1 GEOARCHIVING BIBLIOGRAPHY

Note 1: All resources referenced to an on-line source were accessible as of December 2, 2011

Note 2: The acronym GeoMAPP is used for Geospatial Multistate Archive and Preservation Partnership

Note 3: The acronym NDIIPP is used for National Digital Information Infrastructure and Preservation Program

Appraisal of Geospatial Data PowerPoint presentation (2011), GeoMAPP,
www.geomapp.net/docs/InfoPartner_Appraisal_presentation_final_20110728.pdf

An overview and description of the archiving appraisal process for geospatial content, given by GeoMAPP members for Informational Partners in July 2011.

Archival Metadata Elements for the Preservation of Geospatial Datasets (2011), GeoMAPP
http://www.geomapp.net/docs/GIS_OAIS_Archival_Metadata_v1.0_final_20110921.pdf

An archival metadata dictionary for managing a geospatial archival repository, developed by the GeoMAPP team.

Archives Procedures for Kentucky's Geospatial Data Assets (2008), Commonwealth of Kentucky,
www.geomapp.net/docs/ky_geoarchives_procedures.pdf

This document, created by Kentucky Department for Libraries and Archives, provides an overview of the Kentucky Geography Network (KYGEONET) and the state's involvement in national geospatial repositories.

Archival Processing of GIS Data sets PowerPoint presentation (2011), GeoMAPP,
www.geomapp.net/docs/GIS_Archival_Processing_v1.0_final_publish_20111007.pdf

An overview of geoarchiving given by GeoMAPP members for Informational Partners in November 2011.

Best Practices for Archival Processing for Geospatial Datasets (2011), GeoMAPP,
http://www.geomapp.net/docs/GIS_Archival_Processing_Process_v1.0_final_20111102.pdf

A detailed overview of the archival processing workflow, developed by the GeoMAPP team.

Best Practices for Geospatial Data Transfer for Digital Preservation (2011), GeoMAPP.
http://www.geomapp.net/docs/Geo_Data_Transfer_BestPractices_v1.0_final_20111201.pdf

A detailed overview of the planning, preparation, and execution of datasets for transfer to the geoarchiving organization, prepared by the GeoMAPP team.

Blue Ribbon Task Force on Sustainable Digital Preservation and Access (2007-2010), National Science Foundation and the Andrew W. Mellon Foundation, Joint Information Systems Committee of the United Kingdom,
http://brtf.sdsc.edu/about.html

The Blue Ribbon Task Force on Sustainable Digital Preservation and Access was created in late 2007 to address the challenge of economic sustainability associated with the long-term preservation and access of the ever-growing collection of digital information. This research addressed questions such as what is the cost to preserve valuable data and who will pay for it? Broadly speaking, economic sustainability of digital preservation will require new models for channeling resources to preservation activities; efficient organization that will make these efforts affordable; and recognition by key decision-makers for the need to preserve with appropriate incentives to spur action.

Building a Business Case for Shared Geospatial Data and Services (2007), Geospatial Information Technology Association, www.fgdc.gov/policyandplanning/50states/roiworkbook.pdf

This workbook is the culmination of several years of ongoing research by the Geospatial Information Technology Association (GITA) in partnership with the Federal Geographic Data Committee. It presents a straightforward methodology for developing GIT benefit estimates, conducting financial analysis, and preparing a credible business case for a multi-participant GIT investment.

Business Planning: Developing Materials to Get Stakeholder Buy-In PowerPoint presentation (2009), GeoMAPP, www.geomapp.net/docs/GeoMAPP_Business_Case_NDIIPP20090622_AB.pdf

Presentation by the GeoMAPP team at the NDIIPP Partners Meeting, 2009, on building a business case for preserving GIS records. The presentation includes the results of two national surveys which focused on states archiving GIS records and the drivers for archiving, describing outreach and engagement efforts, and providing a step by step approach to business planning. The presentation concludes with an overview of the Utah Geoarchives Business Plan.

Economic Justification: Measuring Return on Investment (ROI) and Cost Benefit Analysis in Support of the NSDI (2009), Federal Geographic Data Committee, www.fgdc.gov/policyandplanning/newspbp/EconomicJustification_ROI-CBA-Tutorial_v2_052809_FinalVersa.pdf

This guide, developed by Applied Geographics, Inc. as consultant to Federal Geographic Data Committee, explains Return on Investment and Cost Benefit Analysis.

FGDC and Dublin Core Metadata Comparison (2009), GeoMAPP, www.geomapp.net/docs/MetadataComparison_200903.pdf

This document created by the GeoMAPP team compares two different types of metadata standards - FGDC (Federal Geographic Data Committee) and Dublin Core - for the purpose of data discovery and preservation. The report concludes with a simplified model listing the optimal metadata of the FGDC Standard and Dublin Core combined.

Geoarchiving Self Assessment (2010), GeoMAPP, www.geomapp.net/publications_categories.htm#assess

This tool was developed by the GeoMAPP team and is intended to objectively evaluate an archives' potential to archive geospatial data and/or an archives' present geoarchiving practices. Microsoft Excel 2003 or 2007 is required to view.

Geospatial Data Preservation web site (2011), Center for International Earth Science Information Network, Columbia University, www.geopreservation.org

This Resource Center is being developed at Columbia University with funding from NDIIPP to offer capabilities for finding freely available web-based resources about the preservation of geospatial information. A variety of selected resources are being added, including reports, presentations, standards, and information about tools for preparing geospatial assets for long-term access and use. The resources are indexed to enable searching of titles and are categorized to facilitate discovery by choosing among topics, resource types, or both.

Geospatial Maturity Assessment (2011), National States Geographic Information Council, www.nsgic.org

A work group of the National States Geographic Information Council (NSGIC) developed the geospatial maturity model (GMA) as a 4th generation tool to gauge the progress and maturity of GIS systems and the enterprise program in each state. The GMA is a common, credible baseline assessment methodology to routinely and continuously monitor and validate statewide geospatial capabilities. Each state is asked to complete eighty three (83) detailed questions that characterize their geospatial programs. The maturity of the GIS organization may be an indicator of the success it will find with geoarchiving and can be leveraged to make a better case for funding in the business plan. The tool and the results are available at www.nsgic.org

Geospatial Multistate Archive and Preservation Partnership Interim Report for 2007-2009 (2010), State of North Carolina, www.geomapp.net/docs/GeoMAPP_InterimReport_Final.pdf

Written by staff from the North Carolina Center for Geographic Information and Analysis and North Carolina State Archives, with input from other state partners in Utah and Kentucky. Project activities and research on the preservation of superseded geospatial content are documented. The Geospatial Multistate Archive and Preservation Partnership (GeoMAPP) was funded by the U.S. Library of Congress, National Digital Information Infrastructure and Preservation Program (NDIIPP). The GeoMAPP team explored digital preservation issues and implementation opportunities on a number of topics, including: business planning, data inventory and metadata, appraisal and access, content transfer and ingest, and industry outreach.

Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs (1992), OMB Circular A-94 Transmittal Memo No. 64, www.whitehouse.gov/sites/default/files/omb/assets/a94/a094.pdf

The goal of this Circular is to promote efficient resource allocation through well-informed decision-making by the Federal Government. It provides general guidance for conducting benefit-cost and cost-effectiveness analyses. It also provides specific guidance on the discount rates to be used in evaluating Federal programs whose benefits and costs are distributed over time. The guidelines apply to any analysis used to support Government decisions to initiate, renew, or expand programs or projects which would result in a series of measurable benefits or costs extending for three or more years into the future.

Keeping Research Data Safe - a JISC-funded Project - Cost/benefit studies, tools, and methodologies focusing on long-lived data (2011), Beagrie, Charles. http://www.beagrie.com/krds.php

This website supports the dissemination of information on the "Keeping Research Data Safe (KRDS)" cost/benefit studies, tools and methodologies that focus on these challenges of long-lived data. Keeping Research Data Safe has been developed in two major phases funded by the Joint Information Systems Committee. The first KRDS study (KRDS1) was completed in 2008 made a major contribution to the study of preservation costs by developing a cost model and identifying cost variables for preserving research data in UK universities. The second KRDS project (KRDS2) completed in December 2009, built on this previous work and identified and analyzed longitudinal data on preservation costs and benefits associated with long-lived data.

Local Agency GIS Capability Maturity Model PowerPoint presentation (2011), Babinski, G., Urban and Regional Information Systems Association., http://www.slideshare.net/gbabinski/documents

URISA's proposed maturity model indicates progress by an organization toward GIS capability that maximizes the potential for the use of state-of-the-art GIS technology, commonly recognized quality data, and organizational best practices appropriate for local agency business use. The maturity of the GIS organization may be an indicator of the success it will find with geoarchiving and can be leveraged to make a better case for funding in the business plan. Follow www.urisa.org for progress on the draft.

Memorandum of Understanding (2009), State of Utah, www.geomapp.net/docs/2009_AGRC_Archives_MOU.pdf

Developed by the Utah Archives and Records Service and the Utah Automated Geographic Reference Center to acknowledge collaboration for the preservation and the long-term availability of geospatial data, where both agencies agree to terms and responsibilities.

Multi-state Geoarchival Process Flow Chart (2008), GeoMAPP, www.geomapp.net/docs/storyboard_dataflow.pdf

This document was developed by GeoMAPP members and charts how archives and data stewards will interact intra- and inter-state to move geospatial content. The movement of content from one organization to another is a learning exercise to help identify best practices and expose potential weaknesses in current geoarchiving plans.

North Carolina Geospatial Data Archiving Project Final Report (2010), Morris, S. P., Nagy, Z., Tuttle, J.,
www.lib.ncsu.edu/ncgdap/documents.html

The authors are staff from North Carolina State University Libraries and the North Carolina Center for Geographic Information and Analysis. The North Carolina Geospatial Data Archiving Project (NCGDAP) was funded by the U.S. Library of Congress, National Digital Information Infrastructure and Preservation Program (NDIIPP). The (NCGDAP) was to inform development of a national digital preservation infrastructure through a "learning by doing" approach focused on identifying, acquiring, and preserving content within the context of the NC OneMap initiative, the statewide geospatial data infrastructure in North Carolina. NCGDAP was conceived as a demonstration preservation experience in which the archive being developed is seen not so much as an end in itself as it is a catalyst for discussion among the various elements of spatial data infrastructure. That discussion, which includes libraries and archives, is centered not just on preservation processes and best practices but also on roles and responsibilities of the various players within the geospatial community.

Preserving our Digital Heritage - NDIIPP 2010 report (2011), Library of Congress NDIIPP,
www.geomapp.net/docs/NDIIPP_Report_2010.pdf

The National Digital Information Infrastructure and Preservation Program (NDIIPP) recently released its 2010 report summarizing digital preservation issues and challenges, and highlight the goals and progress of the NDIIPP-sponsored initiatives, including the GeoMAPP project.

A Selective Literature Review on Digital Preservation Sustainability (ND). Eakin, Lorraine, Amy Friedlander, Roger Schonfeld, Sayeed Choudhury. http://brtf.sdsc.edu/biblio/Cost_Literature_Review.pdf

The goal in providing this literature review is to provide a baseline understanding of the current state of research into and practice in the sustainability of digital preservation, particularly regarding the concrete components that drive costs in the area of digital preservation. Part of this endeavor includes determining whether any important gaps in the literature still exist and if so, to highlight those areas so that appropriate future work can be undertaken.

State Business Plan Guidelines (Revised 2009), Federal Geographic Data Committee,
www.fgdc.gov/policyandplanning/revbpsp

Originally developed under a Federal Geographic Data Committee grant to the National States Geographic Information Council with Applied Geographic's, Inc. as consultant. The document provides guidelines and tools to assist in the development of state business plans for geospatial programs, as part of the fifty states initiative to strengthen the state spatial data infrastructure.

State Strategic Plan Guidelines (Revised 2009), Federal Geographic Data Committee,
www.fgdc.gov/policyandplanning/revbpsp

Originally developed under a Federal Geographic Data Committee grant to the National States Geographic Information Council with Applied Geographics, Inc. as consultant. The document provides guidelines and tools to assist in the development of state strategic plans for geospatial programs, as part of the fifty states initiative to strengthen the state spatial data infrastructure.

State Strategic Plan Process Map (Revised 2009), Federal Geographic Data Committee,
www.fgdc.gov/policyandplanning/revbpsp

Originally developed under a Federal Geographic Data Committee grant to the National States Geographic Information Council with Applied Geographics, Inc. as consultant. The document provides a process map to assist in the development of state strategic plans for geospatial programs, as part of the fifty states initiative to strengthen the state spatial data infrastructure.

Sustainable Economics for a Digital Planet: Ensuring Long-Term Access to Digital Information Final Report (2010), Smith, A., Blue Ribbon Task Force on Sustainable Digital Preservation and Access,
http://brtf.sdsc.edu/biblio/BRTF_Final_Report.pdf

In this report, the Blue Ribbon Task Force on Sustainable Digital Preservation and Access, identifies problems intrinsic to all preserved digital materials, and propose actions that stakeholders can take to meet these challenges to sustainability. The Task Force developed action agendas that are targeted to major stakeholder groups and to domain-specific preservation strategies.

Utah's Business Plan for Archival Preservation of Geospatial Data Resources (2008), State of Utah,
http://www.geomapp.net/docs/Utah_Business_Plan_Geospatial_%20Archive_2008.pdf

Developed by staff at the Utah Archives and Records Service and the Utah Automated Geographic Reference Center with Applied Geographic's, Inc. as consultant. The plan represents perhaps the first business plan of its kind where a State Archives and the State GIS agency engaged and collaborated to create a business plan.

Utah's Electronic Records Management Business Case (2008), State of Utah,
http://archives.utah.gov/recordsmanagement/ERM/ERMBusinessCase.pdf

Developed by the Utah Archives and Records Service and the Utah Division of Technology for the management of electronic records. Stated goals are to provide policies, standards, and guidelines for managing electronic records in the state of Utah (State Archives) and to provide technical solutions to help manage all formats of electronic records in the state of Utah (Department of Technology Services (DTS)). Key aspects to the document discuss business drivers, challenges, risks, the ERM model, and recommendations for next steps.

Utilizing Geospatial Metadata to Support Data Preservation Practices (2011), GeoMAPP,
www.geomapp.net/docs/GeoMetadata_Items_for_Preservation_2011_0110.pdf

Developed by GeoMAPP team members, the reference is a quick guide and description of metadata and its importance to preservation. When thoughtfully populated, geospatial metadata can be a critical resource for understanding and managing geospatial data for current and future GIS practitioners and those trying to preserve the data. A checklist of fields applicable for preservation is included.