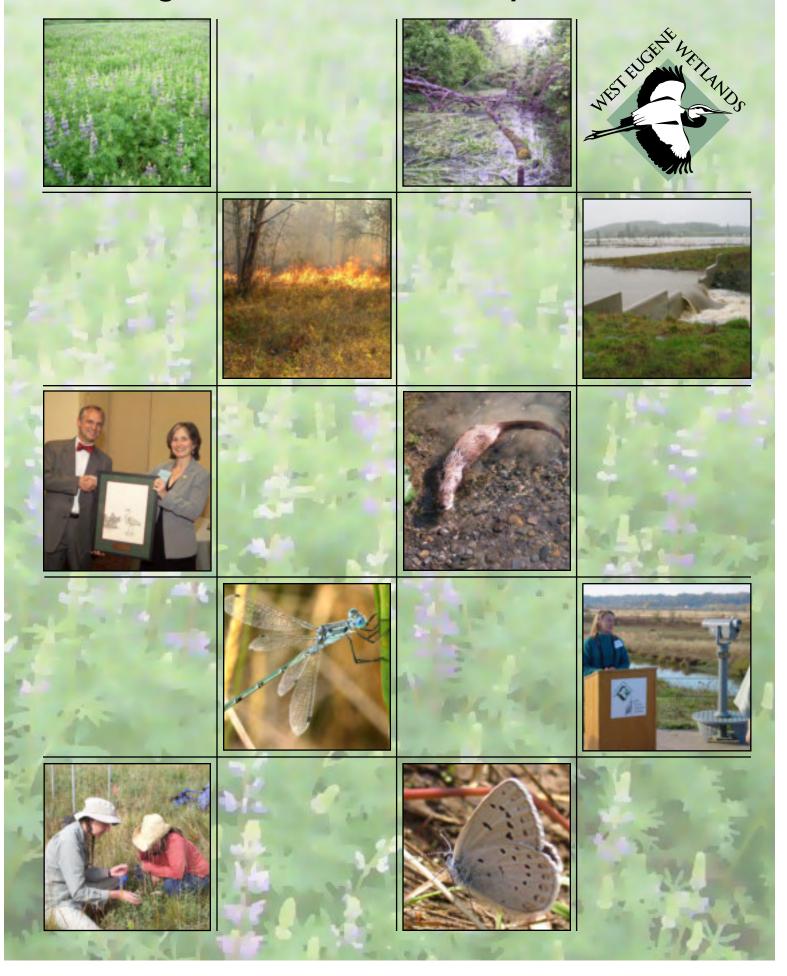
West Eugene Wetlands Annual Report 2005





West Eugene Wetlands



Created by City of Eugene and Lane Council of Governments

March 2006





















West Eugene Wetlands Annual Report 2005

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Executive Summary



Partnership is an innovative, local solution to the challenge of meeting federal and state regulations for wetlands protection and mitigation at the watershed scale, not simply on a site-by-site basis. Over the past fourteen years, the Partnership has fostered a balance between wetlands protection and sound urban development. The Partnership's greatest innovation may be how it uses the broad suite of adopted policies and goals in the West Eugene Wetlands Plan to implement projects and programs that greatly improve the quality of life and the natural environment in Eugene.

The West Eugene Wetlands Partnership has truly been a model of innovation, sustainability, and proven success for over fourteen years. The Partnership is involved in the following types of activities:

- 1. Working together to acquire and manage 3,000 acres of land.
- 2. Planning and implementing wetland restoration and enhancement projects.
- 3. Planning and implementing stream restoration projects.
- 4. Operating the West Eugene Wetlands Mitigation Bank to provide certified wetland mitigation bank credits to satisfy mitigation requirements for local development projects.
- Operating a native seed collection and grow-out program to provide seed of locally native wetland, riparian, and upland species to use in restoration projects.
- 6. Conducting vegetation and hydrological monitoring of restoration sites.

- 7. Planning recreational facilities such as multi-use paths, overlooks, and parking structures to access the wetlands.
- 8. Working collaboratively to implement recreation and education programming about the wetlands.
- 9. Developing a new Wetlands Education Center to celebrate and encourage stewardship of natural communities through broad-based community involvement and resources.

The Partnership was successful this past year on several different fronts. In terms of habitat management, The Nature Conservancy, City of Eugene, and BLM all made important strides in managing native plant communities and protecting them from encroaching invasive species. As one example of this effort, the Partnership implemented more acres of prescribed fire, which is important for controlling encroachment of woody species into prairie habitats, than in any previous year. On the research front, the Partnership fostered many different scientific studies, with particular effort going towards the large-scale site preparation study being conducted in collaboration with a research team from the University of Oregon. On the planning front, the BLM, which substantial assistance from the City of Eugene, completed a "scheduling" Environmental Assessment to prioritize actions on BLM lands for the next ten years. The native plant materials program implemented by the City, TNC, and BLM also made tremendous strides this year, getting an additional 20 species into agriculturalscale grow-out for seed production. This will lead to greater availability of seed for future wetland prairie, vernal pool, and upland prairie restoration projects.

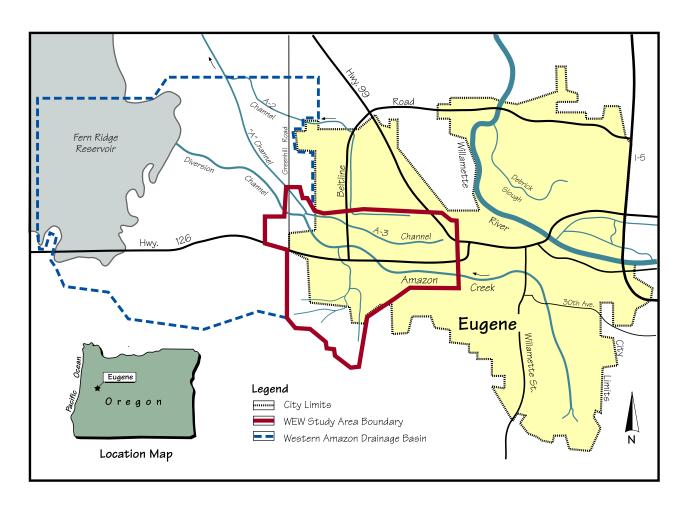


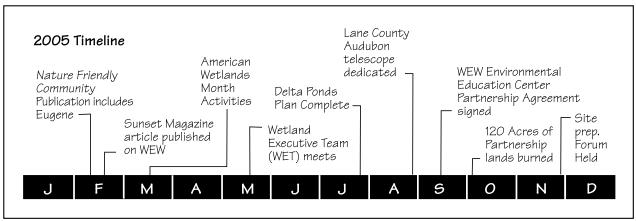
Dragonfly Bend Habitat Enhancement Project

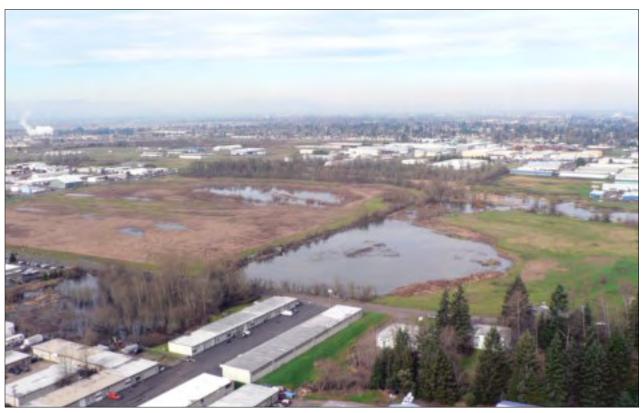
In addition to these successful projects, the Partnership was recognized by the Department of Interior for its cooperative conservation effort, by Sunset Magazine for protecting a treasured landscape, and by a new book, Nature-Friendly Communities (2005, Island Press), as being a "shining star of wetlands preservation". In addition, Catherine Macdonald of The Nature Conservancy, who has been an important

member of the Partnership since its foundation, was awarded a prestigious National Wetlands Award. Read more about these awards and recognitions in Section 3.5.

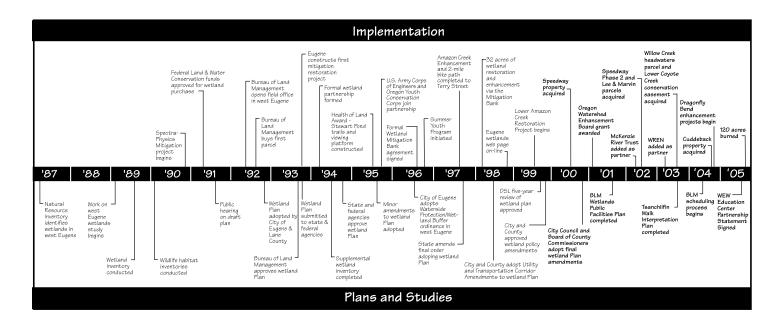








Stewart Pond and the Bertelsen Nature Park





1.0 Administrative Summary



1.1 Wetlands Executive Team

The Wetland Executive Team (WET) was formed in 1994 to guide management of the wetland system in a cooperative manner. The wetland partners include the City of Eugene (City), the U.S. Bureau of Land Management (BLM), The Nature Conservancy (TNC), the Oregon Youth Conservation Corps (OYCC), the U.S. Army Corps of Engineers (Corps), the U. S. Fish and Wildlife Service (USFWS), the Willamette Resources and Educational Network (WREN), and the McKenzie River Trust (MRT).

The Wetland Executive Team met this year on May 13th. Topics of discussion included an overview of the West Eugene Wetlands Program, annual wetland award presentations, and the planned West Eugene Wetland Education Center. In addition, Christina Kakoyannis of Oregon State University made a presentation to the group titled: Learning to Address Complexity in Natural Resource Management: a Comparative Analysis of the West Eugene Wetlands Partnership and the Willamette Restoration Initiative. The meeting concluded with a tour of The Nature Conservancy's Willow Creek preserve.



Wetland Executive Team

Wetland Executive Team (WET) Statement of Partnership

The Wetland Executive Team (WET) is established by this Statement of Partnership. WET is a partnership of federal, state, and local governments and non-profit organizations who believe that coordinated, shared management of the west Eugene wetlands enables us to be more effective and use limited resources more efficiently. WET is the major coordinating body for intergovernmental and interagency management actions affecting the wetlands project area. WET coordinates management activities; it is not an advisory committee that makes policy or legal recommendations to any local, state, or federal decision makers. At this time, WET partners include the City of Eugene, U.S. Bureau of Land Management, The Nature Conservancy, Oregon Youth Conservation Corps, U.S. Army Corps of Engineers, U.S. Department of Fish & Wildlife, McKenzie River Trust, and Willamette Resources & Educational Network.

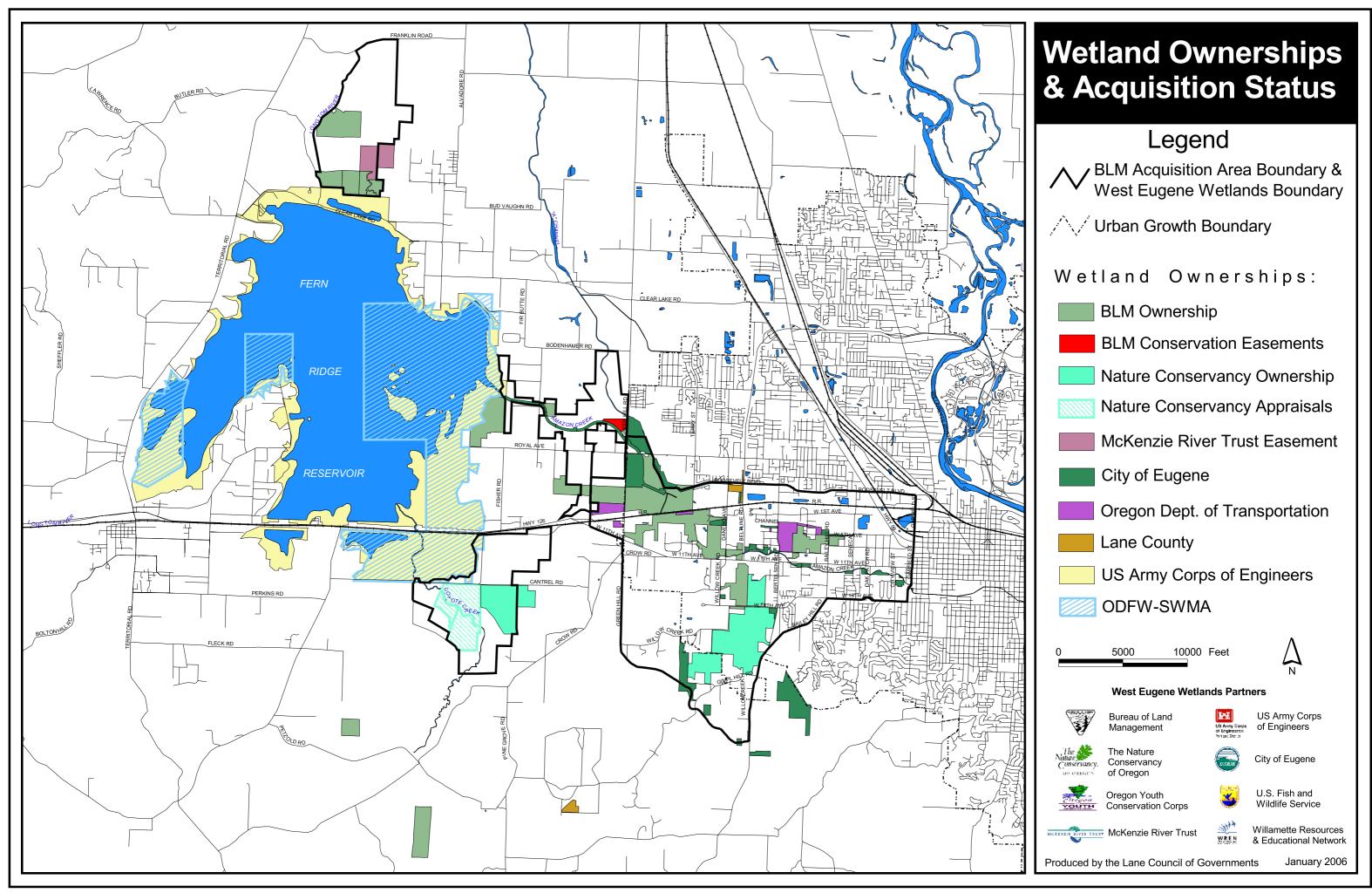
Mission Statement: To enable partner agencies and organizations to effectively share in the efficient and coordinated operation and management of the west Eugene wetland system.

Goals and Objectives

- 1. Provide guidance and fiscal oversight to the management of the west Eugene wetlands system within the existing policy and legal framework outlined in the West Eugene Wetlands Plan and other public policy documents related to the project area.
- 2. Provide the network for communication and coordinated decision-making regarding capital improvements and management of the west Eugene wetlands system.
- 3. Provide efficiencies by cooperating in the management of the wetland system in ways that take advantage of the strengths of the partners in a shared arrangement for the mutual benefit of the environment and the public.
- 4. Provide a forum for resolving conflicts in the spirit of using open communications as an opportunity to find positive solutions to problems.
- 5. Use long range planning as the basis for sound management decision making and bring vision and creativity to the achievement of the multiple objectives outlined in the applicable long range plans.
- Review and evaluate wetland management efforts for effectiveness and conformance with the WET's Mission, goals and objectives and the goals, objectives, policies and recommended actions of applicable long-range plans.
- Establish priorities for research related to the wetlands system.
- 8. Strive to provide financial stability and excellence to the wetland management system.
- 9. Work together for success and celebrate and communicate achievements to the partners, the public, and our respective officials and leaders.
- 10. Keep elected officials informed about the West Eugene Wetlands Program.
- 11. Carry out other necessary tasks and programs, in consultation with each other and our respective officials, that further the advancement of the west Eugene wetland area as a local, state, and national resource.
- 12. Take advantage of opportunities to add new partners.







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2.0 Planning Summary



2.1 Federal United Front Funding Priorities

In 2005, the United Front federal lobbying effort resulted in continued funding for the Corps of Engineers on the Eugene-Springfield Metropolitan Waterways Study. In addition, the Corps was able to fund the successful emergency repairs at Fern Ridge dam within a twelve month time frame, thus reducing negative impacts on many users of the Reservoir. The Corps was also successful in beginning construction on the Delta Ponds aquatic restoration project in October.

In fall 2005, progress was made on the eventual transfer of BLM property to the City of Eugene for the future site of the Education Center. A bill has been drafted to authorize that transfer, and the bill is expected to pass in early 2006.

The Transportation Bill included appropriations for two Willamette Greenway projects in Eugene: (1) connections from the Greenway path to the Willakenzie neighborhood at Delta Ponds, and (2) improvements to the South Bank trail.

2.2 Changes to Federal and State Regulations and Rules

2.2.1 U.S. Fish and Wildlife Service Proposed Critical Habitat Designation

On November 2, 2005, the U.S. Fish and Wildlife Service published its Proposed Critical Habitat Designation for Fender's blue butterfly, Kincaid's lupine, and Willamette daisy in the Federal Register

(Volume 70, Number 211, 50 CFR, Part 17, pages 66492-66599). The area that is proposed for critical habitat designation includes 3,089 acres in 13 areas for the Fender's blue butterfly; 724 acres in 16 areas for Kincaid's lupine; and 718 acres in nine areas for the Willamette daisy. Some of the acreage listed above is overlapping. Of the land proposed for critical habitat, sixty-one percent is privately owned, thirty-seven percent is federal land, and two percent is owned by the state or local governments. Much of the West Eugene Wetlands is included as proposed critical habitat.

The designation would likely force changes to construction plans on private lands and triggers consultation with the U.S. Fish and Wildlife Service for many activities on lands in public ownership. Any protection measures required under the critical habitat designation would be in addition to the protections already given under the federal Endangered Species Act. The public comment period on the proposed critical habitat designation was open from November 2, 2005 to January 3, 2006.

2.2.2 Goal 5 Natural Resources Conservation

In November 2005, the Eugene City Council unanimously adopted an ordinance requiring minimum building setbacks on more than 2,000 properties throughout the city that have creeks, drainages, or wetlands on or near them. The ordinance only applies to lands within the UGB.

The setback requirements, which are to take effect in 2006, are part of Eugene's effort to complete a state-mandated land use study to comply with statewide planning Goal 5, which requires cities and

Planning Summary



Widow skimmer dragonfly (male)

protect natural resources and conserve scenic, historic, and open spaces.

The adopted ordinance and more on the City's continuing Goal 5 process can be found at www. eugenenr.org.

2.2.3 West Eugene Wetlands Project Scheduling Environmental Analysis (EA)

In 2005, BLM and the City of Eugene completed a landscape EA plan for enhancement and restoration projects within the West Eugene Wetlands. Some of the species found within the wetlands include the western pond turtle, meadowlarks, vesper sparrow, Fender's blue butterfly, Willamette daisy, Kincaid's Lupine, and Bradshaw's lomatium. This plan indicates where and when resource management activities would occur over the next 10-year period.

2.2.4 West Eugene Wetlands Project Scheduling Biological Assessment (BA)

The BLM consulted with the U.S. Fish and Wildlife Service and completed a BA for the West Eugene Wetlands Project Scheduling EA within the West Eugene Wetlands. A biological opinion from the USFW Service for these enhancement and restoration projects was rendered and signed in 2005.

2.3 Wetlands Partners' Staff and Departmental Changes

Liz Meyers (WREN) was hired in February, 2005 as the Education/Volunteer Coordinator for WREN (Willamette Resources and Educational Network). As

such, she oversees volunteer recruitment and involvement with WREN as well as wetland-based field trips and classroom presentations for local elementary school students. She also provides administrative support for the WREN board and participates in grant writing projects. Liz began her work with WREN in 2002 as a volunteer, and subsequently gained an intern position working with WREN and the BLM on invasive plant education programs. She has a background in geology and worked as an educator in Utah, Maryland, and Ohio before moving to Eugene.

Elvira Muniz (WREN) had been volunteering with WREN's education program since September 2003. She was hired in September 2004 as an Environmental Education Intern. Working part-time, Elvira is able to assist WREN in offering field trips and outreach programs for local school groups. In the winter season, Elvira works on grant writing and program development as well as working on a summer camp program. With an MA in Outdoor Education and Recreation and having worked as an informal educator for many years in Virginia, Minnesota, and Colorado, Elvira is excited to be a part of WREN.

Scott Duckett (City), who had been the Parks and Open Space Natural Resources Manager for two years, accepted a job with the private sector at Campus Advantage in Austin, Texas. Scott, who was with the City for six years, had previously been the Wetlands Program Supervisor and oversaw the construction of the Lower Amazon Restoration Project (Meadowlark Prairie).



Lupine growout at Horning Nursery

Sarah Medary (City) was named the Acting in Capacity (AIC) Natural Resources Section Manager for the City of Eugene's Parks and Open Space Division upon the departure of Scott Duckett. Sarah had previously been the Parks Maintenance Section Manager and has a background in horticulture and landscape architecture. Prior to her career in with the Parks and Open Space Division, Sarah was a member of the Engineering Division's Water Resource Team.

Jonathon Soll (TNC) has been with The Nature Conservancy for more than 11 years, and has been serving as the Willamette Basin Conservation Director for The Nature Conservancy since July 2005. Between 1999 and 2005 Jonathan was Portland Area Preserves Manager. Jonathan's areas of expertise and interest include invasive species management, land-scape ecology, restoration, community ecology, and biological monitoring in an adaptive management context.

Joe Moll (MRT) began as the Executive Director of The McKenzie River Trust in February, 2005. After completing an MS degree in Natural Resource Conservation at the University of Montana School of Forestry, Joe worked for The Nature Conservancy, the Montana Department of Fish, Wildlife, and Parks, and as a consultant on wildlife management issues in northern Japan.

Sara Chieffo (MRT) began as the Director of Resources of the McKenzie River Trust in July and is in charge of fundraising, outreach, and communications. After completing an MS in Public Policy and Management at Carnegie Mellon University, she worked as

an Associate at The Forbes Funds, non-profit capacity building organization in Pittsburgh, Pennsylvania. Most recently Sara served as the Chief of Staff for Oregon State Senator Frank Shields.

Jessica Neff (MRT) began a one year contract as Stewardship Coordinator at the McKenzie River Trust in October, and is responsible for the development of easement monitoring protocols and data management. Jess is a past Peace Corps volunteer and is currently a graduate student in the UO Public Policy and Planning Program, and her internship is managed through the Resource Assistance for Rural Economies (RARE) Program.

Andrew Reasoner (MRT) began as Conservation Director for the McKenzie River Trust in May, overseeing all conservation activities. After completing a Bachelor's Degree in Biology at the University of Oregon, Andy worked on a fisheries crew for Oregon Department of Fish and Wildlife before serving as a Regional Biologist for the Pacific Northwest Office of Ducks Unlimited.

Ann Salminen (MRT) began as Director of Operations at the McKenzie River Trust in October, and is responsible for office management, budgets, financial tracking, and outreach. Ann completed a BS degree in Biology at the University of Alaska-Fairbanks, and is currently pursuing a Graduate Certificate in Notfor-Profit Management at the University of Oregon. Before joining the Trust, she served as Donor Relations Manager for the Eugene Symphony and the Director of Operations for the Denali Foundation, Denali National Park, Alaska.

2.4 Wetheads

The wetlands partners rely on Wetheads, a group of representatives of the west Eugene wetlands partners, to provide staff-level direction regarding the details of implementing the objectives of the Wetland Plan and program. In addition to representatives of the west Eugene wetlands partners, some non-partner agencies and organizations, such as Lane County, Lane Council of Governments, and the Long Tom Watershed Council, actively participate in Wetheads.

Wetheads meetings continue to be marked by good attendance, productive discussions and extensive information sharing on a bi-monthly basis. Subcommittees are formed so that smaller groups may take on specific projects or tasks, such as acquisition. Wetheads met a total of five times in 2005.



2005 Wetheads



3.0 Program Implementation



3.1 Restoration and Enhancement Activities

3.1.1. Dragonfly Bend Cooperative Conservation Initiative Project

In summer 2002, the City of Eugene used a combination of federal, state, and local funds to purchase this 70-acre site in the West Eugene Wetlands. The site, which is called Dragonfly Bend, is situated immediately north of Meadowlark Prairie, and is bordered on the east by Amazon Creek and on the west by the Amazon Diversion Channel.

During the summer 2004, the City's Wetlands Program began implementing a major habitat improvement project at Dragonfly Bend along Amazon Creek in conjunction with a 48-acre Mitigation Bank

prairie enhancement project to the west. The channel enhancement project focused on improving the stream and riparian habitats on the Amazon Creek channel and enhancing approximately five acres of upland prairie. Funded by a \$740,000 Cooperative Conservation Initiative grant from the U.S. Bureau of Land Management along with City of Eugene matching funds, the project involved excavating and re-contouring the channel so that Amazon Creek can form multiple side channels, islands, and pockets of deep water within the channels. In addition, prairie habitats were established immediately adjacent to the channels, and the streamside vegetation was re-planted with a diversity of native

riparian trees and shrubs. These types of changes will greatly improve habitat for western pond turtles and Fender's blue butterflies and improve shading of Amazon Creek.

In 2005, partnership staff added some additional habitat features such as basking logs to the project and monitored the establishment of the vegetation community, which will continue for the next several years. The final component of this project is the restoration of three upland mounds adjacent to Amazon Creek. Grant applications were submitted to the Oregon Watershed Enhancement Board and the Oregon Department of Fish and Wildlife Bird Stamp Program in 2005. Assuming funding is obtained, the upland prairie restoration work will be implemented in summer 2006.



A portion of the Dragonfly Bend Habitat Enhancement Project shortly after construction

Program Implementation

Lane County Audubon Society president Maeve Sowles at the October telescope dedication ceremony



3.1.2. Meadowlark Prairie

Meadowlark Prairie, formerly known as the Lower Amazon Creek 1135 Restoration Project, covers nearly 400 acres in the Lower Amazon Creek basin. The site provides excellent habitat for water birds, birds of prey, and nesting western meadowlarks. The site is called Meadowlark Prairie due to the presence of nesting and wintering western meadowlarks, Oregon's state bird.

3.1.2.A Haul Road Removed Near Turtle Swale

The primary habitat enhancement activity completed in 2005 was the removal of an 1,800 foot haul long haul road parallel to the Amazon Diversion Channel that was no longer needed for access to the site for restoration activities. A BLM road crew took the lead on removing the road bed with oversight from City of Eugene wetlands program staff. The disturbed area was planted with a mix of native grass and forb species.

3.1.2.B Telescope Installed for Public Use

A telescope donated to the City of Eugene by the Lane County Audubon Society now makes it easier for the public to view and appreciate the wildlife and wetlands in the area. The new telescope was installed along the Fern Ridge Multi-use Path in August at Checkermallow Access, an interpretive overlook at the north end of Meadowlark Prairie (reached via Royal Avenue). The telescope is similar to those in use at many National Parks, but does not require coins to operate. The telescope dedication ceremony, held on October 22nd, was attended by Eugene Mayor Kitty Piercy, Assistant City Manager Jim Carlson, the Board

of Directors of Lane County Audubon Society, wetlands program staff from City of Eugene, and many members of Lane County Audubon Society.

3.1.3 Mitigation Bank

3.1.3.A Construction Activities

While follow-up maintenance and monitoring activities occurred across numerous mitigation bank sites in 2005, new mitigation bank efforts were focused on eight acres of the Dragonfly Bend site:

Dragonfly Bend

Dragonfly Bend is a 77-acre City owned site located between the Amazon Diversion Channel and Amazon Creek just north of Royal Avenue. Previously in agricultural use for ryegrass production, this Mitigation Bank project is focused on enhancing at total of approximately 48 acres of wetland prairie and vernal pool habitat on the site. The first phase of this mitigation bank project was implemented in 2004 and covered 40 acres. In 2005, the second phase of the mitigation bank project, covering eight acres was begun. Site work during summer 2005 consisted of the following actions:

- Follow-up hand weeding and spot spraying was conducted across the phase I enhancement area to control weeds.
- Native prairie grass species were seeded into the phase I area.
- A glyphosate-based herbicide was applied on the phase II mitigation area to kill the existing nonnative vegetation, which consisted primarily of annual ryegrass.



Dragonfly Bend wetland prairie and vernal pool enhancement area

- The phase II enhancement area was planted with a forbs only mix. Native prairie grasses will be planted in 2006.
- Blackberries and other non-native shrubs were removed by hand along the south and western edges of the site.
- Bare root plants and bulbs of various native prairie species were planted in several phase I planting zones. These bare-root plants should establish and produce seed within one to two years.

3.1.3.B Mitigation Bank Maintenance Activities

The maintenance program helps ensure the successful establishment and maintenance of native plant communities in mitigation projects. During 2005, over 50 acres of existing restorations (primarily at Willow Corner, Turtle Swale, and Dragonfly Bend) were intensively weeded and over 174 acres were newly seeded or augmented with seed to increase plant diversity. Additionally, over 30 acres were treated to remove trees and shrubs from prairie habitats. Lastly, several acres of reed canary-grass, a highly invasive exotic grass, were treated with shade cloth to begin its eradication from a remnant prairie containing rare plant populations.

3.1.3.C Monitoring Activities

The 2005 monitoring program tracked the progress and development of 13 distinct mitigation projects under the management of the City of Eugene's mitigation bank program. Qualitative hydrology and soils observations were noted during winter and spring for each of the projects. Quantitative monitoring was conducted between June and August for each of the

units in years two or five of their monitoring cycles. The quantitative vegetation monitoring included rare plant surveys, tree and shrub censuses, seeding assessments, and herbaceous cover and frequency sampling.

3.1.3.D Mitigation Bank Annual Report

Each year, the Mitigation Bank's annual report is published by the City. The report is required as a condition of the 1995 Memorandum of Agreement that established the Bank. The report has three purposes:

- 1. Provides a structured framework for Bank staff to evaluate and report the activities of the past year as well as develop the work program for the coming year,
- 2. Fulfills the requirements of the agreement for state and federal agencies, and
- 3. Provides a broader view of the Bank's operations and accomplishments for a general audience who view the Bank as a model program in Oregon and in the United States.

The 2005 Mitigation Bank Annual Report will be available in March 2006 and can be found, along with past annual reports, at www.eugene-or.gov/wetlands.

3.1.4 Management Plans

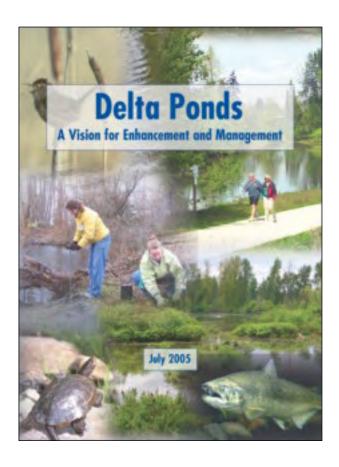
3.1.4.A Delta Ponds – A Vision for Enhancement and Management

Delta Ponds is a unique open space resource situated adjacent to the Willamette River in a heavily urbanized portion of Eugene. A remnant of an aggregate mining operation, this 150-acre ecosystem of ponds, channels, uplands, and wetlands owned by the City of Eugene and Lane County has evolved into a favorite spot for bird watching, fishing, and hiking and provides valuable habitat for a variety of wildlife. The area also poses a number of difficult management issues such as invasive plant and animal species colonization, rare wildlife species, access management challenges, and water quality issues.

Over the past several years, significant effort and resources have been directed toward the enhancement of the Delta Ponds system including its habitat, access, aesthetics, and hydrologic function. Partners in this effort include the City of Eugene, the U.S. Army Corps of Engineers, Lane County, the U.S. Bureau of Land Management, Oregon Parks and Recreation Department, the University of Oregon, and Oregon Department of Fish and Wildlife. In support of this effort, LCOG was asked to prepare a plan for Delta Ponds, which incorporated the extensive list of enhancements currently being planned with a long-term vision for the Delta Ponds system, and a set of management objectives and actions that will guide long-term management of this resource. The plan titled Delta Ponds - A Vision for Enhancement and Management can be found at http://www.lcog. org/pubs.html.

3.1.5 Willow Creek Preserve

The Willow Creek Preserve currently covers 508 acres, and is managed by TNC, in conjunction with another 172 acres of adjacent lands in the Willow Creek watershed owned by the BLM and the City. Willow Creek supports an excellent diversity of native wetland and upland plant and animal species, and



supports a regionally significant example of native wet prairie habitat. Activities conducted by TNC during 2005 included invasive species management, upland prairie and oak woodland restoration, ecological monitoring, research, and volunteer work parties. This year, The Nature Conservancy officially opened its first Willamette Valley office on Rathbone Road at Willow Creek Preserve. Five Nature Conservancy employees work from this office: Charlie Quinn, Associate Director of Development, Ed Alverson, Willamette Valley Stewardship Ecologist, Matt Benotsch, Willamette Valley Stewardship Coordinator, Gilbert Voss, Willamette Valley Field Steward, and Jason Nuckols, Willamette Valley Preserves Manager.

Under provisions of the Northwest Power Planning Act, the Bonneville Power Administration (BPA) continued to contract for habitat improvements on suitable portions of Willow Creek in accordance with the Environmental Assessment/Management Plan approved by BPA in March 1995. The BPA contracted with TNC for the ninth year of implementation of the Willow Creek wildlife mitigation project in 2005.



One of many TNC work parties at the Willow Creek Natural area in 2005

Project activities in 2005 included:

- Continued control efforts on invasive non-native species such as Scot's Broom, Armenian blackberry, reed canary-grass, Harding grass, English hawthorn, and English ivy;
- Continued controlling bullfrog population in riparian and beaver pond habitats;
- Continued habitat management in wet prairie and ash savanna areas by removing invasive woody plants;
- Installation of a BLM Remote Access Weather Station used to provide accurate historical as well as real time weather data; and
- Continued monitoring rare plants, native plant communities, breeding birds, precipitation, water quality, stream flows, and hydrological conditions.

Portions of these projects were completed by Americorps' National Civilian Community Corps crews and youth crews from Northwest Youth Corps and the Lane Metro Youth Corps. TNC sponsored monthly volunteer work parties between February and November to undertake work projects at Willow Creek. In addition, classes from the Rachel Carson program at Churchill High School continued their volunteer program, focusing on habitat management and hydrology monitoring projects. Other volunteers went out individually on a regular basis to record field observations, as part of a regular site monitoring project. Volunteers contributed over 2,000 hours at Willow Creek in 2005, including PSC as part of the United Way Day of Caring.

TNC continued its nested frequency monitoring of permanent plots in the wet prairie plant commu-

nity at Willow Creek, in part to document the effects of the 2001 and 2005 prescribed fires. Continued Monitoring of three rare plant species, *Lomatium bradshawii*, *Erigeron decumbens*, and *Horkelia congesta*, was also completed in 2005. Although the weather conditions during its adult flight times were poor this year, monitoring of Fender's blue butterfly populations continued. A fifth year of breeding bird point counts, that added three new species to the Preserve's list, were conducted in May and June 2005.



Meadowlark Prairie during high flow along Amazon Creek

3.2 Acquisition Program

No additional land acquisitions were completed by WEW Partners in the West Eugene Wetland planning area in 2005.

3.2.1 Summary of Acreages, Expenditures	Revenues, an
OWNERSHIP	Acres
BLM	1,566
BLM conservation easement	24
City of Eugene	552
McKenzie River Trust conservation ea	
TNC	754
Total Acreage	3,029
REVENUES	
LWCF through FY03	\$12.13 N
City OWEB through FY03	\$1.40 M
City NAWCA through FY03	\$1.00 M
Trust OWEB through FY03	\$0.16 M
Land exchanges	\$0.34 N
BPA (Cuddeback)	\$1.10 N
Total	\$16.13 N
EXPENDITURES	
Land acquisition	\$14.74 N
Land Processing Costs	\$1.21M
Includes fees associated with rea BLM state office costs, surveys, le	
Pending acquisitions	\$0 M
0 acres	
Total	\$15.95 M

3.3 West Eugene Wetlands Environmental Education Program

3.3.1 West Eugene Wetlands Education Center Partnership Statement

In an effort to formalize the partnership that is working toward developing the West Eugene Wetland Education Center, an official partnership statement was developed and signed in September 2005. Those signing the partnership statement included the BLM, City of Eugene, WREN, Bethel School District, Eugene School District 4J, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service.

The intent of the partnership statement is to lend guidance toward the goal of creating and supporting a world-class education center. The partnership statement includes the following sections and can be found in Appendix B:

- Our Mission
- We Envision
- Our Values
- Collaboration
- Sustainability
- Inclusion
- Balance and Harmony

3.3.2 Education Program

The West Eugene Wetlands Environmental Education Program was initiated in 1999 as the result of collaboration among various West Eugene Wetlands Partners and organizations interested in environmental education. This group perceived a need for a locally focused effort to build environmental literacy in the community.



A total of 103 school groups visited or received classroom wetlands presentations with the education program in 2005.

Over the last year, many steps have been taken towards construction of an education center as well as further establishing the environmental education program. Collaboratively, the environmental education program and the WEW Partners accomplished the following:

- 607 people attended 37 informal education programs. Program examples include wetland month special events, bird walks, butterfly walks, and dragonfly walks. Programs specifically for children included a night hike, mushroom walk, and wetland geology tour, as well as a summer-long collaboration with the City of Eugene Adventure Seekers Summer Camp.
- 103 school groups visited and/or received classroom presentations with the formal education programs: The total number of contacts included 2,932 students and teachers/chaperones.
- WREN was nominated for a "Take Pride in America" award from the Department of Interior for their educational contributions in the West Eugene Wetlands.
- WREN hired Liz Myers as an Education/Volunteer Coordinator to take on volunteer recruitment and formal program coordination.
- WREN hired Elvira Muniz as an Environmental Education Intern in the fall to lead field trips and outreach programs.
- Work continued at the University of Oregon's Center for Advanced Technology and Education program to refine and submit grant proposals, as well as post the Educator's and Volunteer's Guide online. These documents can be viewed at http:// cateweb.uoregon.edu/wren/.

- Over 2500 hours were volunteered by the WREN board and education volunteers to help further the education program.
- WREN hosted a week-long teacher training in July that included instruction on journal-making, field work, and curriculum development. Fifteen teachers attended.
- WREN received grants from OWEB, the Collins Foundation, and REI to help support the education program.
- WREN coordinated with the BLM in recruiting and participating in Public Lands Day (September 24th). Fifteen volunteers attended and participated in removing blackberries and other noxious weeds from along trails, as well as helping with yurt repairs.

3.3.3 West Eugene Wetland Education Center

Building an environmental education center for programs that offer meaningful experiences to the diverse local community has been a goal of the West Eugene Wetland Partnership since 1999. When completed, the West Eugene Wetlands Environmental Education Center campus will include a laboratory, green house, auditorium, reference library, classrooms, meeting rooms, and staff and volunteer offices. The building will strive to meet the highest standards of Leadership in Energy and Environmental Design (LEED) certification as a demonstration of sustainable building techniques applied in an economically-sound and environmentally-friendly manner. The sustainable design features embody the Center's ecological vision to demonstrate that humans can live responsibly with the land by creating a realistic model that could be

Program Implementation



West Eugene Wetland Center illustrative drawing

emulated in the neighboring industrial, commercial, and residential complexes.

The strategy is to build the center at a modest rate and phase the project to meet current needs. The Field Science Laboratory will be the first phase of the project and includes: initial site development; a stormwater demonstration project for sustainable landscaping; roadway and parking development; a composting toilet that conserves water; information kiosk; laboratory for school groups and interpretive programs; mudroom to support volunteer and education participants; and a public reception area with volunteer staff to answer questions and schedule programs.

The following activities related to the education center occurred in 2005:

- The West Eugene Wetlands Education Center Partnership Statement was signed by Eugene 4J and Bethel School Districts, U.S. Army Corp of Engineers, U.S. Bureau Land Management, City of Eugene, U.S. Fish and Wildlife Service, and Willamette Resources and Educational Network (WREN). (See Appendix B)
- The City of Eugene contracted with WBGS
 Architects and Planning to finalize the Education
 Center Program Document in anticipation of site development work and to update cost estimate

- and preliminary drawings for the Field Science Laboratory. The current cost estimate for entire initial phase, including infrastructure, site development, and construction is \$4.0 million.
- Eugene School District 4J will continue to reserve the 2002 School Bond funds for the resident education portion of the project through 2006.
- A federal land transfer bill was developed to transfer the education center site property from the federal government to the City of Eugene.
- WREN has engaged Collins Group as its Capital Campaign consultant.



Stream Team event at Stewart Woods

3.4 Public Outreach

3.4.1 Citizen Involvement Activities

3.4.1.A Stream Team

Eugene area residents continued to show their commitment to the west Eugene wetlands by taking advantage of volunteer opportunities in 2005. Volunteers included individuals who worked with TNC and Eugene's Stream Team program. The Stream Team is a City volunteer program created in 1995 to bring citizens together to improve stormwater quality, flood control, wetlands, and natural resources within Eugene's city limits. A summary of activities includes:

- Collaboration between the Stream Team and TNC resulted in work parties at TNC's Willow Creek wetland at least ten months out of the year.
- The Central Presbyterian Church has joined regular TNC volunteers to remove invasive plant species, collect native plant seeds, and pick up debris.
- Members of First United Methodist Church have adopted Stewart Pond and Stewart Woods and have a work party once a month drawing 15 to 20 people per work party. They participated in a Take Pride in America project which was attended by Mayor Kitty Piercy and was featured in a national newsletter.
- Rachel Carson students worked with Stream Team
 to plant native species in a swale adjacent to Amazon Creek near Polk Street and to plug willows at
 the Dragonfly Bend site. They also added mulch
 to plantings in Meadowlark Prairie and plugged

- willows at Grimes Pond.
- Stream Team volunteers assisted with seed collection in the west Eugene wetlands.
- Stream Team volunteers continue to weed and plant native species at the Gudu-kut Natural Area.
- The Prairie Mountain School sixth graders spent two days plugging willows in Dragonfly Bend.
- Students from two classes at Churchill High School removed invasive species at the Checkermallow Access.
- Volunteers from Stream Team have been tending salvaged camas bulbs and milkweed at the City's native plant nurseries that will soon be planted out in the West Eugene Wetlands.

3.4.1.B Rachel Carson Center for Natural Resources

During 2005, students and staff from the Rachel Carson Center for Natural Resources at Churchill High School participated in numerous activities in the west Eugene wetlands. Students worked extensively with the Eugene Stream Team and The Nature Conservancy. Teams of students and teachers spent class time twice each month throughout the school year to complete a variety of enhancement projects up and down Amazon Creek. Over 2,000 person hours were spent engaged in meaningful service learning projects. Students cut and plugged willows in upper Amazon Creek and selectively removed blackberries and ivy from two ash groves. Invasive fruit trees were identified and marked for future removal. Rachel Carson students also cut willows from the bottom of Amazon Creek for replanting downstream. Rachel Carson students have had a significant hand in increasing the



Rachel Carson student planting

diversity in the Amazon sub-basin, planting hundreds of plants from the Native Plant Nursery at various sites. Students got the opportunity to replant native plants salvaged from the new Ridgeline connector trail along the now completed trail. Donated greenhouse space and student time to seed and transplant wetlands plants helped move many projects along. Critical growouts of native grasses for sites throughout the Willamette Valley were completed as a cooperative project with The Nature Conservancy.

3.4.1.C Events

American Wetlands Month - 2005

West Eugene Wetland Partners have joined with Americans everywhere to raise public awareness about



the uniqueness, beauty, and importance of the nation's wetlands during May, American Wetlands Month. The theme for the monthlong celebration was It Pays to Save Wetlands.

Bruce Newhouse of the Native Plant Society of Oregon leads a group looking for ecological wonders at the Willow Creek Natural Area.

Approximately 270 people participated in Wetlands Month activities. In addition, 262 students either visited the wetlands or participated in classroom presentations. The following is a summary of the activities:

West Eugene Wetland Photography Exhibit Opening

In honor of National Wetlands Month, Willamette Resources and Educational Network (WREN) and West Eugene Wetland Partners sponsored a community exhibit of photographs taken in the West Eugene Wetlands. The exhibit was held at Café Paradiso throughout the month of June.

Dragonflies in Our Wetlands

Of Oregon's 87 species of dragonflies and damselflies, 36 species (about 41%) have been found in the West Eugene Wetlands. Participants learned about these fascinating insects and their amazing life cycles from local experts Steve Gordon and Cary Kerst.

Wild Wetland Walk

Bruce Newhouse of the Native Plant Society of Oregon led participants on a wild wetland walk during the first annual Native Plant Appreciation Week in search of blooming wildflowers and trees, butterflies, and other ecological wonders of the Willow Creek Natural Area.

Raptors of the Wetlands Presentation

Louise Shimmel of the Cascades Raptor Center provided participants a first-hand experience to discover some of the raptors that can be found in the West Eugene Wetlands when she brought five of the Center's rescue birds for this educational program.





Cary Kerst (left) leads a group on a Dragonfly walk in 2005

Bird Walk

Charlie Quinn of the Nature Conservancy led a bird walk at the Nature Conservancy's Willow Creek Preserve. Participants learned how to identify birds by ear, surveying protocols, and characteristics of the habitats on the preserve.

Western Pond Turtle Presentation

The current western pond turtle population in Oregon is thought to number less than ten percent of the historical population. Wildlife biologist Christopher Yee of the ODFW gave a presentation about the natural history and management actions for this wetland inhabitant.

Spring Butterflies of the West Eugene Wetlands

Eric Wold of the North American Butterfly Association (NABA) (and the City's Wetlands Program Supervisor) led a walk to look for butterflies and wildflowers in the West Eugene Wetlands.

Hynix Tour

Doug Brooke, the Environmental Department Team Leader at Hynix led an evening walking tour of the Hynix mitigation site. Participants learned about the stormwater treatment practices used at Hynix Semiconductor. The tour demonstrated one facet of how industry can coexist in and near natural areas to enhance the habitat on site and to minimize and eliminate water quality impacts to the surrounding areas.

Discover Dragonflies!

Nearby Nature sponsored this family program about dragonflies. Participants learned all about these amazing flying machines, enjoyed fun facts, observed specimens, and created their own dragonfly to take home.

Wetlands Nature Photography Workshop

The West Eugene Wetlands offer many opportunities to photograph the natural world right here in Eugene - wildflowers, birds and miniature landscapesabound. Local photographer, David Stone, taught participants the principles of nature photography and practiced techniques in the field.

Doug Brooke, the Environmental Department Team Leader at Hynix, leads an evening walking tour of the Hynix mitigation site.





River otter

3.4.1.D Wetlands Appreciation Awards

In 2005, the Wetland Executive Team presented appreciation awards to three individuals and a design team in recognition of their outstanding service to the West Eugene Wetland Program. Award recipients included:

Sabine Dutoit is an active member of several local natural history and conservation organizations including the Nature Conservancy, the Native Plant Society of Oregon, and the North American Butterfly Association. She has been actively involved in the West Eugene Wetlands for almost three years, volunteering at Willow Creek Natural Area as one of The Nature Conservancy's most active volunteers during that time. As well as being a regular participant in TNC's volunteer work parties, Sabine has also contributed many hours collecting seeds for Fender's Blue butterfly habitat restoration, and taken on several projects for independent work including maintaining native fescue grow-out plots and pulling Scotch broom from critical habitat. Sabine is a very active hiker, combining her love of wildflowers, butterflies and the outdoors on weekly excursions around the state of Oregon throughout the year. She has been a huge help to TNC at Willow Creek, and she is a great example of a citizen conservationist, walking the walk of conservation in the Willamette Valley.

Nancy Nathanson During her 12-year tenure (three, 4-year terms) on the Eugene City Council, Nancy was a strong supporter of the West Eugene Wetlands Plan, the West Eugene Wetlands Partnership, and other City park projects. As a representative

of Ward 8, which includes The Nature Conservancy's Willow Creek Preserve and many other West Eugene Wetlands sites, Nancy had the opportunity to demonstrate her support of the Wetlands Plan and Partnership on many occasions. For example, when Kathleen Clarke, Director of the BLM, visited in September, 2003, Nancy generously donated her time to help welcome the Director and articulate the local elected official support for the West Eugene Wetlands Program.

In addition to her support for the wetlands, she has been a strong supporter of parks and open spaces throughout the entire City. For example, she served as chair of the Parks and Open Space Committee during 1997-2000. This Committee ultimately developed and recommended \$25.3 million bond measure that the City overwhelmingly passed in 1988. This money has helped fund land acquisition (including open space, especially in the South Hills, including the headwaters of Willow Creek), new park development, and park renovations to meet a broad spectrum of community needs. In addition, during the past two years, she served as Chair of the Mayor's Parks, Recreation, and Open Space Committee. This group assisted and collaborated with staff and consultants in developing a Comprehensive Plan for Parks, Recreation, and Open Spaces for the City of Eugene. Councilor Nathanson's leadership was instrumental in moving the Committee's work forward.

WBGS Architecture and Planning and Satre

Associates have been instrumental as the West Eugene Wetlands Partnership has moved forward with its vision for an Education Center. Bill Seider, AIA and principal at WBGS was an enthusiastic supporter from





Member of the Spreadwing family of damselflies (genus Lestes)

the start when he committed substantial resources in 2000 to get this project on paper. Rick Satre, ASLA, also showed considerable faith in the Partnership when he matched WBGS's commitment.

It is because of this demonstration of commitment, we have been successful in attracting funding to the project, including an early grant from the Department of Education to prepare a vision document, architectural model, and further the planning effort. The West Eugene Wetlands Partnership wants to not only recognize the individual and collective commitments of WBGS Architecture and Satre Associates as our design team, but their patience, solid technical skills, creativity, and the true collaborative spirit they demonstrate as they work with the Partnership.

Mark V. Wilson is an Associate Professor of Botany and Plant Pathology at Oregon State University. Working with his colleagues, graduate students, and resource agencies over the past two decades, Mark has made significant contributions to the knowledge base of the ecology, conservation, and management of native prairies in the Willamette Valley. His research topics have ranged from the effects of fire on native upland and wet prairie plant communities to flood tolerance of rare plants. Mark is considered one of the regional experts on Willamette Valley prairies, listed plants including Nelson's checker-mallow and Kincaid's lupine, and the endangered Fender's blue butterfly. He has served on regional oversight panels and review committees related to management of prairie habitat, as well as an active participant developing a recovery plan for all listed Willamette Valley prairie species. Through his research and study of Willamette Valley prairie species, Mark has provided invaluable

advice and direction to public agencies working to restore and manage native prairies.

3.4.1.E Conferences and Presentations

In 2005, Partnership staff made numerous presentations related to the West Eugene Wetlands Program. This outreach is important both for the promotion of the program and for sharing information with groups and organizations who are facing similar challenges. Presentations included:

- In February, Eric Wold (City) made a presentation entitled Progress through Partnerships: The story of the West Eugene Wetlands to the Americorps' National Civilian Community Corps that was working with TNC. The talk was organized into two main parts: (1) the biological, legal, and regulatory framework of the Partnership's work, and (2) program implementation, including acquisition, management, education, recreation, and research.
- In April, Eric Wold (City) made a presentation entitled Progress through Partnerships: The story of the West Eugene Wetlands to the Oregon Chapter of the American Public Works Association (APWA).
- In April, Greg Fitzpatrick (TNC) made a presentation to the Society for Ecological Restoration
 Northwest conference in Seattle on the results of
 his literature search on wetland prairie restoration
 techniques.
- In April, Jeff Krueger (LCOG) and Laurel Pfeifer-Meister (UO) made a presentation to the Society for Ecological Restoration Northwest conference in Seattle on the EPA funded wetland prairie



Touring wetland restoration site preparation test plots

- restoration site preparation study.
- In June, Eric Wold (City) made a presentation entitled Progress through Partnerships: The story of the West Eugene Wetlands to engineers, architects, and planners from WBGS Architects and Planning and Satre Associates.
- In August, Eric Wold (City) made a presentation entitled Progress through Partnerships: The story of the West Eugene Wetlands at the University of Oregon's Learning and Retirement Center.
- In September, Jeff Krueger made a presentation on the Power of Partnerships to the Oregon
 Planning Institute Conference at the University
 of Oregon, using the WEW Partnership as one of
 the case studies.
- In November, Jeff Krueger and Laurel Pfeifer-Meister (UO) made a presentation to approximately 65 participants at the Wetland Prairie Restoration Site Preparation Forum held in Eugene.
- In November, Jason Nuckols (TNC) and Matt Benotsch (TNC) made a presentation to Brock McLeod's Oregon State University freshmen biology seminar class regarding the WEW Partnership and Willamette Valley prairie and savanna restoration.
- In November, Jeff Krueger gave a presentation on the West Eugene Wetland program and the Rivers to Ridges parks and open space vision to David Hulse's and Bart Johnson's landscape architecture design studio at the University of Oregon.

3.4.1.F Tours and Field Trips

Multiple tours and field trips to the West Eugene Wetlands occurred in 2005 and included:

- In January, Eric Wold (City), Scott Duckett (City), and Matt Rae (Army Corps) gave a tour of the West Eugene Wetlands to a group of wildlife biologists from the U.S. Army Corps of Engineers' Northwestern Division.
- In May, Dal Ollek (City) and Pat Johnston
 (BLM) led a tour to Meadowlark Prairie, Dragonfly Bend, and Willow Creek Natural area for the
 Water Resources Section of the Oregon Chapter of the American Public Works Association
 (APWA).
- In June, Jean Jancaitis (City), Pat Johnston (BLM), and Holly McRae (BLM) lead a tour to Meadowlark Prairie, Dragonfly Bend, and Willow Creek Natural area for the Association for the Study of Literature and the Environment.
- In July, The McKenzie River Trust hosted a tour of the Green Island property to visit restoration sites and describe future conversion of farmland to native prairie, wetland, and forested habitats.
- In September, Jason Nuckols gave a field presentation to Bart Johnson's Fire Ecology class regarding the WEW fire program and Willamette Valley prairie restoration.
- In May and November, Jeff Krueger (LCOG) and Laurel Pfeifer-Meister (UO) lead tours to the Wetland Prairie Restoration Site Preparation test plots near Coyote Creek, for approximately 45 participants.

3.4.1.G Websites

In 2005, the City completed a major overhaul of its entire website including the Parks and Open Space



Cathy Macdonald of The Nature Conservancy, pictured with U.S. Congressman Earl Blumenauer, received a 2005 National Wetlands Award.

related pages. Additional fine tuning of the web site is planned for 2006. The new West Eugene Wetlands web page can be found at www.eugene-or.gov/wetlands.

Also in 2005, a research web page was set up to report the results of the EPA funded Wetland Prairie Restoration Site Preparation Study currently underway. This will eventually be expanded to include a wider array of West Eugene Wetland related research. The page can be found at www.lcog.org/wewresearch/.

3.5 Awards and Recognitions

The Nature Conservancy's Catherine Macdonald Wins National Wetlands Award

In May 2005, The Nature Conservancy of Oregon's Director of Conservation Programs, Catherine Macdonald, was presented with a 2005 National Wetlands Award. She was lauded for initiative, vision and leadership in successfully protecting tens of thousands of acres of wetlands throughout Oregon including west Eugene.

The National Wetlands Awards celebrate individuals who have demonstrated extraordinary dedication, innovation, or excellence in wetlands conservation. Macdonald won the award in the category of Wetland Conservation and Restoration. Macdonald has worked for The Nature Conservancy in Oregon for over 21 years with responsibilities for land stewardship, ecological research and restoration, and conservation planning. The awards are sponsored by the Environmental Law Institute, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, USDA Forest Service, USDA Natural Resources Con-

servation Service, Federal Highway Administration, and NOAA Fisheries.

Macdonald was nominated for the national award by Eric Wold, Wetlands Program Supervisor for the City of Eugene. He cited her work at Sycan Marsh and the Williamson River Delta in the Klamath Basin, the West Eugene Wetlands, Bandon Marsh and other national wildlife refuges, and many other wetlands conservation projects statewide. Her nomination was supported by numerous conservation officials and nonprofit leaders across Oregon, including several members of West Eugene Wetlands Partnership.

Sunset Magazine Recognition of the West Eugene Wetlands

In the February 2005 edition of Sunset Magazine, the West Eugene Wetlands were selected as one of the ten newly preserved western treasures. The Article is titled Paradise Saved and can be found in the Appendix C of this report or at www.sunset.com.

Nature-Friendly Communities

Eugene has been named one of the most nature-friendly communities in the United States, in a new book released in 2005 by Island Press. The book, Nature-Friendly Communities, highlights nineteen communities that lead the nation in safeguarding local landscapes, natural resources, and wildlife. Mayor Kitty Piercy announced the recognition at the Checkmallow Access. Said Piercy, "Being identified as one of the 19 most nature-friendly communities in the nation is a true tribute to our efforts and confirms what we all know - that Eugene is one of America's greatest cities for the arts and the outdoors".

Program Implementation

Eugene's innovative wetlands program is praised in the book as an excellent example of a collaborative and transparent process that has led to the successful acquisition and preservation of 3,000 acres of wetlands and the restoration of over 700 acres of rare wet prairie habitats, while allowing development to proceed.

Other communities cited in the book include Austin, Texas; Fort Collins, Colorado; Sanibel, Florida; Dane County, Wisconsin; Pima County, Arizona; and Minneapolis-Saint Paul, Minnesota. For more information on this book, visit www.naturefriendlytools.org.

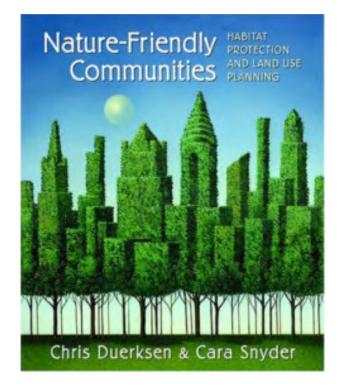
Cooperative Conservation Recognition from Department of Interior

The Department of the Interior awarded certificates to the West Eugene Wetlands Partnership to recognize it as one of the nation's best examples of "cooperative conservation". This recognition follows from a conference held in August 2005 on "cooperative conservation" (see http://conservation.ceq.gov/agenda. html), where the Partnership was one of a small group of projects nationwide to make the conference booklet of best case studies.

As a result of the pre-conference planning and all of the federal partners involved in the West Eugene Wetlands, the Partnership was also featured as a case study on this web site: http://www.cooperativeconservationamerica.org/viewproject.asp?pid=26.

The Nature Conservancy's Oregon Chapter Volunteer of the Year Award

Gerald Marcello of Eugene, a long-time volunteer at the Willow Creek Preserve, won The Nature Conservancy's Oregon Chapter Volunteer of the Year Award in 2005.



3.6 Research and Monitoring Activities

3.6.1 EPA Wetland Development Grant

With the support of an EPA Wetland Development grant and matching funds from the City of Eugene, the West Eugene Wetland (WEW) Partnership is now on the third year of a study that is looking at the effectiveness of various wetland prairie restoration site preparation techniques. Lane Council of Governments (LCOG) is managing the grant for the WEW Partnership and is working with a consultant team from the University of Oregon led by Dr. Scott Bridgham and PhD candidate Laurel Pfeifer-Meister. The goal of this research is to provide new information on the effectiveness of various site preparation techniques, not only for the WEW Partners, but also for wetland prairie practitioners throughout the Willamette Valley and elsewhere in the nation.

In 2005, significant progress has been made on the study including:

- Identification of reference and retroactive study sites:
- Field data collected and analyzed from 50 test





Site preparation test plots viewed from the air

plots, three reference sites, and seven retroactive study sites;

- Preliminary results compiled and summarized;
- Study web page created to disseminate information;
- Mycorrhizae study conducted;
- Community competition study begun (preliminary results available); and
- Site preparation forum held in November to presented preliminary results (65 attendees);

More information on this study including a summary of preliminary results can be found at www.lcog. org/wewresearch/.

3.6.2. Fender's Blue Butterfly Research

Under a Challenge Cost Share Agreement with BLM, Dr. Cheryl Schultz, Assistant Professor of Biology at Washington State University in Vancouver, began vegetation surveys for experimental habitat restoration plots at The Nature Conservancy's Willow Creek Natural Area in 2004. The experiments are designed to restore rich buffer zones of native nectar sources for the endangered Fender's blue butterfly. The goal of the study is to assess methods to restore Fender's blue habitat and how the butterfly behavior in the nectar-rich buffer areas affects population dynamics. If the butterflies use the nectar source and return to their lupine habitat patches, the experiment will provide a simple, effective habitat restoration strategy for an endangered species. Behavioral experiments began in spring 2005. Preliminary results will be available winter 2005-2006.



Vegetation monitoring at the wetland restoration site preparation test plots



Fenders blue butterfly

3.6.3. Fender's Blue Butterfly Monitoring

Population monitoring for the Fender's blue butterfly occurred in 2005 at four sites within the West Eugene Wetlands Project Area. The West Lawn Memorial Park and Funeral Home has offered to team up with the WEW partners to manage the Kincaid's lupine population located within the funeral grounds in order to maintain the rare plant population and help the Fender's blue butterfly disperse.

3.6.4. Mitigation Bank Vegetation Data Research

Mark Wilson and Deborah Clark are conducting a two year research project under a Challenge Cost Share agreement with BLM. In year one of this project, the focus of the research was to analyze existing wetland mitigation bank vegetation data to examine the following questions:

- Do native plant species exhibit consistent establishment rates?
- 2. Does habitat consistently affect establishment rates?
- 3. Are there consistent relationships between establishment rates and site preparation and maintenance?
- 4. How successful is site preparation in reducing the abundance of non-native plant species?
- 5. Are there consistent relationships between establishment rates and the abundances of non-native species and other sown, native species?

In year two of this project, the focus will be to build and expand on the first year results.

3.6.5. Kincaid's Lupine Population Monitoring and Research

Population monitoring for Kincaid's lupine occurred in 2005 at four sites within the West Eugene Wetlands Project Area. This data will be part of the baseline information used to help monitor the effects of future restoration efforts. The Fir Butte site was subjected to an accidental livestock trespass in 2005 and a recovery plan for this site was prepared with the help from the U.S. Fish and Wildlife Service to restore the impacted area. To help the butterfly recover, 1000 nectar plugs were planted and native seed was sown on one acre of uplands as part of the plan. Dragonfly Bend, a restoration project begun in 2004, focused on Kincaid's lupine habitat restoration. Ongoing site preparation to manage invasive weeds was conducted in 2005 on this site. The plan is to introduce lupine in 2006, once the site has been prepared.

A research project with Oregon State University, under a Cooperative Ecosystem Agreement between BLM and OSU, is currently under way to answer basic genetic questions about Kincaid's lupine. This project will focus on answering the following questions: how are plant populations genetically structured, how many individuals are in a population, how does this structure affect the recovery of Kincaid's lupine and restoration of upland prairie habitat?

3.6.6 Bradshaw's Lomatium Monitoring

Population monitoring for Bradshaw's Lomatium occurred in FY 2005 at four sites within the West Eugene Wetlands Project Area. This data will be compared to the baseline knowledge collected in past years and will help to determine and track the status



Western pond turtle

and health of populations. This knowledge will help in future management decisions concerning these populations. Two sites were burned and the other two sites had invasive weed control and woody plant material removal.

3.6.7. Willamette Daisy Monitoring and Research

Population monitoring for the Willamette daisy occurred in FY 2005 at five sites within the West Eugene Wetlands. This data can be compared to baseline knowledge gained in past years and will help to determine the status and health of populations. This knowledge will help in future management decisions concerning these populations. Two sites had prescribed burns conducted to enhance the habitat in order to control woody species and reduce build up from grass litter. All five sites had invasive weed and woody removal.

A Challenge Cost Share research project with the Institute for Applied Ecology is on its third year, to track long-term population trends and evaluate the effects of various habitat management techniques (mowing, burning, and control) on Willamette daisy populations.

Another Challenge Cost Share research project with the Institute for Applied Ecology is to determine the minimum population size necessary for seed production and population maintenance in the Willamette daisy. Documentation of the threshold population size for adequate reproduction is necessary to guide management actions for the species in isolated small populations.

3.6.8 White-topped Aster Monitoring

Population monitoring for white-topped aster occurred in FY 2005 at three sites within the West Eugene Wetlands. This data can be compared to the baseline knowledge gained in past years and will help to determine the status and health of populations. This knowledge will help in future management decisions concerning these populations. Mowing maintenance occurred at two sites in order to control invasive grasses and weeds.

3.6.9. Shaggy Horkelia Monitoring

Population monitoring for shaggy horkelia occurred in FY 2005 at two sites within the West Eugene Wetlands. These data can be compared to the baseline knowledge gained in past years and will help to determine the status and health of the population. This knowledge will help in future management decisions concerning these populations. One site was burned and the others had a mowing regime implemented to control invasive grasses and weeds.

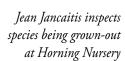
3.6.10. Western Pond Turtle Monitoring

Population monitoring for western pond turtle occurred in FY 2005 at seven sites within the west Eugene wetlands. There were four sites with western pond detections. Two sites received basking structures placements. A western pond turtle habitat management plan will be completed in winter of 2005.

3.6.11. Great Copper Butterfly

The great copper butterfly was rediscovered in the West Eugene Wetlands during the summer of 2004, nearly 45 years after the last known individual was collected in Eugene, OR. In 2005, four sites were

Program Implementation





monitored for the butterfly. In 2005, an article on the great copper was submitted to the Northwest Nature Magazine and the magazine published the article in their winter volume.

3.6.12. Chicago Botanic Garden's Conservation and Bureau Land Management Mentoring Program

Two interns have been placed at the West Eugene Wetlands BLM office in 2004 and 2005. The interns completed a variety of tasks that ranged from ArcGIS mapping, report writing, monitoring, native seed collection, data entry, outreach educational presentations, and literature searches. In 2005, one of the major accomplishments was to enter threatened and endangered plant data into a regional database.

3.7 Ongoing Management Activities

3.7.1 Plant Materials Procurement Program

The West Eugene Wetlands Partnership's native seed and plant procurement program ensures the availability of native plant materials for restoration efforts within the wetlands. The program has made great strides over the past two year to prioritize and place species into grow-out for seed, bulbs, or divisions. An additional 25 species were added to grow-out contracts in 2005 to bring the total number of species available from sources other than wild collection seed to 83. The list includes species that grow in emergent, vernal pool, wet prairie, and upland prairie habitats. With additional species collected annually from the wild, the total number of species available for restoration and enhancement is as high as 106. To view detailed species-level information about the

Plant Materials Procurement Program, please refer to Chapter 4, Plant Material Procurement Program, in the most recent West Eugene Wetlands Mitigation Bank Annual Report.

A summary of the Seed Procurement Program can be found on the City's web site: www.eugene-or.gov/ wetlands (click on "Native Plants" from this location.

3.7.2 Prescribed Burns

In 2005, a record nine prescribed burn units, totaling 166 acres, were successfully burned on TNC, BLM and Army Corps of Engineer (Fern Ridge) lands. This set a West Eugene Wetlands Partnership record for the most burns completed in a single year. The previous record of burn units was six, set in both 1998 and 2000. The previous record for acres burned in a season was 143.5 acres in 1993.

The increased success this year can be attributed to two main factors. First, there were a large number of days in September in which the weather conditions were suitable for burning. In most years, there are a very limited number of days in which the weather conditions are suitable for burning. Second, the BLM, City, and TNC have increased their capacity to implement burns over the past two years through training both City and TNC staff to be able to participate in burns and by establishing contractual relationships with private contractors. This allowed prescribed fires to occur at two locations simultaneously, using a BLM crew at one site and a TNC contractor with a TNC crew and City support at a second site.

In addition, an automated weather station that was installed at the Willow Creek Preserve earlier in the year was extremely valuable for the effort by providing accurate daily weather measurements.



In 2005, 166 acres were successfully burned on TNC, BLM, and Corps lands.

3.7.3 Maintenance Activities

2005 marked the second year of an Assistance Agreement between BLM and City of Eugene for invasive weed control and hazardous fuels reduction on BLM-owned lands in the West Eugene Wetlands.

Under this agreement in 2005, approximately 60 acres of land received invasive weed species treatments, including thirteen sites that contain threatened and endangered plant and animal species. The primary purpose of these efforts was to reduce and control the invasive seed sources and to prevent invasive species from out-competing native species on BLM lands.

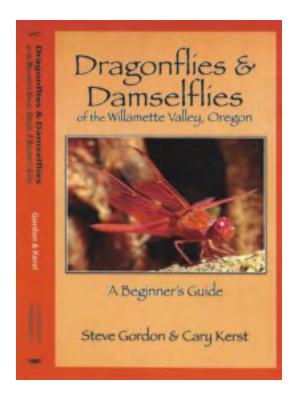
3.8 Youth Crews

For the tenth year, the West Eugene Wetlands Partnership has hired crews from Northwest Youth Corps and Looking Glass – Lane Metro Youth Corps to bring youth crews to work in the wetlands. This past year, the crews worked on approximately 40 acres of federal lands in the wetlands. The projects included cutting and hauling non-native invasive trees, pulling Scot's broom and blackberries, and collecting native bulbs.

3.9 Documents, Publications, and Reports

Several publications in 2005 focused on various aspects of the West Eugene Wetlands program, including research, restoration, planning, the mitigation bank, and public outreach.

West Eugene Wetlands 2004 Annual Report.
 This publication highlighted activities and progress made within the program in the year 2004.
 The report can be viewed at www.eugene-or.gov/wetlands.



West Eugene Wetland Mitigation Bank Program Annual Report 2004, City of Eugene Parks and Open Space Division. The report can be viewed at www.eugene-or.gov/wetlands.

- Federal Priorities for Lane County, Oregon. The United Front federal lobbying booklet includes natural resources projects (February).
- Delta Ponds A Vision for Enhancement and Management, July 2005. The report can be viewed at www.lcog.org.
- Alverson, Ed. 2005. Preserving prairies and savannas in a sea of forest: a conservation challenge in the Pacific Northwest. Plant Talk 40:23-27.
- U.S. Fish and Wildlife Service. 2005. Proposed Critical Habitat Designation for Fender's blue butterfly, Kincaid's lupine, and Willamette daisy. Published in the Federal Register on November 2, 2005 (Volume 70, Number 211, 50 CFR, Part 17, pages 66492-66599).
- Steve Gordon and Cary Kerst authored Dragonflies and Damselflies of the Willamette Valley, Oregon: A Beginner's Guide. The book's publication has been sponsored by numerous donors, including individuals, Lane County Audubon Society, and WREN. WREN is coordinating the sale and distribution of this field guide from it's web site: www.wewetlands.org/aboutwren.htm.



3.10 Related Studies and Projects

3.10.1 Eugene-Springfield Metro Waterways Study

The U.S. Army Corps of Engineers, Lane County, the Eugene Water and Electric Board, and the cities of Eugene and Springfield continue work on a multi-year study of the function and health of waterways in the greater metropolitan area. The multi-year study is estimated to cost \$3.4 million. Half of the funding will come from the Corps of Engineers, and the remaining 50 percent will come from the local partners using existing funds and in-kind services. The study will help provide a better understanding of existing problems while identifying potential projects and other opportunities to improve metro area waterways. Two locations have been selected for immediate study: Amazon Creek in the Eugene area and Cedar Creek/McKenzie River in the Springfield area. The study, which was initiated in 2000, will likely continue through 2007. On the ground projects will be implemented in the years following the completion of the study.

In 2005, significant progress has been made on the study including completion of an extensive citizen outreach process; channel assessments for the Amazon and Cedar Creek planning areas; and production of a draft Without-project Conditions report for the study area.

More information on this study can be found at www.metrowaterways.org.

3.10.2 Eugene Parks Recreation and Open Space Comprehensive Plan Update

Parks, recreation, and open space improvements are guided by a comprehensive, citywide plan. Eu-

gene's existing plan, developed in 1989, is outdated. An update of this plan was initiated in 2002 and a draft plan was released in November 2004. The plan identifies a number of capital improvements and new park and open space facilities in the west Eugene area.

During 2005, the draft plan has been reviewed by elected officials and revised based on their input. The target date for adoption is February 2006. The draft plan can be viewed at www.eugene-or.gov/.

3.10.3 Rivers to Ridges

During an 18-month period ending in May 2003, LCOG facilitated a regional parks and open space visioning process that involved state, local, and federal agencies, local elected officials, a wide array of interest groups, and the general public. The planning effort resulted in a vision document and map that was unanimously endorsed by the Lane County Board of Commissioners, the Eugene and Springfield city councils, and the Willamalane Park and Recreation District Board. The vision and strategies cover the entire west Eugene wetlands study area. During 2005, the vision map was used to support numerous local park and open space grant applications and a partnership staff team continues to coordinate the implementation of the vision. The Rivers to Ridges vision and strategies document and vision map are available electronically at http://www.lcog.org/pubs.html.

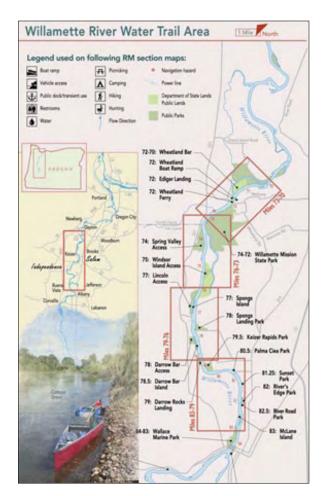
3.10.4 Willamette Valley-Puget Trough-Georgia Basin Ecoregional Assessment

The Nature Conservancy, in partnership with the Washington Department of Fish and Wildlife, published the long awaited Willamette Valley-Puget Trough Georgia Basin Ecoregional Assessment in March 2005. The culmination of six years of research, this assessment is a resource for planners and others interested in the status or conservation of the biological diversity of this ecoregion. The purpose of the assessment was to identify priority areas for conserving the biodiversity of the ecoregion at a coarse scale. This assessment uses an approach developed by the Conservancy (Groves et al. 2000, Groves et al. 2002) and other scientists to establish conservation priorities within the natural boundaries of ecoregions, or regional landscapes defined by their distinct climate, geology, landforms, and native species (Bailey 1994). The assessment is available electronically at http://www.conserveonline.org.

3.10.5 Willamette River Water Trail

On June 4, 2005, the first 35-mile segment of the Willamette River Water Trail, between Buena Vista Park (near Corvallis) and Wheatland Bar (near Newberg), was officially dedicated. The Willamette River Water Trail, which is anticipated to ultimately extend from Portland to Cottage Grove, is an assemblage of parks, public spaces, and services along Willamette River. The Water Trail will provide an opportunity for canoeists, kayakers, and others to see and explore the Willamette River's many wonders, whether for a day, or several days. The water trail will include improved facilities, interpretive materials, maps, and signage.

In July 2005, planning began on the second segment of the Water Trail, which will extend from Buena Vista Park to Eugene. The City of Eugene is actively participating in this effort. Dedication of this segment is scheduled for June 2006.



Dedication of the River Trail through Eugene is scheduled for June 2006.



Appendix A



Acronyms and Abbreviations

Commonly Used Acronyms

Bank West Eugene Wetlands Mitigation Bank
BLM U.S. Bureau of Land Management
BPA Bonneville Power Administration

CATE Center for Advanced Technology and Education

CIP Capital Improvement Plan

City City of Eugene

Corps Army Corps of Engineers

DSL Oregon Department of State Lands
EPA U.S. Environmental Protection Agency

LCAS Lane County Audubon Society LCOG Lane Council of Governments

LUBA Oregon State Land Use Board of Appeals LWCF Land and Water Conservation Funds

MIP Mitigation Improvement Plan MOA Memorandum of Agreement

NAWCA North American Wetlands Conservation Act

NYC Northwest Youth Corps

ODA Oregon Department of Agriculture
ODOT Oregon Department of Transportation
OSCI Oregon State Correctional Institute

OSU Oregon State University

OWEB Oregon Watershed Enhancement Board OYCC Oregon Youth Conservation Corps

Plan West Eugene Wetlands Plan
TNC The Nature Conservancy
Trust McKenzie River Trust
UO University of Oregon

USF&WS U.S. Fish and Wildlife Service

WB Wetland Buffer

WET Wetland Executive Team
WP Waterside Protection

WREN Willamette Resources and Educational Network



Appendix B



Articles and Correspondence

"Many mayors recognize us for this kind of work and look to us as a role model." - EUGENE MAYOR KITTY PIERCY

Book cites Eugene for coexisting with its partners, the environment

BY SUBAN PALMER. The Register-Guard

Locals who track our often-contentious political process may scratch their heads over this one: Eugene held up as a model of interagency cooperation?

It's true. A new book singles out the city not only for its success in preserving rare wet prairie, but for collaborative efforts with private organizations and other governmental agencies.

The policy-wonkish text, "Nature-Friendly Communities: Habitat Protection and Land Use Protection" by Christopher Duerksen and Cars Snyder, probably won't win any awards for page-turning thrills.

The collection of community case studies on environmental conservation was written as a blueprint to help other government entities develop similar strategies.

But the 20-page chapter on Eugene does provide compelling background on how the city worked with the U.S. Bureau of Land Management, The Nature Conservancy, the U.S. Army Corps of Engineers and the Oregon Youth

Please turn to EUGENE, Page C7

GREEN TOWNS

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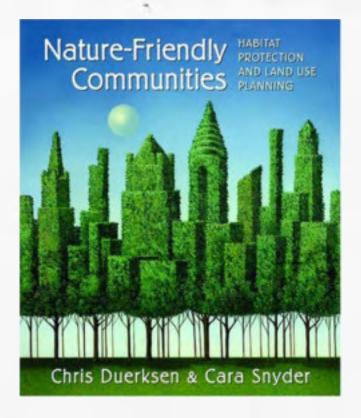
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Officials seek perspective on species' habitat map

By EDWARD RUSSO

The U.S. Fish and Wildlife Service wants to know wind Oregoniess think about designating tract acres, including band in Lane County, as important habitat his a type of butterfly and two plant species.

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Parkway would slice butterfly habitat



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Habitat: New rules could affect proposed West Eugene Parkway

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Species: Reviews a tactic to speed delisting, critics say

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by Bonnie Henderson

Eugene's Amazon

A greenway teems with wildlife and recreation



Bald eagles, belted kingfishers, dragonflies, and camas flowers might keep you company on a walk through the wetlands west of Eugene. A recently expanded trail is luring cyclists, walkers, and runners out to Amazon Creek, which, for most of the last century, was wild in name only. In times past, soon after the creek tumbled out of the city's south hills it was captured and channeled for the passage through town. Reaching west Eugene, the water was further tamed

by farmers' levees, turning a wet prairie into arable land. Now the West Eugene Wetlands are being transformed back into a haven for wildlife and people looking for a close-to-town place to play.

The paved, 7.5-mile (one-way) Fern Ridge Path starts near the county fairgrounds at 15th Avenue and Jefferson Street. It follows Amazon Creek to Royal Avenue, then jogs south a half-mile along Greenhill Road to end at the new Meadowlark Prairie Overlook, a good destination or starting point with its shaded picnic tables and restrooms. Checkermallow Access, on Royal a half-mile east of Greenhill, is another good launch point. A shorter network of paved paths and soft, bark-chip hiking trails follow the creek's upper end in south Eugene, and they're about to get extended too. The 1-mile Headwaters Trail scheduled for construction should connect with the city's Ridgeline Trail by fall.

INFO: Call the Bureau of Land Management in Eugene for wetlands trail maps (free; 541/683-6600).

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(http://www.sunset.com/sunset/travel/article/0,20633,1036690,00.html }

THE HARMSTER GRAND CITY/REGION TOWNSON, DECEMBER 30, 2000

Salmon signals success for Delta Ponds project



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Fish go with the new flow



Changes made as your of an originity Delta Ponds restruction project are improving conditions for welfally

By MATT COOPEN The Exploir Court

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Now, they have a new shell-string sport, neutries of the Delite Founds.

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officials said.
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Pleasa turns to SACMON, Page (1)

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Salmon: Channel opens ponds to river

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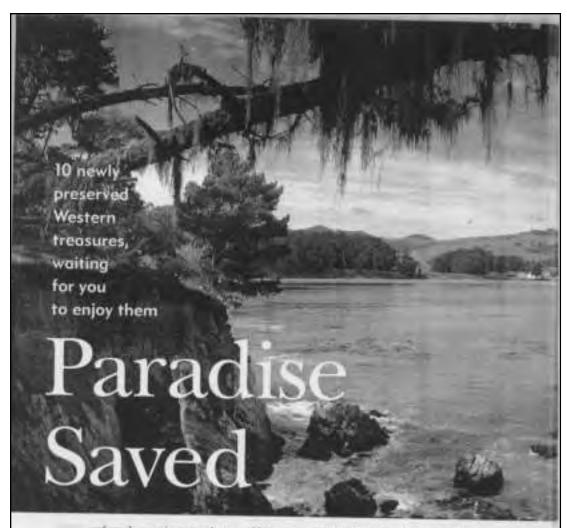
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urf crashes against a tocky rowe. Hills greened by winter rains roll soward the horizon. The Hearst Ranch, in San Luis Obispo County, California, is nurely one of the most beautiful places in the West. And now a portion of it has been preserved for all of us to enjoy. The Hearst property is only one of the newly saved places we honor with this year's Sunné Environmental Awards. Near Las Vegas, a restored wetland offers a lush oasis for waterfuwl—and for human visitors too. In Wyoming, Desil's Canyon scores the wostern slope of the Bighorn Mountains. "For tree," sans Alex Dickmann of the Trust for Public Land, which helped acquire Devil's Canyon Ranch for public use, "the project was all about the overpowering sense of awe you get when you're up there. It's an incredible feeling." It is an incredible feeling to visit any, of our award-winning places. And you can visit most of them right now. Get our your hiking boots, your binoculars, your sense of awe. You're going to have the time of your life.

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More places to celebrate

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Project adds life to Delta Ponds

Enlarging the inler from the Willamette is. one more step in transforming old gravel pits

By Exwago Bloom

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(News Own In-BRUTA, Page 10)





The Delta Fernix have been the site of a series of prosects to regrees habitat, its audition to plant for improving more anymething crown have been clearing son

Delta: Wildlife is expected to benefit from better water quality

the U.S. Army Corps of Engl nervice and the city, clusted Trienday.

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Learle Beldt, environmental education intera for the West Eugene Wetlands, choses third- and fourth-graders from Euroside School what they found in their nets during a sour of the wetlands along Areason Creek in west Eugene.

Making a splash

West Eugene Wetlands are the focus of celebration

By Maca Stranigues The Register-Gaussid

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This is the third year that the consection of agencies involved in the section's partnership.

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Please tiers in WETLANDS, Page 57



The \$12 million education center planned for the West dupone Weslands is shown in an artist's rendering

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Wetlands Month activities set

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May 23

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Wetlands: Area gets national attention

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Raising Wetlands

When Paul Gordon, West Eugene Wetlands maintenance specialist, enters the scene, large-scale excavation has already occurred. The task that lies in front of him



is to transform this vast expanse of wetlands riddled with invasive species into a self-sustaining, diverse ecosystem where native flowers, grasses, and other wildlife can once again flourish.

It's kind of like raising a child, and Gordon approaches the challenge with that kind of passion. "My job is to do what I can to help make the site as ecologically-balanced as possible so that 5, 10, 20 years down the road, it can sustain itself without my help," he says.

The first stage in the "raising" of a wetland is sowing

native seed appropriate to the habitat. In the West Eugene Wetlands, that could be wet prairie, upland prairie, vernal pool, or emergent communities that have standing water for longer periods of time than the other habitat types. As the plants begin to grow, Gordon watches for the "bad influences" that keep native plant communities from thriving. In most cases, the most troublesome are teasel, blackberries and non-native, perennial grasses, such as reed canary grass, ryegrass and other agricultural field grass.

Gordon focuses on protecting the most viable sites first and then decides which strategy will be most effective in dealing with the invaders. (He has a variety of strategies to choose from, including removing non-native plants by hand, mowing or cutting, shading invasive vegetation with large tarps or clear plastic (also known as solarization), scorching vegetation with a hand-held propane flamer or the new, large flamer that is pulled behind a tractor, using controlled fire to enrich the soil and stimulate new growth.) There's also simply planting the right plant in the right place, what natural resource maintenance professionals refer to as a "cultural" technique for fostering native plant communities.

Each site and situation are unique as is the intervention. Though it isn't an easy or fast process, Gordon is good at what he does and has several restoration success stories to tell. There's Willow Corner at West 18th Avenue and Bertelsen Road. Before he and his crews arrived, it consisted of dirt piles over five-feet deep with "moguls of blackberries, hawthorns, and Scot's broom on top of that." Over the course of their maintenance regimen they had to deal with a succession of weeds. Now, vigorous grass and diverse flowering plant communities exist. Look for the purple Prunella vulgaris, or "Heal-all," in bloom now.

One of his pride and joys is Greenhill Prairie, across the street from the Meadowlark Prairie overlook. This site was a former pasture grass farm, and the non-native grasses had to be literally scraped from the site and "still you didn't know what you were going to uncover the deeper you dug." Now, it's a vibrant wet prairie, and a sea of yellow woolly sunflower billows in the light breezes.

Gordon invites you to get acquainted with all the wetlands in the West Eugene Wetlands family. Get on familiar terms with the many native species that call Eugene home, such as

those pictured, including (from top to bottom): white popcorn flower and blue calico; potentilla; wooly sunflower; white and rosy owl clover; yarrow; and heal-all. For a map of the West Eugene Wetlands, call 682-4800.



Delta Ponds Revitalized

any people are rediscovering Delta Ponds. This much deserved attention is due to a collaborative effort of many citizens, area businesses, organizations, and agencies to revitalize the ponds. Perhaps the most visible change that has occurred at the ponds in recent months has been the manual removal of invasive species, such as Armenian blackberry, Scotch broom and English ivy, on 28 acres of land. By clearing away these invasive plants, there will be space for native vegetation to flourish that will support habitat diversity for a range of wildlife species. By late summer, two more phases will occur to eliminate any remaining invasive plants. Once completed, thousands of native trees and shrubs will be planted throughout the area. Vegetation enhancement work is being funded by the Army Corps of Engineers, the Bureau of Land Management's Cooperative Conservation Initiative, and by stormwater user fees.

Another exciting project taking place at Delta Ponds this year is a new fish and wildlife monitoring program. In early December 2004, a group of University of Oregon Service Learning Program students started working with City of Eugene staff, Oregon Department of Fish and Wildlife (ODFW) staff and volunteers from the Eugene Stream Team to develop and implement a fish and wildlife monitoring

program. A two-way fish trap was installed in Debrick Slough to learn which fish species are moving between the ponds and the Willamette River. From February through July, students will study amphibians, birds and western pond turtles. Amphibian and bird surveys will provide more information about which species are present in the Delta Ponds system. Monitoring of Western Pond Turtles, currently listed on the State's sensitive species list, will help determine the current population of turtles and evaluate their habitat requirements. At the end of the academic year, students will present their findings and provide the City with fish and wildlife monitoring protocols that will allow Stream Team volunteers to conduct follow-up monitoring on these and other species in the coming years. Several Stream Team volunteers are participating in the daily fish trap monitoring. Last year some volunteers trained with ODFW to monitor western pond turtles.

Delta Ponds, a City-owned natural area, extends from the river just west of Valley River Center north and east to the Cal Young neighborhood east of Delta Highway. Stop by and visit anytime. If you have questions about the vegetation or habitat enhancement work, call Lauri Mullen at 682-4925. If volunteer activities appeal to you, contact Lorna Baldwin, Eugene Stream Team at 682-4850.





Photos: (Top) Students monitor salmanders at Delta Ponds. (Middle) University of Oregon students install fish trap in Debrick Slough. (Bottom) workers remove invasive vegetation.



Wetlands & Waterways

Innovative plant materials program helps restore wetlands

ocal wetland ecosystems provide a number of benefits to the community, including preserving water quality, reducing flooding, and providing wildlife habitat. Throughout the West Eugene Wetlands, an innovative plant materials program is improving the restoration and maintenance success of this valuable natural resource area.

While the West Eugene
Wetlands Partnership has been
planning and completing wetlands restoration projects over
the last decade, it has continued
to improve the effectiveness of
its native plant procurement
program. The main goals of the
plant procurement program
are to: (a) ensure the availability of native plant materials for restoration within the
West Eugene Wetlands, and (b)
implement the most ecological

and cost-effective propagation and establishment methods for each species.

In spring of 2004, the partnership staff began a systematic review of 10 years worth of restoration data on seeding success to determine which propagation strategies would be most successful for all the species we use in wetland restoration projects.

From this review, a strategy was developed for each species within the four main habitats of the area (wet prairie, vernal pool wetland, emergent wetland, upland prairie). Propagation methods include sowing seeds, planting bulbs, planting bare-root stock, planting cuttings, or planting plugs.

The main propagation technique for most species is still via seeds. Seeds of most of our native wetland species are not available commercially, particularly seed of local origin that will allow us to maintain genetic integrity of local wetland plant communities. Seed is obtained in two main ways:

(a) by purchase from a private or public grower, or (b) hand-collected from sites within 20 miles of west Eugene.

In the future, we'll use private growers more to increase the supply of up to 45 species used in our restoration program. This will both increase the amount of seed available for restoration projects and substantially reduce the cost of the seeds. We currently have seed growout programs with five different growers, and bulb, plug, and bare-root stock growout with two additional growers.

After just two years, these new changes have helped increase the diversity of native species successfully established on new restoration sites. This is great for improving wildlife habitat and for conserving our native diversity for future generations. As we learn more about each species and the success of each strategy, the strategies will be updated.

For more information on the West Eugene Wetlands plant materials program, contact Eric Wold, Wetlands Program Supervisor, at 682-4888.



A large bed of streamside lupine is being grown at a nursery near Corvallis. Increasing seed stocks through nursery bed grow-out is much more time- and cost-effective than hand collecting.

New telescope at Checkermallow Access enhances wildlife viewing

The West Eugene Wetlands provide outstanding habitat for wildlife, including many large birds (such as ducks, geese, herons, and raptors), turtles, dragonflies, and butterflies. A telescope donated to the City of Eugene by the Lane County Audubon Society makes it easier than ever to view and appreciate the wildlife and wetlands. The new telescope was installed along the Fern Ridge Path at Checkermallow Access, an interpretive overlook at the north end of Meadowlark Prairie, along Amazon Creek. The telescope is similar to those in use at many National Parks, but does not require any coins to operate it. The next time you're in west Eugene, stop by and discover what you can see with the new telescope.



A family enjoys using the new telescope



Contractors plant plugs in a wetland site. Some species establish more successfully when planted as plugs rather than sown as seeds.





that are not always obvious. In the west Eugene wetlands, restoration work has helped bring back a balance between the land and living organisms. Restoring the wetlands has fixed broken links in the ecosystem and renewed

relationships between species.

ecosystem, living organisms are benefited by non-living ele-

ments and each other in ways

The plants, birds, and insects highlighted on this page are just a few of the hundreds of species that live in the wetlands. Each of these species thrives in the special environment provided by wetlands and they all have beneficial relationships within the ecosystem. Some of the relationships may surprise you!

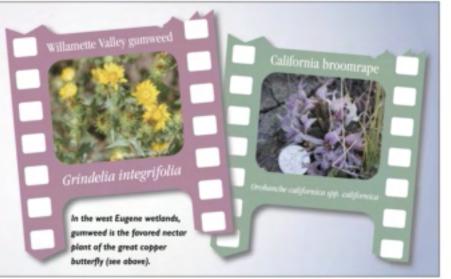
Visit www.ci.eugene. orus/parks/wetlands for more information about the restoration efforts in the west Eugene wetlands.

Wetland Connections: Relationships villow-leaved dock in the wetlands is important to the survival to many other species. great copper butterfly peregrine falcon Lycaena xantboides Falco peregrinus It may look like to a weed to the untrained eye, but willowleaved dock is a plant that plays a crucial role in the life of many other species. Recently, researchers made a startling discovery The seeds of the willow-leaved dock are a popular food in the west Eugene wetlands. After 30 years with no confirmed for green-winged teal, one of the most numerous waterfowl is the Willamette Valley. The teal are a favorite prey of the peresightings in the Willamette Valley, the great copper butterfly has been rediscovered in the wetlands and the willow-leaved dock grine falcon, now making a comeback from near extinction in the is thought to be a major host plant for the butterfly. For more western United States. While the peregrine falcon does not have a direct relationship with the dock plant, the indirect benefit this information about the great copper and other butterflies in Lane County, visit the Eugene/Springfield Chapter of the North plant provides by supporting the green-winged teal is valuable American Butterfly Association at www.noba.org/chopters/noboes. and significant.

A curious relationship...

Willamette Valley gumweed (left) and California broomrape (right) have a very unique relationship. Willamette Valley gumweed is the host plant for California broomrape, a root parasite that cannot survive without nutrients and water derived from the roots of its host plant. Root parasites often have beautiful flowers, and broomrape is no exception. Broomrape's pale-colored fleshy flowers push up out of the ground without the typical stem and leaf structure common in most plants.

Considered rare in Oregon, the California broomrape is uncommon in west Eugene, but will eventually benefit from wetland restoration as populations of Willamette Valley gumweed increase and spread.



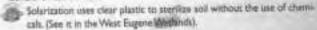


SUSTAINABILITY IN PARKS MAINTENANCE

Did you know that the last time you visited one of Eugene's parks or natural areas you were surrounded by sustainable mantemanus practices and productal Now some of you may be wondering. "What's the big deal! Many sustainability practices have been around for years."

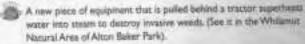
In many instances, you're right. The City's Parks and Open Space Division has been involved in protecting the community's resources long before the recent interest in sustainability. Some of these practices include using compost to enrich soil, planting trees to filter our arrand water, and developing a successful integrated pest management (IPM) program.

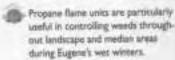
However, many of our sustainable maintenance practices are new and innovative and may not be well known to citizens. Did you know we are experimenting with the following to control invasive weeds?



Hot foam, a new posticide-free weed control technique, uses very hot water mixed with air, com sugar and coconut oil to insulate and theraffy cook the weed down to its roots. The hot foam has been successfully used on most at Skinner Butta Park as well as on my and other weeds at Washington-jefferson Park. Scobert Park, Hays Tree Garden, Hendricks Park, and the Cuthbert Amphitistatre.







Controlled burns in natural areas reduce invasive species, enhance the soil, and promote the regeneration of native plants, oil through a natural process.

Basides weed control, we are currently using many other sustainable methods to protect our natural resources:

A computerized errigation system measures temperature, humidity rainful, and wind speed in all of our purks and allows staff to fine-tune the amount of water that each park receives from a central computer.

Sheet mulching is an easy way to create a weed barrier and exprove the soil. To start, lay down 4 to 6 sheets of newspaper over the planting area. Then, and 3 to 4 inches of compost and 3 to 4 inches of leaf mulch on top of that and plant directly.

Green wester from landscape and surf maintenance, so well as leaves from parks and streets, is coreposted.

Bio-desel furi is used to power our entire feet of denepowered equipment.

Scolaim mixes; a mixture of drought-colerant species, are used on park landscapes to reduce the need for water.

Vegetable of is replacing hydraulic fluid in all parks maintenance equipment.

For more information about these sustainable maintanance practices, call 682-4900.





