





National Spatial Data Infrastructure

Wetlands Layer

The National Spatial Data Infrastructure (NSDI) is a way of enhancing the accessibility, communication, and use of geospatial data to support a wide variety of decisions at all levels of society. NSDI is defined as the technologies, policies, and people necessary to promote sharing of geospatial data throughout all levels of government, the private and non-profit sectors, and the academic community.

Wetlands Data Stewardship

Wetlands are some of the Nation's most ecologically and economically important habitats, and provide benefits for fish, wildlife and people. Emerging conservation issues such as global warming, sea-level rise, increasing storm severity, drought, energy development, species declines and expansion of infrastructure are driving the need for contemporary geospatial resource information. As data stewards, the United States Fish and Wildlife Service (FWS) is the principle Federal agency that provides wetland information to the public and other agencies.

In 1986, the Emergency Wetlands Resources Act mandated that the FWS complete the mapping and digitizing of the Nation's wetlands. The result of this effort is the Wetlands Geospatial Data Layer. This data layer houses all of the Service digital geospatial wetlands data, and forms the Wetlands Spatial Data Layer of the National Spatial Data Infrastructure (NSDI).

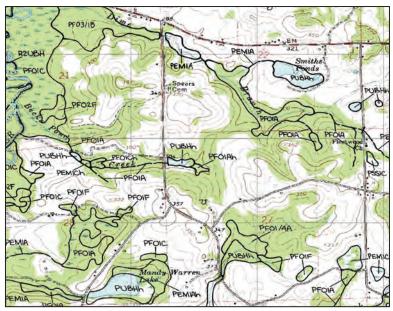
The FWS has modernized the wetlands geospatial data and services to meet the demands of resource managers and other users. This Wetlands layer is now available to all federal, state, tribal, and local governments, as well as the public. It is an important component of the Department's Geospatial Blueprint, actively supporting the E-Government (E-Gov) initiative, Geospatial One-Stop, http://gos2.geodata.gov/wps/portal/gos and The National Map, http://nationalmap.gov/.

Content and Status

The wetlands layer is a seamless digital data layer stored in an ArcSDE geodatabase format. Currently, the data layer for the lower 48 States contains seamless information for approximately 60 percent of the conterminous U.S. The wetlands layer also covers 27 percent of Alaska, 100 percent of the windward islands of Hawaii, 62 percent of Puerto Rico and the U.S. Virgin Islands, and 100 percent of Guam and Saipan. Along with digital data, the wetlands layer includes raster images of hardcopy wetland maps for those areas not yet in vector format. These images are scans of the original 1:24,000 scale wetland maps produced in hardcopy by the Fish and Wildlife Service. Both the wetlands vector and raster data are currently being served on the Wetlands Mapper, http://www.fws.gov/wetlands/data/.



Digital data from the Wetlands Geospatial Layer overlaid with the corresponding black and white imagery.



Scanned hard copy maps are georeferenced to the corresponding Digital Raster Graphic (DRG) and served on-line until vector data is available.

It is important to the Fish and Wildlife Service to improve the internet delivery of updated digital data and keep pace with the growing demand for wetland resource information. The goal of the Wetlands Mapper is to provide a greater awareness of wetland map data and to improve the delivery of this information to its users. It allows users to access the Wetlands Geospatial Data Layer as well as provides a tool for the integration of large relational databases with spatial information and map-like displays. The national wetlands layer can be easily expanded and updated, and contains several levels of metadata as well as supplemental wetland information. All metadata are compliant with the Federal Geographic Data Committee (FGDC) Content Standards for Digital Geospatial Metadata Version 2.0. Users can explore this resource information on a web-based discovery site at http://www.fws.gov/wetlands/data/.

Contributing to the NSDI Wetlands Layer

Organizations and individuals have the opportunity to contribute their data to the Wetlands Geospatial Data Layer. Contributors will be acknowledged for their work and assistance can be given in order to prepare data to meet qualification standards. For more information on how you can contribute data to the National Wetlands Database visit our website at http://www.fws.gov/wetlands/wetlandslayer/ContributedData.html.

The Future of the NSDI Wetlands Layer

The FWS continues to work to improve the integrity and scope of the wetlands layer. The wetlands layer is increasing in size each year primarily due to existing analog data being converted to vector or raster images. Contributed data from other Federal, State and local organizations is also increasing. The FWS has limited budgetary resources and faces many challenges in balancing increasing demands for wetlands map information for high priority resource conservation applications. As a consequence, under current budget scenarios completion of the national geospatial data layer will be a long-term goal. However, through its strategic mapping projects, the FWS will continue to provide updated information as well as add map data to provide a complete National data layer. Additionally, the FWS will work with partner organizations to facilitate the incorporation of wetlands map data and provide this information to the public.

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"The present goal is to provide the citizens of the United States and its Trust Territories with current geospatially referenced information on the status, extent, characteristics, and functions of wetlands, riparian, and deepwater habitats in priority areas to promote the understanding and conservation of these resources."



Bayou Cocodrie NWR, USFWS Digital Library