

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

WEST GREENHILL WETLAND PRAIRIE RESTORATION

ENVIRONMENTAL ASSESSMENT No. ORO90-96-21

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 750 acres.

The West Greenhill wetland prairie was purchased in December of 1993 by the BLM within the framework of the WEWP. This wet prairie is located in west Eugene in NE1/4 of SE1/4 of Section 30, T. 17 S., R. 4 W. Four BLM Special Status plant species, all endemic to prairie habitats, occur at the West Greenhill prairie. These species include the Federally-listed Endangered Bradshaw's lomatium (*Lomatium bradshawii*), the Federal Candidate, Willamette Valley daisy (*Erigeron decumbens* spp. *decumbens*), and two Species of Concern (Bureau Sensitive and Oregon State Listed), white-top aster (*Aster curtus*), and shaggy horkelia (*Horkelia congesta* spp. *congesta*). The proposed action is intended to enhance the prairie plant community by controlling woody plant encroachment and invigorating prairie species, especially the rare plants aforementioned. 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). This Proposed Action would also help meet recovery objectives identified in the Recovery plan for *Lomatium bradshawii* (US Fish and Wildlife Service 1993).

Willamette Valley prairies evolved with late summer or fall-season fires and plants of these prairies are well-adapted and potentially dependent upon the presence of fire for their continued healthy existence. Presently, the West Greenhill parcel is being encroached upon by shrubs and trees. With the succession of the prairie openings to a woodland community, like that of much of the site, prairie plants would ultimately be extirpated. Prescribed burns at other wet prairies during recent years have set back plant succession by killing shrubs and seedling and sapling trees (refer to EA-90-36, EA-92-49, EA-95-27, and Pendergrass 1995). Past studies also indicate that prescribed burning has enhanced the reproductive status of *Lomatium bradshawii* (refer to EA-92-49). Additionally, on-going monitoring and modeling of *L. bradshawii* data indicates that frequent burning is necessary for the species' survival.

Many shrubs and trees have invaded the West Greenhill parcel and have grown too large to be killed by fire (anywhere from 2" - 10" dbh). A number of trees should be manually removed to restore prairie characteristics at the site. Similar management treatments have been and are being implemented at the Long Tom ACEC prairie and are resulting in a positive response from the prairie plant community (refer to EA-93-30, and EA-95-27).

II. PROPOSED ACTION AND ALTERNATIVES

Proposed Action (Alternative A): The proposed action is to enhance habitat for Special Status and other native plant species at the West Greenhill parcel over a five year period between August 1996-September 2000. After each year and after the five year period, management actions would be evaluated. Enhancement projects would include broadcast burning, shrub and tree removal, and non-native plant control (weeding). The parcel may be burned during the fall of 1997, 1998, 1999 and/or 2000, with a fire return interval of between 2-3 years. The duration of each burn would be less than one hour. Ignition of burning would be by hand using propane, fusees, or drip torches. Fire control/suppression would be accomplished with pre-burn hose lays and wet-lining and fire retardant foam. An area approximately 10-20' wide may be mowed around the outside boundary of the prairie area to assure fire control. This mowed swath may also be plowed or tilled to further assure fire control. Prescribed burns would be conducted in a manner consistent with State and local smoke management regulations. Burns would occur during August or September, when the clay soils of the grassland are dry, hard, and can support fire-fighting vehicles without damage to soils. The two sites where the *Vespericola* snail was found will not be burned. The sites will be protected by wetting down the sites with water prior to and during burning over the rest of the site. Fire vehicles would be restricted to the adjacent non-native pasture vegetation adjacent on the west, north and south sides of the native prairie and woodland area. Vehicles would not be operated within the native area or within the vicinity of rare plant populations. Human movement in the area would be managed to minimize impacts on the native prairie community.

Manual shrub and tree removal would occur during the fall of 1996, 1997, 1998, 1999, and/or 2000, as funding and labor force will allow. A number of the larger male Oregon ash trees would be left on site as perching and nesting habitat for birds. Most of the smaller size class (1-6" dbh) would be removed from the site. A concentration of Oregon ash trees may be left at the north end of the parcel where the site is wetter. Some trees and shrubs may be left along the east side of the parcel as a visual buffer to Green Hill Road. Most cut materials would be removed from the site and chipped or cut into short lengths for firewood (similar to the 1993 project at the Long Tom ACEC - refer to EA-93-30). Some larger woody debris may be left on site. No vehicles would be operated within areas where rare plants occur and rare plant areas would be avoided as much as possible during shrub and tree removal.

BLM proposes to control a number of non-native plant species with periodic hand-weeding as needed at the West Greenhill parcel between 1996-2000.

Monitoring will be established for all of the above-mentioned Special Status plants and plant responses will be assessed in relation to proposed management treatments.

Implementation of treatments will be contingent upon funding and work force availability.

Alternative B: In this Alternative, we would not conduct the prescribed burns but all other

actions would be implemented as detailed in Alternative A.

Alternative C: The No Action Alternative would be to leave the West Greenhill prairie as it is.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The five acre West Greenhill parcel consists of Oregon ash (*Fraxinus latifolia*) woodland and wetland prairie openings. The wetland prairie openings are dominated by tufted hairgrass (*Deschampsia cespitosa*) and a diverse assemblage of native grasses, sedges, rushes and a multitude of wildflower species. *Lomatium bradshawii*, *Aster curtus*, *Erigeron decumbens* spp. *decumbens*, and *Horkelia congesta* ssp. *congesta*, all rare endemic plants of the Willamette Valley, occur in the wetland prairie openings. The site has fine fuels of approximately 1 to 1.5 tons per acre.

Tree densities, especially of Oregon ash, are relatively high with around 600 trees per acre at some areas within the site. Cover of prairie plants is dramatically lower in areas with dense tree cover. Most of the trees are between 1" and 6" in diameter at breast height (dbh) and are relatively young (around 10 years of age). A few larger trees are present at the site with up to 10" dbh. These trees are perhaps up to 30 years of age. Historical survey data indicate that around the time of Euroamerican settlement (around the 1850's), this parcel was dominated by a wetland prairie plant community with only a few scattered ash trees (personal communication, Ed Alverson).

An unnamed species of snail (*Vespericola* - unnamed species #6) has been located at the site in roofing materials dumped at the site. Very few sites within the West Eugene Wetlands have been surveyed for invertebrate species. This particular species may be rare or may be more widespread. Only additional survey work throughout the WEW area will provide insight into the distribution of this species as well as other invertebrate species.

Proposed Action (Alternative A). The Eugene District BLM has conducted similar management techniques (woody plant removal and prescribed burns) at another wet prairie parcel, the Long Tom ACEC, during 1988, 1990 and 1992 to improve conditions for prairie plants. The U.S. Fish & Wildlife Service, The Nature Conservancy, and Army Corps of Engineers have also been implementing prescribed burning and woody plant removal in recent years to improve conditions for Willamette Valley prairie plant species. Repeated burning has benefited the population survival of *L. bradshawii*. At the Willow Creek Nature Conservancy Preserve, *Erigeron decumbens* spp. *decumbens* and *Horkelia congesta* spp. *congesta* have increased in open prairie areas that have been burned (personal communication, Ed Alverson 1996). Burning has also increased the frequency or density of a number of other native prairie plant species (Pendergrass 1995).

Based on research and general observations, BLM can reasonably expect several consequences from proposed management manipulations and monitoring of Special Status plants at the West Greenhill parcel.

Threatened and Endangered Species: The Proposed Action is considered to be "No Effect" on federally listed (or proposed for listing) animal species. Based on past findings, it is anticipated that *Lomatium bradshawii* (Federal Endangered), *Erigeron decumbens* spp. *decumbens* (Federal Candidate), and the two Special Status plant species would benefit from burning and removal of trees and shrubs. We anticipate a letter of concurrence on these projects from the U. S. Fish

and Wildlife Service (USFWS) prior to woody plant removal in September, 1996. We would incorporate any recommendations from the USFWS into our project implementation.

Vegetation: Small diameter tree seedlings and shrubs would be killed by the fire, setting back woody plant succession and restoring and enhancing the integrity of the prairie openings. The removal of woody species would change the habitat from a young ash woodland to a more open wetland prairie with scattered mature ash trees.

Wildlife: The timing of treatments during the fall season would eliminate impacts to nesting bird species as young have generally fledged. Some of the largest trees would be retained on the site as available nesting and perching sites. Monitoring to determine the occurrence of the unnamed *Vespericola* snail at the site would be evaluated in response to management treatments.

Cultural Resources: Surveys have shown there are no known cultural resources at the West Greenhill parcel, so no cultural resources are expected to be affected by the proposed action.

Irreversible and Irrecoverable 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.

Wetlands/Water Quality: There are no anticipated impacts to water quality from the Proposed Action. Manipulation of vegetation within a wetland does 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.

Hazardous Materials: The operation of fire equipment as necessary to implement the Proposed Action would take place during the summer and early fall when the seasonal wetlands are dry, so there is no chance of diesel fuel or hydraulic fluid spills into water. The foam sometimes used to aid in control of prescribed burning is not considered a hazardous material.

Air Quality: The Proposed Action would not exceed the Department of Environmental Quality ambient air pollution standards. All burning would be done in compliance with the Eastern Lane Regional Air Pollution Authority. Air pollution impacts would be short-term and minimal.

Alternative B: Although woody succession could be forestalled through manual removal of shrubs and trees, some enhancing effects of fire on *Lomatium bradshawii* would likely not be mimicked and the viability of the West Greenhill population would decline. Impacts from the implementation of Alternative B would be similar to the Proposed Action except that there would be no short-term changes in air quality due to burning.

Alternative C: The No Action Alternative would be to leave the West Greenhill parcel as it is. This would not protect the *Lomatium* or its grassland habitat from the encroaching woodland vegetation. Woody plants would eventually dominate the site and lead to the decline of the *Lomatium* population and other Special Status plants.

IV. CONSULTATION AND COORDINATION

In compliance with Section 7 of the Endangered Species Act of 1973 (as amended), we are informally consulting 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. The parameters of this project are similar to disturbance treatments that have been conducted with U.S. Fish and Wildlife concurrence in the past (EA-88-15, EA-90-36, EA-92-49, EA-93-30, EA-93-31, EA-94-33, EA-95-27).

Specialists currently contacted for consultation and coordination included:

John Applegarth	BLM, Wildlife Biologist
Jock Beall	BLM, West Eugene Wetlands Project Manager
Dan Crannell	BLM, CRRA, T&E Wildlife Biologist
Phil Dills	BLM, Fire/Fuels Management Specialist
Gary Hoppe	BLM, Environmental Coordinator
Raul Morales	BLM, CRRA, Wildlife Biologist
Kathy L. Pendergrass	BLM, CRRA Botanist
Michael Southard	BLM, District Archeologist
Nancy S. Wogen	BLM District Botanist
Ed Alverson	Willamette Valley Stewardship Ecologist, The Nature Conservancy
Andy Robinson	U.S. Fish and Wildlife Service

Prepared by: Jonathan T. Beall

Date: 6/28/96

Environmental Coordinator: Gary Hoppe

Date: 7/1/96

Area Manager: Howard J. Hunt

Date: 7/1/96

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

Environmental Assessment No. OR090-96-21

Finding of No Significant Impact

Proposed Action: The Proposed Action is to proceed with projects to enhance the Federally listed endangered plant, *Lomatium bradshawii*, and other rare prairie plant species, including *Aster curtus*, *Erigeron decumbens* spp. *decumbens* and *Horkelia congesta* spp. *congesta* during the next five years. Management objectives are to increase densities of rare plants, to increase the critical habitat for these species, and to gain valuable information for the continued management of these species.

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 enhancing critical habitat for the Federally-listed species, *Lomatium bradshawii*, and is consistent with its recovery plan. The proposed action is also consistent with management objectives to improve habitat for three Bureau Sensitive 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). This Proposed Action would also help meet recovery objectives identified in the Recovery plan for *Lomatium bradshawii* (*US Fish and Wildlife Service 1993*).

Approved by: Howard D. [Signature]
Area Manager, Coast Range Resource Area

Date: 7/1/96

ADJ