

## National Wetlands Inventory Products

### National Wetlands Inventory Program

Marshes, swamps, ponds, and bogs are teeming biological nurseries for migratory birds, fish, and aquatic plants. They also provide natural flood and erosion control. These predominantly wet areas, or wetlands as they are commonly called, now represent only about 5 percent of the land surface of the lower 48 States. Out of 221 million acres of wetlands that once existed in the conterminous United States, the U.S. Fish and Wildlife Service (FWS) estimates that only about 103.3 million acres remain.

Each year, development, drainage, and agriculture eliminate another 290,000 acres—an area a little less than half the size of Rhode Island. From the 1950's to the 1970's, conversion of wetlands to farmland caused 87 percent of all wetland losses.

The FWS has long recognized the importance of America's wetlands because they form breeding and wintering grounds for great numbers of migratory birds. In 1977, the FWS began the National Wetlands Inventory (NWI), a systematic effort to classify and map America's remaining wetlands.

### Classification Scheme

The NWI defines wetlands according to the "Classification of Wetlands and Deepwater Habitats of the United States," a system that describes wetlands by soils, hydrology, and vegetation.

According to this system, wetlands are defined as lands transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface or the land is covered by shallow water. For this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports mainly hydrophytes (aquatic plants), (2) the substrate is mainly undrained hydric (moist) soil, and (3) the substrate is saturated with water or



Florida Everglades

covered by shallow water at some time during the growing season each year. Because plants and soils furnish a record of the hydrology of a site, they form the basis of the hierarchical classification scheme that divides wetlands into five major systems: marine, estuarine, riverine, lacustrine (lakes), and palustrine (marshes).

Working with the classification guide and color-infrared aerial photographs, biologists are able to map wetlands as small as one-tenth of an acre. The aerial photographs used by the NWI were acquired principally by the National High Altitude Photography Program, a consortium of Federal agencies that use the detailed information available from the photographs. NASA high-altitude and National Aerial Photography Program medium-altitude, color-infrared aerial photographs were also used. Biologists then verified the information by field-checking the data.

### Map Coverage

Wetland maps exist for about 87 percent of the conterminous United States, 29 percent of Alaska, and all of Hawaii. The

wetlands given the highest mapping priority are parts of the coastal zone; flood plains of major rivers; the Midwest "prairie pothole" region, an area that is a major breeding ground for ducks; and the lower Mississippi alluvial plain. Work has been completed in 34 States and territories and continues in 16 others.

### Applications

More than 50,000 maps produced to date by the NWI are used in a variety of ways, including land use planning and guides, town planning, wildlife habitat management, water quality planning, project studies, soil and water conservation loans, zoning, flood hazard planning, research, waste treatment, permit reviews, and flood controls.

### Map Specifications

The NWI produces two types of maps: composite maps that photographically combine the wetlands inventory information with standard U.S. Geological Survey (USGS) topographic map information, and overlays to these maps that contain wetland information only. Both types are available on a paper base that resembles a

blueprint in appearance or as transparencies on frosted mylar film. The wetlands inventory transparencies can be laid on top of USGS 7.5-minute, 15-minute, and 30- by 60-minute topographic maps that served as base maps for the overlays. Both the composites and the overlays display the locations, shapes, and characteristics of wetlands. Maps copied on mylar are not suitable for digitizing or scanning.

## Ordering Information

For information on how to order NWI overlays and composites, contact any Earth Science Information Center (ESIC), or call 1-800-USA-MAPS.

Copies of the "Classification of Wetlands and Deepwater Habitats of the United States," stock number PB80168784, can be purchased for \$31.50 per copy, plus a \$4.00 handling charge per order, from

National Technical Information Service  
5285 Port Royal Rd.  
Springfield, VA 22161  
Telephone: 800-553-6847

The book can be purchased through the mail by check or money order only, made payable to "National Technical Information Service." Credit card orders are accepted by telephone.

The publication is also available on the World Wide Web at  
<URL: <http://www.nwi.fws.gov/classman.html>>.

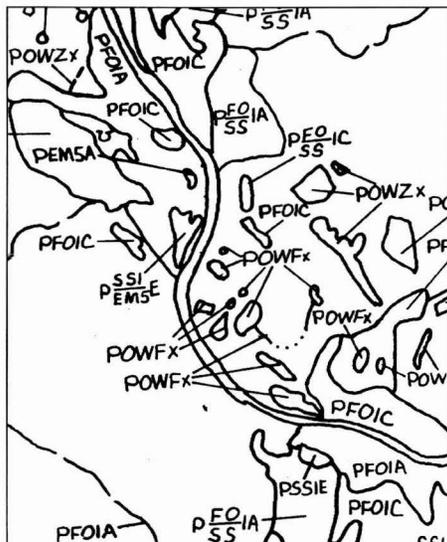
## Additional Information

For general information about wetlands legislation and protection efforts, call the Environmental Protection Agency hotline at 1-800-832-7828.

For information about permits and wetlands regulations in your area, contact the regulatory branch of your local Army Corps of Engineers.

The NWI digital data are available free of charge through the Internet, anonymous ftp to 192.189.43.33. The NWI's World Wide Web server can be accessed at  
<URL: <http://www.nwi.fws.gov/>>.

For information about the NWI, call or write one of the following FWS regional wetlands coordinators for your geographic area:



Wetland overlay map

### Alaska:

Jon Hall  
1011 East Tudor Rd.  
Anchorage, AK 99503  
Telephone: 907-786-3471  
Fax: 907-786-3350

### Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming:

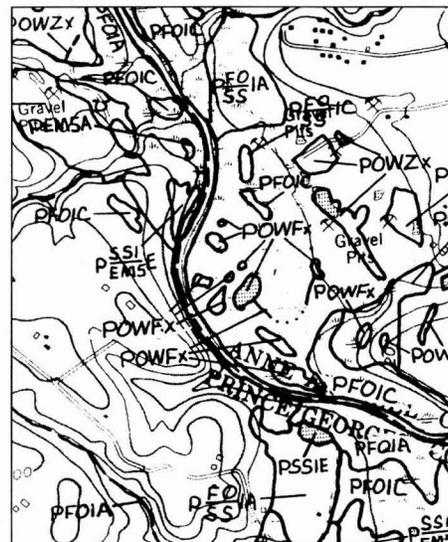
Charles Elliott  
Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225  
Telephone: 303-236-5365, ext.222  
Fax: 303-236-4631

### Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, and the Virgin Islands:

Charlie Storrs  
1875 Century Blvd., Suite 200  
Atlanta, GA 30345  
Telephone: 404-679-7129  
Fax: 404-679-7081

### Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia:

Ralph Tiner  
300 Westgate Center Dr.  
Hadley, MA 01035  
Telephone: 413-253-8606  
Fax: 413-253-8482



Wetland composite map

### Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin:

Kim Santos  
U.S. Fish and Wildlife Service  
National Wetlands Inventory Center  
9720 Executive Center Dr., Suite 101  
Monroe Bldg.  
St. Petersburg, FL 33702  
Telephone: 813-570-5428  
Fax: 813-570-5420

### Arizona, New Mexico, Oklahoma, and Texas:

David Dall  
500 Gold Ave., SW., Room 4012  
P.O. Box 1306  
Albuquerque, NM 87102  
Telephone: 505-248-6668  
Fax: 505-248-6922

### California, Hawaii, Idaho, Nevada, Oregon, Washington, Guam, and Samoa:

Dennis Peters  
Eastside Federal Complex  
911 Northeast 11th Ave.  
Portland, OR 97232-4181  
503-231-6154; Fax 503-231-2050

For information on other USGS products and services, call 1-800-USA-MAPS, or receive information from the EARTHFAX fax-on-demand system, which is available 24 hours a day at 703-648-4888.

Please visit the USGS home page at  
<URL: <http://www.usgs.gov/>>.