Guide to the Records Retention and Disposition Schedule for NC OneMap Datasets

Purpose

NC OneMap is an initiative and program of the NC Geographic Information Coordinating Council (GICC), staffed by the NC Center for Geographic Information and Analysis (CGIA) in the Office of the State Chief Information Officer. The NC OneMap program serves the goal of public access to geospatial data as stated in North Carolina General Statutes § 143-725 (b):

> "…CGIA shall manage and distribute digital geographic information about North Carolina maintained by numerous State and local government agencies. It shall operate a statewide data clearinghouse and provide Internet access to State geographic information."

Online access to archival geospatial data fulfills mandates for both CGIA and State Archives of North Carolina (State Archives), to the benefit of the public.

The NC OneMap program includes the NC OneMap Geospatial Portal (http://data.nconemap.com) for discovery and access to statewide geospatial data, an NC OneMap Database for datasets managed by CGIA, and various public data custodians who provide datasets or links to hosted data for discovery and access through the Geospatial Portal. Retention of geospatial data is an important element in the NC OneMap Vision and Characteristics as stated by the GICC.

For NC OneMap data managers, in collaboration with State Archives, records retention involves three primary steps: appraisal of the value of the datasets, setting or applying a disposition schedule, and, if deemed archival, packaging and transferring datasets to the State Archives. In turn, the State Archives of North Carolina is responsible for preserving, storing, managing, and providing access to archival geospatial data. This document is intended to guide geospatial data managers and preservation officers in managing effective records retention and disposition related to the NC OneMap program.

Major Categories for Geospatial Data

NC OneMap datasets are scheduled for disposition in two major categories: (A) Geospatial Framework Datasets and (B) Geospatial Thematic Datasets. In each category there are files in (1) vector format (geospatial features represented by points, lines and/or areas, e.g. a fire hydrant location, the centerline of a street, or the boundaries of a lake, respectively) and (2) raster format (geospatial features represented by a pattern of grid cells, e.g., a satellite image with pixels classified by light reflectance values). The distinctions are important for two reasons. First, the NC OneMap program and State Archives recognize that Framework datasets are the most valuable geospatial datasets for statewide applications and should be retained permanently. Thematic datasets need to be appraised on a case-by-case basis to determine the ultimate disposition. Second, considering file structure and format, application software, and other factors in geospatial technology, raster datasets are less challenging to preserve than vector datasets.

A. Geospatial Framework Datasets

Framework datasets, while expensive and time-consuming to produce, are essential for public and private business operations. The goal is to develop, maintain, and serve reliable, standardized datasets for seven themes:

a. Hydrography (includes surface waters represented at 1:24,000-scale with stream classifications, stream mapping at higher resolution, and watershed boundaries)
b. Geodetic Control (includes points depicting horizontal and vertical survey control locations as fixed by the NC Geodetic Survey)
c. Cadastral (includes parcel boundaries produced by counties and collections of counties that may be integrated into a common format; also includes subsets for state-owned land and federal land ownership)
d. Transportation (includes highways, street centerlines, bridges, railroads, and airports).
e. Governmental Units (includes state boundaries, county boundaries, municipal boundaries, and American Indian reservations and trust lands)
f. Elevation and Bathymetry (includes elevation or depth represented by contours in vector format); raster data in this category are included in Item A2 below.

Five of the seven Framework datasets are typically developed and maintained in vector format (i.e., features are represented by points, lines or areas). Imagery is produced in raster format (grid cells or pixels) with cell size related to ground resolution. Elevation is most commonly published as a raster dataset based on a model of the terrain, though elevation contours may be published as vector data.

B. Geospatial Thematic Datasets

Geospatial datasets not specified as "Framework" will be retained in the "Thematic" category. Thematic datasets are valuable for a variety of business operations. Most datasets are in vector format.

Specific Categories for Geospatial Data

NC OneMap relies on standard topic categories for publishing and managing geospatial datasets. Metadata records include keywords for topic categories, and online discovery of geospatial data relies on word searches of metadata. For guidance, the ISO 19115 Topic Categories serves as a reference for geospatial data. It is comprehensive and flexible enough to accommodate currently managed and newly developed datasets. The ISO categories are appropriate and practical for classifying and packaging NC OneMap datasets for transfer to the State Archives. For each topic category, examples are included for guidance in assigning datasets to categories. All 19 categories are included in this guide for reference.

For purposes of NC OneMap and preservation, the primary topic category for a particular dataset is the most useful for discovery. A dataset may be related to one or more secondary topic categories as noted in metadata keywords. Assignment of a topic category (stated in the geospatial metadata) is the responsibility of the data publisher, subject to quality control by the NC OneMap Database Administrator.

FARMING (001)

Datasets related to cultivation of plants and/or rearing of animals. Examples of thematic datasets are boundaries of cropland and locations of animal operations.

BIOTA (002)
Datasets created for the examination and monitoring of natural environments such as ecology, marine life habitats, and wetlands. Examples of thematic datasets include natural heritage element occurrence sites, significant natural heritage areas, coastal wetlands, and shellfish growing areas.

BOUNDARIES (003)
Datasets created for visual defining of administrative and political boundaries for different levels of federal, state, and local governments. Examples of thematic datasets are fire districts, utility districts, public school districts, public safety answering point areas, and voting districts. Framework datasets for state, county and municipal boundaries are included in this topic category.

CLIMATOLOGY/METEOROLOGY/ATMOSPHERE (004)
Datasets created for the examination and monitoring atmospherically active phenomena and processes. An example of a Thematic dataset is a representation of areas with varying wind speeds for energy analysis.

ECONOMY (005)
Datasets created for the past, present, and future determinations of economic activities such as business retention, economic development, and employment. Examples of Thematic datasets are labor force by county and locations of buildings and sites suitable for industrial or commercial occupancy or construction.

ELEVATION (006)
Datasets created for the monitoring and registration of land elevation or topography. This category includes Framework elevation datasets such as digital elevation models and points collected by Light Detection and Ranging (LIDAR) technology.

ENVIRONMENT (007)
Datasets created to aid in the monitoring and protection of environmental resources. Examples of Thematic datasets are lands donated to the state for conservation purposes, conservation easements, game lands, and areas where various stormwater rules apply.

GEO-SCIENTIFIC INFORMATION (008)
Datasets created for the monitoring of geological features such as bedrock layers, geophysical features and processes, and soil composition. Examples of Thematic datasets include detailed soils and geology.

HEALTH (009)
Datasets created for the registration and location of health services and other activities relating to human ecology and safety. Examples of Thematic datasets include hospital locations and other medical facility locations.

IMAGERY/BASE MAPS/EARTH COVER (010)
Imagery, land cover, base maps and topographic maps. Examples of Thematic datasets include the National Land Cover Dataset, a cached base map (roads, political boundaries, streams and selected layers displayed in cartographic format), and satellite imagery. Orthoimagery is a Framework dataset in this topic category.

INTELLIGENCE / MILITARY (011)
This ISO Topic Category is not likely to be used for NC OneMap records retention. Datasets representing military and intelligence features are managed by the federal government.

INLAND WATERS (012)
Datasets created to represent hydro geological information such as inundation areas and water habitats for emergency management and environmental protection. Examples of Thematic vector datasets are water supply watersheds, high quality and outstanding resource waters, shoreline, hurricane storm surge inundation areas, floodplains, and flood hazard areas. Framework datasets in this topic category include rivers, streams, water bodies and watershed boundaries.

LOCATION (013)
Datasets denoting positional information and related services. Examples of Thematic vector data in this category include postal zip code areas, Geographic Names, and address points. Geodetic control is a Framework dataset in this topic category

OCEAN AND ESTUARIES (014)
Datasets created for the monitoring and registration of coastal water bodies.

PLANNING / CADASTRAL (015)
Datasets created to model current and future uses of land such as cadastral surveys, land use maps, and zoning. Thematic vector datasets may include zoning districts and extraterritorial jurisdictions.

SOCIETY (016)
This category includes datasets created to denote characteristics of society and culture such as archaeology, anthropology, religion, crime and justice. Examples include crime patterns and historic sites and buildings.

STRUCTURE (017)
This category includes datasets representing locations of man-made structures including buildings used for a variety of purposes. Examples include building footprints (outlines), point locations of buildings, public schools, nonpublic schools, community colleges, universities, police station locations, fire station locations, and emergency operations centers. This category does not include transportation infrastructure.

TRANSPORTATION (018)
Framework datasets in this topic category include highways, streets, rail lines, bridges, and airports. This category includes Thematic vector datasets representing transportation features such as trails, hurricane evacuation routes, rail crossings, and ferry routes.

UTILITIES AND COMMUNICATION (019)

This category includes datasets created for depicting communication, energy, and water/waste systems infrastructures. Examples of Thematic vector datasets include locations of gas filling stations, public water system service areas, public water system facilities, and public sewer system service areas and facilities.

When to Apply the Records Retention and Disposition Schedule

The Retention and Disposition Schedule is designed so that a geospatial dataset is managed in the NC OneMap database or in State Archives, but not both. The key concepts for determining what to retain and when to package it for transfer to the State Archives are:

(1) Appraisal of preservation value.

CGIA and the State Archives collaborated on the appraisal of geospatial datasets in the GeoMAPP demonstration project and will continue to conduct appraisals on an annual basis. The agencies agree that framework geospatial data have the highest preservation value, and expect to preserve those datasets in all instances.

(2) Changes in a dataset or in its utility as a resource for NC OneMap.

A geospatial dataset may be replaced in the NC OneMap database when its geometric features or its descriptive attributes are modified or refreshed. Or a dataset may lose its practical value as a current geospatial resource. Where a specific dataset is a Framework dataset or is appraised as a valuable dataset for preservation, the replaced (superseded) dataset will transfer to the State Archives.

The frequency of updates to NC OneMap datasets varies from no update (static) to a matter of months, to a number of years (dynamic). Transferring NC OneMap datasets to State Archives on a quarterly basis is a practical approach that will accommodate varying numbers of datasets in a given quarter.

In some instances, datasets managed in the NC OneMap database only have an administrative value or a practical value that requires their retention for a period of time. For example, a dataset representing locations of debris after a storm has administrative value for those responsible for clean-up, but not for other business needs. In another example, “potential emergency shelter” locations were developed in 2003 to inform hurricane preparation and made available on NC OneMap. If not updated, retention of the dataset becomes less valuable over time as buildings go in and out of service and/or a definition of “potential” changes with experience and changing requirements for hurricane preparation. In the latter example, a dataset may be retired (no longer managed in NC OneMap database). Staff will need to appraise a retired dataset and apply the appropriate retention based on categories in the Records Retention and Disposition schedule.

Records Retention and Disposition for NC OneMap Geospatial Datasets

CGIA and State Archives will apply this guide to records retention as specified in the following Records Retention and Disposition Schedule. The schedule for NC OneMap covers the Framework and Thematic categories for both vector and raster datasets. Many examples of geospatial datasets are included in the text of this guide, but those enumerated may not be the same themes actually submitted for retention via NC OneMap.

OFFICE OF THE GOVERNOR
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CENTER FOR GEOGRAPHIC INFORMATION AND ANALYSIS

ITEM 49946. GEOSPATIAL FRAMEWORK VECTOR DATASET (ELECTRONIC) FILE.
The Geospatial Framework categories listed in this item include vector datasets accessible through NC OneMap:

a. Hydrography (includes surface waters represented at 1:24,000-scale with stream classifications, stream mapping at higher resolution, and watershed boundaries)

b. Geodetic Control (includes points depicting horizontal and vertical survey control locations as fixed by the NC Geodetic Survey)

c. Cadastral (includes parcel boundaries produced by counties and collections of counties that may be integrated into a common format; also includes subsets for state-owned land and federal land ownership)

d. Transportation (includes highways, street centerlines, bridges, railroads, and airports)

e. Governmental Units (includes state boundaries, county boundaries, municipal boundaries, and American Indian reservations and trust lands)

f. Elevation and Bathymetry (includes elevation or depth represented by contours in vector format); raster data in this category are included in Geospatial Framework Raster Dataset (Electronic) File (Item 49947).

DISPOSITION INSTRUCTIONS: Transfer superseded or retired dataset to the State Records Center for immediate transfer to the custody of the Archives. Contact the Electronic Records Branch prior to transfer.

ITEM 49947. GEOSPATIAL FRAMEWORK RASTER DATASET (ELECTRONIC) FILE.
The two Framework categories that include raster datasets accessible through NC OneMap are:

a. Elevation and Bathymetry (includes digital elevation models representing terrain in raster format or depth of water below water surfaces in raster format)

b. Orthoimagery (including statewide and regional orthoimagery datasets and county sets)

DISPOSITION INSTRUCTIONS: Transfer superseded or retired dataset to the State Records Center for immediate transfer to the custody of the Archives. Contact the Electronic Records Branch prior to transfer.

ITEM 49948. GEOSPATIAL THEMATIC VECTOR DATASET (ELECTRONIC) FILE.
The most common Geospatial Thematic datasets are in vector format (points, lines, or areas. For purposes of appraising archival value and organizing numerous datasets, ISO 19115 Topic Categories (with 3-digit numeric codes shown in parentheses) serve as a reference for data retention related to NC OneMap as follows:

FARMING (001)
Datasets related to cultivation of plants and/or rearing of animals. Examples: boundaries of cropland and locations of animal operations.

BIOTA (002)
Datasets created for the examination and monitoring of natural environments such as ecology, marine life habitats, and wetlands. Examples: natural heritage element occurrence sites, significant natural heritage areas, coastal wetlands, and shellfish growing areas.

BOUNDARIES (003)
Datasets created for visual defining of administrative and political boundaries for different levels of federal, state, and local governments. Examples: fire districts, utility districts, school districts, public safety answering point areas, and voting districts.

CLIMATOLOGY/METEOROLOGY/ATMOSPHERE (004)
Datasets created for the examination and monitoring atmospherically active phenomena and processes. Example: a surface of wind speed developed for energy analysis.

ECONOMY (005)
Datasets created for the past, present, and future determinations of economic activities such as business retention, economic development, and employment. Examples: labor force by county and locations of buildings and sites suitable for industrial or commercial occupancy or construction.

ELEVATION (006)
Datasets created for the monitoring and registration of land elevation or topography.

ENVIRONMENT (007)
Datasets created to aid in the monitoring and protection of environmental resources. Examples: lands donated to the state for conservation purposes, conservation easements, gamelands, and stormwater reference.

GEO-SCIENTIFIC INFORMATION (008)
Datasets created for the monitoring of geological features such as bedrock layers, geophysical features and processes, and soil composition. Examples: detailed soils and geology.

HEALTH (009)
Datasets created for the registration and location of health services and other activities relating to human ecology and safety. Examples: hospital locations and other medical facility locations.

IMAGERY/BASE MAPS/EARTH COVER (010)
Imagery, land cover, base maps and topographic maps. Examples: areas of impervious surface and land cover classes represented by areas.

INLAND WATERS (012)
Datasets created to represent hydro geological information such as inundation areas and water habitats for emergency management and environmental protection. Examples: water supply watersheds, high quality and outstanding resource waters, shoreline, hurricane storm surge inundation areas, floodplains, and flood hazard areas.

LOCATION (013)
Datasets denoting positional information and related services. Examples: postal zip code areas, Geographic Names, and address points.

OCEAN AND ESTUARIES (014)
Datasets created for the monitoring and registration of coastal water bodies.

PLANNING / CADASTRAL (015)
Datasets created to model current and future uses of land such as cadastral surveys, land use maps, and zoning. Examples: zoning districts and extraterritorial jurisdictions.

SOCIETY (016)
Datasets created to denote characteristics of society and culture such as archaeology, anthropology, religion, crime and justice. Examples: crime patterns and historic sites and buildings.

STRUCTURE (017)
Datasets created to represent locations of man-made structures including buildings used for a variety of purposes. Examples: building footprints (outlines), point locations of buildings, public schools, nonpublic schools, community colleges, universities, police station locations, fire station locations, and emergency operations centers.

TRANSPORTATION (018)
Datasets created to represent transportation features. Examples: trails, hurricane evacuation routes, rail crossings, and ferry routes.

UTILITIES AND COMMUNICATION (019)
Datasets created to depict communication, energy, and water/waste systems infrastructures. Examples: locations of gas filling stations, public water system service areas, public water system facilities, and public sewer system service areas and facilities.

DISPOSITION INSTRUCTIONS: Transfer datasets designated as archival to the State Records Center for immediate transfer to the custody of the Archives. Retain in office remaining datasets until administrative value ends. Contact the Electronic Records Branch prior to transfer.

ITEM 49949. GEOSPATIAL THEMATIC RASTER DATASET (ELECTRONIC) FILE.
Geospatial Thematic datasets are also published in raster format (grid cells or pixels). One of the ISO 19115 Topic Categories (with 3-digit numeric codes shown in parentheses) is likely to include raster data related to NC OneMap:

IMAGERY/BASE MAPS/EARTH COVER (010)
Imagery, land cover, base maps and topographic maps. Examples: the National Land Cover Dataset, USGS digital topographic maps, a cached base map (roads, political boundaries, streams and selected layers displayed in cartographic format), and satellite imagery.

DISPOSITION INSTRUCTIONS: Transfer datasets designated as archival to the State Records Center for immediate transfer to the custody of the Archives. Retain in office remaining datasets until administrative value ends. Contact the Electronic Records Branch prior to transfer.