



Maryland State Archives

Information Technology Master Plan FY 2009 - FY 2012

August 31, 2007

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Section I

General Agency Information

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Section 2 Agency Business Functions, Goals and Key Strategies

2.1 Maryland State Archives Origin and Functions



As the historical agency for Maryland, the State Archives is the central depository for government records of permanent value. Records date from the founding of the Maryland colony in 1634 through the 1990s. These records are described in the State Archives' Guide to Government Records. They include colonial and State executive, legislative and judicial records; county probate, land and court records; business records; publications and reports of the State, county and municipal governments; records of religious bodies; and special collections of maps, newspapers, photographs, and private papers.

*Search Room, State Archives, 350 Rowe Blvd., Annapolis, Maryland, June 2007.
Photo by Diane F. Evertt.*

Origins of the State Archives trace to the State's tercentenary celebrations in 1934. As the 300th anniversary of Maryland's founding approached, the Maryland Tercentenary Commission made a modern, centralized archives a key feature of the State commemoration. A "Memorial Hall of Records" was proposed as early as 1928, and in 1931 the General Assembly appropriated funds to erect an archives building in Annapolis. Construction began in 1934, and the first Hall of Records, located one block north of the State House, opened to the public in 1935. There, the records remained until 1986 when the State Archives moved to the new Hall of Records Building on Rowe Boulevard across from the Robert C. Murphy Courts of Appeal Building. On June 27, 2005, the Hall of Records was rededicated as the Edward C. Papenfuse State Archives Building.



*State Archives
(now the Edward C. Papenfuse State Archives Building),
350 Rowe Blvd., Annapolis, Maryland, March 2004.
Photo by Diane F. Evertt.*

With the creation of the Hall of Records Commission, the General Assembly provided for the management of the public records and for the collection, custody, and preservation of the official records, documents, and publications of the State (Chapter 18, Acts of 1935). Formed in 1935, the Hall of Records was an independent agency of State government and remained so until its incorporation into the Department of General Services in 1970 (Chapter 97, Acts of 1970). In 1984, the Hall of Records reformed as the State Archives, an independent agency within the office of the Governor (Chapter 286, Acts of 1984). The 1984 law defined an advisory role for the Hall of Records Commission and placed the Commission on Artistic Property under the State Archives (Code State Government Article, secs. 2-1513(b), 3-404(b), 7-213(a), 9-1001 through 9-1027, 10-604 through 10-608, 10-631 through 10-634, 10-637 through 10-642, 10-701, 10-702).

The State Archives produces web publications and on-line exhibits, as well as guides to records, finding aids, historical monographs, essays, and directories. Every two years, the State Archives compiles, edits, publishes, and distributes the *Maryland Manual: A Guide to Maryland Government* and daily updates the *Maryland Manual On-Line*. In addition, the

State Archives prepares, edits, and publishes volumes of the new series of the *Archives of Maryland*, including the *Archives of Maryland On-Line*. Examples of publications currently available are:

Archives of Maryland, new series I: An Historical List of Public Officials of Maryland - Governors, Legislators, and other Principal Officers of Government, 1632 to 1990.

Guide to County Records on Microfilm at the Maryland State Archives.

Mdlandrec.net -- A Digital Image Retrieval System for Land Records in Maryland

A Guide to Government Records at the Maryland State Archives: A Comprehensive List by Agency and Record Series.

Guide to Montgomery County Plats of Surveys, Subdivisions, and Condominiums, 1783-1993.

Guide to the Newspaper Collection on Microfilm at the Maryland State Archives.

Marylanders Who Served the Nation: A Biographical Dictionary of Federal Officials from Maryland.

Rules and regulations promulgated in the Code of Maryland Regulations give the State Archives a role in the establishment of archives in local jurisdictions (COMAR 14.18.03).

Within the State Archives are nine main units: Administration; Appraisal and Description; Artistic Property, Preservation, and Public Outreach; Digital Imaging and Acquisition; Government Information Services; Information Systems Management; Record Transfers and Space Management; Reference and Records Services, and Training; and Research and Student Outreach. The State Archives also has a Land Patents section and is aided by the Hall of Records Commission, and the Commission on Artistic Property.

LAND PATENTS

The State Archives became responsible for the functions of the Land Office and its collections in 1965. The Records Management Division, then a part of the Archives, took charge of recording and filing plats. When the Division was separated from the Archives in 1975, plats and other Land Office records became the responsibility of the Archives.

Designated Commissioner of Land Patents, the State Archivist is responsible for issuing land patents and conducting court hearings (Chapter 355, Acts of 1967). In performing these duties, the State Archivist acts independently of the duties imposed as State Archivist (Code Real Property Article, secs. [13-101](#) through [13-504](#)).

The land patent process is the mechanism for granting land in Maryland. Land patents were issued by the proprietors during the colonial period, and later by the State. Virtually all land in Maryland has been patented. Through survey errors or due to the inaccessibility of a tract, however, some land never may have been included in a patent. This land, when it is discovered, may be patented, with title passing to the patentee upon payment of the fair market value of the land to the State. The land patent process also provides a simple, convenient and prompt method of reserving vacant land for the public use of State, county or local government bodies through the issuance of certificates of reservation (Chapter 290, Acts of 1993).

An applicant for a patent must present evidence based on a title search of the property in question proving that no former patent encompasses any portion of the land. Information concerning the land patent process and an application for a patent may be obtained from the Commissioner of Land Patents.

HALL OF RECORDS COMMISSION

Created in 1935, the Hall of Records Commission is an advisory body to the State Archives (Chapter 18, Acts of 1935). The Commission reviews and comments upon policies of the Archives that concern proposed budgets, publications, and public access to records.

The Commission is composed of eleven members. Nine serve ex officio. The Chief Judge of the Court of Appeals chairs the Commission (Code State Government Article, secs. 9-1001 through 9-1006).

COMMISSION ON ARTISTIC PROPERTY

In 1969, the Commission on Artistic Property was formed (Chapter 111, Acts of 1969). It was incorporated into the State Archives in 1984 (Chapter 286, Acts of 1984).

The Commission is the official custodian of all valuable paintings and other decorative arts owned by or loaned to the State (except those located in a State room of Government House). The Commission provides for the acquisition, location, proper care, custody, restoration, display, and preservation of these paintings and decorative arts. Every person, agency, or organization desiring to acquire a painting or other decorative art work for display in a State building or premises (except in a room of Government House) must secure from the Commission both prior approval and final acceptance of the painting or decorative art work. In such instances, the Commission considers the competence of the artist, the proposed location, and the quality, historical significance, and appropriateness of the work.

With the approval of the Governor and the State Archivist, the Commission may receive and accept gifts and loans of paintings and decorative art works. With the approval of the Governor, the State Archivist may accept gifts of money for the Commission from any source, public or private, and thereafter administer and expend the funds according to the conditions and terms of the gift. In 1996, the Commission, on behalf of the State, assumed ownership of the art collection of the Peabody Institute.

The Commission consists of fifteen members. Eight are appointed by the State Archivist with the approval of the Governor. Seven serve ex officio. With the Governor's approval, the State Archivist names the chair (Code State Government Article, secs. 9-1016 through 9-1023).

APPRAISAL & DESCRIPTION

Appraisal and Description deals with the analysis and disposition of government records. The disposition of State, county and municipal records is determined by an appraisal of their value for future agency operations and historical studies.

Records Retention Schedules. Those records deemed to have permanent value are retained as archival documents. Their characteristics are described in records retention schedules. Other materials become disposable after a period of time

Disposal Certificates. Those records no longer needed are scheduled for disposal as certified through disposal certificates.

All records retention schedules and disposal certificates must be submitted for approval by the State Archivist, and it is in the review of these schedules and certificates that the disposition of records is determined. Through this process, the important administrative, legal, fiscal and historical records of government are identified for permanent retention and eventual transfer to the State Archives. Other materials, when agencies no longer need them for current operations, can be destroyed.

ARTISTIC PROPERTY, PRESERVATION, & PUBLIC OUTREACH

Artistic Property, Preservation, and Public Outreach originated as Education, Outreach, and Artistic Property, It became Artistic Property and Public Outreach in May 1999, and reorganized under its present name in August 2003.

The State-owned art collections, traveling exhibits that tour Maryland, and exhibits in the Annapolis government complex are managed by Artistic Property, Preservation, and Public Outreach. The office also supports the work of the Government House Trust, and the State House Trust. This includes management of all requests for use of the State House, and serving as liaison with the Department of General Services and the Maryland Historical Trust for maintenance and preservation of the State House, the most historically important building in Maryland. Artistic Property, Preservation, and Public Outreach also provides support for certain activities of the General Assembly.

During Fiscal Year 2007, the Commission on Artistic Property received funding for conservation initiatives to enable objects to be put on public display or remain on display. On-going conservation projects include: a 17th century portrait of *Leonard Calvert*, the first colonial governor of Maryland; a portrait of *William Paca* by Charles Willson Peale; and the canvas and frame from Rembrandt Peale's portrait of *George Washington*.

PRESERVATION SERVICES

Formerly called Conservation and Restoration, Preservation Services adopted its present name in 2001. This division conserves and cares for archival records, maintains their physical integrity, and assures their longevity and accessibility. It also provides condition assessments and performs treatments needed to prepare damaged materials for scanning.

Preservation Services oversees the Conservation Laboratory, Preservation and Access, and Preservation Outreach.

*Conservation Lab, State Archives, Annapolis, Maryland,
April 2007. Photo by Diane F. Evartt.*



Conservation Laboratory. The Conservation Laboratory preserves the physical integrity of archives in many forms, including manuscript papers and record books, microfilm, microfiche, photographs, published books, government publications, maps, newspapers, and electronic files. The Conservation Lab monitors environmental conditions in temperature- and humidity-controlled storage areas. Where appropriate, conservation measures are used. These include deacidification of paper, repair and restoration, mylar encapsulation, phase boxing, and archival bookbinding.

Preservation and Access. The State Archives preserves information with microfilm and digital imaging to expand access to historical documents. Sophisticated computer-scanning technology and microfilm produced to national preservation standards preserve images of original materials. These procedures help individuals who are not able to use originals at the Archives, and they preserve the information value of fragile manuscripts, maps, newspapers, and photographs.

Preservation Outreach. The State Archives participated in the work of the Task Force to Initiate Preservation Planning in Maryland and has assumed a leading position in promoting preservation to organizations and individuals across the State. The State Archives was designated by the Task Force to coordinate public information, workshops, and low-cost conservation services. The goal is to ensure preservation of significant collections of books and documents in Maryland libraries, museums, historical societies, government offices, private organizations, and private homes. At the State Archives, conservation staff conducts preservation workshops each spring.

SPECIAL COLLECTIONS

The State Archives is authorized to collect public and private records and other information relating to the history of the Province and State of Maryland from the earliest times. At the discretion of the State Archivist, the State Archives also is authorized to acquire collections of private records as permanent gifts (Code State Government Article, sec. 9-1010).

Special Collections started in 1935 as the Gift Collection and reorganized under its present name in 1987. In March 2005, it was placed under Artistic Property, Preservation, and Public Outreach.

Special Collections supervises the care, preservation, accessioning, and description of private records. Usually, they are given to the State Archives by private donors and generally consist of personal letters, diaries, photographs, maps, church records, architectural plans, and other manuscript documents. Maps, for example, date from 1565 to the present. They serve as an important resource for scientists, historians, and citizens interested in the Chesapeake watershed. Photographs illustrate a cross section of Maryland life and culture, including agriculture, architecture, family life, government, nautical and naval affairs, recreation, and sports. In addition, the State Archives has microfilmed records of nearly 300 churches of various denominations, and more than 250 newspapers from across the State.

With the exception of collections of fine arts, the Director, in conjunction with the State Archivist, reviews offers of materials as gifts to Special Collections. Offers of gifts of fine arts are reviewed by the Curator of Artistic Property and the State Archivist. Materials are accepted on the basis of their relevance to the holdings of the State Archives, their condition, and the need to provide for their proper storage and care.

While collections generally are offered as gifts to the State Archives, occasionally materials are accepted on deposit. The decision to accept a collection of original materials as a deposit is made by the Director in conjunction with the State

Archivist based upon the relevance of the collection to the holdings of the State Archives, its condition, and the historical value of the collection. A collection may be placed on deposit if its contents are to be photographed or microfilmed as a reference collection at the Archives and the original materials returned to the owner.

DIGITAL IMAGING & ACQUISITION

Digital Imaging and Acquisition originated as Appraisal and Preservation. When appraisal functions were assigned to Appraisal and Description, Acquisition and Preservation Services formed in May 1999. It restructured as Acquisition and Imaging Services in August 2003, and was renamed Digital Imaging and Acquisition in June 2005.

The identification, management, and conservation of the permanently valuable records of Maryland State and local government is supervised by Imaging and Acquisition. This department provides digital-imaging, microfilming, photocopy and photographic support to all aspects of State Archives work. It also manages, coordinates, and promotes the preservation digital-imaging services offered by the State Archives in Annapolis and at its Baltimore facility. In addition, this department provides logistical and technical support, and assists in the development of standards and techniques used in imaging projects.

Digital Acquisition and Imaging Services is made up of four divisions: Imaging Services, Mdlandrec.net, Microfilm and CD Production, and Quality Control.

GEOGRAPHIC SERVICES

Geographic Services establishes intellectual and physical control over plat collections, processes images for posting on *plats.net*, and gives timely and efficient customer service to system users.

Geographic records useful to planners, surveyors, title professionals, and others concerned with land use in Maryland are maintained by the State Archives. These materials include land records, surveys, plats of subdivisions and condominiums, and other court records. Reproductions of original documents and microfilm of many records, as well as scanned images in a number of graphic formats are available as are finding aids to assist in the use of these records.

Survey Materials. Many retrospective collections of survey materials are accessible on microfilm. The State Archives offers a subscription service furnishing aperture cards of plats received from the courts on a weekly basis.

Land Records. The State Archives distributes microfilm of land records on a subscription basis as they are received from the courts. Retrospective collections of microfilm also may be obtained.

For geographic information services, the State Archives provides telephone reference from 8:00 a.m. until 5:00 p.m., Monday through Friday. In many instances, requests for information can be answered within 24 hours.

SCANNING SERVICES

Scanning Services began as Imaging Services and reorganized under its present name in June 2005. Scanning Services is responsible for basic image acquisition, both from original mylar or linen documents and from microfilm. This office helps preserve and make accessible copies of records through the creation and duplication of microfiche, microfilm, photocopy, and photography. In this way, the office assists government agencies; promotes Maryland scholarship by aiding students, historians, and genealogists; provides evidential materials for legal matters; and supports State Archives exhibits and publications.

Services to Government Agencies. This office preserves the records of State and county government agencies while providing those agencies with working copies. In many instances, the office processes and inspects microfilm from other agencies.

Services to the Public. Various forms of imaging, including projection prints, photographs, slides, and microfilm of archival material may be ordered from Scanning Services. Through this office, microfilm of records is prepared and made available for interlibrary loans.

Preservation Microfilming. Records are microfilmed to archival standards that allow for the best resolution and density. These standards are defined by the American National Standard Institute (ANSI). Duplicates are provided on diazo and vesicular film. Other media, such as aperture cards, also are available.

Electronic Imaging. Record materials are scanned to convert images into electronic form. By this process, a document can be reproduced in many formats.

GOVERNMENT INFORMATION SERVICES



Organized in 1986, Government Information Services assists the citizens of Maryland and their agencies of government with current government information, continuously updated. This office is responsible for the Maryland Manual On-Line; the Maryland Manual; Government Publications; and the Library of the State Archives.

*Government Information Services, State Archives, Annapolis, Maryland, March 2007.
Photo by Diane F. Evartt.*

GOVERNMENT PUBLICATIONS

Publications and reports of State government agencies date to the early 19th century. They, with the publications and reports of county and municipal governments, have been collected by the State Archives since 1947 (Chapter 651, Acts of 1947). The State Archives also is an official depository for county charters, codes, and laws (Code 1957, Art. 25, sec. 32A; Art. 25A, secs. 3B(3), 7(b); Art. 25B, secs. 7(b)(3), 12(b)). Municipal charter amendments and annexations, after publication, are deposited annually with the State Archives by the Department of Legislative Reference (Code 1957, Art. 23A, sec. 17C).

LIBRARY

Organized in 1940, the Library is a reference source for works that supplement the holdings of the State Archives. These include published records and sources on Maryland history, government, biography, geography, and natural resources; county, city and town histories; regional studies; Chesapeake Bay; research guides; genealogies; and archives administration, conservation, and preservation. The Library of the Department of Natural Resources transferred to the State Archives in June 1987. It includes materials collected since 1942 on Maryland natural resources, wildlife, fisheries, forestry, water resources, and the environment.

MARYLAND MANUAL ON-LINE & MARYLAND MANUAL

Published by the State Archives, the *Maryland Manual On-Line* and the *Maryland Manual* describe Maryland State, county and municipal government (Code State Government Article, secs. 9-1026, 9-1027). The *Maryland Manual* has been published in print since 1896. The *Maryland Manual On-Line* has been accessible on the Internet since December 1996.

The *Maryland Manual On-Line* is a continuously updated guide to Maryland government. It presents an overview of the organizational structure and staffing of the executive, legislative and judicial branches of Maryland government. It shows agency budgets and organizational charts, lists mandated reports, and provides the origin, historical evolution, and functions of government agencies.

Biographies of government officials appear in the *Maryland Manual On-Line*. These include legislators, constitutional officers, department secretaries, judges, and Maryland's Congressional delegation, as well as county executives, state's attorneys, sheriffs, and other local government officials. The *Manual* also gives additional information on local government (county and municipal), as well as intercounty, interstate and federal agencies. In addition, the *Manual* contains the State budget, the Constitution of Maryland, and election returns. The Maryland at a Glance section offers condensed data on many Maryland subjects, State symbols, Maryland historical chronology, and Maryland government.

INFORMATION SYSTEMS MANAGEMENT

Information Systems Management began in 1989 as Computer Services and reorganized under its current name in 1997. This office oversees Electronic Archives, Information Technology Development, and Information Technology Support for the State Archives. The office also assists other State agencies in designing and updating their homepages for the web.

ELECTRONIC ARCHIVES

At its September 1998 meeting, the Hall of Records Commission resolved that a program of Electronic Archives be created within the State Archives. The program coordinates and manages the development of a permanent archives of electronic records.

MARYLAND ELECTRONIC CAPITAL

As part of the Governor's technology initiative, the [Maryland Electronic Capital](#) was the homepage for the State of Maryland. It started in the fall of 1995 and concluded in 2004.

RECORD TRANSFERS & SPACE MANAGEMENT

Record Transfers and Space Management was organized in July 2001. Previously, this unit's functions had been the responsibility of Acquisition and Conservation.

State, county and municipal government agencies in Maryland may offer the State Archives all files, documents, and records not in current use. Record Transfers and Space Management supervises the transfer, storage, and retrieval of those government records deemed to be permanently valuable.

State Government Records. The records of all State agencies, boards, and commissions that are abolished or that otherwise conclude their work must be transferred to the custody of the State Archives. By law, State agencies have their records placed on retention and disposal schedules. No public records can be destroyed without scheduling and the prior approval of the State Archives.

The State Archives shares responsibility with the Division of Vital Records of the Department of Health and Mental Hygiene for preservation of and access to vital records information (Code State Government Article, sec. [9-1015](#)).

County and Municipal Government Records. All records that are in the courthouses of the State and that were created prior to April 28, 1788 (when Maryland ratified the U.S. Constitution) must be deposited at the State Archives. All current deeds, mortgages, and releases recorded in the courthouses of the State are microfilmed and preserved at the State Archives for security purposes. Limited facilities are available for the filming of records of State agencies. The State Archives also serves as the official depository for subdivision and condominium plats.

REFERENCE & RECORDS SERVICES, & TRAINING

Reference and Records Services, and Training organized in May 2007 from Reference Services. This office is responsible for Employee Training, Publication Rights, Records Services, and Reference Services.

DOCUMENTS FOR THE CLASSROOM

An electronic reference source issued by the State Archives is *Documents for the Classroom*. For the use of teachers, students, scholars, and the general public, [Documents for the Classroom](#) are digital facsimiles of selected original documents, secondary sources, and multi-media presentations. These electronic document packets use Maryland history to illustrate national trends. They cover elements of Maryland and American history from colonization to the modern era relating to political development, cultural diversity, and interdisciplinary approaches to understanding the past.

REFERENCE SERVICES

Records are made accessible to the public and government agencies through the search room, by mail or telephone, and through electronic media. Open Wednesday through Friday, and three Saturdays a month, the search room is staffed by professional archivists to assist patrons. Electronic and mail reference services are available Monday through Friday. In addition, electronic services and information (including comprehensive catalogues of the Archives' holdings) are accessible through the [State Archives' homepage](#) on the web.

Records are used for legal documentation, historical research, land title searches, geographical information, vital record research, and genealogy. The Archives offers limited research services by its staff. Copies of records can be produced (for a fee) on paper as photographs, or as digital image files. Self-service copying from microfilm also is available for many records. Most records on microforms may be purchased or borrowed through interlibrary loan.

RESEARCH & STUDENT OUTREACH

Research and Student Outreach originated as Research and reformed under its current name in 2005. Using original documentary sources, Research and Student Outreach works to interpret, preserve, and improve access to Maryland history. The foundation of this department is collective biography developed to document the lives and careers of individuals who have shaped the history of Maryland. The primary focus is on biographies of the men and women who have served in Maryland State government. In addition to State government officials, biographical research broadens to cover special topic areas highlighting significant contributions from federal, county and local government officials, Maryland women, African Americans, Native Americans, military personnel, teachers, doctors, artists, lawyers, and others. To reach the widest possible audience, the staff prepares all research results for publication on the Archives' website and produces print media as needed.

ADVISORY PANEL FOR ARCHIVES OF MARYLAND ONLINE

The Advisory Panel for Archives of Maryland Online was formed by the State Archivist in April 2000.

INTERNSHIP PROGRAM

Each summer, internships are offered for college students to learn archival and historical methods at the State Archives. Work/study programs also are available.

2.2 Major Goals, Objectives and Key Strategies

MISSION

The State Archives is the central depository for Maryland government records, and certain designated private records of permanent value. Holdings date from 1634 to the present. They include colonial and State executive, legislative and judicial records; county probate, land and court records; municipal records; and publications and reports of State, county and municipal government. Special collections preserve records of religious bodies (particularly as they relate to the recording of births, deaths, and marriages), fine and decorative arts, business and organizational records, maps, newspapers, photographs, and private papers, including oral histories. Our central mission is to appraise, acquire, describe, preserve and make electronically available the permanent records of the past, while providing reliable current information about Maryland State, county and municipal government. Materials are made accessible through a secure and (where appropriate) web-enabled environment, continually compiled and updated for the benefit and use of Maryland citizens and public officials.

VISION

A state that preserves government records (as well as certain designated private records) and provides access to them in a convenient, cost-effective manner and in a web-enabled environment.

KEY GOALS

- Goal 1.** Identify, appraise, acquire, describe, preserve and make accessible records deemed to have permanent historical, administrative, fiscal, legal or educational value. Where appropriate, make these materials electronically available.
- Goal 2.** Describe the agencies, budgets, functions, historical evolution, organizational structure, origin, personnel, reports (mandated) and other aspects of State, county and municipal government in the *Maryland Manual Online*.

Goal 3. Facilitate a broad and better understanding of the archival record through educational programs and published historical works searchable at the *Archives of Maryland Online* website (<http://aomol.net>).

Goal 4. Manage, conserve, and exhibit State-owned fine arts collections; preserve State-owned public records.

Objective 1.2 Through fiscal year 2009 monitor and assess requirements for the permanent storage of electronic records that are legally mandated to be transferred to or backed up by the Archives and provide the information technology infrastructure to accomplish this objective.

Performance Measures	2006	2007	2008	2009
	Actual	Actual	Estimated	Estimated
Inputs: Electronic record storage capacity (gigabytes)	94,700	94,700	153,600	153,600
Outputs: Electronic data managed (gigabytes)	65,000	70,200	73,365	76,530
Website files online (images, htmls, etc.)	158,938,394	183,111,023	216,298,042	249,485,061
Database Records Managed (millions)	6,191	10,474	14,474	16,474
Efficiency: Ratio of electronic data managed to storage capacity	69%	74%	69%	50%

Section III Archives' IT Strategic Direction

1) Summary of Current Archives' IT Environment

a. Background.

We are faced with some daunting challenges with regard to what of the electronic record we should and must be saving, whether it is for legal purposes or for the necessary enlightenment of the public over time.

The State Archives is Maryland's historical agency and permanent records repository for government records, the ultimate repository of the people's records, as one Court Clerk has pointed out. An archives is the conscience of the public, the repository of its collective memory, recording the history of the State. The Records Management Division of the Department of General Services has responsibility for non-permanent or temporary records that can be disposed of after a period of time. The Archives and Records Management currently share responsibility for the creation of disposition and retention schedules. After records of an agency of State government are reviewed or appraised by archivists and records managers, a determination is made for each type of record whether to keep the record and for how long; based on the record's administrative, financial or historical value. The disposition and retention schedules cite if the record can be destroyed immediately; transferred to Records Management for eventual destruction; or transferred to the Archives for permanent retention.

Although the vast majority of Maryland's permanent records exist in paper form and on microfilm, the past decade has witnessed the rapid growth of electronic records. The same basic issues of appraisal, access, and preservation of information that pertain to paper records also pertain to electronic records. Records once kept in paper or on microfilm now exist on a variety of computer information systems. Many of these are permanent records, but their electronic form is fragile and easily lost (witness the meltdown of Blackberry service and the untrackable nature of texting).

Developing strategies to preserve electronic records is a challenge to the agencies that manage the information, the information system professionals and archivists and records managers.

Satisfactory management of electronic records requires that records be actively managed throughout their life cycle: from creation, through all phases of access and use, to final disposition, whether that is permanent storage or eventual destruction. It is important to understand the distinction between the life cycle of records and the life cycle of information systems that create, manage and use the records and the life cycle of the media on which the records are stored. The life cycle of records often exceeds the life cycle of the information system in which the records are originally created or captured.

Likewise, some storage media will significantly outlast the hardware and software necessary to retrieve and display the records stored on them. To successfully manage and maintain electronic records, it is important to determine if the records will be needed beyond the life of the system where they are currently stored and, if necessary, to plan for the migration of the records to a new system before the current system is retired.

Over the past three years we have created the finest electronic archives in the United States bar none, including the Library of Congress and the National Archives, thanks to the support of the Judiciary. In the creation of <http://mdlandrec.net> we have established the model, and the principle that any records that are created by government that are meant to be permanent, should, start their life cycle at the Maryland State Archives, while leaving the accountable source of their creation and daily administration with the agency charged by law with their creation and/or collection. We are working on improved guidelines and regulations to encourage this happen and will have new draft regulations in place for review by the end of the year. They include the requirement that agencies will:

(c) Provide for the ultimate disposition of the information, including transfer of permanent electronic records to the Archives as soon as they are created or born digital within a time frame agreed upon in the records retention and disposition schedule;

We have worked with the Legislature this past session and will next, to reinforce the principle that permanent records born digital belong at their inception at the Archives for both security backup and disaster recovery, as well as for long term access to permanently valuable public information. We have already established a prototype web site for the complete automation of transferring both paper and electronic records to the Archives and are working closely with the Executive Department to make this routine with regard to Executive records, just as we have done with Land records. (<http://transfer.mdsa.net>) The successful management and preservation of electronic records, however is not something that we can undertake alone. It will take the creative energy of IT professionals, archivists and records managers working together to preserve the essential information of government in a permanent format that is accountable, verifiable, and susceptible to a transparent migration from the media format of today to the media format of tomorrow in the most effective and cost efficient manner possible.

The first step is to carefully examine IT operations with regard to what must be saved permanently as the permanent public record and what form that record should take. The second is to use the Archives Records Retention and Disposal scheduling process and the Archives Electronic Archives as the "safe harbor" for discovery of public access to public information in its most elementary, live, electronic form. We hope that agencies would also consider using the Archives as the ultimate disaster recovery resource and as the referral place for most, if not all, PIA (Public Records Information Requests). In doing so, we suspect that agencies will actually be able to keep costs for Information Services at their current projected level and possibly even save money. We saved the Judiciary ca. 20% of their own projected costs for creating a permanent imaging system for land records, one which at the time we offered to help, did not have a required archival component.

Since FY2002, the Archives has taken the lead in confronting a revolution in the very nature of government records: how they are created, stored, and made accessible. Almost overnight, the paper world has been overtaken by the advent of the electronic record, a medium that has grown far faster than the ability of archives all over the world to cope with it. The move to automated systems at all levels of government presents this and all archives with enormous challenges and exciting opportunities. The challenges are to find the resources to store and make accessible the huge volume of electronic records created by government each day. If this can be done, then basic services and records that relate to the lives of our people, and the interaction between the public and their government will be available at the click of a mouse.

Electronic Archives. To meet these challenges, the primary response of the Archives has been to create a truly viable and permanent electronic archives. The electronic archives encompasses a number of initiatives that collectively represent a

significant achievement by ensuring long-term access to and preservation of important records and will serve as a model for the future development of an electronic archives. Examples of these initiatives include:

- *mdlandrec.net* An image retrieval system for land records and land record indices in Maryland
- *plats.net* The image reference system for Land Survey, Subdivision, and Condominium Plats
- *aomol.net* The Archives of Maryland Online currently provides access to over 471,000 historical documents that form the constitutional, legal, legislative, judicial, and administrative basis of Maryland's government
- *mdihp.net* The Maryland Historical Trust's Historic Sites Survey materials
- *mdgovpics.net* The model program for preserving contemporary photos taken by the State's photographers
- *mdhistpics.net* An image retrieval system for historical photos from our special collections (under development)

The primary focus of the Program in FY2007 was on completing the initial development, implementation, and roll out of *mdlandrec.net*. Successful implementation of the *plats.net*, ELROI (the courts' recordation system), and the *mdlandrec.net* partnership has enabled Maryland to become the first state in the nation to provide comprehensive, cost-effective and efficient access to existing records relating to land use and ownership. This effort also will insure a means by which to preserve and make accessible those records that the Courts identified as in danger of being lost forever. Finally, *mdlandrec.net* helps secure the State's significant investment in the digital imaging of land records by enabling older ELROI images to migrate to a cost-effective archival environment.

By the end of FY2007, *mdlandrec.net* was fully implemented in all 24 circuit courts. In all, the Archives acquired and migrated 161,868,112 land record and index images into the Archives' mass storage arrays. Additionally, the Archives generated archival microfilm and provided security duplicates of approximately 13,382,920 images of recent filings from the courts. Archives added 25,411 images to *plats.net*, Maryland's digital system for accessing plats. As of June 30, 2007, the Archives has been able to make available more than 162,911,813 digital images of Maryland plats, land records, and indices through *plats.net* and *mdlandrec.net*.

"Phase I" of *mdlandrec.net* has been completed. This encompassed 60 years retrospective, (from present day back), of land records online. Following completion of this initial phase, the focus shifted to completing the following in fiscal year 2008:

- Placement online of all remaining extent land records and index books
- Development of an enhanced version of *mdlandrec.net* that will provide greater system security, faster, more effective searching capability and upgraded database and operating system structures
- Implementation of a disaster recovery and business continuity model
- Image improvement and record reconstitution for those images scanned from poor quality microfilm that are difficult to read
- Validation and verification exercises to guarantee image quality.

By the end of FY2008, this joint partnership with the Judiciary will afford the electronic storage and servers necessary to archivally preserve and to provide enhanced public access to more than 200,000,000 plat, land record, and index images.

The documented achievements of these inter-agency land record initiatives (ELROI, *mdlandrec.net*, & *plats.net*), impressive as they may be, represent just a portion of the challenge confronting the Maryland State Archives. Thousands of records (many of them vital to the lives of our citizens) urgently require preservation in electronic form. The success of these initiatives (well documented in the MFR) serves as a model for meeting this challenge and demonstrate the efficiency with which self-help digital delivery of records can improve archival service, reduce costs, and promote preservation.

b. Drivers and Issues

The Archives has, over the last 10 years, become increasing more efficient and innovative in the delivery of services to the citizens of the State electronically. Technology has played a vital role in the effective delivery of Archives' services to a worldwide audience of clients. In keeping with the State's IT goals, the Archives has a) adapted technology that improves the quality of service to citizens, b) collaboratively consolidated existing technology and information to

increase the efficiency of agency operations, and c) implemented appropriate security systems and procedures to protect the States assets.

The move to automated systems at all levels of government presents this and all archives with enormous challenges and exciting opportunities. The challenges are to find the resources to store and make accessible the huge volume of electronic records created by government each day. If this can be done, then basic services and records that relate to the lives of every citizen, and the interaction between Maryland citizens and their government, will be available at the click of a mouse. To meet these challenges and take advantage of the opportunities, the primary objective of the Archives has been to create and maintain a truly viable and permanent electronic archives.

Electronic Records Management

“...The challenge is to determine which types of electronic records must be retained and for how long, as well as how to best preserve them and make them available...”

For presentation purposes we have grouped the drivers and issues into two categories: statewide and agency specific.

Statewide

One issue facing perhaps every agency and local government in one way or another is effective records management. Inadequate records management programs means, among other things, that there is no reliable inventory of records upon which the Archives can base good planning for the accessioning of permanent record material. There has been talk over the last several years of transferring the responsibility for records management to the Archives, but it will take some time and considerable effort to thoroughly develop a model program for the state. In the short term, MSA will proto-type a web-based records inventory collection system that will serve to establish a baseline records inventory process as a start.

Another fundamental problem is that while we have fundamentally shifted from a paper-based records world to an information technology environment, the processes and procedures for identifying and effectively migrating permanent record material to the Archives has not yet matured. Indeed, there are many systems still being developed today that lack the ability to migrate data into an archival form and format for efficient transfer to the Archives.

A good example of *some* of the problems associated with the management of electronic records is exemplified by electronic mail (email).

Definitions:

- E-mail systems store and deliver text messages and attachments from one computer user to another.
- E-mail messages are electronic documents created and sent or received by a computer system. E-mail messages are similar to other forms of communicated messages, such as correspondence, memoranda, and circular letters.
- An e-mail message is a document or item created or received by an agency. Whether the e-mail serves to document the organization, functions, policies, decisions, procedures, operations or other activities is the deciding factor as to its status as a record.
- What is a record?

“public record”

- “original or any copy of any documentary material ... made ... or received by [an agency] in connection with the transaction of public business” SG §10-611(g)(1)(i)
- can be in “any form”, including without limitation: card, computerized record, correspondence, drawing, film or microfilm, form, map, photograph or photostat, recording, tape SG §10-611(g)(1)(ii)

- “public record” includes both printed and electronically stored versions of e-mail messages, e-mail messages never printed out, and includes e-mail messages related to agency business on employee’s home computer.

81 *Opinions of the Attorney General* 140 (1996)

What E-mail should be kept and how long?

E-mail should not be given any special treatment because in essence it is just like any other form of written correspondence with the only differentiating quality being the medium or mode of delivery. E-mail itself is not considered a record series or category. It is a means of transmission of messages or information. Like paper or microfilm, e-mail is the medium by which this type of record is transmitted.

The two basic criteria in deciding what to keep are whether it is non-permanent or permanent. In basic terms non-permanent retention is based on the time-value to the business function of the agency, while permanent retention is based on the record's value after it no longer serves the agency's business requirement. E-mail messages that have significant administrative, legal fiscal and/or historical value should be categorized under the appropriate record series. Using the creating agencies current retention policy should be sufficient in guiding the record keeping.

Records with permanent value include but are not limited to the following:

- Documentation of state policy (laws, rules, and court decisions),
- Documentation of the policy process (minutes of meetings, transcripts of selected hearings),
- Protection of vital public information (births, deaths, marriages and reports).

Some suggestions on what the record creator should save:

- Personal E-mail [Delete]
- Non-Record Material [Delete]
- Transitory E-Mail [Delete after certain time]
- Intermediate E-Mail [Delete by schedule]
- Permanent E-Mail [Delete only when permanent copy is made, forward copy to archives]

Transitory documents are of informational value, which serve to convey information of temporary importance in lieu of oral communication. Intermediate documents have more significant value, may include but are not limited to: Routine correspondence, Activity Reports, and weekly fiscal reports. Permanent documents are records that are deemed of value over the life of creator. These may include but are not limited to: Meeting Minutes, Policy Statements, and End of Year Reports.

Who should save e-mail and how?

Some feel the individual who sends an e-mail message should maintain a record copy of the message. However, the varied use and wide distribution of e-mail may result in many exceptions to this rule that will have to be dealt with internally. There are clearly instances when the recipient should maintain the record. Again, these issues need to be discussed particularly in the context of the definition of a public record in the Public Information Act.

After brief periods in the IN-OUT boxes, messages of permanent value should be transferred to other boxes or to a central server, based on business and retention requirements; E-mail that is designated as permanent should be saved to an on-line storage folder or permanent near-line storage periphery.

In order to aid in the managing of the E-mail system the creator should provide descriptive subject lines. This not only enhances the e-mail but also makes retention much easier.

The system should be maintained in a format that preserves contextual information and that facilitates retrieval and access. The system should allow for periodic deletion of non-permanent messages. Both permanent and non-permanent records should be stored in a logical filing system.

System administrator/Records officer of the creating agency should manage the e-mail system and forward on a periodic basis, per retention schedule, file folders containing saved e-mail

All of the above, even though related specifically to email, argues well for the establishment of a more robust and comprehensive records management program in the State.

Some other problems related to records management:

- Agencies tend to think of records in terms of paper files or series of paper files
- Therefore, record retention programs tend not to include vitally important electronic record series
- Agencies have tried to hold onto records they designate as permanent
- Many record series are not considered by an agency to be a records series. Examples:
 - Access Log Files
 - Security Log Files
 - Voice Mail
 - email
 - databases

Some issues related to data:

- Collection and transfer
 - Open standards for transfer and retention ???
 - Proprietary applications which lack export function
- Conversion, assurance, consolidation and integration
- Integrity - - monitoring and audit data flow
- Security
- Correction and expungement
- Delivery and sharing
- As well as shielding and restricting
- Certification

Agency Specific Drivers and Issues

Some agency specific drives and issues are summarized below:

- ❑ **Interoperability constraints.** Collecting all of the electronic data designated for permanent retention presents a myriad of issues with regard to formatting, transferring, updating, validation and verification
 - ❑ **Data integrity.** Converting data for preservation without losing content, style and quality
 - ❑ **Data Security.** Network security is becoming much more complicated. So, too, is system security
 - ❑ **Backup and restore.** Large amounts of data require different backup and restoration procedures
 - ❑ **Data Delivery.** The public is now accustomed to receiving 24 x 7 service from the Archives via the web, yet we only have staff to operate weekday / daytime hours. Also, shielding and restricting access need to be effectly applied where law or regulation demand.
 - ❑ **Framework training.** As increasingly sophisticated networking configuration is required, local IT staff need much more extensive training to remain qualified to manage large networks. Focusing on internal networking issues reduces the capacity to attend to application-level concerns
-

c. IT Accomplishments

Far and away the greatest accomplishment of the Archives in the last couple years is the establishment of the electronic archives and the implementation of *mdlandrec.net*. Some facts are as follows:

- o 162,911,813 images online
- o Images managed by over 10,000,000,000 database records
- o Successful nightly migration of JIS mainframe data (DB2) to SQL Server
- o 100 Terabytes of data replicated for protection
- o Last year delivered 48 terabytes of data via 605 million web requests

Some positive impacts are as follows:

- o Over 40,000 registered subscribers who heretofore had to go to the court to do research
- o Great efficiencies for agencies of State and local government who need access
- o Assurance of permanence of the record

Other accomplishments:

- Data Integrity – land record data processing and data flow is routinely audited
- Data Security
 - Network protected by enterprise firewalls and host / PC firewalls monitored by IPS and MARS
 - Critical systems are set up to be dual-host locally
 - Critical databases mirrored locally
 - Image data fully backed up monthly with daily incrementals
- Data Delivery – Multi-home Internet connections

Finally, we would like to make mention of a couple other significant websites of the Maryland State Archives:

<http://mdslavery.net> provides significant genealogical and historical insight into the heritage of Maryland's African American community.

<http://teachingamericanhistorymd.net> provides teaching materials and documents for the classroom for use by teachers and students in elementary and secondary schools as well as colleges and universities.

<http://mdmanual.net> the *Maryland Manual On-Line* provides continuously updated information on Maryland government.

<http://mdelect.net> the *Who Are Your Elected Officials?* Provides interactive mapping and address query capability to find out who represents you and in Maryland Legislature and the congress and provides links to the *Maryland Manual On-Line*.

d. IT Goals and Strategies

As with the Drivers and Issues, we will present the goals and strategies in terms of what we think are statewide requirements and what a agency specific items.

Statewide

Policy and programmatic initiatives that should be addressed include:

- Development of standards for preservation of the permanent record (pdf – a)
- Procurement authorities and agency staff need to have established guidelines and standards to refer to when drafting requirements documents for information systems

- Legacy systems need to be able to export data
- Retention policies need to be developed, reviewed and enforced

Recommendations for each agency of state and local government:

- Make sure your agency has a viable records management policy and procedure
- Educate your IT staff on basic records management requirements
- Inventory all information assets under control of the IT operation
- Identify agency records manager or appoint an IT records manager
- Incorporate the inventory into the records retention and disposition schedule
- Integrate e-records management concepts and practices with comprehensive information management policies, processes and objectives to assure the integrity of e-records and information
- Employ ERM to support interoperability, timely and effective decision making, and improved services to customers
- Provide the tools for agencies to access e-records for as long as required and to transfer permanent e-records to MSA for preservation and future use by government and citizens
- Design and architect means to migrate permanent record material to the archives immediately upon creation (xml may be the way)

Agency Specific

Short term strategies (two fiscal years) specific to information technology are as follows:

- Finalize Memorandum of Understanding (MOU) with UMBC to house disaster recovery / business continuity equipment on campus. Establish remote site as the data back-up and restore resource to mitigate the long backup window problem in Annapolis
- Finalize MOU with DBM to provision high speed data circuit through NetworkMD
- Development of regulations and model legislation
- Develop model for records inventory
- Develop a web-based tool for agencies to enter preliminary records inventory data as the first step in addressing this goal of the State of Maryland Information Technology Master Plan.

#9 Supporting Strategy: Information Retention Standards (Statewide)

The Maryland State Archives is in the initial phases of establishing a statewide policy for the retention and storage of records. Once the policy has been developed, State agencies will be consulted and tasked to design and implement the information systems required to support this standard.

- Recommend open standard formats and protocols for data output and transfer
- Develop authenticated wireless connection in common research areas of MSA

Longer term Strategies

- Develop new legislation and model records management program
- Help DBM develop standards for data format, export and migratability for inclusion in IT purchases and development projects
- Migrate important permanent records series (or at least minimally the index data related thereto) to the Archives as a security back-up measure

- Create central data deposit services with full-scale multi-home network connections / providers
- Implement ecommerce solutions for online purchasing
- Develop standard interfaces for other agencies to access online systems via proxy

Goals and Strategies related specifically to *Mdlandrec.net*

1. Security

- a. Improve password security by requiring users applying for new accounts to select a password reminder question and answer. Current account holders would be asked to select a question the first time that they access Version3 in order to update their account information. Users must answer their reminder question correctly to get the password by email.
- b. Reroute logout so that courthouse users are redirected to county home page instead of the MDLANDREC login screen.
- c. Improve validation in search forms to prevent users from entering invalid characters, make sure that required fields are entered prior to submitting the query to the server, and improve query performance. This validation also prevents users from locking up search threads on the servers by hitting the submit button numerous times if they think the search is taking too long.

2. Searching

- a. Modify database structure to improve performance and help prevent search queries from timing out.
- b. Reduce the number of instances where user has to select desired book from a list of similarly named volumes by cross matching JIS volume references to MSA accession numbers.
- c. Improve the accuracy of the value of the ending page of instruments derived from JIS CAIS/COTT data.
- d. Add a new search box where the user can input a house number and street name. This search mimics the existing street address search available on the Real Property website. This search can be turned on or off based upon county.
- e. Add data update date to website to reflect the most current dataset available in MDLANDREC
- f. Add verified date for CAIS/COTT data on the search results and printed results page.

3. Navigation Improve navigation by:

- a. Allowing users to view an entire instrument if they enter a page number in a jump box for a page in the middle of the
- b. Reroute users to page-by-page navigation from the CAIS/COTT search when the ending page of the instrument is unknown so that the user can determine the end of an instrument
- c. Reroute users to instrument-by-instrument navigation from the CAIS/COTT search when the ending page of an instrument is known.
- d. Display hyperlink for the instrument view only if the ending page of an instrument is known.

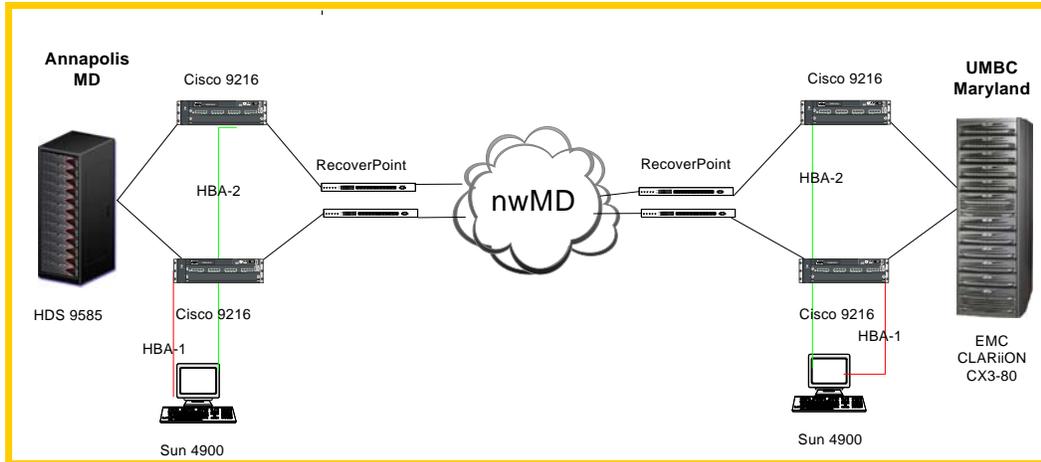
4. Appearance Simplify overall appearance of website to make pages easier to read, user interfaces self-explanatory, and navigation more efficient.

5. DB2 Download. Streamline DB2 download of land record index data from the Judicial Information Systems mainframe by adopting a DB2 log processing system that essentially journals changes in the data to the Archives. This will:

- a. Reduce demand on JIS mainframe
- b. Establish “near time” update capability
- c. Eliminate time and resource consuming whole downloads

6. Instrument Transfer. Work with the Judiciary to establish a verifiable and authenticable means to transfer land record documents by instrument as opposed to the Judiciary consolidating instruments into artificial “volumes” as has been the tradition. This is allow for more real time access to instruments and will help facilitate electronic filing.

7. Data Replication. Complete the data replication model depicted below.



e. Agency Support of the State IT Master Plan

Consolidation

1 *mdlandrec.net* and *plats.net* (Statewide)

Implementation of *mdlandrec.net* allowed the Judiciary and the Archives to consolidate access to land record instruments into one standard, consolidated system statewide as opposed to separate systems in each of the 24 circuit courts. Together, these projects:

- Make land records more widely accessible via the Internet
- Reduce or eliminate the need for people to visit the courthouse
- Enable the courts to provide constituents (state and local government, researchers and the land record user community) with comprehensive access to recent and historical land record filings in conjunction with existing materials relating to land use and ownership
- Free the courts from the costs of storing and caring for collections of large, deteriorating materials that are difficult and expensive to maintain and duplicate
- Over time, eliminate the need to maintain costly and bulky microfilm reader printer equipment and film storage devices in the State's courthouses
- Operate in conjunction with ELROI the recordation system
- Provide timely updates and efficient preservation of new land record filings.
- Secure the State's significant investment in digital imaging and provide authentication and backup of scanned images through duplicate archival images in the electronic 'vaults' of the Maryland State Archives.

2 IT Platform Consolidation (Statewide)

IT platform consolidation options will be analyzed in FY09 to identify opportunities to gain efficiencies. A consolidated web hosting Virtualizing (VMWARE) system has previously been identified as a consolidation opportunity.

3 Web Hosting (Statewide)

The Maryland State Archives webhosting plans from space on one of our shared servers to co-location of any State of Maryland Intel platform. State-of-the-art shared web servers run Apache, IIS. Maryland State Archives support Perl. Our hosting facility has multiple redundant internet connections for guaranteed bandwidth. We have battery and generator backups for uninterrupted clean power, and we offer nightly automated server data backup to all customers.

Standards

1 Information Retention Standards (Statewide)

The Maryland State Archives is in the initial phases of redrafting regulations related to records retention. In addition, the Archives will build and prototype a model web-based system for agencies to use to inventory records – a necessary prerequisite to development of a sound records management program.

Interoperability

1 Land Records Access

The Maryland State Archives is programming interfaces in to the *mdlandrec.net* system for both the State Department of Assessments and Taxation in support of the ground rent legislation passed last year and to the Maryland National Capital Parks and Planning Prince George's County PGAtlas project.

Section IV Agency IT Portfolio

Agency IT Portfolio:

- 1) Baseline IT Budget:
 - a) Total FY08 Budget: \$ 2,413,992
 - b) Requested FY09 Budget: \$ 1,506,259