

Codes for the Identification of Basins in Minnesota

Title: Numeric Codes for the Identification of Basins in Minnesota

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Applicability: Who cares about these standards? These standards are important to any public organization that collects, uses or exchanges information about lake and wetland basins in Minnesota.

When do they apply? When do they not apply? This standard has been developed to improve the sharing and exchange of information about lake and wetland basins. Use of this standard is mandatory when a state agency is transferring data to another agency, local government, federal agency, the private sector or a public requestor. Use of this standard is recommended when local governments exchange data, or when new public data bases are being designed that require lake or wetland identification codes. Use by local government, the private sector and the public is encouraged. This standard only applies to basin data that are being transferred and does not apply to how data is internally stored in a data base. It should be noted, however, that it is a long-term goal for everyone to use the same basin identification codes to avoid possible confusion.

Purpose of this standard:

The purpose of these standards is to provide a single, common coding scheme for identifying lake and wetland basins in Minnesota. These standards will ensure the transferability of data among agencies and external customers. These standards can also improve the sharing of data among all sources by avoiding duplication and incompatibilities in the collection, processing and dissemination of lake and wetland basin data.

Standard Requirements:

Two definitions are pertinent to these standards for basins. Minnesota Statutes 103G.005 Subd.16. defines Waterbasin as an enclosed natural depression with definable banks, capable of containing water, that may be partly filled with waters of the state and is discernable on aerial photographs.

Minnesota Rules Chapter 6115.0630 Subp. 5. Defines Basin as a depression capable of containing water which may be filled or partly filled with waters of the state. It may be a natural, altered, or artificial depression.

Other clarifications to the term basin include: - It is defined by an ordinary high water level for regulatory purposes - It denotes a container of water but doesn't have to currently contain water - It includes anything that is a lake or a wetland - It may be a feature along a watercourse where water tends to be concentrated.

These definitions are broad enough to allow individual agencies or users to categorize basins in any way they choose. For example, agencies may have different ways of defining what is a lake and what is a wetland. One agency may define a basin of a certain size a pond. Another agency may have a specific definition for a reservoir that is not shared by others. Under these basin definitions it does not matter. Subcategories can be established by the user.

The Minnesota Department of Natural Resources Division of Waters has the authority and responsibility for naming and numbering basins in Minnesota. This standard requires that basins be identified by the Minnesota Department of Natural Resources Division of Waters Lake Number (DOWLKNUM). The DNR Division of Waters Lake Number (DOWLKNUM) is the primary identifier used to catalog lake and wetland basins in Minnesota. DNR maintains a lake/wetland name and number list which includes 24,780 lake and wetland basins which are inventoried and reported in DNR Bulletin 25 (1967), An Inventory of Minnesota Lakes, or which are officially designated protected lakes or protected wetlands in the DNR Protected Waters Inventory process (1970's). In addition, DNR has expanded the same numbering scheme to any basin, protected or not, for which data is being collected, so that there is one consistent numbering procedure for all basins in the state. These additional basins may be, for example, non-protected wetlands, basins that were missed in the Protected Waters Inventory or flooded mine pits which are being sampled or stocked with fish. DNR Waters will assign new numbers to basins not currently on the list at the request of another agency. DNR maintains an official state list of lake and wetland names and numbers, acreage, and Protected Waters status on its LAKESDB database.

The DNR Division of Waters identification number for a lake or wetland basin (DOWLKNUM) has the following format:

LLLLLLSS: where **LLLLLL** is a 6-digit lake number; **SS** is a 2-digit lake sub-basin identifier

Lake Number: Most lake numbers can be traced back to the DNR Bulletin 25 lake location maps or the DNR Protected Waters Inventory maps, and some surface water hydrology GIS data sets. In all of these sources lake numbers consist of a two digit county sequence code and a four-digit sequential lake number. In Bulletin 25 lake numbers started in the most southeast township of a county and progressed north to the county line. They then went down to the south boundary in the next township west and so on until all basins in the county were numbered. New basins are assigned a lake number as they are identified. If the basin is located in more than one county, the basin is assigned the county sequence number of the county that includes the greatest portion of the basin's area. DNR Waters has forms for requesting that numbers be assigned to currently unnumbered lake and wetland basins.

Lake Sub-basins: Several agencies have the need to divide a lake into sub-basins, in cases where lakes have sub-areas with distinctly different characteristics. These sub-basins are most often identified for water quality or fisheries management purposes. An example would be a north and south arm of a lake connected by a channel. For most lakes the sub-basin number is '00'. The DNR Division of Waters will assign sub-basin numbers upon request.

Other basin identification schemes:

Drained Wetlands: Some counties may conduct inventories of drained wetlands under Local Water Planning Implementation grants. Rules for delineation and numbering are outlined in the Wetland Inventory Guidebook for drained wetlands. These rules state that the county should use the DNR DOW inventory numbers where available for the local drained wetland inventory. Where no DOWLKNUM exists (and this will be true for many drained wetlands), the county can use an alternate numbering method based on the Public Land Survey numbering. This numbering method is outlined in the Wetland Inventory Guidebook published by the Minnesota Board of Water and Soil Resources (BWSR) in 1991.

Some other organizations, such as the Metropolitan Mosquito Control District and the Hennepin Conservation District, have numbering systems for wetlands, generally based on the Public Land Survey location and a sequential number within a section.

Most organizations use the DOWLKNUM for basins where it exists.

Compliance: What constitutes compliance? Minnesota state agencies must be capable of translating basin codes into a form consistent with this standard for the purposes of exchanging data among other state agencies and local governments. Agencies may store and administer alternative basin codes as long as the capability exists to readily convert them. Agencies may also distribute or publish alternative basin codes as long as the standard codes are available as an option. It is recommended that state agencies integrate this standard into new system designs as existing systems with basin information are developed or redeveloped.

How will compliance be measured? No direct monitoring of compliance will be conducted. Evidence of compliance will be based on reports of satisfactory data transfers among state agencies, federal and local agencies, the private sector and citizen customers; and the development of distribution strategies that incorporate the standard codes.

Contact

Further information about this standard may be obtained from the Minnesota Geospatial Information Office (MnGeo).

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