

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
EUGENE DISTRICT OFFICE

WEST DANEBO WETLAND RESTORATION

ENVIRONMENTAL ASSESSMENT No. OR-090-98-26

**I. PURPOSE AND NEED FOR THE PROPOSED ACTION**

The West Eugene Wetlands (WEW) Project is a cooperative venture by the Eugene District, Bureau of Land Management (BLM), to protect and restore historic wetland ecosystems in the southern Willamette Valley of Oregon. This unique project involves federal, state and local agencies and organizations in partnership to manage lands and resources in an urban area for multiple public benefits. Major partners in the WEW Project include the BLM, City of Eugene, The Nature Conservancy, Lane Council of Governments, Army Corps of Engineers, and the Oregon Youth Conservation Corps. BLM became an active partner in 1993 when they adopted the local WEW Plan (WEWP) (City of Eugene 1992). To date the BLM has been involved in habitat restoration and land acquisition, with current ownership at approximately 1150 acres.

The purpose of this environmental assessment (EA) is to evaluate the potential environmental impacts of implementing a variety of land management actions on approximately 172 acres of BLM ownership within the West Danebo project area. This property is located in west Eugene in Sections 28, 29, 32, and 33, T.17S., R. 4W., W.M., Lane County, Oregon. The general project boundaries are State Highway 126 (West 11<sup>th</sup>) on the south, Danebo Road on the east, and the Southern Pacific railroad tracks on the north. The west side of the project area extends beyond the Terry Street corridor to the end of public ownership at Dead Cow Creek (see Location Map-Appendix 1). The area under consideration for this proposed action was purchased from three separate landowners from 1993 to 1996 by the BLM within the framework of the WEWP. The West Danebo site was identified in the WEWP as sites C2, C3a, A4E, and A4d and includes a section of Amazon Creek. Activity within the City of Eugene right-of-way along the Amazon Creek is not part of this EA.

The Proposed Action is intended to restore historic wetland types and habitats that naturally occur in the area. It is anticipated that these land management activities will be carried out over a 5 year period, at which time management of this unit would be re-evaluated. These activities may include wetland restoration and enhancement, upland habitat restoration, control of undesirable non-native plant species, prescribed fire, habitat enhancement for rare plant populations, wildlife habitat improvements, and public use. Activities occurring within the West Danebo project boundary on other public ownerships are addressed solely in the context as how that action will relate to the proposed BLM activities.

The West Danebo Project is strategically located along the Amazon Creek corridor and between

several parcels of land in public ownership that are all being managed under the WEW Project for natural resource goals. The long-term success of the entire WEW Project is dependent upon a connected and interdependent system, in which each unit provides a vital corridor for animal and plant life to the next. The restoration work on the West Danebo site would help insure the function of that corridor along Amazon Creek through enhancement of the quality of the plant communities and wildlife habitat. The West Danebo Project area is a habitat link between the open space of the City urban fringes and the rural lands outside of the urban growth boundary.

The Proposed Action and alternative are in conformance with the WEWP (City of Eugene 1992) and the "Eugene District Record of Decision and Resource Management Plan" (May 1995).

## II. PROPOSED ACTION AND ALTERNATIVES

### Proposed Action (Alternative A):

The WEWP outlined the overall concept for this area including the desired future condition after restoration and enhancement activities were completed. The proposed West Danebo Project activities are designed to meet that conceptual plan, with an emphasis on wet prairie in most areas. The goal of this project is to retain and enhance a mix of wetland habitats and to re-establish historic wetlands where they have been filled or degraded. Agriculture, grazing, and urban development have reduced the Willamette Valley's native wet prairies to less than 1% of the pre-settlement condition. From a habitat conservation standpoint, this is why emphasis has been placed on the protection and restoration of this plant community. In addition, burning by the Kalapuya Indians was a major influence on the wet prairies of the Willamette Valley prior to the mid-1800s. This is the the reason that prescribed burning plays a critical role in preserving these habitats under current management conditions.

The Proposed Action would incorporate a variety of land management activities on the West Danebo site with an emphasis on restoration and enhancement of Willamette Valley wet prairie habitat and integrating this with managed public use. Restoration actions would involve excavation and grading of approximately 13 acres to remove imported fill material, an old asphalt runway, a gravel-filled former taxiway apron and fill areas located west of the asphalt runway and just north of Highway 126. The fill material ranges from 6" to 3' in depth. Heavy equipment would be used to excavate the material to the level of the native wetland (hydric) soil. Following a finished grading that would include scattered vernal pool depressions throughout the site, the area would be seeded with native wetland species as appropriate for the site (see proposed planting list-Appendix 2). These fill removal sites are accessible without causing significant impacts to the existing wetlands. Disposal of the fill would occur off-site in authorized locations. Smaller isolated areas of fill and those areas with mature native trees would not be impacted and would be managed as upland. Hand removal and mowing would be used in succeeding years on the restoration areas to control weeds and other non-native plants.

The Proposed Action would also include restoration of several sections of the historic channel of Amazon Creek. The old channels have been identified from aerial photos and by the short lengths that still exist as oxbow sloughs. These areas were cut off from flow when the creek was channelized. Some of the filled channels will be excavated using heavy equipment and then be developed into an oxbow slough type habitat with woody riparian vegetation. Permanent water

control structures would be installed at the outlets of these sloughs to stabilize the existing site hydrology in some areas and allow manipulation of water levels in others to manage vegetation. Plans range from 5-9 water control structures to be installed on slough outlets to Amazon Creek. Half-round culvert risers would most likely be used because they allow precise adjustment of water levels and are economical. An existing oxbow channel on the north end of the project area is full of 3,000 automobile tires. These tires would be removed prior to any restoration work and disposed of in accordance with state regulations. A proposal to remove and dispose of these tires has been approved by Oregon Department of Environmental Quality.

Enhancement of the wet prairie habitat would focus on the removal of woody vegetation (primarily hawthorn, pear, ash, rose, and blackberry) where it threatened or degraded wet prairie habitat through succession, especially in the area of rare plants. In addition, non-native herbaceous vegetation would be removed in all habitats where feasible to enhance native habitats. Techniques used could include mowing (multiple times per season, if necessary), tilling, mechanical removal, propane burning, and hand removal. In some areas, the use of plastic sheeting for solarization (a method to heat the soil and kill undesirable vegetation and seeds) may be used. Prescribed burning would be planned and implemented on established wet prairie sites following other treatments of woody vegetation, most likely mowing. It is anticipated that this will be an ongoing task, however this work should be reduced to occasional maintenance over time as seed sources are removed and native species become established. Blackberries would be virtually eliminated in some areas and simply controlled in others, depending upon site-specific objectives such as providing food and cover for a diversity of wildlife. Teasel, thistle, and Scot's broom would be controlled to prevent further expansion into the area. Existing trees and shrubs will be maintained as screening buffers for wildlife habitat along the eastern side of the project area and in other select locations where such buffers are considered functional to enhance wildlife use of the entire site or to improve the overall visual quality. Vegetation control activities would occur from spring through fall, depending on the optimum window for each species, the specific botanical recommendations relative to the surrounding plant community, and the potential impacts to wildlife (ie. nesting birds). The use of herbicides is not being considered as part of this proposed action.

The associated uplands would be managed to compliment the wetland system in addition to providing areas of restoration of native plant communities. The large upland area in the northeast corner of the project, including City of Eugene ownership, was historically upland prairie and will be managed as such. Measures to control non-native vegetation would be similar to those listed for wetland habitats.

Measures would be implemented in order to comply with City of Eugene ordinances regarding vegetation adjacent to public roads. Cleanup and removal of trash would occur on a periodic basis as necessary. Seed collection would be employed across the site to gather native seed for additional wetland restoration work in the WEW Project area. Wildlife habitat improvements could include bird nest boxes or nesting structures, bat boxes, basking/loafing logs for pond turtles and birds, brush piles, and perching sites. These features may be used where wildlife viewing opportunities exist or there is high potential for wildlife utilization.

The Proposed Action would accommodate public use as compatible with the site habitat restoration. An area of upland along Danebo Road would be retained for future use as a small public parking area opposite the BLM WEW Project Office. A short hiking trail into the site may

be developed. This trail would be located primarily on uplands, however wetland areas would be traversed with boardwalks to avoid wetland fill impacts. Due to the proximity of the BLM WEW Project Office, it is anticipated that school groups using the existing facilities at the WEW BLM Project Office for environmental education would be the primary public use of the area. Secondary use would come from local business employees, the general public using the Fern Ridge Bike Path, and birdwatchers. A wildlife viewing platform would be constructed just north of Amazon Creek on the edge of an emergent wetland. This site has an existing pullout from the Fern Ridge Bike Path.

Alternative B: The No Action Alternative would be to leave the West Danebo area in a general unmanaged condition, with the exception of minimal mowing or other measures to control undesirable non-native vegetation and noxious weeds, including compliance with state and local regulations. Over time woody vegetation would gradually overtake much of the existing wetland prairie and potentially reduce populations of rare plants. The asphalt and gravel runways would remain in their present condition. The seasonal ponded areas would stay in a similar habitat condition. Removal of the tires from the oxbow slough would proceed but no major habitat enhancement work would occur. Some wildlife habitat enhancement such as placement of nest structures or boxes could still take place under this alternative. Seed collection from native wetland plants would continue in established sites. Public use would continue as currently allowed under WEW Project regulations.

### **III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

#### Existing Conditions

The existing conditions are a result of a variety of land use practices, including agriculture, drainage, industrial use (wood products), and an airport with asphalt and gravel runways. Borrow areas excavated for the airport runways are now emergent wetlands. Fill was dumped in an uneven pattern in several places, likely originating from offsite or from spoils as a result of past dredging of Amazon Creek. The site contains a mix of wetland types, including emergent, wet prairie, forested, and scrub-shrub. Wetlands presently cover approximately 125 acres of the 172 acre project area. Three mitigation projects have occurred at various locations, including two that are well established wetland habitats. One project created a one acre emergent wetland just south of Atlantic Street to mitigate for public road construction. A second project removed several acres of asphalt runway, which now has become well established wet prairie. The third project is under construction near Atlantic and Pacific Streets, and will restore approximately 3 acres of wet prairie habitat. Remnants of the historic Amazon channel remain in several places adjacent to the existing channel, however past land use practices have filled other channel sections. The remaining sections function as oxbow sloughs but all are drained into Amazon Creek by unregulated culverts. One portion of historic channel adjacent to Amazon Creek and near the north end of the project area is packed with approximately 3,000 automobile tires.

Most water on the project area originates from fall, winter, and early spring precipitation, when the dominant wetland clay soils swell and pond water. The exception to this is the area south of Amazon Creek near West 11<sup>th</sup> Ave., which receives stormwater runoff from the watershed south of the project area. The site is completely dry in the late summer with the exception of Amazon Creek and some shallow emergent areas on the south end of the project. Water generally sheet

flows towards the Amazon Creek from the south and west, except the in central area where water flows northwesterly before it reaches east-west drains and then reaches the Amazon. Danebo Road traps most stormwater on the east side, and this water is piped directly to Amazon Creek. The normal flow of Amazon Creek is approximately 10' below the level of the surrounding area, but this does not have a direct impact on the ponding across the project area. Active beaver dams maintain water levels between West 11<sup>th</sup> and Amazon Creek. Drainage from irrigation south of West 11<sup>th</sup> contributes to the water in this area during the summer and early fall.

Wildlife use of the project area includes but is not limited to waterfowl, small passerine birds, red-tail and red-shouldered hawks, kestrels, great blue and green herons, nutria, red fox, blacktail deer, and small mammals. Wood ducks, kestrels, and swallows have used nest boxes on the project area. A mockingbird, a rarity for Lane County, spent much of last winter in the area. Pond turtles have not been found within the project area but the southern portion of the project appears to have suitable habitat. Bullfrogs, pacific tree frogs, and several species of snakes inhabit the site.

Public use of the site is currently dominated by users of the Fern Ridge Bike Path, which traverses the southern portion of the project area along the north bank of Amazon Creek. In addition, bird watchers venture out seasonally through the project area. Illegal off-road vehicle use has occurred off Atlantic street on the north end. No hunting is allowed within the project area because it is all within the Eugene city limits.

#### Impacts of the Proposed Action (Alternative A).

**Threatened and Endangered Species:** The Proposed Action is considered to be "No Affect" on federally listed(or proposed for listing) animal species. However, it is considered to be "May affect, but not likely to adversely affect" on the Willamette Valley daisy (*Erigeron decumbens*), a wetland prairie plant that has been proposed for listing as threatened. The activities expected to impact this plant are woody vegetation removal and prescribed fire. Both these actions have been shown to enhance populations of the Willamette Valley daisy in suitable habitat. The BLM will conference with the US Fish and Wildlife Service on the Proposed Action, and expects a letter of concurrence to proceed. Any recommendations from the US Fish and Wildlife Service will be incorporated into the project implementation.

**Vegetation:** Non-native vegetation would be removed during restoration activities and over time replaced with native plant species, originating from locally collected seed. Several rare plant species (BLM Special Status) are present in the project area and will likely benefit from the proposed treatments including woody vegetation removal and prescribed fire. Some areas will be identified as construction travel lanes, which will result in trampled vegetation and compacted soils. These areas will be pre-selected to minimize the impacts to native plant communities and where feasible will be restored. Some travel lanes may be maintained as such for future management activities. Woody vegetation, primarily non-native rose, hawthorn, and pear, will be removed from much of the existing prairie. In addition, native Oregon ash will be removed in some areas where the trees impact native wet prairie, especially rare plant populations. In some cases only the female (seed-bearing) ash trees will be removed, retaining the non-seed producing male trees to provide wildlife habitat and screening from the developed edges. Existing patches of ash woodland will be maintained.

**Wildlife:** Work on the project would be done in the late summer after bird nesting has been completed, so impacts on wildlife are minimized. Some areas will be changed from a scrub-shrub type habitat to a more open grassland community, so there will be a shift in the suite of birds that currently use the site to birds more associated with wetlands and grassland habitats. Small mammals may be displaced as the upland fill areas are restored to wetlands. Increased public use of the site would likely result in disturbance of some species, but it is considered only a short term impact as many species using the area are adjusted to public activity.

**Cultural Resources:** Site reviews have indicated there are no known cultural resources in the West Danebo project area, so no cultural resources are expected to be affected by the proposed action.

**Irreversible and Irretrievable Commitments of Resources:** There are no irreversible or irretrievable resources affected by the Proposed Action.

**Cumulative Effects:** This proposal is not expected to result in negative cumulative effects such as sedimentation.

**Soils:** The Proposed Action would not result in significant changes to soil resources. Imported soil and asphalt covering existing wetland soil will be removed.

**Wetlands/Water Quality:** There are no anticipated impacts to water quality from the Proposed Action. Manipulation of vegetation within a wetland and restoration of historic wetland sites covered with fill material do not require permits from the U.S. Army Corps of Engineers and the Oregon Division of State Lands to comply with Section 404 of the Clean Water Act and other regulations. All enhancement of wetlands that involves ground disturbance will be done in accordance with all state and federal permit requirements, and work would be conducted during the dry summer season.

**Hazardous Materials:** The proposed wetland restoration areas include land that was previously used as an airplane runway, having road-type improvements such as gravel, asphalt or fill. A Level 1 environmental assessment was completed before the BLM obtained the property in 1993. The environmental assessment found no hazardous waste or toxic materials. Disposal of the asphalt will be done at authorized sites, most likely local sand and gravel company disposal pits. The operation of heavy equipment as necessary to implement the Proposed Action would take place during the summer and early fall when the seasonal wetlands, are dry, so the chance of diesel fuel or hydraulic fluid spills into water during the operation of heavy equipment is minimal. Spill containment kits would be available in the event of a spill, and removal, transport and disposal would be done in accordance with the U.S. Environmental Protection Agency and Oregon Department of Environmental Quality laws and regulations.

**Air Quality:** The Proposed Action would not exceed the Department of Environmental Quality ambient air pollution standards. All prescribed burning would be done in compliance with the Lane Regional Air Pollution Authority. Airshed impacts would be short-term and minimal. All burning within the City limits of Eugene would be done under the existing variance to the open

burning regulations granted to the WEW Project to enhance native wetland habitats.

Alternative B: The No Action Alternative would be to leave the West Danebo property in a general unmanaged condition and would not significantly change the existing conditions. Successional changes would gradually occur as the woody vegetation would gradually encroach the wetland prairie areas. Areas of fill and asphalt surfaces would remain unaltered as upland. Populations of rare plants would most likely lose viability and decline. There would be no short-term impacts to the airshed from prescribed fire treatments. Public use would remain as currently exists under the rules for the WEW Project lands.

#### IV. CONSULTATION AND COORDINATION

In compliance with Section 7 of the Endangered Species Act of 1973 (as amended), the BLM will conference with the U.S. Fish and Wildlife Service concerning the Proposed Action. It is anticipated that we will receive concurrence from them to proceed with this project because the activities proposed will both protect existing rare plant populations and most likely improve habitat conditions for those species.

Specialists used for preparation and coordination of this EA include:

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Jeff Krueger	Lane Council Of Governments
Steve Gordon	Lane Council of Governments
Louis Kroeck	City of Eugene, Public Works, Water Resources Team
Jason Blazar	" " " " " " " "
Andy Robinson	U.S. Fish and Wildlife Service, Endangered Species

Prepared by: Jonathan Beall

Date: 6-17-98

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT EUGENE DISTRICT OFFICE

Environmental Assessment No. OR090-98-21

Preliminary Finding of No Significant Impact

**Proposed Action:** The Proposed Action is to proceed with projects to restore historic native wetland habitat during the next five years. Management objectives are to increase the viability and density of rare plant populations; to convert historic wetlands to wet prairie habitat through removal of fill and asphalt; to enhance wet prairie habitat through the removal of woody vegetation and periodic prescribed fire; to control non-native vegetation; and to allow controlled public use of the site in accordance with WEW project area regulations.

On the basis of the information contained in the attached Environmental Assessment, and all other information available, it has been determined that the proposal does not constitute a major Federal action affecting the quality of the human environment. Therefore, an Environmental Impact Statement or a supplement to the existing Environmental Impact Statement is not necessary and will not be prepared.

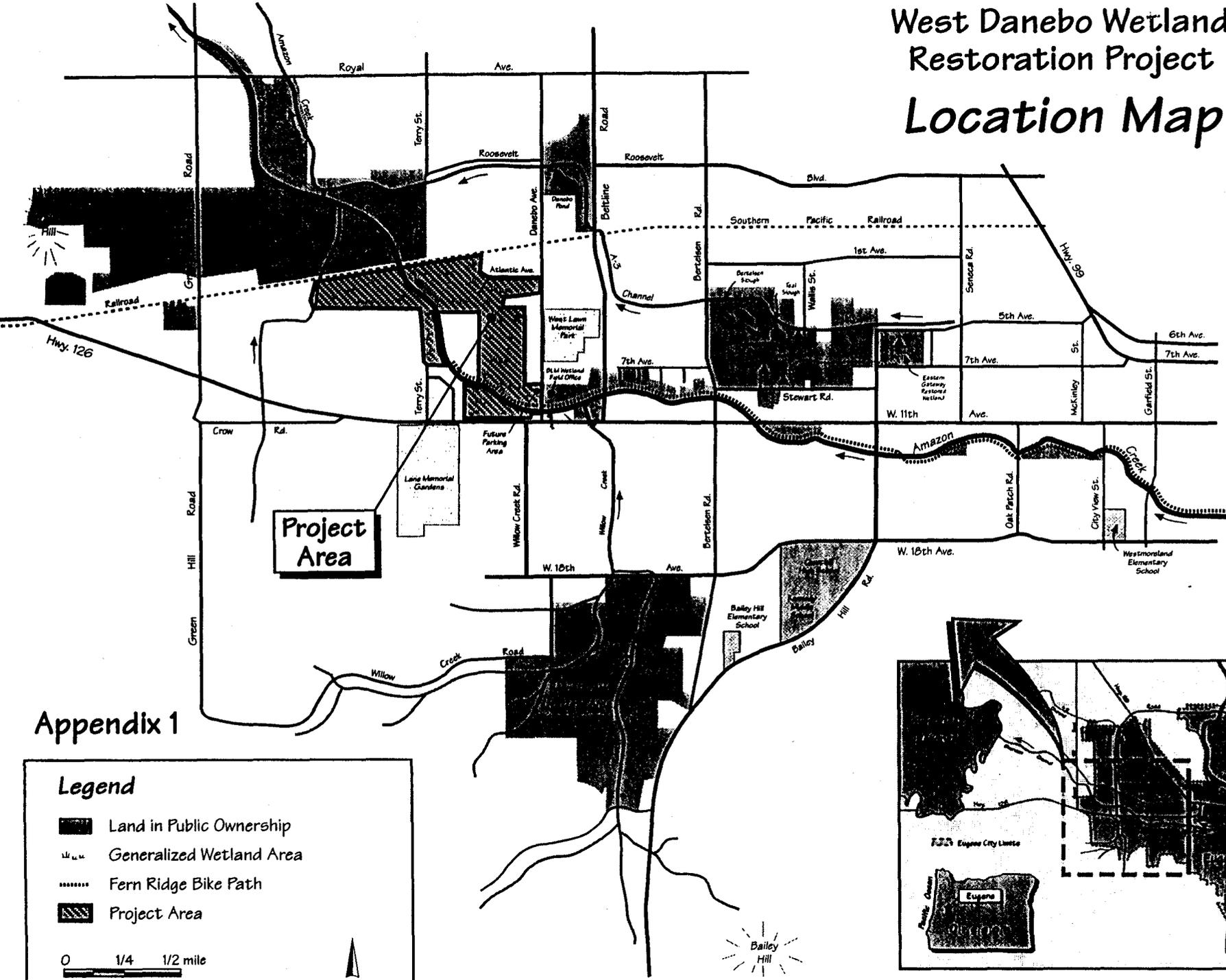
Rationale

The Proposed Action would be consistent with proven techniques to enhance habitat for Bureau Special Status plant species. The proposed action and alternatives are in conformance with the West Eugene Wetlands Plan (City of Eugene 1992) and the "Eugene District Record of Decision and Resource Management Plan" (May 1995).

## Emergent Wetland

	Scientific Name	Common Name	Indicator Status
Dominant species; approximately 60% to 70% of the seed ing will be with the following:			
Graminoids	<i>Beckmannia syzigachne</i>	Slough grass	OBL
	<i>Hordeum brachyantherum</i>	meadow barley	FACW
	<i>Carex densa</i>	dense sedge	OBL
	<i>Carex ovalis (leporina)</i>	hare sedge	FACW
	<i>Carex unilateralis</i>	one-side sedges	FACW
Forbs	<i>Downingia elegans</i>	common downingia	OBL
	<i>Eryngium periolatum</i>	coyote thistle	OBL
	<i>Plagiobothrys figuratus</i>	fragrant popcorn-flower	FACW
Smaller amounts of the following will be seeded as available:			
Graminoids	<i>Artstida oligantha</i>	prairie threeawn	NOL
	<i>Deschampsia danthonioides</i>	annual hairgrass	FACW-
	<i>Glyceria occidentalis</i>	northwestern mannagrass	OBL
	<i>Juncus nevadensis</i>	Sierra rush	FACW
	<i>Juncus oxymeris</i>	pointed rush	FACW+
Forbs	<i>Grariola ebracteata</i>	bractless hedge-hyssop	OBL
	<i>Lasthenia glaberrima</i>	smooth lasthenia	OBL
	<i>Rumex salicifolius</i>	willow dock	FACW
	<i>Veronica scutellata</i>	marsh speedwell	OBL

# West Danebo Wetland Restoration Project Location Map



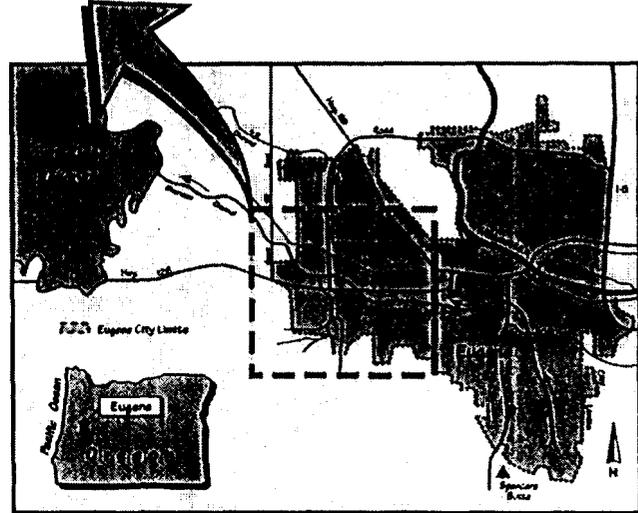
## Appendix 1

**Legend**

- Land in Public Ownership
- Generalized Wetland Area
- Fern Ridge Bike Path
- Project Area

0 1/4 1/2 mile  
Scale

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# Proposed Planting Lists

## Wet Prairie Wetland

Scientific Name	Common Name	Indicator Status
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Dominant species; approximately 60% to 70% of the seed ing will be with the following:

<b>Graminoids</b>	<i>Agrostis exarata</i>	spike bentgrass	FACW
	<i>Carex densa</i>	dense sedge	OBL
	<i>Carex leporina</i>	hare's-foot sedge	FACW
	<i>Carex unilateralis</i>	one-sided sedge	FACW
	<i>Danthonia californica</i>	California oat-grass	FACU-
	<i>Deschampsia cespitosa</i>	tufted hairgrass	FACW
	<i>Juncus nevadensis</i>	Sierra rush	FACW
	<i>Juncus tenuis</i>	slender rush	FAC
<b>Forbs</b>	<i>Aster halii</i>	Hall's aster	FAC
	<i>Camassia quamash</i>	common camas	FACW
	<i>Dowlingia elegans</i>	blue calico-flower	OBL
	<i>Eriophyllum lanatum</i>	wooly sunflower	NOL
	<i>Gratiola ebracteata</i>	bractless hedge-hyssop	
	<i>Microseris laciniata</i>	cut-leaf microseris	NOL
	<i>Plangiobothrys figuratus</i>	fragrant popcornflower	FACW
	<i>Potentilla gracilis</i>	slender cinquefoil	FAC

Smaller amounts of the following will be seeded as available:

<b>Graminoids</b>	<i>Beckmannia syzigachne</i>	American slough grass	OBL
	<i>Carex lanuginosa</i>	Woolly sedge	OBL
	<i>Luzula campestris</i> var. <i>multiflora</i>	field woodrush	FACU
	<i>Panicum occidentale</i>	western panic-grass	FACW
<b>Forbs</b>	<i>Boisduvalia densiflora</i>	dense spike-primrose	FACW-
	<i>Eryngium petiolatum</i>		OBL
	<i>Galium trifidum</i>	small bedstraw	FACW+
	<i>Grindelia integrifolia</i>	gumweed	FACW
	<i>Lomatium nudicaule</i>	barestem lomatium	NOL
	<i>Lotus formosissimus</i>	seaside trefoil	FACW+
	<i>Lotus purshianus</i>	Spanish-clover	NOL
	<i>Montia linearis</i>	narrow-leafed montia	NOL
	<i>Orthocarpus bracteosus</i>	rosy owl-clover	NOL
	<i>Perideridia gairdneri</i>	Gairdner's yampah	FACU
	<i>Prunella vulgaris</i> ssp. <i>Lanceolata</i>	self-heal	CU
	<i>Ranunculus occidentalis</i>	western buttercup	FACW
	<i>Ranunculus orthorhynchus</i>	straightbeak buttercup	FACW-
	<i>Saxifraga oregana</i>	Oregon saxifrage	FACW+
	<i>Sidalcea cusickii</i>	Cusick's checkermallow	NOL
	<i>Sisyrinchium idahoense</i>	blue-eyed grass	FACW
<i>Wyethia angustifolia</i>	narrow-leaf muleears	FACU	
<i>Zigadenus venenosus</i>	death camas	FAC	