: LAPI

Region: REDMOND

Address: 3655 W. HWY. 126

Latitude: 43 39 41.8786 N

Longitude: 121 27 10.0008 W

City, State, Zip REDMOND, OR, 97756

Description of the Facility:

Topographic Description of the area:

### Physical Site Information.

Surface Soil: SILTY SAND	Neighboring wells?	Annual Precip: 18
Sub-Surface Soil:	Sole Source Aquifer? N	Public Property:
Soil Permeability: RAPID	Crops:	Leases:
Depth to GW: 20-25FT	Floodplain: N	

### Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

### Description of Drainages:

Geological information on ground water confining layers:

### Identification of Water Resources.

Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
LAPINE	TANK OWS		MEMBRANE LINER
Notes on the Facility's Containment System(s):			

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
PONDEROSA	Bareground Acres: 4.95 Fenced Acreage: 4.95 Site Acreage: 6.89	S33, T15S, R15E, WM	CROOK	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on BPA fee-owned land. Pastureland surrounds the substation site and is the only existing use of the land at this time.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.



### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
STREAM	SPRING	E - 1,625'

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

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

After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. There are no drainage pipes, outfalls, or wells present at this site. Surface runoff drains toward the northwest and there is no direct pathway to any streams, wells, or canals.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
NONE			NO WELLS HAVE BEEN IDENTIFIED AT THIS FACILITY

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **PONDEROSA**

Facility ID: POND

Region: REDMOND

Address: HWY. 126

Latitude: 44 13 27.6063 N

Longitude: 120 55 54.0581 W

City, State, Zip PRINEVILLE, OR,

### Description of the Facility:

Equipment at Ponderosa Substation includes three 500 kV Power Transformers each containing 10,800 gallons of oil. Station Service is provided by one Station Service Transformer containing 263 gallons of oil, miscellaneous equipment includes Potential and Current Transformers containing a total oil volume of 783 gallons of oil.

### Topographic Description of the area:

This facility is situated on a easterly facing downgradient slope. North of the facility is a downgradient slope, easterly flowing drainage ditch, and open arid space beyond. East of the facility is a steep downgradient gravel covered yard shoulder that meets the Pacific Power & Light customer yard. South of the facility is the substation graveled parking area and easterly flowing drainage ditch. This facility is level from east to west and has diverging -1.0 % slopes to the north and south parallel to the E-W Baseline.

### Physical Site Information.

Surface Soil:	GRAVELLY SANDY SILT	Neighboring wells?	Annual Precip:	7
Sub-Surface Soil:	ROCK FRAGMENTS & CALICHE	Sole Source Aquifer?	Public Property:	
Soil Permeability:	MODERATE	Crops:	Leases:	
Depth to GW:	480FT	Floodplain:		N

### Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

### Description of Drainages:

The Power Transformers and Station Service Transformer are surrounded by geomembrane liners tied to an oil/water separator by 6" PVC pipe. Other piping at this facility includes 4" perf. PVC piping running under the cable trenches, this drainage ties into the oil/water separator.

### Geological information on ground water confining layers:

### Identification of Water Resources.

#### Description of surface water resources:

This facility is situated on an easterly facing downgradient slope. Drainage collects in a ditch along the upgradient western border of the yard and flows to the north and south around the substation. Drainage through the northern ditch flows northeast from the facility in a defined ditch along an access road which meets the "main" dirt entrance road. Drainage continues approx. 900' and flows into a field where it infiltrates. Drainage from Outfall #1 enters the southern ditch and is directed to the east through an 18" B& S culvert. Drainage continues approx. 300' in a channel that becomes less defined, to a 12" CMP that runs under the PP&L entrance road. Drainage continues along the "main" dirt road to the northeast approx. 1250' and into a field where drainage infiltrates.

#### List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
1) TRANSFORMERS AND SS TRANSFORMER	GEOTEXTILE MEMBRANE LINERS	6" PVC	
2) 30' NW OF CONTROL HOUSE	OIL WATER SEPARATOR	6" PVC	TOTAL STORAGE CAPACITY: 11,340 GALLONS

#### Notes on the Facility's Containment System(s):

If OWS storage capacity is calculated at invert elevation from outlet, oil storage capacity is 7,344 gallons.

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
REDMOND	Bareground Acres: 10.00 Fenced Acreage: 10.41 Site Acreage: 21.25	S18, T15S, R13E, WM	DESCHUTES	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on the property of the Redmond Regional Headquarter's facility with private landowners adjacent on all sides. The westside of the property consists mainly of grazing and agricultural uses and residential subdivisions are located to the east and south.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
DESCHUTES RIVER	RIVER	NE-1.8 MILES
INTERMITTENT STREAM	STREAM	W-2.250'
INTERMITTENT STREAM	STREAM	NE- 650'

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

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

A water well located within the substation has been abandoned and capped. Another water well and wash rack are located approx. 125 feet to the northwest of the substation. The well is the sole water source for the substation and HQ facility. According to the buffer widths identified in the Vegetation EIS, a 164 foot radius buffer is required from a domestic water source and areas treated with herbicides have a ground water advisory. Therefore, only Roundup (glyphosate) will be used within the 164-foot radius buffer that extends within the substation boundary. The well water is tested quarterly. The drainage outfall for the wash rack is north of the well (BPA fee-owned property) and empties into a sagebrush/juniper field. To date, no discernable detrimental impact has occurred to the vegetation around this discharge pipe.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
2	240	80	ABANDONED 8/7/97

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **REDMOND** Facility ID: RDMD Region: REDMOND

Address: 3655 W HWY 126

Latitude: 44 16 13.5518 N

Longitude: 121 12 35.5027 W

City, State, Zip REDMOND, OR, 97756

## Description of the Facility:

Redmond Substation has seven Power Transformers ranging in volume from 1,910 to 13,000 gallons, for a total oil volume of 52,491 gallons of oil. Also at this facility are four oil filled Power Circuit Breakers ranging in volume from 2,250 to 7,605 gallons, for a total oil volume of 23,460 gallons of oil. Station service is provided by four transformers ranging in volume from 35 to 42 gallons, for a total oil volume of 147 gallons of oil. Other miscellaneous equipment includes thirty four Current and Potential Transformers, ranging in volume from 11 to 300 gallons for a total oil volume of 1,966 gallons of oil.

This facility contains 180-3.6 gallon and 6-8 gallon non-PCB capacitors, for a total oil volume of 696 gallons of oil.

## Topographic Description of the area:

The terrain east of the substation is characterized by the graveled substation shoulder, shallow drainage ditches, and a paved road beyond. North of the facility the terrain generally slopes to the north and is characterized by grasses, brush, sparse trees, and the right-of-way. Drainage from the yard tends to pool in the ditches between the yard and road, or flows a short distance prior the ditches become less defined and fan out to the surrounding terrain. West of the electrified main yard is the paved parking area and cinder rock covered maintenance storage area. West of the Maintenance Headquarters facility there is a grass and brush covered downgradient slope to a level basin dominated with sparse arid trees, grass and brush. An intermittent stream is located approximately 650' NE of the facility, however no direct pathway was identified.

Terrain south of the substation is fairly level having a shallow slope to a westerly draining ditch along Hwy #126. Several pooling areas exist in this ditch, however the ditch does drain to the west and across the paved entrance road to the facility. A small CMP picks up drainage as it comes off of the paved entrance road and directs it back into the ditch.

## Physical Site Information.

Surface Soil:	SILTY SAND	Neighboring wells?	NO	Annual Precip:	7
Sub-Surface Soil:	SILTY SAND, BASALT	Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	MOD RAPID	Crops:		Leases:	
Depth to GW:	Approx. 270'	Floodplain:	N		

## Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

No nearby waterbodies. Any water leaving this facility will pool along roads.

## Description of Drainages:

There are no piped drainage systems on the main energized or 230 kV Capacitor yards. The main energized yard has a -0.3% slope from the south to the north and is level from east to west, and the separate 230 kV Capacitor yard has a -0.5% slope from east to west and is level from north to south.

Drainage piping on the Maintenance Headquarters consists of 4" & 6" solid B&S piping with multiple interconnecting catch basins. This facility has a vehicle wash rack that drains first to a grease trap, then to a coalescing plate oil/water separator. The oil/water separator drains through a 4" PVC pipe and outfalls (Outfall #3), north of the facility.

## Geological information on ground water confining layers:

Shallow water table: May not be present at this site. (It is reported that canals in the vicinity of the Deschutes River near Bend, Oregon lose nearly half their water before its use due to the fractured nature of the lava over which they flow.)

Drinking water: One on site well 440 feet deep. Static water level ranges between 268.8 to 291.8 feet between 1970 and 1978. This 8-inch diameter well is perforated between 390 and 425 feet below land surface.

Soils composition: Predominantly basalt to 260 feet with some clay to about 50 feet (20 to 50 feet). This clay if it is consistently uniform may act as an aquiclude (barrier) and prevents the surface water from entering the deeper drinking water aquifer. Much of the remaining material penetrated in the on site well consisted of sandstone, basalt, sand, and pea gravel

Attached: Well Log and List of Surrounding Wells.

## Identification of Water Resources.

### Description of surface water resources:

Drainage leaving the main energized yard to the north enters drainage ditches between the main yard and access road, where most drainage pools. Drainage from the 230 kV Capacitor Yard drains west to a pooling area adjacent to the entrance/parking area.

Drainage flows leaving the main yard to the south, enter a ditch between the yard and State Hwy #126 and are directed west (downhill) along the road. Parallel to the western border of the Maintenance Headquarters, this ditch turns north and into a dense grass and brush area, where drainage pools.

Any drainage leaving the facility to the east enters shallow drainage ditches where drainage can pool and infiltrate. West of the 230 kV Circuit Breakers is a cinder rock covered equipment storage. Drainage appears to flow in a westerly direction to the access road that passes the wash rack and continues to pooling areas in the wood pole storage yard.

**List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).**

<b>Containment Location</b>	<b>Containment Type</b>	<b>Drainage Pipe</b>	<b>Type of Liner / Remarks</b>
WASH RACK	OIL/WATER SEPARATOR TANK.	4" PVC	OIL STORAGE CAPACITY: 250 GAL
<b>Notes on the Facility's Containment System(s):</b>			



# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
SAND SPRING COMP.	Bareground Acres: 8.56 Fenced Acreage: 8.56 Site Acreage: 14	S25, T21S, R15E, WM	DECHUTES	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on USFS Fremont National Forest land and shared by BPA and PGE. According to the USFS, the surrounding land is used for timber production and recreation purposes.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
SPRING		

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

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

The Substation is located on USFS lands and the surrounding National Grasslands are managed by the USFS, use only those herbicides approved for use on USFS lands (See appendix F of the Vegetation EIS). After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. Two springs are located west of the yard #1 and more than 480 feet from the outside perimeter. Both springs are clearly identified on the ground. Much of the surface water drains to the south into a sagebrush, grass, and bitterbrush right-of-way and there is no direct pathway to any streams, springs, or canals. No buffers needed.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
NONE			NO WELLS HAVE BEEN IDENTIFIED AT THIS FACILITY

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **SAND SPRING COMP.**

Facility ID: SASP

Region: REDMOND

Address: 3655 W. HWY. 126

Latitude: 43 43 14.1928 N

Longitude: 120 51 11.6374 W

City, State, Zip REDMOND, OR, 97756

Description of the Facility:

Topographic Description of the area:

### Physical Site Information.

Surface Soil:	GRAVELLY SAND	Neighboring wells?	NO	Annual Precip:	19
Sub-Surface Soil:		Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	RAP/VERY RAP	Crops:		Leases:	
Depth to GW:	50FT	Floodplain:	N		

### Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

All capacitors have been removed from this facility.

### Description of Drainages:

Geological information on ground water confining layers:

### Identification of Water Resources.

Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
Notes on the Facility's Containment System(s):			

# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
SUMMER LAKE	Bareground Acres: 7.00 Fenced Acreage: 7 Site Acreage: 24.6	S33, T29S, R15E, WM	LAKE	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on USFS Fremont National Forest land and shared by BPA , Pacific Corps and PGE. According to the USFS, the surrounding land is used for timber production and recreation purposes.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
DUNCAN CREEK	CREEK	SE - 1,750'

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

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

The Substation is located on USFS lands and the surrounding National Grasslands are managed by the USFS, use only those herbicides approved for use on USFS lands (See appendix F of the Vegetation EIS). After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. An abandoned well is located on the west side of the substation and approximately 7 feet from the fence. There is no direct pathway to any streams, wells or canals.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
1			ABANDONED 8/8/97

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### 4. DETERMINE VEGETATION CONTROL METHODS

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

Initial:

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

Subsequent:

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

Future:

Future control will be consistent with the methods described above.

#### 5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### 6. DETERMINE MONITORING NEEDS

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### 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.

None

# Attachment B - Supplemental Resource Information

Facility **SUMMER LAKE**

Facility ID: SUML

Region: REDMOND

Address: P.O. BOX 160

Latitude: 43 0 47.5516 N

Longitude: 120 57 26.3035 W

City, State, Zip SILVER LAKE, OR, 97638

Description of the Facility:

Topographic Description of the area:

### Physical Site Information.

Surface Soil:	COBBLEY SAND	Neighboring wells?	NO	Annual Precip:	10
Sub-Surface Soil:	BASALT	Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	RAPID	Crops:		Leases:	
Depth to GW:	200-800FT	Floodplain:	N		

### Surface Water Evaluation:

This facility does not require an SPCC plan. Oil volumes do not meet the regulatory limits nor is no pathway to adjacent water.

Field verified 08/97. Summer Lake Substation: Not enough oil and no pathway. No plan required, no recommendation.

### Description of Drainages:

Geological information on ground water confining layers:

### Identification of Water Resources.

Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
Notes on the Facility's Containment System(s):			



# 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	Size of Area to be Treated (Acres or Square Feet)	Nearest 1/4 Section Township/Range or GPS Coordinates	County	State
SYCAN COMP STA	Bareground Acres: 8.56 Fenced Acreage: 8.56 Site Acreage: 14	S30, T31S, R15E, WM	LAKE	OR

1.2 Describe vegetation needing management:

- Non-Electrical Facility (Describe all landscaping vegetation management.)
- Substation (Total vegetation management.)
  - Ornamental/Landscaped areas requiring fertilizer, mowing, broadleaf control and weed control.
  - Field grass or other low growing cover crop, mostly mechanical control, spot herbicide treatment for some broad leaf and noxious weed control.
  - Restricted Vegetation Management: See attached drawings and section 3.1 of the checklist for restrictions.

## 2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

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

The substation is located on USFS Fremont National Forest land and shared by BPA, Pacific Corps and PGE. Each utility's substation is separated by fences and BPA maintains the responsibility weed-free sites at BPA's and Pacific Corps. According to the USFS, the surrounding land is used for timber production and recreation purposes.

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

If notification is required it will be listed next to each landowner up above in section 2.1.

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

None required.

### 3. IDENTIFY NATURAL RESOURCES

#### 3.1 Water Resources

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

Name	Type	Distance
NONE		

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

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

After reviewing the GIS maps & facility plot plans, there are no streams, irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. There are no drainage pipes, outfalls, or wells present at either site nor a direct pathway to any streams, springs, or canals.

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

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

Well Number	Depth of Well ( ft )	Static Water Depth	Remarks
NONE			NO WELLS HAVE BEEN IDENTIFIED AT THIS FACILITY

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

If any, they will be listed in section 3.1.

#### 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.

If any, they will be listed in section 3.1.

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

Limit use of chemicals with groundwater/surface water label advisories and implementation of limitations to application methodology.

#### 3.4 Steep Slopes/ Unstable Slopes (Soils)

Will herbicide treatment be occurring on any steep slopes?

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

Possibly, during spot spraying. If so applicator will observe all BMPs identified in the VEG EIS and buffers on attached drawing.

#### 3.5 Attach drawing showing location of all required buffers.

#### **4. DETERMINE VEGETATION CONTROL METHODS**

Describe overall vegetation management scheme and schedule:

Bareground managed areas will primarily use herbicides with supplemental usage of mechanical methods. Other areas will be managed as described in section 1.2. Only herbicides from BPA's approved herbicide list will be used. All areas will be managed consistently with the Vegetation EIS.

**Initial:**

For electrical substations the goal is Total Vegetation Management. A licensed contractor sprays the substations annually. BPA's substation herbicide application contracts contain specific language to ensure herbicides are applied consistent with the VEG EIS. Facilities requiring landscaping are designed to be low maintenance and are consistent with Integrated Pest Management procedures, such as using native, low growing plant types and mulches etc...

**Subsequent:**

Herbicides will be applied on an annual or as needed. Active ingredients shall be rotated to ensure plants do not build a tolerance. Mechanical methods shall be performed on an as needed basis. Landscaping (ornamental plants/lawns) may be maintained via contractor or performed by BPA employees.

**Future:**

Future control will be consistent with the methods described above.

#### **5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION**

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. For other areas green debris will be recycled on-site to the extent practical.

#### **6. DETERMINE MONITORING NEEDS**

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

Monitoring will occur through herbicide contract management and the observations of BPA Personnel during on site visits.

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.)

Describe debris disposal and revegetation , if any.

There will be no debris disposal and revegetation with bareground management. Debris disposal will take place on-site and will be recycled to the extent practical. Revegetation will be consistent with the existing vegetation of the facility and will incorporate native species where practical.

#### **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.

None

# Attachment B - Supplemental Resource Information

Facility **SYCAN COMP STA** Facility ID: SYCN Region: REDMOND

Address: P.O. BOX 65  
STATE LINE ROAD

Latitude: 42 51 11.4788 N  
Longitude: 120 59 14.2853 W

City, State, Zip MALIN, OR, 97632

Description of the Facility:

Topographic Description of the area:

### Physical Site Information.

Surface Soil:	GRAVELLY SAND	Neighboring wells?	NO	Annual Precip:	20
Sub-Surface Soil:		Sole Source Aquifer?	N	Public Property:	
Soil Permeability:	RAPID	Crops:		Leases:	
Depth to GW:	45 FT	Floodplain:	N		

### Surface Water Evaluation:

This facility does not require an SPCC plan. There is no pathway to adjacent water.

All capacitors have been removed from this facility.

### Description of Drainages:

Geological information on ground water confining layers:

### Identification of Water Resources.

Description of surface water resources:

List of zones that may provide a means for vegetation control activities to threaten ground or surface water resources (secondary containment systems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
Notes on the Facility's Containment System(s):			