

Appendix A.
Technical Recommendations
Wetland Site Names and Codes
2012

Maintain Programmatic Compatibility. Guidance, methods, and standards for creating nationally applicable wetland site names and other stable unique identifier codes to aid in wetland tracking and monitoring must be compatible with the FGDC Wetlands Mapping Standard, Implementation Plan, Classification Standard, and the FWS *Data Collection Requirements and Procedures for Mapping Wetland, Deepwater and Related Habitats of the US*. Because the FWS-maintained Wetlands Master Geodatabase (which forms the basis of the NSDI Wetlands Layer) is a national data set, certain data collection procedures must be adhered to in order for data to be accepted. Additionally, a number of customized software tools have been developed to support wetland mapping, such as to assist users with the wetland classification codes and to automate some of the quality control functions necessary to ensure an accurate geodatabase. Development of new technical guidance for wetland unique identifiers must be designed to be consistent with these procedures. (<http://www.fws.gov/wetlands/Documents/Data-Collection-Requirements-and-Procedures-for-Mapping-Wetland-Deepwater-and-Related-Habitats-of-the-United-States.pdf>).

Conduct Applied Studies. Applied Studies that will test, compare, and refine potential designs for the stable unique identifier code, and database structure, must be conducted in order to refine naming and coding methods and determine what will work across multiple regions. Such an Applied Study Phase would require coordination and comparison of results from study areas in at least three or four different regions of the U.S. The results and recommendations from the Applied Study Phase would be needed prior to developing a proposal for a new FGDC standard on wetland unique identifier codes. See Appendix B. Applied Study Phase for a summary of proposed activities including Program Development, Coordination, Applied Studies, Outreach, Training, and Technical Support.

Coordinate Database Planning and Design Early in Applied Study Phase. Unique identifier coding systems must be designed to function within a relational database context to support robust analysis. The national level is a missing puzzle piece to putting state and regional databases together for analysis. Wetland code(s) should be informationally robust enough to allow for multiple levels of aggregation and splitting. Additionally the coding system and database design must be compatible with wetland change over time (expansion/contraction, disappearance/reappearance, and fragmentation over time), in order to be useful for tracking and monitoring. Databases for Applied Studies must be planned up front for compatibility, consistency, and to ensure they can support the answering of a minimum set of shared questions for comparison and analysis. A list of basic questions the database design must support should be identified early in the project. Such questions might include:

- How many types of wetlands?
- How many individual wetlands? [By classification? By landscape (LLWW) or hydrogeomorphic (HGM) setting?]
- How many wetland complexes?

- How many isolated wetlands?

Systematically Define Database Terms at a National Scale. In order to design databases appropriate for seamless integration, terms such as wetland complex, individual wetland, etc. will need to be systematically defined at a national scale in coordination with the applied studies.

Propose a New Standard. Following applied studies and subsequent recommendation of a nationally applicable methodology for naming and coding wetland sites, the WMC/WNWG, the FGDC Wetlands Subcommittee, and/or other interested parties would develop a proposal for a new FGDC standard for wetland unique identifier codes.

Do Not Preclude Use of Alternate Coding Systems. States and other mapping entities should be free to continue to use their own coding systems in addition to nationally standardized wetland unique identifier codes and site names. The intent is to build methods that will solve fundamental problems and be so useful that everybody will want to use them as a complement to their data set.

Maintain Independence of Coding from Wetland/Upland Determinations. The standardized names and coding must remain separate from any wetland/upland determination so that even currently drained wetland features, historic wetlands, hydric soil units, riparian areas, or planned/future wetland features could be issued site names and codes for monitoring and tracking.

Maintain Independence of Coding from Jurisdictional Determinations. In order to allow for the most robust use, standardized names and codes must remain separate from any jurisdictional determinations. This is consistent with the Wetlands Mapping and Classifications Standards, which are “neither designed nor intended to support jurisdictional analysis.”

Incorporate Hydrologic Unit Codes (HUCs). Rules must be developed to deal with wetlands which cross HUC boundaries, or cover more than one HUC. Both 14- and 16-digit HUCs are considered to be workable depending on data availability.

Consider Utilizing LLWW for Base Polygons where helpful. Landscape, Landform, Water Flow Path, And Waterbody Type (LLWW) attributes provide advantages include the greater temporal stability of the landscape setting relative to the vegetation-based classification. Additionally some level of LLWW could potentially be mapped for sites of interest that are not currently wetlands (including historic, restorable, and riparian sites). It may also be helpful to use the geographic coordinates of a point within an LLWW polygon ("Locator Point") as a component of the unique identifier code. ASWM provides a webpage on LLWW resources (<http://aswm.org/wetland-science/wetland-mapping/1623-what-is-llww-fws-publications-on-mapping-wetland-functions>)

Identify Target Feature Sizes for Naming and Coding. Will there be a target minimum or maximum wetland size for coding? The Wetlands Mapping Standard specifies a target mapping unit of 0.5 acres. Some smaller wetlands have significant biological functions which there may

be a need to monitor. Multiple monitoring sites within individual wetland may need to be coded -
-the code scheme should be extensible to handle this need.