

Appendix B. Environmental Assessment

1792A
OR0090-EA-01- 8
2870
OR 53041, Amend

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

West Eugene Wetlands Recreation, Access and Environmental Education Plan

**ENVIRONMENTAL ASSESSMENT NO. OR-090-01- 8
(Revised June 14, 2001)**

I INTRODUCTION

A. Need for the Proposed Action

The West Eugene Wetlands covers over 8,000 acres of mixed public and private ownerships that are influenced by management actions that occur on the roughly 2,200 acres of B.L.M., City of Eugene, ODOT and lands dedicated to the enhancement and management of wetlands resources. Management of this wetlands area has been a loosely coordinated, often piecemeal effort that does not always provide a comprehensive or inclusive approach to management of wetlands goals and values as expressed in the West Eugene Wetlands Plan of 1992. The increasing use of the wetlands for public recreational and educational uses, including the continuation of the Amazon/Fern Ridge Bike Path toward Fern Ridge Lake, has made it apparent that a reasoned approach to managing public recreation, access and education activities within the wetlands is necessary. The West Eugene Wetlands Recreation, Access and Environmental Education Plan is the effort to provide coordinated, consistent management of the public uses of the wetlands and the resources therein. This Environmental Assessment addresses the anticipated effects of implementing that plan.

A major development feature within the plan is the Amazon/Fern Ridge Bike Path continuation through the wetlands. The portion of this bike path right-of-way between Terry Street (south) and the railroad was previously assessed under Environmental Assessment No. OR090-EA-96-31, which is incorporated herein by reference.

In December, 2000, the Bureau of Land Management received a right-of-way application from the City of Eugene to construct and operate a bicycle/pedestrian path across public land located in SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 29, Township 17 South, Range 4 West of the Willamette Meridian. The lands are more particularly described in the attached Appendix C. The proposed path is an extension of an existing path which was fully analyzed in Environmental Assessment No. OR090-EA-96-31. The general location of the proposed path, approximately 400 acres of public lands and City of Eugene lands, has recently been the subject of a wetland restoration project sponsored by the City of Eugene and the U. S. Army Corps of Engineers, known as the Amazon Creek 1135 Project. The wetlands restoration project was designed to accommodate the proposed bicycle/pedestrian path. This Environmental Assessment will analyze the impacts of the specific route and design of the proposed bicycle/pedestrian path where it crosses public lands administered by the Bureau of Land Management.

B. Conformance with the Land Use Plan

The Bureau of Land Management, Eugene District, officially adopted the West Eugene Wetlands Special Area Study Plan as the land management plan for those lands acquired with Land and Water Conservation Funds for the West Eugene Wetlands Project on March 23, 1993. The proposed action is consistent with the adopted plan.

C. Relationship to Statutes, Regulations, or Other Plans

Management of the project area is not within the scope of the Record of Decision and the Standards and Guidelines of the Northwest Forest Plan (U.S. Dept. Agric. & U.S. Dept. Interior 1994). The proposed action complies with the Eugene District Record of Decision and Resource Management Plan (United States Bureau of Land Management 1995).

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The Proposed Action is to implement those actions listed in Part III - The Management Plan of the WEW Plan.

The management plan includes a number of individual management actions designed to provide resolution to 3 Major Issues (see Part III) developed with and through public participation in the planning process. For each Major Issue, a set of possible resolutions or management actions was identified. From the possible management actions, a set of actions which in combination best resolved the issues was selected.

The management plan includes actions which represent changes in degree, approach to and intensity of the B.L.M.'s recreation management direction or policy within the WEW, and identifies the support facilities, staffing, cooperating relationships, and other actions needed to implement the plan.

With the exception of the Fern Ridge/Amazon Bicycle Path, this environmental assessment does not address the environmental impacts associated with construction of individual facilities where major surface-disturbing actions may occur. Each major facility development surface disturbing project will require a separate additional environmental assessment after project and construction plans are developed.

It is proposed that the wetlands recreation, access and educational functions be managed consistently with 4 visitor management areas (VMA) as described below (and in further detail within the plan document):

Visitor Management Area 1.

Within VMA 1. protection of natural and cultural resources would be emphasized, however concentrations of visitors and the imprint of human use would be apparent. These areas would contain some on-site controls (such as fencing) designed to protect cultural and / or other resources.

Visitor Management Area 2.

VMA 2. actions are designed to orient and inform visitors while they are still within the transition area between urban or rural development and the semi-primitive parts of the WEW. The proposed orientation, guide, regulatory and interpretive signs and contact stations should provide for a better informed visiting public which would reduce problems due to lack of preparedness and provide opportunities to increase their knowledge of the area's natural and cultural resources and appropriate behavior within the WEW's various environments. Visitors who do not have the ability or desire to experience the more primitive parts of the WEW would have the opportunity to learn about the area's natural and cultural features, as well as B.L.M.'s management programs, from static displays, brochures and contact with B.L.M. personnel and volunteers.

Visitor Management Area 3.

VMA 3. would provide a subtly controlled opportunity for visitors to learn about and experience the area. Provision of trails and interpretive stations will help protect the fragile ecosystem from uninformed specimen collection or other types of abuse. Provision of hardened parking areas and other intensive use oriented facilities would protect this area's riparian sites also. Visitor safety would also be enhanced through the combination of physical structures and informational services.

Hiking trails would be planned and constructed to avoid special habitats and cultural sites. Parking areas and intensively used developments would be located to minimize impacts upon sensitive resources. Visitor safety would be enhanced through the provision of planned facilities and avoiding dangerous locations. Information would be disseminated through personal contacts, signing, maps and brochures.

Visitor Management Area 4.

VMA 4. would provide a highly structured opportunity for students and visitors to study about and work on the wetlands various opportunities. This area would be substantially or totally modified to accommodate the wetlands' research, teaching, administrative and maintenance functions. Also, this area would contain facilities for use by visitors, staff and students, including but not limited to vehicle parking, toilets, interpretive and educational classrooms, etc.

Total Area

Many of the proposed management actions affect the total WEW and are designed to improve visitor experiences while protecting the natural environment, cultural resources, and improving the human relationships between visitors, the managing agency, and the local community. Conflict reducing measures include designing roads and trails to reduce the likelihood of visitor trespass, or increasing B.L.M. and volunteer presence to enhance the opportunity to contact and inform visitors. Both emergency services and law enforcement would be enhanced through better cooperation with local agency providers. Potentially deleterious impacts associated with commercial services would be controlled and mitigated through a permit system. Impacts from excessive visitor use or use of fragile sites would be controlled by limiting numbers of visitors and directing them away from fragile sites or habitats. Cooperating relationships with volunteer organizations, other agencies and groups would help reduce total costs for projects and services while improving resource protection and public services. Restrictions on fires would help reduce the probability of disastrous wildfire during high fire danger periods.

The proposed action includes the issuing of a right-of-way grant to the City of Eugene for a perpetual term pursuant to the authority of Title V of the Federal Land Policy and Management Act of October 21, 1976 (43 U.S.C. 1761), subject to the terms and conditions of 43 CFR 2800 and those additional stipulations in the attached Exhibit B. The right-of-way grant would authorize the construction, operation and maintenance of a bicycle/pedestrian path, including two bridges, over public domain land located within the West Eugene Wetlands. The requested right-of-way is approximately 6,968 feet in length, and 40 feet in width with an additional 20 feet (10 feet on either side) of temporary width for construction activity and occupies 6.4 acres, more or less, of public land.

The bike path is proposed to be an eight-inch thick cement walkway. A 20' wide footprint includes the path and a skirt composed of soil or crushed rock. All construction activities (including stockpiling of materials) would take place on ground that has previously been disturbed and within a designated right-of-way. The current project footprint follows the existing, seasonally-used dirt road, passes onto an existing levee, and then passes onto ground previously disturbed as part of the 1135 wetland restoration project. The proposed project would extend a bike path 1.4 miles from Terry St. (where it currently ends) to the intersection of Greenhill and Royal Ave. The bike path would be constructed to the current grade of the seasonal road with no additional build-up. The City of Eugene proposes to seed the edges with native upland/wet prairie species including *Elymus glaucus*, *Deschampsia cespitosa*, *Hordeum brachyantherum*, and *Agrostis exarata*. The bike path would be built in segments. Construction of the bike path would take place from May to November 2001 and 2002 when soils are typically dry. No construction would occur from May to July 1 in the Oxbow West site during the flight and egg laying season of the Fender's blue butterfly. When completed, the path would be lighted at night for public safety. Any required mitigation measures from the U.S. Fish and Wildlife Service would be incorporated into the project implementation.

Below is a list of design features to reduce potential affects to listed species (provided by the City of Eugene in response to USFWS queries and suggestions). Design features were added by BLM resource specialists to address erosion, sediment and soil disturbance concerns, western pond turtle concerns, and noxious weed / nonnative vegetation concerns. These measures are part of the proposed action.

B. Design Features of Proposed Action to Reduce Potential Affects to Listed Species:

1. During Construction (2001-2002):

Concern: Individuals of Fender's blue butterfly could be killed if construction were to occur during the flight and egg-laying period of the butterfly (May - July).

Design Feature 1 - Avoid working in the Oxbow West site until after July 1, 2001. The Oxbow West site is described as the west levee top between S. Terry Street and the rail road to the north.

Comments: The City of Eugene anticipates that work on the Fern Ridge Bike Path project will not start before July 1, 2001. In the event work begins sooner than anticipated, the City would direct the contractor to avoid working or traveling with motor vehicles in the area.

Design Feature 2 - Avoid working in the Oxbow West site between April 15, 2002 and July 1, 2002. "Working" includes regular or frequent vehicle traffic or self-mobilizing machinery.

Comments: This would be written into the contract as a requirement before the contract is advertised and awarded. It is anticipated that the project would take two years to construct and the contractor can complete work in other areas during this closed period.

Concern: Butterflies could mistake artificial lighting for a rising sun (particularly in morning hours) and may fly toward the lights.

Design Feature 3 - (Hammond, 2001; butterfly expert, The Nature Conservancy): Install lights greater than 70 feet away from the lupines (and butterflies), or direct the main beam of lights away from the lupine plants.

Comments: Along the entire length of the bicycle path extension, the beam would be directed at pavement. Three sides of each light would have light shields. The minimum spacing between lights is 150 feet. In the area of concern, flags would be placed prior to the installation of lights to guide contractors in placing lights as far from the lupine plants as possible.

Concern: Potential change in hydrology in the area of Kincaid's lupine due to construction of the bicycle trail.

Design Feature 4 - Construct bike path subgrade and finished surface to avoid impacting surface hydrology. For the stretch of the path immediately adjacent to the Kincaid's lupine and Fenders blue butterfly populations, the finished surface would match the existing surrounding grade. Culverts would be placed as needed to allow for proper drainage.

Comments: The existing surface elevation of the gravel levee top is higher than surrounding areas and is much higher in certain areas. There is currently no surface flow from the vicinity of the lupine and butterfly population that passes through the bike path alignment except for existing culverts that are far below the grade (several feet). This evaluation was confirmed by the Eugene District BLM hydrologist and further supported during a field visit by a US Fish & Wildlife Service botanist.

Concern: During construction activities, large construction vehicles could inadvertently destroy plants and butterfly habitat while moving about the area.

Design Feature 5 - Protective fencing and restrictive signage would be placed along the boundary of the work area to ensure that no vehicles or equipment leave the designated work area.

Comments: The City of Eugene's construction inspector would be on site daily and would monitor the protective fencing and signing. Black silt fencing installed to meet ground level with no trenching or earth movement would be installed with orange construction fencing placed 5 feet behind the silt fence. Signs reading "STOP - DO NOT ENTER" would be placed on lathe stakes every 50' in front of the black silt fence as an additional measure to ensure no trespass during construction. Contractor awareness training would take place prior to construction. The foreman would check the condition of the fence and report any problems immediately. West Eugene Wetlands biologists would bio-monitor regularly (daily during construction in the Oxbow West site).

Concern: Heavy textured soils have low strength properties when wet.

Design Feature 6 - Construction of the bike path would take place from May to November 2001 and 2002 when soils are typically dry. No construction would occur from May to July 1 in the Oxbow West site.

Concern: On site erosion and potential for sediment delivery to waterways from construction sites.

Design Feature 7 - On site erosion and potential for sediment delivery to waterways from construction sites would be minimized by use of sediment control structures (i.e. straw bales, silt fencing).

Concern: Excessive disturbance to wetlands adjacent to the bike path due to construction activities.

Design Feature 8 - Area used as construction corridor for bike path construction would be limited to the 40 feet right of way width with an additional 20 feet (10 feet on either side) of temporary width for construction purposes.

Concern: Disturbance to the western pond turtle caused by people moving along the new pathways during both construction and subsequent utilization of the bike path.

Design Feature 9 - Surveys for western pond turtles and their nests would occur within and adjacent to the proposed construction area of the bike path extension. Any nest sites found would be protected during this project (either by exclosures or by removing eggs, hatching in captivity and releasing back to the wetlands).

Design Feature 10 - Besides their utility for preventing erosion, silt/drift fences would be used where appropriate to direct turtles away from construction activities.

Comment: Design Feature 16 below would also provide visual screens to minimize disturbance to western pond turtles.

Design Feature 11 - When construction activities occur near Amazon Creek and the A-3 Channel, basking logs would be placed upstream or downstream where appropriate to attract turtles away from the construction area.

Concern: The potential for the spread of noxious weeds and nonnative plants.

Design Feature 12 - To prevent the spread of noxious weeds and nonnative plants, all heavy construction equipment would be cleaned to remove mud, debris, and vegetation material prior to arriving at the project site. Heavy equipment means any equipment that has the capacity to disturb or compact soils or waterway channels, e.g., back-hoes, bulldozers, cranes, and trucks.

Comment: The City of Eugene also proposes to seed the edges with native upland/wet prairie species including *Elymus glaucus*, *Deschampsia cespitosa*, *Hordeum brachyantherum*, and *Agrostis exarata* (Design feature 17 below). This would also contribute to the prevention of the spread of noxious weeds and nonnative plants.

2. Post Construction Operating and Maintenance (2002 & beyond):

Concern: Individuals of Fender's blue butterfly could be killed if maintenance were to occur during the flight and egg-laying period of the butterfly (May - July).

Design Feature 13 - Postpone regular or periodic mowing along the bike path shoulders until after July 1st of each growing season.

Comments: The City of Eugene maintains its bike path shoulders with annual mowing along the edges of the path extending out approximately 10' from the edge of the path. A schedule is developed by the Natural Resource Maintenance Lead Worker each year for the mower operators to follow. The Natural Resource Maintenance Lead Worker was present during the field visit and would design all future scheduling to begin after July 1st in the area of the lupine and butterfly.

Concern: The increased access and educational opportunity provided by a bicycle trail would increase the potential for pedestrian traffic into sensitive species locations.

Design Feature 14 - Avoid specificity regarding locations and species identification in any interpretive signage placed in the area.

Comments: The City of Eugene and the Eugene District BLM anticipate placing interpretive signage along the Fern Ridge Bike Path at designated locations. No signage is planned for the area immediately adjacent to the path but signage may be installed at other locations with the area defined above. Under no circumstances

would the location of a specific population of sensitive plant or animal species (including the lupine and butterfly) be specifically identified on the signage so that a reader could use the information to locate a sensitive plant or animal community.

Design Feature 15 - Avoid outdoor education activities that could indirectly or unintentionally harm the species.

Comments: The City of Eugene and the Eugene District BLM would not support any public education or tour group activity that could have an impact on the lupine or butterfly (i.e., no "butterfly" nets would be used as an education activity and no tours would occur off of the path in this location).

Design Feature 16 - Appropriate (i.e., non-invasive) barrier shrubs or trees to minimize exit opportunities by off-road bicyclists and to provide visual screens to minimize disturbance to western pond turtles would be planted as needed.

Comments: The City of Eugene or the Eugene District BLM would investigate opportunities to plant native small trees or shrubs to deter bike path users from leaving the bike path. It is not desirable however to plant the entire length of the path but there may be strategic locations that could work. One such location is the end of south Terry Street. Planting male Oregon ash trees or native hawthorne in this location could present a visual barrier and therefore deter potential off road bicyclists from attempting to navigate through the area with the lupine or butterfly.

Concern: Would the construction of the bicycle trail preclude normal expansion of listed species into areas of suitable habitat?

Comments: The construction of the bicycle trail should not preclude normal expansion of listed species into areas of suitable habitat. Geographic and man-made barriers already currently exist. For the Oxbow West site, the Amazon Creek is a barrier to east expansion and the railroad is a barrier to the north. The proposed bicycle trail on the Lower Amazon site would be constructed alongside Greenhill, Royal, and Roosevelt Avenues and the A-3 channel.

Concern: The potential for long term erosion in areas adjacent to the bike path and construction sites.

Design Feature 17 - Areas adjacent to bike path and construction sites would be promptly revegetated with appropriate native species to minimize long term erosion.

Comment: The City of Eugene proposes to seed the edges with native upland/wet prairie species including *Elymus glaucus*, *Deschampsia cespitosa*, *Hordeum brachyantherum*, and *Agrostis exarata*.

C. No Action Alternative

The No Action Alternative would be to not implement the Recreation, Access and Education Plan, including denial of the right of way application for the continuation of the Amazon/Fern Ridge Bike Path.

Under the No Action Alternative the WEW would continue to be managed under the general guidance provided by the West Eugene Wetlands Plan of 1992. The environmental and social problems identified by the public and described in the Major Issues (Part III.) of the Plan would for the most part remain unresolved because the BLM would not have sufficient planning in place (as required under Section 202, FLPMA) to address them.

III. AFFECTED ENVIRONMENT

The WEW existing environment is described briefly in Part I - Introduction of the West Eugene Wetlands Recreation, Access and Environmental Education Plan. For additional information see the references contained in the Reference section of the Plan.

A. Botany

The existing conditions are a result of a variety of land use practices, including agriculture, drainage, and industrial use. Much of the surrounding area is commercial/industrial interspersed with public land that is managed as the West Eugene Wetlands. The proposed bicycle/pedestrian trail extension would pass adjacent to a patchwork of mitigated wetlands and protected wet prairie and upland prairie habitat which includes some localized concentrations of rare plants. The proposed project area has had complete surveys for all Threatened and Endangered plants (Salix and Associates, 1996 and 1997; Weber, 1998; Marshall, 1999). The proposed path and recreation facilities described in the Recreation Access Plan would not enter into protected habitats.

The following botany affected environment section is organized according to project areas which are included in the Recreation Access Plan. The Fender's blue butterfly (*Icaricia icarioides fenderi*) is addressed within the botany discussion due to its close association with Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*).

Amazon Creek

The Amazon Creek runs adjacent to the proposed and existing bicycle/pedestrian path and facilities, flowing west and northwest through West Eugene. The creek receives storm-water runoff from the watershed south of the project area. Much of the wetland

within the channel is dominated by reed canary grass. Nonnative species tend to dominate the slopes and adjacent uplands as well. No rare plants are known to occur along the channel banks or within the creek bed. This area is not designated as critical habitat.

Since no Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*), host plant for larval Fender's blue butterfly (*Icaricia icarioides fenderi*), have been documented along the channel banks of Amazon Creek within the project area (exception: see discussion for transplanted Kincaid's lupine under "Lower Amazon Unit"), there is a low probability these butterflies occur in the immediate vicinity. Transitory butterflies may occasionally traverse this site in search of nectar sources. This butterfly is federally listed as Endangered.

Stewart Management Area

Viewing areas and walking trails are proposed for the Stewart Management Area. The landscape of this unit is diverse, including ponds, upland, wet prairie and riparian habitat, and oak/ash woodlands. Approximately five acres of wetland (Stewart and Grimes Pond and Teal Slough) received compensatory mitigation in 1995. Nonnative plant species are common throughout the management area. Penny royal and reed canary grass tend to dominate the ponds and slough, while blackberry is a dominant species in the woodland. Surveys for threatened and endangered plant species and wetland delineations have been conducted for most of the site (Stewart Pond- Salix and Associates, 1996; Stewart Woods- Marshall, 1999). No state or federally listed or proposed plant species occur within this management unit.

Since no Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*), host plant for larval Fender's blue butterfly (*Icaricia icarioides fenderi*), have been documented at this site, there is a low probability these butterflies occur in the immediate vicinity. Transitory butterflies may occasionally traverse this site in search of nectar sources. This butterfly is federally listed as Endangered.

Oak Hill Management Area (North Greenhill Ashgrove, Greenhill Prairie, Oak Hill)

This area has proposed walking paths, parking, and a viewing area. The management area contains an ash grove, remnant and restored wet prairie habitat, and upland/oak woodland habitat. Four BLM Special Status plant species occur at the Greenhill site within the Oak Hill Management Area: Federally-listed Endangered Bradshaw's desert-parsley (*Lomatium bradshawii*), the Federally-listed Endangered Willamette daisy (*Erigeron decumbens* var. *decumbens*), and two Species of Concern (Bureau Sensitive and Oregon State Listed), white top aster (*Aster curtus*), and shaggy horkelia (*Horkelia congesta* spp. *congesta*). A 1999 census of natural populations documented 79 plants of *Lomatium bradshawii*, 132 plants of *Horkelia congesta*, 372 crowns of *Erigeron decumbens* var. *decumbens* (1999 WEW Annual Report) and 5.9% & 36.3% *Aster curtus* within designated macro-plots. Greenhouse-grown plants of all of these sensitive

species have also been transplanted into a central location in the prairie restoration. An Environmental Assessment (OR090-96-21) was prepared for wetland restoration activities which occurred on this site.

Greenhouse-grown plants of the Federally-listed Threatened Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*) have been transplanted at this site in the restored wetland. Kincaid's lupine serves as host plant for larval Fender's blue butterfly (*Icaricia icarioides fenderi*), however, this federally Endangered species has yet to be documented here. Transitory butterflies may occasionally traverse this site in search of nectar sources and hopefully will reestablish within the lupines.

Danebo Management Area (BLM Wetland Field Office, Isabelle, Danebo, Willow Creek, Balboa, Beaver Run, Oxbow West, Oxbow East)

– The BLM Wetland Field Office site is a proposed location for an Environmental Education Center. Historically the site was used for agricultural purposes. Both upland and wetland sections of the site have received significant prior disturbance. The wetland on site was previously impacted by the channelization of Amazon Creek, and was later restored in 1997. A wetland delineation was conducted in 1996 (Salix and Associates), and existing conditions for the mitigated wetland area at this site are described in detail in the West Eugene Wetland 1998 Annual Report. High-use facilities (offices, parking, storage) are currently present on the upland section. One plant species of interest at the site is the annual, Howell's montia (*Montia howellii*), which is growing in the gravel parking lot of the field office. Between 150 and 200 plants were located in a 1997 survey. This species has no state or federal status.

– Existing vegetation and rare plants for the Isabelle site were documented in wetland delineation and rare plant surveys conducted by Salix and Associates. Wetland restoration and enhancement took place in 1997-1998 on approximately six acres. A single patch (500 ramets) of white top aster was located in a 1996 survey. Follow-up plant surveys and monitoring of the restoration have been conducted (1999 Annual Report; Marshall, 1999). Greenhouse-grown plants of the Federally-listed Threatened Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*) have been transplanted into the upland section of the site. Surveys for threatened and endangered plant species were also conducted at Danebo and Willow Creek sites (Salix and Associates, 1996; Marshall, 1999). Wetland restoration activities have occurred on approximately two acres at Danebo and four acres at Willow Creek.

Kincaid's lupine serves as host plant for larval Fender's blue butterfly (*Icaricia icarioides fenderi*), however, this federally Endangered species has yet to be documented here. Transitory butterflies may occasionally traverse this site in search of nectar sources and hopefully will reestablish within the lupines.

– Continuation of a walking trail is proposed for the Balboa / Beaver Run site. Historic conditions are described in detail in the Environmental Assessment OR-090-98-26 prepared for the mitigation of over 15 acres of wetland habitat in this project area. Surveys for threatened and endangered plant species have been conducted (Weber, 1998). Protected species at the site include white top aster, Willamette daisy, and shaggy horkelia. A 1999 census documented 394 crowns and 1349 flower heads of Willamette daisy within three macro-plot areas at Balboa. Several greenhouse-grown plants of Willamette daisy were transplanted to the restored wetland area following construction of the foot path levee. Eight patches of white top aster are known from the Balboa site with total estimate of 6,930 stems (1999 Annual Report). The continuation of the walking path in relation to sensitive species would be evaluated in a separate environmental assessment, as details for this trail are not outlined in the proposed action.

– Oxbow West: The proposed bike trail extension would be constructed adjacent to the Oxbow West site on a seasonally-used dirt road (between Oxbow West and Amazon Creek). While the area is more or less removed from the commercial district and no lighting currently exists in the vicinity of the proposed bicycle trail, the northern section of the site is bordered by an active railroad and is exposed to intermittent light, vibrations, and wind from passing trains.

Surveys for threatened and endangered plant species have been conducted (Weber, 1998). Kincaid's lupine, Willamette daisy, white top aster, and shaggy horkelia occur at this site. A historic population of Bradshaw's desert-parsley has been reported for this area, but rare plant surveys of this site in 1998 did not document the presence of *Lomatium* (Oxbow West- Weber, 1998).

Kincaid's lupine and Willamette daisy have received extensive baseline monitoring (Kaye, 1999 and 2000). In 2000, 2912 plants with 17858 inflorescences were documented for Willamette daisy, and 9455 leaves and 253 inflorescences were documented for Kincaid's lupine. (Due to the clonal nature of Kincaid's lupine, leaves are censused rather than individual plants.) A 1998 census documented 7026 ramets of white top aster (Interagency Conservation Strategy, 2000). In addition, eggs of the Federally-listed Endangered Fender's blue butterfly, *Icaricia icarioides* ssp. *fenderi*, have been documented to occur on the leaves of this population of Kincaid's lupine.

The occupied habitat for Kincaid's lupine is moderately degraded with respect to native vegetation as a result of prior agricultural disturbance and infestation by exotic grasses and shrubs. However, it retains native components that may form the basis for site restoration and is being actively managed at this time. Restoration of this and adjacent sites to improve habitat for Kincaid's lupine and Fender's blue butterfly may contribute to the recovery of these species in the southern Willamette Valley.

The Oxbow West site has been monitored for both lupine and butterfly densities annually since 1999, and monitoring is anticipated to continue in the future. The two years of sampling indicates a stable to increasing butterfly habitat (lupine plants) and an increasing butterfly population. Twenty five Fender's blue butterfly eggs were recorded during monitoring in 1999, and 701 eggs were recorded in 2000 (Kaye, 1999, 2000).

The project area does have infestations of noxious weeds and nonnative species including reed canary grass and nonnative, invasive blackberry. Current management includes removal or reduction of noxious weeds and encroaching woody species. Maintenance activities include mowing, hand removal, and prescribed burns. The dramatic increase in butterfly egg abundance is thought to be the result of 1999 BLM habitat enhancement activities, primarily removal of trees and shrubs from lupine habitat. Other butterfly habitat enhancement projects underway in the project area include augmenting adult and larval resources with transplants of appropriate nectar species and Kincaid's lupine.

The bike trail would pass near (>25 meters from) Kincaid's lupine. A biological assessment was submitted to the USFWS regarding the proximity of Kincaid's lupine, Willamette daisy, and Fender's blue butterfly populations to the construction zone and proposed bike path at Oxbow West. The BLM received a Biological Opinion from the U.S. Fish and Wildlife Service on June 12, 2001, completing consultation.

– Oxbow East: No facilities or trails are currently planned for the Oxbow East area. Surveys for threatened and endangered plant species have been conducted (Weber, 1998; Marshall, 1999). No Federally-listed Threatened or Endangered species occur at the Oxbow East site.

Lower Amazon Unit:

The majority of the bicycle trail extension would be constructed on the Lower Amazon Unit (1135). Proposed viewing areas and bridges permitting the bicycle trail to cross over Amazon Creek and the A3 channel would also occur at this site.

Historically, the Lower Amazon site was dominated by wet prairie wetland and traversed by migrating stream channels and seasonally wet swales. By the late 1800's, most of the wet prairie wetlands on site had been converted to agricultural use, and had most recently been used for ryegrass and hay production and pasture. Major stream channelization and flood control projects in the 1950's dramatically altered the site's hydrology. A floodplain restoration project in 1999 and 2000 involved the removal of levees along the Amazon Creek system at this site and restoration of adjacent agricultural lands to native wet prairie wetlands. New levees were constructed around the project boundaries to maintain flood protection adjacent to the project area.

The proposed bicycle trail would be constructed on these recently created levees. In areas where levees are not present, the proposed trail would be primarily restricted to the upland edges of mitigated wetlands.

Salix and Associates conducted surveys for threatened and endangered plant species. 1997 surveys documented 11 plants of Bradshaw's lomatium, more than 5000 ramets of white top aster, and more than 750 ramets of Kincaid's lupine. Also, eighty individual greenhouse-grown plants of Kincaid's lupine were transplanted to the west bank of Amazon creek, 1135 Project. Preliminary results indicate low survival (complete data not available) and aggressive encroachment by nonnative plant species to this transplant site (Kaye, 2001 and personal communication).

Kincaid's lupine serves as host plant for larval Fender's blue butterfly (*Icaricia icarioides fenderi*), an endangered species. To date, no specimens have been found at either the natural population or transplant site of the Lower Amazon area. Transitory butterflies may occasionally traverse this site in search of nectar sources and hopefully will reestablish within the lupines. The absence of Fender's blue butterfly has been confirmed through 2 years of monitoring natural populations which included inspecting the underside of each lupine leaf for the presence of butterfly eggs. Butterflies are not likely to use the transplanted lupine plants during the construction period since the plants are limited in number, are still immature, and are obscured by weeds.

B. Wildlife

The following wildlife affected environment section is organized according to project areas which are included in the Recreation Access Plan. The Fender's blue butterfly (*Icaricia icarioides fenderi*) was addressed within the botany discussion due to its close association with Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*).

Amazon Creek

The Amazon Creek runs adjacent to the proposed and existing bicycle/pedestrian path and facilities, flowing west and northwest through West Eugene. The creek receives storm-water runoff from the watershed south of the project area.

Much of the wetland within the channel is dominated by reed canary grass and nonnative vegetation tends to dominate the slopes and adjacent uplands as well. Amazon Creek is habitat and an important migration corridor for the western pond turtle (*Clemmys marmorata*) which has been documented within the channel and the immediate vicinity.

Reed canary grass and other dense vegetation can hinder movement of these turtles while traveling overland to nest or overwinter. Introduced bullfrogs in the area are a major predator of hatchling turtles.

This turtle has been petitioned to be listed as Threatened under the Endangered Species Act and is on the State and the Bureau's Sensitive Species List.

Stewart Management Area

Although much of the standing water in this area dries up during the summer, some year-round water does exist in ponds, sloughs and the A-3 Channel which provide habitat for the western pond turtle (*Clemmys marmorata*). To improve conditions for the turtle and bolster the population, juvenile turtles have been released in the Stewart Management Area and basking sites as well as nesting substrates (clay soils) have been brought in.

Because of continuing mitigation efforts and enhancement of the seasonal ponds, this management area provides improved wintering habitat for numerous waterfowl and shorebirds. The mowing regime that has been in place would continue to enhance wintering habitat for these species.

Oak Hill Management Area

Because of the absence of year-round water, the Oak Hill management area does not provide permanent aquatic habitat for the western pond turtle (*Clemmys marmorata*).

Scattered native oaks provide habitat for the acorn woodpecker (*Melanerpes formicivorus*), and the State sensitive western silver grey squirrel (*Sciurus griseus*).

Danebo and Lower Amazon Management Areas

Amazon Creek runs adjacent to the proposed and existing bicycle/pedestrian path and facilities, flowing west and northwest through these management areas. The proposed path crosses both Amazon Creek and the A-3 Channel. These areas provide habitat for the western pond turtle (*Clemmys marmorata*). Although the name implies these are turtles of ponds and still water, they are also at home in flowing streams and travel overland to nest and overwinter.

Wildlife Species (Common to all areas of the West Eugene Wetlands Planning Area)

Two locations for the bald furry snail (*Vespericola*, unnamed species) have been documented in the West Eugene Wetlands. It is an inhabitant of native prairie and may be negatively affected by invasive exotic species. Little else is known about these snails. They are presently on the Oregon Natural Heritage Program's List 1, which qualifies them as Bureau Sensitive.

The dusky Canada goose (*Branta canadensis occidentalis*) and a federally listed wildlife species, the bald eagle (*Haliaeetus leucocephalus*) may occur within the West Eugene

Wetlands planning area at certain times of the year. The West Eugene Wetlands planning area does not provide suitable nesting habitat for these species although there is a remote chance these species may briefly forage in the area.

Scattered native oaks in the West Eugene Wetland areas provide habitat for the acorn woodpecker (*Melanerpes formicivorus*), and the State sensitive western silver grey squirrel (*Sciurus griseus*).

Introduced animal species are common within the entire West Eugene Wetlands, and for the most part have adverse ramifications for the ecosystem here. The major introduced species found in the Wetlands are: the opossum, nutria, bullfrog, released pet turtles, starling, house sparrow, pheasant, carp, and free-roaming domestic or feral cats and dogs.

A more inclusive list of wildlife species occurring in the Wetlands can be found in Appendix D, please refer to that list for further wildlife listings.

C. Soils

The affected environment / soils section addresses the proposed action by Visitor Management Area (VMA) as described in the Recreation, Access and Environmental Education Plan.

VMA 1. Protected Habitats

The majority of this VMA contains poorly drained hydric soils. Dayton and Natroy, both hydric, are the predominant soils which occur where wetlands have been identified in west Eugene. Dayton soils occur as a large expanse in the westernmost part of the project area, roughly north of west 11th and west of the Amazon Channel. Natroy is in wide swaths along the Amazon Channel, Amazon Creek, and Willow Creek. These interior areas have been the focal point for the restoration of native wetland plant communities. This has included the stripping of existing nonnatives (i.e. ryegrass, reed canary grass), the restoration of original overland flow patterns, and machine site preparation prior to sowing with natives. These alterations have had substantial impacts to surface soils and seed bed, but the distinctive infiltration characteristics of the hydric soils remain intact.

VMA 3. Human Interface

The Stewart Pond area has more variable topography and drainage characteristics, therefore a mix of soil types occur. Mapped soils (SCS Lane County Soil Survey, 1987) include the poorly drained hydric soils, Awbrig and Natroy. These deep silty clay loams occupy flat to concave areas (0 to 2% slopes) in drainageways and on stream terraces. The somewhat poorly drained Dupee series (3 to 20% slopes) occurs in depressional

areas on alluvial fans. The moderately well drained Coburg is associated with low stream terraces. The well drained Salem gravelly silt loam is on stream terraces.

VMA 4. Bike Path and Facilities

The southern segment of the proposed bike path (from Wetlands office west and north to bridge crossing of Amazon Creek) crosses soils mapped as Natroy silty clay loam. Natroy is a poorly drained hydric soil in the Vertisol soil order. Properties of shrink swell clay dominate Vertisols, which crack to the surface in the dry season and are self-churning. The bulk of this proposed segment currently exists as a graveled tread located on an upland levee on the west side of Amazon Creek. A segment between the proposed bridges, approximately 850 feet, would be the only area of new construction, where levee tread does not currently exist. This crossing of "undisturbed" Natroy soils will necessitate additions of baserock and material to elevate the tread.

The northern segment of the proposed bike path (north and west from A3 channel) crosses Dayton and Holcomb soils. Holcomb silt loam is somewhat poorly drained and not hydric. The bulk of this alignment also utilizes the elevated levee that was created during previous flood control projects and reshaped in more recent channel restoration projects. Because of these impacts, including surface soil additions and profile mixing, the levee soils no longer function as hydric sites.

The current B.L.M. Wetland Field Office is the proposed location for an Environmental Education Center which would require an additional environmental assessment. The upland portion of the site is located on a convex position on foothills adjacent to wetland. Soils at this location are not hydric. Bellpine silty clay loam is a moderately deep, well drained soil. This site has previously been committed to structural development with the corresponding loss of site productivity and natural infiltration characteristics.

D. Hydrology

The proposed action would take place along Amazon Creek in the Long Tom Watershed. Amazon Creek is on the DEQ's 303(d) list of water quality limited water bodies from the mouth to the head waters. It is listed for bacteria and dissolved oxygen. The average annual rainfall is 49 inches. The majority of the precipitation falls from November through March. The soils in the project area are dense with a high clay content. Water passes through these soils relatively slowly, creating shallow ephemeral ponds. A portion of the bike path would be located on an existing road that runs along the diversion canal. The elevation of this road surface is higher than the adjacent wetlands. The rest of the bike path would be located in an existing rye grass field. The facilities would be constructed on upland sites that have been previously disturbed.

E. Cultural Resources

WetlandsRecAccEEPlan,June 19, 2001

The West Eugene Wetlands is adjacent to areas known to contain cultural resource values. Because terrain and habitat within the Wetlands boundaries is similar to that of the adjacent areas containing known cultural values it can be reasonably assumed that cultural values are present within the Wetlands. Proposed actions with the potential for surface disturbance will require cultural surveys prior to project initiation. The only exceptions to this being situations where proposed actions occur in areas where previous disturbance is such that no *in situ* cultural materials might reasonably be expected to remain. The proposed bike trail along the top of existing levees, dikes, and along existing roadways is such a situation. No cultural resource surveys are required for this action. All future actions must be considered on a case by case basis when project planning is initiated.

F. Unaffected Resources

The following resources are either not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concern, prime or unique farmlands, Native American religious concerns, cultural resources, solid or hazardous wastes, Wild and Scenic Rivers, wilderness, environmental justice (minority or low income populations).

IV. ENVIRONMENTAL CONSEQUENCES

1. Environmental Consequences of the Proposed Action - Alternative A

Accept Recreation Access Plan and Implement actions listed in the Management Plan.

A. Botany: Botany section is organized by potentially affected botanical resources within the project area.)

General Botany

A positive effect of the Proposed Action for all sensitive plant species is that improved access and environmental education is likely to result in increased appreciation for wetland communities and rare species, which can lead to increased stewardship. Continued annual monitoring of sensitive plant species would provide information for determining whether or not additional provisions are necessary. The installation of lighting along the bicycle trail extension is not expected to have adverse effects on sensitive plants or any other botanical resources. The effects of future actions on transplanted sensitive plant species at Isabelle, Balboa/Beaver Run and Greenhill would be evaluated in a separate Environmental Assessment.

Threatened and Endangered Plant Species:

Willamette daisy

The proposed action may affect, but is not likely to adversely affect the Federal Endangered species Willamette daisy (*Erigeron decumbens* var. *decumbens*). The

USFWS issued its Biological Opinion on June 12, 2001, concurring with the above effects, completing consultation. All required mitigation measures in this Opinion would be implemented. No direct impacts to Willamette daisy are anticipated to occur as a result of construction of this bicycle path extension. All anticipated construction activities would be restricted to the existing disturbed right-of-way where no listed species occur. The only population of Willamette daisy that is within the proposed action area for this is the population at Oxbow West. Future actions at Greenhill and Balboa would be evaluated in a separate environmental assessment.

Increased human usage of the Oxbow West site could have potential indirect adverse effects, particularly if visitors to the wetlands wander off of the trail and accidentally trample plants. The Oxbow West population of Willamette daisy is a considerable distance from the proposed construction activities, and is further separated from the proposed bike trail area by a thicket of ash trees and a swale. The band of ash trees spans the entire length of the megapopulation, terminating to the north at the railroad tracks. Additional barriers, such as fencing or signs, would be erected if necessary (as described on pp.16, 23 [Action 2.21] , and 26 [Action 3.11] of the Recreation Access Plan).

Bradshaw's desert-parsley - *Lomatium bradshawii*

The Proposed Action is considered to be no effect on the Federal Endangered *Lomatium bradshawii*. Repeated botanical surveys in the vicinity have not resulted in documented presence of this species in the areas that would potentially be impacted.

Kincaid's lupine - *Lupinus sulphureus* var. *kincaidii*

The proposed action may affect, but is not likely to adversely affect the Federal Threatened species *Lupinus sulphureus* var. *kincaidii* at the Oxbow West site. The USFWS issued its Biological Opinion on June 12, 2001, concurring with the above effects, completing consultation. All required mitigation measures in this Opinion would be adhered to. The Lower Amazon population is out of the action area. All anticipated construction activities would be restricted to the existing disturbed right-of-way where no listed species occur.

Habitat restoration activities on BLM lands are actively improving native habitat quality, thus, decreasing the "patchiness" of fragmented habitat. Consequently, it can be assumed that insect/lupine densities would increase in these areas as restoration actions continue, making suitable habitat for lupine and butterfly more common.

The proposed bike trail could negatively impact the restoration of upland fields and wet prairie adjacent to the route by constraining and complicating management of these sites. Alternatively, the improved access to the area could facilitate management of these areas.

The bike path would provide increased access to fields where Kincaid's lupine currently occurs, which is expected to result in increased use of these fields by humans and their pets using the path. Potential adverse impacts include intentional or inadvertent destruction of plants by trampling, removal or vandalism of markers and flags used for research and management of the sites.

Construction vehicles can transport plant seeds and vegetative material. Kincaid's lupine habitat may be adversely modified by introduction and spread of noxious weeds and nonnative plants. Seeding of disturbed areas with native species and washing of equipment prior to entering the site would reduce the potential of introduction and spread of noxious weeds and nonnative plants.

Species of Concern:

White top aster and shaggy horkelia - *Aster curtus* and *Horkelia congesta* spp. *congesta*

The Proposed Action would not have harmful effects on the two Species of Concern (*Aster curtus* and *Horkelia congesta* spp. *congesta*). These species would benefit from the same mitigation measures (fencing and signs) designed to protect federally listed species.

Amazon Creek

The construction of the bike trail would not result in negative impacts to Amazon Creek vegetation. The new trail may improve access for channel maintenance and management of invasive species.

Remnant and Mitigated Wetland habitat

The construction of the bike trail would not result in negative impacts to the vegetation of remnant and mitigated wetland habitats. The majority of the construction for proposed facilities is planned to occur on previously disturbed ground. The most diverse and highly native wet prairie ecosystems in the project area have been classified as Management Area 1 "Protected Habitat," indicating an area free from human impacts. The use of locally collected seed from native upland/wet prairie species for re-seeding the newly disturbed and exposed soils in the construction zone would help protect these habitats from opportunistic nonnative species.

B. Wildlife

Threatened and Endangered:

Bald eagle

With regards to federally listed and special status species mentioned in the Affected Environment section, the proposed actions would have no effect on the bald eagle

(*Haliaeetus leucocephalus*) and any other federally listed or proposed terrestrial wildlife species known to occur in the vicinity (except the Fender's blue butterfly).

Fender's blue butterfly

A biological assessment was submitted to the USFWS regarding the proximity of Kincaid's lupine, Willamette daisy, and Fender's blue butterfly populations to the construction zone and proposed bike path at Oxbow West. The proposed project would may affect, and is likely to adversely affect the Fender's blue butterfly (*Icaricia icariodes fenderi*). The USFWS issued its Biological Opinion on June 12, 2001, concurring with the above effects, completing consultation. All required mitigation measures in this Opinion would be implemented.

Adult migration activities may be affected by the operation of heavy equipment close to the lupine population, and some mortality of adult butterflies actively seeking nectar and egg-laying sites could occur due to construction activities and maintenance activities outside of the immediate lupine area. Design features to address these concerns are described below and on pages 60 - 65 of the Environmental Assessment.

Ninety five percent (95%) of the Fender's blue butterflies in a population are likely to occur within 10 meters of lupine plants (Schultz, 1997), suggesting that much fewer than 5% would occur in the project area (which is 25 meters from the lupine plants). Due to naturally occurring mortality of egg and larval stages and the restricted construction window, potential mortality during construction in 2001 and 2002 is expected to be less than 5%. Loss of individual Fender's blue butterflies resulting from bike path use and maintenance would be less. It is anticipated that adult migration and egg laying would continue once this facility becomes operational.

Experimental data indicates that adult Fender's blue butterflies do not require habitat corridors and are able to "leap" from one habitat island to the next within a 2 km radius (Shultz, 1997), thus the physical separation from other lupine sites imposed by a bicycle path may not pose a concern.

No direct disturbance to the Kincaid's lupine population is anticipated. Permanent fencing would be placed to discourage bicycle or pedestrian travel into occupied threatened or endangered plant or animal habitat. No disturbance from any activity associated with this construction would occur outside the designated right-of-way. To further reduce potential adverse affects to the butterfly, no construction or maintenance activities would occur from May to July 1 in the Oxbow West site during the flight and egg laying season of the butterfly.

The proposed lights, if installed, may have an effect on butterflies, particularly in the early morning hours. The butterflies may mistake these lights as the rising sun and fly towards them; this could disrupt their daily behavior and make the butterflies more susceptible to predation by bats. The installation of lights greater than 70 feet away

from the lupine plants (and butterflies) would reduce impacts or result in no impact to the butterfly (pers. com. Hammond, 2001). Directing the main beams directly at the path and away from lupines, as described in the proposed action, would also be effective at reducing potential impacts.

Potential adverse impacts also include: intentional or inadvertent destruction of host plants by trampling; removal or vandalism of markers used for research and management of the sites; and increased access to sites for collectors who may illegally collect butterflies or other rare species.

Because limited project-related impacts would occur in quality nectaring areas it is anticipated that nectaring habitat for the Fender's blue butterfly would not be negatively affected over time and would recover via mitigation in the short-term. Therefore, it is not foreseen that construction of the proposed bike path or its operation as proposed would reduce species' viability as a result of short term loss of nectaring habitat.

Non - Federally Listed Species

Shorebirds and Waterfowl

As facilities including the bike path are developed there may be some displacement of these species within the wetlands. Shorebirds and waterfowl, including the dusky Canada goose (*Branta canadensis occidentalis*), may be subjected to occasional disturbances due to visitor activities attributed to the bike path. Species sensitive to such disturbances would avoid close association with such human activity, but would not be displaced out of the general vicinity.

Bald furry snail

Little is known of the bald furry snail (*Vespericola*, unnamed species), but it is likely that since it is a resident of our native wet prairies, this species would benefit from restoration endeavors. Some individuals may be inadvertently killed during construction and mitigation efforts.

Western pond turtle

If turtles have favorable habitat features they can live and reproduce in areas with frequent human visitors.

Since there will be no activities associated with the proposed bike path construction that would impact permanent standing water, effects to the western pond turtle would be limited to disruption or displacement of these reptiles in Amazon Creek and the A-3 Channel. Turtles traveling over land may also be affected. As previously mentioned, occurrence of turtles in these situations are not as common as in areas of standing permanent water.

The only substantial impact to the western pond turtle would be the visual disturbance of people moving along the new pathways during both construction and subsequent utilization of the bike path. Turtles have keen eyesight and when they are alarmed by the movement of potential predators, including humans, they will stop what they are doing or retreat into deep water.

To minimize this disruption of their activities, a visual screen of native shrubbery would be planted between the pathway and any identified locations favored by resident turtles. It is anticipated that turtles would cross the pathway and the movements of turtles would not be impeded by the physical designs of the paths, but turtles will probably do so at times when there is minimum human traffic.

To reduce disturbance and the potential of injuries to turtles during construction of the bike path extension, a temporary physical barrier, such as a silt/drift fence would be placed between construction sites and turtle habitat. This would provide a visual screen, but more importantly would direct transitory turtles away from danger areas. Additionally, basking structures such as logs would be placed up or downstream from construction activities to attract turtles away from these activities where appropriate.

Turtles do travel overland during nesting (June/July) and could be disrupted during these activities. Any nest sites found would be protected during this project (either by exclosures or by removing eggs, hatching in captivity and releasing back to the wetlands).

General wildlife

The proposed actions would not be detrimental to other wildlife species described in the affected environment. Some individuals may be inadvertently injured or killed during operations, but the overall and long term results of continued mitigation would improve habitats for these species and benefit the local populations as a whole.

Wildlife in general, may be subjected to occasional disturbances due to visitor activities attributed to the bike path. Species sensitive to such disturbances would avoid close association with such human activity, but would not be displaced out of the general vicinity.

A positive effect of the Proposed Action for wildlife is that improved and managed access and environmental education is likely to result in increased appreciation for wildlife associated with wetland communities which can lead to increased stewardship. Continued annual monitoring of sensitive wildlife species would provide information for determining whether or not additional provisions are necessary.

All other future site specific actions associated with the Recreation , Access, and Environmental Education Plan and their affect to wildlife would be considered on a case by case basis when more site specific project planning is initiated for these actions. These future actions would be evaluated in a separate environmental analysis.

C. Soils

VMA 1: Protected Habitats

There would be minimal direct or indirect effects to soils in the protected habitat areas. Hydric characteristics and long term soil productivity would be maintained. There would be no surface disturbance beyond those analyzed in earlier documents pertaining to vegetation restoration projects (EA-99-19).

VMA 3: Human Interface

Stewart Pond Area: Direct effect would be the addition of bark chips to upgrade surface of existing trails. There would be no long term effects to soil productivity or soil infiltration characteristics associated with this action. There would be no additional acreage committed to travelways beyond what currently exists.

VMA 4: Facilities, including Bike Path

Approximately 66% of the bike route would be constructed on previously altered soils that no longer exhibit the ponding characteristic of hydric soils. The direct effect of bike path construction between the bridge sites (Amazon Creek and A3 channel) would be the alteration of infiltration characteristics on approximately 2 acres of intact wetland soils (Natroy series). Indirect long term effect of bike path construction would be the loss of soil productivity on approximately 6.5 acres committed to permanent travelway. The construction area would experience some erosion from open compacted surfaces during operations. This effect would be short term and localized. Effects to water quality would be minimized by the use of on-site erosion control structures, ie. straw bales or sediment fencing. The prompt revegetation (appropriate native species) of adjacent impacted areas would prevent on site erosion and any off site effects to water quality in the long term.

D. Hydrology

The proposed bike path would be constructed on a raised road bed with culverts installed as needed to allow for proper drainage, thus there would be no impact to present hydrology in this portion of the trail.

No modifications to existing hydrology are anticipated in relation to construction or maintenance of the bike path and facilities proposed within the plan. The proposed actions would have minimal, short term and localized effects to water quality due to some possible erosion and soil disturbance during construction phases of the proposed projects. There would be no expected long term effects to water quality.

2. Environmental Consequences of the No Action Alternative B - Deny the Application for the Recreation Access Plan

Under the No Action Alternative the wetlands would continue to be managed under the general guidance of the West Eugene Wetlands Plan and Amendments.

A. Botany

The proposed bike trail could negatively impact the restoration of upland fields and wet prairie adjacent to the route by constraining and complicating management of these sites. For example, the ability to conduct prescribed burns or transport heavy maintenance equipment to sites may be reduced due to safety issues. Potential negative impacts to sites associated with complicated site management and increased human usage would be avoided through the No Action Alternative.

On the other hand, the No Action Alternative could actually limit the ability to perform future maintenance and management activities as access to these sites would not be improved. The direct effect the No Action Alternative is reduced access to public wetlands and reduced opportunities for environmental education. The opportunity to foster stewardship through increased appreciation and awareness for wetland communities through educational signs and interpretive centers as described in the Recreation and Access Plan would also not occur. An indirect effect of the No Action Alternative in relation to botanical resources is potential damage to wetland plant communities through inappropriate uses such as camping. Lack of designated areas for vehicle use could result in negative impacts to sensitive areas and species.

B. Wildlife

A result of the No Action Alternative would be continued degradation of the remaining native wetland prairie community. Lack of designated areas for vehicle and human activity and use could result in negative impacts to sensitive areas and species.

C. Soils

There would be no direct or indirect effects to soils under this alternative as no new surface disturbing activities would be conducted. There would be no alteration of distinctive hydric infiltration characteristics beyond what has occurred previously.

D. Hydrology

The no-action alternative would have no effects to the current water quality and the existing hydrology of the area.

V. CUMULATIVE AFFECTS

1. Cumulative Affects of the Proposed Action - Alternative A

The West Eugene Wetlands Plan provides general guidance for the WEW Area, and does not detail the extent or type of construction in any given site or area. The WEW Recreation and Access Plan delineates four visitor management areas, ranging from rather extensive, low development (Visitor Management Area 1, managed to be essentially free of on-site physical facilities) to areas of concentrated human use and facilities to serve them (Area 4, where paved roads, interpretive facilities, staging areas, etc., are present).

With the exception of the developed viewing sites and day use facilities, all facilities would be limited to the minimum development essential to provide services identified as appropriate for the particular area. It is the intent of the Plan to limit human influence as much as possible to those few developed sites, and manage the remainder of the WEW to assure that the natural qualities of the area receive little human modification. By designing facilities that visually merge with the surrounding environment impacts would be kept to a minimum.

All activities allowed under the right-of-way grant (proposed action) would be bound by the Additional Terms, Conditions, and Stipulations found in Exhibit B of the grant.

A. Botany and Wildlife

The proposed action would not result in a reduction of suitable habitat. The West Eugene Wetlands area is being developed as a cooperative wetlands conservation and public recreation area. Through this program the acquisition, restoration, and enhancement of wetlands in west Eugene will continue in the future. Habitat restoration activities on Bureau of Land Management lands are actively improving native habitat quality, and thus, decreasing the “patchiness” of fragmented habitat. Consequently, it can be expected that insect/lupine densities will increase in these areas as restoration actions continue, making suitable habitat for Kincaid’s lupine and Fender’s blue butterfly more common in the long term.

Most of the property immediately adjacent to the project area is land administered by the City of Eugene and the BLM. Housing developments are likely to continue to be constructed on private land in the vicinity of the action area and West Eugene Wetlands in general, though the BLM will continue to attempt to provide a substantial buffer through land acquisition.

As a result of the proposed project, noxious weeds and invasive nonnative species currently growing within the footprint of the proposed trail would be eliminated. Also improved access provided by this trail construction would allow for improved management of nonnative species which occur on the banks of the existing levees.

This project would also bring greater access to rare lupine and butterfly sites with potential negative impact. With continuing human population increase in the Eugene area and an increasing need for close recreational opportunities, this project, coupled with other recreation and urban growth projects, could contribute to negative impacts to Kincaid’s lupine and Fender’s blue butterfly as well as other federally listed and rare prairie plants. Ongoing restoration and enhancement projects may help ameliorate some of these negative impacts. The Recreation Access Plan has identified visitor management areas ranging from high use areas to areas with restricted access. Under the guidance of this plan, recreation opportunities will be coordinated in relation to sensitive plant and animal habitat to reduce probable negative impacts. The construction of this path and other public facilities in the West Eugene Wetlands may tend to concentrate human activity, thus directing many users away from sensitive sites. Consequently, this project (combined with other public facilities) would likely provide both beneficial and negative impacts to sensitive areas.

B. Soils and Hydrology

The proposed action is not expected to result in negative cumulative effects. Issuance of the right-of-way grant for the bicycle/pedestrian path would allow construction and maintenance activities to occur. These activities would cause a temporary increase in sedimentation and erosion. Effects are anticipated to be short term and minor due to required erosion control measures. This action would result in an increase in public use. Because the proposed route for the path was located in a manner to minimize wetland impacts, including hydrologic flow and flooding events, it is anticipated that the impacts on existing wetlands would be minimal. The proposed action is not expected to result in long term or cumulative effects to water quality (surface and ground water) and the existing hydrology of the existing wetland area.

2. Cumulative Affects of the No Action Alternative B (Deny the Application for the Recreation Access Plan)

A. Botany

The No Action alternative would not change the current access to rare plant sites or wetland resources, which might indicate that the potential for damage to these sensitive areas would remain unchanged. However, human activity in the west Eugene area is increasing as a result of urban development. Pedestrian traffic to these sites is likely to increase over time, even in the absence of a bicycle trail. The lack of designated areas for vehicles and human activity could result in negative impacts to these sensitive areas and potential degradation of the remaining native wetland prairie community. Also, the ability to control noxious weeds and nonnative species within the project area may be reduced with the No Action Alternative.

B. Wildlife

An indirect effect of the No Action Alternative would be continued degradation of the remaining native wetland prairie community. Lack of designated areas for vehicle and human activity and use could result in negative impacts to sensitive areas and species.

C. Soils

There would be no expected cumulative effects to soils under this alternative as no new surface disturbing activities would be conducted. There would be no alteration of distinctive hydric infiltration characteristics beyond what has occurred previously.

D. Hydrology

The no-action alternative would have no cumulative effects to the current water quality and the existing hydrology of the area.

VI. CONSULTATION AND COORDINATION

Melanie Marshall	Botanist
Cheshire Mayrsohn	Botanist
Rudy Weidenbeck	Soils
Daniel Crannell	T & E Wildlife Biologist
Mike Southard	Cultural Resources
Steve Madsen	Realty Specialist
Joseph Williams	Recreation Planner
Graham Armstrong	Hydrology

The following State agencies and local government offices were notified and their comments requested:

Lane County Board of Commissioners
Lane County Planning Division
Department of Environmental Quality
Oregon Water Resources Department
Historic Preservation Office
Division of State Lands
Parks & Recreation Department
Department of Land Conservation
Department of Geology and Mineral Industries
Department of Forestry
Department of Fish and Wildlife

VII. REFERENCES

West Eugene Wetlands 1998, 1999 Annual Reports (Stewart, BLM Wetland Field Office, Oak Hill, Nolan Management Areas)

Beall, Jonathan, BLM, 10/2/1996. Environmental Assessment No. OR090-EA-96-31, Amazon Creek Enhancement Project - Creek Enhancement and Bicycle/Pedestrian Path.

Challenge Cost-share Monitoring Reports-prepared for the Bureau of Land Management by Tom Kaye, Institute for Applied Ecology:

1. Population Monitoring for proposed experimental habitat manipulation of Willamette Daisy Oxbow West Site, West Eugene 1999 and 2000
2. Population Monitoring for *Lupinus sulphureus* ssp. *kincaidii*: Fir Butte and Oxbow West sites, West Eugene.

WetlandsRecAccEEPlan, April 3, 2001

Weber, Marian. 1998. West Danebo Wetland Restoration Rare, Threatened, and Endangered Plant Survey.

Marshall, Melanie. 1999. Rare, Threatened, and Endangered Plant Survey (Oxbow East, Stewart Woods, Rosy-Beaver Run, Isabelle, Willow Creek)

Interagency Conservation Strategy for Rare Native Prairie species in West Eugene, 2000.

Salix Associates. 1998. Amazon Creek 1135 Project Rare Plant Surveys. 2525 Potter, Eugene, OR 97405. Submitted to the City of Eugene.

Shultz, Cheryl. 1997. Dispersal behavior and its implications for reserve design in a rare Oregon butterfly. *Conservation Biology*. 12:284-292.

2870
OR53041, Amended
1792A
EA-01-8
Wetlands R.A.E.E. Plan

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

DECISION RECORD and FINDING OF NO SIGNIFICANT IMPACT
West Eugene Wetlands Recreation, Access and Environmental Education Plan
Environmental Assessment No. OR-090-EA-01-8.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

On the basis of the information contained in the Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternatives will not have significant environmental impacts beyond those already addressed in the *Eugene District Record of Decision and Resource Management Plan* (June 1995), with which this EA is in conformance, and does not constitute a major federal action having a significant effect on 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.

DECISION:

Based on the analysis documented in the revised Environmental Assessment (EA) OR-090-01-8, dated June 14, and the Finding Of No Significant Impact it is my decision to select the proposed action, Alternative 1. All the project design features identified in the revised EA will be implemented to mitigate any impacts to existing habitat and resources. In addition, all required mitigation measures in the Biological Opinion, dated June 12, 2001 from the U. S. Fish and Wildlife Service (USFWS) will be implemented.

The proposed Action was selected because it best meets the goals and objectives of the 1992 West Eugene Wetlands Plan which was adopted in March of 1993. The proposed action is tiered to and is in compliance with the *Eugene District Record of Decision (ROD)/Resource Management Plan (RMP), June 1995*.

Watershed analysis has been completed for the Long Tom Watershed. The proposed action would maintain or restore wetlands conditions by protecting present and restored wetlands features.

Pursuant to the Endangered Species Act, formal consultation was initiated with the USFWS regarding the proximity of Kincaid's lupine, Willamette daisy, and Fender's blue butterfly populations to the construction zone and proposed bike path at Oxbow West. A Biological Assessment was submitted to the USFWS. According to this Biological Assessment, the proposed Amazon/Fern Ridge Bicycle Path Extension would:

- ▶ may affect, and is likely to adversely affect the Federal Endangered Fender's blue butterfly (*Icaricia icariodes fenderi*).
- ▶ may affect, but is not likely to adversely affect the Federal Endangered Willamette daisy (*Erigeron decumbens* var. *decumbens*).
- ▶ may affect, but is not likely to adversely affect the Federal Threatened Kincaid's lupine (*Lupinus sulphureus* var. *kincaidii*) at the Oxbow West site.

The USFWS issued its Biological Opinion on June 12, 2001, concurring with the above affects, completing consultation.

The proposed Amazon/Fern Ridge Bicycle Path Extension would have no effect on the Federal Endangered Bradshaw's desert-parsley (*Lomatium bradshawii*). Repeated botanical surveys in the vicinity have not resulted in documented presence of this species in the areas that would potentially be impacted.

To address a concern relative to the potential for the spread of noxious weeds and nonnative plants during the proposed bicycle / pedestrian path construction project, the following design feature was added and will be incorporated into the decision:

1. To prevent the spread of noxious weeds and nonnative plants, all heavy construction equipment would be cleaned to remove mud, debris, and vegetation material prior to arriving at the project site. Heavy equipment means any equipment that has the capacity to disturb or compact soils or waterway channels , e.g., back-hoes, bulldozers, cranes, and trucks.

Using additional information provided by the Oregon Department of Fish and Wildlife (ODFW) and other interested individuals within the 30-day public review period, Environmental Assessment OR-090-EA-01-8 was revised to more accurately address the presence of the western pond turtle, waterfowl, and shorebirds and to include the additional design features listed below. These design features were revised or added to the proposed bicycle / pedestrian path extension project and will be incorporated into the decision to minimize impacts to the western pond turtle:

1. Surveys for western pond turtles and their nests would occur within and adjacent to the proposed construction area of the bike path extension. Any nest sites found would be protected during this project (either by exclosures or by removing eggs, hatching in captivity and releasing back to the wetlands).
2. Besides their utility for preventing erosion, silt/drift fences would be used where appropriate to direct turtles away from construction activities.
3. When construction activities occur near Amazon Creek and the A-3 Channel, basking logs would be placed upstream or downstream where appropriate to attract turtles away from the construction area.
4. Appropriate (i.e., non-invasive) barrier shrubs or trees to minimize exit opportunities by off-road bicyclists and to provide visual screens to minimize disturbance to western pond turtles would be planted as needed.

INTERRELATED AND INTERDEPENDENT ACTIONS

The proposed action, the Amazon/Fern Ridge Bicycle Path continuation, is a major development feature within the context of the West Eugene Wetlands Recreation, Access, and Environmental Education Plan. This broad recreation plan proposes to provide coordinated, consistent management of the public uses of the wetlands and wetland resources and the protection of habitat for listed and sensitive species. The plan provides general guidance for the West Eugene Wetlands area, and does not detail the extent or type of construction in any given site or area. Specific effects of each potential action within the plan will be evaluated as design features and 'on-the-ground' implementation plans are more thoroughly detailed. As new projects within this plan are developed, the BLM will seek the appropriate consultation and coordination with USFWS.

Both the EA and preliminary FONSI were advertised in the Eugene Register-Guard on April 4, 2001, as available for a 30-day public review period. Copies of the EA and preliminary FONSI were mailed to interested individuals on our mailing list. Three public comment letters in all were received; two from interested individuals and one from the Oregon Department of Fish and Wildlife (ODFW). Their comments and concerns were considered and responded to in letters dated May 18, 2001 and June 18, 2001. Copies of the revised environmental assessment (EA) OR-090-EA-01-8, the ROD, and FONSI were mailed to these individuals and ODFW. The above revised EA was also made available for review at the Eugene District Office and the internet at <http://www.or.blm.gov/>.

Signed by: J. O. I. Williams
Acting Field Manager
Coast Range Resource Area

Date: June 18, 2001