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EA-95-27

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

ENVIRONMENTAL ASSESSMENT No. ORO90-95-27

I. PURPOSE AND NEED FOR THE PROPOSED ACTION

The Long Tom Area of Critical Environmental Concern (ACEC) located in the NW1/4 of NE1/4 of Section 33, T. 16 S., R. 5 W., was established in 1984 by the Eugene District of the Bureau of Land Management (BLM) to protect an example of native Willamette Valley wetland prairie. Four BLM Special Status plant species, all endemic to prairie habitats, occur at the Long Tom ACEC. These species include the Federally-listed Endangered Bradshaw's lomatium (*Lomatium bradshawii*), Candidate species Howell's Montia (*Montia howellii*) and Shaggy Horkelia (*Horkelia congesta*), and the Assessment species Timwort (*Cicendia quadrangularis*). The proposed action and alternatives are in conformance with the "Eugene District Record of Decision and Resource Management Plan" (May 1995). This EA also helps meet recovery objectives identified in the Recovery plan for *Lomatium bradshawii*.

Willamette Valley prairies evolved with fall-season fires and presumably plants of these prairies are well-adapted and potentially dependent upon the presence of fire for their continued healthy existence. Presently, the Long Tom prairie is being encroached by shrubs and trees. With the succession of the prairie to a woodland plant community, prairie plants would ultimately be extirpated. Prescribed burns at the Long Tom ACEC during 1988, 1990 and 1992 have killed shrubs and seedling and sapling trees (refer to EA-90-36 and EA-92-49). Past studies also indicate that prescribed burning has enhanced the reproductive status of *Lomatium bradshawii* (refer to EA-92-49). Shrub and tree densities are again increasing since the last prescribed burn. Continued use of prescribed burning would help control shrub and tree invasion.

Many shrubs and trees have invaded the Long Tom ACEC and grown to sizes too large to be killed by fire. A number of trees have been manually removed to restore prairie and savanna characteristics at the site (refer to EA-93-30). Additional tree removal is needed to further improve the prairie community at the Long Tom ACEC.

Past study indicates that frequent ground-disturbance and removal of competing vegetation is necessary for the continued existence of *Montia howellii* at the Long

Tom ACEC (please refer to EA-93-31 and EA-94-33). Additional ground-disturbance is needed in 1995 and in future years to maintain this species at the Long Tom ACEC.

Similar to *Montia howellii*, *Cicendia quadrangularis* is an annual species that presumably requires ground disturbance to persist in the prairie plant community. *Cicendia quadrangularis* has declined at the site since 1988 when the site was fenced to prevent trespass grazing and damage to *Lomatium bradshawii*. Trampling of competing vegetation by trespassing sheep and cattle probably helped maintain *C. quadrangularis* at the Long Tom ACEC prior to fencing. Soil disturbance and removal of competing vegetation is needed to improve the viability of this species at the Long Tom ACEC.

Please refer to other environmental assessments (EA-88-15, EA-90-36, EA-9249, EA-93-30, EA-93-31 and EA-94-33) for further rationale of the need for the proposed actions to improve habitat for Special Status plants at the Long Tom ACEC.

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 Long Tom Area of Critical Environmental Concern (ACEC) over a five year period between August 1995-September 1999. After five years, management actions at the Long Tom ACEC will be re-evaluated. Enhancement projects would include broadcast burning, shrub and tree removal, non-native plant control, and implementation of disturbance plots. The ACEC acreage (~6.1 acres) on the east side of the canal would be burned during the fall of 1995, 1997, and 1999. The site has fine fuels of approximately 1 to 1.5 tons per acre. The duration of each burn will be less than one hour. Ignition of burning will be by hand using propane, fusees, or drip torches. Fire control/suppression will be accomplished with preburn hose lays and wet-lining. Abundant water is available for fire suppression from the Long Tom River canal which constitutes the western boundary of the ACEC. Prescribed burns will 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. Fire control equipment and personnel will be carefully managed to have no significant impact on the prairie environment. Vehicles will not be operated within the vicinity of rare plant populations.

Manual shrub and tree removal would occur during the fall of 1996 and 1998. All cut materials would be chipped and removed from the site (similar to the 1993 project - refer to EA-93-30). 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.

We also propose to mow and scrape off established vegetation along portions of the approximately 600-foot access road and adjacent area during fall seasons between the years 1995 to 1999 to improve habitat for *Montia howellii* (refer to Attachment A, EA-93-31 and EA-94-33). No other rare plants occur within the area that would be managed for *M. howellii*. Mowing would be done with a small gas-powered mower or tractor. Vegetation removal would be done with a standard road grader (like those used to maintain BLM roadways) or some other similar machinery. Portions of the roadbed and adjacent area would be scraped deep enough (approximately 2-6 inches) to remove rooted plant materials. The side-cast material will be worked back and forth with the grader to help redistribute any *M. howellii* seeds that may be contained within the scraped material.

We have plans to initiate a study in cooperation with Berry Botanic Gardens to investigate seed bank dynamics of *M. howellii* in conjunction with disturbance plots. This would be a project to see if we could establish *M. howellii* from seed in areas within the Long Tom ACEC that are currently not occupied by this plant. We are interested in pretreating areas where *Montia* seed would be placed to reduce competing vegetation. Treatments may include mowing, tilling, mulching, hand weeding, plastic solarization, and applications of sugar as ways to reduce non-native plants and enhance *Montia* and other natives.

The BLM proposes to use shovels and other hand tools to create soil disturbance to enhance habitat for *Cicendia quadrangularis*. Plant materials would be removed and the soil surface scraped to a depth of about 5" to create bare openings for the establishment of *C. quadrangularis* plants from seed. A number (5-10) of disturbance plots (3-6 square foot) would be created within the 15x45' area where *C. quadrangularis* occurs (refer to Attachment B) . Treatments would be conducted during the fall season of each year from 1995 until 1999. No other rare plant species occur within the area where these disturbance plots would be created for *C. quadrangularis*.

BLM proposes to control a number of non-native plant species with periodic hand-weeding as needed at the Long Tom ACEC between 1995-1999.

Monitoring plots are now established for all of the above-mentioned Special Status plants at the Long Tom ACEC and plant responses will be assessed in relation to proposed management treatments.

Alternative B: In this Alternative, we would not conduct the prescribed burns but all other projects would be implemented as detailed in Alternative A.

Alternative C: The No Action Alternative would be to leave the Long Tom ACEC as it is.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Proposed Action (Alternative A : The Long Tom ACEC is a seven acre parcel consisting of ash and oak woodland and wetland prairie openings (refer to Attachment B). *Lomatium bradshawii*, *Horkelia congesta*, and *Cicendia quadrangularis* occur in the wetland prairie openings. Presumably, around the time of euroamerican settlement (around the 1840's), the Long Tom ACEC area was predominantly a wetland prairie with scattered oak trees and ash woodland adjacent to riparian areas. The man-made levy and canal, the Long Tom canal, bisects the ACEC and was created sometime around 1942 to help reduce flooding within this region. *Montia howellii* occurs within the area of the access road along the east side of the canal.

The Eugene District of the Bureau of Land Management has conducted prescribed burns at 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 in recent years to improve conditions for Willamette Valley prairie plant species. Repeated burning has benefitted the population survival of *L. bradshawii*. Burning has also increased the frequency or density of a number of native prairie plant species although specific information for *Horkelia congesta*, *Montia howellii*, and *Cicendia quadrangularis* are not available.

The population of *Horkelia congesta* at the Long Tom ACEC appears to be stable, although specific response to management actions are unknown.

Densities of *Montia* and *Cicendia* appear to be less keyed to the presence of fire relative to other disturbance, e.g. soil disturbance. A soil disturbance project conducted in the fall of 1993 at the Long Tom ACEC resulted in dramatic increases in the density and frequency of *M. howellii* (refer to EA-9331 and EA-94-33 for further details and results). The *M. howellii* population is again declining within the ACEC due to competition with alien, perennial grasses. Yearly disturbance treatments may be necessary to maintain moderate population densities of *M. howellii*.

It is anticipated that *Cicendia quadrangularis* would also benefit (increased densities) from soil disturbance. Ground disturbance associated with a wetland mitigation project near Eugene, Oregon resulted in dramatic density increases of this plant.

Based on research and general observations, BLM can reasonably expect several consequences from proposed management manipulations and monitoring of Special Status plants at the Long Tom ACEC:

Prescribed Burns

- A. It is anticipated that a late summer burn would benefit *Lomatium bradshawii* as well as most other prairie species.
- B. Burning off surface thatch may provide bare soil patches for establishment of rare native annuals, such as *Montia howellii* and *Cicendia quadrangularis*, and reduce woody competition for the perennial, *Horkelia congesta*.
- C. Small diameter tree seedlings and shrubs should be killed by the fire, setting back woody plant succession and maintaining the integrity of the prairie.

Soil Disturbance Projects

- D. All available evidence indicates that we can expect a positive response of *M. howellii* and *C. quadrangularis* to soil disturbance treatments.
- E. No other rare plants will be effected by soil disturbance treatments.

All Treatments

- F. Negligible adverse impacts on wildlife populations or habitat would occur with the proposed late summer/early fall projects.
- G. Surveys have shown there are no known cultural resources on the ACEC, so no cultural resources would be affected by the proposed projects.

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 Long Tom population would decline.

Alternative C: The No Action Alternative would be to leave the Long Tom ACEC 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. A No Action Alternative would also not protect the *Montia* or *Cicendia* from encroaching vegetation. Competing perennial plants would eventually dominate the areas where these species occur and lead to the extirpation of these plants from the Long Tom ACEC.

IV. CONSULTATION AND COORDINATION

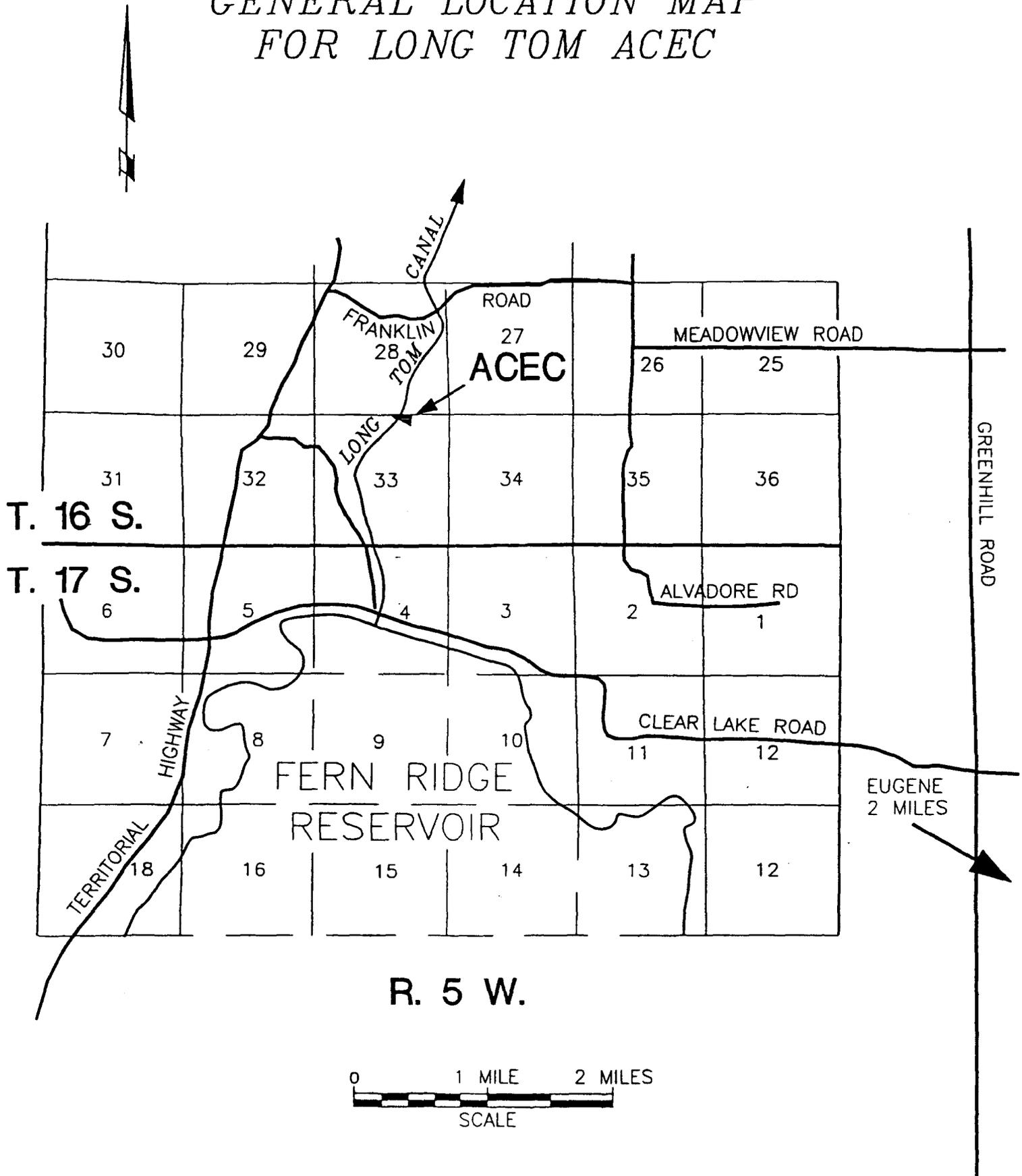
In compliance with Section 7 of the Endangered Species Act of 1973 (as amended), we are informally consulting with the U.S. Fish and Wildlife Service concerning the Proposed Action. It is anticipated that we will receive concurrence from them to proceed with this project prior to the end of public review for this EA. 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 and EA-94-33).

Specialists currently contacted for consultation and coordination included:

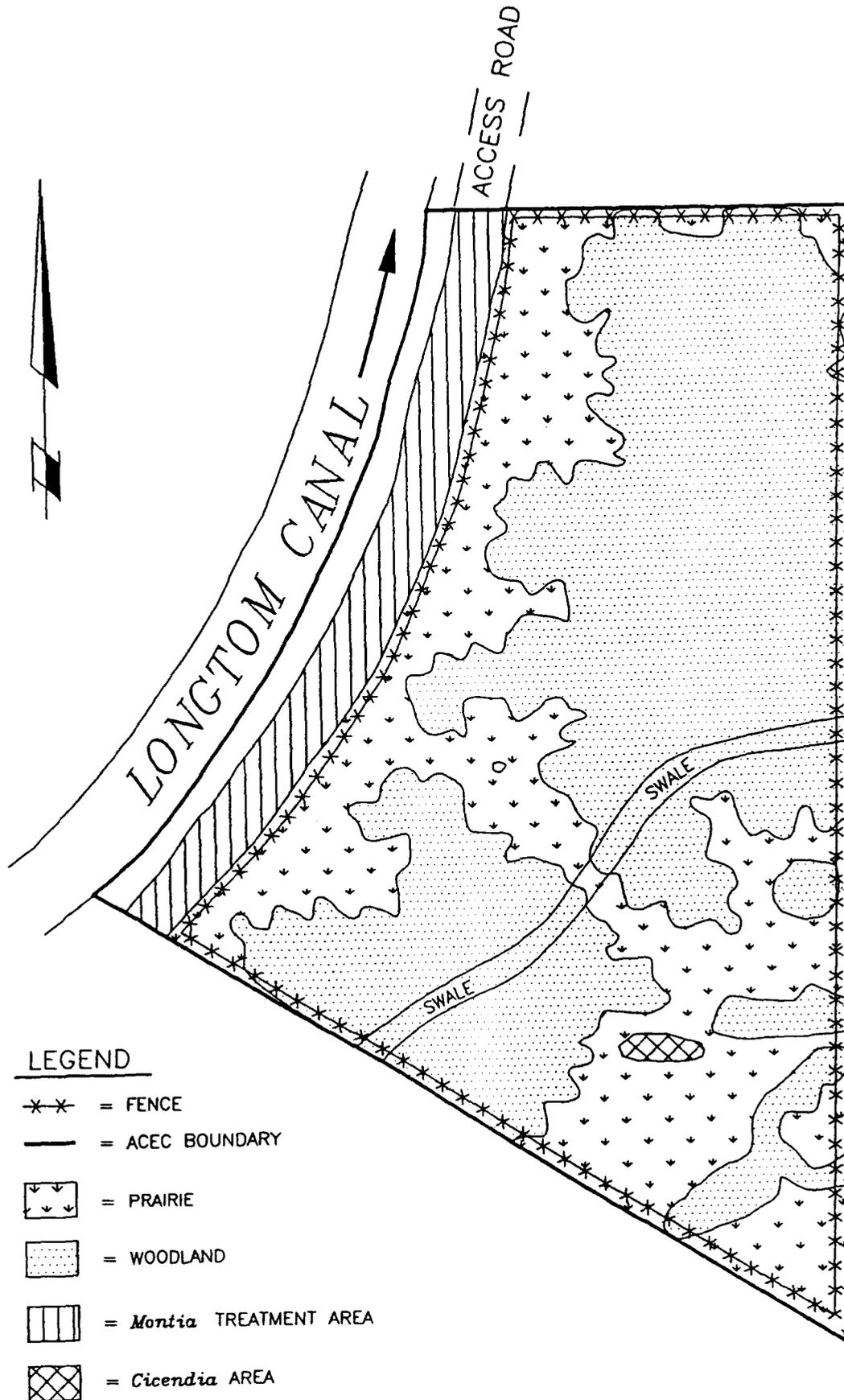
Phil Dills	BLM, Fire Management
Gary Hoppe	BLM, Environmental Coordinator
Greg Miller	BLM, Wildlife Biologist
Michael Southard	BLM, Archeologist
Nancy S. Wogen	Andrew Robinson BLM District Botanist, Eugene District
Ed Alverson	South Willamette Valley Land Steward, The Nature Conservancy
Edward Guerrant	Berry Botanic Gardens
Tom Kaye	Oregon Department of Agriculture-Conservation Biology Program
Andy Robinson	U.S. Fish and Wildlife Service

Prepared by: Kathy L. Pendergrass Date: 7/14/95
Environmental Coordinator: Mary A. Hoppe Date: 7/17/95
Area Manager: [Signature] Date: 7/17/95

GENERAL LOCATION MAP FOR LONG TOM ACEC



LONGTOM ACEC



Finding of No Significant Impact

EA OR 090-95-27

The Coast Range Resource Area, Eugene District, Bureau of Land Management has completed an Environmental Assessment (EA) and analyzed a proposal to enhance rare prairie plant species habitat during the next six years. The project area is located in the Long Tom ACEC, Section 33, T. 16 S., R. 5 W..

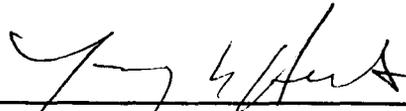
The design features of the Proposed Action are described in the attached Environmental Assessment (EA OR 090-95-27). The Proposed Action and alternatives to enhance habitat for selected plant species in the Eugene District, are in conformance with the Eugene District Record of Decision and Resource Management Plan (May 1995) and the recovery objectives identified in the recovery plan for *Lomatium bradshawii*.

The anticipated environmental effects contained in this EA are based on research, professional judgement, and the experience of the Eugene District Resources staff. No significant adverse impacts are expected to impact; Threatened or Endangered species, Flood plains or Wetlands/Riparian areas, Wilderness Values, Cultural Resources, Prime or unique Farmland, Wild and Scenic Rivers, Air Quality, Native American Religious Concerns, or Water Quality.

DETERMINATION

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

Approved by:



Area Manager, Coast Range Resource Area

Date:

7/17/95

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DECISION RECORD

Environmental Assessment No. OR090-95-27

Proposed Action: The Proposed Action is to proceed with projects to enhance rare prairie plant species during the next five years, including *Lomatium bradshawii*, *Montia howellii*, *Horkelia congesta*, and *Cicendia quadrangularis*. 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.

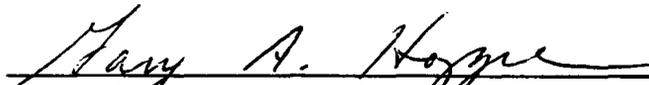
Decision

The decision is to implement the Proposed Alternative A Action as described in the attached Environmental Assessment.

Rationale

The Proposed Action will 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 two candidate species and one assessment species.

Approved by:


Area Manager, Coast Range Resource Area
Acting

Date: 8/18/95