

# Wetlands Master Geodatabase - Technical Documentation

## Addressing Information Quality Guidelines - U.S. Fish and Wildlife Service (7-03)

This document addresses how the development and implementation of a Wetlands Master Geodatabase will conform to the information quality guidelines established by the Fish and Wildlife Service. It meets the requirements of Section 515 of the Treasury and General Government Appropriations Act of 2001 (Public Law 106-554) that requires Federal agencies to publish Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by a Federal agency, and to provide administrative mechanisms allowing the public to seek and obtain correction of information maintained and disseminated by the agency.

The Service has produced step-down Information Quality Guidelines for ensuring and maximizing the quality, objectivity and integrity of information disseminated by the agency. These guidelines are applicable to all Service offices that disseminate information to the public.

All information disseminated by the Service must comply with basic standards of *quality* to ensure and maximize its *objectivity, utility* and *integrity*. The Service will ensure that information disseminated will be developed from reliable methods and data sources and will otherwise ensure information quality at each stage of development. Accurate documentation of process, the use of appropriate internal and external review procedures, consultation with experts and steps to verify data quality are important considerations. Information released by the Service will be developed only from reliable data sources based on accepted practices and policies, utilizing accepted methods for information collection and verification.

**System Documentation:** To adequately address automated data integrity and security concerns and ensure accepted practices and standards were applied and well documented, a series of technical documents have been prepared as supporting materials for the Wetlands Master Geodatabase (MGD). These include the following:

- Automated Information System and Data Project Charter
- A Plan for the Development of the Wetlands Master Geodatabase
- Wetlands Master Geodatabase Security Plan
- National Wetlands Inventory Wetlands Mapping Standards and Protocols
- Wetlands Master Geodatabase Data Model, Tables and Schema (Conus and Alaska)
- Wetlands Master Geodatabase Project Scoping
- MGD Hardware and Software Plan
- Critical Questions for Wetlands MGD Development
- Organization and Plan for Ancillary Datasets (MGD)

**Objectivity of Information:** The Service strives to present information on wetlands, deepwater

and related habitats in an accurate, clear, complete and unbiased manner. The Service's wetland habitat map data uses the Federal Geographic Data Committee (FGDC) Standard, Classification of Wetlands and Deepwater Habitats (Cowardin *et al.* 1979), approved as a Federal Standard for mapping, monitoring and reporting wetlands data on December 17, 1996. This provides a standardized system of nomenclature and terms for mapping without value assessments. All digital data contained within the Wetlands Master Geodatabase uses the FGDC Content Standards for Digital Geospatial Metadata (CSDGM), also referred to as FGDC-STD-001-1998. This is to assist users in understanding any project limitations as well as the date and quality of the source materials used to make the maps. Various user notes, precautionary statements and disclaimers provide further information to clarify project objectives, procedures and limitations.

All map information disseminated to the public is approved prior to its dissemination by authorized representative(s) of Branch of Habitat Assessment or the Division of Federal Program Activities. In the case of digital map data, quality control procedures ensure the information is accurate by 1) providing review by technical specialist(s) 2) subjecting the information to automated verification routines and 3) providing oversight of data processing, database management and data dissemination by a geodatabase manager.

Quality control and quality assurance measures for minimum mapping units and mapping processes and standards are provided in the "Standards and Quality Requirements" documentation.

Greater levels of scrutiny are applied to scientific or statistical report information, which must adhere to a higher standard of quality. Scientific reports or other technical information documents are reviewed for technical accuracy, clarity of presentation and policy implications by the Division of Federal Program Activities (or higher organizational level). Peer review of reports and manuscripts are provided by technical experts in the appropriate field prior to release. Reports of National significance or that may be 'influential', 'controversial' or have cross-agency or policy implications will ensure objectivity by refraining from providing policy or guidance recommendations.

**Data Utility:** Utility refers to the usefulness of the information to its intended users, including the public. The U.S. Fish and Wildlife Service is the principal Federal agency that provides information to the public on the extent and status of the Nations wetlands. In that context the Service must fulfil two distinct objectives through its web interface: 1) It must provide an portal for wetlands information ranging from general descriptions and examples for the general public, to more technical report information such as the status and trends reports and educational material. This will include building in important links to other agencies and other data sources. 2) It provides the mechanism to search and download wetlands map information produced by the Service. This also requires supporting information such as disclaimers, links to wetland classification systems, map legend information and metadata.

The MGD enables the Service can move away from the static archive of wetland map data and start to address the integration of multiple types of resource information to compose a true inventory. Map data, report information, field observations, habitat photos, plant and soils data that the Service has collected can be linked and easily accessed as part of the master

geodatabase. The common structures, methodology and exchange formats provided by the geographic information system technologies greatly facilitate data sharing with other users.

**Data Integrity:** Under the definitions of the Departmental and Service Information Quality Guidelines, Data Integrity refers to the security of information - protection of the information from unauthorized access or revision, to ensure that the information is not compromised through corruption or falsification.

The wetlands MGD resides on a server which is only accessible by Service and authorized U.S. Geological Survey personnel involved in the development and testing of system operations. The MGD Security Plan addresses standard firewall and computer security measures taken to ensure that data integrity are not compromised. To this end, the MGD Manager plays a key role in overseeing data input, conducting final data verification, granting permission for data access, maintaining data logs and status and coordinating with the appropriate system manager(s) and Information Technology personnel.

Dissemination of the information contained with the MGD must be tempered by the need for information sensitivity. For this reason, the Service may host or support ancillary data layers used for assessment and analysis, without serving those data to the public. The primary concern is for information on private lands and private property rights. Every effort will be made to protect the anonymity of land owners or the location of certain sensitive property landmarks or features.

**Requesting a Correction of Information:** Any affected person or organization may request a correction of information from the Service pursuant to the Information Quality Guidelines. The Branch of Habitat Assessment will consider requests for corrections of information if such a request is submitted in compliance with Service Information Quality Guidelines and the request is routed through the appropriate Service Region for technical evaluation. Regional requests for entry of corrected map data will be made by submitting a completed "Request for Entry of Corrected Map Data" form to the Branch's Geodatabase Manager. This form is part of the MGD Technical Attachments of Forms and Documentation. It certifies the corrected information submitted has been approved by all appropriate technical quality control personnel and an updated metadata file is attached that reflects any revisions.