

APPENDIX A
PUBLIC INVOLVEMENT: PUBLICATIONS

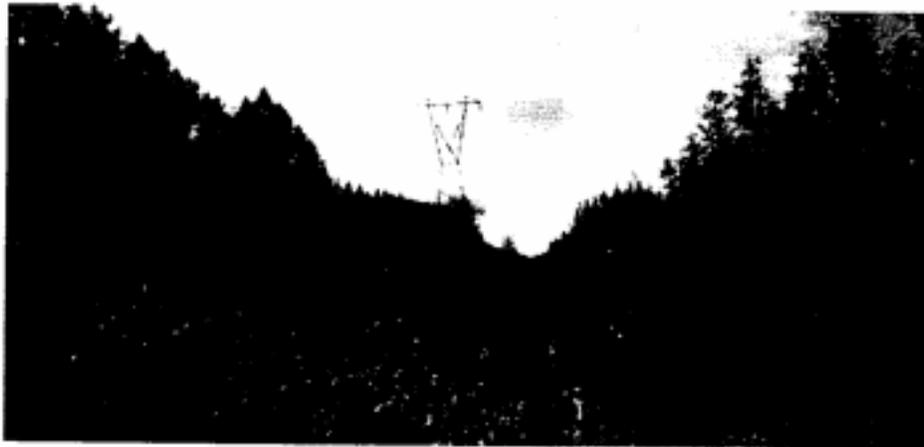
INFORMATION FROM THE BONNEVILLE POWER ADMINISTRATION

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FOR YOUR INVOLVEMENT

JUNE 1997

VEGETATION MANAGEMENT PROGRAM REVIEW



Bonneville Power Administration (BPA) is starting a Draft Environmental Impact Statement on its vegetation management program. The analysis will review how BPA controls vegetation along our rights-of-way and around our facilities. This fyi tells you about our plans and explains how you can receive more information and provide us your ideas.

BACKGROUND

BPA provides electricity throughout the Pacific Northwest using a network of transmission lines and substations. To maintain safe and reliable power, BPA must control the vegetation, including large trees, around electrical transmission facilities. Those facilities include rights-of-way and

the area next to them, substations, access roads, microwave sites and beam paths, and maintenance facilities.

A major electric power outage occurred on August 10, 1996, caused in part by trees that had grown too close to transmission lines. The outage affected a number of other utilities linked to the federal system. As a result, BPA looked at its brush control practices and decided it should make changes to increase program efficiency and effectiveness.

BPA's 1983 environmental impact statement on the vegetation management program is out of date because it does not include methods and products that are currently available. We now manage

PROJECT PARTNERS

BPA works with many others in developing an EIS. For this project we are working closely with:

U.S. Forest Service

U.S. Department of Interior, Bureau of Land Management



vegetation using a variety of techniques, depending on what's appropriate for a specific location and situation. This approach leads to inconsistency and inefficiency.

PROPOSAL

BPA proposes to review the program and establish a set of principles to guide the use of vegetation management techniques. Our objective is to provide a cost-effective, consistent, efficient, and environmentally acceptable means of controlling vegetation that may threaten transmission system safety and reliability.

ENVIRONMENTAL IMPACT STATEMENT

The EIS will identify alternative ways of controlling vegetation and analyze how each alternative affects the environment. We will look at how different vegetation control methods affect water quality, plant communities, human health and safety, cultural resources, fish and wildlife populations, land use, and other resources.

This EIS will provide the framework for making decisions about vegetation control. It will not replace site-specific environmental analysis, which will still be done when needed for individual projects.

We plan to have the Draft EIS available for review in January 1998.

EIS SCHEDULE

Start comment period	June 16, 1997
Open house meeting	July 10, 1997
Last day for comments	July 23, 1997
Draft EIS ready for public review	Jan., 1998
Final EIS	August, 1998
Decision	Nov., 1998

HOW YOU CAN HELP

Your ideas can help us analyze the vegetation management program. There are several ways for you to share your thoughts.

- Complete and mail the enclosed comment form.
- Call our toll-free comment line at 1-800-622-4519; in Oregon, call (503) 230-3478.
- Fax comments to (503) 230-3984.
- E-mail comments: comment@bpa.gov
- Mail comments to Public Affairs Office, Bonneville Power Administration - AC, P.O. Box 12999, Portland, Oregon 97212.

Or, attend our open house meeting. You can come at any time since there will be no formal presentation.

Thursday, July 10, 1997
3 - 7 p.m.

BPA Headquarters - Room 106
905 NE 11th Avenue
Portland, Oregon

The last day to send comments is July 23, 1997.

FOR MORE INFORMATION

To continue receiving information on this EIS, please return the enclosed post card. Otherwise you may be removed from the mail list. Our next *fyi* will summarize all the comments we received.

Feel free to call the environmental staff that is developing this EIS.

- Leslie Kelleher - (503) 230-7692
- Molly Koester - (503) 230-5920
- Tammie Vincent - (503) 230-3469

Bonneville Power Administration
PO Box 3621 Portland, Oregon 97208-3621

DOE/EP-3001 JUNE 1997 BC



INFORMATION FROM THE BONNEVILLE POWER ADMINISTRATION

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F O R Y O U R I N V O L V E M E N T

DECEMBER 1997

VEGETATION MANAGEMENT PROGRAM EIS



This fyi reports back to you on what people told us about BPA's vegetation management program: problems with what we do now and ideas on how we could improve. We sought these comments to help us develop the scope and content of the Environmental Impact Statement we are preparing on the vegetation management program.

Below, we explain how we sought comments, give an overview of what we heard, and list sample comments. On the back page is a project update.

TO GET YOUR VIEWS....

In June, we mailed a letter to nearly 1500 people and groups we thought would be interested

in or affected by our vegetation management program. We enclosed a comment form and asked for comments by July 23.

In July, we held meetings with BPA personnel in our seven regions—the people responsible for BPA's vegetation management. We held meetings in Covington, The Dalles, Eugene, Kalispell, Olympia, Spokane, and Walla Walla. When we couldn't arrange meetings in regional offices, we met in the field or talked on the phone. We recorded all comments on flip charts or in notebooks. Throughout those meetings, we met and talked with about 40 people.

PROJECT PARTNERS

BPA works with many others in developing an EIS. For this project we are working closely with:

U.S. Department of Agriculture, Forest Service

U. S. Department of Interior, Bureau of Land Management



Because many BPA facilities are located on lands managed by the Forest Service and the Bureau of Land Management, we specifically targeted those agencies for comment. (Both are partners with BPA in developing this EIS.)

Our facilities also cross lands that are important to Tribes. We are meeting with Tribes that have transmission lines crossing their reservations to learn about their interests in our practices.

Our facilities also cross and abut land under private ownership. On July 10, we held an open house meeting at BPA's Portland Headquarters office. Few attended. We knew this broad program approach would not attract as many comments from private landowners as a site-specific proposal; yet, the views of private landowners who neighbor our facilities are vital. For this reason, we are reviewing public comments about vegetation management from earlier site-specific projects and will include them in the study design.

2

OVERVIEW

In total, we received 641 comments. Besides the comments from the meetings, we received 25 comment forms, six letters, and two phone calls. (We count each idea as a separate comment.)

The key points we heard:

- Nearly all see value in developing the environmental impact statement; most hope it will result in changes to BPA's vegetation management program; many have differing, even conflicting, expectations.
- Chemical treatment by far drew the most comments; some favor its use; some don't; most have specific ideas about when its use is appropriate.
- Other frequently mentioned topics: the Forest Service and noxious weeds.

- Commenters from outside BPA focused on rights-of-way; BPA staff commented on all BPA facilities: rights-of-way, substations, microwaves, access roads and other.
- Commenters were fairly uniform in their support for natural-looking right-of-way favoring low-growing native vegetation, especially grass, and irregular or "soft" edges.
- Main concern of BPA staff: electrical reliability and cost; of others: environmental impacts.

SUMMARY

To produce this summary, we grouped similar comments by subject; we used 10 categories: Techniques/Alternatives, Environmental Resources, Electrical Facilities, Outside Agencies, Current BPA Programs and Practices, Implementation Tools, Cost, EIS Information, Proposed Program and Practices, and Other. The table shows how many comments were in each category.

TECHNIQUES/ALTERNATIVES

The 349 comments in this category covered 10 vegetation management techniques or alternatives: chemical, manual, mechanical, low-growing plant communities, fire management, disposal, biological, reseeding, grazing, and other techniques/alternatives. Here's a sample of what we heard.

Chemical

Need to look at new industry developments for different herbicides and mixes.

Foliar spray and broadcast spray should be included in Draft EIS.

(BPA should) manual cut, then stump treat.

Workers need a current list of environmentally friendly herbicides that we can use.

COMMENT SUMMARY AT A GLANCE...

The 641 comments were grouped into 10 categories. Many comments fit more than one category for a total of 1058. Subcategories reflect specific concerns.

Techniques / Alternatives	349	Electrical Facilities	120
Chemical	174	Rights-of-way	42
Manual	45	Substations	34
Mechanical	26	Access roads	18
Low growing plant communities	24	Facility grounds	14
Fire management	18	Microwave	12
Biological	17	Outside Agencies	104
Disposal	11	Forest Service/Bureau of Land Management	51
Reseeding	11	Tribes	19
Other techniques/alternatives	23	Other outside agencies	34
Environmental Resources	212	Current BPA Programs and Practices	88
Vegetation	86	Implementation Tools	56
Wildlife	23	Cost	50
Safety	21	EIS Information	49
Water	17	Proposed Program and Practices	20
Sensitive and T&E species	15	Other comments	10
Aesthetics	13	TOTAL	1058
Geology	10		
Sensitive areas	9		
Fish	7		
Land use	7		
Other environmental resources	4		

3

In high desert areas, we mow, but we would need to chemically treat after.

Almost all spray uses an oil base instead of water to mix it because we can use it in rain.

We want helicopter spraying at least for noxious weed control.

Need to get back into using herbicides on Forest Service and Bureau of Land Management land because we are getting 3 foot resprout in one year.

I'd prefer you use nothing dangerous to humans, animals, or the planet!

Manual

Manually cutting without (chemical) treatment causes brush to come back thicker...

We use chain saws and treat stumps ...

...hand cutting...leaves too much slash...

In areas with sensitive plants, hand methods...are preferred.

Mechanical

...Compaction with machinery is a problem in some areas.

(We) need to mow in some areas within city limits on fee-owned easements (to) promote good neighbor attitude...

EIS should cover helicopter side-trimming and manual side-trimming (of trees).

Low growing plant communities

To establish low-growing plant communities, use native species that occur in the area such as grasses, forbs, and low shrubs.

I believe management for meadow under the lines may be helpful for meadow dependent species such as the Fenders' Blue Butterfly. Also these can serve as firebreak points.

...more low growing dense rooted grasses (for) low fire and erosion control...competition with weeds, and are adaptable to soils and area's rainfall.

Fire management

Burning brush piles is not an option. We need to educate folks that smoke causes flash over.

- 4 *BPA should look at fire as a vegetation management technique.*

Biological

...look at biological treatments like insects and fungus.

State brought in goats (Klamath County) to eat "leafy spurge".

I'd prefer that you maintain shrub and grass for browsing and grazing...because this is "light" on the land...

Disposal

... Address amount of slash left on the ground. Slash around here doesn't rot...its a fire hazard and landowners complain.

...Consider opportunities to provide for the removal of merchantable sawtimber and other wood products...

...consider leaving sufficient trees, snags, and large down woody material adjacent to streams for eventual recruitment into the stream.

Reseeding

Use native species in any planting or seeding...

We would also like to be able to grass-seed the rights-of-way after brush control, so the weeds don't grow again.

In areas where slopes are too steep to be reshaped...reseed with species appropriate to the soils, microclimate, and terrain conditions...

Other Techniques / Alternatives

Steam: consider it as a means of ground sterilization.

...use an integrated land management approach.

...use a combination of all available methods, depending on specific situation...

ENVIRONMENTAL RESOURCES

The 212 comments on environmental resources were organized into 11 subcategories: vegetation; wildlife; safety; water; sensitive, threatened, and endangered species; aesthetics; geology; sensitive areas; fish; land use; and other environmental resources.

Vegetation

Noxious weeds are a concern. Where left unchecked, they cause social and economic loss.

County weed board takes care of noxious weeds. County picks up chemical from BPA and applies it.

(The Yahama Tribe uses) global positioning system (to show) infestations (of noxious weeds).

Your equipment has lots of weeds on them. Yellow star thistle, knapweed, and skeleton weed are spreading as a result.

Spray your weeds!

...no set process for inspecting for danger trees around substations and in microwave beam paths.

Replant rights-of-way with height-appropriate vegetation rather than "decapitate" conifers...

Wildlife

Please be sure your environmental studies include wildlife use for the right-of-way, habitat use, migration routes...

Convert area to brush species providing forage for big game and hunting areas for owls and birds of prey.

Raptor Protection. In western Wyoming, raptors, particularly osprey, will occasionally use transmission line structures for nesting...

Safety

We need to educate that building up to substations has associated hazards.

There is a safety issue on high voltage facilities; that's why ground needs to be bare of vegetation.

...Drift of herbicide and electric safety are big issues.

Water

Include impacts of all toxics (herbicides, pesticides) on water quality...

Leave vegetative buffers next to all water bodies when possible.

Sensitive, threatened, and endangered species

... the meadow concept can help restore endangered and threatened plants and animals to a more viable level.

(One of your draft EIS's)...lists ten herbicides. Everyone of these would decimate any rare plant population.

Concerned about: The need for BPA preparation of needed Biological Assessment, including those for sturgeon and bull trout.

Aesthetics

What looks better? noxious weeds or native plants?

Propose treatments which maintain, enhance or improve visual quality.

Use selective clearing of timber...to soften the edge between cleared and uncleared areas.

Geology

...mowing...causes too much ground disturbance...

I'd prefer you use mechanical removal that does not compact soil or encourage erosion.

Sensitive areas

Identify where sensitive areas are and their special treatments, then manage full right-of-way.

I am concerned about the treatment of lines near riparian areas.

Fish

...create/manage plant communities that will provide...shade to riparian areas...

Most herbicides are moderately to highly toxic to fish and aquatic organisms.

...if water based chemicals are to be applied by aircraft...minimize the possibility of water contamination by chemicals.

Land Use

...consider potential off-road vehicle effects and management implications...

Consider use of the rights-of-way for trails and trail-based recreation.

Avoid construction in or adjacent to recreation sites and areas during peak use times.

Other Environmental Resources

Include impacts on cultural plants, cultural resources, fish and wildlife.

Include economic uses of removed vegetation (mill rip trees for lumber)...

5

ELECTRICAL FACILITIES

The 120 comments on electrical facilities were grouped by type of site: rights-of-way, substations, access roads, facility grounds, and microwaves.

Rights-of-way

Within the required right-of-way, trees can be allowed to grow taller and extend out into the opening near the towers...

Leave as much brush and small trees as possible...to soften the contrast between the corridor opening and the adjacent forest.

Once BPA clears right-of way, BPA should plant what it wants to grow.

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Substations

In substations, we use...(ground sterilant).

...area outside substation fence must be clear of vegetation...

Substation water drains off BPA grounds and carries herbicides if application is not done right.

Substation uses burner on weeds which will cause some seeds to germinate.

Some herbicides are corrosive and we can't use them in substations.

Access roads

On access roads, we may blade, cut brush, or spray, on top of our annual grading.

...(we) use a hydro ax.

We would like to use herbicides (on access roads) so we don't have to go back so often...

Facility grounds

Mechanical control of cover crops (with brush hog) is used on BPA property outside of the substation.

Many times the quickest and most efficient mechanical control around substations would be with a string trimmer.

Microwaves

For beam paths/microwave facility, (we) use chain saws...

...uses "weed blast" around microwaves.

There are other non-BPA users at microwave sites that could do vegetation control.

OUTSIDE AGENCIES

The 104 comments about other agencies or governments were grouped by Forest Service, and Bureau of Land Management, tribes, and other outside agencies.

Forest Service and Bureau of Land Management

Each Forest Service ranger district has different requirements.

Does BPA really need to have it's own approved list of herbicides...Forest Service has a list we should be able to use.

...the Forest Service (has) more requirements and regulations...at BPA we are concerned about maintaining reliability and safety and staying in business; these goals contradict each other.

BPA has established specific protocol regarding T&E with Fish and Wildlife Service, but some Forest Service districts question it still.

Naturally, we are concerned that BPA's vegetation management proposals remain consistent with the many and varied National Forest Service resource management objectives and standards.

BLM, eastern regions, likes brush control.

On Tribal, Forest Services, or BLM land, BPA needs to get in when there is a "reasonable need" versus "emergency need".

Tribes

The tribal economy is negatively affected by vegetation management.

...tribal reservation lands deal with land in a totally different way. Tribes live off the land, have a different way of looking at land; gather roots for food.

Other outside agencies

Make sure state, county, and local agencies have input.

We contract with County weed agent to spray...for noxious weeds.

...confer with (state fish and game department)...when vegetation management (is) proposed for rights-of-way that cross habitat management units.

BPA should consult with state, county, local and federal fire management officials to ensure...proposals fully consider fire/fuel management objectives for each specific area.

CURRENT BPA PROGRAMS & PRACTICES

Current BPA vegetation management programs and practices drew 88 comments; most from BPA staff.

We are reactive, not proactive.

Every district has different vegetation management problems.

We need to do more one-on-ones (with landowners).

Rights-of-way get most attention because of safety and reliability.

Most vegetation management is crisis management at this time.

IMPLEMENTATION TOOLS

The 56 comments we received on implementation tools covered six areas: timing; education/training; landowner coordination; internal coordination; tree/brush agreements; and vegetation management plans.

We need to do more education; let people know what's safe.

All operators need to be certified.

BPA's technical staff needs to be aware of all new methods.

BPA needs to propose actions or make applications well in advance of the intended implementation date.

...Need better communication on agreements.

Need...current Standard Procedure Instruction Information (SPIF) on herbicides.

COST

Most of the 50 comments about the cost of vegetation management were in dollar-terms; a few spoke of staffing.

...we always run out of money. We can only cut the "hot spots."

The lack of money is causing us to not promote low growing plant communities which can lengthen control cycles(and) save money.

Maybe there is a way to work or cost share with private companies (industrial forests) when our objectives are compatible...

Yakama (Tribe) would prefer to receive the funding directly and do the work themselves...

(Look at using) summer program for high schoolers.

EIS INFORMATION

We received 49 comments on items we should include in the Draft EIS.

In EIS, develop prescriptions for site specific; identify which herbicide in wetlands, etc.

Pattern EIS after standards and recommendations that came out in August 10 (outage) report.

EIS needs to be open ended to cover new techniques in the future.

An EIS that only portrays ONE alternative that a reasonable person could select is not "a choice among alternatives." Convey the values behind the alternatives you portray...

PROPOSED PROGRAM & PRACTICES

We received 20 comments on a proposed vegetation management program or practices.

Suggest BPA cut everything on right-of-way on forest land. Then, go back in 1 or 2 years and do selective clearing.

Don't want restrictions on use of in-house staff or contractors because of budget and site specific factors.

OTHER COMMENTS

We received ten other comments. Most were requests for information on other BPA activities.

Each comment has been reviewed by the project team and given to the appropriate environmental specialist working on the Draft EIS. The comments will be used to develop the alternatives and conduct the analysis.

PROJECT UPDATE

We have begun to develop the Draft EIS. It will identify alternative programs for controlling vegetation and analyze how each program would affect the environment. The program analysis will include how different vegetation control methods affect water quality, plant communities, human health and safety, cultural resources, fish and wildlife populations, land use, and other resources.

The EIS will provide the framework for making decisions about vegetation control. It will address the following issues:

- Methods of controlling vegetation,

- Methods to minimize or avoid impacts to sensitive areas or species,
- Types of vegetation that need controlling,
- Types of electrical facilities and their needs for vegetation control, and
- Landowner/manager coordination.

The EIS will not address: other components of reliability or safety of the power system; other right-of-way issues, such as limiting unauthorized vehicle access; management details for implementation, such as budget and staffing; and site-specific analysis.

This EIS will not replace site-specific environmental analysis, which will still be done when needed for individual sensitive areas.

We plan to have the Draft EIS available for review this winter. We will let you know when it is available.

FOR MORE INFORMATION

If you have questions about the project, call Stacy Mason at (503) 230-5455 or Tammie Vincent at (503) 230-3469 or write them at the address below.

EIS SCHEDULE

Draft EIS/public review	Winter 1998
Final EIS	Aug 1998
Decision	Nov 1998

Bonneville Power Administration
PO Box 3621 Portland, Oregon 97208-3621
DD&EP-3023 DECEMBER 1997 1715



HELPING TO ENSURE GOVERNMENT-TO-GOVERNMENT RELATIONSHIPS

CROSSING

Vegetation Management

Bonneville Power Administration (BPA) is just starting an environmental study on its vegetation management program. The analysis will review how BPA controls vegetation along our rights-of-way and around our facilities. Because some of our facilities may be on or near lands that are important to you, we would like to tell you about our plans, hear about your ideas and interests, and learn how we can work together.

HOW YOU CAN HELP

Your ideas can help us develop a vegetation management program that considers your cultural, natural, and economic resources. The following questions are sample discussion points.

Do BPA's actions to control vegetation affect lands or activities that are important to you? Which areas near the transmission lines are most important to you?

Do you prefer that we use some control techniques instead of others? (Examples are: mowing, hand cutting, and herbicide application.) Why?

An ideal plant cover for rights-of-way is a low-growing variety that requires little maintenance. Do you have suggestions on how to transform the rights-of-way to low-growing plant communities?

Do you have vegetation management plans or other information that we need to consider?

Would you like a BPA person to meet with you or other Tribal members to discuss these or other topics?

BACKGROUND

BPA provides electricity throughout the Pacific Northwest using a network of transmission lines and substations. To ensure safe and reliable power, BPA must control the vegetation, including large trees, around electrical transmission facilities. Those facilities include rights-of-way and the area next to them, substations, access roads, microwave sites and beam paths, and maintenance facilities.

A major electric power outage occurred on August 10, 1996, caused in part by trees that had grown too close to some transmission lines. The outage affected a number of other utilities linked to the federal system. As a result, BPA looked at its brush control practices and decided it would be best to make changes to increase program efficiency and effectiveness.

BPA's 1983 environmental impact statement on the vegetation management program is out of date because it does not include methods and products that are currently available. We now manage vegetation using a variety of techniques, depending



on what's appropriate for a specific location and situation.

PROPOSAL

BPA proposes to review the program and establish a set of principles to guide the use of vegetation management techniques. The objective of the proposed action is to provide the most cost-effective, efficient, and environmentally acceptable means of controlling vegetation throughout BPA's system.

ENVIRONMENTAL IMPACT STATEMENT

A Draft Environmental Impact Statement (EIS) is being prepared. The EIS will identify alternative ways of controlling vegetation and analyze how each alternative affects the environment. We will look at how different vegetation control methods affect water quality, plant communities, human health and safety, cultural resources, fish and wildlife populations, land use, and other resources.

This EIS will provide the framework for making decisions about vegetation control. It will not replace site-specific environmental analysis, which will still be done when needed for individual projects.

We plan to have the Draft EIS available for review in January 1998.

We have invited the U.S. Forest Service and the Bureau of Land Management to be cooperating agencies in this EIS process because some of BPA's facilities are located on lands these agencies manage.

POTENTIAL BENEFITS

The new vegetation management principles should result in the following benefits:

- Efficiency
- Effectiveness
- Consistency
- Environmental quality
- A safe, reliable electrical system

THE PATH TO BPA

BPA wants to work with you — government to government. We'd like to talk with you about your interest in this proposal. Please tell us if there is someone on your staff you'd like us to work with.

For information on this or any BPA proposal, contact your BPA Tribal Liaison:

- Katherine Cheney - (509) 358-7470
- Darrell Eastman - (503) 230-3869
- Patricia Jawney - (503) 230-4315

Or, feel free to call one of the contacts for the environmental staff that is developing this EIS:

- Leslie Kelleher - (503) 230-7692
- Molly Koester - (503) 230-5920
- Tammie Vincent - (503) 230-3469

Bonneville Power Administration

PO Box 3621 Portland, Oregon 97208-3621

DOE/BP-2899 JULY 1997 106

HELPING TO ENSURE GOVERNMENT-TO-GOVERNMENT RELATIONSHIPS

CROSSING

Vegetation Management

Bonneville Power Administration (BPA) has just issued an environmental study on its vegetation management program for your review. The Draft Environmental Impact Statement compares alternatives and analyzes environmental impacts of managing vegetation along our rights-of-way and around our facilities. BPA's preferred alternative favors an approach that fosters low-growing plant communities; expands our vegetation management "tool-box" to include aerial herbicide application; and proposes planning steps for deciding the right tool for specific sites.

WHAT WE HEARD FROM YOU

We first contacted you about this two years ago. We received information from many of you to help us develop the alternatives and impacts for study. We heard your concerns about protecting cultural plants on and off reservation lands, and a desire to work with us to control the spread of noxious weeds and to establish native vegetation. We heard: "...the land provides us with spiritual well-being." Some said herbicide use was an appropriate method if used properly; others said from the traditional native people's perspective chemicals should not be used.

PREFERRED ALTERNATIVE

Our preferred alternative differs from our historical practices in three ways. First, BPA would promote low-growing plant communities along rights-of-way. In the long-term this could help reduce the spread of noxious weeds by lessening soil disturbance and the amount of vegetation management control needed. On some lands we may be able to work with tribes to replant low-growing traditional use plants.

Second, BPA would expand its tool-box of vegetation control methods. Those methods would include manual (mainly chainsaws), mechanical (heavy equipment use), herbicides, and biological (approved insects for noxious weeds). Herbicides would include 24 herbicide active ingredients and four herbicide application techniques: spot (one plant at a time), localized (small group of plants), broadcast (large area sprayed by truck or all-terrain vehicle) and aerial (helicopter or small plane). We would provide mitigation measures for all methods, and limit the areas where some methods could be used, such as no aerial spraying on your tribal reservations.

Third, we would develop right-of-way management plans to protect resource lands. For example, we would like to develop a right-of-way management plan when a tribe has BPA facilities on their reservation. The plan would outline environmental resources to protect (such as cultural plants) and the vegetation control methods to use. The plan could also include protections for tribal publics who may venture onto a site. We already have management plans with some tribes, but would like to have them for all tribal reservations.



HOW YOU CAN HELP

Now that the Draft EIS is out for review, we would appreciate your help again.

- Does the Draft EIS include the right vegetation management tools?
- Does the EIS respond to the ideas and address the concerns we heard earlier?
- Is our proposed program consistent with your vegetation management plans and tribal laws? If not, how do they differ?
- Do the mitigation measures adequately protect cultural plants, fishing and hunting rights?
- Have we addressed the implementation concerns sufficiently to address concerns for protecting tribal resources and tribal publics?
- Are our proposed alternatives for managing vegetation around our electric facilities across the Northwest acceptable to the tribal government?
- What additional mitigation or implementation procedures would you recommend to address continuing concerns, if any?

BACKGROUND

BPA maintains a network of 15,000 miles of transmission line, 350 electric substations and numerous non-electric facilities such as storage yards,

throughout the Northwest - a region of diverse vegetation. Because vegetation can interfere with electric power flow and pose safety problems, management of vegetation around our facilities is an important part of our work.

These facilities cross the reservation lands of at least 10 tribes. About 1,400 miles of the transmission line right-of-way cross lands where tribes may have fishing, gathering and hunting rights.

THE PATH TO BPA

BPA wants to work with you - government to government. We'd like to talk with you about your interest in this proposal. If we are not already working with your staff on this proposal, please tell us if there is someone on your staff you'd like us to work with.

For information on this or any BPA proposal, contact BPA toll free, 1-800-282-3713.

Ask for your tribal liaison:

- Darrell Eastman
- Bob Shank
- Patricia Tawney
- For tribes outside the Columbia Basin, ask for John Smith

To speak with the environmental project lead for this environmental impact statement, ask for Stacy Mason.

Bonneville Power Administration

PO Box 3621 Portland, Oregon 97208-3621

DOE/EP-3209 AUGUST 1999 250



B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

Transmission System Vegetation Management Program "I'd Like to Tell You . . ."

1. Of the choices offered in the Draft EIS, I prefer: _____

2. I do not like: _____

3. You can improve the choices by: _____

4. I have these other comments: _____

5. I need more information about: _____

(Use back of sheet if you need more room)

Please put me on your project mailing list. (You are already on the mail list if you received this in the mail.)

Name _____

Address _____

Please mail your comments by October 9, 1999 to:
Bonneville Power Administration
Communications Office - KC-7
P.O. Box 12999
Portland, OR 97212



APPENDIX B
BIOLOGICAL WEED CONTROL
AGENTS

Current Status of Biological Weed Control Agents in Oregon, Washington, and Idaho

Weed	Agent	Distribution			Infestation			Control			Availability		
		OR	WA	ID	OR	WA	ID	OR	WA	ID	OR	WA	ID
Bindweed, field	<i>Aceria malherbae</i>	—	U	—	—	O	—	—	U	—	—	O	—
Broom, Scotch	<i>Agonopterix nervosa</i>	W	W	—	H	M	—	P	U	—	M	M	—
	<i>Apion fuscirostre</i>	W	L	—	H	L	—	G	F	—	M	L	—
	<i>Leucopetra spartolofeta</i>	W	L	—	M	M	—	F	U	—	M	L	—
Gorse	<i>Agonopterix nervosa</i>	W	W	—	M	M	—	U	U	—	M	M	—
	<i>Exapion ulicis</i>	W	L	—	H	H	—	G	G	—	M	L	—
	<i>Tetranychus integer</i>	W	L	—	H	M	—	U	U	—	M	L	—
Hemlock, poison	<i>Agonopterix alstroemeriana</i>	W	W	W	M	H	M	G	E	G	M	M	M
Knapweed, brown	<i>Urophora quadrifasciata</i>	L	L	U	L	M	U	U	U	U	L	M	O
Knapweed, diffuse	<i>Bangasternus fausti</i>	L	U	U	M	U	U	G	U	U	L	O	O
	<i>Larinus minutus</i>	L	L	—	M	H	—	—	—	—	L	M	—
	<i>Pterolonche inspersa</i>	F	F	U	—	—	U	—	—	U	O	—	O
	<i>Sphenoptera jugoslavica</i>	W	W	W	H	H	H	G	G	G	M	M	M
	<i>Urophora affinis</i>	W	W	W	M	H	M	G	G	F	M	M	M
	<i>Urophora quadrifasciata</i>	W	W	W	H	H	M	G	G	F	M	M	M
Knapweed, meadow	<i>Urophora quadrifasciata</i>	L	L	—	L	M	—	U	F	—	L	M	—
Knapweed, Russian	<i>Subanguina picridis</i>	L	L	—	S	U	—	F	U	—	O	O	—
Knapweed, spotted	<i>Agapeta zoegana</i>	L	L	L	H	M	U	G	U	U	M	L	O
	<i>Bangasternus fausti</i>	L	U	U	L	U	U	U	U	U	L	O	O
	<i>Chaetorelia acrolaphi</i>	L	U	—	L	L	—	U	U	—	O	O	O
	<i>Cyphocleonus achates</i>	L	L	U	L	L	U	U	U	—	L	O	O
	<i>Larinus minutus</i>	L	L	U	H	H	U	G	G	U	M	M	O
	<i>Larinus obtusus</i>	U	L	—	U	L	—	U	U	—	O	O	—
	<i>Metzneria paucipunctella</i>	W	W	W	H	H	M	G	U	G	M	M	M
	<i>Pterolonche inspersa</i>	F	—	—	—	—	—	—	—	—	O	—	—
	<i>Taraxia virens</i>	L	U	—	L	U	—	U	U	—	O	O	—
	<i>Urophora affinis</i>	W	W	W	M	H	M	G	G	G	M	M	M
Knapweed, squarrose	<i>Urophora affinis</i>	L	—	—	S	—	—	U	—	—	L	—	—
	<i>Urophora quadrifasciata</i>	L	—	—	M	—	—	U	—	—	L	—	—
Loosestrife, purple	<i>Galerucella calmanensis</i>	L	L	L	H	M	S	E	F	U	L	L	O
	<i>Galerucella pusilla</i>	L	L	L	H	M	S	E	F	U	L	L	O
	<i>Hyllobius transeverovittatus</i>	L	L	U	M	L	—	F	U	—	L	L	O
	<i>Nanophyes marmoratus</i>	L	U	—	M	U	—	F	U	—	L	O	—
Puncturevine	<i>Microlarinus laevis</i>	L	F	F	L	—	—	G	—	—	L	—	—
	<i>Microlarinus typhiformis</i>	L	F	F	L	—	—	F	—	—	L	—	—
Ragwort, tansy	<i>Longitarsus jacobaeae</i>	W	W	—	H	H	—	E	F	—	M	M	—
	<i>Pegomya seneciella</i>	W	W	—	H	H	—	E	F	—	M	M	—
	<i>Tyria jacobaeae</i>	W	W	—	H	H	—	E	F	—	M	M	—
Sage, Mediterranean	<i>Phrydichus laur</i>	W	—	W	H	—	H	G	—	U	M	—	M
St. Johnswort	<i>Agnilus hyperici</i>	L	L	W	H	H	H	E	E	E	M	L	M
	<i>Aplocera plagiata</i>	L	W	W	M	M	M	G	F	F	M	M	M
	<i>Chrysolina hyperici</i>	W	W	W	H	H	H	E	E	E	M	M	M
	<i>Chrysolina quadrigemina</i>	W	W	W	H	H	H	E	E	E	M	M	M
Skeletonweed, rush	<i>Cystiphora schmidtii</i>	L	W	W	L	H	H	F	E	G	L	M	M
	<i>Eriophyes chondrillae</i>	L	W	W	L	H	H	G	E	E	L	M	M
	<i>Puccinia chondrillina</i>	L	W	W	L	H	H	F	E	F	M	M	M
Spurge, leafy	<i>Aphthona abdominalis</i>	U	—	—	U	—	—	U	—	—	O	—	—
	<i>Aphthona cyparissiae</i>	L	L	L	M	M	L	G	F	U	L	L	O
	<i>Aphthona czwalinae</i>	L	L	U	M	L	U	F	U	U	L	L	O
	<i>Aphthona fovea</i>	L	L	L	M	M	L	F	F	U	L	L	O
	<i>Aphthona lacertosa</i>	L	L	U	M	M	U	F	U	U	L	L	O
	<i>Aphthona nigrescens</i>	L	L	L	M	M	L	G	F	U	L	L	O
	<i>Chamaesphacia crassicornis</i>	U	—	—	U	—	—	U	—	—	O	—	—

Distribution within host range: W = widespread; L = limited sites; F = failed to establish; U = unknown status; — = not released
 Infestation of hosts: H = heavy (> 70%); M = medium (> 30%); L = light (> 10%); S = slight (< 1%); O = none detected, U = unknown status
 Control ability on seeds and/or plant density: E = excellent; G = good; F = fair; P = poor; U = undetermined
 Availability for redistribution: M = mass collections; *L = limited; O = not collectable at present
 *Limited availability indicates agent populations are slow in building or are recently introduced. Work on these species should be coordinated through biological control specialists at the state department of agriculture or state university. Collection and/or transportation of biological control agents may require special permits and procedures.

CURRENT STATUS OF BIOLOGICAL WEED CONTROL AGENTS—continued

Weed	Agent	Distribution			Infestation			Control			Availability		
		OR	WA	ID	OR	WA	ID	OR	WA	ID	OR	WA	ID
Spurge, leafy (cont'd)	<i>Oberaea erythrocephala</i>	L	U	U	S	U	U	U	U	U	L	O	O
	<i>Spurgia esulæ</i>	F	U	U	—	U	U	—	U	U	—	O	O
Thistle, yellow	<i>Bangasternus orientalis</i>	W	W	W	H	H	M	G	G	G	M	M	M
	<i>Chaetorella australis</i>	L	W	W	H	H	M	E	G	G	M	M	M
	<i>Chaetorella succinea</i>	L	U	—	H	U	—	E	U	—	M	O	—
	<i>Eusteropus villosus</i>	L	W	L	H	H	H	E	E	U	M	O	—
	<i>Larinus curtus</i>	L	L	L	H	L	M	E	E	U	L	M	L
	<i>Urophora sinuaseva</i>	W	L	L	M	M	L	G	F	F	M	O	L
Thistle, bull	<i>Urophora stylata</i>	W	L	—	H	M	—	G	F	—	M	L	—
Thistle, Canada	<i>Ceutorhynchus litura</i>	L	F	L	L	—	M	G	—	U	L	—	L
	<i>Larinus planus</i>	L	W	—	H	M	—	F	F	F	M	M	—
	<i>Rhinocyclus conicus</i>	L	W	L	M	H	L	F	G	F	L	M	L
	<i>Urophora cardui</i>	L	L	U	M	M	U	F	F	F	M	M	O
Thistle, Italian	<i>Rhinocyclus conicus</i>	W	—	L	H	—	H	G	—	U	M	—	L
	<i>Trichosirocalus homidus</i>	U	—	—	U	—	—	U	—	—	O	—	—
Thistle, milk	<i>Rhinocyclus conicus</i>	W	—	—	H	—	—	G	—	—	M	—	—
	<i>Trichosirocalus homidus</i>	U	—	—	H	H	H	G	E	G	M	M	M
Thistle, musk	<i>Rhinocyclus conicus</i>	W	W	W	—	—	—	—	—	—	—	—	—
	<i>Trichosirocalus homidus</i>	U	—	—	H	H	H	U	—	—	O	—	—
Thistle, plumeless	<i>Rhinocyclus conicus</i>	—	W	W	—	H	H	—	E	G	—	M	M
	<i>Trichosirocalus homidus</i>	—	L	—	—	L	—	—	U	—	—	O	—
Thistle, slenderflower	<i>Rhinocyclus conicus</i>	W	—	—	H	—	—	G	—	—	M	—	—
Toadflax, Dalmatian	<i>Calophasia lunula</i>	U	W	L	U	H	L	U	G	U	O	M	L
Toadflax, yellow	<i>Brachyterolus pulicarius</i>	L	L	L	M	M	M	F	F	F	L	L	L
	<i>Calophasia lunula</i>	—	—	L	—	—	M	—	—	F	—	—	L
	<i>Gymnetron artemisi</i>	L	L	L	M	H	H	U	G	U	L	L	L

Biological Agents and Their Roles

The biological agents introduced into the Pacific Northwest for the biological control of weeds, the general role of each agent, and type of introduction (C = classical and A = accidental).

Species	Role	Species	Role
<i>Aceria malherbae</i>	bud/leaf gall mite C	<i>Gymnetron artemisi</i>	seed head weevil A
<i>Agapeta zoegana</i>	root boring moth C	<i>Hylobius transversovittatus</i>	root boring weevil C
<i>Agonopterix alstroemeriana</i>	defoliating moth A	<i>Larinus curtus</i>	seed head weevil C
<i>Agonopterix nervosa</i>	shoot tip moth A	<i>Larinus minutus</i>	seed head weevil C
<i>Agnus hyperici</i>	root boring beetle C	<i>Larinus obtusus</i>	seed head weevil C
<i>Apocara plagiata</i>	defoliating moth C	<i>Larinus planus</i>	seed head weevil A
<i>Aphthona abdominalis</i>	root/defoliating flea beetle C	<i>Leucopiera spartifoliae</i>	twig mining moth A
<i>Aphthona cyparissiae</i>	root/defoliating flea beetle C	<i>Longitarsus jacobaeae</i>	root/defoliating flea beetle C
<i>Aphthona czwalinae</i>	root/defoliating flea beetle C	<i>Melzneria paucipunctata</i>	seed head moth C
<i>Aphthona flava</i>	root/defoliating flea beetle C	<i>Microleptus lareyni</i>	seed weevil C
<i>Aphthona lacertosa</i>	root/defoliating flea beetle C	<i>Microleptus typhiformis</i>	stem boring weevil C
<i>Aphthona nigrescens</i>	root/defoliating flea beetle C	<i>Nanophyes marmoratus</i>	flower bud weevil C
<i>Apion fuscostris</i>	seed weevil C	<i>Oberaea erythrocephala</i>	stem boring beetle C
<i>Bangasternus faustii</i>	seed head weevil C	<i>Pegohylemyia senecioides</i>	seed head fly C
<i>Bangasternus orientalis</i>	seed head weevil C	<i>Phrydichus litu</i>	crown/root weevil C
<i>Brachyterolus pulicarius</i>	flower beetle A	<i>Pterolonche inspersa</i>	root boring moth C
<i>Calophasia lunula</i>	defoliating moth C	<i>Puccinia chondrillae</i>	rust fungus C
<i>Ceutorhynchus litura</i>	crown/root weevil C	<i>Rhinocyclus conicus</i>	seed head weevil C
<i>Chaetorella acrolophi</i>	seed head fly C	<i>Sphenoptera jugoslavica</i>	root boring/gall beetle C
<i>Chaetorella australis</i>	seed head fly C	<i>Spurgia esulæ</i>	shoot tip gall midge C
<i>Chaetorella succinea</i>	seed head fly A	<i>Subanguina picoides</i>	stem/leaf gall nematode C
<i>Chamaesphacia crassicomis</i>	root boring moth C	<i>Taraxia vires</i>	seed head fly C
<i>Chrysolina hyperici</i>	defoliating beetle C	<i>Tetanymachus luteolus</i>	spider mite C
<i>Chrysolina quadrigemina</i>	defoliating beetle C	<i>Trichosirocalus homidus</i>	root/crown weevil C
<i>Cyphocleonus achates</i>	root boring/gall weevil C	<i>Tyria jacobaeae</i>	defoliating moth C
<i>Cystiphora schmidtii</i>	stem/leaf gall midge C	<i>Urophora affinis</i>	seed head gall fly C
<i>Eriophyes chondrillae</i>	bud gall mite C	<i>Urophora cardui</i>	stem gall fly C
<i>Eusteropus villosus</i>	seed head weevil C	<i>Urophora quadrifasciata</i>	seed head gall fly A
<i>Erapiion ulicis</i>	seed weevil C	<i>Urophora sinuaseva</i>	seed head gall fly C
<i>Galerucella californiensis</i>	leaf beetle C	<i>Urophora stylata</i>	seed head gall fly C
<i>Galerucella pustilla</i>	leaf beetle C		

APPENDIX C
BONNEVILLE PESTICIDE APPLICATOR
CERTIFICATION PLAN

Pesticide Applicator Certification Plan
Bonneville Power Administration

BONNEVILLE POWER ADMINISTRATION PESTICIDE APPLICATOR CERTIFICATION PLAN

INTRODUCTION

The Bonneville Power Administration (BPA), Department of Energy (DOE), operates and maintains a regional electrical system covering five States (Oregon, Washington, Idaho, Montana, and Wyoming) in the Pacific Northwest. As routine maintenance activities, BPA provides for inspection and treatment of in-service wood structures, and manages vegetation on rights-of-way and at electrical substations to protect the reliability of the electrical system, provide safe and efficient work areas, and protect and enhance the environment. These activities are not limited to, but may include, the application of wood preservatives to retard agents of wood decay, and application of herbicides to manage undesirable plant species. When pesticides are used, applicators will be certified in the right-of-way certification category and/or the wood treatment category.

Section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (FIFRA) (PL 92-516) (7 U.S.C. 136B) directs the Administrator of the United States Environmental Protection Agency, (EPA) to classify the various uses of pesticides as either "General Use" or "Restricted Use." "Restricted Use" pesticides may only be applied by "certified" applicators, or those working under the direct supervision of a certified applicator. Accordingly, the Administrator of EPA is directed to establish standards for the certification of applicators of Restricted Use pesticides and is authorized to approve State and/or Federal Certification Plans, (FIFRA, Section 4), (Federal Agency Certification of Federal Employees to Apply Restricted Use Pesticides, FR 42(161):41907-41908, August 19, 1977).

Only applicators of Restricted Use pesticides are required to be certified under FIFRA. However, three of the five States in the BPA service area require certification of applicators applying General Use pesticides with motorized equipment. BPA has adopted this requirement in its plan in accord with the EPA requirement that Federal agencies adhere to State substantive standards affecting pesticide use as a condition of approval for Federal Agency Certification Plans, (FR 42(161):4108; August 19, 1977).

Therefore, this document has been prepared in support of application to the EPA by BPA for approval of a Federal Certification Plan for Federal Employees, to certify those employees of BPA who use or supervise the use of both Restricted Use and General Use pesticides, with the exception of General Use pesticides applied by non-motorized equipment. BPA certification will only be granted to BPA employees, and will only be valid in performance of their official duties.

I. RESPONSIBILITY AND AUTHORITIES FOR ADMINISTRATION OF THE PLAN

A. Departmental (DOE) Responsibility and Authority

Overall responsibility for the development, implementation, and surveillance of this Plan rests with the BPA under the guidance of the DOE. Responsibilities will be consistent with existing DOE policies as discussed below.

Pesticide Applicator Certification Plan
Bonneville Power Administration

The DOE environmental policy provides for conduct of all operations in an environmentally safe and sound manner with paramount concern for protection of the environment and the public, and for coordination of DOE's compliance activities at the Headquarters Level. Mandatory Standards specifically include compliance with FIFRA and all relevant implementing regulations (U.S. DOE Orders No. 5480.4 (5/14/84)) for all DOE and DOE contractor operations. This Order also provides authority for independent overview to assess compliance, and corrective action and follow-up when non-compliance is noted. Heads of Field Organizations (e.g., BPA Power Administrator) are directed to assure compliance.

Environmental Protection, Safety, and Health Protection Information Reporting Requirements are specified in DOE Order 5484.1 (2/24/81). This Order provides that ". . . notification of occurrences involving DOE and DOE contractor operations be made to the responsible authority; that all occurrences be investigated; that reports be submitted to responsible DOE officials; that management take responsible action and that there be consistency in the treatment of such occurrences" This order would support the record keeping and reporting for pesticide use activities as detailed later in this proposed plan.

Enforcement of the provisions of this proposed plan is supported by DOE Order 5482.1A (8/13/81). The order describes procedures for implementing an Environmental Protection, Safety, and Health Protection Appraisal Program, and details factors to be used in performing an appraisal. Requirements of this Order have been incorporated into the BPA Environmental Appraisal Program (see below).

Compliance with the DOE policies and procedures outlined above constitutes the agency regulatory framework which both allows for and supports implementation of the provisions of this proposed plan by the BPA.

B. BPA's Responsibility and Authority

In compliance with the DOE policies outlined above, BPA will be responsible for the administration of this proposed plan. Administration will consist of development, implementation, and surveillance and funding of pesticide use training, certification, and record keeping and reporting as provided below. These procedures will be implemented upon approval of this plan, and are consistent with BPA policies and responsibilities listed below.

The BPA Environmental Manual, Chapter 955, Pesticides, states that BPA employees applying pesticides will comply with FIFRA and applicable State standards. The Chapter further designates responsibilities within the organization for various aspects of pesticide use and management. Specific responsibilities for various aspects of pesticide use and management are reiterated and emphasized again in the BPA Right-of Way Management Standards and in BPA Environmental Standard and Procedures.

Pesticide Applicator Certification Plan
Bonneville Power Administration

Specific procedures and instructions involving application, safety, transportation, storage, and disposal of pesticides, spill clean up, residue monitoring, and other aspects of pesticide use are contained in the Transmission Line Maintenance Standards, Procedures, Instructions, and Informations (SPIF's). Responsibilities designated in these documents would not change upon approval of the plan, with the exception that BPA pesticide applicators would obtain Federal certification in lieu of State certification, and procedures for becoming certified would change in conformance with this plan.

C. BPA/State Regulator Interaction

1. Cooperation in Abating Environmental Pollution

BPA will cooperate with the Administrator, EPA, and State, interstate, and local agencies in the prevention, control, and abatement of environmental pollution caused by pesticide use. Report of instances of misuse or falsification of records by non-BPA personnel (i.e., contractor applicators) will be sent to the appropriate State or EPA regional official for enforcement. BPA will cooperate with the State(s) or EPA in any subsequent enforcement action undertaken.

2. Compliance with Standards and Regulations

In accordance with guidelines as may be issued by the EPA Administrator, BPA shall comply with more stringent State substantive standards and limitations and with Federal regulations and guidelines which affect pesticide use.

3. Environmental Assessments and/or Impact Statements

Environmental Assessments (EA) and/or Environmental Impact Statements (EIS) may support some right-of-way vegetation management programs that involve the use of pesticides. EIS's and EA's are available to States.

4. Adherence to State Standards

BPA will cooperate with individual States by adhering to substantive standards which exceed or are additional to those established in this plan in compliance with Executive Order 12088. BPA is responsible for all in-service wood structure maintenance and vegetation management program activities within its service area, and for establishment of policy, planning, and funding of policy, planning, and funding of right-of-way maintenance and vegetation management programs.

5. Resolution of BPA/State Discrepancy

If a state should decide that a given substantive standard is more stringent than, or is additional to, standards established in this plan, it should notify BPA and request compliance.

Pesticide Applicator Certification Plan
Bonneville Power Administration

BPA will forward all such notifications to the EPA Administrator immediately and, as soon as possible thereafter, forward its opinion as to whether the standard is substantive or administrative in nature. BPA agrees that the EPA administrator will undertake liaison between the affected parties and mediate such conflicts in cases of disagreement between BPA and a State.

6. Use of State Pesticide Applicator Certification Plan

BPA personnel with pesticide application responsibilities which are not adequately addressed by this plan, or where economic or other criteria make it inefficient to use the proposed BPA Pesticide Applicator Certification Plan, shall comply instead with an EPA Approved State Pesticide Applicator Certification Plan. A State certification will be valid only for that State in which certification is granted.

II. PROVISIONS OF THE PLAN

Provisions of this plan include: (a) training and certification of pesticide applicators; (b) enforcement of pesticide misuses and/or falsification of records; (c) right-of-entry for review of records; and (d) pesticide use record keeping. The Vice President for Transmission Field Services, will be responsible for implementing and monitoring all provisions of the plan.

A. Training and Certification

BPA will certify applicators, of both General and Restricted Use pesticides, except those BPA applicators who are applying general use pesticides by non-motorized equipment.^{1*} Certification will be in accordance with the EPA Standards of Competency detailed in 40CFR 171.4, with competency to be determined by a written examination. If BPA employees require training prior to the examination, educational materials and/or training courses will be provided. Specific procedures are discussed in Section IV, Standards for Certification.

B. Enforcement of Pesticide Misuse and/or Falsification of Records

Misuse of a pesticide for the intent and purpose of this Plan shall consist of any of the following:

1. Use of a pesticide not in accordance with labeling, except as allowed by Section 2 (ee) of FIFRA.
2. Use of any pesticide which is under an experimental use permit contrary to the provisions of such permit.

¹ This exemption is consistent with Oregon State Standard (ORS 634.116 (15)(b) and Washington State Standard (RCW 17.21.220).

Pesticide Applicator Certification Plan
 Bonneville Power Administration

3. Use of a pesticide not in accordance with substantive State standards.
4. Use of a pesticide not in accordance with all BPA Standards, Procedures, Instructions, or Informations (SPIF's) and with Environmental Standard and Procedures (ESP's).

Falsification of records for the intent and purpose of this plan shall consist of failure to maintain or falsification of any part of those records required by Section II.D. of this plan.

Either misuse of a pesticide or falsification of records will result in both: (1) denial, suspension, or revocation of certification as appropriate; and (2) additional administrative disciplinary actions. disciplinary actions shall be in accordance with the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act. (FIFRA 171.7.b.1.ii.B), DOE regulations regarding Conduct of Employees (FR 44(82)"24696-24709, April 26, 1979) and Bonneville Manual Section 400/751A, Personnel-Disciplinary Action. Disciplinary action will be the responsibility of the employee's supervisor, who will in turn request that the Vice President for Transmission Field Services deny, suspend, or revoke certification.

Instances or misuse of a pesticide or falsification of records by BPA employees who are State or EPA certified will be reviewed under the same provisions as those for BPA certified applicators. As appropriate, BPA will administratively deny, suspend, or revoke these BPA employees' privileges to apply pesticides on BPA facilities. Since BPA cannot deny, suspend, or revoke a State or EPA issued certificate, except for use on BPA facilities, BPA will report the incident accompanied with a report of its internal actions and findings to the appropriate certifying authority. BPA will cooperate with the State or EPA any subsequent actions undertaken.

Instances of misuse or falsification of records by non-BPA employees (i.e., contractor applicators) will be forwarded to the appropriate State and/or EPA Regional Office. BPA will cooperate with the State(s) or EPA in any subsequent enforcement action undertaken.

C. Provisions for Right-of-Entry Consent

BPA will provide for entry for appropriate Federal and State pesticide enforcement and certification authorities to BPA offices, facilities, all lands owned or leased, or rights-of-way controlled or under the jurisdiction of BPA during normal working hours, or at other times, if given advance notification for the purposes of reviewing BPA certified pesticide applicator's vegetation management methods and activities, and to observe the use and application of pesticides, to inspect and/or sample any pesticide, record, device, container, product, apparatus, or equipment used in pesticide use management programs, and to inspect and/or sample any pesticide treated areas, rights-of-way, or lands where pesticides have been used, applied, or disposed.

D. Pesticide Use Record Keeping

Pesticide Applicator Certification Plan
Bonneville Power Administration

BPA will require all BPA certified applicators to keep routine operational records of pesticide use including kinds, amounts, uses, dates, and places of application for both general and restricted use pesticides and to retain such records for at least 2 years. Records for herbicide application will be kept on BPA Form 1416 (Appendix A), and records for wood treatment will be kept on BPA Form 1007 (Appendix B). Records will be retained in the appropriate BPA Regional Office. Such records will be available to appropriate EPA or State officials for review upon request, (see also Section II. C., Provisions for Right-of-Entry Consent).

III. REPORTING

- A. BPA will submit annual reports on the certification of applicators and activities related to restricted use pesticides to the administrator of EPA as specific in 40 CFR, Section 171.7(d). Annual reports will be submitted by March 1 of each year for the fiscal year preceding. A copy of the 1996 Annual Report is attached (Appendix C).
- B. Other reports may be requested and shall be made available to meet specific needs on a case-by-case basis.

IV. STANDARDS FOR CERTIFICATION

A. Who Will Be Certified

BPA employees who use or supervise the use of any pesticide either General or Restricted Use within the conduct of their official duties to BPA rights-of-way, substations, or other facilities except those applying general use pesticides by non-motorized equipment will be identified by the Regional Field Services Manager, Regional Field Services Specialist, Linemen Foreman III or Substation Chief Operator to the Vice President for Transmission Field Resources, as requiring certification. For the intent and purposes of this Plan, the term "supervise" shall mean direct supervision as defined in CFR 171.6. BPA will further require the physical presence of the supervisor or a licensed applicator within line of sight or hearing distance of the employee.

BPA personnel for whom BPA certification is not efficient or responsive to the needs of the Administration may alternatively be certified by an EPA Approves State Pesticide Applicator Certification Plan. However, State certification will be valid only in the State granting certification. (See also Section I.C.6.).

All contractors or non-BPA employees will be required to comply with applicable State certification programs.

B. Categories for Certification

BPA will certify its employees only as commercial applicators in two categories:

Pesticide Applicator Certification Plan
 Bonneville Power Administration

Right-of-Way
 Wood Treatment

The BPA plan adopts the EPA Right-of-Way category as defined at 40 CFR 171.3 (b) (6) and accompanying standards of competency at 40 CFR 171.4 (c) (6).

EPA has not established a specific wood treatment category. Therefore, the BPA plan has developed a wood treatment category and accompanying standards of competency. These are contained at "C. Definition of Wood Treatment category", below).

There are presently 150 applicators certified in the right-of-way category. There are anticipated to be 100 applicators certified in the wood treatment category.

Any future requests for approval of additional categories or subcategories will be made in writing to the Administrator of EPA in conformance with 40 CFR 171.7(d)(1)(ii).

C. Definition of Wood Treatment category

Wood treatment. This category includes commercial applicators using or supervising the use of Restricted Use pesticides to treat and preserve wood products.

Wood treatment standards of competency.

Applicators shall demonstrate practical knowledge of the following:

1. Wood Properties
 - a. Durability
 - b. Shrinkage, checking and other defects (i.e., splits, knots, crookedness)
 - c. Treatability (permeability)
2. Biological Agents of Decay
 - a. Fungi
 - b. Insects
 - c. Woodpeckers
3. Types of Preservatives
 - a. Oil-borne preservatives (creosote)
 - b. Waterborne preservatives (arsenicals)
 - c. Fumigants
 - d. Pentachlorophenol
 - e. Copper or zinc naphenate
4. Preservative Treatment processes

Pesticide Applicator Certification Plan
Bonneville Power Administration

- d. Pentachlorophenol
 - e. Copper or zinc naphthenate
 - 4. Preservative Treatment processes
 - a. Pressure (American Wood Preservation Association standards)
 - b. Non-pressure
 - 5. Handling and Installation of Treated Wood Products
 - a. Storage, handling, installation of fixtures
 - b. Remedial Preservative treatment
 - 6. In-Service Pole Inspection
 - a. Inspection methods
 - b. Inspection tools and devices
 - 7. In-Service Pole Treatment
 - a. Groundline decay control
 - b. Above groundline internal void treatment
 - c. Fumigation (above and below ground)
 - 8. Safety and Environment
 - a. Adverse environmental effects of preservatives and treated wood structures
 - b. Proper handling of treated wood
 - c. Proper handling of remedial treatments (i.e. following labels)
 - d. Disposal of preservatives and treated wood products.
 - e. Preservative-health related issues and environment issues
 - f. Consumer Information Sheets
- D. BPA Annual Certification Process

The Vice President for Transmission Field Services, will be responsible for the annual certification of BPA applicators. Applicators will be certified each year by passing an examination. Certification will be valid for one year. Those BPA employees eligible for certification will receive written notification of their scores and a pocket-sized, plasticized "license" or certificate, signed by the Manager, Pollution Prevention & Abatement, as delegated by the Vice President for Transmission Field Services. The certificate will contain an identifying number, the name of the applicator, category or categories of certification, date issued, and expiration date (Appendix D attached). BPA certification will be valid on facilities and rights-of-way maintained by BPA throughout all States in the BPA service area.

Pesticide Applicator Certification Plan
Bonneville Power Administration

The annual examination for certification will cover all topics identified in 40 CFR 171.1, including general standards of competency and specific standards of competency for the two categories covered by this plan. Annual examinations will be written and consist of three parts: Part I will cover Laws and Regulations (25 questions), Part II will cover Substation and Right-of-Way Vegetation Management (25 questions), and Part III will cover Wood Treatment and Right-of-Way Vegetation Management (25 questions). A score of 70 percent must be obtained on each test to pass the examination. At least two separate examinations will be maintained and will be administered randomly. Examinations will be reviewed and updated each year and will be maintained, administered, and evaluated with all reasonable security precautions. No provisions will be made for those who cannot read, since all BPA employees must demonstrate reading proficiency as a condition of employment or in the performance of official duties.

BPA employees may apply for annual certification only by passing the BPA examinations, and attending BPA or State certified pesticide use training within the one year certification period. Certification training and examinations will emphasize knowledge of the most current vegetation management and wood treatment issues, techniques, alternatives, and regulatory requirements. Examination questions will be updated each year to emphasize changes in technology and use requirements. A copy of the current examination is attached (Appendix E).

To facilitate continuing education in responsible pesticide use for BPA employees, the Manager, Pollution Prevention & Abatement will continue to make available publications, training films or aids, or training courses as appropriate. Training materials will be made available which will address the certification categories. A list of current training materials and recent training course agendas is attached (Appendix F). Employees or their supervisors may request training or training materials as necessary.

97cert.doc

ACTION: Notice of Approval of Certification Plan.

SUMMARY: On June 23, 1997, EPA announced its intention to approve a revised Department of Energy (DOE) plan for the certification of pesticide applicators. The revised DOE plan was similar to the original plan in only covering applicators in the Bonneville Power Administration. The revised plan retained the original certification category of right-of-way pest control and added a new category of wood treatment. The revised plan replaced the original 3-year recertification interval with a 1 year recertification interval. No comments were received on EPA's proposal to approve the revised DOE certification plan. Notice is hereby given of EPA's granting final approval of the revised DOE plan.

ADDRESSES: Copies of the DOE revised plan are available for viewing at the following locations during normal business hours:

1. U. S. Environmental Protection Agency, Office of Pesticide Programs, Crystal Mall #2, 1921 Jefferson Davis Highway, Rm. 1121, Arlington, VA 22202. Contact: John R. MacDonald, (703) 305-7370.

2. U. S. Department of Energy, Bonneville Power Administration, 905 Northeast Eleventh, Stop EP-5, Fifth Floor, Portland, OR 97232. Contact: James Meyer, (503) 230-5038.

3. Select U.S. Department of Energy installations. Contact: James Meyer at aforementioned location for list of locations.

FOR FURTHER INFORMATION CONTACT: By mail: John R. MacDonald (7506C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Office location and telephone number: Crystal Mall #2, 1921 Jefferson Davis Highway, Rm. 1121, Arlington, VA. Telephone: (703) 305-7370.

SUPPLEMENTARY INFORMATION: In the *Federal Register* of October 7, 1988, notice was published announcing the final approval of a DOE pesticide applicator certification plan. On June 23, 1997 (62 FR 33862) (FRL-5717-3), EPA announced its intention to approve a revised DOE certification plan. The revised DOE certification plan added a new wood treatment category and retained the existing right-of-way category. The revised certification plan also established an annual recertification period to replace the current 3-year period. The revised certification plan will continue to base certification and recertification on the taking and passing of a written

**ENVIRONMENTAL PROTECTION
AGENCY**

[OPP-42064C; FRL-5741-9]

**Department of Energy Plan for
Certification of Pesticide Applicators**

AGENCY: Environmental Protection
Agency (EPA).

examination. The revised DOE certification plan will continue to cover only employees of the Bonneville Power Administration. The DOE estimates that there will be 100 applicators certified in the new wood treatment category. There are presently approximately 150 applicators certified in the right-of-way category, whose certification will be unaffected by this action.

No comments were received on EPA's notice of intention to approve the revised DOE certification plan. Therefore, EPA approves the revised DOE certification plan.

List of Subjects

Environmental protection.

Dated: September 9, 1997.

Lynn R. Goldman,

*Assistant Administrator for Prevention,
Pesticides and Toxic Substances.*

(FR Doc. 97-25337 Filed 9-23-97; 8:45 am)

BILLING CODE 6840-80-F

APPENDIX D
SAMPLE EDUCATIONAL
INFORMATION

DANGER TREE PROGRAM



HOW CAN TREES BE DANGEROUS?

During storms — or even just strong wind — trees can bend or fall into power lines.

Recently trees were responsible for 64 power outages affecting BPA customers, causing many hours of lost power.

Tree-related power outages are more than just an inconvenience. They not only disrupt service to your home or business, they also disrupt power to hospitals, emergency response centers and life-support patients. If power flows through a tree to the ground, it can injure or kill anyone near the tree. It can also cause fires started by the electric arc.

WHAT'S BPA DOING ABOUT THIS PROBLEM?

As part of our mission to provide reliable electrical service to our customers, we periodically inspect rights-of-way in our service area, notify property owners of existing or potential problems and send out experienced crews to remove tree(s) and vegetation posing hazards to residents and our facilities.

BPA has a legal right and obligation to remove all "on" right-of-way trees that threaten our lines. Trees that are located "off" the right-of-way may also pose a threat to the power line. These "off" the right-of-way trees, we call danger trees. Once we have marked them as danger trees, we start a process with the property owner to have them removed.

WHAT YOU CAN DO TO HELP?

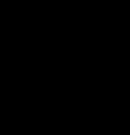
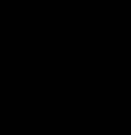
IT'S SAFE AND IT'S SIMPLE

Property owners should review the power line easement document and become familiar with the provisions. Even though we'll inspect your property, you can help BPA by contacting us if you notice anything such as trees and limbs that might interfere with our power lines.

You can also help stop potential power line problems before they start. If you're planning to plant trees on your property, **do not** plant within 30 feet of towers or poles. It's also important to limit trees and shrubs "on" the right-of-way to **not** more than 10 feet in height, and select trees well adapted to our region's climate — and able to withstand local storm conditions. A written agreement between BPA and you, called a "Tree Maintenance Agreement," is necessary for trees to remain on easements. This agreement can be obtained through your nearest BPA natural resource specialist. Call 1-800-836-6619.

HERE IS A LIST OF TREES SUITABLE FOR PLANTING NEAR POWERLINES.

Flowering Ash California Hazel Flowering Dogwood Dwarf Fruit Trees Hawthorne Maple Japanese Dogwood Hedge Maple Japanese Maple Paperbark Maple



D

Sample Educational Information



DOE/BP-1821
1997-1998

POWERFUL FACTS

The current needed to light a 10-watt bulb is more than enough to kill you. Trees don't need to touch power lines to be dangerous. Lines can sag as much as 15 feet or more during hot weather or when carrying heavy electrical loads. Electricity from high voltage power lines also can "arc" or "flashover" from wires to nearby trees before actual contact is made.

The Danger Tree Program. It's all part of BPA's commitment to providing safe, reliable power to our customers.

For more information about trees, a permit to plant trees, transmission lines and safety on your property, call 1-800-836-6619, and ask for the following brochures:

Living and Working Safely Around High-Voltage Power Lines (DOE/BP-1821)

Landowner's Guide to Trees and Transmission Lines (DOE/BP-802)

Landowner's Guide to Use of BPA Rights-of-Way (DOE/BP-1678)

Bonneville Power Administration
Box 3621
Portland, Oregon 97208-3621

BONNEVILLE POWER ADMINISTRATION



DANGER TREE PROGRAM



APPENDIX E
CLEARANCE CRITERIA

Appendix E

Clearance Criteria

Right-of-way Clearing Criteria

Bonneville lines are designed and maintained to co-exist in a safe and reasonable manner with anticipated underlying activities, as specified by the National Electrical Safety Code (NESC). In general, the NESC requires tree trimming and removal to prevent “. . . grounding of the circuit through the tree.” The provision in the NESC 1997 Edition is as follows:

**Part 2. Safety Rules for the Installation and Maintenance of
Overhead Electric Supply and Communication Lines**

Section 21. General Requirements

218. Tree Trimming (page 67)

A. General

1. Trees that may interfere with ungrounded supply conductors should be trimmed or removed. Note: Normal tree growth, the combined movement of trees and conductors under adverse weather conditions, voltage, and sagging conductor at elevated temperatures are among the factors to be considered in determining the extent of trimming required.
2. Where trimming or removal is not practical, the conductor should be separated from the tree with suitable materials or devices to avoid conductor damage by abrasion and grounding of the circuit through the tree.

- B. At Line Crossings, Railroad Crossings, and Limited-Access Highway Crossings, the crossing span and the adjoining span on each side of the crossing should be kept free from overhanging or decayed trees or limbs that otherwise might fall into the line.**

In *general*, Bonneville does not allow anything higher than 14 feet (assumed truck height) under the lines (there are some situations under special permit or depending on actual conductor heights that allow for higher allowances). Therefore, Bonneville trims or removes from

under the line any “grow into” trees that are more than 14 feet tall (including future growth) or any “fall into” trees that are next to the line and that are unstable and could fall into the line if they were to topple over.

Additional codes that Bonneville follows are from the Occupational Safety and Health Administration (OSHA). These are codes to maintain safe working environments for workers.

CFR Ch. XVII (7-1-95 Edition) OSHA §1910.333

(i) *Unqualified persons.*

(A) When an unqualified person is working in an elevated position near overhead lines, the location shall be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

- (1) For voltages to ground 50kV or below – 10 ft (305 cm);
- (2) For voltages to ground over 50kV – 10 ft (305 cm) plus 4 in. (10 cm) for every 10kV over 50kV.

(B) When an unqualified person is working on the ground in the vicinity of overhead lines, the person may not bring any conductive object closer to unguarded, energized overhead lines than the distances given in paragraph (c)(3)(i)(A) of this section.

NOTE: For voltages normally encountered with overhead power lines, objects which do not have an insulating rating for the voltage involved are considered to be conductive.

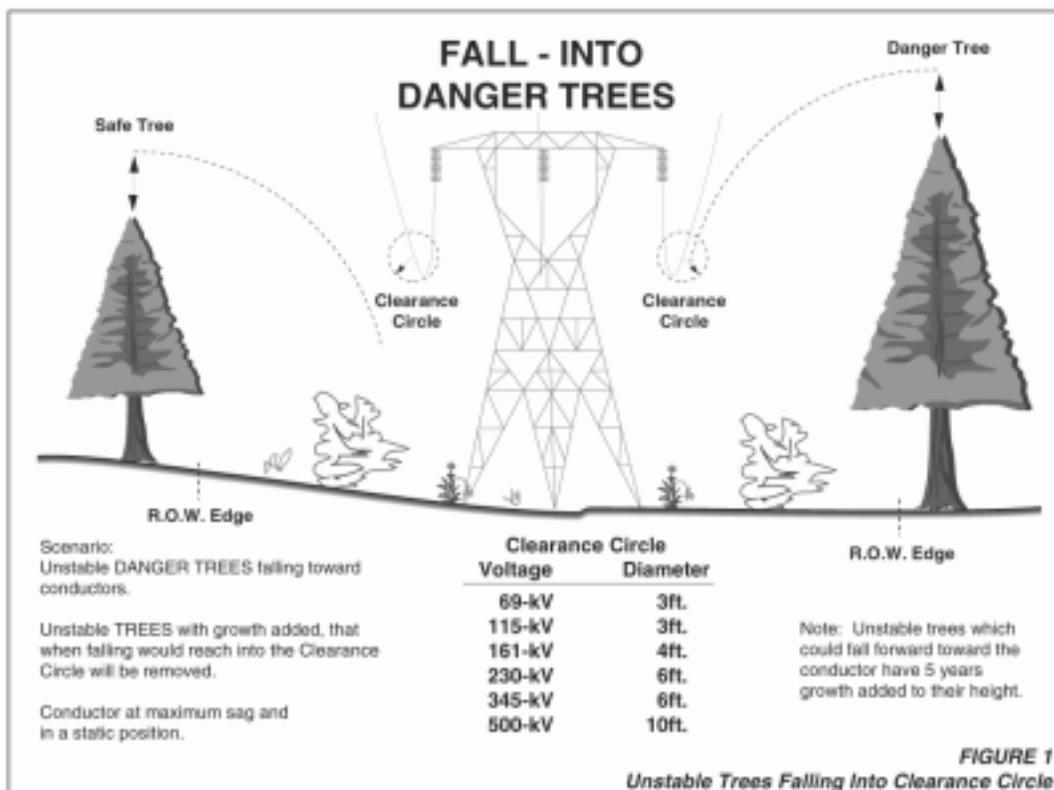
(ii) *Qualified persons.* When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table S-5 unless:

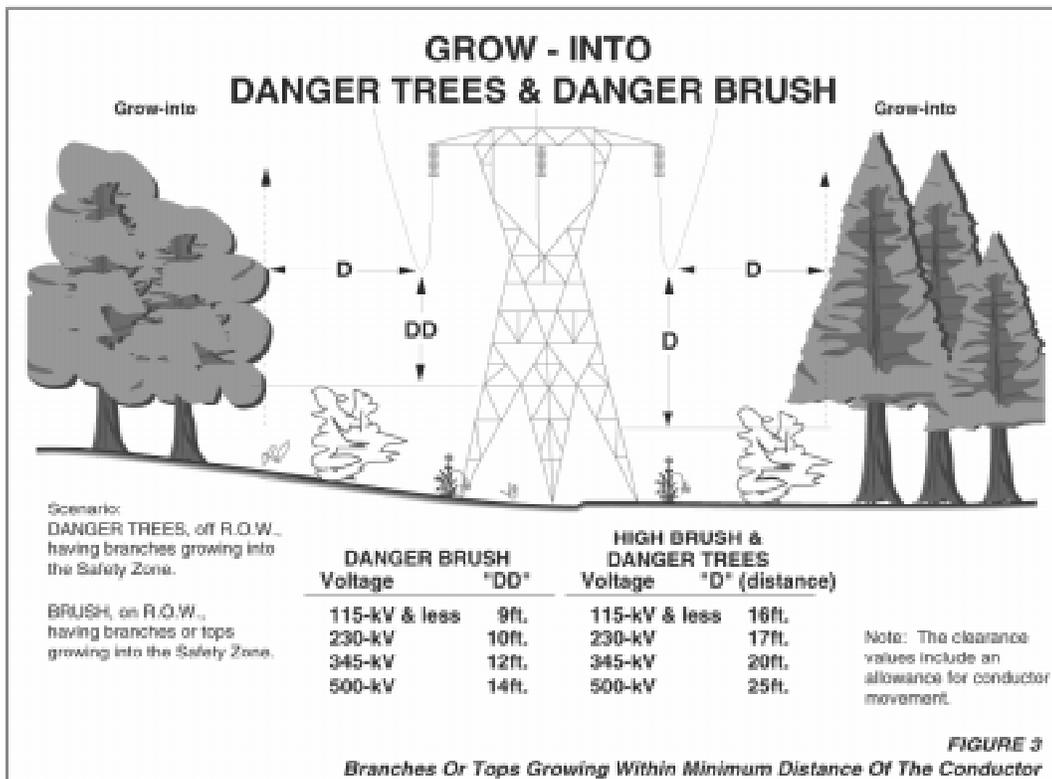
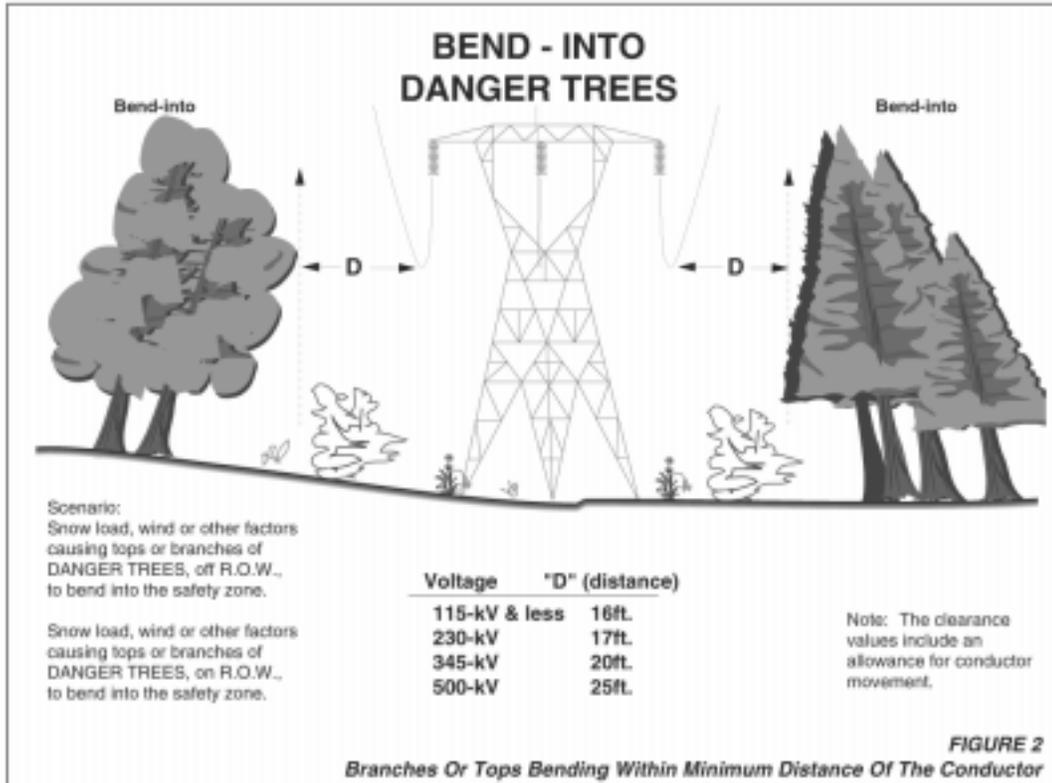
- (A) The person is insulated from the energized part (gloves, with sleeves if necessary, rated for the voltage involved are considered to be insulation of the person from the energized part on which work is performed) or
- (B) The energized part is insulated both from all other conductive objects at a different potential and from the person, or
- (C) The person is insulated from all conductive objects at a potential different from that of the energized part.

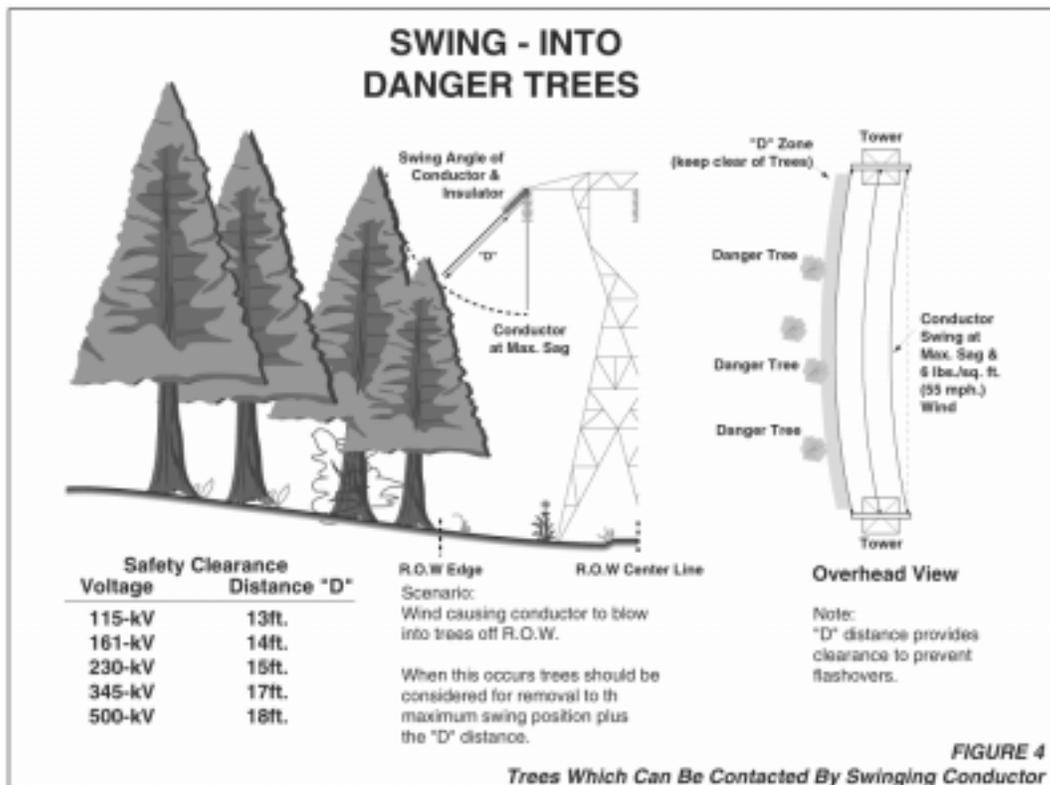
Table S-5 – Approach Distances for Qualified Employees – Alternating Current

Voltage range (phase to phase)	OSHA minimum approach distance (MAD)
300V and less	avoid contact
Over 300V, not over 750V	1ft 0in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (46 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

Bonneville has used all of the above information to develop criteria to identify trees that must be removed from rights-of-way, as well as those next to rights-of-way.







Substation Grounds Clearing Criteria

The following is from Safety Restrictions for Vegetation Around Bonneville Substations (M212) Facilities Management Information.

Poorly selected or placed vegetation could create a transferred potential hazard if it is located too close to the substation perimeter fence. Since the steepest ground potential rise gradient is at the substation perimeter grid wire, usually located just beyond the perimeter fence, the greatest step-and-touch potentials exist there as well. Grass, weedy vegetation, or bare soil under a person's feet does not provide protection from these step-and-touch potentials. Also, grass, brush, or weeds growing up through the substation surfacing rock create low impedance pathways that could allow step-and-touch potentials to bypass the rock, creating a safety hazard to workers. Blackberry vines, in particular, are a nuisance because their fast-growing, green branches can span several feet or more, and create a transferred potential hazard, especially if they are in contact with the fence.

It is important, therefore, to be intentional about the selection, placement, and maintenance of vegetation around substation yards. The following criteria are the basis for the procedures outlined below:

1) Vegetation touching the fence does not extend beyond the perimeter grid wire. 2) Green, vining vegetation, like blackberry, does not encroach on the area of steepest potential rise gradient or grow up through substation surfacing rock. 3) When the perimeter grid wire is inside the boundaries of the perimeter fence and perimeter vegetation is touching the fence, the side of the shrub or bush away from the fence should be pruned back as closely as possible to the fence or should be removed manually or chemically.

Existing ornamental trees, bushes and shrubbery outside perimeter fences. For substations where the perimeter grid wire is outside the perimeter fence: 1) prune vegetation on the fence side, back away from the fence at least one foot, or 2) for vegetation growing up against the fence, prune so that growth on the side away from the fence does not extend more than three feet out from the fence.

For substations where the perimeter grid is inside the fence: 1) prune vegetation on the fence side back away from the fence at least one foot, or 2) prune the side away from the fence back as close as possible to the fence, or 3) remove the vegetation completely. Vegetation control is especially important at substations without a perimeter grid conductor outside the fence.

New ornamental trees, bushes and shrubbery. Plant no new vegetation within 10 feet of the substation perimeter fence or building. Don't plant tall, fast-growing bushes and trees where they can grow into overhead power lines. If landscaping outside a substation is necessary, a review of grounding issues by the Substation Grounding Engineer is required before being incorporated into a site.

Substation surfacing rock. Extend the substation surfacing rock at least 4 feet beyond the outside of the perimeter fence, unless some physical boundary, such as a ditch, makes it impracticable.

Grass, weeds, brush and blackberry. Do not permit grass and weeds to grow anywhere in the substation surfacing rock. Do not permit blackberry to grow within 10 feet of the perimeter fence. If chemical application is the method selected to control vegetation, try to use a low-toxicity and non-persistent product. For established or aggressive weed infestations, use a more persistent product or a product known to control specific weeds in order to prevent setting of seed and additional emergent seedlings the following growing season.

APPENDIX F
FS MITIGATION MEASURES
AND BACKGROUND

Appendix F

FS Mitigation Measures and Background

This appendix provides additional information regarding U.S. Forest Service (FS) land management. First, mitigation measures specific to the FS are listed. Second, background information is provided, including a list of documents that guide FS land management and samples of standards and guidelines from those documents that may affect Bonneville's vegetation management on those lands.

Mitigation Measures Specific to FS

This section lists examples of additional mitigation measures specific to managing vegetation on rights-of-way or other Bonneville electrical facilities on FS-managed lands. These mitigation measures are in addition to those listed in **Chapter III, Planning Step 2.) Identify surrounding land use and landowners/mangers.**

These mitigation measures are to be used as a tool to anticipate issues that may need to be addressed and documents that may need to be consulted for developing or revising site-specific vegetation management plans. These measures **do not replace the need to coordinate with the FS for development of the plans and for measures appropriate to any given forest.** Vegetation management plans should be developed or revised to be consistent with the Record of Decision of this EIS.

The measures were developed based on current FS land and resource management planning documents, but are not "all inclusive" of the measures that may apply. Because these planning documents are revised and supplemented over time, the following mitigation measures are also subject to revisions.

For FS-managed lands, project managers would apply the following measures, as appropriate.

- Proposals for herbicide use will be subject to review and either concurrence or approval by the appropriate Forest Officer.

F

FS Mitigation Measures and Background

- *If using herbicides*, use only those herbicides approved for both FS use and Bonneville use. Determine appropriate herbicides when coordinating with the appropriate forest. For many FS regions some or all of the following list *may* apply::

Bromacil	Picloram
Dicamba	Triclopyr
Glyphosate	Tebuthiuron
Hexazinone	2,4-D.

- *If using herbicides in Lolo National Forest*, use only the following herbicides that have been reviewed and approved for use in this Forest: dicamba, glyphosate, picloram, and 2,4-D.
- In Region 6, report numbers of acres treated and method of treatment (such as manual or chemical) to the Forest Pesticide Use Coordinator within a fiscal year.
- *For threatened and endangered species*, follow mitigation measures identified in **Chapter III, Planning Step 3.) Identify natural resources**, including mitigation measures for spotted owl and marbled murrelet.
- *For FS-designated sensitive plant and animal species*, use mitigation measures so as not to disturb the species (such as timing restrictions for actions, or use of selective control methods).
- Leave felled trees on-site, when appropriate to meet FS coarse-woody-debris objectives.
- Determine vegetation debris disposal based on FS input.
- *If reseeded in Late Successional Reserves*, use native species unless the use of non-native species is approved. Seed mixtures are to be approved by the appropriate FS representative. Consider topping trees as an alternative to felling.
- For cultural resources, follow mitigation measures identified in **Chapter III, 3. Identify natural resources**.
- Do not remove vegetation in spanned canyons if clearance heights are met.

The different FS documents and regions have different water buffers. Bonneville will abide by the six mitigation measures within these water buffers described in Tables F-1 and F-2.

- Do not use ground-disturbing methods (such as blading) within FS-designated water buffer zones.
- Comply with appropriate Forest Plan designated buffers unless FS allows a variance.
- Do not use any localized, broadcast, or aerial herbicide applications within FS-designated water buffer zones. (In some cases, spot applications may be used.)
- *If using spot applications within water buffer zones, permit them no closer than 3 m (10 ft.) from water's edge (unless the herbicide label states that it is appropriate for use in water).*
- Use only selective control methods (manual, spot herbicide applications), and take care not to affect non-target vegetation.
- Leave vegetation intact, if possible.

Table E-1: Riparian Reserves and Water Buffers

Northwest Forest Plan Riparian Reserves are defined in the following terms:	
Stream Type	Buffer Size
Fish-bearing streams	The area on each side of the stream equal to the height of two site-potential trees, or 91-m (300-ft.) slope distance, whichever is greater.
Permanently flowing non-fish-bearing streams	The area on each side of the stream equal to the height of one site-potential tree, or 45.7-m (150-ft.) slope distance, whichever is greater.
Lakes and natural ponds	The body of water and the area to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 91-m (300-ft.) slope distance, whichever is greater.
Constructed ponds and reservoirs and wetlands greater than one acre	The area from the edge of the wetland or the maximum pool elevation to a distance equal to the height of one site-potential tree, or 45.7-m (150-ft.) slope distance, whichever is greater.
Seasonally flowing or intermittent streams	The area on each side of the stream to a distance equal to the height of one site-potential tree or 30.5-m (100-ft.) slope distance, whichever is greater.
Wetlands less than one acre and unstable and potentially unstable areas	The extent of unstable and potentially unstable areas, and wetlands less than 0.4 ha (1 ac.) to the outer edges of the riparian vegetation.

In Regions 1 and 4, the Stream Management Zones are based on stream class, which is defined in the following two tables.

Table E-2: Present Water Buffer (Streamside Management Zone) Requirements for Region 1 Forest, Region 4 Forests, and Forests in the Upper Columbia River basin.

Stream Class	% side slope			
	0-20	21-40	41-60	61+
Class I	100 ft.*	150 ft.	200 ft.	250 ft.
Class II	75 ft.	100 ft.	150 ft.	175 ft.
Class III	50 ft.	75 ft.	100 ft.	125 ft.
Class IV	50 ft.	50 ft.	75 ft.	100 ft.

Table E-3: Stream Management Zones—Class Determinations for Stream Classes in Table E-2

Class	Determination
Class I Highly Significant	<p>These are either perennial or intermittent streams, or segments thereof, that meet one or more of the following criteria:</p> <ul style="list-style-type: none"> a. are habitat for large numbers of resident and/or migratory fish for spawning, rearing, or migration; b. furnish water locally for domestic or municipal supplies; c. have flows large enough to materially influence downstream water quality; d. are characterized by major fishing or other water-oriented recreational uses; e. have special classification or designation, such as wild, scenic, or recreation rivers; f. have special visual/distinctive landscape features, and are classified as variety Class A in <i>National Forest Landscape -Volume 2</i> (Agr. Handbook 462) ; g. are habitat for threatened or endangered animal species, or contain plants that are potential or viable candidates for threatened or endangered classification; and/or h. exhibit ethnological, historical, or archaeological evidence that makes them eligible for or included in the National Register of Historical Places.
Class II Significant	<p>These are either perennial or intermittent streams, or segments thereof, that meet one of more of the following criteria:</p> <ul style="list-style-type: none"> a. are used by moderate numbers of fish and spawning, rearing, or migration; b. furnish water locally for industrial or agricultural use; c. have enough water flow to exert a moderate influence on downstream quality; d. are used moderately for fishing and other recreational purposes; e. are of moderate visual quality and meet variety Class B as defined in <i>National Forest Landscape Management -Volume 2</i> (Agr. Handbook 462);and/or f. exhibit ethnological, historical, or archaeological evidence that makes them eligible for State or local registers of historical significance or interest.

Class	Determination
Class III Moderately Significant	These are either perennial or intermittent streams, or segments thereof, that meet one of more of the following criteria: a. are habitat for few fish or spawning, rearing, or migration; b. are rarely used for fishing or other recreational purposes; c. have enough water flow to exert minimum influence on downstream water quality; d. are of relatively low visual quality in the landscape and classified as variety Class B as defined in <i>National Forest Landscape Management - Volume 2</i> (Agr. Handbook 462); and/or e. exhibit historical or archaeological properties that are of archaeological interest in accordance with the Archaeological Resource Protection Act of 1979.
Class IV Minor significance	These are intermittent or ephemeral streams, or segments thereof, not previously classified.

In areas considered visually sensitive by the FS, we will consider the following mitigation measures.

- Leave sufficient vegetation—where possible—to screen view of right-of-way.
- Consider plantings of low-growing tree seedlings next to right-of-way, or softening the straight line of corridor edge by cutting additional trees.
- *If using herbicides*, consider the following to reduce large areas of dead browned vegetation: seasonal timing, herbicide selection, or application technique (limit use of broadcast foliar).

FS Background and Guidance Documents

Standards and Guidelines, as used by the FS, adhere to the following definitions:

Standard: *a condition of land, normally a maximum or minimum condition that is measurable. A standard can also be expressed as a constraint on management activities or practices. Standards are established on a forest-wide, subsection, and management prescription area basis to promote achievement of desired future conditions and objectives. Deviation from compliance with a standard requires a Forest Plan amendment (except for emergency situations . . .) (USDA/FS, 1993 via Targhee Plan, pg. III-2)*

***Guideline:** a preferred or advisable course of action that is generally expected to be carried out. Deviation from compliance with a guideline does not require a Forest Plan amendment, but the rationale for such a deviation shall be documented in the project decision document. Guidelines are established on a forestwide, subsection, and management prescription area basis to promote achievement of the desired future condition and objectives in an operationally flexible manner that responds to such variations as changing site conditions or changed management circumstances. (USDAFS, 1993 via Targhee Plan,*

Following is a list of selected documents and regulations that will guide the FS during consultations.

Background and Guidance Documents

- **Forest Plans** for the respective National Forests. Each National Forest has a Forest Plan that provides management direction. These Forest Plans specify allowable activities, minimum requirements, and expected outputs and land use allocations for a 10- to 15-year period, including Standards and Guidelines for how resources will be managed, special areas protected, and land use conflicts resolved.
- **A Guide to Conducting Vegetation Management Projects in the Pacific Northwest Region** (USDA/FS 1992a) – for Region 6. This guide is the result of a Mediated Agreement to lift an injunction against using herbicides in the region. The agreement and resulting Guide dictate how the Forests manage and conduct activities within the Forests. These guidelines not only allow for a different set of herbicides to be used in Region 6 than in the rest of the Northwest, but they have more documentation and public involvement steps than the other Regions.
- **Standards & Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl** (Northwest Forest Plan) (USDA/FS and USDOJ/BLM, 1994b). These documents provide standards and guidelines and land-use designations for all BLM and FS lands within the range of the northern spotted owl (parts of region 5 and 6). When located in this range, the FS and BLM must follow Forest Plan standards and guidelines if they are more restrictive or provide greater benefits to late-successional forest related species than do the district or forest specific plans.
- **Risk Assessment** - The FS Regions 1, 2, 3, 4, and 10 and Bonneville performed a joint risk assessment (Labat-Anderson, Inc., 1992). The FS intends to have the Forests use this herbicide risk assessment in appropriate NEPA analysis as they implement their Forest Plans.

- **The Interior Columbia River Basin Draft EISs and Appendices** (USDS/FS and USDO/BLM, 1997a and 1997b). These two planning documents include the Eastside EIS (covering eastern Oregon and Washington) and the Upper Columbia River Basin EIS (covering the Columbia River Basin in Idaho and Montana). These plans have yet to be adopted.

The elements of the Northwest Forest Plan most pertinent to Bonneville’s vegetation management activities are (1) designation of Late-Successional Reserves, which are areas set aside for long-term protection as old-growth forests, and (2) the Aquatic Conservation Strategy, which outlines protection of riparian systems by establishing protection buffers referred to as riparian reserves.

Northwest Forest Plan Specifics

Late-Successional Reserves

The Northwest Forest Plan designated these reserves for the long-term protection of old-growth forests, based on five elements:

1. Areas mapped as part of an interacting reserve system;
2. Late-Successional/Old Growth¹ and 2 areas¹ within Marbled Murrelet Zone 1 and certain owl additions, mapped by the Scientific Panel on Late-Successional Forest Ecosystems (1991);
3. Sites occupied by marbled murrelets;
4. Known owl activity centers; and
5. Protection buffers for specific native species identified by the Scientific Analysis Team (1993).

The Northwest Forest Plan refers to utility corridors in late-successional reserves in a few places and states that “These developments might remain, consistent with other standards and guidelines. Routine maintenance of existing facilities is expected to have less effect on current old-growth conditions than development of new facilities.”

Rare Species - In late-successional reserves, certain rare “survey and manage species” are designated for habitat protection. The species are classified as:

¹ “Most significant” old-growth, and “significant” old-growth, as mapped by the Scientific Panel on Late-Successional Forest Ecosystems, Johnson et al., 1991

- Federally threatened or endangered species;
- Federally proposed threatened or endangered species;
- Federal Candidate Species;
- State-listed species;
- FS sensitive species;
- BLM special status species;
- Other infrequently encountered species not considered by any agency or group as endangered or threatened and classified in the FEMAT Report as rare.

Land managers are required to take certain actions relative to rare “survey and manage species.” These actions include:

- Managing known sites of rare organisms;
- Surveying for presence of rare organisms prior to ground-disturbing activities;
- Conducting surveys to identify locations and habitats of rare species; and
- Conducting general regional surveys for rare species.

Species that might occur near Bonneville facilities are as follows:

- *Ptilidium californicum* (Liverwort) – very limited distribution in old white pine forests with fallen trees. It occurs on trunks of trees at about the 500-foot elevation level.
- *Ulota meglospora* (Moss) – occurs in northern California and southwest Oregon.
- *Otidea leporina*, *O. onotica*, and *O. smithii* (Fungi) – occur in conifer duff, are widespread in distribution but uncommon.
- Great Gray Owl – most common in lodgepole pine forests adjacent to meadows (Willamette National Forest west of the crest of the Cascade Range).

Managed Late-Successional Areas

These areas are similar to Late-Successional Reserves but are identified for certain owl locations in the drier provinces where regular and frequent fire is a natural part of the ecosystem. Managed Late-Successional Areas have been designated for standards and guidelines based on two elements: (1) Managed Pair Areas for known owl pairs and resident singles in the California Cascades and Washington Eastern Cascades Provinces (from the Final Draft Spotted Owl

Recovery Plan:); and (2) Protection Buffers for specific endemic species identified by the Scientific Analysis Team.

Managed owl pair areas are typically found on the east side of the Cascade Range. Suitable owl habitat in areas surrounding owl activity centers will be maintained through time using various management techniques.

“Survey and manage species” within Managed Late-Successional Areas are as follows:

- *Brotherella roellii* (Moss) – very rare species, endemic to the Washington Cascades north of Snoqualmie Pass.
- *Buxaunia piperi*, *B. viridis*, *Rhizomnium nudum*, *Schistostega pennata*, and *Tetraphis geniculata* (Mosses) – occurring on rotten logs and some organic soil; shade-dependent, occurring in old-growth forests. *S. pennata* occurs only in mature western red cedar forests in the Olympic National Forest and in the Washington Cascades.
- *Polyozellus multiplex* (Fungus) – occurring in higher elevations of the Cascades in silver fir and mixed conifer (and thus outside the range of marbled murrelet mitigation).
- *Sarcosoma mexicana* (Fungus) – occurring in deep conifer litter layers in older forests. It is common to rare and is found in the Oregon and Washington Coast Range into British Columbia.
- Larch Mountain Salamander – occurring mostly within the Columbia River Gorge.
- Del Norte Salamander – occurring in talus slopes protected by overstory canopy that maintains cool, moist conditions on the ground. Species is a slope-valley inhabitant, and sometimes occurs in high numbers near riparian areas.

Aquatic Conservation Strategy

The Aquatic Conservation Strategy is also found within the Northwest Forest Plan. It identifies standards and guidelines for several areas, including riparian reserves, key watersheds, watershed analysis, and watershed restoration.

Riparian Reserves – areas along all streams, wetlands, ponds, lakes, and unstable or potentially unstable areas where the conservation of aquatic and riparian-dependent terrestrial resources receives primary emphasis. The main purpose of the reserves is to protect the health of

the aquatic system and its dependent species; the reserves also provide incidental benefits to upland species. These reserves will help maintain and restore riparian structures and functions, benefit fish and riparian-dependent non-fish species, enhance habitat conservation for organisms dependent on the transition zone between up slope and riparian areas, improve travel and dispersal corridors for terrestrial animals and plants, and provide for greater connectivity of late-successional forest habitat.

See Table f-1 for definitions of various Riparian Reserves.

Riparian reserve initial boundary widths established by the FS's ROD will remain in effect until they are modified following watershed analysis.

- Standards and guidelines for Riparian Reserves prohibit or regulate activities that retard or prevent attainment of the Aquatic Conservation Strategy objectives. Watershed analysis and appropriate NEPA compliance is required to change Riparian Reserve boundaries in all watersheds.
- FS shall adjust existing leases, permits, rights-of-way, and easements to eliminate adverse effects that retard or prevent the attainment of Aquatic Conservation Strategy objectives. If adjustments are not effective, eliminate the activity. Priority for modifying existing leases, permits, rights-of-way and easements will be based on the actual or potential impact and the ecological value of the riparian resources affected.
- Fell trees in Riparian Reserves when they pose a safety risk.
- Keep felled trees on-site when needed to meet coarse woody debris objectives.
- Herbicides, insecticides, and other toxicants, and other chemicals shall be applied only in a manner that avoids impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives.

Key Watersheds – A system of Key Watersheds serves as areas that provide, or are expected to provide high-quality habitat. Key Watersheds are identified by the Plan as crucial for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species.

Watershed Analysis - Watershed analysis is required prior to management activities, except minor activities such as those Categorically Excluded under NEPA (not including timber harvest). Watershed analysis is required prior to timber harvest.

Adaptive Management Areas

The Northwest Forest Plan also designates Adaptive Management Areas (AMAs). In Region 6, four (out of ten) managed AMAs have Bonneville facilities in or near them:

- the **Olympic AMA** in Jefferson, Clallam, Grays Harbor, and Mason Counties, Washington;
- **Snoqualmie Pass AMA** in Kittitas and King Counties, Washington;
- **Northern Coast Range AMA** in Polk, Yamhill, Tillamook and Washington Counties, Oregon;
- **Central Cascades AMA** in Lane and Linn Counties, Oregon.

For the reader's interest, we provide below a sample of standards and guidelines found in Forest Plans that might affect Bonneville's vegetation management program.

Samples of Standards and Guidelines from Forest Plans

Utilities and Transportation -- Some Forests have management areas specific to utilities and transportation such as the following:

- The existing corridors for the transmission of electricity will be managed in accordance with the standards for MA [Management Area] 23. (Kootenai NF, Forest Plan: (USDA/FS, 1987d, pg. II-25))
- MA23 is composed entirely of the existing electric transmission corridor on the south end of the forest which crosses along the south boundary of the Cabinet Mountains Wilderness Area. There is a low-standard access road providing repair and inspection access for the entire length. Vegetation varies from shrubs to small conifers. All acres are in grizzly situations 1 and 2. (Kootenai NF, Forest Plan (USDA/FS, 1987d,pg. II-113))
- Management Area 5: This management area consists of potential transportation and utility corridors that might be identified on the Lolo Forest. Existing and potential rights-of-way will be evaluated to determine if they are compatible with other facilities or uses. If they are determined to be capable of accommodating more than one facility they will be designated a right-of-way corridor (36 CFR 219.27 (a) (9)). (Lolo NF, Forest Plan (USDA/FS, 1986c, pg. III-14))
- Management Area 5 will consist of the land directly under and adjacent to the facility such as a pipeline or power line. As these corridors are identified, the acreages within them will be deleted

from the management areas they cross. This area generally has road access for construction and maintenance. Public use might be restricted. (Lolo NF, Forest Plan (USDA/FS, 1986c, pg. III-14))

- Limit right-of-way clearing for utility corridors to the extent necessary for safe and efficient use. (Siuslaw NF, Land & Resource Management Plan (USDA/FS, 1990d, pg.IV-55))
- Cooperate with utilities' representatives to develop strategies that will minimize the potential for a single- or multiple-line power outages that could result from catastrophic events such as wildfire. (Guideline) (Modoc NF, Land & Resource Management Plan (USDA/FS, 1991b, pg.4-17))
- In managing Forest activities near the utility corridor, coordinate with respective Federal or private utility managers to ensure that forest activities will not conflict with the intended permitted use and management of the utility corridor. (Standard) (Modoc NF, Land & Resource Management Plan (USDA/FS, 1991b, pg.4-17))

Visual – Visual resources, often a concern of the local Forest, become standards and guidelines in the Forest Plans. It is possible that leaving screens of vegetation, as described below, could conflict with keeping vegetation safely away from transmission lines or other facilities.

- the impacts of management activities will be visually assessed from the nearest viewpoints contained in the sensitivity level maps on file. Vegetative and topographic screening will be used where possible to minimize visual impacts. cases. (Lolo NF, Forest Plan (USDA/FS, 1986c, pg. III-15))
- Meet assigned Visual Quality Objectives when activities are planned within the foreground zone of state Highway 139 and 299. Specific objectives are to:
 - * Blend treated vegetation with adjacent untreated areas for a natural appearance.
 - * No distinct edge between treated and untreated areas should be evident. (*Modoc NF, Land & Resource Management Plan (USDA/FS, 1991b, pg.4-24)*)

Vegetation management standards and guidelines vary for each Forest. Some examples of standards and guidelines are as follows:

- *For vegetation management and/or manipulation, follow the Record of Decision, Managing Competing and Unwanted Vegetation, Final EIS, Pacific NW Region, December 1988 (or as amended), the Mediated Agreement, and implementation direction.*

(Mt. Baker-Snoqualmie NF, Land & Resource Management Plan (USDA/USFA,1990g, pg. 4-135))

- Control noxious weeds to the extent practical. The following methods for control shall be used: mechanical, biological, access restrictions to prevent spread, seeding disturbed soil, and use of herbicides. Small infestations of new noxious weeds (e.g. tansy ragwort) should be eradicated as quickly as possible. (Mt. Baker-Snoqualmie NF, Land & Resource Management Plan (USDA/USFA,1990g))
- Where appropriate, use methods of vegetation treatment that emulate natural ecological processes to maintain or restore properly functioning ecosystems. (Targhee NF Forest Plan (USDA/FS, 1997b, pg. III-12))
- Preserve unique formations within a landscape (such as cliffs, bogs, seeps, talus slopes, warm or alkaline springs, pot holes, and rock outcroppings) that provide habitat to plant species not common to the overall landscape and contribute to the species diversity within the landscape. (Targhee NF Forest Plan (USDA/FS, 1997b, pg. III-14))

Wildlife and Fish – The FS and BLM have species other than threatened and endangered species that require special attention or protection.

"Indicator species" have been identified for those species groups whose habitat is most likely to be changed by Forest management activities. The tree-dependent group indicator species is the marten; the old growth dependent group is represented by the pileated woodpecker; and the riparian tree-dependent group indicator species is the barred owl. These species will be monitored to determine population changes resulting from forest management activities. Other indicator species include the threatened or endangered species (grizzly bear, gray wolf, bald eagle and peregrine falcon); commonly hunted species (mule deer, elk, and white-tailed deer); and fish species (bull trout and cutthroat trout). (*Flathead NF, Forest Plan (USDA/FS,1985, pg. II-21)*)

- Management Direction:

* *Under the selected alternative, the Inland Native Fish Strategy will apply the following management direction to all 22 Forests except where PACFISH or the President's Plan apply. (Kootenai NF, Forest Plan (USDA/FS 1987d, Attachment pg. A-1))*

★ General Riparian Area Management: Apply herbicides, pesticides, and other toxicants, and other chemicals in a manner that does not retard or prevent attainment of riparian management objectives and avoids adverse effects on inland native fish. (Kootenai NF, Forest Plan (USDA/FS 1987d, Attachment pg. A-12))

- . . .Fish habitat and riparian management activities will be coordinated in order to provide suitable riparian vegetation to aquatic habitats. . . . (Flathead NF, Forest Plan (USDA/FS 1985, pg. II-21))
- *Biological evaluations shall be prepared on all significant projects and activities that have a probability of affecting gray wolves and their habitat. Project, activities, or land uses might proceed if a "No Effect" determination is made. If a "Might Adversely Affect" determination results, the project, activity, or land use will be either modified for compatibility, eliminated, terminated, or appropriate consultation procedures with the USFWS will be initiated. (Flathead NF, Forest Plan (USDA/FS ,1985, pg. II-37 f(1)))*
- Provide necessary protection and management to conserve listed threatened, endangered and sensitive plant species. (Targhee NF Forest Plan (USDA/FS, 1997b,pg. III-14))
- Information on the presence of listed threatened, endangered or sensitive plant species will be included in all assessments for vegetation and/or ground disturbing management activities. Appropriate protection and mitigation measures will be applied to the management activities. (Standard) (Targhee NF Forest Plan, (USDA/FS, 1997b. pg. III-14))
- Site specific analysis is needed for all projects. This includes addressing threatened endangered, and sensitive species of plants and animals as contained on the FS, R-1 list. Roads for access should be consistent with direction for MA23 and consider surrounding MAs and grizzly bear habitat needs.
- *In Riparian Area Management*: Apply herbicides, pesticides, and other toxicants, and other chemicals in a manner that does not retard or prevent attainment of riparian management objectives and avoids adverse effects on inland native fish. (Kootenai NF, Forest Plan (USDA/FS, 1987d, Attachment pg. A-12))

Cultural Resources -

- Inventory to identify cultural resource properties prior to any project, activity or license that might affect significant cultural resources consistent with the national Historic Preservation Act of 1966 (as amended) and other pertinent laws and regulations. Adjustments will be made to projects to comply with cultural resource laws. (standard) (Modoc NF, Land & Resource Management Plan (USDA/FS, 1991b, pg.4-14))

Soil and Water – Forest Plans have special requirements when operating around water.

- Stream Shading - Leave enough vegetation intact along perennial streams to limit solar heating of streams and maintain water temperatures within State water quality standards. (Siuslaw NF, Land & Resource Management Plan (USDA/FS, 1990d, pg. IV-53))
- Standards are designed to protect or improve the quality of the water resource. These practices, known as BMPs (Best Management Practices) use the best technology available. These practices are a result of laws, regulations, and good land stewardship. (Flathead NF Forest Plan (USDA/FS, 1985, pg. II-40))
- The forest has designated riparian management areas (Management Areas 12 and 17) and non-timber-producing areas where riparian ecosystems are protected. (Flathead NF Forest Plan (USDA/FS, 1985, pg. II-40))
- A watershed cumulative-effects feasibility analysis for projects involving significant vegetation removal is required prior to project implementation. This is to ensure that the project, considered with other activities, will not increase water yields or sediment beyond acceptable limits. Such analysis should identify opportunities, if any exist, for mitigating adverse effects on water related beneficial uses. (Flathead NF Forest Plan (USDA/FS, 1985, pg. II-41))

Soil and water requirements can be quite extensive, The requirements shown below are all from the same Forest Plan. One area can trigger many management plans.

- *Streamside management zones (SMZs) are determined by stream class, channel stability, and side-slope stability. Included in the SMZ are the channel (waterway and upper banks) and side slopes. The SMZ exceeds the area dominated by riparian vegetation. Although managing an SMZ width that includes 50 feet on either*

side of the channel is typical, managing SMZs of variable width affords more direct protection of riparian-dependent resources. (Modoc NF, Land & Resource Management Plan (USDA/FS 1991b, Appendix M pg. M-1))

Side-slope distances are determined by stream class and percent of side slope. The stream class is based on the relative importance or significance of a stream or segment, based on resource values and beneficial uses. The percent of side slope is inversely related to side slope stability (i.e. the higher the percent of side slope, the less the stability of the side slope). Streams that are more important or are less stable are assigned longer slide slope distances and thus wider SMZs. (Modoc NF, Land & Resource Management Plan USDA/FS, 1991b, Appendix M pg. M-1))

At the project level, management standards are flexible so that widths might vary as additional information is learned about channel and side slope stability. Stream classes might also change as more information is collected about the stream. (Modoc NF, Land & Resource Management Plan (USDA/FS, 1991b, Appendix M pg. M-1))

The Modoc NF identifies **Water Quality Best Management Practices** (BMPs) to be used within resource categories. The following resource categories could potentially be affected by Bonneville's vegetation management program. Depending on the particular activity planned within the resource category, any of the listed BMPs could be appropriate practices and should be considered for use.

Resource category: Timber

BMP: Protection of Unstable Areas

Streamside Management Zone Designation

Special Erosion Prevention Measures on Disturbed Land

Revegetation of Areas Disturbed by Harvest Activities

Streamcourse Protection

Erosion Control Structure Maintenance

Slash Treatment in Sensitive Areas

Resource category: Road and Building Site Construction

BMP: Erosion Control Plan
Disposal of Right-of-way and Roadside Debris
Maintenance of Roads
Road Surface Treatment to Prevent Loss of Materials
Traffic Control during Wet Periods

Resource category: Vegetative Manipulation pg. N-3

BMP: Seed Drilling on the Contour
Slope Limitations for Tractor Operation
Tractor Operation Excluded from Wetlands and
Meadows
Revegetation of Surface Disturbed Areas
Tractor Windrowing on the Contour
Soil Moisture Limitations for Tractor Operation
Contour Disking
Pesticide Use Planning Process
Apply Pesticide According to label and EPA
Registration Directions
Pesticide Application Monitoring and Evaluation
Pesticide Spill Contingency Planning
Cleaning and Disposal of Pesticide Containers and
Equipment
Untreated Buffer Strips for riparian area and Streamside
Management Zone (SMZ) Protection during
Pesticide Spraying
Controlling Pesticide Drift during Spray Application

Resource category: Watershed Management pg. N-4

BMP: Protection of Wetlands
Oil and Hazardous Substance Spill Contingency Plan
Control of Activities under Special Use Permit
Water Quality Monitoring

*(This concludes the section on samples of FS standards and
guidelines.)*

F FS Mitigation Measures and Background

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APPENDIX G
BLM MITIGATION MEASURES
AND BACKGROUND

Appendix G

BLM Mitigation Measures and Background

This appendix provides additional information regarding the Bureau of Land Management. First, mitigation measures specific to the BLM lands are listed. Second, background information is provided, including a list of documents that guides BLM land management that may affect Bonneville's vegetation management on those lands.

Mitigation Measures Specific to BLM

This section lists examples of additional mitigation measures specific to managing vegetation on rights-of-way or other Bonneville electrical facilities on BLM-managed lands. These mitigation measures are in addition to those listed in **Chapter III, Planning Step 2.) *Identify surrounding land use and landowners/mangers.***

These mitigation measures are to be used as a tool to anticipate issues that may need to be addressed and documents that may need to be consulted when developing or revising site-specific vegetation management plans. These measures do not replace the need to coordinate with the FS for development of the plans and for measures appropriate to any given Forest. Vegetation management plans should be developed or revised to be consistent with the Record of Decision of this EIS.

The measures were developed based on current BLM land and resource management planning documents. However, since these planning documents are revised and supplemented over time, the following mitigation measures are also subject to revisions.

For BLM-managed lands, project managers would apply the following measures as appropriate.

- **If using herbicide, use only those herbicides that are approved for both BLM use and Bonneville use.**

Those herbicides presently approved for both Bonneville and BLM—Washington, eastern Oregon*, Idaho, and Montana Districts—are as follows:

Bromacil	Glyphosate+ 2,4-D
Bromacil+	Hexazinone
Diuron	Imazapyr
Chlorsulfuron	Mefluidide
Clopyralid	Metsulfuron methyl
2,4-D	Picloram
Dicamba	Picloram+ 2,4-D
Dicamba + 2,4-D	Sulfomturon methyl
Diuron	Tebuthiuron
Glyphosate	Triclopyr

* Oregon continues under herbicide injunction except for control of noxious weeds. This herbicide list would then apply only for the use on noxious weeds.

In *western* Oregon only those herbicides presently approved for both Bonneville and BLM-Oregon (for the control of noxious weeds) are used, as follows:

2,4-D	Glyphosate
Dicamba	Picloram
Dicamba + 2,4-D	Picloram + 2,4-D

Table G-1: BLM Buffer Zones Adjacent to Dwellings, Domestic Water Sources, Agricultural Land, Streams, Lakes, and Ponds

(Washington, eastern Oregon, Idaho, and Montana Districts)

Method	Buffer Width (from waters edge)
No Ground-disturbing Mechanical (Tractor operations will be limited to periods of low soil moisture to reduce the chance of soil compaction.)	“so far as practical on the contour to reduce the chance of soil erosion”
No Spot-herbicide Applications (Herbicides will be wiped on individual plants within 3 m or 10 ft. of water where application is critical.) (For noxious weed control, herbicides may be wiped on individual plants to the high water line where application is critical.)	Within 3 m or 10 ft.
No Broadcast Herbicide	Within 7.6 m or 25 ft.
No Aerial Herbicide	Within 30.5 m or 100 ft.

* Any buffer deviations must be in accordance with herbicide label.

Table F-2: BLM Buffer Zones (Western Oregon)

Method	Buffer Width
No Ground-disturbing Mechanical (Tractor operations may be limited to periods of minimum soil moisture levels)	Within 7.6 m or 25 ft. of streams
No Spot Herbicide Applications (Herbicides will be wiped on individual plants within 10 feet of water where application is critical.)	Within high water mark of waterways
No Localized Herbicide Applications (manual backpack)	Within 6 m or 20 ft. of waterways
No Broadcast Herbicide	Within 15.2 m or 50 ft. of waterways
No Aerial Herbicide	Within 30.5 m or 100 ft. of flowing streams; within 61 m (200 ft.) of lakes and ponds
No Herbicide Applications	Within 30.5m (100 ft.) of residences

* Follow the outlined buffer zones or zones in the resource management plan, whichever is greater.

- *In western Oregon*, consider recommending buffer strips for wildlife habitat, scenic corridors, and other concerns as identified in land use plans.
- *In western Oregon*, conduct any ground-disturbing mechanical operation in municipal watersheds in accordance with BLM memorandum of understanding with local municipalities.
- *In Oregon*, submit herbicide proposal for reporting to BLM's Oregon/Washington state office.
- *In western Oregon*, post project description signs at points of common public access to areas where herbicides are used; leave the signing in place during the potency period. Provide the posted information in both English and Spanish, and at least 24 hours before treatment.
- *In Oregon*, submit any proposals to use picloram treatment to a hydrologist and/or soil scientist to be evaluated for potential leaching and long-term non-target phytotoxic (toxic to plants) impacts on water contamination both on and off-site before a decision on such a treatment.

BLM Guidance Documents

Following is a list of selected documents that guide the BLM.

- **Resource Management Plans (RMP) for the respective Districts:** Each BLM District has an RMP or Management Framework Plan (MFP) that gives direction for land management for that district. Similar to FS Forest Plans, RMPs identify standards and guidelines for how the land will be managed and what special areas are to be protected.
- *For Washington, eastern Oregon, Idaho, and Montana Districts - EIS on Vegetation Treatment on BLM Lands in Thirteen Western States (USDOI/BLM 1991b).* This document governs the BLM's integrated management treatment program for undesirable plants and noxious weeds on BLM-administered public lands within the Washington, Oregon, Idaho, and Montana Districts. The plan focuses on a mix of methods, including prescribed burning, biological, mechanical, manual, and chemical

treatments, with a high priority placed on prevention, followed by non-chemical methods.

Although Washington and Oregon districts are covered in this EIS, these districts are under an herbicide injunction except as authorized under the Northwest Area Noxious Weed Control Program EIS, listed below.

- **Western Oregon - EIS on Western Oregon Program- Management of Competing Vegetation (USDOI/BLM, 1992c).** BLM has a separate EIS for vegetation management covering the Salem, Eugene, Roseburg, Coos Bay, Medford, and part of Lakeview districts. This plan also focuses on a mix of methods, including the following: manual (pulling, cutting, bashing and covering vegetation), mechanical, biological (plant pathogens, grass seeding to prevent alder, insects), prescribed fire, and herbicide treatments.

Although western Oregon is covered in this EIS, Oregon is under an herbicide injunction except as authorized under the Northwest Area Noxious Weed Control Program EIS, listed below.

- *Washington, Oregon, Idaho, and Montana Districts – Supplemental EIS on Northwest Area Noxious Weed Control Program* (USDOI/BLM, 1987a). This document continues to govern the BLM’s noxious weed control program in Oregon. The State of Oregon and counties list those species that are noxious weeds by county, and place responsibility for noxious weed control on Federal land with the Federal government. This EIS allows BLM use of four herbicides for noxious weed control.
- *Parts of BLM Oregon and Washington Districts - Standards & Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl (Forest Plan)* (USDA/FS and USDOI/BLM, 1994a). These documents provide standards and guidelines and land-use designations for all BLM and FS lands within the range of the northern spotted owl. When located within this range, the FS and BLM must follow Forest Plan standards and guidelines if they are more restrictive or provide greater benefits to late-successional forest related species than do the district or forest specific plans.

The Northwest Forest Plan also designates Adaptive Management Areas (AMAs). Of the ten managed AMAs, BLM land is within two in Oregon that have Bonneville facilities in or near them:

- * **Northern Coast Range AMA** in Polk, Yamhill, Tillamook and Washington Counties, Oregon;
- * **Central Cascades AMA** in Lane and Linn Counties, Oregon.

Please see **Appendix F: FS Mitigation Measures and Background** for more information on how the Northwest Forest Plan may affect Bonneville vegetation control.

- **The Interior Columbia River Basin Draft EISs and Appendices** (USDA/FS and USDO/BLM, 1997a and 1997b) – These two planning documents include the Eastside EIS (covering eastern Oregon and Washington) and the Upper Columbia River Basin EIS (Idaho and western Montana). These plans have yet to be adopted.