DOE F 1325.8e Electronic Form Approved by CILR – 09/26/2001
(8-89)

United States Government **Department of Energy**

Bonneville Power Administration

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-74)

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

Proposed Action: Vegetation Management for five Substations in the Malin District.
(See list of facilities 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 Malin 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, OR). Applicable findings are discussed below.

Planning Steps:

1. Identify facility and the vegetation management need.

Canby Modoc County, CA.	Captain Jack Klamath, OR	Cedarville JCT Modoc County, CA.	Malin Klamath, OR
Warner Modoc County, CA.			

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. ***A pesticide must be properly labeled and registered (licensed) with the State of California before it can be used, possessed, or offered for sale in California.***

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.

Natural 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.

Renegotiation 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* DATE:07/01/2002
Thomas C. McKinney
NEPA Compliance Officer

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. Chabot – TFRG/Malin
G. McMullen – TFRV/Redmond
Environment File – KEC-4
Official File – KEP (EQ-14)

Jhowington:jw:4722:6/26/02 (KEP-KEPR-4-W:\EP\2002 FILES\EQ\EQ-14\FEIS-0285-SA-74-Malin.doc)

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
CANBY	Bareground Acres 1.60 Fenced Acreage: 1.6 Site Acreage: 5.5	S25, T42N, R9E DM	MODOC	CA

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 property. Surprise Valley has a substation located approximately 200 feet southeast of the Canby sub. Private agricultural land surrounds the site with wheat as the primary crop.

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.

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, and/or T & E species immediately adjacent to the substation facility. There are no drainage pipes, outfalls, or wells present at this site. There is no direct pathway to any streams, wells, or canals. Do not apply any chemical to adjacent agricultural area.

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 revegetion 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 revegetion 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 **CANBY** **Facility ID:** CABY **Region:** REDMOND

Address:

Latitude: 41 26 41.5 N

Longitude: 120 52 46.5W

City, State, Zip , CA,

Description of the Facility:

Topographic Description of the area:

Physical Site Information.

Surface Soil:
Sub-Surface Soil:
Soil Permeability:
Depth to GW:

Neighboring wells?
Sole Source Aquifer?
Crops:
Floodplain:

Annual Precip:
Public Property:
Leases:

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 sytems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
CANBY	MEMBRANE LINER TO OIL STORAGE VAULT TO 6" ELECTRONIC OSV		VAULT CAPACITY: 7000 GALLONS

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
CEDARVILLE JCT	Bareground Acres 0.50 Fenced Acreage: 0.5 Site Acreage: 1.1	S13, T43N, R13E, DM	MODOC	CA

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 property. Surprise Valley utilizes about 10% of the sub for their equipment. Private 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
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 this site. Surface runoff drains southwesterly and there is no visual 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 revegetion 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 revegetion 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 **CEDARVILLE JCT**

Facility ID: CJCT **Region:** REDMOND

Address: P.O. BOX 65
STATE LINE ROAD

Latitude: 41 33 49.7532 N

Longitude: 120 24 47.9634 W

City, State, Zip MALIN, CA, 97632

Description of the Facility:

Topographic Description of the area:

Physical Site Information.

Surface Soil:	SANDY SILT	**Neighboring wells?**	NO	**Annual Precip:**	24
Sub-Surface Soil:	COBB CLAY SND,CLAY GRAV	**Sole Source Aquifer?**	N	**Public Property:**	
Soil Permeability:	SLOW/MODERATE	**Crops:**		**Leases:**	
Depth to GW:		**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 sytems).

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
CAPTAIN JACK	Bareground Acres 14.10 Fenced Acreage: 14.1 Site Acreage: 160	S22,23,24, T40S, R11E WM	KLAMATH	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 shared with Pacific Corps. However, BPA facility maintenance workers keep the entire substation site weed-free through a reimburseable agreement with Pacific Corps. The surrounding land is owned by Jeld-Wen, Inc. and Richard Sacchi who utilizes this 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
UNNAMED STREAM	STREAM	W - 1,125'

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 irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. Ditches collect water from the southern and northern portions of the sub which converge into a main ditch that drains northwesterly into a sagebrush, grassy, and juniper draw.

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 revegetion 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 revegetion 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 **CAPTAIN JACK** **Facility ID:** CPJK **Region:** REDMOND

Address:

Latitude: 42 4 45.94 N

Longitude: 121 23 22.47 W

City, State, Zip , OR,

Description of the Facility:

Topographic Description of the area:

Physical Site Information.

Surface Soil:	SANDY, CLAYEY SILT	**Neighboring wells?**	**Annual Precip:**
Sub-Surface Soil:	SILTY SAND	**Sole Source Aquifer?**	**Public Property:**
Soil Permeability:		**Crops:**	**Leases:**
Depth to GW:		**Floodplain:**	

Surface Water Evaluation:

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

Captain Jack has a 6000 gallon diesel fuel tank; it is in a building with a basin around it that should contain all the fuel. If the basin were to crack it is within about 100 feet of the drainage. Dennis Chabot.

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 sytems).

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
MALIN	Bareground Acres 34.00 Fenced Acreage: 31.8 Site Acreage: 110.42	S17, T41S, R13E, WM	KLAMATH	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 and shared by BPA, Pacific Corps and PGE. Each utility owns the land their equipment is situated on. However, BPA facility maintenance workers keep the entire substation site weed-free through a reimbursable agreement with the other utilities. Grazing is the existing land use for the private land around the substation and it is apparent that cattle utilize the pond when water is available. Access to the facility is bordered by an organic farm, do not apply herbicides to the road adjacent to the farm and ensure do drift occurs.

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
SEASONAL POND	POND	S-2,350'
INTERMITTENT STREAM	STREAM	W-20'

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 irrigation canals, T & E species or agricultural crops immediately adjacent to the substation facility. A non-potable well is located northwest of the control house. Do not apply any chemical having a groundwater label advisory. Do not apply granular formulated chemicals.The well is 750 feet deep, water table is approximately 295 feet deep. The well is cased and grouted in accordance with state regulations. Well logs indicate varying layers of clay, basalt and a hardpan prior to the water table . No buffers needed due to well construction and favorable geology that would restrict downward movement of chemicals No visible herbicide effects can be seen on any of the surrounding vegetation from previous applications of Oust. 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
1	735	292	WELL LOCATED NW AND ADJACENT TO CONTROL HOUSE

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 revegetion 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 revegetion 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 **MALIN**

Facility ID: MALN **Region:** REDMOND

Address: 38801 LOVENESS RD.

Latitude: 42 0 24.6158 N

Longitude: 121 18 58.5818 W

City, State, Zip MALIN, OR, 97632

Description of the Facility:

Malin Substation is shared by Bonneville Power Administration (BPA), Pacific Power & Light (PP&L), and Portland General Electric (PGE). Each utility owns the land their equipment is situated on, and operates and maintains those components. This shared site has one continuous fenceline. Refer to the Emergency Response Site plan located in this spill plan.

At Malin Substation, BPA operates four 500 kV Reactors ranging in volume from 7,670 - 8,100 gallons for a total oil volume of 31,110 gallons. Other miscellaneous equipment includes Potential and Current Transformers, and Coupling Capacitors containing a total oil volume of 3,687 gallons of oil.

BPA operates Shunt Capacitor Groups #3 & #4 each containing 2,166 - 1.6 gallon capacitors, and the Round Mountain #1 Series Capacitor Group #2 which contains 1,260 - 3.9 gallon capacitors. All BPA capacitors are non-PCB.

PP&L operates eight 500 kV Reactors ranging in volume from 1,435 - 6,400 gallons for a total oil volume of 46,235 gallons. There are four 500/230 kV Power Transformers each containing 10,306 gallons of oil, one 230/69 kV Power Transformer containing 9,450 gallons of oil, and a Distribution Transformer containing 259 gallons of oil. Station Service is provided by three 50 gallon Station Service Transformers, directly adjacent is a grounding bank with three Transformers containing 42 gallons of oil each. PP&L operates two 230 kV and one 69 kV oil filled Power Circuit Breakers ranging in volume from 400 - 7,605 gallons for a total 13,255 gallons. Other miscellaneous equipment includes Coupling Capacitors and Potential Transformers containing a total of 158 gallons of oil.

PP&L operates the Round Mountain #2 Series Capacitor Group #1 which contains 1,656 - 3.9 gallon PCB capacitors.

PGE operates three Reactors ranging in volume from 4,570 - 5,000 gallons for a total oil volume of 14,140 gallons. Other miscellaneous equipment operated by PGE includes Current and Potential Transformers containing a total oil volume of 2,640 gallons.

Topographic Description of the area:

This facility is situated on the floor of a canyon which runs from the north to the south. The canyon floor and walls are sparsely vegetated and dominated by exposed rock outcroppings.

Physical Site Information.

Surface Soil:	SILTY SAND	**Neighboring wells?**	NO	**Annual Precip:**	10
Sub-Surface Soil:	CLAY	**Sole Source Aquifer?**	N	**Public Property:**	
Soil Permeability:	MODERATELY SLOW	**Crops:**		**Leases:**	
Depth to GW:	295FT	**Floodplain:**	N		

Surface Water Evaluation:

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

From: Chabot, Dennis A - TFRG
To: Martin, Mark A - EPF
Subject: RE: Spill Prevention Control and Countermeasure Plans (SPCC)
Date: Thursday, January 30, 1997 11:10AM

Mark:

Malin has a total of 162,689 gallons of oils.
BPA Grizzly #1 Reactor ABB (23010 gal)
PGE Grizzly #2 Reactor AC & ABB (14140 gal)
PGE Spare Reactor ELIN (8100 gal)
PP&L Summer Lake Reactor (27035 gal)
PP&L CPJK Reactor (19200 gal)
PP&L 500/230KV Bank (41224 gal)
PP&L 230/69KV Bank (16575 gal)
PP&L PCB 1L12 (7605 gal)
PP&L PCB 1L1 (5250 gal)
PP&L S/S Transformer (150 gal)
Some smaller quantities of hyd oil in PCB's and PT's.
This oil is from within 75 to 150 feet of drainage.
Dennis A. Chabot
TFRG CSOII

Description of Drainages:

The subsurface drainage system at Malin Substation consists of multiple runs of 6" & 8" B & S concrete pipe, 6" open jointed concrete pipe, 4" perforated PVC pipe, 2" solid PVC pipe, 6" perforated B & S concrete pipe, 4" & 6" corrugated plastic perf. pipe (CPPP), multiple in-line

catch basins, and electrical manholes and handholes. The Pacific Power & Light (PP&L) 500/230 kV Transformer Bank is surrounded by containment pits with geomembrane liners. This containment pit system connects to an oil storage vault, equipped with a sump and electronic oil sensor system. Containment piping consists of 4" solid & perforated PVC piping. The Main Yard of this facility has a -0.75% slope from the north to the south and the 500 kV Shunt Capacitor Yard has a -0.5% slope from the north to the south. Both yards are level from east to west.

Geological information on ground water confining layers:

BPA has on site well 735 feet deep. The static water level is at 292 feet below grade. This well penetrated at least 300 feet of basalt, which separates the upper shallow aquifer from the deeper drinking water aquifer. This basalt acts as an aquiclude (barrier) and prevents the shallow water table from entering the deeper drinking water aquifer.

Shallow explorations indicate that it is very unlikely that a shallow unconfined aquifer exists under the site.

Attached: Well Log and List of Surrounding Wells.

Identification of Water Resources.

Description of surface water resources:

All drainage from this facility enters one of two drainage ditches which surround the Malin Substation. The eastern ditch collects drainage northeast of the Shunt Capacitors, drainage from the 500 kV PP&L Reactors, and the Series Capacitors. This ditch curves west along the southern border of the facility and continues south along the entrance road.

The western ditch, an intermittent stream (shown as a perennial stream on the Topographic map), collects drainage northwest of the Shunt Capacitors, drainage from the PGE and BPA equipment, and drainage from the PP&L 500/230/69 kV yard.

Both drainage ditches converge approx. 700' south of the facility at an outlet ditch (Ditch Outflow 'A'). This ditch directs drainage south approx. 1,650' to a seasonal pond.

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

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
1) PP&L 500 kV XFMRS	GEOMEMBRANE LINERS	4" PERF/SOILD PVC	TIED TO STORAGE VAULT, DRAINE
2) WEST OF PP&L 500 kV XFMRS	OIL STORAGE VAULT	2" PVC	VAULT DRAINS VIA SUMP PUMP
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
WARNER	Bareground Acres 1.00 Fenced Acreage: 1 Site Acreage: 6.4	S1, T42N, R12E, DM	MODOC	CA

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 property and surrounded by Surprise Valley and Pacific Corps substations to the south and west. Private pastureland is located on the east and north side of the substation.

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 is no visual 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…

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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 revegetion 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.

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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 **WARNER**

Facility ID: WRNR **Region:** REDMOND

Address: P.O. BOX 65
STATE LINE ROAD

Latitude: 41 30 3.4691 N

Longitude: 120 31 55.1701 W

City, State, Zip MALIN, CA, 97632

Description of the Facility:

Topographic Description of the area:

Physical Site Information.

Surface Soil:	SANDY SILT	**Neighboring wells?**	YES	**Annual Precip:**	24
Sub-Surface Soil:	SANDY CLAYEY SILT	**Sole Source Aquifer?**	N	**Public Property:**	
Soil Permeability:	SLOW	**Crops:**		**Leases:**	
Depth to GW:	>7FT	**Floodplain:**	N		

Surface Water Evaluation:

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

Yard is sloped -2.0% to the south. Drainage flows to pooling areas.

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 sytems).

Containment Location	Containment Type	Drainage Pipe	Type of Liner / Remarks
WARNER	OSV 1 6"		BENTONITE CLAY LINER

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