Wetlands Update

A publication of the Oregon Division of State Lands

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DSL Wetlands Program is 10 Years Old July 1999!

Senate Bill 3 (SB 3), a comprehensive wetlands conservation bill, created the wetlands program at the Division of State Lands (DSL). SB 3 was developed by consensus and was passed unanimously by both houses of the 1989 legislative session. We celebrate our 10-year anniversary by recognizing that achievement and those who made it happen. It seems even more remarkable today!

What Were the Aims of the Bill?

The first issue of *Wetlands Update* (1990) was devoted to introducing the new program. We can look back to that issue for a "non-revisionist" view of what inspired the effort. "The (consensus) group was formed in response to mounting concern over the delays and inequities in current state and federal regulatory programs, conflicts between those programs and local comprehensive plans, and the lack of protection afforded to Oregon's remaining wetland resources by either regulation or planning." In addition, it was noted that ". . . the new law strikes an appropriate and workable balance between conservation and development, reinforcing our belief that Oregon can enjoy both effective resource protection and needed economic development."

Key Elements Emphasize Information and Integration

Policy Findings and Directives

The legislative findings stress the importance of wetlands and note the problems that result from uncoordinated regulations. The legislation also set several policy directives, including: maintain the state's wetland resource base; better integrate local, state, and federal wetlands programs; reduce regulatory delays and uncertainties; develop wetlands inventories and public information; and promote nonregulatory wetland protection and restoration mechanisms.

Statewide Wetlands Inventory (SWI)

The group recognized the need for more detailed wetlands inventories for both wetland planning and regulation, and also the need for clear, consistent inventory standards. The bill required DSL to develop and maintain a statewide wetlands inventory that would meet these needs.

Wetland Land Use Notification

Because local zoning designations rarely reflect wetland presence (few cities had completed wetland planning under Goal 5), one of the local-state coordination requirements of SB 3 was a Wetland Land Use

Continued on next page

An Oregon Yankee in the Southeastern Swamps

Volume 9 of Wetlands Update *never materialized; it languished while the editor enjoyed a 10-month "sabbatical" in the South Carolina low country. For a wetland scientist, there's nothing quite like paddling a canoe through an old-growth bald cypress and tupelo swamp or watching alligators sun themselves under red maples chock full of nesting herons, egrets, anhingas, and ibis! But, so much for that easy living—on with Volume 10!*

Notification process. Cities and counties are required to check their SWI maps when they receive a land use application, and if it appears the activity might affect mapped wetlands, provide the information to DSL. That allows DSL to contact the applicant regarding any necessary wetland permit requirements.

Who Made it Happen, and Where Are They Now?

Ken Bierly—the original wetlands program manager—was the inspiration behind SB 3. Ken, now Governor's Watershed Enhancement Board Program Manager, recognized the need and led the consensus group. In 1992, Ken was honored with a national achievement award by the Environmental Law Institute, due in part to this major legislative achievement.

John Kitzhaber—Chair of the Senate Water Policy Committee at the time—sponsored the bill and was instrumental in shepherding the bill through the legislature. Everyone knows where he is now.

Martha Pagel—then Director of DSL—provided support and encouragement throughout the process. She is now Director of the Water Resources Department.

Pam Wiley—then Deputy Director—worked side by side with Ken on the consensus group and through the legislative session and never doubted the importance of the effort. Pam is now self employed.

Consensus Group Members—the people who made it happen and their affiliation at the time, if not now:

Vic Affolter	Tillamook County
Bob Cortright	Department of Land Conservation and Development
Douglas DuPriest	Oregon Environmental Council
Bob Frenkel	Oregon State University
Jacque Greenleaf	Senate Water Policy Committee
Scott Hayes	Department of Forestry
Rosemary Mannix	Department of Forestry
Mike Houck	Portland Audubon Society
Mike McKillip	City of Tualatin
Dennis Peters	U.S. Fish & Wildlife Service
Jay Rasmussen	Oregon Coastal Zone Management Association
Steve Schell	Columbia Corridor Association
Lorna Stickel	Multnomah County
Larry Trosi	Oregon Farm Bureau
Phil Ward	Department of Agriculture
Steve McClelland	Department of Agriculture
Jill Zarnowitz	Department of Fish and wildlife

There were, of course, many others who were generous with their expertise and support!

Wetland Conservation Plans

WCPs were conceived as a means to better integrate local comprehensive plans with state and federal regulations. Benefits would include more certainty for landowners regarding their development options, speedier permitting, and better wetland resource protection. WCPs are an alternative to protecting wetlands through the Goal 5 process.

General Authorizations

SB 3 authorized DSL to issue, by rule, general authorizations for categories of activities determined to have minimal individual or cumulative environmental effects. The goal was to streamline the regulatory process for these activities.

Agricultural Exemptions

SB 3 amended the removal-fill law to specifically exempt normal farming and ranching activities on lands already used for those purposes.

What's Been Accomplished?

Statewide Wetlands Inventory—the SWI is based on the National Wetlands Inventory (NWI). The NWI is now complete for Oregon and efforts are underway to upgrade the older (1970s) Coast Range and south coast maps and digitize the NWI statewide. Each city and county received a set of NWI maps and DSL held numerous workshops around the state to train local planners to use the maps. These workshops are still offered. Local Wetlands Inventories, described below, are part of the SWI.

Local Wetlands Inventories—in 1990, DSL adopted guidelines and rules for conducting Local Wetlands Inventories (LWIs) within urban growth boundaries. LWIs are conducted by wetland consultants for cities completing wetland planning under Statewide Goals 5 (Natural Resources) or 17 (Coastal Shorelands). LWI maps also provide important information for other planning purposes, such as stormwater management or open space planning.

Wetlands are mapped on a parcel base map and a wetland function and condition assessment is conducted. Wetlands program staff work closely with cities and consultants to ensure that the LWIs are thorough and conducted according to standards. Approved LWIs replace the more general NWI maps and are part of the statewide wetlands inventory.

Wetland Land Use Notification—DSL staff handle approximately 500 wetland notices each year. We have found this process to be effective in alerting landowners as early as possible to any wetland permits that might be needed, thus preventing delays or accidental violations. As needed, wetlands staff contact the developer and visit the site to help the developer avoid wetland impacts or start the wetland permit process. Despite the benefits of this program, compliance by local governments is uneven.

Wetland Conservation Plans—despite the high hopes for Wetland Conservation Plans (WCPs), only one has been completed and approved by DSL. The West Eugene Wetland Plan, approved in 1993, has provided a framework for wetland conservation and appropriate development. The mitigation bank program adopted as part of the plan has proven highly successful. More than 2,000 acres of wetlands in west Eugene have been permanently acquired and protected since the plan was adopted.

General Authorizations—streamlined permitting rules have been adopted for erosion control projects; road construction projects; fish habitat enhancement; wetland enhancement and restoration; and sediment removal from channels behind tidegates. Each GA includes specific conditions that must be met. The turnaround time for issuing most authorizations is about 15 days.

Program Development—the wetlands program has initiated many research or program development activities aimed at achieving the policy goals set out in SB 3. We thank EPA for funding all or part of many of these projects. A sample of projects includes:

- Developed and adopted *Oregon's Wetland Conservation Strategy* (1995)
- Developed the *Oregon Freshwater Wetland Assessment Methodology* (1993; 1996) for use in wetland planning
- Initiated and developed, with Oregon State University, *Recommendations for a Nonregulatory Wetland Restoration Program for Oregon* (1997)
- Provided pass-through grants to more than 40 cities for LWI and wetland planning work
- Explored regulatory streamlining options aimed at reducing state-federal overlap (currently testing programmatic general permit option in Linn and Douglas counties)
- Initiated the study and published the report *Wetland and Land Use Change in the Willamette Valley, Oregon, 1982–1994* (1999)
- Developed rules for cities to use to identify significant wetlands under Goal 5 or 17 (as directed by the 1995 legislature)

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Local Wetlands Inventories Approved by DSL

Albany
Bay City
Beaverton
Cannon Beach
Clackamas County North Urban Area
Gearhart
Corvallis
Dunes City
West Eugene
Florence
Forest Grove
Grants Pass
Happy Valley
La Grande
La Pine
Lincoln City
Philomath
Prineville
Reedsport
Rockaway Beach
Sandy
Scappoose
Sherwood
Springfield
Stayton
St. Helens
Tigard
Tillamook
Toledo
Tualatin
Veneta
Warrenton
Wilsonville

Local Wetlands Inventories in Progress

Clatskanie
Coburg
Jacksonville
Lakeside
Oregon City
Port Orford
Salem/Keizer
Seaside
Silverton
Sweet Home
Talent
Turner
Vernonia
Waldport
Woodburn

- Sponsored research on hydric soils, and on migratory waterfowl and shorebird use of farmed wetlands in the Willamette Valley
- Developing the Oregon Wetland and Riparian Hydrogeomorphic Assessment Project (see insert for update on this effort)

Public Information and Training—the wetlands program has placed a high priority on providing information and wetland training since the very beginning. We've published *Wetlands Update* more or less continuously since that first issue in 1990 and developed a series of Fact Sheets. We've held numerous wetland identification and functional assessment workshops, and we conduct training for local governments on a regular basis. Staff also assist with training sponsored by other groups such as OSU Extension (see story page 9) and the Pacific Northwest Chapter of the Society of Wetland Scientists.

Challenges for the Next Decade

Despite significant accomplishments, many of the goals of SB 3 are long-term goals that require ongoing effort. For example, providing public education on wetlands and working to improve wetland science and management strategies are continual needs. Nonetheless, here are a few efforts we anticipate will be high priority over the next decade:

- Better integrate wetland and riparian corridor protections into local transportation, stormwater management, and other land use planning efforts
- Develop a nonregulatory wetland restoration component of the DSL wetlands program
- Develop a statewide framework for prioritizing wetland restoration efforts
- Improve scientific basis of wetland management through efforts such as HGM development (see insert in this issue)
- Improve effectiveness of removal-fill permit program—and reduce unnecessary burdens on landowners—through continued efforts to streamline permitting and make good use of mitigation banking and similar options ■

Lisa Hemesath Joins Wetlands Program

Just about the time the winter rains began in earnest, Lisa Hemesath accepted a position at DSL, donned her raingear, and moved from Iowa to Oregon. Lisa took on the wetlands technician position vacated by Mary Pakenham-Walsh, who took a position with Clark County, Washington, and will be entering graduate school this fall at U.C. Davis.

Lisa brings with her a solid background in natural resource management. She received her bachelor's degree in biology from the University of Iowa and a master's degree in wildlife biology from Iowa State University. Her master's research was on wildlife use of restored prairie pothole wetlands. Before coming to DSL, Lisa worked with the non-game program at the Iowa Department of Natural Resources. Prior to that, she worked for the U.S. Fish and Wildlife Service in Mississippi evaluating potential impacts of water resource development projects and recommending approaches to impact mitigation.

Lisa is responsible for the wetland land use notice process and assists with technical review of wetland delineation reports submitted to DSL. She also handles the lion's share of wetland determination assistance to local governments and the general public. Lisa has already made significant contributions to the program and we feel fortunate to have her join us. You may reach Lisa at extension 295 or by e-mail at lisa.hemesath@dsl.state.or.us. ■

Study Shows Continued Wetland Loss in Willamette Valley

Like many states, Oregon has adopted policies aimed at halting the long-term trend of wetland losses. Comprehensive wetland legislation passed in 1989 (see article on page 1) established a policy directive that the state maintain the wetland resource base. In addition, the Oregon Benchmarks program set a goal of maintaining the state's 1990 wetland resource base. The Division of State Lands (DSL) is responsible for monitoring and reporting on progress toward that goal.

In order to evaluate the effectiveness of state and federal programs that address wetlands, DSL initiated a study of recent wetland trends in the Willamette Valley. Previous studies focused only on compliance with permit conditions. Such studies are important for program evaluation, but they do not provide a complete picture because many activities that convert wetlands are exempt from regulations and many violations are never reported.

Although some wetland status and change information is available on a national basis through the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) and the U.S. Department of Agriculture's National Resources Inventory, neither of those programs provides the sample sizes or level of detail we needed.

Our primary objectives were to identify the extent and nature of wetland changes over the past decade and identify the land uses associated with wetland losses. By identifying the specific causes of wetland losses, we can evaluate existing programs and work to make the adjustments needed to maintain the state's wetlands, as directed by the state legislature.

Willamette Valley Selected for Study

The Willamette Valley was selected for the study because of its importance to the economy of the state and the high degree of alteration and wetland loss it has experienced. The Willamette Valley has been subjected to significant historic alteration due to flood control measures on the Willamette River and its tributaries, and to conversion of wetlands for agriculture, urbanization, and forestry. The Willamette Valley contains nearly 70 percent of Oregon's population and accounts for 75 percent of the state's economy. Continued population and economic growth will continue to put pressure on the valley's remaining wetlands.

Study Methods

A stratified systematic sampling method was chosen for this project. The sample was drawn to accurately represent the relative extent of urban, agricultural, and forested landscapes in the valley bottom. The final sample was comprised of 114 square mile sections (plots), which statistically represented the 3,195,391-acre study area.

A skilled aerial photo interpreter with the U.S. Fish and Wildlife Service (FWS) mapped all wetlands, deepwater habitats (lakes and rivers), and uplands on the sample plots overlaid on 1982 aerial photographs. Mapped wetlands and uplands were classified according to type. Wetlands were classified by the same method used for the National Wetlands Inventory—for example, forested, emergent, and farmed wetlands were differentiated. Uplands were classified as urban, rural development, agriculture, forest plantation, or other (land use unknown). Changes between 1982 and 1994 were mapped on the 1994 aerial photography. The 1982 maps and 1994 changes were digitized into a geographic information system for analysis.

Land Cover Status in 1982

Based on the statistical sampling and aerial photo interpretation, wetlands comprised

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approximately 8.5 percent of the 3,195,391-acre study area and deepwater habitats comprised about 5 percent. Palustrine forested was the most extensive wetland type (91,303 acres), followed by palustrine emergent (79,252 acres) and palustrine farmed (73,873 acres). Upland agriculture was the dominant land use in the valley (50 percent).

Wetland Gains

During the study period, 2,863 acres of upland were converted to wetland (1 percent of the 1982 wetland area). The largest wetland increase was into palustrine unconsolidated bottom, primarily farm ponds and stock ponds. There was also a gain of 663 acres of palustrine farmed wetland from upland agriculture, possibly due to lack of maintenance of aging drainage systems. Upland agriculture was the source for 75 percent of all wetland gains.

Wetland Losses

By 1994, 9,412 acres (3.5 percent) of the 1982 wetlands were converted to upland or deepwater habitat. The largest loss of wetland type occurred in palustrine emergent (5,188 acres, or 55 percent of the total loss). Palustrine forested wetlands decreased by 2,495 acres. Conversions to upland agriculture were accountable for the largest losses of all wetland cover types (69 percent of total wetlands loss). Wetland conversion to developed land cover types—upland built and upland rural development—accounted for 17 percent of the total wetland loss.

Net Wetland Losses

Wetland gains were offset by wetlands losses, resulting in a net loss of 6,877 acres of wetlands to upland land uses (2.5 percent of the total 1982 areal wetlands). The table below and figure 1 on the next page show the sources of net wetland loss to upland land uses. The primary cause of wetland loss was attributable to upland agriculture at 4,363 acres, or 64 percent of the total net wetland loss. There was a net wetland loss of 1,585 acres to upland built and upland rural development, together representing 23 percent of the loss to upland. Upland other and upland forest plantation accounted for 11 percent and 2 percent, respectively.

Wetland-to-Wetland Classification Changes

Changes between types of wetlands were substantial (17,206 acres) and reflect both natural changes, such as succession from emergent to shrub wetland, and human-induced changes, such as forested to emergent wetland resulting from timber harvest. From a program evaluation perspective, of course, the human-caused changes are of the most interest. Although these changes do not result in a gain or loss of wetland acreage, some will cause a change or loss of certain wetland functions.

The largest wetland change was from palustrine farmed to palustrine emergent (8,708 acres). Two plots accounted for much of this change—one contained an abandoned farm field incorporated into a new National Wildlife Refuge (but not yet intentionally restored); the other captured an agricultural wetland converted to a wetland sewage treatment project. Another relatively large change of 2,074 acres from palustrine forested to palustrine emergent is notable because the conversion of forested habitats, both wetland and upland, remains a concern in the Willamette Valley. Also notable from a program perspective was the 260-acre

Sources of Willamette Valley Net Areal Wetland Losses and Gains

	Net Loss		Wetland Loss		Wetland Gain	
Upland Land Cover Type	(acres)	(%)	(acres)	(%)	(acres)	(%)
Upland Agriculture	-4,363	(64)	-6,510	(70)	2,147	(87)
Upland Rural Development	-1,009	(15)	-1,018	(11)	9	(1)
Upland Other	-774	(11)	-1,077	(12)	303	(12)
Upland Built	-576	(8)	-576	(6)	0	(0)
Upland Forest Plantation	-155	(2)	-155	(1)	0	(0)
Total	**-6,877**	**(100)**	**-9,336**	**(100)**	**2,459**	**(100)**

change from palustrine forested and palustrine scrub/shrub to palustrine farmed, which, though not large in acreage, indicates continued conversion of forested wetlands to agricultural production. Similarly, 64 miles of palustrine forested linear wetlands were converted to palustrine emergent, indicating loss of riparian wetland habitat along small streams.

Follow-up Study Found Uneven Regulatory Compliance

Once the main wetland change study was completed, DSL conducted a follow-up study of the regulatory compliance aspects of the wetland changes found during the initial study. In order to evaluate the role and effectiveness of state regulations, we needed to know the extent to which changes that should have been regulated were regulated. We hired Joel Shaich, who has considerable experience with both the state and federal wetlands programs and with regulatory compliance evaluation, to sort out the changes in regulations over the study period and determine which wetland changes were subject to regulation at the time they occurred. This involved three main steps:

1) Determine a more precise date for the wetland change
2) Determine whether the change was subject to regulation
3) Determine whether a required permit was obtained

Based upon the study samples, we found that 70 percent of the wetland changes subject to state permit requirements (representing 7,450 acres) occurred without a permit, in apparent violation of the removal-fill law. Most (66 percent) of the wetland alterations for urban and rural development that required a permit got a permit; all of the wetland enhancement projects had a permit; and none of the wetland conversations for agricultural expansion that required a permit had a permit (figure 2).

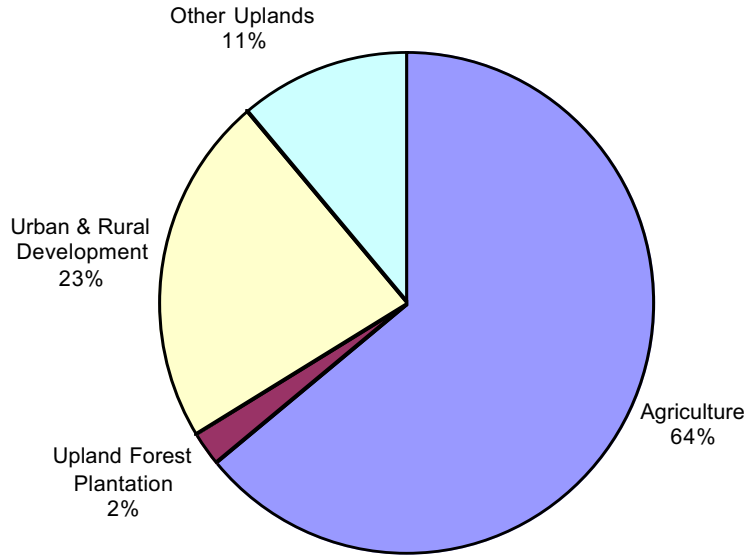

Figure 1: Sources of Willamette Valley Net Wetland Loss, 1982–1994

Some Perspectives on the Study Results

The primary purpose of this study was to examine recent wetland trends in the Willamette Valley. The main finding is that wetland losses continue—at a rate of 546 acres per year, on average—despite regulations, restoration programs, and policies designed to curb wetland losses.

It must be noted, however, that the time period covered by the study—the mid-1980s to the mid-1990s—was a period when many changes in state and federal wetland policies occurred. At the state level, Oregon passed SB 3 in 1989, which strengthened wetland regulation under the existing Removal-Fill Law and established state policies and programs aimed at maintaining the state's wetlands. At the federal level, similar policies and programs were adopted. Most important, perhaps, Congress enacted farm bill revisions that ended decades of federal subsidies for conversion of wetlands to crop land and implemented new, voluntary incentive programs for wetland restoration. A follow-up study covering the next decade (1994 to 2004) would provide additional

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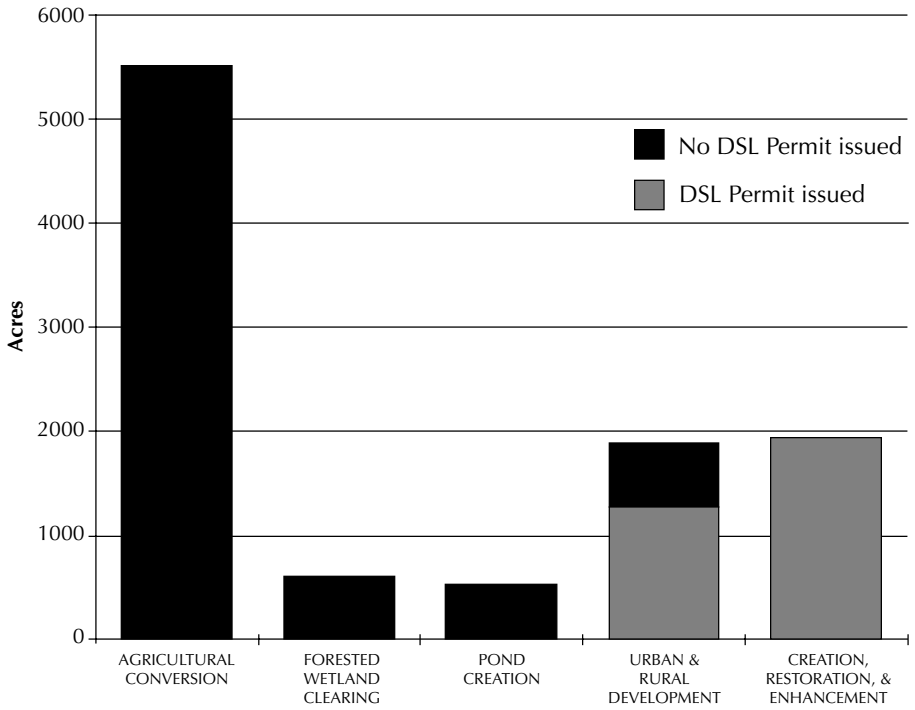

Figure 2: Land Use Activities Subject to DSL Permit Requirements

insight into the effects of these programs and policies.

Another significant finding of this study—that agriculture is the main cause of recent wetland loss in the Willamette Valley—is consistent with the draft FWS *National Status and Trends Survey*, which reported that 79 percent of wetland losses in the United States between 1985 and 1995 were attributable to agriculture. DSL's follow-up study indicates that, at least in the Willamette Valley, this type of conversion goes largely unregulated.

While this study documents the aerial extent of wetland changes in the Willamette Valley, it does not address changes in wetland quality. As urban and agricultural development increase, the quality of wetlands can be expected to deteriorate as a result of increased sedimentation, water pollution, hydrologic alteration, and fragmentation. This, in turn, will reduce the ability of these wetland systems to cleanse water, absorb floodwaters, and support wildlife and fish. Our challenge for the future is to identify the most effective combination of wetland management strategies that will ensure the maintenance of these important aquatic system functions over the long term. ■

The final report, *Wetland and Land Use Change in the Willamette Valley, Oregon: 1982 to 1994*, can be obtained free from DSL.

Wetlands Training for Watershed Groups Underway

Port Orford was the site for the first "wetlands for watershed councils" training in April, 1999, conducted by Oregon State University (OSU) Extension Sea Grant and DSL. The training is based on the OSU Extension Service publication, *Watershed Stewardship: A Learning Guide*.

Training sessions focus on wetland identification and classification, assessing wetland functions, using the National Wetlands Inventory (NWI) maps, and using historic documents and maps to help evaluate wetland restoration opportunities and set goals. Each of the workshops includes a field trip to examine wetlands in the area and discuss restoration options. Jim Good, Extension Sea Grant coastal resources specialist, and Janet Morlan, wetlands team leader at DSL, comprise the wetland training team, along with local area watershed coordinators.

Contact Jim Good for more information about workshops at good@oce.orst.edu

Port Orford watershed council members learn to use NWI maps.

Watershed Stewardship: A Learning Guide (EM 8714) can be ordered from OSU Extension and Experiment Station Communications for $32.00 by calling 541-737-2513, or by e-mailing puborders@orst.edu. ■

Wetlands Information at Your Fingertips

Division of State Lands	www.dsl.state.or.us
Society of Wetland Scientists	www.sws.org
Corps of Engineers	www.usace.army.mil
U.S. Fish & Wildlife Service:	www.fws.gov
U.S. Fish & Wildlife Service, National Wetlands Inventory	www.nwi.fws.gov
Association of State Wetland Managers	www.aswm.org
Natural Resources Conservation Service	www.nrcs.usda.gov
U.S. Geological Survey	www.usgs.gov
EPA Office of Wetlands, Oceans & Watersheds	www.epa.gov/OWOW
USDA Wetland Science Institute	www.pwrc.usgs.gov/WLI
Wetland Delineation Manual	www.wes.army.mil/el/wetlands/pdfs/wlman87.pdf
Oregon Wetlands Joint Venture	http://wetlands.dfw.state.or.us

Planners' Page

Wetland Planning Assistance

DSL Wetlands Program staff devote a considerable amount of effort toward assisting local governments with their wetlands inventory and planning responsibilities. That effort includes:

- Financial assistance by way of EPA-funded pass-through grants to local governments
- Direct assistance with inventory and quality assessment work and with public meetings
- Manuals, guidelines and standards that take some of the mystery and uncertainty out of the process and help to ensure high quality, consistent results

To our dismay, after 8 years of funding Local Wetlands Inventories (LWIs) and planning through DSL, EPA has informed us that they will no longer provide financial support for this effort. Their reasoning is sound—that the state should support the effort—but state funds are very limited. Some assistance is available through the Department of Land Conservation and Development (DLCD). Also, some Oregon Plan for Salmon and Watersheds funds have been made available for wetlands and riparian inventories and planning.

DSL is pursuing alternative funding sources and strategies. In the meantime, here are some approaches that can help:

- Combine wetlands and riparian inventories with stormwater management planning—after all, they are related!
- If yours is a small community, provide the mapping support and DSL will provide the field expertise. (We figure the time saved in grant management and project oversight can be spent doing the work ourselves—we'll see!)
- Apply for a DLCD planning assistance grant.

For advice or assistance, contact Dana Field, DSL wetlands planner (ext. 238), or phone your field representative at DLCD. Generally, questions about periodic review requirements and ordinances should go to DLCD, and questions about LWI requirements, functional assessment, and designating significant wetlands should go to DSL. DSL can also provide leads on qualified wetlands consultants with expertise in inventories, quality assessment, and ordinance development.

Riparian Inventory Status

Riparian planning requirements in Statewide Planning Goal 5 were substantially revised when the goal was amended in 1996. As the goal was being revised, we realized that there was an information void that needed to be filled in order for local governments to follow the "standard" inventory and assessment process. DSL teamed up with the Department of Fish and Wildlife and DLCD (again with financial help from EPA) to develop the *Urban Riparian Inventory and Assessment Guide* (1998). The guide was prepared by Pacific Habitat Services, Inc., a firm that had conducted several riparian inventories for local governments. The guide provides an easy-to-use approach for identifying the riparian corridor and assessing its water quality, flood management, thermal regulation, and wildlife habitat functions. It also includes a model ordinance developed by Tillamook County planners Tom Ascher and Greg Verret.

The riparian guide was developed quickly to meet the immediate need and is considered a draft method. Since that time, the guide has been used in several communities and DSL plans to convene a group of experienced users to recommend improvements for version 2. In addition, we hope to provide better guidance for local governments on the relative strengths and weaknesses of the safe harbor vs. standard approaches and what combinations best fit certain objectives. We'll keep you posted.

Even though riparian inventories aren't our "main thing" at DSL, it only makes sense to conduct wetlands and riparian

inventories and planning concurrently, treating them as the related aquatic systems they are. So we frequently provided funding and technical assistance for riparian inventories along with wetlands. However, unlike with wetlands inventories, we have no formal approval authority for riparian work, and your main point of contact for riparian planning requirements should be your DLCD field representative.

Workshops for Local Governments

Would your staff benefit from a workshop on the Endangered Species Act, its effect on permitting, and regulations affecting essential salmonid habitat streams? DSL has teamed up with the Corps of Engineers, the National Marine Fisheries Service, and the Department of Fish and Wildlife to provide informational workshops that we can tailor to the needs of your planning and public works departments. Workshops will also cover some basics on wetland identification, wetlands inventories, and the wetland land-use notice process that is required of all local governments. For more information, call Steve Morrow at extension 297.

NWI Map Upgrades

For years, local governments whose jurisdiction includes the Coast Range or the south coast have struggled with old, outdated National Wetlands Inventory maps that are very small scale (1:62,000) or are available only as "overlay" maps that must be laid over a USGS topographic map to be used. Gradually, with financial help from EPA, the Corps of Engineers and others, these areas are being remapped and brought up to standard. Our immediate goal is to complete this process and have a uniform quality, 1980s era inventory for the entire state (1,869 maps). Our second goal is to digitize the entire NWI. At present, digital maps exist for most of the Willamette Valley, a strip of maps along the Columbia River and a few other areas (primarily National Forests).

Map status and digital maps can be accessed via the U.S. Fish & Wildlife Service, National Wetlands Inventory Web site at www.nwi.fws.gov. For information on map upgrades in progress or any other Oregon wetland map questions, contact Annette Lalka at extension 233 or Dennis Peters, Regional Wetlands Coordinator for the NWI, at 503-231-6154. ■

DSL Awards Wetland Planning Grants to Four More Cities

Sweet Home, Coburg, Vernonia, and Turner are beginning new wetland planning efforts thanks to Wetland Inventory and Planning Grant funds made available to DSL from the Environmental Protection Agency (EPA). These cities will be the last ones funded by EPA through the state wetland program development grants.

Each city will develop a Local Wetlands Inventory (LWI), conduct a functional assessment of each inventoried wetland, and determine which wetlands are significant according to rules adopted by DSL. A riparian inventory will be conducted at the same time.

Cities are required under Statewide Planning Goal 5 (Natural Resources) to develop a LWI and a protection program for significant wetlands. Because wetlands are also regulated by the state and by the Corps of Engineers, LWIs have proved invaluable for landowners and developers who need to know what areas are subject to regulation. The inventory is also an important source of information for other local government activities like stormwater management and transportation planning.

DSL wetlands program staff have been working closely with these four communities to launch their projects and will continue to work with them to ensure that the results are accurate. The inventory and assessment process takes 12 to 18 months, and at least two public meetings are held—one at the beginning and another when draft maps are ready for review.

Staff contacts for these planning efforts are:

Sweet Home—Janet Morlan (ext. 236)

Coburg—Annette Lalka (ext. 233)

Vernonia—Annette Lalka

Turner—Dana Field (ext. 238)

For more information on LWI requirements or those completed to date, contact Annette Lalka.

Who Am I?

What is the only genus of flowering wetland plants in which aerial, floating, and subsurface pollination systems have been reported?

That ever-popular contest for wetland factoid geeks

Winners will receive fame and a wonderful waterfowl poster.

Rules

1. Winning entries are the first three correct answers received by U.S. Mail at DSL.
2. Latin name is required.

Mail entries to:

Janet Morlan, Division of State Lands
775 Summer Street NE
Salem, OR 97310

Watch for winners and solutions in the next issue of *Wetlands Update*.

And now, the fame that's due to the winners of the last contest! Ethen Perkins, Deborah Lev, and John Edge each came up with different and correct answers to this quiz:

Name a native Oregon plant genus that, by adding two more letters, gives you another native genus.

- Ethen noted that *Fasera* + "n" and "i" becomes *Franseria*
- Deborah found that *Agrostis* + "e" and "r" becomes *Eragrostis*
- And John, our favorite plant poet, offered this answer:

You pose another riddle based on plant taxonomy
and again I turn to verse for my reply,
"adding two more letters"—like splicing DNA—
but where, your riddle didn't specify.
Hence I turned me to my *Flora* with my magnifying glass,
poring through the index like I had a mania,
And I found a wetland forb that becomes a wetland grass:
Zizia + an = Zizania!

Wetlands Update

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