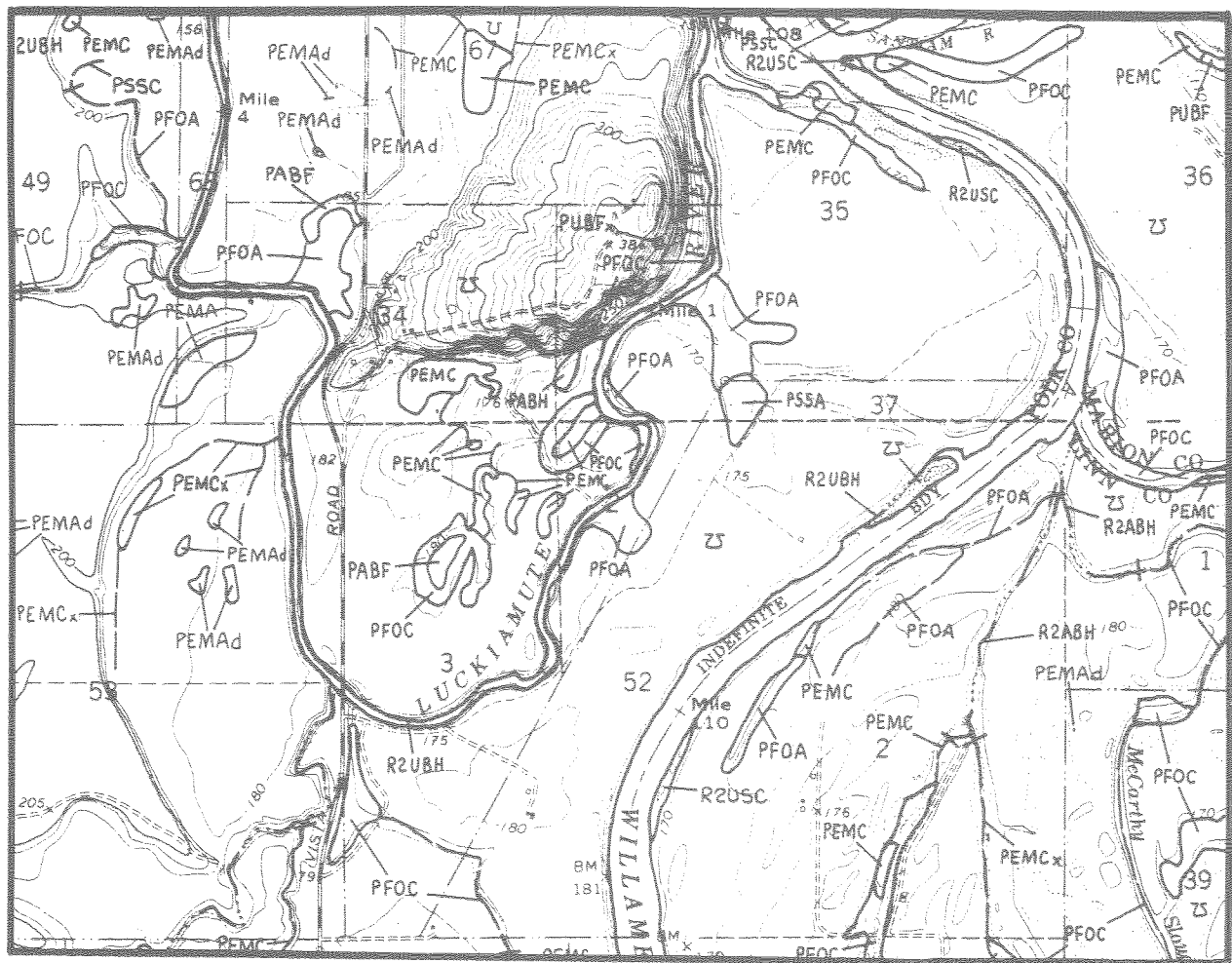


WETLANDS INVENTORY USER'S GUIDE

National Wetlands Inventory and Local Wetlands Inventories



Oregon Division of State Lands
Wetlands Program

Introduction to Oregon's Statewide Wetlands Inventory

In 1989, the state legislature directed the Division of State Lands (DSL) to develop and distribute a statewide wetlands inventory (SWI). The SWI was to be based upon, but not limited to, the National Wetlands Inventory discussed below. DSL was required to develop and adopt standards for wetland identification and mapping and also to provide the SWI to local governments and the public.

Much of this work has been done, but detailed wetlands inventories remain to be done in many communities and those that have been completed must be periodically updated. This guide will introduce you to the SWI, how to obtain and use the SWI products, and how to obtain additional information about Oregon's wetlands.

The SWI consists of two elements:

1. The National Wetlands Inventory (NWI) that covers the entire state; and
2. Local Wetlands Inventories (LWI) of much greater detail that cover many cities, usually the entire urban growth boundary

Each of these elements will be discussed separately in this guidebook.

DSL is the state distribution center for major NWI map products as well as LWI maps and associated documents. In addition, DSL maintains a "library" of wetland determinations that have been conducted on specific parcels. DSL provides guidance (and standards, where appropriate) to local governments, wetland consultants, developers and others with an interest in conducting or using SWI products (see Information Sources, page 14).

What is the National Wetlands Inventory?

In 1974, the U.S. Fish and Wildlife Service was directed to design and conduct an inventory of the nation's wetlands. The goal of the National Wetlands Inventory (NWI) is to establish a wetland database for the entire nation. This mandate came from a growing awareness that wetlands provide many ecological and social values, and that wetlands are disappearing at a rapid but poorly documented rate. The NWI is designed with two goals in mind:

1. Classify and map the nation's wetlands;
2. Develop statistics with which to evaluate wetland status and trends.

The NWI operational office is located in St. Petersburg, Florida. There are seven Regional Wetland Coordinators. The Region 1 coordinator is headquartered in Portland (see page 14 for address).

How NWI Maps are Produced

The NWI is based on aerial photography interpretation. There are six major steps in the production of finished maps.

1. Aerial photo-interpreter and regional wetland coordinator conduct preliminary field investigations of area to be mapped;
2. Photo-interpretation of high-altitude aerial photos;
3. Quality control review of photo-interpretations;
4. Draft maps prepared and distributed to federal and state agencies for review
5. Field verification of draft maps (limited);
6. Final maps produced.

The primary NWI products are 1:24,000 scale (7.5') maps of wetlands and deepwater habitats (streams, lakes) overlaid photographically on U.S. Geological Survey topographic base maps. They are called "composite" maps. Wetland "overlay" maps without any base map information are also produced. When the NWI was begun in Oregon, topographic base maps at the largest scale (7.5')—often called "quad maps"—were not available for the entire state. Where available, orthophotoquads were used as a base for the wetland overlays; if no base was available, only the wetland overlay or smaller scale maps were produced. Gradually, Oregon and federal agencies are cooperating to fund revision of older, poorer quality maps.

National Wetlands Inventory Limitations

Accuracy and Resolution

The NWI provides excellent nationwide and statewide wetland inventory products, but it is important to be aware of their limitations. The methodology and scope of work imposes some limitations on accuracy. Aerial photo-interpretation has an inherent margin of error. Also, wetlands are identified on aerial photos based on visible, recognizable features reflecting conditions at the time the photos were taken. For example, dense summer tree

cover may obscure small wetlands, or standing water may be absent in a dry year. Wetlands smaller than 2-3 acres may be missed, and regularly tilled agricultural wetlands were intentionally omitted as a matter of U.S. Fish and Wildlife Service policy.

Relationship to Regulated Wetlands

The NWI does ^{not} map all wetland subject to regulation, and not all wetlands or deepwater habitats that are mapped are subject to regulation.

The NWI is not intended to map regulated wetlands, in part because state and local wetland regulations vary widely over the nation. A note to that effect is included in the legend on all NWI maps. Also, the identification of most regulated wetlands requires on-the-ground vegetation and soil sampling.

In Oregon, waters of the state (includes wetlands) are regulated by DSL through the state Removal-Fill Law and waters of the U.S. by the U.S. Army Corps of Engineers through the federal Clean Water Act. The “Swampbuster” provisions of the federal Food Security Act (1985) as amended applies to agricultural lands and is administered by two federal agencies—the Natural Resources Conservation Service and the Farm Services Agency. Many local jurisdictions also place restrictions on activities in or near wetlands through zoning and land use regulations. Persons planning land modifications within or adjacent to wetlands and other water bodies should seek advice from the appropriate agencies (see page 15).

National Wetlands Inventory Uses

The NWI provides excellent information for a variety of planning purposes, including:

- As an initial wetlands inventory for large geographic areas to:
 - Determine areas where more detailed wetlands inventories or jurisdictional (regulated) wetland determinations may be needed
 - Provide a starting point for developing a more detailed LWI
 - Facilitate appropriate land use planning for stormwater management, transportation planning, urban growth boundary expansion, parks and open space etc.
- To identify the general location, extent and type of wetlands on a regional basis, such as a watershed or on tribal lands
- To determine if proposed land use activities may have an adverse impact on wetlands and streams, and to assist with developing alternatives that would lessen adverse wetland impacts
- To evaluate local and regional distribution of wetland types for compensatory mitigation planning in conjunction with state and federal wetland regulations
- To locate potential sites for educational or recreational activities such as birdwatching, plant identification and waterfowl hunting (remember to respect private property!)
- To identify opportunities for wetland restoration to reconnect fragmented wetlands
- To help identify wetlands for potential acquisition

How to Interpret NWI Maps

Classification Scheme

The *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979) was developed for the National Wetlands Inventory. The classification is printed as a legend at the bottom of each NWI map. The classification system is hierarchical, permitting the user to adopt various levels of detail. There are five **systems** at the most general level, which are subdivided into **subsystems** based on hydrologic conditions. The systems are described below; the first four include both wetlands and deepwater habitats (deep and permanently flooded), while the Palustrine system includes only wetland habitats. Below the subsystem level is the **class** level, which is based on vegetation or substrate (Figure 1).

Note: Subclasses are included in the map legend but are not mapped in the region that includes Oregon.

The classification system includes **modifiers** that can be applied at any level in the hierarchical system (Figure 2). These modifiers describe important characteristics of water regime, water chemistry, soils, and human alterations.

System Descriptions:

- Marine** Includes the open ocean overlying the continental shelf and associated coastline. Marine habitats are associated with open ocean waves and currents and little to no dilution of oceanic salinities.
- Estuarine** Includes deepwater tidal habitats, salt marshes, and tidal wetlands that are usually semi-enclosed by land; salinities are occasionally diluted by freshwater runoff.
- Riverine** River, creek and stream habitats contained within a channel, where water is usually but not always flowing. Riverine systems are usually unvegetated but may include nonpersistent emergent vegetation; Palustrine (persistent vegetation) wetlands are often adjacent to Riverine systems or contained within them as islands.
- Lacustrine** Lakes, reservoirs, and deep ponds. Typically there is an extensive area of deep, open water and wave action.
- Palustrine** These are the freshwater wetlands commonly referred to as marshes, bogs, and swamps. Included are wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and some non-vegetated wetlands that do not meet the criteria for Lacustrine wetlands.

Classification Codes

The classification of a mapped wetland is coded by a series of letters and numbers. The classification legend at the bottom of each map includes the alpha-numeric code (Figure 1). The first letter of the code represents the **system**, the subsequent number represents the **subsystem**, and the next two letters indicate the **class**. If a wetland contains two different classes, they are separated by a horizontal line (see third example, below). Modifiers may be a letter or a number (Figure 2).

Classification Examples

E2EM System: Estuarine (E)
 Subsystem: Intertidal (2)
 Class: Emergent (EM)

Typical Vegetation:

Lyngby's sedge (*Carex lyngbyei*)
Seaside arrowgrass (*Triglochin maritimum*)
Pickleweed (*Salicornia virginica*)
Saltgrass (*Distichlis spicata*)

PSSC System: Palustrine (P)
 Subsystem: none
 Class: Scrub-Shrub (SS)
 Modifier: Water Regime—Seasonally Flooded (C)
 Note: Palustrine system does not have subsystems (Figure 1)

Typical Vegetation:

Willow (*Salix sp.*)
Salmonberry (*Rubus spectabilis*)
Douglas spiraea (*Spiraea douglasii*)
Red-osier dogwood (*Cornus stolonifera*)

P^{EM}_{AB} Hx System: Palustrine (P)
 Subsystem: none
 Class: Mixed—Emergent (EM)/Aquatic Bed (AB)
 Modifiers: Water Regime—Permanently Flooded (H)
 Special—Excavated (x)

Typical Emergent Vegetation:

Cattail (*Typha spp.*)
Skunk cabbage (*Lysichitum americanum*)
Reed cnarygrass (*Phalaris arundinacea*)
Slough sedge (*Carex obnupta*)

Typical Aquatic Bed Vegetation:

Common duckweed (*Lemna minor*)
White water lily (*Nymphaea odorata*)

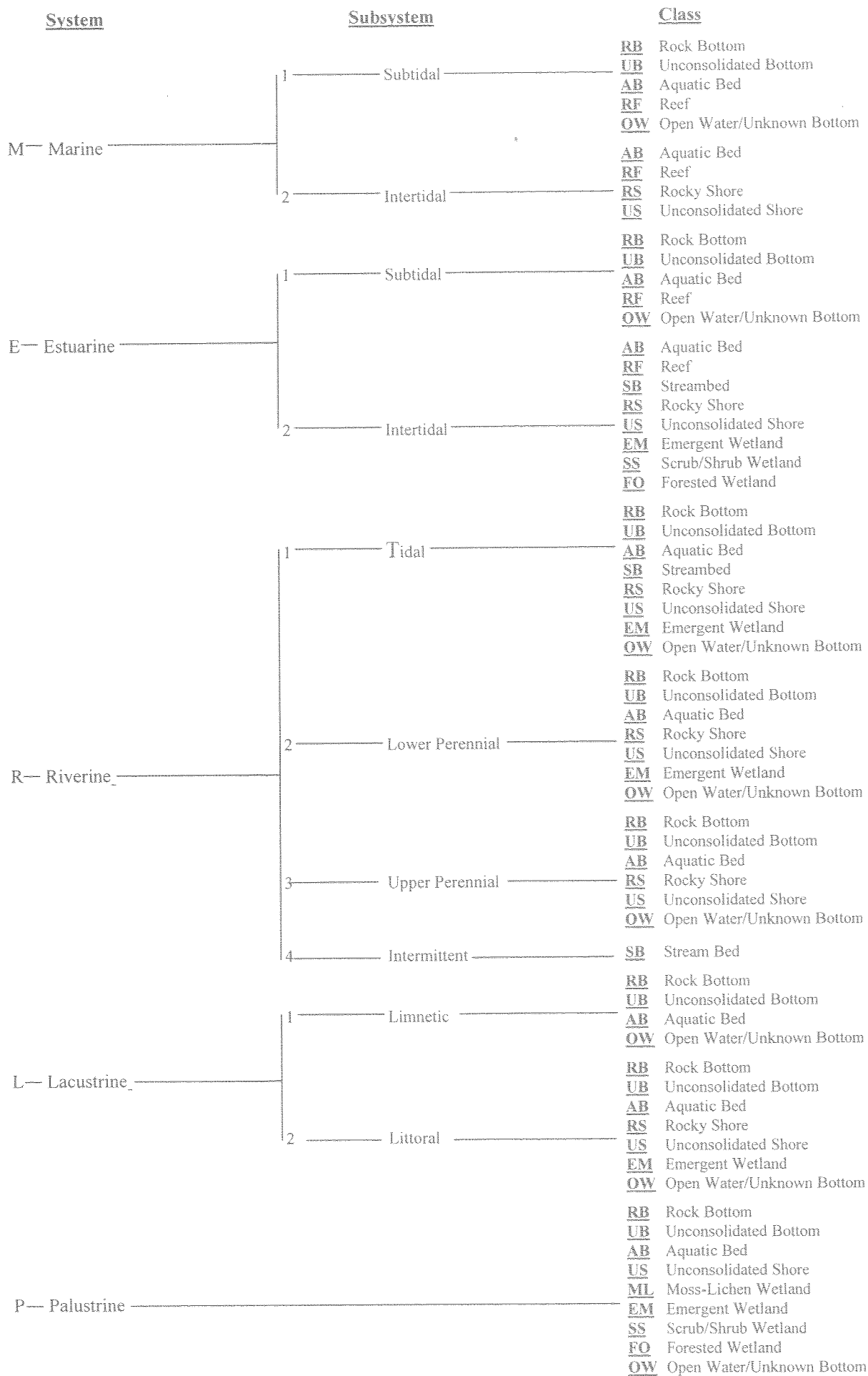


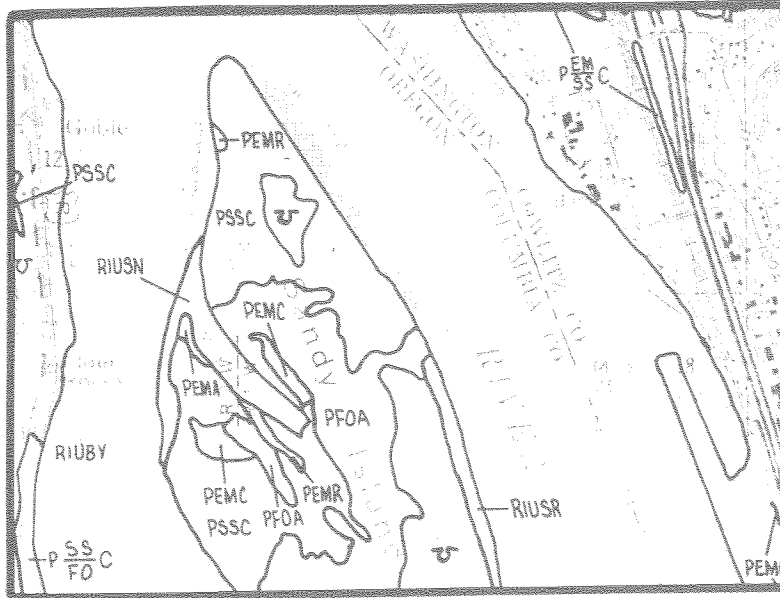
Figure 1. Classification hierarchy and map codes showing Systems, Subsystems and Classes (After Cowardin et al. 1979)

MODIFIERS			
In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system			
WATER REGIME		WATER CHEMISTRY	
Non-Tidal	Tidal	Coastal Halinity	Inland Salinity
A Temporarily Flooded B Saturated C Seasonally Flooded D Seasonally Flooded/ Well Drained E Seasonally Flooded/ Saturated F Semipermanently Flooded G Intermittently Exposed	H Permanently Flooded J Intermittently Flooded K Artificially Flooded W Intermittently Flooded/Temporary Y Saturated/Semipermanent/ Seasonal Z Intermittently Exposed/Permanent U Unknown	1 Hyperhaline 2 Eubaline 3 Mixohaline (Brackish) 4 Polyhaline 5 Mesohaline 6 Oligohaline 0 Fresh	7 Hypersaline 8 Euhaline 9 Mixosaline 0 Fresh
		pH Modifiers for all Fresh Water	
		a Acid t Circumneutral i Alkaline	
		b Beaver d Partially Drained/Ditched f Farmed	h Diked/unpounded r Artificial Substrate s Spoil x Excavated
		g Organic n Mineral	
		SPECIAL MODIFIERS	

Figure 2. Modifiers that may be added to classification code. The most commonly used are Water Regime and Special Modifiers

Map Symbols and Linework

Wetlands and deepwater habitats are represented as either polygons or, when too narrow to map as a polygon, as linear features. The classification code is placed within larger polygons, or attached to small polygons and linear features with a "lead line."

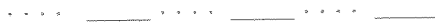


U = represents upland areas. The Columbia River example above shows a river island with small upland areas surrounded by wetlands.

Caution: Uplands represented by U may include unclassified, modified wetlands or unintentional omissions.

Linear Features

Nonvegetated rivers and streams are displayed as a series of four dots followed by a dash:

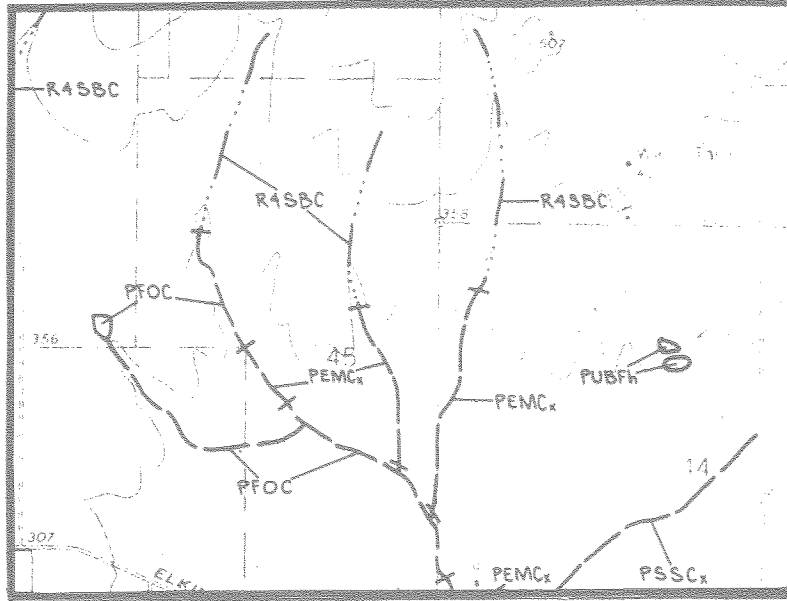


Linear wetlands are displayed as a series of dashes:



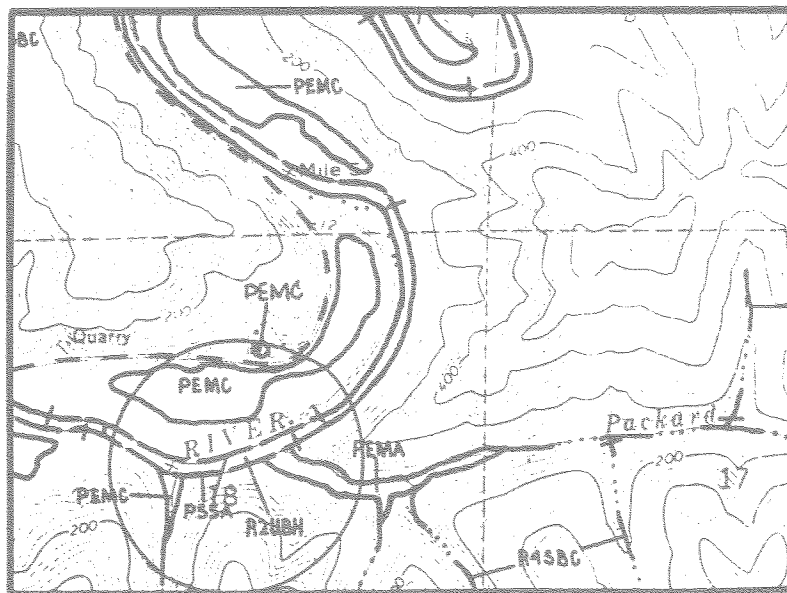
A change in classification is indicated by a perpendicular line:





In the example above, the Riverine system in the headwaters (R4SBC) changes at the perpendicular line to Palustrine wetlands (PEMCx or PFOC). It is still a stream, but the classification change to the Palustrine system indicates the point at which the channel is more than 30 percent vegetated, as viewed in the aerial photograph.

Linear features may form the boundary of wetlands and deepwater habitats. In the example below, a Palustrine wetland (PSSA) borders a non-vegetated Riverine habitat (R2UBH). When the aerial photo interpreter cannot distinguish the Riverine habitat from bordering Palustrine wetland vegetation, only the latter is mapped (as in the first example, above).



What Are Local Wetlands Inventories?

Local Wetlands Inventories (LWIs) are developed by cities as part of their wetland planning requirements under the statewide land use planning program. Each LWI consists of a set of large scale maps of wetlands overlaid on a parcel base map, data sheets for all areas where wetlands were field-verified, a description of the wetland including the main type of vegetation present, and a report summarizing the results of the inventory. All LWIs must meet state standards as adopted in rule by DSL; wetland staff at DSL review and approve all LWIs before they are used by the local government for development of local wetland protection plans and ordinances.

How are Local Wetlands Inventories Developed?

Development of a LWI is generally a cooperative effort between a local government, DSL and a contracted private wetland consulting firm. All parties work closely together to ensure that all standards are met and that the LWI will meet the needs of the city. Generally, two public meetings are held—one at the start of the process and one to present draft LWI maps to the public for review and revision before the maps are finalized. The wetland consultant uses the NWI, county soil survey maps, DSL's wetland delineation files, and aerial photo interpretation to locate probable wetlands. Field work is conducted to visually assess the accuracy of the aerial photo interpretation, and field data (soils, vegetation, hydrology) is collected in some locations to verify wetland and non-wetland areas.

How do NWI and LWI Maps Compare?

Because the NWI is a nationwide effort, the level of detail and accuracy that the NWI can achieve cannot be as great as is needed by Oregon cities for wetland planning or by the state for regulatory purposes. LWIs provide more detailed, parcel-based wetland information in areas subject to development pressure—areas within urban growth boundaries.

LWI maps and products:

- Are at a much larger scale than the NWI, usually 1" = 800' instead of 1" to 2000'
- Include wetlands as small as at least ½ acre in size
- Show wetlands on a parcel base map rather than a topographic base map
- Involve a substantial amount of field verification, including data collection
- Use the same wetland classification system (Cowardin) as the NWI
- Include descriptive information about each mapped wetland, including plant communities, description of wetland/upland boundaries, and affected tax lots
- Often include wetland function and condition information generated by applying the *Oregon Freshwater Wetland Assessment Methodology* to mapped wetlands

LWI Uses and Limitations

The 1989 legislature directed DSL to develop a statewide wetlands inventory due to concerns about inadequate wetland location information. Local governments did not have the technical or financial resources to conduct adequate wetland mapping and landowners and developers did not know if their properties contained wetlands subject to state and federal regulations. LWI standards and guidelines were developed with two main goals—to ensure detailed, reliable information as a basis for cities conducting wetland planning and as a more reliable source of information for landowners and the regulatory agencies regarding wetland location.

LWI Uses

LWIs may be used for all of the same uses noted earlier for NWI maps. In addition, LWI data is used for:

- Wetland planning as required for cities and/or counties under Statewide Goals 5 or 17
- As the basis for a Wetland Conservation Plan, an alternative to Goal 5 or 17 for wetlands
- As a good indication of whether regulated wetlands are or are not present on a particular parcel of land

LWI Limitations

Despite our best efforts, no wetland map or inventory is perfect and therefore they cannot be relied upon 100 percent for wetland regulatory purposes. There will be missed wetlands and perhaps even misidentified wetlands, particularly where landowner access was denied to the consultants conducting the field verification. In addition, the mapped wetland boundaries, while often quite accurate, must be considered approximate boundaries. For these reasons and because site conditions can and do change (for both natural and unnatural reasons), additional field verification in the form of a wetland delineation report is generally needed in order for a landowner or developer to obtain a wetland fill permit. If you need wetland information for site development purposes, use the LWI as a starting place but contact DSL or the Corps of Engineers for information on additional data that will be required.

LWI Example

Below is a small portion of a LWI map for the City of Philomath. Note that the wetlands are located on a parcel base map and that each wetland has a code number (such as MR 8). That code number refers to a wetland summary sheet that provides information about the wetland size, classification, plant community type (such as Oregon ash/slough sedge) and other descriptive information. The numbered points (i.e., 246) indicate plots where data on soil, vegetation and hydrology was collected to verify mapping. Each LWI looks a little different due to differences in base maps and wetland consultant style, but each must meet state standards and contain certain minimum information. This is important for consistency statewide and for product reliability.

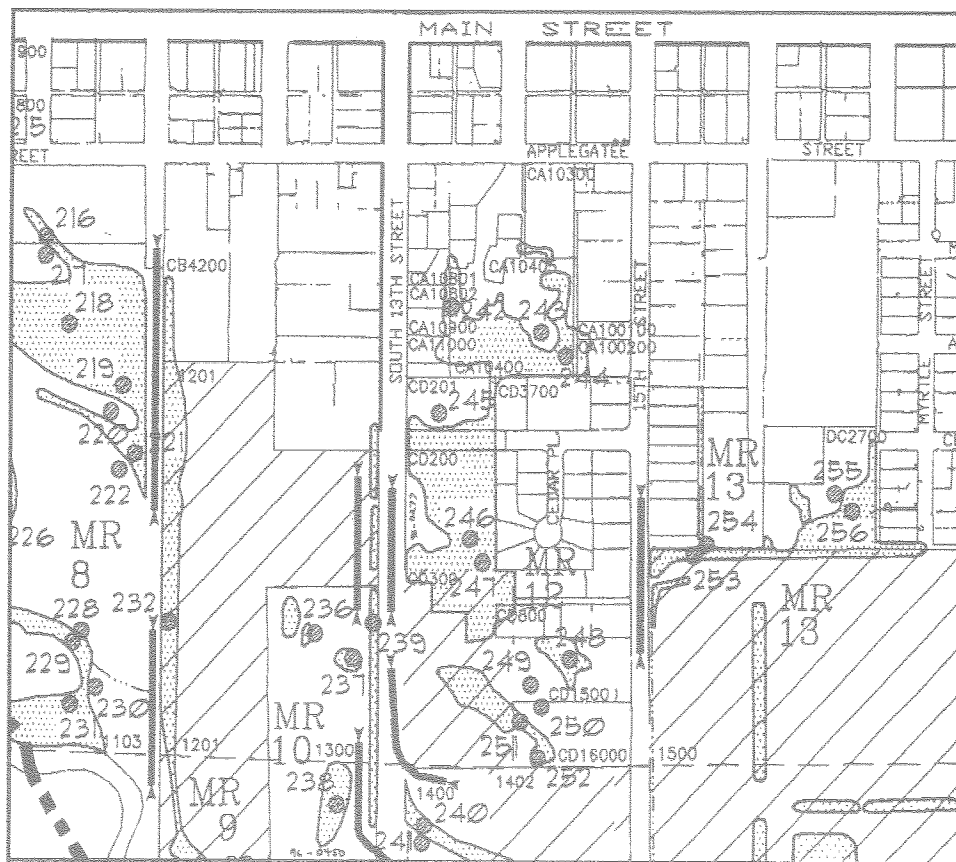


Figure 3. Portion of LWI map for City of Philomath



How to View or Order Wetlands Maps

National Wetlands Inventory Maps:

State Distribution Center

Oregon Division of State Lands
Wetlands Program
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Phone: 503/378-3805

You may order maps from DSL by mailing a pre-paid request to the above address. Maps are ordered by USGS Quad map name. Cost is \$2.50 per map plus \$2.00 for postage for any size order. See order form on inside back cover of this user's guide.

Earth Science Information Center (ESIC)

Western Mapping Center—ESIC
US Geological Survey
Mail Stop MSS 532
345 Middlefield Road
Menlo Park, CA 94025
Phone: 415/329-4309

or phone toll free: 1-800-USA-MAPS



Digital NWI Maps

Digitized NWI mapped data is available for approximately 1/5th of the state as of 1999. You may view or obtain digital data on a quad-by-quad basis by accessing the U.S. Fish and Wildlife Service, National Wetlands Inventory web site at www.nwi.fws.gov/.

Local Wetlands Inventory Maps

DSL maintains a list of all cities that have completed state-approved LWIs. The list can be viewed on the DSL website at <http://statelands.dsl.state.or.us>. Many LWI maps are available at cost from DSL at the address listed above for the State Distribution Center. In addition, a LWI may be viewed at the appropriate city planning department. Many cities maintain a web site that includes access to their LWI map.

Information Sources

Wetlands Inventories and Planning

National Wetlands Inventory

U.S. Fish and Wildlife Service

Regional Wetlands Coordinator
Portland Eastside Federal Complex
911 N.E. 11th Avenue
Portland, OR 97232-4181
Phone: 503/231-6154

Oregon Division of State Lands

Wetlands Program
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Phone: 503/378-3805


Contact either agency about the status of NWI maps in Oregon or for more information on how to use the maps. You may also visit the NWI web site at <http://www.nwi.fws.gov/>. Order maps from DSL.

Local Wetlands Inventories and Wetland Planning

Oregon Division of State Lands

Wetlands Program
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Phone: 503/378-3805

Contact DSL for information about state requirements related to wetlands inventories and planning. Specific information available from DSL includes: requirements (rules) for cities to follow to conduct wetlands inventories; rules for cities to follow to assess wetland function and designate significant wetlands; which cities have approved LWIs; the *Oregon Freshwater Wetland Assessment Methodology*; technical assistance with wetland planning activities. DSL staff can also provide information on conducting riparian inventories.



Department of Land Conservation and Development (DLCD)

635 Capitol Street NE, Suite 200

Salem, OR 97301

Phone: 503/373-0500

DLCD is the state land use planning agency. DLCD is the administrative arm of the Land Conservation and Development Commission, which establishes the state land use planning requirements for local governments. Contact DLCD for information about natural resource planning requirements generally, which cities have adopted wetlands protection programs, which cities are due to update their programs, and for information on wetland planning requirements and grants.

City or County Planning Departments

Contact your city or county planning department for LWI maps, maps of significant wetlands (a subset of LWI mapped wetlands) and for information on local ordinances affecting significant wetlands. Note that counties are generally not required to map and protect wetlands except within the coastal shoreland planning boundary.

Wetlands Regulations

State Removal Fill Law


Oregon Division of State Lands

Field Operations Section

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

Phone: 503/378-3805



The state Removal-Fill Law, administered by DSL, is a permit program that applies to all “waters of the state.” Waters of the state include the Pacific Ocean, estuaries, bays, rivers and streams, and wetlands. A permit is required before one may place fill material in, or excavate material from waters of the state. Contact DSL for details about permit requirements. You may also contact the DSL wetlands program for information about how to identify a waterway or wetland that is subject to permit requirements.

Clean Water Act, Section 404 and Section 10 of the Rivers and Harbors Act


U. S. Army Corps of Engineers

Regulatory Branch

P.O. Box 2946

Portland, OR 97208-2946

Phone: 503/808-4385



The Corps of Engineers administers the permit program under Section 404 of the Clean Water Act and Section 10. Permit requirements apply to “waters of the United States” which are nearly identical to those described above as waters of the state. Contact the Corps for details of permit requirements under these federal laws. The Corps and DSL have a joint permit application process; you may contact either agency for a permit application and for assistance with the permit process.

Swampbuster Provisions of USDA Farm Bill
U.S. Natural Resources Conservation Service (NRCS)
Green-Wyatt Federal Building
Room 1640, 1220 SW Third Avenue
Portland, OR 97204
Phone: 503/326-2751

The Natural Resources Conservation Service (NRCS) administers portions of the Swampbuster provisions of the 1985 Farm Bill, as amended. The Swampbuster provisions establish penalties for conversion of wetlands to crop land. NRCS conducts wetland determinations and mapping for farmers participating in U.S. Department of Agriculture programs. Contact NRCS for information about agricultural wetlands and farm bill programs, including incentive programs for landowners interested in restoring wetlands on marginal farm land.

Selected Technical References

Wetland Delineation

Corps of Engineers Wetland Delineation Manual. 1987. Technical Report Y-87-1. U.S. Army Corps of Engineers, Washington, D.C.

This manual contains criteria and methods for identifying and delineation wetlands that are subject to state and federal permit requirements. Copies may be obtained over the internet at www.wes.army.mil/el/wetlands/pdfs/wlman87.pdf or from DSL.

Wetland Classification

Cowardin et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. FWS/OBSS-79/31.

This classification system was developed specifically for use developing the NWI and this publication explains the classification system in detail. The classification system is also used for LWIs. Copies are available from the U.S. Government Printing Office.

Bottom et al. 1979. Habitat Classification and Inventory Methods for the Management of Oregon Estuaries. Report for the Land Conservation and Development Commission.

This is a modification of the Cowardin classification that was used to map and classify Oregon estuaries during development of the estuary plans.

Wetland Plants

Hitchcock, C.L. and A. Cronquist. 1997. Flora of the Pacific Northwest. University of Washington Press, Seattle.

This flora is the primary resource for plant identification in most of Oregon. It is available as a five volume set or in a condensed "field" version. The five-volume set is also available on a CD.

Guard, B. Jennifer. 1995. Wetland Plants of Oregon and Washington. Lone Pine Publishing. Redmond, Washington.

Pojar, J. and A. Mackinnon (eds.) 1994. Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska. Lone Pine Publishing.

Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: National Summary. U.S. Fish and Wildlife Service Biological Report 88(24).

This plant list must be used when conducting a wetland determination for regulatory purposes. A Northwest (Region 9) list is available and must be used with the 1993 update. The list is available from the Fish and Wildlife Service web site (www.nwi.fws.gov/ecology) or from DSL.

Spear Cooke, Sarah (ed.) 1997. A field Guide to the Common Wetland Plants of Western Washington and Northwestern Oregon. Seattle Audubon Society, Seattle, WA.

Functional Assessment

Roth, E.M., R.D. Olsen, P.L. Snow and R.R. Sumner. 1996. Oregon Freshwater Wetland Assessment Methodology. Ed. By S.G. McCannell. Oregon Division of State Lands. Salem, OR.

Soils

County Soil Surveys and lists of hydric soils are available for most Oregon counties from the Natural Resources Conservation Service. NRCS is listed under the federal government, U.S. Department of Agriculture section of most phone books, or contact the state office listed in the previous section of this booklet.

U.S. Department of Agriculture, Natural Resources Conservation Service. 1996. Field Indicators of Hydric Soils in the United States. G.W. Hurt, Whited, P.M., and Pringle, R. F. (eds.) USDA, NRCS, Fort Worth, TX. Document may be obtained from web site: www.pwrc.usgs.gov/WLI/

Wetland Status and Trends

Daggett, S.G., M.E. Boule, J.A. Bernert, J.M. Eilers, E. Blok, D. Peters, and J. Morlan. 1998. Wetland and Land Use Change in the Willamette Valley, Oregon: 1982 to 1994. Shapiro and Associates, Inc. Report to the Oregon Division of State Lands. Salem, OR.

Dahl, T.E. and C.E. Johnson. 1991. Status and Trends of Wetlands in the Conterminous United States, Mid-1970s to Mid-1980s. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Order Form

NATIONAL WETLAND INVENTORY MAPS OF OREGON

Mail to: Department of State Lands
Wetlands Program
775 Summer Street NE Suite 100
Salem, OR 97301-1279

Map Quad Name (See Index)	QUANTITY	UNIT PRICE	TOTAL PRICE
		\$2.50	
Total maps ordered:		Subtotal	
		Shipping *	
		Total Cost	

* Shipping cost is \$4.00 for the first map and \$0.25 for each additional map. There is no shipping charge if maps will be picked up at DSL. Please allow 48 hours notice for pick-up orders. Large map orders (more than 10 maps) may require extra processing time and additional shipping costs; please call for more information. A check or money order is required with map orders or at the time of pick-up (no billing, no credit cards). Make checks payable to Department of State Lands.

Please complete shipping and contact information below (please print or type).

Name _____

Organization _____

Mailing address _____

City _____ State _____ Zip _____

Phone no. _____ Fax no. _____

If the NWI map you requested is only available without the USGS base map information and/or 15 minute scale, do you still wish to purchase that quad map? Yes ___ No ___