WEST EUGENE WETLANDS PLAN

City of Eugene and Lane County
Eugene, Oregon • May 2004

Acknowledgments

This plan was originally developed by an intergovernmental staff team with project management from the Lane Council of Governments. The team included representatives from various City of Eugene departments and divisions including: Planning and Development, Public Works, Finance, Parks, Business Assistance, and Intergovernmental Relations.

A Technical Advisory Committee (TAC) provided comments and suggestions to the planning team and reviewed draft materials throughout the planning process. The TAC's contributions have helped in the understanding of state and federal laws and regulations governing wetlands issues. They included:

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The West Eugene Wetlands Partnership

The west Eugene wetlands are managed through a formal partnership among the City of Eugene, The Nature Conservancy, the U.S. Bureau of Land Management, the U.S. Army Corps of Engineers, and the Oregon Youth Conservation Corps. The partnership may change over time. The goal of the partnership is to manage the wetland system in a cooperative manner. The partners dedicate resources within their respective budgets to carry out this plan with attention to their own missions and legal requirements.

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Preface

When significant wetlands were identified in Eugene's primary industrial development area, wetlands were defined as a problem. Now, several years later, the West Eugene Wetlands Plan (WEWP) provides a clearer focus on the issues raised by the wetlands discovered in west Eugene and sets forth a vision that can achieve a balance of development needs and environmental values.

Between then and now, the Plan area has been the subject of a great deal of scrutiny and study. Inventories of habitat value, wetland boundaries and wetlands functions and values have been conducted. This information has been shared with the community, including property owners, environmental groups, and other interested citizens through newsletters, workshops, field trips, and in other forums.

We now know that there are wetlands of greater and lesser value. Many are full-functioning wetlands that have the proper mix of water, soils and wetlands plants. Some wetlands in west Eugene contain remnants of prairie grassland communities which once dominated the southern Willamette Valley. On these wetland sites, rare plants and insects have been discovered. Other wetlands in west Eugene contribute to flood control and help purify storm water.

We also know that less than a quarter of the total acreage of wetlands are of lower value and can be designated for development. Because loss of even these lower valued wetlands must be compensated for, the proposal for creation of a system of restored and enhanced wetlands ("mitigation bank") has been developed as part of this plan.

At the same time, it is evident that west Eugene is uniquely suited to provide a connected system of protected and restored wetlands along the major waterways that run through the area. With the wetland system contemplated in this plan, the west Eugene wetlands can protect rare plants, provide an open space greenway along the area's major streams, provide for water quality improvements that meet increased federal requirements, and at the same time help protect people and property from flooding.

This unique opportunity may not only be of value for the west Eugene area, but may serve as a focal point for wetland restoration and replacement for development in other parts of the Eugene urban area. With the adoption and implementation of the plan, community resources can be marshaled to assist in development of the lower-value wetlands and a combination of federal, state and local resources can be used to protect, restore and enhance the remaining wetlands. In the resulting Plan, federal and state requirements can be addressed at the local level, resulting in reduced time in the permitting process.

The community has a significant opportunity in the west Eugene area to create development that recognizes and is sensitive to the adjacent natural resources, while at the same time protecting that resource and enhancing its ability to meet a range of community objectives. Many of the public facility costs needed in the area over the coming decades can be used for multiple purposes, creating wetlands that filter pollution from storm run-off and replacing investments in more traditional forms of storm drainage facilities.

Photo: Oregon ash tree in the Willow Creek Natural Area. (photo by N. Björklund)

It is this multiple objective approach that is reflected in this comprehensive Plan. It is not simply a Plan to protect wetlands or to free wetlands up for development, it is a Plan that balances environmental concerns with development needs. It is a Plan that proposes to meld our public facility needs with the environment to create a better open space system in west Eugene. It is a Plan that suggests a variety of techniques for spreading the costs of the recommendations out among several funding sources over a period of time to make the system affordable to this community.

In 1989, the WEWP planning process began with a series of citizen workshops. The process was designed to include broad participation by property owners, the development community, environmental groups, state and federal agency representatives, and other interested citizens. During 1989, more detailed inventory work was conducted. This Plan is a result of scientific study and local community involvement; it is a Plan that strives to integrate environmental protection with economic development within the framework of state and federal wetland programs.

The Plan's first two chapters present Plan Objectives and Highlights and a general introduction. The next five chapters address: Resource Protection; Development and Mitigation; Operating, Maintaining, and Monitoring; Financing; and Future Studies. A companion document to this Plan is the more detailed Technical Report. By putting the detailed background material in the Technical Report, the Plan remains smaller, provides clearer direction guiding future actions, and allows for broader public distribution. The Plan focuses attention on the individual wetland sites, goals, policies, and recommended actions. The Plan also contains a list of future public improvement projects that directly and indirectly affect the study area. The terms "goals, policies, and recommended actions" are defined below.

Goals are broad statements of philosophy and are adopted by the City Council and Lane County Board of Commissioners. They may never be completely attainable, but they describe the hopes of the people and help establish direction.

Policies provide the basis for consistent action to move the community toward its goals. Policies are adopted by the City Council and the Lane County Board of Commissioners. These policies are used to evaluate actions relative to the Plan.

Recommended Actions are ideas on how to implement the policies, but are not adopted by the City Council or the Board of County Commissioners. They suggest ways the policies may be carried out and are reviewed, studied, and revised over time. They may or may not be implemented in the form in which they appear. Recommended actions are evaluated in light of their ability to address the Plan's goal and policy direction while considering community aspirations, financial options, and legal requirements.

In 1992, the Eugene City Council and Lane County Board of Commissioners adopted the West Eugene Wetlands Plan, a refinement to the Eugene-Springfield Metropolitan Area General Plan. Below are listed the specific ordinance numbers and the date of adoption by each jurisdiction.

- Eugene City Council adopted amendments to the Draft Plan, May 20, 1992, Ordinance No. 19853.
- Lane County Board of Commissioners adopted amendments and added additional amendments, July 22, 1992, Ordinance No. PA 1019.
- Eugene City Council adopted new amendments, August 10, 1992, Ordinance No. 19867.
- Lane County Board of Commissioners amended Ordinance No. PA 1019 to add changes inadvertently omitted from that ordinance, August 26, 1992, Ordinance No. PA 1019-A.

The West Eugene Wetlands Plan was revised through a coordinated set of amendments initiated by the City of Eugene. The amendments were accomplished via a series of ordinances adopted by the Eugene City Council and the Lane County Board of Commissioners from 1993-2000. The ordinance numbers and adoption dates for each are listed below.

- Eugene City Council Ordinance No. 20002 adopted on March 6, 1995, and Lane County Board Ordinance No. PA 1075 adopted on May 30, 1995. These amendments revised the designations on three small wetland sites, deleted three outdated policies, and made minor corrections to the text of the Plan.
- Eugene City Council Ordinance No. 20119 adopted on May 20, 1998 and Lane County Board Ordinance No. PA 1117 adopted on June 24,

1998. These amendments added new policies to address planned transportation improvements and existing utilities in protected wetland areas.

- Eugene City Council Ordinance No. 20126 adopted on July 8, 1998 and No. 20171 adopted October 11, 1999; and Lane County Board Ordinance No. PA 1106 adopted on November 10, 1998 and No. PA 1133 adopted November 23, 1999. These amendments made significant revisions and updates to Plan policy and text to reflect new information.
- Eugene City Council Ordinance No. 20147, Ordinance No. PA 1129, adopted on April 21, 1999. These amendments applied the new Planned Transportation Corridor wetland designation to two small wetlands on City owned land.
- Eugene City Council Ordinance No. 20200, adopted on July 26, 2000 and Lane County Board Ordinance No. PA 1107, adopted on August 30, 2000. These amendments applied wetland designations to wetlands mapped after the adoption of the original plan, and revised wetland designations on a number of existing wetland sites.
- Eugene City Council Ordinance No. 20201, adopted on August 7, 2000, and Lane County Board Ordinance No. PA 1109, adopted on September 13, 2000. These amendments designated wetlands on Site HG (the Hyundai site), which were mapped after the adoption of the original Plan.
- Eugene City Council Ordinance No. 20208, adopted on September 11, 2000, and Lane County Board Ordinance No. PA 1108, adopted on November 1, 2000. These amendments revised wetland designations for existing wetlands and designated newly mapped wetlands on Site H2 (the Eugene Speedway site).

1. Objectives and Highlights

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Plan Objectives

There were four major objectives of the West Eugene Wetlands Special Area Study:

1. To use the best information to help the community understand the choices available;
2. To find a balance between environmental protection and sound urban development which meets state and federal laws and regulations;
3. To provide opportunities for involvement of all interested segments of the community in Plan development; and
4. To turn a perceived "wetlands problem" into a "wetlands opportunity" for the community.

Plan Highlights

As suggested in the Preface and the above objectives, this Plan addresses wetlands and economic development as critical parts of a healthy, livable community. While the plan contains more detailed goals, policies, and recommended actions, the thrust of the Plan can be understood by reviewing the following highlights, the Wetland Designations Map (Map 3) and the Wetlands Conceptual Plan Map (Map 4).

Protection and Restoration of a Wetland and Waterway System

To implement existing federal and state wetland law and policy, the Plan designates the most valuable remaining wetlands for protection. Sites with large populations of rare plants are designated for protection. Almost all of the sites with remnants of the wet prairie grasslands with other important natural values are designated for protection within the west Eugene wetlands study area. Existing wetlands will be enhanced and areas restored where wetlands once existed. These areas and additional areas along stream courses will be used to form a connected wetland system creating greenways along Amazon Creek, Willow Creek, the A Channel (old Amazon Creek), and the A-3 Channel. This system will provide open space and scenic values in the west Eugene region. Buffering techniques will be used to protect wetlands from the effects of adjacent land uses.

Protection of Natural Diversity

By protecting a variety of wetlands, establishing protective buffers, creating and enhancing a variety of wetland types, managing them as a connected system, and linking them together, the community can enhance the natural diversity of west Eugene, an area which was neglected too often in the past. In the future, it will be rich in natural and cultural diversity.

Development Opportunities and Certainty

After many years of planning for urban uses and investing millions of dollars in public infrastructure facilities, the discovery of wetlands in west Eugene placed a cloud of uncertainty over future development opportunities. The Plan responds to this dilemma with recommendations that attempt to balance environmental and economic development values within the framework of federal and state wetland law. The Plan removes the cloud of uncertainty by recommending development on some wetlands while protecting others (see Map 3, Wetland Designations). Wetlands that are designated for development are frequently small, isolated and difficult to protect from already planned or developed urban uses. The Plan also recommends that the City seek a regional permit from the Army Corps of Engineers so that the administration of the permitting and mitigation process can occur at the local level, thus saving valuable time and resources.

Public comment during the preparation of the Plan and examples of new development adjacent to wetlands in other communities, tells us that citizens value living, working and shopping in areas that demonstrate attention to the surrounding landscape. Using this Plan, the community can focus its attention on designing future development in ways

Photo: Students at Amazon Creek, West Eugene.

that complement wetland areas, resulting in added value for both the development and the environment.

Wetland Protection Measures

The Plan calls for implementation of a number of wetland protection measures. The primary long term protection strategy is public or private nonprofit acquisition, coupled with a natural resource designation on the Metropolitan Plan and a natural resource zoning district that would prohibit development. Prior to acquisition, the existing federal and state wetland regulatory processes in conjunction with the policies in this plan will be the primary means for ensuring wetland protection. In addition to their existing review process, federal and state regulatory agencies will utilize this Plan's recommendations as guidelines when considering individual permit applications. The plan is aimed towards transferring, in part or in whole, the administration of state and federal wetland fill permitting processes to the City of Eugene, concurrent with or subsequent to, City adoption of other protection measures specified in this Plan. At that time, the City will have adopted other protection measures such as overlay zones, buffering requirements, and conservation easements.

A priority for implementing this Plan was the preparation and adoption of a waterside protection and development ordinance. This ordinance protects water quality and wildlife habitat of identified natural resource areas, allowing and encouraging development that is designed to enhance environmental values (see Appendix A, City of Eugene Implementing Ordinances).

Mitigation

Mitigation is the process used by federal and state agencies for determining whether wetlands may be developed (impacted) and, if so, under what conditions. The decision-making process is hierarchical where each level of criteria must be satisfied prior to proceeding to the next. The process is structured so that priority consideration is given to *avoiding* wetland impact. If it can be shown there is an unavoidable need to impact wetlands, the process then attempts to minimize the extent of the impact and sets out requirements to *compensate* for wetland losses in the form of enhancement, *restoration* or *creation* of wetland resources.

This Plan has conducted the mitigation analysis for the entire study area and concludes that the most effective way to achieve no net loss of wetland resources is to avoid impact. As a result, the majority of the wetland acres will be protected from impact through acquisition, comprehensive plan designations, zoning techniques and buffering requirements.

For the wetlands designated for development, the Plan requires compensation to occur at a minimum ratio of one acre of replacement for each acre of impact. Compensation is targeted for areas where the prospects for success are the highest, most beneficial to the ecological landscape and require little, if any, on-going maintenance. These areas are located on historic wetlands, disturbed agricultural wetlands and in areas adjacent to existing waterways. Enhancement and restoration, therefore, will be the primary methods for compensating for wetland losses. Mitigation efforts will concentrate on reestablishing historic wetland types and habitats that naturally occur in the area, while also creating opportunities for other wetland types such as marshes and ponds.

The Plan approaches mitigation in a comprehensive manner where resulting efforts not only satisfy federal and state wetland law but achieve other community needs and objectives such as providing additional flood control storage, water quality enhancement features, improved wildlife habitat and educational and recreational needs.

Mitigation and the Regional Mitigation Bank Concept

The Plan utilizes the wetland mitigation bank concept as the primary means for implementing the mitigation program. With this approach, mitigation efforts are planned as a whole where the most suitable sites are identified, acquired and restored in advance of wetland impact. This concept not only benefits the natural resource system by planning for the restoration of the Amazon Creek basin, but it also benefits the users of the bank - the development community. The bank system performs the mitigation requirements for individual users where the details of compensation are preplanned, constructed and maintained by a public or private nonprofit agency. To satisfy individual impact requirements, users simply have to buy mitigation credits from the bank, thus eliminating uncertainty and saving valuable time and resources. Because the bank is planned and developed as a whole, the details of mitigation can be incorporated into the existing environment, resulting in a more logical and natural system. The bank is designed to have sufficient capacity to serve the mitigation needs of the West Eugene Wetlands Plan Area and the community as a whole.

Stormwater Management

In 1993, the City of Eugene adopted the Comprehensive Stormwater Management Plan (CSWMP) that addresses the issues of flood control, water quality and natural resource management. This program includes management of the west Eugene wetlands system and focuses on the interrelationships among these components of Eugene's waterways and associated wetlands. The City of Eugene Public Works Department will use fewer piped storm sewers and will manage the open channels in ways to better balance stormwater and flood needs with environmental and wildlife habitat needs. The efforts will help reduce pollution and will make the waterways more pleasant urban open spaces.

Water Quality Improvements

Constructed wetlands and wetland improvements will be

used as biological filters to remove sediments, certain nutrients, and other water pollutants from the drainageways in west Eugene. In some instances, wetlands will be enhanced by providing more water to sites. The result will be cleaner surface waters, improved aquatic habitats, and a more pleasant water-oriented experience for those who live, work and visit west Eugene. While these wetlands may have multiple values, they will be managed for their primary use - stormwater treatment. The Comprehensive Stormwater Management Plan adopted in 1993 includes policies and best management practices to gain stormwater treatment benefits from the wetlands in west Eugene.

Improved Flood Control

By widening channels, protecting existing wetlands and creating new wetlands, additional flood storage capacity can be added in west Eugene. The widened channel bottoms will allow the low flow channels to meander among wetlands and for the reestablishment of stream bank habitat. This will reduce downstream impacts of storm runoff originating in the urban area. These flood storage improvements can often provide multiple benefits, such as wildlife habitat and recreation. Widening projects will be designed to protect and enhance adjacent wetlands. An example of this type of project is the Amazon Channel Enhancement (ACE) Project, which was completed in 1997. This project widened the channel of Amazon Creek within a 2.5 mile reach, and built a new bicycle and pedestrian path alongside the expanded channel. This project was paid for primarily by federal ISTEA (Intermodal Surface Transportation Efficiency Act) funds.

Improved Plant and Animal Habitats

Within the managed wetland system, large populations of rare plants will be protected. Experimentation on ways to increase populations of rare plants will occur through scientific research and demonstration projects. Also, the unique Willamette Valley prairie grassland plant community will be protected through creation of a wetland prairie reserve. By protecting and restoring a variety of wetland types, and by buffering natural areas from the impacts of nearby development, a diversity of habitats will be created; that diversity will benefit wildlife. The greenway corridor concept also benefits wildlife. Expanding existing natural systems and restoring habitat in areas that have been damaged by human activities insures better survival of wildlife and wildlife viewing opportunities. The greenway corridor concept also achieves this purpose.

Recreation, Education, and Research

Planned trails, bikeways, wildlife observation points and cleaner water within a diverse system of wetland types will provide numerous opportunities for public enjoyment of west Eugene environments. The wetland environment in west Eugene will become a favorite place to recreate and learn particularly when utilized by elementary, secondary and higher learning institutions in the community. Located near the University of Oregon, Oregon State University, Lane Community College, and other federal research laboratories, west Eugene will be the subject of further study over the coming decades. The possibility of a nature center devoted to west Eugene natural areas, including wetlands and the native American and early white settlement of the southern Willamette Valley, is currently being explored. Such a center will be designed to serve educational, recreational, and research needs.

Corridors and Connections

By creating greenways and trails along existing waterways, a connected system can be established via Amazon Creek from Spencer Butte to the edge of the west Eugene wetlands study area boundary. Via Willow Creek and the Amazon Park system, Amazon Creek can also be connected to the South Hills ridge line system. The Amazon waterway systems, like the Willamette and McKenzie Rivers, can become important natural corridors linking the community together.

Managing the System

The City of Eugene Public Works Department will assume the overall responsibility for managing and monitoring the west Eugene wetlands system with assistance from other departments. The role of the Public Works Department will expand to include natural resource management, stormwater quality and wetlands. Through staffing or contractual arrangements, the City will gain the expertise needed to manage the wetlands system. There are opportunities to work with environmental and community organizations, nonprofit environmental groups, and the private sector in order to protect and enhance west Eugene's natural environment. School children and other interested citizens can enjoy studying the environment while having a helping hand in improving it.

Financing Protection, Restoration, and Management

The City will continue to seek state and federal funds to acquire wetlands for protection, land for restoration and mitigation, and to pay for demonstration construction projects. Local funding sources will be focused on the construction of public improvements and the on-going operations, maintenance and monitoring of the system. Private funds will assist with acquisition and construction through the revolving funds of the mitigation bank program. Formation of a local land trust is another possible way to use private funds to assist the wetlands program. The funding solutions for west Eugene are likely to be diverse, and it is anticipated that acquisition and construction will take at least ten years or longer to complete. The acquisition and construction program is accompanied by priorities in map and list form (see Chapter 6, Maps 5 & 6) which will help in phasing Plan implementation over time as funding allows. A steady, local revenue source is recommended for the on-going management program. The wetlands management program will continue to be coordinated with the appropriate state, federal, and local agencies.

2. Introduction

2. Introduction

By presenting a vision for west Eugene, this Plan provides a framework for balancing natural resource protection and urban development. By protecting and restoring the natural environment and by planning development more carefully, the implementation of this Plan can provide a model for better integrating our natural and urban worlds. As the Plan is implemented, west Eugene will be a nicer place to live, work, visit, recreate, and travel through. Specially created wetlands can serve public works functions like flood control and water purification. Animals and rare and unusual plants can survive in and benefit from improved habitats. People will enjoy walking, canoeing, bicycling, and fishing along the Amazon Creek in the future. The community could take pride in a waterway and wetland system that links the community and future generations with our natural and cultural past. This Plan continues a long tradition of Eugene planning to integrate our natural environment with carefully planned growth, making Eugene one of the outstanding places in the United States to live and work – a truly livable city.

The Plan provides mechanisms for protecting wetlands and for allowing sound economic development. It provides a vision for the west Eugene area which creates a wetland reserve composed of protected and restored wetlands. These wetlands are organized as a connected system creating greenways along the Amazon Creek, Willow Creek, the A Channel (old Amazon Creek), and the A-3 Channel within the west Eugene wetlands study area. The Plan directs development away from sensitive areas. The Plan allows development where there have been past public and private investments in public improvements. The Plan directs development where environmental damage can be minimized and where development can benefit from proximity to wetlands (for example, recreation and aesthetics). The Plan recommends open spaces along the water corridors through a carefully crafted scheme allowing multiple uses as summarized in Chapter One, "Objectives and Highlights."

Area Covered

Eugene, Oregon is located in Lane County at the southerly end of the Willamette Valley (see Map 1). With a population of 122,000 (July 1995 estimate), Eugene is the second largest city in Oregon; Portland being the largest. The overall population of the Eugene-Springfield metropolitan area is approximately 200,000 persons.

The Plan generally covers the Amazon Creek drainage basin from its headwaters near Spencer Butte in southeast Eugene to the western edge of the West Eugene Wetlands Study Area (see Map 2). The West Eugene Wetlands Study Area, is approximately 8,000 acres in size and is generally bounded by Garfield Street to the east, Green Hill Road to the west, the South Hills Ridge line to the south and Royal Avenue to the north. All of the delineated wetlands affected by this Plan are within this area.

The maps and text of this Plan apply only to the West Eugene Wetlands Study Area, except as explained later in this paragraph. References in the goals, policies, and recommended actions which allude to the study area, Plan area, or Amazon Basin refer to this area and areas lying entirely within the Metropolitan Plan jurisdictional boundary, including the Upper Amazon Drainage Basin. The only portion of this Plan which applies to the area lying west of the Metropolitan Plan jurisdictional area labeled "Western Amazon Drainage Basin" on Map No. 2, is the section titled, "West Amazon Drainage Basin" found on page 22 in Chapter Four, "Development and Mitigation". It is within this area that additional mitigation efforts and related public improvement projects will occur.

Plan Documents

There have been a number of studies and documents produced during the West Eugene Wetlands Plan process. They are all listed in the reference section. Two key documents are:

1. This Plan, the West Eugene Wetlands Plan, which includes a brief narrative with goals, policies, implementation strategies, and maps that will guide the community toward achieving local objectives and

Photo: Bertelsen Slough and Stewart Pond, from above. (photo by S. Gordon)

meeting state and federal laws and regulations.

2. A Technical Report, which includes more detailed text and maps that summarize information about the study area, wetlands, alternatives analysis, environmental and economic impacts evaluation, federal and state wetland laws, and the citizen involvement process used in developing this Plan.

Other important documents developed during the planning and implementation phases of the project include the "Final Report for West Eugene Supplemental Inventory" (Revised January 1995), the "Revised Alternatives Analysis" (an update of Chapter 7 of the Technical Report) (October 1993), "Mitigation Options for Eight Sites in West Eugene" (February 1993), "Assessment of Proposed Mitigation Areas in West Eugene" (February 1993), the "1994 West Eugene Wetlands Annual Report" (February 1995), and the "Eastern Gateway Restoration Project Annual Report" (January 1995).

Relationship to Other Plans and Policies

The West Eugene Wetlands Plan is a refinement of the Eugene-Springfield Metropolitan Area General Plan (Metropolitan Plan), 1987, a guiding document for public decisions affecting the metropolitan region. Refinement plans are consistent with other City and metropolitan policy documents, such as the metropolitan regional transportation plan, TransPlan, 1989, and the Eugene Community Goals and Policies, 1984. Additionally, refinement plans must be consistent with the direction established in the Metropolitan Plan or initiate a process for its amendment. The West Eugene Wetlands Plan addresses the relationship with other refinement plans, such as the Willow Creek Special Area Study, 1982, and the Bethel-Danebo Refinement Plan, Phase II, 1982.

The Plan was developed in coordination with several key state and federal agencies involved in wetlands regulation and planning: Division of State Lands (DSL), Army Corps of Engineers (ACOE), Environmental Protection Agency (EPA), and the United States Fish and Wildlife Service (USFWS). The Plan was also coordinated with local offices of other applicable local, state and federal agencies. The Plan was developed to meet all applicable state and federal regulations and guidelines. The adopted Plan will be accepted by the DSL, ACOE, and EPA through formal agreement or their respective formal approval processes.

Plan Implementation

After careful review, the Eugene City Council and the Lane County Board of Commissioners will take action based on the West Eugene Wetlands Plan's goals, policies, maps and its priorities list of land acquisition and future public improvement projects. Some recommended actions must be adopted and made operational in order to establish state and federal permitting authority at the local level. The recommended actions will receive strong consideration over the life of the Plan by local governments, by federal and state agencies, and by private interests, including the environmental and development community.

The City is expected to use the Plan in the:

1. Administration of City programs and services affecting the west Eugene region.
2. Review of City regulations or ordinances identified in the Plan as needing amendments.
3. Review of other plans and policies that affect the west Eugene region.
4. Coordination with other governments and groups interested in the west Eugene region.
5. Development of lobbying priorities for changes in state and federal law or programs and in seeking funding support for Plan implementation.
6. Development of specific zoning districts, ordinances or other measures to comply with state and federal wetland conservation plan requirements.
7. Preparation of the City's Capital Improvement Program and annual City budget for operation and maintenance of the system of natural areas, parks, and public works.
8. Review of land use applications and building permits.

Lane County may use the Plan in the:

1. Administration of County programs and services impacting the west Eugene region.
2. Review of County regulations or ordinances identified in the Plan as needing amendments.
3. Development of lobbying positions for changes in state and federal law or programs and in seeking funding support for Plan implementation.
4. Preparation of the County's Capital Improvement Program and annual County budget for operation and maintenance of the system of natural areas, parks, and public works.
5. Response to development proposals consistent with this Plan.

State and Federal Agencies will use the Plan to:

1. Make determinations regarding review and approval of a federal general (regional) permit and a state wetland conservation plan.
2. Make funding decisions and establish funding priorities.
3. Make decisions about further wetlands, water quality, and environmental research.
4. Guide other activities and projects consistent with and complementary to the mutually developed and agreed upon Plan.

Others interested in the Plan or operating in the west Eugene region are expected to use the Plan in the:

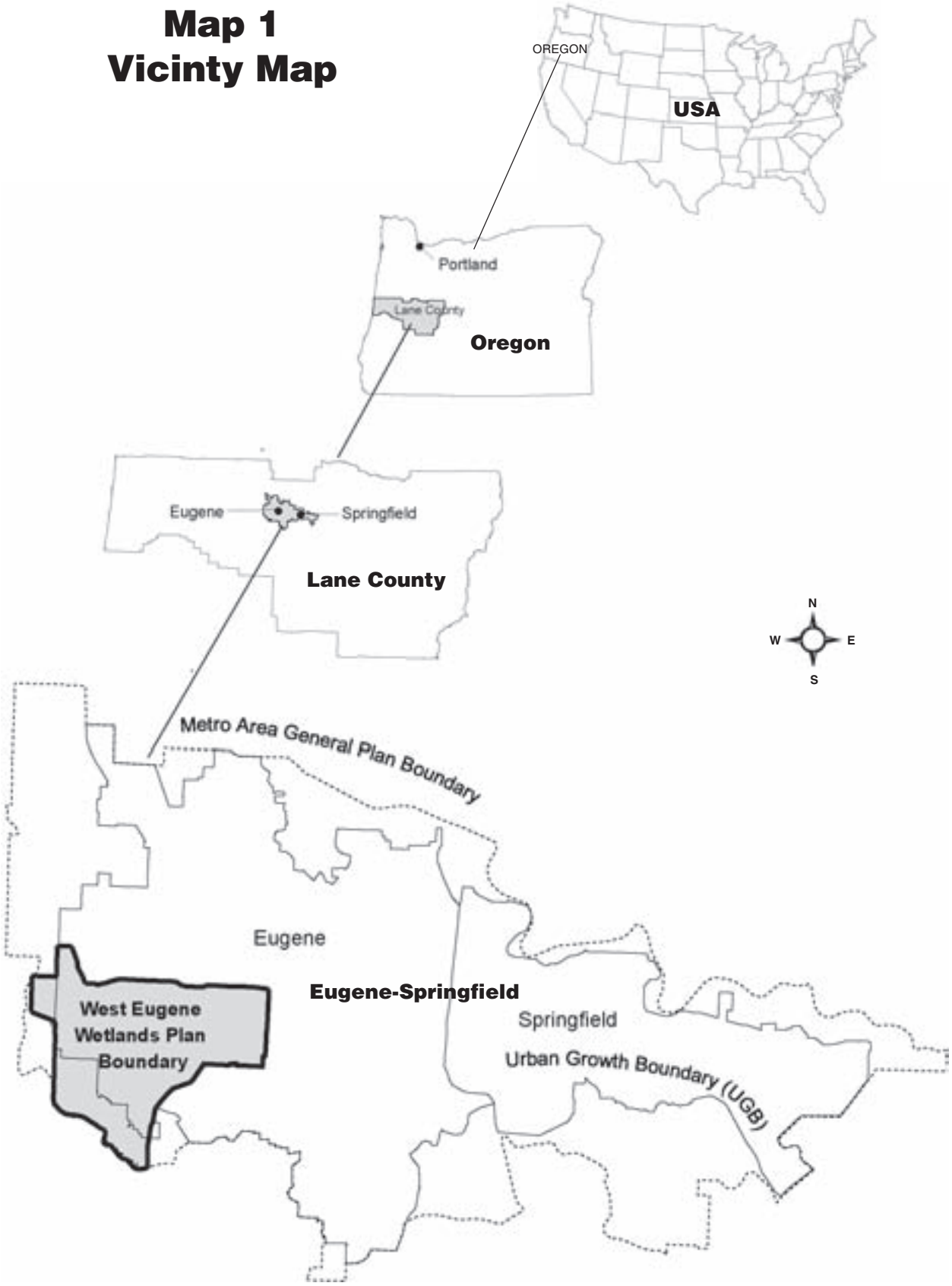
1. Understanding of the community's vision and hopes for west Eugene.

2. Design of projects so that they are consistent with the plan and complement the existing or planned protection, restoration, and development scheme.
3. Initiation of projects and activities that affect the west Eugene natural and developed systems, including public improvements.

Amendment Process

The West Eugene Wetlands Plan can be amended in the same manner as any other refinement plan or special area study as provided for in the amendment procedures of the Eugene Code (see Appendix D). As with other refinement plan amendments, any amendment to WEWP must be consistent with the Metropolitan Area General Plan. If there are inconsistencies, an amendment to the Metropolitan Plan is required before any such WEWP amendment could be effective. Due to the regional permitting process and the on-going relationship with state and federal regulatory agencies, they will be notified of any proposed amendments and asked to comment prior to planning commission or council action, or action by Lane County.

Map 1
Vicinity Map



Map 2
Study Area

- Wetland Plan Boundary
- Parks
- State Wildlife Management Area
- Upper and Western Amazon Drainage Basins
- Primary Water Features
- Concrete Lined Channel
- Roads
- Ridgelines

N W E S

0 1 2 Miles

Long Tom River
Fern Ridge Reservoir
Eugene Airport
Airport Rd.
Clear Lake Rd.
Hwy. 99
Amazon Creek
Fir Butte Rd.
Greenhill Rd.
Amazon Diversion Channel
Royal Ave.
Roosevelt Blvd.
Terry St.
Danebo
Beltline Rd.
BLM
W. 5th Ave.
W. 7th Pl.
W. 11th Ave.
W. 18th Ave.
Bertelsen Rd.
Patterson School
Lane County Fairgrounds
Concrete channel
Westmoreland Park
Amazon Park
Amazon Creek
Western Amazon Drainage Basin
Hwy. 126
Fisher Rd.
Cantrell Rd.
Central Rd.
W. Fork Coyote Creek
M. Fork Coyote Creek
Coyote Creek
Crow Rd.
Willow Creek
Gimpl Hill Rd.
Bailey Hill Rd.
Ridgeline
Ridgeline
Upper Amazon Drainage Basin
Spencer Butte Park

Map 4
Conceptual Plan

Note: This map reflects a vision for future efforts to improve the quality of the Amazon Creek Basin by protecting, restoring, enhancing and creating wetland resources.

- Wet Prairie Wetland
- Open Water or Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland
- Riparian Habitat
- Upland Habitat
- WEW Plan Area
- City Limits
- Urban Growth Boundary

This map is for information only, and is not adopted policy.

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3. Resource Protection










3. Resource Protection

Introduction

This section discusses and presents goals, policies and recommended actions for protecting and providing protective buffers for wetland sites in the study area.

As a result of field work conducted primarily in 1988-89 and 1993, approximately 1,500 acres of jurisdictional wetlands were identified within the study area. Through a process which involved a series of public workshops, a technical advisory committee of state and federal agency representatives, and staff evaluation of alternatives, the Wetland Designations Map (Map 3) was developed which calls for protecting the majority of wetlands, and allowing development to occur on the remaining lower quality wetlands. The Wetland Designations Map (Map 3) depicts wetlands that are designated for development, protection, and mitigation.

Wetlands are designated for protection due to their high natural resource value (colored green on Map 3) or due to their value as enhancement sites for mitigation credit (colored yellow on Map 3). See Chapter 4 of this Plan for a detailed discussion of mitigation policies.

Policy 3.17 contains the criteria used to identify sites suitable for and deserving of protection. The development of these criteria included consideration of state and federal wetland laws and policies, citizen input received through workshops and questionnaires, comments from wetland regulatory agency staff, and the results of the field work conducted by Esther Lev in 1988 and by Scientific Resources Inc. (SRI), in 1989. Not all of the criteria in the list referred to above had to be met in order to assign a protection designation.

The primary thrust of these designations is to seek acquisition of the wetlands identified for protection including those designated for restoration. Following acquisition, land use controls will be applied to restrict uses and protect those sites in perpetuity. Protection measures developed as part of the concurrent Eugene-Springfield Metropolitan Area Natural Resources Special Study were recommended as long-term protection measures. These protection measures are included in Appendix A of this Plan.

Prior to acquisition of protected wetland sites, potential development on those sites would be subject to Planned Unit Development, Site Review procedures or other land use regulations, as well as state and federal wetland permit processes.

The Conceptual Plan (Map 4) reflects the ultimate wetland system when fully protected and restored. It is conceptual in nature and will be refined over time as more information is gathered about restoration sites, public facility design (see Chapter 6, Financing), and habitat suitability.

Goals, Policies, Recommended Actions

The following section contains goals, policies, and recommended actions for those goals and policies for the study area. These apply to the wetlands specified for protection on the Wetland Designations Map (Map 3).

Goals

3.1 Protect and enhance water quality, wildlife habitat, flood storage, sediment and toxicant removal and other wetland functions and values.

3.2 Minimize economic hardship on private property owners due to protection of wetlands and other valuable environmental resources.

3.3 Minimize adverse impacts to protected wetlands from adjacent development.

3.4 Protect high quality examples of each important type of wetland plant community currently existing in west Eugene: native Willamette prairie grassland, ash forest, cattail marsh, shrub/scrub, and open water.

3.5 Protect and expand current populations and habitats of rare plants and animals that currently exist in west Eugene.

3.6 Achieve state and federal requirement of "no net loss" of wetlands in both quantity (area) and quality (functions and values).

3.7 Protect an interconnected system of wetlands within a sustainable, ecologically sound system, with a high likelihood of long-term survival.

3.8 Allow for multiple uses of protected wetlands, while ensuring that functions and values are maintained or enhanced.

Photo: Willamette Daisy, Erigeron decumbens var. decumbens. (photo by E. Alverson)

Policies

3.1 Seek acquisition of protected wetland sites by federal, state, and local public agencies and private, nonprofit conservation organizations.

3.2 Apply interim protection measures to wetland sites identified for protection through existing local land use controls, until sites are purchased for conservation and protection.

3.3 Develop and adopt ordinances to protect wetlands and waterways.

3.4 Amend existing policies that conflict with protection of regulated wetland functions and values to make them consistent with WEWP goals and policies.

3.5 Along with Lane County and the State of Oregon, protect wetlands on public lands in the west Eugene wetlands study area and restore wetlands on public lands consistent with Wetland Designations Map (Map 3).

3.6 Coordinate development and adoption of protective ordinances with Lane County for sites outside the city limits and within the Urban Growth Boundary.

3.7 Ensure that any private or public party can continue to seek individual state or federal wetland permits for any proposed development.

3.8 Establish, maintain and protect physical and hydrologic linkages between protected wetlands and adjacent transitional and upland wildlife habitat and natural areas.

3.9 Protect and enhance the quality, functions, and values of natural and human-made waterways that are interconnected with wetlands.

3.10 Include provisions for protection of rare plants in ordinances developed and applied to wetlands identified for protection on Map 3.

3.11 Restrict public access in natural research areas, rare plant sites and specified wildlife nesting and resting areas.

3.12 Protect and create buffer areas between regulated wetland boundaries and adjacent uses or developments.

3.13 Promote multiple uses of protected wetlands to meet community, environmental and human needs: (a) provide public access for all people where other wetland functions and values are not compromised; (b) coordinate wetland protection, enhancement and restoration with regional water quality improvement needs; and (c) utilize current and restored wetlands for flood storage and control.

3.14 Implement wetland protection policies that prohibit development on wetlands designated for protection after those wetlands are acquired by a public agency or nonprofit organization (e.g., The Nature Conservancy).

3.15 The Waterside Protection setback proposed in the Natural Resources Special Study shall be applied to streams designated to be protected in this plan as identified on Map 3, Wetland Designations.

3.16 The City recognizes that habitat management considerations, purchase negotiations, site characteristics and unforeseen opportunities may cause acquisition area boundaries to differ from the protected wetland boundaries shown on Map 3 of the adopted Plan.

3.17 The following standards and criteria shall be used to designate newly identified wetland sites or portions of sites (i.e., undesignated wetlands within the West Eugene Wetlands Plan boundaries) for protection, development or restoration on the Wetlands Designation Map (Map 3) of the West Eugene Wetlands Plan. These standards and criteria provide the framework for maintaining a balance within the plan area between environmental protection and sound urban development, consistent with state and federal wetland law.

For each site or portion of a site, designations shall be based upon either 1) finding that the site meets at least one of the standards, or 2) a thorough consideration of how all the criteria apply to the site. A wetland site need not meet all of the criteria for a given designation in order to be given that designation. The restoration designation shall be used to identify sites considered important primarily for their location and function in the larger wetland system, and the restoration criteria shall be applied when a site does not clearly meet either the protection or development standards or the protection or development criteria as a whole.

Protection

Standard

1. Sites designated "Natural Resource" on the Metropolitan Area General Plan diagram shall be designated for protection.

Criteria

1. Site contains population(s) of one or more rare plant or animal species and contains sufficient and suitable habitat for the long-term protection of the population(s). This criterion is not met if only small occurrences of a rare plant species are found on a site with limited suitable habitat that is isolated from other undeveloped parcels.
2. Site is primarily within the 100 year floodplain.
3. Site is within 100 feet of a waterway (stream)

designated for protection on Map 3 of the West Eugene Wetlands Plan.
4. Site has a direct perennial or intermittent surface water connection to a wetland designated for protection on Map 3 of the West Eugene Wetlands Plan.
5. Site contains a high diversity of wildlife habitat or contributes to the diversity of wildlife habitat within the region.
6. Site has unique characteristics which make it of special importance to the functioning of the larger wetland system in West Eugene, and protection of site would further the goals and objectives of the West Eugene Wetlands Plan.
7. Presence of unique Willamette Prairie Grassland plant community. Site contains indigenous wet prairie habitat. This criterion is intended to apply to areas of wet prairie habitat that are large or of moderate to high quality.

Development

Standard
1. The site shall be designated for development if, at the time of designation of the site in the West Eugene Wetlands Plan, it has a valid, approved wetland impact permit from the Oregon Division of State Lands and the U.S. Army Corps of Engineers.

Criteria
1. Site is relatively isolated or disconnected from the larger system of wetlands and waterways.
2. Site is served by existing streets, roads, sanitary sewers and municipal water.
3. Site is adjacent to or surrounded by existing development.
4. Site has frontage on a major highway or street.
5. Site has unique characteristics which make it of special importance to the economic development of West Eugene, and allowing development of site would further the goals and objectives of the West Eugene Wetlands Plan.
6. Site characteristics, including size, location and surrounding uses and activities are such that there exists a high probability that the site cannot be protected in perpetuity through the West Eugene Wetlands Program.

Restoration

Standard
1. Any site or portion of a site that is providing compensatory wetland mitigation as part of an approved state or federal wetland fill permit shall be designated for restoration.

Criteria
1. Site contains hydric soils.
2. Site is either a disturbed agricultural wetland or previously exhibited wetland characteristics.
3. Site is capable of providing adequate wetland hydrology.
4. Site does not currently benefit from municipal infrastructure and urban services.
5. Site is either larger than 15 acres or is contiguous with a waterway (stream) designated for protection on the Wetland Designations Map (Map 3) of the West Eugene Wetlands Plan.

3.18 Apply the criteria in Policy 3.17 to any newly delineated wetlands to determine their protection/development/restoration status.

3.19 Designations are intended to apply only to jurisdictional wetlands as determined by the Oregon Division of State Lands and the U.S. Army Corps of Engineers. Wetland Designations Map (Map 3) shows adopted designations for wetlands within the plan area, but does not necessarily depict the most current or accurate wetland boundaries. The West Eugene Wetland Conservation Plan Inventory (WCPI) Map should be used to determine existing mapped wetland boundaries. Mapping of wetland boundaries shall be revised through periodic updates to the WCPI map, which can occur without amending this plan, by administrative order of the City Manager. Following a revision in the WCPI map, designations shall apply only to the previously designated area which remains a jurisdictional wetland on the revised WCPI map. Newly-determined wetlands on the revised WCPI map shall remain undesignated until this Plan is amended to specifically designate those new wetland areas.

3.20 Local governments shall not issue grading or building permits within areas mapped as jurisdictional wetland in the West Eugene Wetlands Plan area unless the applicant has an approved state/federal wetland fill permit for the proposed project.

3.21 Future fill or removal within the "utility corridors" as designated on the Wetland Designation Map (Map 3) shall be conducted with an applicable U.S. Army Corps of Engineers (Army Corps) and/or Division of State Lands dredge and fill permit(s), and shall be limited to the minimum impacts necessary to:

1) conduct emergency repairs to existing utility lines,

2) conduct essential maintenance (e.g., work to maintain or optimize performance) on existing utility lines, including line locating,

3) construct connections to existing utility lines,

4) construct new utility lines,

5) move existing utility lines when necessary to maintain service or conduct emergency repairs, and when at least one of the following is true:
   a) the utility line must be moved to protect it

from erosion or some other natural threat;
b) construction of public facilities that are consistent with this plan and that conflict with an existing utility line, where such public facilities cannot reasonably be constructed without moving the utility line; or
c) the utility line must be moved in order to maintain or repair another utility line in the same vicinity.

6) place new utility poles or replace existing utility poles, only when necessary to maintain performance or safety of above-ground utility lines. Above ground utility lines may not be replaced with underground utility lines within wetlands designated for restoration or protection.

No other impacts are authorized by this policy. The following shall also apply to these corridors:

a. The corridors for underground utility lines shall be 20 feet wide for excavations or pipes up to 10 feet below ground surface (bgs), 30 feet wide for excavations or pipes from 10 to 15 feet bgs, and 40 feet wide for excavations or pipes deeper than 15 feet bgs. Where two utility lines are close to each other, the corridors for the lines may overlap, but impacts for work on one line are allowed only within the corridor width for that line, not the combined width of both lines.

b. The corridors for above ground utility lines shall be 10 feet wide for single pole structures and 20 feet wide for double pole ("H-style") structures.

c. The utility corridors shall be centered on an existing utility line, extending an equal distance (half the allowed width) on both sides, except for corridors for new utility lines, which shall be located as specified in subsection d below.

d. Construction of new utility lines and new connections to existing utility lines within wetlands designated for protection shall require an amendment of this plan to change the designation from "protect" to "utility line corridor." Such amendments will only be allowed where it is demonstrated that:

1) an alternatives analysis has concluded that locating the new utility line within a protected wetland is the best alternative. The alternatives analysis shall compare alternatives that are completely outside of protected wetlands and compare them to any alternatives that impact protected wetlands. The alternatives shall be evaluated by weighing engineering requirements and total environmental impacts including impacts to rare species and their habitat, and to wetlands designated in the Plan for restoration or protection.

2) the new construction cannot reasonably be constructed completely outside of wetlands designated for protection as demonstrated in the above referenced alternatives analysis;

3) the utility lines are located so as to reduce the impact to wetlands designated for protection as much as possible, and in no case shall a cumulative area greater than 1 acre be re-designated from "protection" to "utility corridor" for a new utility line;

4) unavoidable impacts will be mitigated through restoration of the project's entire impact area;

5) there are no impacts to wetlands from new utility lines installed within the Willow Creek Natural Area; and

6) impacts to rare plant and animal species will not occur.

e. Other than the activities described in this policy, these corridors shall be treated as protected wetlands. Allowed activities shall be conducted in such a manner as to minimize adverse impacts to the maximum extent possible upon the wetlands within the corridor itself and within surrounding protected wetlands. Wetland impacts shall be limited to the minimum area necessary. Utility agencies shall use the best feasible technology to pinpoint the location of needed repairs prior to excavation in order to limit the area of impact.

f. Except for emergency repairs, these activities shall be planned and timed to minimize adverse impacts to wetlands.

g. All impacts shall be followed by restoration activities including:

1) backfilling with existing native soil within three feet of the surface whenever possible, and in no case less than two feet; and

2) grading and re-seeding and/or replanting with appropriate native plant species.

h. Any unavoidable impacts to rare plant species shall be mitigated through coordinated transplanting or other measures.

3.22 Future fill within the Planned Transportation Corridors as shown on Wetland Designations Map (Map 3) shall be limited to those areas granted state and/or federal wetland fill permits for the construction of planned public roadway improvements. New roadway construction shall be limited to those projects listed in TransPlan as of August 10, 1992, excluding those projects listed in Appendix B; no other new roads or streets are permitted. Road widening and other improvements to existing roads or streets shall be limited to those

listed in TransPlan (1992) or in an adopted capital improvement plan (CIP) as of June 30, 1998. Road widening and other improvements to existing roads or streets within wetlands designated for protection or restoration shall require an amendment of this plan to change the designation to "Planned Transportation Corridor" if the project is not listed in TransPlan (1992) or in an adopted CIP as of June 30, 1998. In no case shall more than 1 acre (cumulative) of protected wetland be re-designated to Planned Transportation Corridor for improvements to an existing road or street.

3.23 The plant and animal species listed below shall be considered rare for the purposes and policies of this Plan:

Rare Plants:

white-topped aster	*Aster curtus*
Willamette daisy	*Erigeron decumbens var. decumbens*
shaggy horkelia	*Horkelia congesta*
Bradshaw's lomatium	*Lomatium bradshawii*
timwort	*Cicendia quadrangularis*

Rare Animals:

northwestern pond turtle	*Clemmys marmorata marmorata*
Fender's blue butterfly	*Icaricia icarioides fenderi*

3.24 The plant and animal species listed below are not officially considered rare, but shall be considered for addition to the list of rare species if they are confirmed to be present within the West Eugene Wetlands Plan area:

Plant Watch List:

retrorse sedge	*Carex retrorsa*
Howell's montia	*Montia howellii*
toothcup	*Rotala ramosior*

Animal Watch List:

Taylor's checkerspot butterfly *Euphydryas editha taylori*

Pacific western big-eared bat *Corynorhinus townsendii townsendii*

3.25 The West Eugene Wetland Program partners shall develop a strategy for conservation of rare plant habitat in the Plan area.

3.26 Pursue interim protection of sites which contain rare species, but do not meet the criteria for protection in Policy 3.17 through conservation easements or other measures until either (1) the affected species are de-listed or (2) conservation agreements are reached between the property owner and affected natural resources agencies to address the rare species populations.

3.27 Constructed roadside ditches which may exhibit wetland characteristics are not mapped or addressed by this plan.

3.28 The West Eugene Wetland Program partners shall continue to pursue and support the use of degraded wetlands designated for development for on-site stormwater treatment.

3.29 In cooperation with the property owner, the City shall pursue restoration of the current Eugene speedway site to provide a continuous corridor of protected habitat along Willow Creek.

Recommended Actions

3.1 Acquire all sites designated for protection or mitigation where there are willing sellers.

3.2 Establish acquisition priorities among protected sites. Highest priority shall be assigned to the following sites:

1. Bertelsen Slough/Stewart Pond complex (Site E2 and buffers)
2. Spectra Physics complex (Sites C2, C3, C4, C5 and buffers)
3. Willow Creek complex (Sites H1, H3 and buffers)
4. North Amazon complex (Sites B1, B4, B5)

Note: The numbers within the parenthesis are wetland identification numbers which were assigned by SRI at the time of wetland delineation. The letter portion of the ID number refers to the geographic subunit of the study area. Refer to Map 3 for the location of each wetland site.

3.3 Following acquisition, designate protected wetland sites "Natural Resource" on the Metropolitan Plan diagram.

3.4 Develop, adopt and apply natural resource protection measures as follows (complete text of these six proposals are contained in Appendix A).

Natural Resource Zoning District: apply to protected jurisdictional wetland sites following acquisition by managing agency or organization.

Waterside Protection and Development Ordinance: apply to designated streams, rivers, channels and riparian areas in study area as indicated on Map 3, Wetland Designations.

Upland Development Design: apply to uplands to the south of study area.

Low Impact and Active Public Access: apply to appropriate sites.

Clean-up, Restoration and Education Policy: apply to all protected areas and sites.

Stormwater Planning Policies: apply to all drainage channels in study area that are identified in the Eugene Areawide Drainage Master Plan.

3.5 As an interim measure, develop and apply a "wetland protection overlay zone" to sites identified for protection. To minimize potential impacts to wetland functions and values, require Planned Unit Development or Site Review procedures on all development proposals.

3.6 As a medium term interim protection measure and prior to acquisition for conservation and protection, apply design criteria outlined in the Waterside Development Ordinance.

3.7 Initiate amendments to the Eugene Code to establish natural resource buffer provisions and building setbacks and apply those provisions to wetland sites inside the (WEWP) study area identified for protection. The primary purpose of buffers and setbacks is to maintain or improve water quality within protected resource sites. Secondary benefits of buffers include creating open space between the resource and adjacent uses, helping to maintain or improve wildlife habitat values and wetland hydrology, and protecting the aesthetic value of the site. Setback distances and buffering requirements should be variable according to the relative value and sensitivity of the site and the severity of impact associated with the adjoining use. Setback and buffer requirements should not prevent building or development of otherwise buildable lots. (See Appendix A)

3.8 Develop and apply "best management practices" (BMPs) to construction and development within natural resource buffer setbacks and wetlands. BMPs shall include construction site practices to minimize water quality impacts, noise impacts, disruption of wildlife mating and nesting, to maintain stormwater conveyance capacity, flood control capacity and groundwater discharge and recharge, and to protect wildlife habitat. (See Appendix C for more detailed examples of best management practices).

3.9 Amend the existing "obnoxious vegetation ordinance" to exempt protected wetland sites from vegetation cutting requirements.

3.10 Strengthen the existing tree preservation and hillside development regulations to protect water quality within the Willow Creek and Amazon Creek watersheds.

3.11 Prepare a management plan for rare plants and ecosystems in conjunction with the University of Oregon, Oregon State University, Oregon Department of Agriculture, the Native Plant Society, The Nature Conservancy, the U.S. Fish and Wildlife Service, Environmental Protection Agency, Bureau of Land Management, Army Corps of Engineers, and the Oregon Department of Fish and Wildlife.

3.12 Negotiate intergovernmental agreement(s) with the Oregon Division of State Lands, U.S. Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Soils Conservation Service and U.S. EPA to ensure that: (1) those agencies abide by the goals and policies of this plan in all wetland permit decisions, and recognize the WEWP wetland boundaries as the definitive regulated wetland boundaries of west Eugene, and 2) development will not be allowed under Army Corps of Engineers "Nationwide Permits" on sites designated for protection under this plan.

3.13 Seek administration of federal and state wetland re gulations at the local level by obtaining a Regional Permit from the Army Corps of Engineers and approval of a Wetland Conservation Plan from the Oregon Division of State Lands.

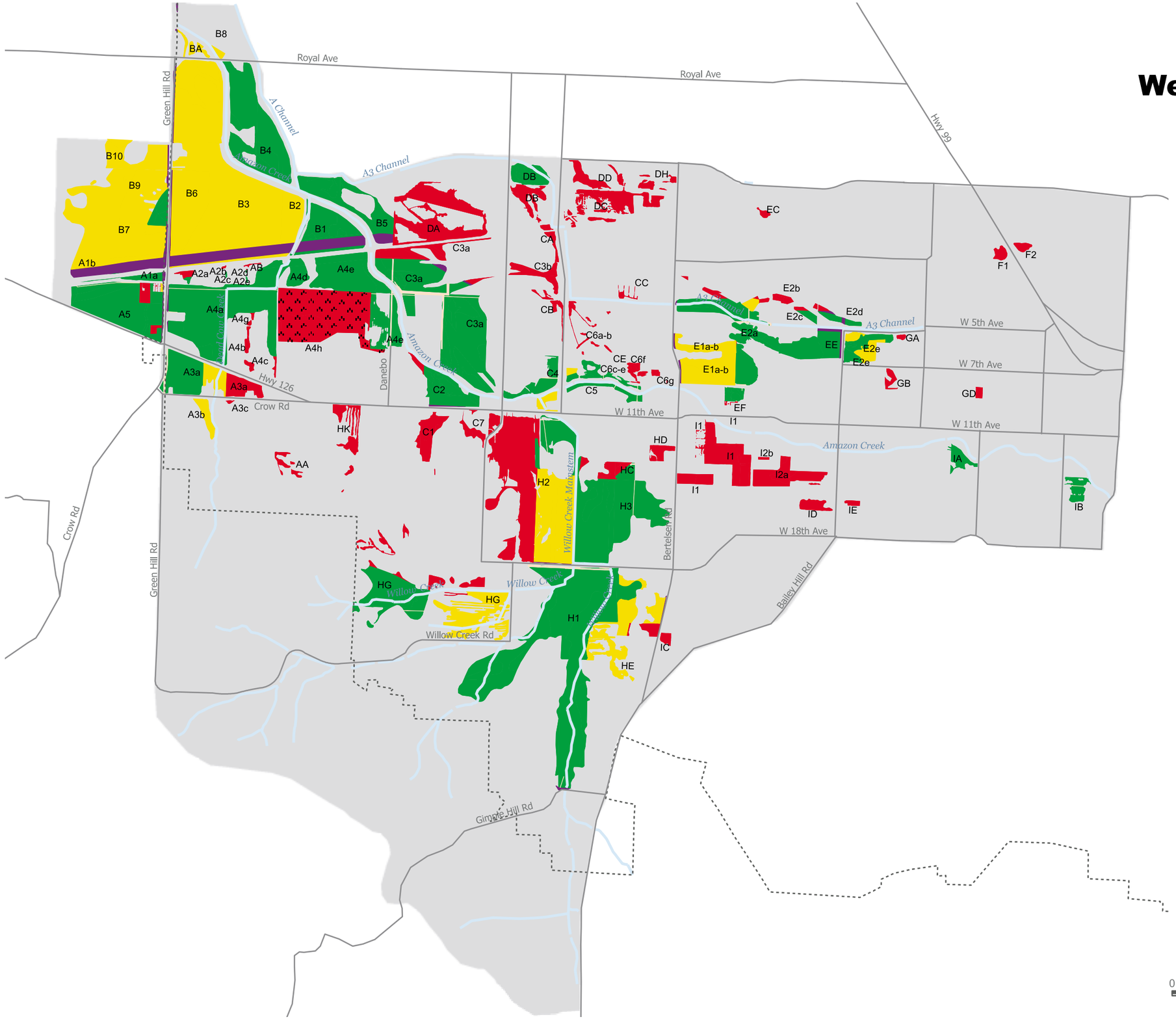
3.14 Implement strategic plan for conservation of rare plant and animal habitat in the Plan area including:

a. Protection of significant rare species populations
b. Allowances for "takes" of small rare plant populations
c. Management strategies for recovery of rare species
d. Use of conservation easements or acquisition in fee of rare plant habitat, where appropriate, to protect rare plant habitat
e. City-sponsored rare plant surveys of privately owned sites with property owner permission conducted by professional botanists during the appropriate times of year to maximize chances of identification
f. Determination of threshold population sizes and other characteristics for identifying significant rare plant populations
g. City sponsorship of program to transplant and monitor recovery of small populations of rare plants where appropriate

3.15 The City shall, in cooperation with affected utility companies and agencies, develop guidelines or interagency agreements regarding conducting routine, essential maintenance and emergency repairs of utility lines that exist within protected wetlands. These guidelines or agreements shall address, at a minimum, the following:

a. coordination with property owner
b. coordination with City of Eugene
c. pre-planning and seasonal timing of maintenance
d. specifications for backfill, grading and replanting with native species
e. emergency repairs
f. new construction
g. conducting rare species inventories
h. vegetation removal
i. identification of appropriate access points

Map 3
Wetlands Designations Map



Wetland Designation

Protect Wetlands to be Protected (areas generally unsuitable for disposal of dredged or fill material).

Restore Wetlands to be enhanced for Mitigation Credit.

Develop Wetlands to be Developed (possible future disposal sites for dredged or fill material).

Planned Transportation Corridor

Utility Corridor

Other Features

Streams to be Protected

Roads

Berm and Furrow Wetland

Eugene Urban Growth Boundary

Wetland Plan Boundary

Future fill within the Planned Transportation Corridor designation shall be limited to those areas granted state and/or federal wetland fill permits for the construction of planned public roadway improvements. All other wetlands within these corridors shall be protected.

This map is a generalized map, and should not be used to identify location of wetland boundaries. For wetland boundaries refer to the accepted Wetland Conservation Plan Inventory Map.

City of Eugene Planning and Development Department
Effective Date: August 31, 2002

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Map 4
Conceptual Plan

Note: This map reflects a vision for future efforts to improve the quality of the Amazon Creek Basin by protecting, restoring, enhancing and creating wetland resources.

- Wet Prairie Wetland
- Open Water or Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland
- Riparian Habitat
- Upland Habitat
- WEW Plan Area
- City Limits
- Urban Growth Boundary

This map is for information only, and is not adopted policy.

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4. Development and Mitigation

4. Development and Mitigation

Introduction

This element of the Plan acknowledges conditions where the community's need for economic development outweighs the benefits to protect certain wetland sites by making them available for development according to the mitigation provisions of this Plan. The Plan views the mitigation process as an opportunity to restore and enhance wetland functions and values of the Amazon Creek basin, while allowing limited development on isolated, lower quality wetlands and meeting the requirements of state and federal wetland law.

The wetlands designated for development were determined through a process that evaluated each wetland against a set of criteria which had the effect of identifying those wetlands that are isolated, low quality and of limited functional value. The criteria used in evaluating sites for possible development are contained in Policy 3.17.

In addition to evaluation by local experts, resource agencies and community members, the relative quality of the west Eugene wetlands was determined by the Wetland Evaluation Technique (WET) program, designed by Paul Adamus of the Environmental Protection Agency. The results of this evaluation are contained in the Technical Report.

The Plan proposes to use the mitigation process to achieve compliance with federal and state wetland law, and to provide a vision and program for incorporating all of the elements of this plan with other related community objectives (flood control, water quality and wildlife habitat enhancement, recreation and education programs) so that a broader goal is achieved – the restoration of the Amazon Creek basin into a community asset.

The basic concepts of the mitigation program are:

- Avoid and minimize impact to all wetland sites that meet the protection criteria contained in Policy 3.17.

- Where impact is unavoidable, compensate for losses commensurate with the level of impact giving priority to establishing the basic physical wetland parameters (water, topography, connectedness) that eventually results in full functioning and diverse wetland habitats.

- Establish a management entity that will monitor, maintain and enforce the requirements of the mitigation program.

- Where full functioning wetlands are to be impacted, in-kind replacement of significant functions and values will be required. The overall mitigation program, however, will be guided by the ecological characteristics of the regional landscape and not necessarily by specific case-by-case impacts. For disturbed agricultural wetlands, mitigation requirements will be determined using historic wetland types presumed to have existed prior to disturbance and the desired mix by the public. Incentives will be provided to mitigate in advance of impact in the form of replacement ratios which are less than the ratios for compensating at the time of impact.

- To increase the certainty of success and to achieve the goal of a connected system of wetlands and waterways, mitigation efforts are targeted for areas that once exhibited, or currently exhibit, proper wetland soils and moisture conditions. Within the WEWP boundary, the primary mitigation sites are "disturbed agricultural wetlands." These sites are missing at least one of the three wetland parameters (water, hydric soil, wetland vegetation) and due to non-wetland activities (agricultural uses) occurring on these sites, their existing wetland value is relatively low. As such, for mitigation credit purposes, the Plan gives more credit for the enhancement of these sites than for other "low" quality wetlands that exhibit all three wetland parameters.

- The primary means to achieve the Plan's mitigation goals is through the establishment of a regional wetland mitigation bank. These are areas where the most suitable lands for mitigation are identified, acquired, designed, constructed and managed in advance of wetland impact, and incentives are provided that encourage the use of the bank by those seeking a wetland impact permit. Because the Plan will enhance and restore more wetland acreage, functions and values than will be lost to development, the excess capacity will be available for mitigation credit to properties located outside the west Eugene study area and within the Urban Growth Boundary, and to the Eugene Airport proper.

Photo: Protected wetlands adjacent to the Burley Design Cooperative building. (photo by N. Björklund)

Goals, Policies, Recommended Actions

Goals

4.1 Use the wetland mitigation process as an opportunity to achieve multiple community objectives, including wetland resource enhancement, increased flood control capacity, water quality enhancement and the establishment of educational and recreational programs.

4.2 Use the wetland mitigation process as an opportunity to reverse the trend of wetland losses and begin a positive trend of wetland gains by restoring and enhancing the historic wetland system of the Amazon Creek watershed.

4.3 Achieve compliance with federal and state wetland law, policies and guidelines.

4.4 Increase certainty in the development process.

4.5 Minimize reductions to the existing industrial and commercial buildable lands inventory as a result of wetland protection.

4.6 Provide for the overall wetland mitigation needs for the community of Eugene, including the territory within the Urban Growth Boundary and Eugene Airport.

Policies

Mitigation

4.1 Mitigation efforts shall help to reestablish a connected system of wetlands, waterways and upland resources.

4.2 To insure long-term success, mitigation efforts shall give priority to establishing or reestablishing the basic hydrologic conditions necessary to meet the stated mitigation objectives.

4.3 Mitigation efforts shall concentrate on restoring wet land type, habitat, functions and values that represent the historic, ecological landscape of the Amazon Creek basin.

4.4 Mitigation efforts shall use local, native plant species.

4.5 Mitigation efforts shall be designed and constructed to minimize the level of on-going maintenance.

4.6 Develop, adopt and implement a comprehensive wet land mitigation program.

4.7 Mitigation projects will occur within the area of the Long Tom River watershed and its tributary streams, as shown on Study Area Map (Map 2).

4.8 Historic wetlands and disturbed agricultural wetland sites are the preferred areas for mitigation projects.

4.9 Establish, develop and maintain a regional wetland mitigation bank program that will establish a mitigation credit system for serving the West Eugene Wetlands Plan, the balance of the Eugene Urban Growth Boundary and the Eugene Airport proper.

4.10 To be eligible for participation in the mitigation bank, wetland impact requests must be consistent with the goals, policies and provisions of this Plan.

4.11 Require all mitigation efforts to participate in a comprehensive monitoring and maintenance program.

4.12 Develop a system that provides security against unsuccessful mitigation efforts, such as a bond or other financial guarantee.

4.13 Amend applicable City codes, policies and maintenance operation procedures to comply with the provisions of this Plan and implementation measures.

4.14 All mitigation must be completed in advance or concurrent with development, except as otherwise provided in approved standard individual wetland permits or signed intergovernmental agreements between the City, the Oregon Division of State Lands and the U.S. Army Corps of Engineers.

4.15 Unless on-site mitigation would better meet the goals and policies of this Plan, mitigation efforts shall occur according to the provisions of the regional mitigation bank provisions.

4.16 Enhancement of existing wetlands can be used to add functional credits to the wetland mitigation bank.

4.17 The City of Eugene shall calculate mitigation requirements for all wetland impacts within the West Eugene Wetlands Plan area using the applicable ratio from Table 1 below, subject to the provisions in A through D below. In no case shall a ratio of less than 1:1 be allowed.

A. For impact sites with recent disturbance, the City of Eugene shall determine mitigation ratios based upon an analysis of habitat type on the site as of April 2, 1999, as determined by aerial photo analysis. No reduction in ratios for fair to poor quality habitat shall be allowed for recently disturbed impact sites.

B. The City of Eugene shall calculate mitigation requirements for impact sites with more than one habitat type by multiplying the appropriate ratio by the number of acres impacted for each habitat type and summing the resulting acreage for each habitat type.

C. Ratios shown in Table 1 for wet prairie, shrub/scrub, forested and emergent wetlands are for impacts to good to excellent quality habitat. Impact sites that contain one or more plant species designated as rare in the West Eugene Wetlands Plan shall be considered good to excellent habitat. Impact sites containing these habitat types of fair to poor quality can be evaluated for lower replacement ratios only if the applicant submits field data according to the following provisions:

(1) Habitat quality shall be determined by the City of Eugene, based upon field conditions as represented in field data submitted by the applicant on forms provided by the City. Field data shall be collected between May 1 and July 30 by a qualified professional, shall include distribution data for all plant species present and shall include data from sampling points in the center of the wetland area.

(2) For sites containing wet prairie, shrub/scrub, forested and emergent wetlands of fair quality the ratio can be reduced by 0.25:1 and for sites containing these habitat types of poor quality the ratio can be reduced by 0.5:1.

D. The ratios for privately constructed mitigation (i.e., not purchased through a state/federal approved wetland mitigation bank) are based upon construction of the mitigation concurrent with the permitted filling of a wetland. If private mitigation is constructed prior to the wetland impact, the ratio can be reduced by 0.25:1.

Table 1

Mitigation Replacement Ratios for Good to Excellent Quality Habitat

(Mitigation acres: Impact acres)

	Private Mitigation			Mitigation[2] Bank
Wetland Habitat Type (impact site)	Restoration[1]	Creation	Enhancement	
Wet Prairie	2:1	2.25:1	2.5:1	1.75:1
Other Wetland Types: shrub/scrub, emergent, forest	1.5:1	1.75:1	2:1	1.25:1
Disturbed Wetlands: Agricultural, crop land, pasture, old field, fill	1:1	1.25:1	1.5:1	1:1

Notes:

(1) Restoration is the preferred mitigation method for the West Eugene Wetlands program. To encourage restoration, it is given the lowest ratio of the three mitigation methods.

(2) This column shows the mitigation replacement ratios that will apply to those who are meeting their mitigation requirements through a public or private mitigation bank or mitigation bank program approved by the Oregon Division of State Lands and the U.S. Army Corps of Engineers (i.e., these ratios apply to "customers" of the "bank"). Participants in the mitigation bank pay a fee into the "bank" in lieu of constructing their own mitigation project. The mitigation replacement ratio determines how many acres of mitigation credit must be purchased for each acre of wetland impact. The ratio does not address how credits are produced by the bank. The ratios are lower than for private mitigation because state and federal approval of mitigation banks requires that the majority of mitigation projects be constructed prior to selling credits.

4.18 Either on a regional or case-by-case mitigation basis, develop better information as to existing wildlife habitat values and a mechanism, such as the modified Habitat Evaluation Program (HEP), to measure future wildlife gains on mitigation sites.

4.19 Guided by the Conceptual Plan Map (Map 4), a three-year capital improvement plan will be prepared for the Mitigation Bank program, identifying mitigation sites, mitigation methods to be undertaken, number of mitigation areas, and approximate mitigation credits to be realized.

4.20 While compensatory mitigation may be achieved through any one mitigation method or combination of methods (i.e., restoration, enhancement, creation), restoration is the preferred method.

Development

4.21 Allow development of wetlands that are designated for development on the Wetland Designations Map (Map 3) of the West Eugene Wetlands Plan.

4.22 Use the West Eugene Wetland Conservation Plan Inventory Map, as the basic inventory for identifying wetland sites and functions and values to be filled and replaced.

4.23 Provide flexibility in the provisions of the mitigation program so that conditions unique to certain properties can be resolved at the administrative level provided the conditions meet the basic intent, purpose, and criteria of this Plan.

4.24 Provide wetland technical assistance to the public.

4.25 Unless designated as a mitigation site in this Plan or as part of on-site mitigation requirements, buildable lands that are within the UGB and designated for commercial or industrial use should not be used for mitigation.

4.26 For application with future mitigation efforts, encourage wetlands identified as future disposal sites for dredged or fill material to be utilized (prior to development) as a source for wetland vegetation and soils.

Administration

4.27 Encourage use of regional or local nonprofit agencies to assist in managing and monitoring wetland mitigation and protection efforts.

Recommended Actions

4.1 Establish procedures and review criteria for evaluating requests for participating in the WEWP's regional mitigation program. The type of procedure and level of review should be consistent with the goals and policies of WEWP. Administrative procedures should suffice for projects that are fully consistent with WEWP, while quasi-judicial procedures may be necessary for projects that are not consistent.

4.2 Develop and adopt a Comprehensive Wetland Mitigation Program.

4.3 Develop wetland mitigation provisions that require a wetland impact permit and mitigation plan to be approved and obtained from the responsible regulatory agencies prior to any activity that may further degrade wetland resources, including drainage modifications, landlord alterations, storage of materials, vegetation removal and construction related activities.

4.4 Assist with the restoration of the Lower Amazon Creek wetlands and floodplain area - bounded by Royal Avenue, Terry Street, Greenhill Road and the Southern Pacific Railroad tracks - by supporting the Army Corps of Engineer's restoration project.

4.5 Establish a local wetland assistance team to provide technical assistance to the public.

4.6 Require a preapplication conference with the wetland assistance team to provide an information exchange concerning the objectives of the applicant and the requirements of the wetland provisions.

4.7 Monitor ground water elevations along Amazon Creek, A Channel, Willow Creek, and the A-3 Channel and match hydrologic requirements of mitigation projects with the findings of the monitoring system.

4.8 Develop a permit processing system in which the level of review is matched with the proposed magnitude of wetland impact and degree of consistency with the goals, policies and standards of WEWP.

Western Amazon Drainage Basin

This area is shown on Map 2. Other than statements in this section, the Western Amazon Drainage Basin is not intended to be affected by any portion of the Plan.

This area is included in the Plan to identify lands which may be available to help meet mitigation needs within the West Eugene Wetlands Study Area and the greater Eugene region. Land acquisition in this area will occur only from willing owners who choose to sell land after an independent appraisal has been obtained which determines the fair market value of that land. Owners may choose to sell land outright, sell a conservation easement, or donate land under a voluntary program. There is nothing in this

Plan which prohibits owners from participating in a regional mitigation bank or seeking to sell mitigation credits or rights on the open market.

Goal

4.7 Allow some of the region's wetland mitigation needs to be met through enhancement and restoration of wetlands in the Western Amazon Drainage Basin.

Policies

4.28 Use cooperative arrangements with private land owners to acquire lands, conservation easements, or land donation through voluntary programs and negotiations with willing sellers.

4.29 Seek restoration and enhancement of wetlands for mitigation purposes based on the following factors: a) presence of hydric soils, b) indication of past wetland conditions, c) proximity to water features, d) proximity to the floodplain, and e) capability of providing adequate wetland hydrology.

4.30 Attempt to minimize impacts of the mitigation program on adjacent uses by providing buffers within the boundaries of land purchased and enhanced or restored or through cooperative programs which are acceptable to adjacent land owners.

Recommended Action

4.9 Use cooperative arrangements with private land owners to implement this Plan. Keep affected parties informed of the Plan implementation and amendment process.

5. Operating, Maintaining and Monitoring

5. Operating, Maintaining and Monitoring

Introduction

This section describes goals, policies and recommended actions for the operations, maintenance and monitoring elements of WEWP. The establishment and implementation of a program that maintains and monitors the efforts of wetland protection, restoration and mitigation is important to the success of a wetland management plan.

The Plan proposes to create a Comprehensive Monitoring and Maintenance Program (CMMP) for all wetland areas designated for protection, and mitigation. The Public Works Department will assume the lead responsibility for implementation and administration of the CMMP. A key element of the CMMP is enhancement and utilization of the multiple use aspects of the resource.

While one of the purposes of the program is to insure successful mitigation efforts, the primary purpose is to insure the health and sustainability of the system as a whole. Traditionally, the Public Works Department has maintained the stormwater drainage system in west Eugene to meet flood control objectives using standards established by the U.S. Army Corps of Engineers and the Natural Resources Conservation Service to protect the health and safety of the community. By maintaining the inherent functions and values of a wetlands system many positive benefits can be realized. These include stormwater conveyance and flood control, water quality improvements, increased aesthetic and recreational values, educational and scientific opportunities, and wildlife habitat improvements.

For mitigation efforts, participation in the CMMP will be mandatory. Maintenance requirements will be addressed during the design and construction phases of mitigation in order to best anticipate the scope and cost of future maintenance activities. The CMMP will contain provisions that require each mitigation project to develop specific standards by which to measure the progress and success of the project as well as a monitoring schedule, annual progress reports and contingency recommendations. A performance guarantee will be required in the form of a bond or other acceptable method to pay costs for future repairs or corrections.

Monitoring for permit compliance and research purposes will aid in determining how to best meet stated goals and performance standards. Vegetation, hydrology, inundation, wildlife, and water quality are the most common indicators of concern. The CMMP will be responsive to monitoring data in order to make necessary adjustments in the field.

Routine maintenance of wetland sites will include vegetation management such as selective plant removal and replacement, dredging, water level manipulation, erosion control, debris and litter removal, and annual inspections to ensure that sites are operating as intended. Non-routine maintenance tasks will include structural repairs and replacement of parts, and sediment removal. Individual sites will be maintained and monitored in accordance with established performance standards.

Finally, the development and implementation of a CMMP is an opportunity to revise the traditional stormwater operations and maintenance practices of the Public Works Department. The incorporation of watershed management principles will advance multiple use objectives while successfully maintaining the resource.

Goals, Policies, Recommended Actions

Goals

5.1 Conserve and enhance wetland functions and values through operations, maintenance and monitoring practices.

5.2 Ensure the long-term health and survival of protected wetlands in west Eugene by incorporating watershed management principles in operations and maintenance practices.

5.3 Demonstrate responsible wetland stewardship by increasing the City's knowledge and understanding of wetland ecology and management and apply that knowledge to operations, maintenance and monitoring practices.

Policies

5.1 Accomplish multiple objectives through a stormwater

Photo: City of Eugene staff preparing the north Green Hill wetland mitigation site, 1998.

management program designed to provide for storm and flood water conveyance, flood storage, water quality improvement, passive recreation, education, and wildlife habitat and biological support in an effective and cohesive way.

5.2 Ensure compliance with the WEWP goals and policies through an operations, maintenance and monitoring program that is responsive to the needs of an evolving ecological system.

5.3 Advance the success of wetland mitigation projects through a comprehensive long range monitoring effort and use the results in on-going operations and maintenance.

5.4 Develop performance standards corresponding to the stated mitigation goals of WEWP and utilize those standards in designing and evaluating an operations and maintenance program.

Recommended Actions

5.1 Review all public works projects for opportunities to create, restore, and enhance wetland functions and values.

5.2 Establish a native wetland plant nursery and seed bank that relate to the biologic habitats of the area. Encourage the recovery of wetland plants within the study area for replanting in nurseries and mitigation projects prior to any construction or maintenance activity.

5.3 Produce an annual report documenting activity in the study area, e.g., mitigation sites, constructed water quality features, and buffer areas. The report may include:

- a record of fill and removal activity
- a description of enhancement, restoration, and mitigation projects
- mitigation bank activity
- maintenance and operations activities
- monitoring data including photographic sampling: ground level (annually) and aerials (every three to five years)
- evaluation of mitigation success in relation to performance standards
- summary of any new technical information or regulatory changes relevant to the study area
- assessments of annual and cumulative impacts and accomplishments
- status of planning and construction of public projects
- building permit activity
- individual permit compliance
- acquisition progress
- financial summary

Present the above annual report to the Eugene Planning Commission and City Council, the WEWP Technical Advisory Committee, and the general public.

5.4 Review the channel maintenance program to determine which alternative technologies are appropriate in order to:

- minimize impacts to wildlife
- reduce bank erosion and sedimentation
- utilize the pollutant removal benefits of channel vegetation

5.5 Restore more natural stream conditions where possible such as:

- establishment of a ‘low flow’ meander in the channel bottom
- increase channel width
- terraced banks
- re-sloping of steep channel banks
- replanting of channel banks with native vegetation
- creation of wetland ‘bench’ areas contiguous with the low flow channel

5.6 Utilize existing natural ditch systems instead of stormwater pipes, where practical, for the conveyance of stormwater, and in the design of new developments.

5.7 Seek support from nonprofit organizations and private volunteers for selected maintenance and monitoring activities.

5.8 Create a public education program to inform the community of stormwater permit requirements, the opportunities that exist to achieve multiple use benefits, and how citizens can participate.

5.9 Develop pilot projects for the establishment of maintenance strategies to help determine methods compatible with multiple use objectives. Pursue grant monies to create these projects.

5.10 Evaluate implementation strategies to establish the best mix of organizational resources to manage the multiple use aspects of WEWP.

5.11 Establish a long term monitoring program designed to evaluate the success of wetland mitigation in relation to established performance standards. The program will apply to newly created, restored, and enhanced wetlands, as well as water quality sites and buffer areas. All sites will be monitored for a minimum period of ten years, or longer if required for compliance purposes.

- collect data on pre-existing wetlands for comparative purposes

- evaluate the success of wetland mitigation in relation to established performance standards

Sampling may include:

- seasonal wildlife evaluation
- annual quantitative monitoring of vegetation establishment, survival and coverage
- hydrological measurement and observation
- water quality analysis
- overview and photographic sampling

Comment: The regulatory standard for monitoring requirements is currently five years. The above recommended action is consistent with this standard though it does not preclude a longer monitoring period requirement on a case-by-case basis in the study area.

6. Financing

6. Financing

Introduction

A vital and unique aspect of WEWP is its proposal for a financing program designed to pay for the protection, restoration and maintenance of the wetland system in the Amazon Creek basin. The financing program is a cornerstone for the wetland program, simply because the Plan's goals cannot be fully realized without sufficient funding. The total cost for the proposed wetland acquisition, mitigation, restoration, enhancement and maintenance is estimated to be $16.4 million over ten years (1993 - 2003). The WEWP Technical Report explores a variety of funding sources and organizational structures, and concludes that a few of these approaches are most promising. The Plan's financing effort relies primarily upon (1) securing state and federal funds, (2) instituting a local, city-wide stormwater utility fee, (3) sale of "credits" in the regional wetland mitigation bank, and (4) private contributions through or to nonprofit organizations or foundations. Other financing mechanisms given strong consideration include a local bond measure and designating a portion of the stormwater systems development charge to finance flood control, water quality and stormwater management portions of the wetland program.

Acquisition for Protection, Mitigation, Restoration and Enhancement

The outright purchase of wetlands by the public has been demonstrated to be the most effective method to insure resource protection. The Plan proposes a priority schedule for the acquisition of all wetlands designated for protection. As proposed, over 1,000 wetland acres within the study area will be acquired over a six year period. The City of Eugene is seeking federal funds to assist in acquiring land and easements in the study area.

The Plan proposes to provide choice and flexibility in the methods used to meet mitigation obligations, including participation in a regional mitigation bank and through conventional individual permit efforts. Because the mitigation bank method provides greater potential for success and meets other City objectives, such as flood control and water quality enhancement, financial incentives are proposed to encourage participation in the bank system. While other options are possible, the Plan recommends the bank be publicly owned and managed by a private nonprofit or public organization. The Plan proposes a priority acquisition schedule for lands within the bank area and for areas located outside of the bank where mitigation credit is given for corridor linkages.

A variety of funding sources may be used to accomplish acquisition, such as federal and state programs, bond measure, private donations and systems development charges. A bond measure may be instrumental if matching funds are required to secure federal land acquisition program dollars.

Construction for Mitigation, Restoration and Enhancement

In addition to land acquisition, costs will be incurred for the enhancement, restoration and construction of these lands. In conjunction with the priority schedule for acquisition, construction will occur accordingly. Total construction cost is estimated to be $11.9 million. Possible funding sources for these costs include mitigation requirements for obtaining a wetland impact permit, federal and state demonstration projects, private donations, system development charges, public grants and stormwater user fees.

Operating, Maintaining, and Monitoring

WEWP proposes a comprehensive program to monitor and maintain the areas identified for protection, mitigation, enhancement and restoration. The City Public Works Department is proposed to have lead responsibility for these functions. The level of service will graduate as the amount of area comes into the program. It is estimated that at full service level, the annual cost will be $250,000. Financing the annual budget is proposed to be provided through a stormwater user fee which will be charged to all households and businesses within the city limits.

Photo: Senator Hatfield and Mayor Bascom unveil sign at Eastern Gateway Restoration site, May 1994.

Goals, Policies, Recommended Actions

Goals

6.1 Establish a stable funding program for achieving long-term and short-term goals for wetland protection, mitigation, maintenance, flood control, water quality restoration, and educational programs.

Policies

General

6.1 Protect and restore wetlands in advance of development needs and reduce long-term costs and delays by designating an agency responsible for land acquisition.

6.2 Set wetland funding priorities in accordance with this Plan.

6.3 To maximize use of public funds, coordinate the planning and budgeting needs of various departments with the financial needs of WEWP so that opportunities to combine resources and achieve similar objectives are realized.

6.4 Minimize total costs to the community for wetlands protection, flood control, and water quality purification.

6.5 Use a variety of funding sources to finance the land acquisition, construction, maintenance and monitoring programs.

6.6 The City shall work with nonprofit organizations and interested educational institutions to develop coordinated research programs related to the west Eugene wetlands. Efforts at securing funds for priority research projects shall be part of a cooperative effort.

6.7 Outside the regional wetland mitigation bank program, private owners shall pay the full cost of land acquisition, wetlands construction, and required wetlands monitoring and improvement.

Acquisition

6.8 The City shall seek federal and state funds for land acquisition.

6.9 The City's land acquisition program shall be coordinated with one or more nonprofit organizations to provide financial advantages and incentives for property owners willing to participate in this program.

Construction

6.10 The City shall seek federal and state funds and establish a stormwater user fee for constructing public works projects, wetlands demonstration projects, and other improvements outlined in this Plan.

6.11 When the City assumes permitting responsibility for the regional wetland system, a fee should be charged to public and private participants in the wetland bank. That fee would be used to contribute to the land acquisition and construction program.

6.12 The City should use a portion of its stormwater systems development charge to finance construction of stormwater projects which are part of the west Eugene wetlands system.

6.13 The City Public Works Department shall have responsibility for managing the design and construction function of the Comprehensive Monitoring and Maintenance Program (CMMP).

Operations

6.14 The City Public Works Department should have responsibility for managing flood control, water quality, wetland operations and maintenance functions.

6.15 Establish a stormwater user fee to fund the flood control, water quality and wetlands operations and maintenance functions.

6.16 In conjunction with its community education program, the City should coordinate volunteer efforts, to help in reducing operating costs.

Recommended Actions

6.1 The City and Lane County should coordinate use of possible funding options that provide benefit for the region-wide mitigation program.

6.2 The City and Lane County should consider dedication of city and county owned lands in the study area region for the protection, restoration, and mitigation program.

6.3 The City should investigate formation of a land trust or trust fund to promote private contributions in the wetlands funding program or should combine its local funding efforts with established nonprofit organization's programs (e.g. The Nature Conservancy), with particular attention to Willow Creek and the Amazon Creek basin.

6.4 To facilitate compliance with wetland mitigation requirements and federal water quality standards, the City should encourage local businesses to participate in creating a matching fund for demonstration projects and funding acquisition and construction.

6.5 The City should seek private foundation support for implementing the model aspects of its wetlands program.

6.6 The City should consider conducting a public opinion survey regarding public support for a combined "joint parks, natural resources, and wetlands" bond measure. If the results are positive, the City should consider a revenue bond (backed by a stormwater user fee) to fund the local share of acquisition and construction projects.

6.7 The City should use local improvement districts for assessing public improvements outside the mitigation bank where owners directly benefit from a public works project in this Plan.

6.8 The City should consider creating an annual natural resources/wetlands stamp to raise funds. A children's art contest, a poster contest, and other means could be issued to generate interest in the city's natural resources program and could generate revenues.

Projects for Future Study

These projects are suggested in the Plan or are recommended for further study. They are not included in the West Eugene Wetlands Plan's cost estimates.

Upper Amazon Water Features. The Plan suggests improvements be made at these locations to provide additional flood capacity storage, enhance wetland and riparian habitat values and improve stormwater quality in the Upper Amazon Basin:

- Amazon Park
- Amazon Drive
- Lane County Fairgrounds
- Westmoreland Park/Patterson School Vicinity
- Concrete-lined Channel

Interpretive Center. The Plan suggests, through an EPA grant, a feasibility study for this facility be conducted. There are no cost estimates available for such a center.

Bike Paths. These paths are outlined in TransPlan, the Eugene Bicycle Master Plan, and the U.S. Army Corps of Engineers Fern Ridge Lake Master Plan:

- Amazon Bicycle Path - Seneca to Fir Butte Road
- Fern Ridge Bicycle Path - Fir Butte Road to Orchard Point
- A-3 Bicycle Path - Seneca to A Channel

Ridge line Trail. This project is included in several existing City of Eugene plans: The South Hills Study, Parks and Recreation Master Plan, and the Willow Creek Special Area Study.

7. Future Studies

7. Future Studies

While much information about the west Eugene wetlands has been developed, it is recognized that additional study and research is warranted. This chapter recommends completion of some of those studies which are underway in early 1991 and recommends undertaking other future studies.

As conditions change and as the Plan matures, adjustments will be needed. The impacts of other studies on the area and the impacts of this Plan on other studies may have implications which require future actions. This chapter proposes a method for monitoring some of those activities which may require amendment or update of this Plan.

While many measures are in place, some additional measures are needed to implement the Plan's goals and policies. This chapter summarizes those needed actions.

Goals, Policies, Recommended Actions

Goals

7.1 Keep the Plan current with changing natural and human conditions and community attitudes by conducting on-going studies.

7.2 Make other community plans, regulations, policies and operating procedures consistent with the West Eugene Wetlands Plan.

7.3 Implement the goals, policies and actions of the West Eugene Wetlands Plan.

Policies

7.1 Conduct further studies to:

- Improve wetland system management for multiple uses.
- Determine techniques for managing the system in an efficient and beneficial manner.
- Compensate for changes caused by the West Eugene Wetlands Plan.
- Develop wetland restoration, enhancement, and creation techniques specific to the Eugene area.

7.2 Conduct the water quality and wetlands studies outlined in the 1990 EPA grant to the Lane Council of Governments:

- Analyze habitat and hydrology
- Evaluate identified potential restoration and mitigation sites
- Review detailed restoration and mitigation design and construction plans
- Design wetlands created to treat stormwater pollution
- Study the feasibility of a wetlands interpretive center in west Eugene for possible use as:
  - visitor center
  - educational center
  - office for a non-profit organization
  - offices for university and graduate student wetland research
  - wetland library
  - meeting room and auditorium

7.3 Conduct studies and expand the west Eugene inventories to other sections of the City:

- Delineations and functions and values analysis outside the Urban Growth Boundary
- Inventory and evaluate wetlands and hydric soil areas throughout the greater Eugene urban region with top priority areas being the Highway 99 and Eugene Airport regions and the north Willakenzie neighborhood
- Apply the wildlife habitat rating methodology to selected number of agriculturally disturbed wetlands, including WEWP, Highway 99, and Willakenzie areas
- Expand the historic wetlands inventory methodology

7.4 The City shall promote and encourage scientific research of benefit to the west Eugene wetlands system.

7.5 The City shall consider up-stream improvements and studies that would benefit water quality and quantity in the Amazon drainage system.

Photo: Raccoon footprints in mud.

7.6 The City shall continue to work with the Oregon Division of State Lands, the U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency toward obtaining a regional wetland permit to be administered by the City.

7.7 The City, in cooperation with one or more nonprofit organizations, shall develop and maintain a computerized wetlands database linked to the regional geographic data system. The database should cover the broader wetlands study area. The database should include information on: wetland boundaries, soils, plants, animals, hydrology, topography, permit activities, and land use. Establishing compatibility among local, state, and federal databases should be explored.

7.8 The City of Eugene shall monitor changes to laws, regulations, definitions, and inventories and shall assess implications for the West Eugene Wetlands Plan.

7.9 The Plan shall be amended periodically to adjust to changing conditions.

7.10 The Plan shall be updated every seven to ten years and no later than the planning cycle required by the City of Eugene's Land Conservation and Development Commission Periodic Review schedule and DSL's requirements for comprehensive wetland plans.

7.11 The City shall prepare a map showing acceptable and prohibited fill disposal sites in the WEWP area.

Recommended Actions

7.1 The City should consider developing local regulations controlling fill and drainage activities in wetland areas of the City.

7.2 The City of Eugene should participate in the study of water diversion (via pipe or canal) from the Willamette River and Eugene Millrace to the Amazon to benefit water quality, aquatic habitat, wetlands hydrology and enhancement, flood control and recreation.

7.3 The City of Eugene should consider Amazon Creek improvements that would restore more natural stream conditions in or near Amazon Park, Westmoreland Park/Patterson School, and the Lane County Fairgrounds.

7.4 The City of Eugene, in cooperation with the Natural Resources Conservation Service and the U.S. Army Corps of Engineers, should study the feasibility of water control structures on the concrete-lined section of Amazon Creek between Jefferson Street and East 19th Avenue to improve water quality and quantity.

7.5 The City of Eugene should consider applying for water rights and/or claims to in-stream flow in the Willow Creek and Amazon basins for wetlands and water quality purposes.

7.6 The City of Eugene should consider regulations to require on-site stormwater detention, and other pre-treatment of storm run-off prior to discharge into storm systems or any wetland or wetland receiving stream in west Eugene in conjunction with the city-wide stormwater quality study.

7.7 The City of Eugene should consider stronger regulations in west Eugene to control erosion and sedimentation resulting from construction activities, and to require re-vegetation and rehabilitation of disturbed areas following construction.

7.8 The City of Eugene should address the effects of new information and changing conditions on the Plan and the wetlands system in the annual report.

7.9 The City should apply the stormwater planning policy of the Metropolitan Natural Resources Special Study (policy 6) to the west Eugene study area.

7.10 New wetlands information or site inventories shall be incorporated into the Plan when they become available.

7.11 Once agreement is reached by state and federal agencies on a uniform method for defining and determining wetlands:

a. Local elected officials will be notified within 30 days;
b. The Plan's inventory will be re-evaluated within 30 months; and
c. Plan amendments will be considered depending on the outcome of the inventory re-evaluation.

Appendices

APPENDIX A

Eugene Implementing Ordinances

The implementing ordinances for the West Eugene Wetlands Plan are shown below as excerpts from Chapter 9 of the Eugene Code, 1971. There are three implementing ordinances:

1. The Waterside Protection Subdistrict, Eugene Code 9.262
2. The Wetland Buffer Subdistrict, Eugene Code 9.264
3. The Natural Resources District, Eugene Code 9.300-9.306

1. Waterside Protection Subdistrict

9.262 Waterside Protection Provisions.

(1) Purpose. The primary objective of the Waterside Protection Sub-district is to protect water quality in designated rivers, channels, streams, riparian areas, wetlands, and upland headwater streams. This sub-district is also intended to protect wildlife habitat and prevent property damage from storms and floods.

The provisions of this sub-district are intended to implement policies in the Metropolitan Plan which call for protection of riparian vegetation, wetlands, waterways, wildlife habitat, and surface and ground water quality.

The waterside protection sub-district is also intended to maintain or enhance open space areas adjacent to water features. These open space areas are important because they contain native vegetation; convey, store, or improve the quality of urban stormwater runoff; provide habitat for wildlife and, where appropriate, can provide legally obtained access for channel maintenance. Uses and activities permitted in these areas are restricted in most cases to those that are consistent with the purpose of this sub-district. Where conflicting uses or activities must occur, site plan approval based upon conformance with specified natural resource special standards (from section 9.305) is required to minimize adverse impacts.

(2) Applicability. The waterside protection sub-district applies to streams, rivers, channels, ponds and other water features and adjacent areas specified for protection in an adopted plan.

(a) Specifically, this sub-district encompasses parcels any part of which contain or are within waterside protection areas as described in this section.

(b) The provisions of the waterside protection sub-district do not exempt a person or property from state or federal laws and regulations that protect water quality, wetlands, or other natural areas.

(c) In some cases, the waterside protection sub-district may overlap with the Natural Resources (NR) district or the wetland buffer sub-district. In these cases, only one review process is required as follows:

1. Where the waterside protection sub-district and the NR district overlap, only the provisions of the NR district are applied.

2. Where the waterside protection sub-district and the wetland buffer sub-district overlap, only one site plan review process is required. This review will address the provisions of both subdistricts. The wetland buffer provisions will be applied to wetlands identified for protection in local plans and policies. The waterside protection provisions will be applied to any other water features on the lot that are mapped and identified for protection in an adopted plan, policy or inventory.

(d) Development within the waterside protection area shall be exempt from the setback provisions of this section if (1) the specific development is to be constructed upon fill that is authorized under an approved wetland fill permit from both the Oregon Division of State Lands and the U.S. Army Corps of Engineers, (2) the fill is consistent with the goals and policies of the West Eugene Wetlands Plan including the designations on Map 3 of the Plan, and (3) any mitigation requirements specified in the permits have been substantially satisfied.

(3) Waterside protection areas. Waterside protection areas consist of three component areas: the area within the channel banks, the setback area, and any riparian area which extends landward beyond the setback. Areas developed prior to adoption of this section of the code are excluded from waterside protection areas. For the purposes of this subsection, development means buildings and other substantial structures, including paved or gravel parking areas. For the purposes of this subsection, fences and landscaping are not sufficient to warrant exclusion for developed areas as described above. The three components of the waterside protection area are described and defined below:

(a) The area within the channel limits of a water feature (from top of high bank to top of high bank). For a given stream, river or channel, the top of the bank is the highest point at which the bank meets the grade of the surrounding topography. Characterized by an abrupt or noticeable change from a steeper grade to a less steep grade, and, where natural conditions prevail, by a noticeable change from topography primarily shaped by the presence and/or movement of the water to topography not primarily shaped by the presence of water. Where there is more than one such break in the grade, the uppermost shall be considered the top of the high bank.

(b) Buffer setback areas measured horizontally from one of two physical features:

1. Where possible, the buffer setback is measured horizontally from the top of the high bank of the water feature, as defined above. Buffer setback distances measured from the top of the high bank are as follows:

MINIMUM BUFFER SETBACKS FROM TOP OF BANK

Water Feature	Buffer Setback
Perennial, within floodway	60 feet
Perennial, outside floodway	40 feet
Intermittent or seasonal	20 feet

2. If the top of the high bank is not identifiable, the buffer setbacks are measured horizontally from the line of ordinary high water. In a given stream, pond, or other water body, the line of ordinary high water is the line on the bank or shore to which seasonal high water rises annually. Identified in the field by physical characteristics that include one or more of the following: (a) a clear, natural line impressed on the bank, (b) changes in the characteristics of soil, (c) the presence of water borne litter and debris, (d) destruction of terrestrial vegetation. If reliable water level data are available for three or more consecutive previous years, the line of ordinary high water can be considered the mean of the highest water level for all years for which data is available. Buffer setback distances measured from the line of ordinary high water are as follows:

MINIMUM BUFFER SETBACKS FROM ORDINARY HIGH WATER LINE

Water Feature	Buffer Setback
Perennial, within floodway	75 feet
Perennial, outside floodway	50 feet
Intermittent or seasonal	25 feet

(c) Contiguous riparian areas which extend landward from the water feature beyond the buffer setback area, as defined in this sub-district.

1. Riparian habitat, riparian area. Lands adjacent to water features which contain primarily native vegetation including species that typically grow in wet areas (wet area species). For purposes of this code "wet area species" are those species listed as "facultative," "facultative wetland," or "obligate wetland" species in the most recent U.S. Fish and Wildlife Service "list of plant species that occur in wetlands" for the Eugene area. Where large forested areas adjoin a water feature, only that portion which contains wet area species is considered riparian.

2. The city shall maintain maps of regulated riparian areas, and make them available to the public. These maps will be used to identify the extent of the riparian area unless the applicant can demonstrate through detailed inventory information (including maps showing the location and species of vegetation growing in the disputed area) that the city's maps are in error.

(4) Conveyance of stormwater maintenance easement. Within the waterside protection area, the city shall have the authority to require conveyance of a maintenance access easement for any natural or human made stormwater facility as a condition of approval for any site review or conditional use permit. Maintenance access easements shall be parallel to the stream or channel and shall be of sufficient width to allow a 20 foot wide maintenance access road along one side of the stream or channel.

(5) Permitted uses. There are two categories of uses: those allowed by the parent district outside of the waterside protection area, and a more restrictive list allowed within the waterside protection area.

(a) Uses permitted or permitted conditionally in the parent district are permitted within this sub-district provided those uses are located outside waterside protection areas.

(b) Uses permitted outright. Within waterside protection areas, the following uses are permitted, subject to the "Prohibited practices" provisions in subsection (6) of this section:

1. Removal of refuse and unauthorized fill.

2. Removal of non-native or invasive plant species included on a list determined by the Planning Director and kept on file at the city.

3. Planting or replanting with native plants included on a list determined by the Planning Director and kept on file at the city.

4. Construction of channel maintenance access roads or path ways and channel maintenance practices used to maintain stormwater conveyance and flood control capacity as required by local policies, state and federal regulations, and intergovernmental agreements.

5. Removal of vegetation by non-chemical means within a strip not to exceed 15 feet wide where a publicly owned property within the waterside protection sub-district abuts private property that is not within a waterside protection area, only when deemed necessary by the public works director or designee to protect human health and safety or to prevent a nuisance.

(c) Uses permitted subject to site plan review. Within waterside protection areas, the following uses are permitted, subject to the "Prohibited practices" provisions in subsection (6) of this section and site plan approval based upon compliance with the natural resources special standards from section 9.305 listed with each use below:

1. Realignment and reconfiguration of channels and pond banks. (Subject to natural resources special standards (b), (c), (e) through (i) of section 9.305).

2. Construction of stormwater quality treatment facilities that use biofiltration methods, such as shallow grassy swales, constructed wetlands, and ponds, and which do not include adding impervious surfaces. (Subject to natural resources special standards (b) through (i) of section 9.305).

3. Construction of public improvements (including but not limited to streets, sanitary and storm sewers, bridges, bikeways, pedestrian paths, maintenance access roads and public utilities) required by this code or specified in adopted plans. (Subject to natural resources special standards (b) through (j), (m) through (r), and (t) of section 9.305).

4. Maintenance of existing utility easements to maintain access and promote safety, and as required by local policies, state and federal regulations, and intergovernmental agreements. (Subject to natural resources special standards (b), (c), and (e) through (i) of section 9.305). Utility companies shall submit to the city a notice of easement maintenance activities within the waterside protection area describing the nature and extent of those activities 15 days prior to commencing those activities.

5. Wetland or riparian area enhancement, restoration or creation activities that are consistent with adopted plans and policies, including construction of stormwater quality treatment facilities that use biofiltration methods, such as shallow grassy swales, constructed wetland, and ponds. (Subject to natural resources special standards (b) through (i) of section 9.305.)

(6) Prohibited practices. The following practices are prohibited within waterside protection areas, except as specifically approved through the exceptions process of this sub-district:

(a) Storage of chemical herbicides, pesticides or fertilizers or other hazardous or toxic materials.

(b) Dumping, piling or disposal of refuse.

(c) Dumping, piling disposing or composting of yard debris, fill, or other material except for (i) single family residential composting, which must be kept at least ten feet from the top of the bank of any water feature, and (ii) soils or soil amendments used for replanting in accordance with the provisions of this section.

(d) Construction of new septic drainfields.

(e) Channelizing or straightening natural drainageways.

(f) The following practices are prohibited unless they: (1) are directly

related to a use permitted in this zoning district, (2) address an imminent threat to public health and safety, or (3) result in enhancement of water quality, and enhancement or maintenance of stormwater conveyance capacity, flood control capacity, groundwater discharge and recharge capacity and wildlife habitat:

1. Filling
2. Grading
3. Excavating
4. Application of chemical herbicides, pesticides and fertilizers.

(7) Exceptions. Exceptions to the provisions of this sub-district for uses and development within waterside protection areas are permitted in accordance with the following provisions:

(a) Authority. The planning director or designee shall have the authority to grant exceptions to the provisions of this sub-district.

(b) Criteria. Exceptions will be granted only if the applicant clearly demonstrates in writing that:

1. The provisions of this sub-district in conjunction with other city regulations, and circumstances peculiar to the property not self-imposed by the applicant, would prohibit any viable economic use of the property; or
2. The waterside protection area as set forth in 9.262(3) occupies more than 33% of the area of a development site.

(c) Process. To determine the extent to which an exception is allowed under this section, the planning director or designee shall consider the following steps in the order listed:

1. Where practical, relax other setbacks in order to accommodate buffer setbacks as specified in this subsection.
2. If no economically viable use is feasible under (c)1., relax waterside protection sub-district requirements applicable to riparian areas (as defined in this section) outside buffer setback areas and require enhancement of riparian vegetation within the buffer setback area.
3. If no economically viable use is feasible under (c)1. or (c)2., reduce the buffer setback area to the minimum extent necessary to accommo date development, and require additional enhancement within the remaining buffer area, consistent with natural resources special standards (a) through (d) of section 9.305.
4. If no economically viable use is feasible under (c)1., (c)2. or (c)3., allow alteration of water feature(s) to the minimum extent necessary to accommodate development, but require restoration and enhancement of the affected water features via site plan approval based upon conformance with natural resources special standards (b) through (t) of section 9.305.

(8) Review process. Except when the applicant can clearly show that proposed development will not encroach into the waterside protection area, all development proposed within the waterside protection sub-district shall be reviewed in accordance with the site plan review procedure outlined in section 9.690. Site plan approval for development proposed within the waterside protection sub-district shall be based upon conformance with the natural resources special standards from section 9.305 specified with each use.

(9) Performance contract. Except when it can be clearly shown that proposed development will not encroach into the waterside protection area, performance contracts shall be

required for uses within the waterside protection sub-district that are subject to site review or conditional use approval. For uses subject to site review approval, performance contracts will be required in accordance with section 9.694. For uses subject to conditional use approval, performance contracts will be required in accordance with section 9.722.
(Section 9.262 was added by Ordinance No. 20006, enacted April 24, 1995, effective May 24, 1995; and amended by Ordinance No. 20028, enacted November 13, 1995, effective December 13, 1995.)

2. Wetland Buffer Subdistrict

9.264 Wetland Buffer Provisions.

(1) Purpose. The primary purpose of wetland buffers and setbacks is to maintain or improve water quality within protected wetland sites identified in the West Eugene Wetlands Plan. Secondary benefits of buffers and setbacks include creating open space between the resource and adjacent uses, helping to maintain or improve wildlife habitat values and wetland hydrology, protecting the aesthetic value of the site and minimizing property damage from floods.

The provisions of this sub-district are intended to implement policies in the Metro Plan which call for protection of wetlands, wildlife habitat, and surface and ground water quality. The provisions of this sub-district are also intended to address state and federal laws and policies which regulate development within jurisdictional wetlands to protect water quality, including applicable provisions of the Federal Clean Water Act and the State of Oregon's wetland laws.

The wetland buffer sub-district is also intended to maintain or enhance open space areas adjacent to wetlands identified for protection in the West Eugene Wetlands Plan. These open space areas are intended to contain native vegetation, and convey, store, or improve the quality of urban stormwater runoff, while providing habitat for wildlife. Uses and activities permitted in these areas are restricted in most cases to those that are consistent with the purpose of this subdistrict. Where conflicting uses or activities must occur, either conditional use permit or site plan approval based upon conformance with specified natural resources special standards of section 9.305 is required to minimize adverse impacts.

(2) Applicability. The wetland buffer sub-district applies to new development or redevelopment on lots or parcels which are adjacent to wetlands identified for protection in the West Eugene Wetlands Plan.

(a) Specifically, this sub-district encompasses lots or parcels any part of which contain or are within wetland buffer areas as described in this section. In some instances buffers will be required for new development even though existing adjacent developments have no buffer.

(b) The provisions of the wetland buffer sub-district do not exempt a person or property from state or federal laws and regulations that protect water quality, wetlands, or other natural areas.

(c) In some cases, the wetland buffer sub-district may overlap with the NR natural resources district or the waterside protection sub-district. In these cases, only one review process is required as follows:

1. Where the wetland buffer sub-district and the NR district overlap, only the provisions of the NR district are applied.

2. Where the wetland buffer sub-district and the waterside protection sub-district are applied to the same tax lot, only one site plan review process is required. This review will address the provisions of both sub-districts. The wetland buffer provisions will be applied to wetlands identified for protection in local plans and policies. The waterside protection provisions will be applied to any other water features on the lot that are designated for protection in adopted plans, policies or inventories.

(d) Development within the wetland buffer area shall be exempt from the setback provisions of this section if (1) the specific development is to be constructed upon fill that is authorized under an approved wetland fill permit from both the Oregon Division of State Lands and the U.S. Army Corps of Engineers, (2) the fill is consistent with the goals and policies of the West Eugene Wetlands Plan including the

designations on Map 3 of the Plan, and (3) any mitigation requirements specified in the permits have been substantially satisfied.

(3) Wetland buffer areas. Wetland buffer areas shall consist of the area between the jurisdictional wetland boundary accepted by the Oregon Division of State Land and the U.S. Army Corps of Engineers and the wetland buffer setback line as specified in this subsection. Standard wetland buffer setback distances are determined by the value category of the adjacent wetland, and whether or not the buffer setback area is enhanced. Wetland value categories are defined according to the criteria contained in the West Eugene Wetlands Plan. Areas developed prior to adoption of this section of the code are excluded from wetland buffer areas. For purposes of this subsection, development means buildings and other substantial structures, including paved or gravel parking areas. For the purposes of this subsection, fences and landscaping are not sufficient to warrant exclusion of developed areas as described above.

(a) Wetland value categories. Three wetland value categories shall be used for applying setbacks, buffer requirements and other protection measures applied to wetlands designated for protection in the West Eugene Wetlands Plan (protected wetlands). The three categories are: high value wetlands, moderate value wetlands and low value wetlands. A list of protected wetland sites indicating the wetland value category of each is included in the West Eugene Wetlands Plan.

(b) Standard wetland buffer setback distances. Standard wetland buffer setback distances are measured horizontally from jurisdictional wetland boundaries accepted by the Oregon Division of State Lands and the U.S. Army Corps of Engineers. Wetland buffer setbacks are of two types: Type I, in which no enhancements are required within the setback area, and Type II, in which vegetative and stormwater quality enhancements are required. Property owners shall have the choice of whether the Type I or Type II buffer setback is applied to their property, unless a Type I buffer setback would preclude any economically viable use of a parcel. In those cases, a Type II buffer setback would be applied. Standard wetland buffer setback distances are as follows:

1. High value wetlands shall have a Type I setback of 100 feet with no site enhancements; or a Type II setback of 50 feet meeting vegetative, stormwater, and other enhancement standards as specified in natural resources special standards (a) through (d) of section 9.305.

2. Moderate value wetlands shall have a Type I setback of 50 feet with no site enhancements; or a Type II setback of 25 feet meeting vegetative, stormwater, and other enhancement standards as specified in natural resources special standards (a) through (d) of section 9.305.

3. Lower value (mitigation/enhancement) wetlands. Disturbed agricultural wetlands designated for enhancement or mitigation in the West Eugene Wetlands Plan shall not have a buffer setback outside the wetland boundary.

(c) Buffer reduction for low intensity uses. A 10% reduction from the standard buffer setback distances shall be allowed when the adjoining use is one of the following: low density residential, public parks and open space, or agriculture.

(4) Permitted uses. Within the wetland buffer sub-district, there are two categories of uses: those allowed by the parent district outside of the wetland buffer area, and a more restrictive list allowed within the wetland buffer area.

(a) Outside wetland buffer areas. The uses permitted in this sub district are the same as those permitted in the parent district.

(b) Within wetland buffer areas:

1. Uses permitted outright. Within wetland buffer areas, the following uses are permitted outright:

a. Removal of refuse and unauthorized fill.

b. Removal of non-native or invasive plant species included on a list determined by the Planning Director and kept on file at the city.

c. Replanting with native plant species included on a list determined by the Planning Director and kept on file at the city.

d. Channel maintenance to maintain stormwater conveyance and flood control capacity as required by local policies, state and federal regulations, and intergovernmental agreements.

e. Maintenance of existing utility easements to maintain access and promote safety, and as required by local policies, state and federal regulations, and intergovernmental agreements.

2. Uses permitted subject to site plan review. Within wetland buffer areas, the following uses are permitted, subject to site plan approval based upon compliance with the natural resources special standards from section 9.305 listed with each use. Where required, site plan approval must be secured prior to the application for a building permit for development within the wetland buffer sub-district. Uses permitted subject to site plan review are:

a. Wetland or riparian area enhancement, restoration or creation activities that are consistent with adopted plans and policies, including:

(i) Construction of stormwater quality treatment facilities that use biofiltration methods, such as shallow grassy swales, constructed wetlands, and ponds, and which do not include adding impervious surfaces. (Subject to natural re sources special standards (b) through (i) of section 9.305).

(ii) Impervious surfaces or topographic changes. (Subject to natural resources special standards (b) through (i) of section 9.305).

b. Construction of trails and pathways, boardwalks, viewing platforms, interpretive information kiosks and trail signs. (Subject to natural resources special standards (i) through (m) and (o) through (q) of section 9.305.)

c. Restoration and enhancement of natural functions and values which involve displacement, excavation or relocation of more than 50 cubic yards of earth and which carry out the objectives of this district, including realignment and reconfiguration of channels and pond banks, but not including deliberate creation of new wetlands or restoration of former wetlands. (Subject to natural resources special standards (b) through (i) of section 9.305.)

d. Construction of stormwater quality treatment facilities that use biofiltration methods, such as shallow grassy swales, constructed wetlands, and ponds, and which do not include adding impervious surfaces. (Subject to natural resources special standards (b) through (i) of section 9.305.)

e. Construction of access roads for maintenance of channels, wetlands and other natural resource areas. (Subject to natural resources special standards (b) through (f), (h), (i), and (o) of section 9.305.)

f. Bikeways and other paved pathways. (Subject to natural resources special standards (b), (e), (f), (h), (i), and (o) through (r) of section 9.305.)

3. Uses permitted conditionally. In the wetland buffer subdistrict, the uses below are permitted conditionally. Conditional use permit approval shall be based upon conformance with natural resource special standards (b) through (t) of section 9.305, in addition to the conditional use criteria contained in section 9.702.

a. Nature interpretive centers, when specified in or consistent with adopted plans or policies.

b. Maintenance facilities for storage of equipment and materials used exclusively for maintenance and management of wetlands and natural areas.

(5) Prohibited practices. Practices that are not specifically allowed under this section, and that would adversely affect water quality or damage wildlife habitat, are prohibited within the wetland buffer areas, including, but not limited to, the following:

(a) Storage of chemical herbicides, pesticides or fertilizers or other hazardous or toxic materials.

(b) Deposition or dumping of any material imported from off-site, except for soils or soil amendments used for replanting in accordance with provisions of this section.

(c) Construction of new septic drainfields.

(d) Channelizing or straightening natural drainageways.

(e) Removal or destruction of rare, threatened or endangered plant species is restricted, unless a recovery plan is submitted by the applicant and adopted by the city, following review by the Oregon Department of Agriculture and the U.S. Fish and Wildlife Service.

(f) Filling, grading, excavating, deposition of soils imported from off-site, and application of chemical herbicides, pesticides and fertilizers are prohibited unless they: (1) are directly related to a use permitted in this zoning district, (2) address an imminent threat to public health and safety, or (3) result in enhancement of water quality, and enhancement or maintenance of stormwater conveyance capacity, flood control capacity, groundwater discharge and recharge capacity and wildlife habitat.

(6) Review process. All development proposed within the wetland buffer sub-district shall be reviewed in accordance with the site plan review procedure in section 9.690 of this code, except when the applicant can clearly show that proposed development will occur completely outside of the largest applicable wetland buffer area. Site plan approval for development proposed within the wetland buffer sub-district shall be based upon conformance with the natural resources special standards from section 9.305 listed with each use.

(7) Exceptions. The planning director or designee shall have the authority to grant exceptions to the standard setback distances and permitted uses within wetland buffer areas in accordance with the following provisions.

(a) Criteria. Exceptions will be granted only if the applicant demonstrates in writing that:

1. Through a combination of buffer enhancements and site design alterations that a smaller buffer setback distance can provide protection to the resource which is equal to or better than that provided by the standard buffers specified above, including, but not limited to meeting or exceeding natural resource special standards (a) through (d) of section 9.305; or

2. No economically viable use allowed within the parent district could occur as a result of the application of these setback and buffer provisions, and that this circumstance is not purposefully brought about by any deliberate action of the owner or developer of the property;

An exception shall be granted by the planning director in these cases, and type II buffers of less than 50 feet are permitted on high value wetlands and type II buffers of less than 25 feet are permitted on moderate value wetlands. Setbacks around high value wetlands shall not be less than 25 feet in any case.

(b) Buffer averaging. Wherever practical, reductions in buffer distance from the standard buffer setback distances due to approved exceptions shall be accomplished through averaging the buffer distance on a site. Averaging means that when the buffer setback is reduced in one location, it is expanded somewhere else in compensation so that the total buffer area remains the same.

1. Wherever practical, reductions in buffer distance due to approved exceptions will occur adjacent to lower value or less sensitive areas within a given wetland site and expansion of the buffer in compensation will occur adjacent to higher value or more sensitive areas within a given wetland site.

2. To the extent practical, wherever buffers are reduced from the standard setbacks along channel sites or other linear sites, buffers shall be increased on the opposite bank of the channel across from the area where the reduction is allowed.

(c) Reductions to other standards. The planning director shall have the authority to reduce other setbacks and landscape requirements as contained in this code on properties where wetland buffer setbacks are required.

(d) Applicable standards. All construction, vegetation removal and earth moving that takes place inside standard wetland buffer setback areas as approved through this exception process shall conform to natural resources special standards (b) through (t) of section 9.305.

(e) Submittal requirements for exceptions. Any applicant requesting an exception shall submit additional materials and information, as prescribed by the city.

(8) Performance contract. Except when it can be clearly shown that proposed development will not encroach into the wetland buffer area, performance contracts shall be required for uses within the wetland buffer sub-district that are subject to site review or conditional use approval. For uses subject to site review approval, performance contracts will be required in accordance with section 9.694. For uses subject to conditional use approval, performance contracts will be required in accordance with section 9.722.

(9) Miscellaneous provisions.

(a) Type I buffer setbacks that are not enhanced by the owner or developer may be enhanced in cooperation with the owner(s) by government or other non-profit agencies or organizations as part of demonstration projects, habitat management or other programs that are consistent with adopted plans or policies.

(b) To the extent practical, in residential zones, density transfers shall be

used to offset restrictions on building within buffer setback areas. A density transfer is an allowance within a given parcel or development site under one ownership to increase the density beyond the normal code limits, in compensation for a reduction elsewhere on the site required or caused by local regulations.
(Section 9.264 was added by Ordinance No.20006, enacted April 24, 1995, effective May 24, 1995; and amended by Ordinance No. 20028, enacted November 13, 1995, effective December 13, 1995.)

3. Natural Resource District

9.300 Natural Resource District.

(1) Description and purpose. The NR Natural Resource District (NR district) is primarily intended to protect water quality, native vegetation and wildlife habitat within locally outstanding natural resource areas identified in adopted plans.

The provisions of this district are intended to implement policies in the Metro Plan which call for protection of native vegetation, wetlands, waterways, wildlife habitat, rare plants and surface and ground water quality. The NR district is also intended to address state and federal laws and policies which regulate development within jurisdictional wetlands to protect water quality, including applicable provisions of the Federal Clean Water Act and the State of Oregon's wetland laws.

The natural functions and values intended to be protected by this district include: floodwater storage, floodwater conveyance, sediment control, erosion control, pollution control, fish and wildlife habitat, aquifer recharge, water supply, native plant communities, and habitat for rare, threatened or endangered plant and animal species. It is recognized that not all sites will exhibit all of these functions and values.

(2) Applicability. The NR district applies to wetlands, water features and other natural areas that are designated as "wetlands to be protected" or "wetlands to be enhanced for mitigation credit" on Map 3 of the adopted West Eugene Wetlands Plan and acquired by a public agency or non-profit conservation organization.

(a) The provisions of the NR district do not exempt a person or property from state or federal laws and regulations that protect water quality, wetlands, or other natural areas.

(b) In some cases, the NR district may overlap with the wetland buffer sub-district or the waterside protection sub-district. In these cases, only one review process is required as follows:

1. Where the NR district and the wetland buffer sub-district overlap, only the provisions of the NR district are applied.

2. Where the NR district and the waterside protection sub district overlap, only the provisions of the NR district are applied.

(Section 9.300 added by Ordinance No. 20006, enacted April 24, 1995, effective May 24, 1995.)

9.301 Uses Permitted Outright. In the NR district the following uses are permitted:

(a) Removal of refuse and any fill that is in violation of local, state or federal regulations. Removal of fill must be consistent with State of Oregon Removal-Fill regulations.

(b) Removal of non-native or invasive plant species included on a list determined by the Planning Director and kept on file at the city.

(c) Replanting with native plants included on a list determined by the Planning Director and kept on file at the city.

(d) Site management and maintenance practices, whose purpose is to maintain or improve natural functions and values or protect public health and safety, and which are consistent with adopted plans and polices, including but not limited to the following:

1. Removal of vegetation by non-chemical means within a strip not to exceed 15 feet wide where a property zoned NR district abuts private property in any other zoning district, only when deemed necessary by the public works director or designee to protect human health and safety or to

prevent a nuisance.

(e) Other wetland and natural area restoration and enhancement of natural functions and values, which involve displacement, excavation or relocation of less than 50 cubic yards of earth, and which carry out the objectives of this district and are consistent with adopted plans and policies.

(f) Channel maintenance to maintain stormwater conveyance and flood control capacity as required by local policies, state and federal regulations, or inter governmental agreements.

(Section 9.301 was added by Ordinance No.20006, enacted April 24, 1995, effective May 24, 1995.)

9.302 Uses Permitted Subject to Site Plan Review. The following uses are permitted within the NR district, and are subject to the site plan review process outlined in section 9.690. For these uses, site plan approval based upon compliance with specified natural resource special standards from section 9.305 must be secured prior to the application for a building permit for development within the NR district. The natural resource special standards specified with each use shall be applied as criteria for site plan approval for these uses.

(a) Construction of trails, boardwalks, viewing platforms, interpretive information kiosks and trail signs. (Subject to natural resource special standards (i) through (m) and (o) through (q) of section 9.305.)

(b) Restoration and enhancement of natural functions and values which involve displacement, excavation or relocation of more than 50 cubic yards of earth and which carry out the objectives of this district, including realignment and reconfiguration of channels and pond banks. (Subject to natural resource special standards (b) through (i) of section 9.305.)

(c) Construction of stormwater quality treatment facilities that use biofiltration methods, such as shallow grassy swales, constructed wetlands, and ponds, and which do not include adding impervious surfaces. (Subject to natural resource special standards (b) through (i) of section 9.305.)

1. Grassy swales are shallow ditches lined with grass for the purpose of filtering of sediments and other pollutants from stormwater runoff.

2. Constructed wetlands are wetlands which are created where no wetland characteristics existed previously.

(d) Construction of access roads for maintenance of channels, wetlands and other natural resource areas. (Subject to natural resources special standards (b) through (f), (h), (i), and (o) of section 9.305.)

(e) Bikeways and other paved pathways. (Subject to natural resources special standards (b), (e), (f), (h), (i), and (o) through (r) of section 9.305.)

(Section 9.302 was added by Ordinance No.20006, enacted April 24, 1995, effective May 24, 1995.)

9.303 Uses Permitted Conditionally. In the NR district, the uses below are permitted conditionally. Conditional use permit approval shall be based upon conformance with natural resource special standards (b) through (t) of section 9.305, in addition to the conditional use criteria in section 9.702:

(a) Nature interpretive centers and wetland research facilities, when specified in or consistent with adopted plans or policies.

(b) Maintenance facilities for storage of equipment and materials used exclusively for maintenance of wetlands and other natural resource areas.

(Section 9.303 was added by Ordinance No.20006, enacted April 24, 1995, effective May 24, 1995.)

9.304 Performance Contract. Performance contracts shall be required for uses within the NR district that are subject to site review or conditional use approval. For uses subject to site review approval, performance contracts will be required in accordance with section 9.694. For uses subject to conditional use approval, performance contracts will be required in accordance with section 9.722.
(Section 9.304 was added by Ordinance No. 20006, enacted April 24, 1995, effective May 24, 1995.)

9.305 Natural Resources Special Standards. The following standards are applied to activities and uses permitted within the NR district as specified under "Permitted Uses", "Uses Permitted Subject to Site Plan Review" and "Uses Permitted Conditionally". Not all of the following standards will be applied to all uses. These standards are also applied to parcels within the waterside protection sub-district and the wetland buffer sub-district, as specified in the sections of this code which apply to those sub-districts.

(a) Buffer enhancements.

1. Plantings shall be conducted on reduced buffers in conformance with the vegetation removal and planting and replanting standards below as well as the following:

a. Reduced buffer areas shall be planted with appropriate native tree, shrub and grass or other non-woody species to increase to the greatest extent practical the capacity of the area to filter pollutants from stormwater which flows across the buffer area. Where existing native vegetation already serves this function, new plantings will augment those already existing, unless the applicant can clearly demonstrate that additional plantings will not improve the filtering capacity of the buffer area.

b. Plantings shall be done with species native to the southern Willamette Valley from a native plant list determined by the planning director, which are appropriate to the site given its topography, hydrology, soil, existing native vegetation and historic native vegetation as determined by the planning director or designee.

c. Plantings shall not adversely affect adjacent protected wetlands through invasion or other effects.

2. All refuse, toxic materials and any fill brought in from outside the site after August 8, 1993 must be removed from the buffer area.

3. Where practical, finished grades shall encourage sheet flow of stormwater runoff across buffer areas to maximize filtering and infiltration of stormwater runoff within buffer areas.

4. On sites where the slope within the wetland buffer area exceeds 15%, measures (e.g., planting and contouring) shall be taken to slow the flow of stormwater runoff to the maximum extent practical.

5. Non-native plants shall be removed to the maximum extent practical and replaced with native species.

6. Buffer enhancement work shall be completed prior to or concurrent with other site development, unless appropriate native species are not available within that time frame.

(b) Vegetation removal.

1. Vegetation removal is limited to removal of:

a. Non-native and invasive plant species included on a list determined by the planning director and kept on file at the city;

b. Dead or dying trees or shrubs that are an imminent danger to public health and safety as determined by the planning director or designee. Removal shall only be authorized after all other reasonable alternatives have been examined and proven impractical, and if the removal represents the minimum necessary to meet the objectives of the proposed use;

c. Dead or dried native plants or grasses only when they constitute an imminent fire hazard, as determined by the fire marshal;

d. Native vegetation to facilitate or encourage the growth of other native species as called for in adopted plans or policies;

e. The minimum area of native vegetation necessary for approved uses or conditional uses or uses allowed by an exception as specified in sections 9.262 and 9.264.

2. Removal of vegetation for development of permitted uses, approved conditional uses, or development allowed by an exception as specified in sections 9.262 and 9.264, shall be the minimum necessary for the proposed use.

3. Clearing of more than 0.1 contiguous acre of vegetation on slopes greater than 5% must be either:

a. Conducted between April 15 and October 15, or

b. Preceded by approval of an erosion and sedimentation control plan by the planning director, which must be implemented throughout the clearing process.

4. Clearing of vegetation that is not in preparation for development must be followed by replanting in accordance with the requirements of this section.

5. Removal or destruction of rare, threatened or endangered plant species is restricted (see Prohibited practices provisions of the NR district, WB wetland buffer sub-district and WP waterside protection sub-district.)

(c) Planting and replanting.

1. Replanting of areas cleared of existing vegetation as required in this section must be conducted within 90 days following the removal or clearing, unless otherwise approved by the planning director.

2. Planting and replanting with seed shall be timed so that germination occurs prior to November 15, unless the germination requirements of the seed require otherwise, in which case germination shall be accomplished at the earliest date practical.

3. Planting and replanting shall be done with native species from a list determined by the planning director and kept on file at the city.

(d) Stormwater drainage.

1. Stormwater runoff that is discharged into protected wetlands or water bodies from parking lots, streets, and other impervious areas bearing motorized vehicle traffic or machinery shall be treated on site, prior to dis charge into waters of the state to maintain or improve water quality. Treatment may include infiltration devices, grassy swales, treatment ponds or other approved methods.

2. Runoff from impervious areas used for repair, cleaning, refueling or servicing of vehicles or machinery shall be treated on site to remove oil, grease and other chemicals.

3. New development shall utilize measures to limit post construction runoff rate, timing and volume to pre-development levels to the maximum extent practical. These measures may include on-site detention or retention ponds, infiltration areas or other approved measures.

4. Porous paving treatments shall be used where practical. As used here, the term "porous paving" refers to recognized systems utilizing paving blocks (e.g., "grasscrete"). For the purposes of this provision, gravel surfaces are not acceptable.

(e) Impervious surfaces.

1. Impervious surfaces are prohibited unless they are part of a permitted use or approved conditional use.

2. Impervious surfaces that are necessary for permitted uses or approved conditional uses must be no larger than the minimum necessary for the proposed use and must be located as far from wetlands and water features as practical.

(f) Construction practices.

1. Within the NR district and wetland buffer areas, construction or other use of heavy machinery is prohibited as described below. Heavy machinery is defined as motorized or mechanized machinery or equipment capable of deliberately or inadvertently damaging vegetation, compacting soil, moving earth or causing excessive noise or heavy vibrations through its use. Use of heavy machinery is prohibited:

a. Between February 20 and June 30 within 300 feet of any significant waterfowl nesting areas identified in adopted plans or policies or by the Oregon Department of Fish and Wildlife.

b. Between May 1 and August 30 within 300 feet of any significant shorebird and wading bird nesting areas identified in adopted plans or policies or by the Oregon Department of Fish and Wildlife.

2. Stockpiles or storage of wood and other building materials or machinery are prohibited within wetland boundaries, wetland buffer areas and waterside protection areas.

3. Petroleum products, chemicals, sediment, eroded soil or other deleterious materials used in the construction process shall not be allowed to enter the water or wetland during construction.

4. Use of heavy equipment or machinery shall be the minimum necessary for the use or activity and shall be restricted to those areas where it is necessary.

(g) Landlord character. Grading and excavating conducted as part of restoration or enhancement projects, and bank and channel reconfiguration must result in topography that resembles the natural undulations, meanders and slopes found in landscapes shaped only by natural processes. For the purposes of this standard, straight lines and geometric or angular shapes are not acceptable. Channel and stream bank slopes shall not exceed 25%.

(h) Filling, grading and excavating. These activities shall occur between April 15 and October 15, unless the planning director authorizes an exception based on dry weather conditions or overriding public need. Exceptions granted for reasons other than dry weather conditions shall require approval of an erosion and sedimentation control plan by the planning director prior to commencement of earth moving activities, and this plan must be implemented throughout the activity.

(i) Disposal sites. Waste materials, brush and spoils from clean-up operations or excavation shall be placed outside wetland boundaries, wetland buffer areas and other natural areas designated for protection in an adopted plan or policy.

(j) Structure color.

1. Within the NR district and within wetland buffer areas, all finished structures must be in natural earth tone colors, unless otherwise required by local, state or federal law or regulation.

2. Within waterside protection areas, all finished structures or building facades which face a class A or B stream or pond must be in natural earth tone colors, unless otherwise required by local, state or federal law or regulation.

(k) Boardwalks, viewing platforms, interpretive information kiosks, trail and interpretive signs. Construction of these structures shall involve the least removal of native vegetation practical. Signs shall be no more than five feet tall, and 16 square feet per face in surface area, except for signs intended to be read from moving automobiles, such as site entrance signs, which shall be no more than eight feet tall and 32 square feet per face in surface area. Kiosks shall be no more than eight feet tall and 16 square feet per face in surface area.

(l) Trails. Trails shall be constructed of gravel, wood chips or soil, unless otherwise approved by the planning director. Trail construction shall involve the least removal of native vegetation practical and shall involve the least amount of fill or excavation practical.

(m) Building height. Building height is limited to 30 feet or the height limit of the parent district, whichever is less. If there is no specified height limit in the parent district, building height shall be limited to 30 feet.

(n) Noise. For inventoried sites that received a Wildlife Habitat Rating of greater than 60 in the Metropolitan Natural Resources Inventory (Lev, 1990) and sites designated as high value wetlands in the wetland buffer provisions of this code, noise generated by uses within the NR district and the wetland buffer sub-district (as measured at the wetland boundary) and within the waterside protection sub-district (as measured at the top of the high bank) shall not exceed the standards for residential properties specified in section 9.644.

(o) Stream and channel crossings. Bridges or other structures that cross water features must be constructed so that water flow, vegetation growth and movement of aquatic animals and water dependent wildlife are impeded to the least extent practical. To meet this standard, bridges and crossings shall include, but are not limited to, applicable items from the following list:

1. Crossings must utilize bridges or natural substrate culverts where possible.

2. Culverts must not substantially increase or decrease water depth or flow rate conditions.

3. Bridges and culverts shall be constructed so that there is at least three feet clearance between the ordinary high water mark and the underside of the bridge or culvert.

4. The lower lip of any culvert must meet the stream or channel bed at grade.

5. Culverts shall be the minimum length practical.

(p) Lighting. Area lighting must be aimed away from resource areas where possible, and otherwise must be aimed such that light shining on natural resource areas is minimized to the maximum extent practical. Area lighting is outdoor lighting designed to illuminate an activity area, trail or bicycle path.

(q) Public access. Access for the general public must be consistent with adopted policies or plans which address public access on specific sites.

(r) Location of structures. New buildings, roads and other new impervious surfaces associated with interpretive centers or wetland maintenance facilities shall be located outside boundaries of wetlands identified for protection in adopted plans and policies to the maximum extent practical.

(s) Mitigation site buffers. When low value wetland sites within the NR district are restored or enhanced for mitigation credit, a 25 foot buffer shall be maintained around the perimeter of the mitigation area, but within the jurisdictional wetland boundary. All provisions for permitted uses, conditionally permitted uses, prohibited practices and applicable special standards that apply to wetland buffer areas as specified in section 9.264 shall apply to mitigation site buffers.

(t) Site layout. High activity areas, including traffic lanes, loading docks, and group gathering areas must be located as far away from wetlands, water features and other protected natural areas as is practical.

(Section 9.305 was added by Ordinance No.20006, enacted April 24, 1995, effective May 25, 1995.)

9.306 Prohibited Practices. Practices that are not specifically allowed under sections 9.301, 9.302 or 9.303, and that would adversely affect water quality or damage wildlife habitat, are prohibited within the NR district, including, but not limited to, the following:

(a) Storage of chemical herbicides, pesticides or fertilizers or other hazardous or toxic materials.

(b) Deposition or dumping of any material imported from off-site, except for soils or soil amendments used for replanting in accordance with provisions of this section.

(c) Construction of new septic drainfields.

(d) Channelizing or straightening natural drainageways.

(e) Off-road operation of vehicles, except for those employed in site restoration or site maintenance practices during the dry season and bicycles when used on designated trails.

(f) Removal or destruction of rare, threatened or endangered plant species unless a recovery plan is submitted by the applicant and adopted by the city, following review by the Oregon Department of Agriculture and the U.S. Fish and Wildlife Service.

(g) Filling, grading, excavating, deposition of soils imported from off site, and application of chemical herbicides, pesticides and fertilizers are prohibited unless they:

1. Are directly related to a use permitted in this zoning district,
2. Address an imminent threat to public health and safety, or
3. Result in enhancement of water quality, and enhancement or maintenance of stormwater conveyance capacity, flood control capacity, groundwater discharge and recharge capacity and wildlife habitat.

(Section 9.306 was added by Ordinance No. 20006, enacted April 24, 1995, effective May 24, 1995.)

APPENDIX B

Wetland Value Criteria

The following criteria shall be used to determine wetland value categories for applying setbacks, buffer requirements and other protection measures applied to wetlands designated for protection on Wetland Designations Map (Map 3).

High value wetland sites must meet at least five out of the following seven criteria:

a. site is relatively undisturbed
b. site contains rare plant species, *Deschampsia cespitosa*, or other unique and diverse plant communities
c. site is large or is contiguous with another wetland or waterway
d. site is actually or potentially part of a connected wetland system
e. site contains a locally significant or rare habitat type
f. site received a Wetland Evaluation Technique rating of 50 or greater
g. site received a Wildlife Habitat Assessment rating of 60 or greater

High value wetlands to be protected include: A4a, A4d, A4e, C2, C3a, E2a, H1, and H2 (portion).

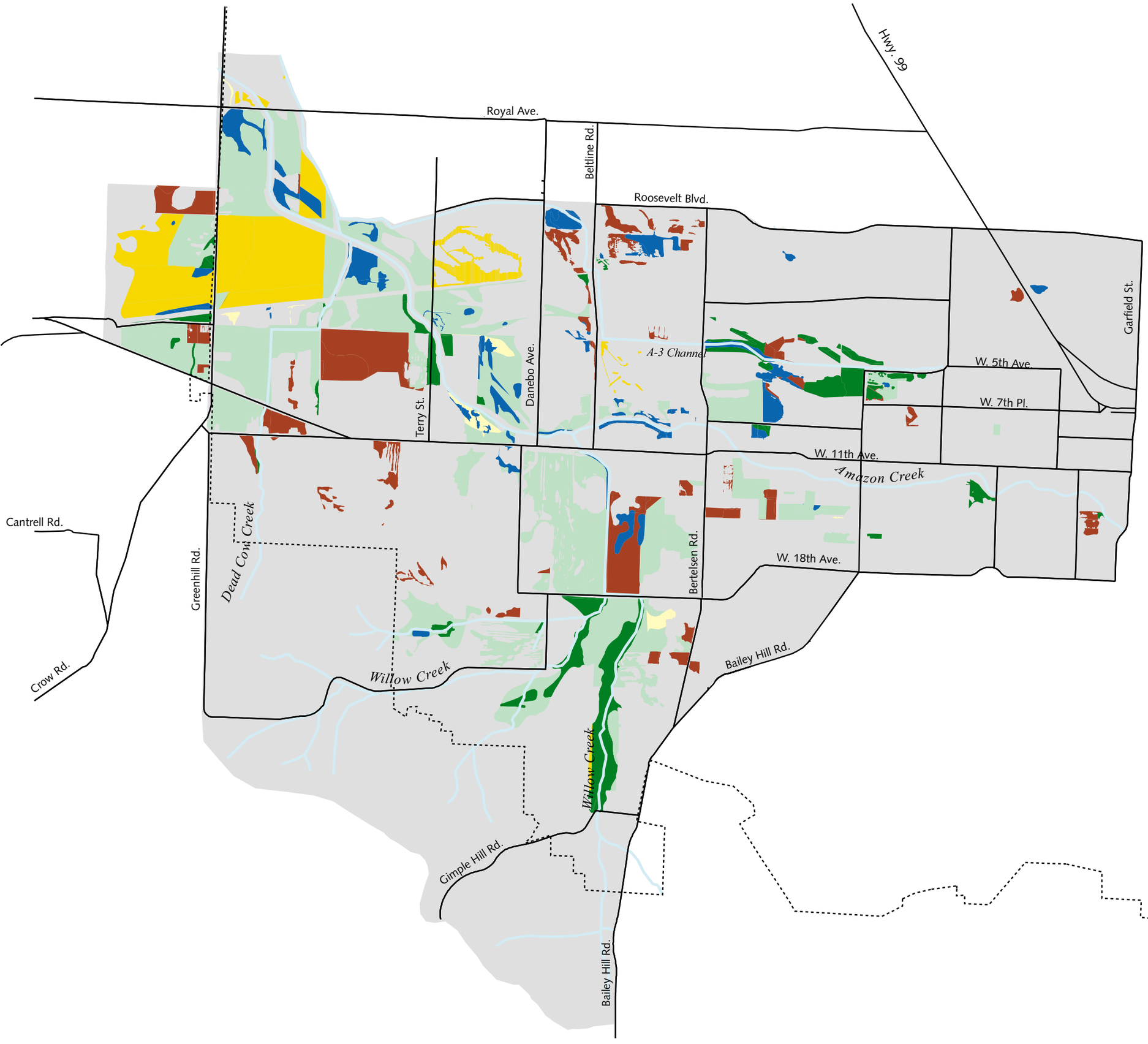
Moderate value wetland sites are all those sites that do not fit under the High Value or Low Value categories.

Moderate value wetlands to be protected include: A1a, A1b, A2a (portion), A2b, A2c, A2e, A3a, A5, B1, B2, B4, B5, B7 (portion), C4, C5, C6c-e, DB (portion), EE, EF (portion), E2c, E2d, E2e, HC (portion), H3, HE (portion), HG (portion), IA, and IB.

Wetland sites with no buffer requirements include all wetland sites designated for Restoration on Map 3 of the West Eugene Wetlands Plan.

These wetlands include: A3a (portion), A3b, BA, B3, B6, B7, B8, B9, B10, E1a-b, H2 (portion), and HG (portion).

Map 5
Wetland Types



Wetland Types

- Wet Prairie
- Scrub/Shrub
- Forest
- Open Water or Emergent Marsh
- Agriculture
- Pasture, Old Field, or Wet Fill

Other Features

- Streams to be Protected
- Roads
- Urban Growth Boundary
- Wetland Plan Boundary

This map is for information only, and is not adopted as policy,

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APPENDIX C

BEST MANAGEMENT PRACTICES

"Best management practices" (BMP's) should be applied to construction and development within natural resource buffer setbacks and wetlands. BMP's should include construction site practices to minimize water quality impacts, noise impacts, disruption of wildlife mating and nesting, and to protect other important functions and values. These practices may include:

- requiring a temporary erosion control and sedimentation plan during construction
- requiring on-site detention or retention of stormwater (e.g., constructed wetlands, wet ponds, extended detention ponds, infiltrations basins) to minimize impacts from new development
- requiring use of shallow grassy swales to carry runoff into the stormwater system
- requiring use of oil and grease separators where street runoff enters mitigation areas
- requiring use of porous pavement in parking areas
- using and creating vegetated areas to filter runoff from impervious surfaces resulting from development.
- limiting post-development runoff to pre-development levels

APPENDIX D

Amending the West Eugene Wetlands Plan

A description of the process for amending the West Eugene Wetlands Plan follows. This description is intended to be both a record of the process followed in the past, and a guideline for the process for future major, city-initiated amendments to the Plan. As this provides a guideline, rather than policy, whether these guidelines are followed depends upon availability of staff and other resources and other city policies in place at the time of the amendments.

The West Eugene Wetlands Plan is a refinement plan of the Metropolitan Area General Plan. The process requirements for amending a refinement plan are set forth in Chapter 9 of the Eugene Code, 1971, in the section on Refinement Plan Amendments. The code sets forth minimum requirements for public notification, public hearings and related actions. Some of the steps taken for the amendments to the West Eugene Wetlands Plan exceed the requirements of the code and are noted as such.

WEWP Amendment Process–Chronological Order

1. Develop draft staff recommendations for amendments.

2. Send out notification regarding draft amendments and public workshop to potential affected property owners and all those on existing and previous West Eugene Wetlands interest parties list (not required by code).

3. Hold public workshop to present staff recommendations and gather feedback (not required by code).

4. West Eugene Wetlands Technical Advisory Committee (TAC)[1] review of staff recommendations (not required by code).

5. Incorporate public and TAC comments into revised staff recommendations to be forwarded to Eugene and Lane County Planning Commissions (not required by code)

6. Send formal notification of Planning Commission joint public hearing to affected and adjacent property owners and all those on West Eugene Wetlands interested parties list.

7. Hold work sessions with each Planning Commission to brief them on amendments.

8. Hold public hearing, hold record open two weeks past public hearing for additional written comments (not required by code).

9. Staff prepares written responses to public testimony and prepares recommended changes (if any) to respond to testimony (not required by code).

10. Planning Commissions meet separately to deliberate and take action.

11. Interested parties are notified by mail of Planning Commission decisions.

12. Formal notification of joint elected official hearing is sent to affected and adjacent owners and interested parties.

13. Staff holds work sessions with Lane County Board of Commissioners and Eugene City Council to brief them about the amendments.

[1]The TAC is made up of staff representatives from the Oregon Division of State Lands, Oregon Department of Environmental Quality, U.S. Army Corps of Engineeers, U.S. Fish and Wildlife Serviode, and U.S. Environmental Protection Agency.

14. Joint elected official public hearing is held.

15. County Board and City Council meet separately to deliberate and take action.

APPENDIX E

WEWP Capital Improvement Program

This section describes a programmed approach to implementing WEWP, including acquisition of wetlands for protection, acquisition for mitigation and other public projects, such as bikeways, observation points and channel improvements.

The following tables list the proposed projects for land acquisition, wetland mitigation and restoration, and public facility projects. Table 2, West Eugene Wetlands Study Area Land Acquisition Priorities and Costs, indicates acquisition projects in three priority phases over a 10 to 20 year period. A total of 1,300 acres are to be acquired within the West Eugene Wetlands Study Area. The proposed acquisition areas are presented on Map 5, Land Acquisition Priorities. In addition, there are an estimated 2,200 acres which are potentially suitable for acquisition in the Western Amazon Drainage Basin. Acquisition policies for this area are described in the section entitled "Western Amazon Drainage Basin" on page 22 of this Plan.

Table 3, Wetland Mitigation Projects, indicates wetland enhancement, restoration, and creation projects (many of which will qualify for mitigation credits in the regional wetlands mitigation bank). The Plan recommends a variety of wetland types and habitats be enhanced, restored, and created such as shallow ponds, marshes, wet prairie grasslands, riparian areas, and forested wetlands. Cost estimates for these projects include design, engineering, construction, and original planting costs. Areas for mitigation or restoration are presented on Map 3, Wetland Designations.

The final table in this appendix, Table 4, Public Facility Projects, lists public facility projects proposed for the study area. Types of projects in this category include public observation points, channel improvements, flood detention impoundments, and water quality improvements. Projects are to be planned and designed in concert with natural resource goals to minimize negative environmental impacts. Projects in this table are presented by project number on Map 6, Public Facility Projects.

Table 2

West Eugene Wetlands Study Area
Land Acquisition Priorities and Costs

Priorities	Schedule	Acres	*Cost ($)	Map 5 Color	Comments
1	1-3 years	900	$900,000	Yellow	Priority 1 acquisition areas represent both high value wetland sites and the adjoining areas along Amazon Creek, the A3 Channel and Willow Creek that are essential in providing a continuous wetland corridor.
2	4-6 years	150	$150,000	Red	Priority 2 acquisition areas represent both moderate value wetlands located on the western fringe of the study area and non-wetland areas that provide important linkages along Amazon Creek and the A-3 Channel.
3	7-10 years	250	$250,000	Blue	Priority 3 acquisition areas are the remaining fringe areas within the Amazon Creek drainage basin.

Table 3

Wetland Mitigation*

(The areas for wetland mitigation are indicated on Map 3, Conceptual Plan)

Priority	Acres	Estimated Cost/Acre	Estimated Total Cost
1 (1-3 years)	300	$10,800	$3.3 million
2 (4-6 years)	300	$13,650	$4.1 million
3 (7-10 years)	267	$17,000	$4.5 million

*Most mitigation will occur on agricultural wetlands along Amazon Creek.
** Cost estimates include design, engineering, construction and original planting costs. Estimates don't include monitoring, maintenance, or operational costs. The difference in per acre costs reflect the effects of inflation over time.

Table 4

Public Facility Projects

Project Number*	Project Type	Project Description	**Priority	***Cost ($)
1	Observation Points	Stewart Pond	1	
2	"	Danebo Pond	1	
3	"	A-3, "A" Channels, Amazon Creek	1	
4	"	BLM Site	1	
5	"	Willow Creek	1	
6	"	"A" Channel and Amazon Creek at Royal Ave.	1	
7	Channel Improvements	Amazon Creek Widening: SPRR - Bertelsen Rd., 125'- 50', 9600 lineal feet	1	
8	"	Amazon Creek Widening: UGB - SPRR, 50' 7800 lineal feet	1	
9	"	Amazon Creek Widening: Seneca Rd. vicinity 50' - 35', 4200 lineal feet	2	
10	"	A-3 Channel Bank Alterations: "A" Channel - Danebo Pond, 5400 lineal feet	2	
11	"	A-3 Channel Bank Alterations: SPRR - Bertelsen Road, 3800 lineal feet	2	
12	"	Amazon Bank Improvements: Seneca Road - Bertelsen Road, 6200 lineal feet	2	
13	Various	Pilot Projects	2	

* Project numbers correspond to numbers on Map 6, Public Facility Projects
** Priority 1 equals 1 - 3 years, priority 2 equals 4 - 6 years
*** Cost estimates for all projects will be included when they become available

Map 6
Land Acquisition Priorities

Acquisition Priority

- 1st Priority (1-3 Years)
- 2nd Priority (4-6 Years)
- 3rd Priority (7-10 Years)

Other Features

- Previously Purchased Wetlands
- State Wildlife Management Area
- Wetland Plan Boundary
- Primary Water Features
- Roads
- Ridgelines

This map is for information only, and is not adopted as policy.

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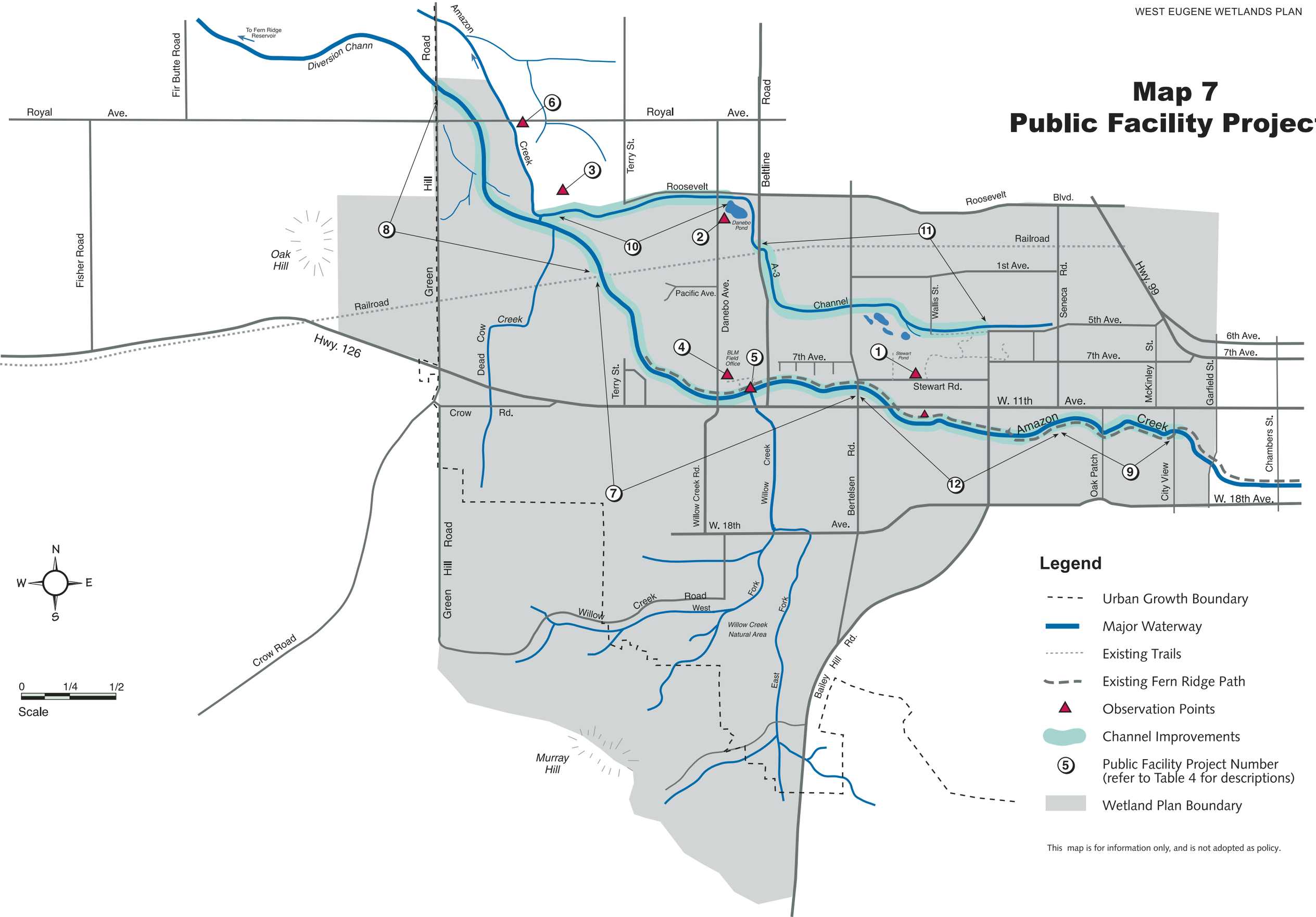
Long Tom River
Eugene Airport
Airport Rd.
Clear Lake Rd.
Fern Ridge Reservoir
Amazon Creek
Fir Butte Rd.
Greenhill Rd.
Hwy 99
Royal Ave.
Roosevelt Blvd.
Danebo
Terry St.
Beltline Rd.
W. 5th Ave.
W. 7th Pl.
W. 11th Ave.
W. 18th Ave.
Willow Creek Rd.
Bertelsen Rd.
Willow Creek
Gimple Hill Rd.
Bailey Hill Rd.
Hwy 126
Fisher Rd.
Cantrell Rd.
Central Rd.
Crow Rd.
M. Fork Coyote Creek
Coyote Creek
W. Fork Coyote Creek

Map 7
Public Facility Projects



Legend

- Urban Growth Boundary
- Major Waterway
- Existing Trails
- Existing Fern Ridge Path
- Observation Points
- Channel Improvements
- (5) Public Facility Project Number (refer to Table 4 for descriptions)
- Wetland Plan Boundary

This map is for information only, and is not adopted as policy.

APPENDIX F

TransPlan Projects Removed

The following TransPlan projects are no longer planned to be constructed and are therefore not eligible for the Planned Transportation Corridor designation:

#150 Extension of Beltline Road from W. 11th to W. 18th

#162 Extension of Terry Street from W. 11th to West Eugene Parkway

#228 Extension of Roosevelt Boulevard from Terry St. to Greenhill Road










Glossary

GLOSSARY

The following terms are among those used in the West Eugene Wetlands Study which may not be familiar to many readers. These definitions are intended to be explanatory, and are not adopted as policy. They may differ from definitions used in implementing ordinances.

Agricultural Wetland: "Wetlands which were both manipulated and cropped before 12/23/85, but which continue to exhibit important wetland values." (SCS) Normally an area must contain three factors to be considered a wetland under the jurisdiction of the state and federal wetland laws (see "Wetland" definition). One exception is when an activity has re moved one of those factors. Areas where wetlands soils and hydrology remain, but wetland plants have been re moved to allow a crop to be grown are called "agricultural wetlands" or "disturbed areas." A rye grass field that is seasonally flooded or ponded for 15 or more consecutive days during the growing season is an example of an agricultural wetland in west Eugene. If it can be assumed that wetland plants would become re-established if the farming ceased, then the area may be considered a jurisdictional wetland, even though all three factors are not present. This definition of agricultural wetlands is still undergoing debate at the national level.

Best Management Practices (BMP's): Management practices or techniques used to guide design and construction of new development or infrastructure improvements to minimize adverse environmental impacts. Often organized into a list of practices, from which those practices most suited to a specific site can be chosen to halt or offset anticipated problems. BMP's for a construction site might include: placement of barriers to prevent sediments from entering streams, contour grading, using selected plantings to stop soil erosion during the rainy season, retention of vegetation along a stream, and controlling heavy equipment operations at stream crossings.

Best Feasible Technology: Best feasible technology (for utility line location) is defined as a method or technology that will provide all of the required information for a locating activity, while having the least environmental impact among the methods or technologies that the affected agency has available at the time.

Biofilter or Biological Filter: Using vegetation and water features as a means of filtering pollution from stormwater or streams, water is passed over grassy areas, through sediment traps, and through specially created ponds which trap pollutants or allow them to settle out of the water stream.

Buffer: A designated area along the perimeter of a stream or wetland which is regulated to control (resist, absorb, or otherwise preclude) the negative effects of adjacent development from intruding into the natural area beyond the buffer.

Candidate Endangered or Threatened Species: A species which has been nominated for placement on the federal Endangered or Threatened Species List, but has not been given official status yet for any number of reasons. (See also "Endangered" and "Threatened").

Comprehensive Monitoring and Maintenance Program (CMMP): This program establishes provisions for the monitoring of existing wetland resources and wetlands created, restored or enhanced as a result of wetland mitigation requirements. Wetland mitigation efforts will be monitored against performance standards established during the permitting process and the corrective actions to be taken when these standards are not met. The quantity and quality of surface water, soils, quantity and diversity of wildlife species and general habitat conditions are the primary factors to be monitored. The program includes maintenance practices such as erosion control, debris and litter removal, selective plant removal and replacement, sedimentation removal, and water level manipulation.

Photo: Oregon ash leaves. (photo by N. Björklund)

Comprehensive Wetland Mitigation Program (CWMP): This is a comprehensive program that facilitates and guides wetland mitigation requirements. The program details the wetland functions, values and acreages to be replaced as a result of anticipated wetland losses. It establishes the objectives, location, timing, performance levels, monitoring requirements and the amount of financial guarantee to be provided for insuring successful mitigation.

Constructed Wetland: A facility that exhibits wetland characteristics but was constructed for the express purpose to perform a utility need, such as a sedimentation pond, and is not eligible for mitigation credit or subject to the jurisdictional requirements of federal and state wetland law.

Created Wetland: For the purpose of receiving mitigation credit, the alteration of soils, hydrology, and plants to produce a wetland where no wetland previously existed.

Criteria, Criterion: A written measure of character or quality, which is considered together with all other criteria to make a wetland designation decision on sites which do not meet any of the standards.

Delineation: Determining the boundaries of a jurisdictional wetland. The delineation may be marked in the field or on a map or aerial photograph.

Direct, Surface Water Connection: The presence of a physical connection, including existing culverts and other similar facilities, such that surface runoff from one wetland can flow into or onto another wetland via channel flow or sheet flow.

Disturbed Area or Wetland: See definition of "Agricultural Wetland."

Drainage Master Plan (DMP): Refers to the Eugene Areawide Drainage Master Plan, 1990, a study of stormwater facilities and needs in the Eugene Urban Growth Boundary (see "UGB" definition). This plan was produced by a consultant for the City of Eugene Public Works Department and consists of six volumes.

Ecology: The study of interrelationships within living systems, including plants, animals, insects, water, soil, air and energy.

Emergent: An erect, rooted, herbaceous wetland plant that may be temporarily or permanently flooded at its base but is nearly always exposed at the upper portion. Most swamps, bogs, marshes and prairie wetlands contain emergent vegetation.

Endangered: A plant of animal that is "in danger of becoming extinct within the foreseeable future throughout all or a significant portion of their range." Under the federal Endangered Species Act, plant and animal species may be listed as either threatened or endangered.

Enhancement: To improve one or more values in an existing wetland. The improvements may be to soils, water, or plants. Enhancement may improve a particular wetland value at the expense of other values. For example, diking an area to create a marsh environment for waterfowl nesting may flood a grassy wetland and reduce habitat for small rodents such as mice and voles.

Forb: A non-woody plant, other than grass, including wildflowers and plants which some refer to as "weeds."

404 (Wetland) Permit: A permit issued by the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act which allows an activity (filling) within a wetland. A 404 permit usually requires compensation or mitigation for the allowed use in a wetland.

Greenway: A system of parks and open spaces along a stream or channel which forms a corridor for water and wildlife movement and for human recreation.

Groundwater: Water under the earth's surface that supplies streams, rivers, wells and springs.

Hydric Soil: Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.

Hydrology: The study of the properties, distribution and circulation of water, specifically water on the surface or land, in the soil and underlying rocks, and in the atmosphere. Also used to refer to the characteristics of water flow in or on a given site.

Hydrophytic Plants or Hydrophytes: These are plants adapted to live in wetland conditions.

Impervious Surface: Surfaces which prohibit water from soaking into the ground. Concrete, asphalt and rooftops are the most common urban impervious surfaces.

Jurisdictional Wetland: A wetland determined to be subject to requirements of the federal Clean Water Act and Oregon's fill and removal statute.

Mitigation: This term has two meanings, both of which are used in this plan:

1. The actual enhancement, restoration, or creation of wetlands to compensate for permitted wetland

losses in terms of area and wetlands functions and values, and,

2. To protect wetlands by avoiding damage to them (i.e., long-term wetland protection status), by altering the design or timing of development to minimize negative impacts on wetlands, or by reducing external negative impacts (e.g., treating water pollution before it enters a wetland or creating a buffer area between the wetland and adjacent development).

Mitigation Bank: Wetland enhancement, restoration, or creation undertaken to provide mitigation (compensation) for wetlands losses from future development activities. The bank involves enhancing, restoring or creating wetlands in advance of development of a wetland as part of a credit program.

Mitigation Credits: Through a wetland bank system, credits may be purchased from a mitigation bank to compensate for permitted wetland development. A predetermined formula sets the amount of payment into the bank required prior to issuance of permits or development.

Native Plants: Plants that occurred naturally in the west Eugene area prior to white settlement.

National Pollutant Discharge Elimination System (NPDES): A permitting system devised by the U.S. Environmental Protection Agency (EPA) to administer provisions of the federal Clean Water Act. In Oregon the permitting system has been delegated by the EPA to the Oregon Department of Environmental Quality (DEQ). First applied to water quality in municipal sanitary waste discharges, the permitting system is now being expanded to apply to municipal storm water quality.

Palustrine Wetland System: A freshwater wetland dominated by trees, shrubs, and emergent vegetation. Other systems include marine, estuarine, riverine, and lacustrine (deep water, such as lakes).

Plan: As used anywhere in this document, the terms "the Plan", "this Plan", "West Eugene Wetlands Plan" or "the WEWP" are all references to the current West Eugene Wetlands Plan as adopted or hereafter amended.

Rare Animal: See definition for "rare species."

Rare Plant: See definition for "rare species."

Rare Species: Any plant or animal species which is included on the "rare plants" or "rare animals" lists in the policy section of Chapter 3 of this plan. Those species on the "watch" lists in Chapter 3 of this Plan are suitable for future consideration as additions to the rare species lists, but are not considered "rare" for the purposes of this Plan. These lists are derived from the Oregon Natural Heritage Program (ONHP) database of Rare, Threatened and Endangered Species of Oregon, Lists 1 and 2. ONHP List 1 includes species threatened with extinction or presumed to be extinct throughout their entire range. ONHP List 2 includes species threatened with extirpation or presumed to be extirpated from the state of Oregon. The list of rare species in this Plan only includes those species known to occur within wetlands in the Plan area.

Regional Permit: This is a general permit issued to a governmental entity by the U.S. Army Corps of Engineers. A regional permit for Eugene means that developing a wetland and mitigating for its loss would occur in accordance with this Plan and its background studies and inventories. Once issued, the regional permit authorizes the City to issue individual wetland impact permits to those areas identified for development by this Plan. The ACOE and EPA would still have oversight to insure that the City is administering federal laws and regulations in a proper manner.

Restoration: To improve a disturbed wetland by returning wetland parameters which may be missing; adding soils, water, or plants. The restoration may return a missing or damaged wetland function to achieve a desired outcome; for example, removing an agricultural crop and planting native seeds to produce a wet prairie grassland.

Riparian: The land bordering a stream or river; also pertaining to the vegetation typical of those borders (grasses, shrubs, and trees such as reed canary grass, spiraea, willows, ash and cottonwoods.

Roadside Ditch: A small, narrow ditch constructed adjacent to a roadway to convey stormwater runoff. Distinguished from larger ditches or channels that are part of the area-wide storm drainage system.

Scrub-Shrub Wetland: This type of wetland includes woody plants such as shrubs and small trees under 20 feet in height. They may represent a successional stage to a forested wetland.

Section 404 Permit: See 404 (wetlands) permit definition.

Standard: A written objective condition, which if met by a site, automatically determines the wetland designation to be applied.

Stormwater/Stormwater Runoff: Rain which travels over land surfaces and drains into the street gutters or storm sewer pipes and is discharged into a ditch, channel, stream or river. The velocity and peak volume of stormwater runoff is increased by impervious surfaces such as roofs, driveways, parking lots, and

asphalt streets. As stormwater travels over the land, it accumulates pollutants from roofs, yards, driveways, streets, and industrial and commercial land uses.

Stormwater User Fee: A storm sewer charge collected from users based on their respective contribution to stormwater runoff and stormwater pollution. This fee would be used to pay directly for some of the stormwater utility's responsibilities, a portion of which would be devoted to the wetlands program.

Stormwater Utility: A branch of the public works department that would be established to deal with stormwater, flood control, wetlands, and water quality matters in terms of planning, designing, maintaining, monitoring, financing, and administering those functions as part of the City of Eugene's on-going organization.

Succession: The sequence and process of changes in plant communities over time. Species, structure and communities evolve into a stable system. For example, the prairie grasslands may be invaded by young ash trees; then an ash forest forms; then Douglas fir trees invade the ash forest; eventually, the ash forest becomes a fir forest, which maintains itself over time.

Systems Development Charge (SDC): A fee charged to new development to help pay for the capital costs associated with new growth. A portion of the City of Eugene's SDC may help pay for the stormwater utility functions, including the wetlands program.

Technical Advisory Committee (TAC): This is a state and federal agency group created to provide local staff with advice on conduct of the west Eugene Wetlands Special Area Study. The TAC consisted of representatives from the U.S. Army Corps of Engineers, Environmental Protection Agency, and Fish and Wildlife Service, and the Oregon Division of State Lands.

Threatened: A plant or animal likely to become endangered within the foreseeable future.

Urban Growth Boundary (UGB): A site-specific line in the Metropolitan Plan that separates existing and future urban development from rural lands. Urban levels and densities of development, complete with urban levels of services, are planned within the UGB. Outside the UGB, rural lands are planned for farm and forest uses or for rural levels of development with accompanying rural levels of services.

Utility Line: Utility line is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance, for any purpose, and any cable, line or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication and any poles or other structures which support such cables, lines or wires. The term "utility line" does not include activities which drain a water of the state, such as drainage tile; however, it does apply to pipes conveying drainage from another area.

West Eugene Wetlands Special Area Study (WEWSAS): WEWSAS is the study which included development of this Plan and the accompanying Technical Report. The study was guided by the Eugene Planning Commission. It involved an intergovernmental staff team, use of consultants, a Technical Advisory Committee, and a series of public workshops with project management provided by the Lane Council of Governments.

Wet Praire Grassland: A unique type of wetland which once covered vast areas of the Willamette Valley floor. This term is used to describe a plant community dominated by tufted hairgrass, *Deschampsia cespitosa*. This wetland type is typically saturated or slightly flooded in the winter, but is dry in the summer and early fall. The wet prairie grasslands in west Eugene are the habitat for five species considered to be rare, threatened, or endangered in Oregon.

Wetland: Wetlands are areas where water exists at or near the land's surface in flooded or saturated soils in sufficient amounts during the March to October growing season to sustain wetland types of plants. Generally, three factors must be present in a wetland: 1) hydric soils (those soils officially identified as being wetland-type soils), 2) water (surface or groundwater within the root growing zone or upper 18 inches of soil), and 3) predominance of plants that are recognized as wetland species. There are several types of wetlands in west Eugene, including agricultural, marshes, ash forests, shrub-scrub, and prairie grass lands. The agricultural wetlands are an exception to the three factor definition used here (see "Agricultural Wetlands" definition).

Wetland Evaluation Technique (WET): This is a computer assisted method for assessing wetland functions and values, including social significance, effectiveness, and opportunities. It includes information on 12 wetland functions and values such as rare species, unique heritage, floodflow alteration, sediment stabilization, nutrient removal, wildlife and aquatic species diversity and abundance, recreation, and groundwater recharge.

Wetland Permit: If fill or drainage activities are planned in a jurisdictional wetland, individual permits may be issued by the U.S. Army Corps of Engineers (see "404 (Wetland) Permit" definition) and the Oregon Division of State Lands. If the activity cannot be justified, no state or federal permit will be issued. If the activity is justified, the permit may require compensatory mitigation to replace the acreage and values of the wetland allowed to be developed.

References and Related Documents

References and Related Documents

The following documents were developed by Lane Council of Governments (L-COG) for the West Eugene Wetlands Special Area Study. The documents were generated between early 1989 and late 1990. They contain general and technical information, and the results of the public involvement process used in developing the Plan. Copies can be obtained from L-COG.

Technical Documents

"Preliminary Inventory of Eugene and Springfield: Wetland, Riparian and Upland Areas for Wildlife Habitat Value", Esther Lev for Lane Council of Governments, Revised February 1990

"West Eugene Wetlands Special Area Study: Technical Report" (Draft), L-COG, January 1991

"Wetland Inventory and Wetland Functions and Values in West Eugene, Oregon", Scientific Resources, Inc., Lake Oswego, Oregon for L-COG. (Includes wetland delineations as assessment of functions and values using the Wetland Evaluation Technique), February 1990

"Winter Waterbird and Wildlife Habitat Inventory", Fishman Environmental Services, July 1991

"Historical Wetlands of the West Eugene Study Area", Carol Savonnen, April 1988

Public Involvement

"Citizen Workshop No. 4, Wetland Information and Scenarios", L-COG, February 1990. (Booklet from the fourth citizen workshop)

"Citizen Workshop No. 5, Preliminary Staff Recommendations", L-COG, May 1990
(Booklet from the fifth citizen workshop)

"Community Workshop Results of May 3 & 4, 1991 Workshop", L-COG, May 1991

"Public Workshop No. 5 Results Summary", L-COG, October 1990

"Results of Public Workshop No. 4", L-COG, April 1990

"Results of Workshop No. 7 Petersen Barn Community Center, May 2, 1992", L-COG, May 1992

"Status Report on Public Involvement", L-COG, September 1989. (Results of the first two citizen workshops)

"West Eugene Wetlands Public Preference Survey Results", L-COG, February 1990. (Results of the third citizen workshop)

General Information

"How Does the Plan Affect These Properties?", L-COG, May 1992. (Handout)

"Self-Guided Tour of West Eugene Wetlands", L-COG, 1989. (Handout)

Photo: Field trip group on Stewart Pond viewing platform, May 1999.

"West Eugene Comprehensive Wetlands Plan: A Case Study", L-COG, prepared for the Conservation Foundation and World Wildlife Fund, September 1990

"West Eugene Wetlands Special Area Study", L-COG, April 1989. (Handout)

"West Eugene Wetland Study, A Summary Progress Report by the City of Eugene, Oregon", L COG, February 1992

"West Eugene Wetlands Special Area Study Work Program", L-COG, February 10, 1989
(Includes a citizen involvement program)

"What Are Wetlands?", L-COG, 1990. (Handout)

"What is the West Eugene Wetlands Special Area Study Draft Plan?", L-COG, May 1992. (Handout)

"Why Are Wetlands Important?", L-COG, 1989. (Handout)

"Hints on Preparing a Comprehensive Wetland Management Plan", L-COG, February 1992