Connecticut Geological Survey
Department of Energy and Environmental Protection

National Geological and Geophysical Data Preservation Program
Final Technical Report

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Project Title: ***Inventory and Digital Conversion of Connecticut Geological Survey Library Map Collection and Historic Biennial Reports***

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Abstract:
The overarching objective of this project was the preservation of 2 priority collections of the Connecticut Geological Survey Library: The Unpublished Map Files, and the Historic Biennial Reports. This has been accomplished through the creation of a digital infrastructure for the material, and inclusion in the National Digital Catalog. The maps and reports were converted to a digital form, and organized as an online catalog archive. Metadata for these documents has been uploaded to the National Digital Catalog for both the collections and for individual elements within the collections. The National Catalog metadata provides access to the collections online through The Connecticut Department of Energy and Environmental Protection, Connecticut Geological Survey web site. The outcome of this project is to preserve and increase the availability of Connecticut Geological Survey materials. These maps and historic reports are now eminently more discoverable by academic scholars, geoscience professionals, and public policy experts.

The final count of maps and reports preserved through creation of the digital infrastructure for this project exceeded original estimates. Through the inventory process, numerous additional documents were discovered, and many were added to the project scope of work, increasing the unpublished map file count from 914 to 1064 maps. These maps and the collection of 34 State Geological and Natural History Survey of Connecticut Historic Biennial Reports (1903-1971) are now preserved for posterity.

Comparison of Accomplishments to the Goals Established for the Project

Inventory Collections and Scan Documents
Both primary collections: the Unpublished Connecticut Geological Survey Library Map Files, and the Historic Biennial Reports, were inventoried.

Goal: A digital conversion for an estimated 914 unpublished map sheets. Additional text, extended legends, reviews, cross-sections and supporting material, was estimated to be 250 pages, and included in the digital conversion. Scan 34 Historic Biennial Reports of the State Geological and Natural History Survey (1903-1971).

Accomplishment: 1064 unpublished map documents were converted from paper and mylar to digital images. In addition to the digital conversion and documentation of supporting material, relevant text material was combined with associated maps as attached pdf pages. 34 out-of-print Biennial Reports of the Commissioners of the State Geological and Natural History Survey were scanned and made available on the agency web site. These historic reports chronicle the legacy and evolution of the Survey from its inception in 1903 until it was merged into the state environmental agency in 1971. These documents include 682 pages of text, 18 figures, 9 plates and 2 map sheets.

Metadata Creation
Both the unpublished map collection and the collection of out-of-print biennial reports of the Commissioners of the State Geological and Natural History Survey were documented for the National Digital Catalog.

Goal: Metadata records for both the collections as a whole and for individual elements of the collections were to be submitted in CSV format using templates available from http://ndc.sciencebase.gov/

Accomplishment: Collection Level Metadata Created and Uploaded to the National Catalog for 2 Primary Collections: Historic Biennial Reports; and Unpublished Connecticut Geological Survey Map File. Subsets of Unpublished Connecticut Geological Survey Map File Collection were created for Thematic Map Collections where map sets required separate metadata records at the collection level. These include Unpublished Bedrock; Unpublished Surficial Geology, Unpublished Mines Maps, and Miscellaneous collection definitions. A sub-collection within Unpublished Bedrock Geology is defined for a Carbonate Rocks Map Set. Individual Entity Level Metadata was created for maps within the collections listed above. All metadata records composed and uploaded to the National Digital Catalog portal using data entry interface and file upload tools available through the National Digital Catalog http://ndc.sciencebase.gov/ Metadata records uploaded 8/30/2013-12/13/2013.

The Department of Energy and Environmental Protection, Connecticut Geological Survey web site has an archive content area developed for material associated with this

data preservation initiative. The materials scanned and documented under this project agreement, are available on the agency web site www.ct.gov/deep/geology
Future updates to the National Digital Catalog for Connecticut Collections metadata and Connecticut Survey digital file archives are planned.

Explanation of Circumstances and Impediments
Although the project was successful in meeting stated goals, several circumstances caused delays in the rate of progress.

1. Heavy use of designated map scanner necessitated some down-time for service
2. Occasional National Catalog host web site unavailability experienced during the project period.
3. Government shut-down Oct 1-16, although beyond the established project period, occurred while metadata was still being uploaded to the National Digital Catalog, so the data entry process was interrupted during that 2 week period.
4. Internal agency review period prior to document accessibility online underestimated; expected publication by the end of 2013.

<u>Unexpected Positive Outcomes</u>

1. Focus on preservation of the Historic Biennial Reports has spawned a greater appreciation within the agency for the State Geological Survey Legacy. Interest in permanent preservation of special historic maps and reports of the State Geological and Natural History of Connecticut has been renewed through the discovery of rare century old documents and records of significant value.
2. Research on existing online map resources for Connecticut, conducted prior to the onset of scanning, revealed numerous online maps that could be excluded from the project scanning plan.
3. Inventory of the Survey Library Unpublished Map Files has revealed numerous un-cataloged maps and related documents. Those that required too much research to develop appropriate metadata could not be included in the project scope of work. These are being set aside for future updates to the National Digital Catalog.
4. Other map documents discovered during the unpublished map file inventory, but not in the original project plan, were included in the scope of work if metadata could be developed, increasing the number of maps targeted for inclusion in the National Catalog from 914 to 1064 maps.
5. As news of Connecticut Geological Survey FY12 involvement in the National Geological and Geophysical Data Preservation Program spread to academic partners, several additional historic field note books, project specimens, and maps were donated to the Survey for preservation. These will be documented and made available for use by future generations of geoscientists.

Summary Statement

Overall objectives of the Connecticut project have been met. The Connecticut Geological Survey now has the Historic Biennial Reports and Unpublished Map File Collections documented and available online through the National Digital Catalog. Collection and entity level metadata research and composition, enhanced the value and discoverability of the Connecticut Survey Collections.

Scanning and documenting the unpublished Survey Map files for the cooperative data preservation initiative provided the opportunity and incentive to research map authorship, references, and history to compose relevant entity level metadata records. Through the process of organizing the target collections for scanning and documentation, previously unknown elements of the map collections were discovered. The Connecticut Survey also has additional collections of rock and soil specimens, thin sections, field notes, and slide sets that can be included in the National Digital Catalog in the future.

The overall project experience was positive for all staff involved. The metadata entry interface and upload regimen has improved over previous years. Technical support contacts for the National Digital Catalog web site issues were fruitful. These contacts helped facilitate the metadata creation and project progress. The Connecticut Survey looks forward to maintaining the metadata records and updating content as needed in the future.