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United States Government **Department of Energy**

Bonneville Power Administration

memorandum

DATE: 12/02/02

REPLY TO ATTN OF: KEC-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program (DOE/EIS-0285/SA-113-1) Updates 9/27/02 SA-113

TO: Bill Erickson, TFP/Walla Walla
Natural Resource Specialist

Proposed Action: To perform remedial vegetation management for keeping vegetation a safe distance away from electric power facilities and controlling noxious weeds within a section of BPA's Big Eddy-Ostrander Transmission Corridor.

During a site review conducted in late fall of 2001, the inspector observed various species of hardwood trees resprouted from stumps. The new vegetative growth encroached on the required "Minimum Safe Distance" between the top of vegetation and the conductor cables. The management action is necessary to reduce the current and potential future hazards that tall-growing vegetation poses to transmission conductors.

In addition, BPA will include weed control as part of their remedial vegetation management action. Noxious weeds occur within the corridor. Under a 1999 Executive Order, all federal agencies are required to detect and control noxious weeds. In addition, BPA is required under the 1990 amendment to the Noxious Weed Act (7 *USC* 2801-2814) to manage undesirable plants on federal land. Also, the Bonneville Power Administration (BPA) has responsibility to manage noxious weeds under the *Transmission System Vegetation Management Program Final Environmental Impact Statement* (FEIS).[1] State statutes and regulations also mandate action by BPA and the USFS to control noxious weeds. The Oregon Department of Agriculture (ODA) has requested that agencies aggressively control these weeds before additional spread occurs.

This Supplement Analysis is performed under 40 Code of Federal Regulations section 1021.314 and compares the project-specific potential impacts with those disclosed in the FEIS.

Vegetation Management Methods and Techniques Addressed Under this Supplement Analysis (See Chapter II of the *Transmission System Vegetation Management Program EIS*)**:**
Vegetation management methods and techniques would consist of:

[1] Bonneville Power Administration. June 2000. *Transmission System Vegetation Management Program Final Environmental Impact Statement*. Bonneville Power Administration, Portland, OR. DOE/EIS-0285.

- Manual cutting: Cutting of tall-growing vegetation
- Mechanical cutting: Mowing of tower areas and access roads
- Herbicides: Treating noxious weeds using spot, localized and broadcast herbicide applications

Manual cutting would involve cutting and treating tall-growing vegetation within the right-of-way, including protective buffers, and clearing danger trees. Manual treatment would be performed with chainsaws, brushcutters and hand tools. Cut debris would be lopped and scattered.

Mechanical control would involve clearing around transmission structures, clearing access roads, reclaiming the right-of-way width ("C" trees), and clearing danger trees. Mechanical control would be performed using vehicle-mounted mowers or similar machinery.

Herbicide applications would follow the guidelines contained in *Final Environmental Impact Statement: Transmission System Vegetation Management Program* and *Final Environmental Impact Statement for Managing Competing and Unwanted Vegetation*,[2] including whichever buffers and application restrictions are the most conservative (i.e., protective of the environment). Herbicides and application methods are described in the *Big Eddy–Ostrander Vegetation Management Checklist and Mediated Agreement Questions* for this action, and the *Biological Evaluation Addendum for the Big Eddy – Ostrander Transmission Corridor* (BE)[3] prepared for the USFS during this project. BPA is proposing to use spot application of herbicide to control resprouting hardwoods and localized spot and broadcast spraying of the weed-infested areas. Herbicide application is the only available method to effectively control hawkweed and is the most effective method available to prevent resprouting of hardwoods. The selected herbicides for this action are consistent with BPA and USFS herbicide guidelines and are effective in controlling the target weed species—orange hawkweed, yellow hawkweed, knapweed species, Scotch broom, and tansy ragwort. Proposed herbicides and formulation application rates are shown in Table 1.

Table 1. Proposed Herbicides and Application Rates.

Herbicide	Rate
Garlon 3A (Tryclopyr TEA)	2.1 – 25.0 lbs./ac.
Garlon 4 (Tryclopyr BEE)	2.1 – 16.7 lbs./ac.
Glyphosate (Glypro/Accord)	3.2 – 15.8 lbs./ac.
Tordon 22K (Picloram)	1.1 – 4.2 lbs./ac.
Trooper/Vanquish (Dicamba)	2.1 – 4.2 lbs./ac.

[2] U.S. Forest Service. 1988. *Draft Environmental Impact Statement for Managing Competing and Unwanted Vegetation.* USDA Forest Service, Portland, OR.

[3] CH2M HILL. July 2002. *Biological Evaluation Addendum for the Big Eddy–Ostrander Transmission Corridor*. Prepared for the USDA Forest Service by CH2M HILL, Inc., Portland, OR.

Mitigation measures that would be implemented include:

- No mechanical removal of vegetation would occur within 50 feet of any waterbody.
- All mixing or loading of herbicides would take place outside of riparian areas.
- BPA would provide the USFS with a written spill containment and clean-up plan and have the required material on-site during all applications.
- Only non-toxic (to aquatic species) formulations and slightly toxic (to aquatic species) formulations of Glyphosate (e.g., Rodeo®), Trooper/Vanquish (Dicamba), and Garlon 3A (Triclopyr TEA) would be used in proximity to mapped streams.
- Variable-width no-spray buffers would be determined and flagged in the field in conjunction with USFS biologists.
- Prohibition of spraying when windspeeds are greater than 8 kilometers per hour (5 mph)
- Generally, herbicide applications with greater risk of drift or toxicity would have wider buffers. Also, streams supporting Threatened, Endangered, or Sensitive (TES) fish species would receive wider buffers. The buffer prescriptions that would be applied to all seasonal and permanent water bodies in the project area are as follows:

General Buffers Adjacent to Sensitive Environmental Areas:

- Non-toxic and slightly toxic formulations of Glyphosate and Garlon 3A would be used to the edge of water when applied as spot or localized treatments. At the discretion of the applicator, a 25-foot no-spray buffer may be used if one of the following conditions applies: (1) recommended by Mt. Hood NF, Zigzag Ranger District, Fisheries Biologist for a particular water body, or (2) variable weather conditions exist that may cause drift uncertainty. The option of a contingency buffer is provided because little empirical toxicity data are available for aquatic organisms under field applications. However, available toxicological literature has failed to find toxic effects on aquatic organisms when applied at the approved application rates.
- Garlon 4 (Tryclopyr BEE): 35 feet from streams and seasonally dry wetlands.
- Trooper/Vanquish (Dicamba) and Tordon 22K (Picloram): 25 feet (spot treatment) and 35 feet (localized treatment).

Buffers for Broadcast Treatment:

- Glyphosate and Garlon 3A (approved formulations): 35 feet.
- Garlon 4, Tordon 22K, and Trooper/Vanquish: 100 feet.

Buffers for TES Streams:

- No herbicide of any kind would be used within 100 feet of the TES stream. (However, at no point in the project area does the transmission line ROW lie within 100 feet of a stream known to be used by TES species.)
- Only non-toxic (to aquatic species) formulations or slightly toxic formulations of Glyphosate, Trooper/Vanquish, or Garlon 3A would be used between 100 feet and 400 feet from a TES stream. Application methods for general control would be limited to spot and localized applications such as wick, cut-stump, basal-stem, stem-injection, and spot-foliar treatments. Some broadcast treatments with a handgun may occur in the buffer lying 100 to 400 feet from a TES stream, but only along access roads and at tower sites.
- Highly toxic (to aquatic organisms) and very highly toxic herbicides would not be used within 400 feet of stream supporting TES species.

Location: The action would occur entirely within the Zigzag Ranger District of the Mt. Hood National Forest, Clackamas County, Oregon. The project is at West Lolo Pass Zigzag Road and extends from 39/3 west to 44/5+313. The treated width of the ROW easement varies from 450 to 550 feet over approximately 5.5 miles.

Proposed by: Bonneville Power Administration.

Description of the Proposed Action: BPA proposes to clear unwanted vegetation in the rights-of-way (ROW), along the access road, and around tower structures at a segment of the Big Eddy–Ostrander Transmission corridor. Clearing would remove vegetation that could impede the operation and maintenance of the transmission line. Work would be accomplished by selective vegetation control methods, except at access roads and tower sites, and all work would assure that there is little potential harm to non-target vegetation and to low-growing plants. Also, all work would be in accordance with the National Electrical Safety Code and BPA standards, and would provide transmission system reliability.

BPA plans to conduct vegetation control with the goal of removing tall-growing vegetation that currently is, or would soon be, a hazard to the transmission line. BPA's overall goal is to have low-growing plant communities along the rights-of-way to control the development of potentially threatening vegetation. All hardwood tree species over 1 foot tall, and all conifers over 12 feet tall would be controlled. (The site is a Christmas Tree Permit Area. In this area, all coniferous species are left uncut until they reach a height of 12 feet.)

Listed noxious weeds are present in the ROW covering approximately 50 acres. A cooperative effort to control noxious weeds would be conducted. The main weeds of concern the hawkweeds that are "A" list weeds in the State of Oregon. In addition, tansy ragwort, scotch broom and knapweed have been a concern. These weeds and other listed noxious weeds are non-native species that need to be controlled to prevent any additional spread of these weeds and encroachment of habitat for native species within the right-of-way. These noxious weed species would be controlled using an Integrated Vegetation Management Approach (IVM) using a combination of manual, mechanical, and herbicide methods.

Brush management on the ROW would clear tall-growing vegetation that is currently or would soon pose a hazard to the lines. The associated stumps and re-sprouts would be treated with herbicides (spot and localized treatments) to ensure that the roots are killed to prevent new sprouts and to selectively eliminate tall-growing vegetation before it reaches a height or density that competes with low-growing vegetation. Areas may be replanted or reseeded with low-growing vegetation if there is limited vegetation to re-establish the site. Desirable low-growing plants would not be disturbed on the right-of-way by using selective control methods, and by keeping trucks and equipment on designated access roads and trails. All work would take place in existing rights-of-way. Slash and debris would be lopped and scattered.

Access roads and tower sites would be treated using selective and non-selective methods that include, hand cutting, mowing, and herbicide spot, localized and broadcast applications including cut stubble and localized granular treatments

The selection of methods and herbicides for noxious weed management would be based on weed location and proximity to water resources. Treatment would be limited to spot, localized, and ground broadcast treatments. Non-selective treatments using ground broadcast treatment may be required in areas of high infestation of weeds within the ROW (42/3 to 43/1), and access roads and tower sites. Localized granular herbicide treatments could be considered.

Relationship of this Supplement Analysis to the Site-Specific Planning Steps (See Chapter III of the *Transmission System Vegetation Management Program EIS*)**:** This Supplement Analysis completes Step 7 of the seven Site-Specific Planning Steps described in the *Transmission System Vegetation Management Program EIS.* Step 7 is to prepare appropriate environmental documentation. The previous Planning Steps and their outcomes have been described in the *Big Eddy-Ostrander Vegetation Management Checklist and Mediated Agreement Questions* (the Checklist). The Checklist was completed by Bill Erickson, TFP/Walla Walla, Natural Resource Specialist, and meets the standards and guidelines for the *Transmission System Vegetation Management Program EIS*, Record of Decision (ROD), and supplemental ROD. The Checklist and its findings were subsequently incorporated into the *Biological Evaluation Addendum for the Big Eddy-Ostrander Transmission Corridor* that was prepared for and directed by the USFS (attached).

The *Big Eddy-Ostrander Vegetation Management Checklist* and Site-Specific Planning Steps are summarized as follows*:*

1. Identify facility and the vegetation management need

The facility is the Big Eddy-Ostrander Transmission Corridor from 39/3 west to 44/5+313. The need for vegetation management is to keep vegetation a safe distance away from electric power facilities, to provide for a 10- to 15-year maintenance-free interval, and to control noxious weeds. The treatment area includes a transmission corridor consisting of five lines (two 345kV lines; two 287kV lines; and one 500kV line).

The vegetation to be controlled includes tall-growing deciduous and coniferous species, as well as noxious weeds—orange hawkweed, yellow hawkweed, knapweed species, Scotch broom, and tansy ragwort. Control actions are intended to promote the establishment of low-growing vegetation.

2. Identify surrounding land use and landowners/managers

The project area is entirely within property managed by the Zigzag District of the Mt. Hood National Forest. The ROW has a paved road over the entire length of the treatment area. The public accesses the area for recreation. Portions of the project area are designated as a Christmas Tree Permit Area. It is estimated that 2,000 to over 3,000 permits are issued in this area for tree cutting by the public. The surrounding areas consist of Matrix forestlands with Riparian Reserve overlays.

The USFS performed initial project scoping with their resource specialists to identify known issues or concerns. Public involvement has been requested through: (1) tribal notification; (2) USFS newsletters describing the proposed project and offering a BPA contact for questions and comments; and (3) notification of adjacent landowners. Although BPA contacted the Warm Springs Tribe in writing, no comments were received. The USFS notified the public about the proposed work through its quarterly newsletter called "Sprouts" in the Spring, 2002 edition, but no questions or comments were received from the general public. The USFS determined that the proposed work would be consistent with regulations governing the use and occupancy of the National Forest System lands.

The USFS prepared a Biological Evaluation in August 2001[4], which was amended in July 2002. The USFS worked cooperatively with BPA in preparation of this and other environmental documentation. ESA consultation would be coordinated jointly between the BPA and USFS using the USFS Level 1 team process.

For line segment 44/5+313 to 39/3, herbicide-treated areas would be posted with re-entry intervals 7 days before and 30 days after treatment. BPA would provide the USFS with Emergency Contacts for Fire Response Planning, which would include the 24-hour Dispatch Office and the Line Maintenance Foreman for the various areas.

3. Identify natural resources

The project area is bisected by several ephemeral and seasonal drainages and is adjacent to the Clear Fork and Sandy Rivers, both of which contain resident and anadromous fish populations. The project area itself has been maintained as rights-of-way for many years and supports an artificially maintained, variable composition, early seral stage vegetation community. Some areas, generally those adjacent to stream channels and valleys, support older vegetation communities because the transmission line over them is sufficiently high so that regular vegetation control was not warranted.

[4] U.S. Forest Service. August 2001. Biological Evaluation [LOLO PASS CORRIDOR: ZIGZAG RD 8/01:BE]. USDA Forest Service, Mt. Hood National Forest, Zigzag Ranger District, Zigzag, OR.

Special Status Species

No federally listed or proposed threatened or endangered species are known to occur in the project area; however, several listed fish species do occur in the general vicinity. In addition, several USFS Region 6 Sensitive species may occur in the project area or its vicinity.

A Biological Evaluation (BE) for special status fish and wildlife species has been prepared for and accepted by the USFS (*Biological Evaluation Addendum for the Big Eddy – Ostrander Transmission Corridor*; CH2M HILL 2002). Species considered in the BE and findings of potential effect are given in Table 2. The USFS prepared the *Proposed, Endangered, Threatened, and Sensitive Plant Biological Evaluation*, which is summarized in Table 3.

Table 2. TES Species Potentially Occurring in the Project Area.

Species	Scientific Name	Federal Status	Finding
Birds			
Bald eagle	*Haliaeetus leucocephalus*	Listed threatened/ Proposed for delisting	No Effect
Northern spotted owl	*Strix occidentalis caurina*	Listed Threatened	No Effect
Harlequin duck	*Histrionicus histrionicus*	Region 6 Sensitive	No Impact
American peregrine falcon	*Falco peregrinus anatum*	Region 6 Sensitive	No Impact
Horned grebe	*Podiceps auritus*	Region 6 Sensitive	No Impact
Bufflehead	*Bucephala albeola*	Region 6 Sensitive	No Impact
Gray flycatcher	*Empidonax wrightii*	Region 6 Sensitive	No Impact
Mammals			
Wolverine	*Gulo gulo*	Region 6 Sensitive	No Impact
Baird's shrew	*Sorex bairdii permiliensis*	Region 6 Sensitive	May Impact Individuals or Habitat
Pacific fringe-tailed bat	*Myotis thysanodes vespertinus*	Region 6 Sensitive	No Impact
Pacific fisher	*Martes pennanti*	Region 6 Sensitive	No Impact
Amphibians/Reptiles			
Spotted frog	*Rana pretiosa*	Region 6 Sensitive	No Impact
Northwest pond turtle	*Clemmys marmorata marmorata*	Region 6 Sensitive	No Impact
Painted turtle	*Chrysemys picta*	Region 6 Sensitive	No Impact
Oregon slender salamander	*Batrachoseps wrighti*	Region 6 Sensitive	No Impact
Cope's giant salamander	*Dicamptodon copei*	Region 6 Sensitive	No Impact
Larch Mountain salamander	*Plethodon larselli*	Region 6 Sensitive	No Impact
Cascade torrent salamander	*Rhyacotriton cascadae*	Region 6 Sensitive	No Impact
Fish			
Lower Columbia Chinook	*Oncorhynchus tshawytscha*	Listed Threatened	No Effect
Lower Columbia steelhead trout	*Oncorhynchus mykiss irideus*	Listed Threatened	No Effect
Bull trout	*Salvelinus confluentus*	Listed Threatened	No Effect
Southwest WA / Lower Columbia coho	*Oncorhynchus kisutch*	Region 6 Sensitive/Candidate	No Impact
Interior redband trout	*Oncorhynchus mykiss gairdneri*	Region 6 Sensitive	No Impact
Southwest WA/Lower Columbia Coastal cutthroat trout	*Oncorhynchus clarki clarki*	Candidate[1]	No Impact

[1]Listing found not warranted, USFWS 2002

Table 3. PETS Plants Documented or Suspected to Occur on the Mt. Hood National Forest and Findings for Potential Impacts to Habitat Occurring Within the Proposed Project Area.

Plant Name	TNC	USFWS	ODA	ONH	Finding
Agoseris elata **tall agoseris**	G4S1	____	____	2	No Impact
Arabis sparsiflora var. *atrorubens* **sicklepod rockcress**	G5T3	____	____	2	No Impact
Aster gormanii Gorman's aster	G3S3	____	____	1	No Impact
Astragalus tyghensis **Tygh Valley milkvetch**	G1S1	SoC	LT	1	No Impact
Botrychium lanceolatum **lance-leaved grape fern**	G5S3	____	____	2	No Impact
Botrychium minganense **Mingan moonwort**	G4S2	____	____	2	No Impact
Botrychium montanum **mountain grape-fern**	G3S2	____	____	2	No Impact
Botrychium pinnatum **pinnate grape fern**	G5S2/S3	____	____	2	No Impact
Calamagrostis breweri **Brewer's reedgrass**	G3S2	____	____	2	No Impact
Carex livida **pale sedge**	G5S2	____	____	2	No Impact
Castilleja thompsonii **Thompson's paintbrush**	G3S1/S2	____	____	2	No Impact
Cimicifuga elata **tall bugbane**	G3S3	____	C	1	No Impact
Coptis trifolia **3-leaflet goldthread**	G5S1	____	____	2	No Impact
Corydalis aquae-gelidae **cold water corydalis**	G3S3	____	C	1	No Impact
Diphasiastrum complanatum **ground cedar**	G5S2	____	____	2	No Impact
Erigeron howellii **Howell's daisy**	G2S2	____	C	1	No Impact
Fritillaria camschatcensis **Indian rice**	G5S1	____	____	2	No Impact
Howellia aquatilis **howellia**	G2SH	LT	____	1-ex	No Impact
Lewisia columbiana var. *columbiana* **Columbia lewisia**	G4T4S2	____	____	2	No Impact
Lycopodiella inundata **bog club-moss**	G5S2	____	____	2	No Impact
Montia howellii **Howell's montia**	G3S2	____	C	4	No Impact
Ophioglossum pusillum **adder's tongue**	G5S1	____	____	2	No Impact
Phlox hendersonii **Henderson's phlox**	G4S1	____	____	2	No Impact
Potentilla villosa **villous cinquefoil**	G4S1	____	____	2	No Impact

Plant Name	TNC	USFWS	ODA	ONH	Finding
Ranunculus reconditus ***obscure buttercup***	G2S1	SoC	LE	1	No Impact
Romanzoffia thompsonii **mistmaiden**	G3S3	____	____	1	No Impact
Scheuchzeria palustris var. *americana* **scheuchzeria**	G5T5S2	____	____	2	No Impact
Sisyrinchium sarmentosum **pale blue-eyed grass**	G2S1	SoC	C	1	No Impact
Suksdorfia violacea **violet suksdorfia**	G4S1	____	____	2	No Impact
Taushia stricklandii **Strickland's taushia**	G4S1	____	____	2	No Impact
Wolffia borealis **dotted water-meal**	G5S1	____	____	2	No Impact
Wolffia columbiana **water-meal**	G5S1	____	____	2	No Impact

Survey and Manage Species

The *Record of Decision and Standards and Guidelines for Amendments to Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, January 2001* amends the *Northwest Forest Plan*. Species in Categories A and C require surveys be completed prior to habitat-disturbing activities. In addition, all known sites of Category A, B and E species and high priority Category C and D species are managed. In the absence of a plan designating high priority Category C and D sites, all will be managed as high priority.

The following Category A and C Survey and Manage species are documented or suspected to occur on the Mt. Hood National Forest (Table 4).

Table 4. Survey and Manage Fungi, Lichen, Bryophyte and Vascular Plant Species at the Mt. Hood National Forest.

Species	Taxa Group	Habitat	Season	Category	Habitat?
Botrychium minganense **Mingan moonwort**	Vascular Plant	Forested wetlands	June-Sept	A	Yes
Botrychium montanum Mountain grape-fern	Vascular Plant	Forested wetlands	June-Sept	A	Yes
Bridgeoporus nobilissimus **Noble polypore**	Fungi	True fir snags and stumps	All-year	A	No
Coptis trifolia 3-leaflet goldthread	Vascular Plant	Edge of forested fens	June-July	A	No
Corydalis aquae-gelidae Cold water corydalis	Vascular Plant	Forested seeps and streams	June-Sept	C	No
Cypripedium fasciculatum **Clustered ladyslipper**	Vascular Plant	Open forest	June-July	C	Yes
Cypripedium montanum **Mountain ladyslipper**	Vascular Plant	Open forest	June-Aug	C	Yes
Hypogymnia duplicata	Lichen	Mid seral to late seral conifer forest	All year	A	No
Lobaria linita	Lichen	Trees, shrubs, rock	All-year	A	No
Platismatia lacunosa	Lichen	Alder or conifer boles in	All-year	C	No

Species	**Taxa Group**	**Habitat**	**Season**	**Category**	**Habitat?**
		high humidity microsites			
Pseudocypellaria rainier	Lichen	Alder or conifer boles in high humidity microsites	All-year	A	No
Schistostega pennata	Moss	Rootwads in high humidity microsites	May-Sept	A	No
Tetraphis geniculata	Moss	Large class III-IV down conifer logs in mature forest	May-Sept	A	No

Table 5 lists Category A and C Survey and Manage terrestrial and aquatic survey and manage species that may occur in the Zigzag Ranger District, their habitat associations, their potential to occur in the project area, and indicates whether surveys for these species would be required prior to project implementation.

Table 5. Survey and Manage Terrestrial and Aquatic Species at the Mt. Hood National Forest.

Species	**Category**	**Habitat Association**	**Potential to Occur, and Survey Requirements**
Cryptomastix devia **Puget oregonian**	A	Low to mid-elevation mature to late-successional moist forests and riparian areas; in leaf litter and/or talus; big leaf maple and sword fern common; high canopy cover.	No habitat in project area; no surveys required.
Megomphix hemphilli **Oregon megomphix**	A	Moist conifer or hardwood forest up to 3,000 feet in elevation; big leaf maple and sword fern on forested slopes and terraces; moist leaf litter.	No habitat in project area; no surveys required.
Hemphillia glandulosa **Warty jumping-slug**	C	Conifer logs and/or heavy ground cover of low vegetation, litter, and debris in moist conifer forest.	May occur in forested stands adjacent to project area; no habitat in project area; no surveys required.
Hemphillia malonei **Malone jumping slug**	C	Moist to wet forested habitats, usually containing hardwoods; on or under debris, such as bark, on the ground.	May occur in forested stands adjacent to project area; no habitat in project area; no surveys required.
Prophysaon coeruleum **Blue-grey tail-dropper**	A	Moist conifer and mixed forests; may be found in open areas or dry forests if shade and moisture levels exceed those in the surrounding area.	May occur in forested stands adjacent to project area; no habitat in project area; no surveys required.
Juga n. sp. 2 **Basalt juga**	A	Low elevation springs in small drainages tributary to the Columbia River in the Columbia Gorge.	No habitat in project area; no surveys required.
Lyogyrus n. sp. 1 **Columbia dusky snail**	A	Low to high elevation, in cold, pure, well-oxygenated water in springs and spring outflows.	No habitat in project area; no surveys required.

Source: USDA and USDI (2001)

A field reconnaissance was conducted within the project area for vascular and non vascular plants on June 27, 2000. No Survey and Manage species were located. The proposed project would therefore have no effect on these species and no mitigation on project design is recommended**.**

It was determined from literature review, aerial photos, and field knowledge that that no known habitat for Survey and Manage Terrestrial and Aquatic Species occur within the proposed project area since the area does not offer habitat. The proposed project would therefore have no effect on these species and no mitigation on project design is recommended**.**

Cultural Resources

No cultural resources are known to occur within the project area. Soil excavation or soil disturbing activities, if any, would be limited to access roads and tower sites using mechanical equipment, and would not exceed 6 inches in depth below the soil surface. Actions would be contingent on Tribal and USFS comments.

Environmental Land Audit

An environmental land audit to identify the presence of hazardous and toxic wastes was not performed for this project because the project does not involve major ground disturbance.

Permit Information

No permits are necessary for this project as proposed.

4. Determine vegetation control and debris disposal methods

Vegetation control methods include manual cutting of tall-growing vegetation, mechanical cutting (mowing) of tower areas and access roads, and herbicides treatment of noxious weeds using spot, localized and broadcast herbicide applications. Herbicide treatments would involve glyphosate, picloram, triclopyr (Garlon 3A and Garlon 4), and dicamba. Spot applications include stump treatments, injection and notch treatments, and wick and carpet roller applications. Localized applications include basal treatment, low-volume foliar treatment, and granular application. Broadcast ground applications include high-volume foliar and cut-stubble treatments.

No existing vegetation that could provide shade, streambank stability, or large woody debris to streams occupied by anadromous fish would be removed. Otherwise, slash and debris would be lopped and scattered.

5. Determine revegetation methods if necessary

Areas would be replanted or reseeded with low-growing species when there are no existing low-growing species, or if there is a low potential for natural revegetation by low-growing species and a high potential for natural revegetation by tall-growing species to reinvade the site. Seeding would be completed when sufficient moisture exists to allow for two months of vegetative growth. Seeding could be completed any time of the year, except during the hot summer months. Table 4 gives the recommended seed mixture and their application rates.

Table 6. Suggested Seed Mixture to Reduce and Prevent Noxious Weeds.

Seed mixture		*Native?	Reason for seeding
Species	**% by weight**		
California Brome (*Bromus carinatus*)	30	Yes	Re-seeding after any soil disturbance, or when there is exposed bare soil will prevent the establishment of noxious weeds (i.e., after roadwork, mechanical treatments, landslides, or when bare ground is showing).
Sheep fescue (*Festuca ovina*)	20-40		
Blue wildrye (*Elymus glaucus*)	20		
Annual Ryegrass (Lolium multiflorum	20-40		
And			
Sickle-keeled lupine	5 oz./100# seed		
And/or			
Lupinus bicolor	5 oz./100# seed		
And/or			
America vetch (*Vicia americana*)	5 oz./100# seed		

*Native to the area. Westside Cascade Mtn. plant communities have limited natives that are available for re-seeding that are true natives to the site.

6. Determine monitoring needs

A BPA inspector would monitor work being performed. The Oregon Department of Agriculture has agreed to provide effectiveness monitoring. BPA would provide the USFS with Emergency Contacts for Fire Response Planning, which would include the 24-hour Dispatch Office and the Line Maintenance Foreman for the various areas. In addition, routine ground and aerial patrol would be performed by BPA.

Potential Project Work or Project Impacts that Are Different than those Disclosed in the *Transmission System Vegetation Management Program EIS*: The vegetation management methods and techniques that would occur during this project—manual cutting, mechanical cutting, and herbicides—are all addressed in the *Transmission System Vegetation Management Program EIS.* All of the potential project impacts—habitat modification, herbicide toxicity, adjuvant toxicity, soil erosion—have been disclosed previously in the FEIS. Strong mitigation measures from the FEIS and protective buffers would be applied to lessen potential impacts.

How Differences in Impacts Affect Natural Resources: There are no impacts expected from the proposed project work that were not disclosed previously in the FEIS. Therefore, no substantial differences in potential natural resources effects between those described in the FEIS and those expected from the proposed project.

Findings: The project is generally consistent with the Northwest Power Planning Council's Fish and Wildlife Program, as well as BPA's *Transmission System Vegetation Management Program EIS* (DOE/EIS-0285), ROD, and supplemental ROD. This Supplement Analysis finds that: (1) implementing the proposed action would not result in any substantial changes to the Transmission System Vegetation Management Program that are relevant to environmental concerns; and (2) there are no significant new circumstances or information relevant to environmental concerns and bearing on the Transmission System Vegetation Management Program or its impacts. This Supplement Analysis is tiered to the program-wide FEIS and ROD; therefore, no further NEPA documentation is required.

/s/ Kenneth Hutchinson
Kenneth Hutchinson
Environmental Scientist

CONCUR:

/s/ Thomas C. McKinney DATE: 12/03/2002
Thomas C. McKinney
NEPA Compliance Officer

Attachment:
Biological Evaluation Addendum for the Big Eddy-Ostrander Transmission Corridor
cc: (w/ attachments)

Environmental File - KEC
Official File – KEP-4 (EQ-14)
E. Thompkins – TFOP/LMT

cc: (w/o attachments)
L. Croff – KEC-4
T. McKinney – KEC-4
P. Key – LC-7
H. Adams - LC-7
J. Meyer – KEP-4
E. Stratton – KEP/Z992
J. Sharpe – KEPR-4
D. Hollen – TF/DOB-1
D. Krauss – TFO/Olympia
S. Martin – TFO/Olympia
D. Swanson – TFOP-LMT