2016 Annual Report

Maine Library of Geographic Information

To the Joint Standing Committees of:
Environment and Natural Resources
and
State and Local Government

128th Legislature, First Session

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

(page left intentionally blank)

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

Table of Contents

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

GEOLIBRARY PURPOSE

In 2001, the Legislature instructed the State Planning Office to convene what came to be known as the Resolve 23 Steering Committee (Committee) to study the use of GIS in statewide strategic planning. The Committee developed a needs assessment- the conclusion of which recommended the creation of the GeoLibrary, its method of governance, and strategic focus. The Legislature and Governor concurred, and the Maine Library of Geographic Information Act 5 M.R.S.A. Section 2001 et seq became effective April 2002. The Maine Library of Geographic Information ("GeoLibrary") was established as a partnership of public and private stakeholders with the following guidance of purpose and duties, to;

- Operate a coordinated, cost-effective electronic gateway providing access to data custodians' public geographic information;
- Establish and maintain standards, rules and policies for non-state data custodians' geographic information;
- Reduce redundancies in the creation, verification and maintenance of public geographic information and to enhance its utility for complex analyses;
- Set priorities and authorize the expenditure of state funds;
- Promote innovative uses of geographic information;
- Enter partnerships to promote the purposes of the legislation;
- Hear and resolve disputes that may arise between data custodians or with respect to information to be placed in the Maine Library of Geographic Information, enforcement of geographic information GeoLibrary standards, rules or policies or other related matters;
- Conduct studies relating to the coordination, development and use of statewide geographic information;
- Report annually by January 1st to the joint standing committees of the Legislature having jurisdiction over natural resources matters, and state and local government matters, and;
- Develop appropriate internal services to facilitate generalized access for and use of data by governmental agencies and the public.

1. EXECUTIVE SUMMARY

The GeoLibrary continued its efforts to coordinate agency data acquisitions in 2016. MeGIS completed a restructuring of its staff. This has resulted in a reduction of staff time allocated to supporting GeoLibrary activities. This reduction limits the GeoLibrary' s ability to develop geospatial acquisition plans and manage its active projects, a five-year effort to acquire orthoimagery statewide, and a continuing effort to improve elevation data from the current 10-meter digital elevation models to 2-meter models. Geospatial data sets of high importance to the State are not being updated to reflect today's standards for accuracy. The GeoLibrary's ability to implement improvements is severely impacted by its lack of funding and staff support.

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

Following is a summary of the GeoLibrary's data acquisition activities and data needs. These topics are presented in greater detail in the full report.

ORTHOIMAGERY

The GeoLibrary added acquired imagery for Franklin, Somerset and one third of Penobscot counties totaling over 4,000 square miles of imagery in its final year of a five year project. Five communities purchased higher resolution imagery, one was a repeat customer. Experience has shown towns are saving at least $20,000 each by participating in the program. Using this estimate of savings this year communities have saved at least $100,000.

ELEVATION

The United States Geological Survey (USGS) approved the GeoLibrary's 2015 LiDAR data acquisition application to acquire data for an estimated 5,312 square miles. The contractor completed data acquisition in the spring of 2016 and delivery of data is expected in January of 2017. The GeoLibrary developed another proposal for submission to the USGS in the summer of 2016 to acquire an additional 8,000 square miles and anticipates being approved early in 2017.

PARCEL MAPPING

One new town (Rangeley) was added this year and just eight communities provided updates to their data. Two hundred and eight communities are still without digital tax maps. Several times a year, inquiries from communities are made asking regarding the availability of grant funds to help pay for the conversion of paper maps to digital.

GEOLIBRARY RECOMMENDATIONS

DATA ACQUISITION

Recommendation: *The Legislature should support funding the Geospatial Reserve Fund (account number 014-18B-3057) for the purposes of providing matching funds for data acquisition. This could also be done through issuance of Bonds or a direct general fund allocation to support data acquisition.*

ONEMAP FOR ME

Recommendation: *Since all of the data sets described or addressed in this report are not the responsibility of any one particular agency, the GeoLibrary recommends adoption of a OneMAP for ME program for updating and maintaining this data. The Legislature should provide funding to update the State's geospatial data acquisition and maintenance as part of an overall strategic plan. This plan should identify priorities for data updates, cost estimates, potential partnerships and funding mechanisms for the Legislature to consider.*

Geospatial Data Library

Recommendation: *The GeoLibrary should be provided funds to develop a new plan and an estimate of costs for managing a geospatial data portal. The plan should include estimates for hardware, software and staff support for acquisition, development and ongoing maintenance.*

2. 2016 ACTIVITIES

The GeoLibrary continues to support and play a key coordinating role in the GIS community. Despite lack of funding, it has started refreshing three key data sets of statewide importance. Through volunteer efforts of GeoLibrary members and support from the Maine Office of GIS, the GeoLibrary was able to add considerably to high-resolution topography and orthoimagery data sets. Several communities provided updated parcel data.

DATA ACQUISITION

I. LEAF-OFF ORTHOIMAGERY ACQUISITION PROGRAM

The Maine GeoLibrary, with support from its GeoLibrary members and the Maine Office of GIS, initiated a plan to acquire orthoimagery statewide over a five-year period. In 2016, imagery was acquired for Franklin, Somerset counties and the northern third of Penobscot County. Much of this area has not previously had any leaf-off imagery. This added to the acquisitions in other parts of Maine completed annually since 2012 brings total coverage to about 22000 square miles or over half of the state.

During the five year program, 77 communities took advantage of the opportunity to buy high-resolution imagery. Never in Maine's history have so many communities been able to purchase high resolution imagery. Several communities were repeat customers, updating their previous purchase to meet the needs of development and change detection. For many communities, this is the first time it has been financially feasible to purchase high resolution imagery. This is due to the economies of scale afforded by contracting a statewide orthoimagery project.

In addition to the benefit of community buy-ups, with completion of the 2016 acquisition, new imagery has been acquired for 12 of the 16 counties. These data sets are available for use by public and private organizations, nonprofit corporations and individuals at no additional charge through the GeoLibrary's data catalog. This program is a great example of a cost sharing approach leveraging state, county, and municipal funding sources.

With the completion of the 2016 program, total savings for the 77 participating communities is estimated to be $1.5 million. In addition to the community savings, the GeoLibrary utilized state agency funding of $480,000 to leverage nearly $1.3 million in funding from federal agencies, counties and communities. This unique collaborative effort has resulted in a bulk purchase of imagery resulting in better quality imagery products from previous acquisitions, saving Maine taxpayers many thousands of dollars.

The GeoLibrary initiated a request for proposals to acquire imagery and the geospatial firm of Woolpert Inc. was selected to provide orthoimagery acquisition services during the next six years. This will provide continuity for a program that has benefitted counties and municipalities substantially. The GeoLibrary encourages counties that have not participated to join its efforts to acquire an orthoimagery base map for all of Maine.

Challenges

This program is dependent upon state agencies supplying funds to match county and local funding. Three state departments provided all the matching funds for this program and the GeoLibrary was unable to provide opportunities for the four remaining counties to participate due to lack of funds. As the GeoLibrary looks forward to the next six year program, one agency has already dropped out because available funding is reduced. With just two departments supporting the program, acquisitions will be limited and it is expected that more counties and communities will wish to participate than the GeoLibrary has resources to support.

During the most recent five year term of the program, the GeoLibrary fell short of being able to provide funding sufficient to do the whole state. The availability of funding from federal sources was inadequate and state agency funding was insufficient to make up the shortfall. Consequently four large counties were not able to participate in the program.

Recommendation: *The Legislature should support funding the Geospatial Reserve Fund (account number 014-18B-3057-04) for the purposes of providing seed funds to encourage partnerships for orthoimagery data acquisition. This could also be done through issuance of bonds to support data acquisition.*

II. HIGH RESOLUTION ELEVATION DATA

Since 2009, the GeoLibrary GeoLibrary has initiated several projects to acquire high resolution elevation, also known as topographic data. Despite a lack of significant funding, it has developed partnership proposals to acquire new data with Light Detection and Ranging (LiDAR) Technology for nearly half of the state's land area. (See map in Appendix E)

The GeoLibrary has received funding from numerous sources including the Natural Resource Conservation Service (NRCS), The NRCS National Geospatial Center for Excellence, state agencies such as Maine Bureau of Public Lands and Maine Drinking Water Program, the Nature Conservancy, Plum Creek Timberlands, Town of Carrabassett Valley and others. Over the last five years, the GeoLibrary has solicited $610,478 to apply for United States Geological Survey matching funds, resulting in nearly $5 million of data acquisition. These data are having a transformative effect on development costs for private and public sectors. In addition elevation data provides a rich resource for analyzing the natural and manmade environments.

Challenges

As acquisition moves to less populated areas of the state, finding partners have become more difficult to locate. The Natural Resource Conservation Service has been a very large contributor to GeoLibrary projects. If the current pending application is approved by USGS, the NRCS areas of interest will be fully covered and it will probably not fund any further projects in Maine.

State funding will become critical for creating competitive applications for USGS participation. The GeoLibrary estimates the cost of acquisition and processing for the approximately 16,000

remaining square miles will be about $4 million. State funding is needed to ensure it can submit competitive applications for USGS and other funding.

In addition to terrestrial topography, the state is in need of updated bathymetry data for its near shore areas. LiDAR can aid the mapping of near shore areas as well, supplanting other hydrographic mapping methods. Better bathymetry would contribute greatly to improved navigation, understanding of fisheries habitat, aquaculture support and flood modeling.

Recommendation: *The Legislature should support funding the Geospatial Reserve Fund (account number 014-18B-3057) for the purposes of providing seed funds to encourage partnerships for LiDAR data acquisition. This could also be done through issuance of Bonds to support data acquisition.*

III. Parcel Data

Parcel data development has been a GeoLibrary priority since it was established. To begin development of this key data layer, the GeoLibrary established a grant program with bond funding. That initial effort enabled 73 communities to obtain or improve digital parcel maps. Since then, the GeoLibrary with MeGIS support has added 214 communities to the data layer. (See map in Appendix E)

Parcel data is a key component in verification of addresses for the Emergency Services Communications Bureau updates to data for the state's emergency 911 program. The Departments of Transportation, Environmental Protection and other state agencies use these data sets on a daily basis to prepare for projects and minimize staff time needed to verify data with town offices. Realtors, developers, engineers and surveyors are just some of the users in the private sector. This data provide significant savings for all individuals needing to obtain parcel related data from town offices across the state. In some cases, it satisfies all the information and in others it makes questions regarding data more specific and quickly answered either by phone or many times replacing the need for a trip of several hours duration to the town offices. This saves the public who are the clients of the private sector land professionals, time and money in a host of common land related activities.

Two hundred and ninety two of Maine's larger communities have developed digital parcel maps but there is a significant need for smaller communities to acquire this mapping standard. Costs for converting paper maps to digital formats meeting the state's guidelines for acceptance can place a significant burden on small municipalities.

Maine would benefit from having a grant program providing matching funds to communities for developing new digital parcel maps or updating older maps.

Challenges

The economic benefit of developing digital parcel maps in small communities does not compete well with the pressures to provide education, road maintenance and other services. Since parcel maps and associated data are frequently used by state and federal agencies, private and non-profit businesses as well as the general public, the primary benefits of digital maps accrue to users outside of the community.

Recommendation: *Fund the Geospatial Reserve Fund (account number 014-18B-3057) at $420,000 annually for matching community funding to encourage development of parcel data for inclusion in the GeoLibrary's parcel data layer.*

GEOSPATIAL DATA STANDARDS

The GeoLibrary's Geospatial Work Group worked on data standards for orthoimagery which were adopted by the GeoLibrary and included in the recent RFP for imagery acquisition services released this year. This resulted in a much improved orthoimagery acquisition program for the 2017 – 2022 time period. Recommendations included several additional buy-up options that would be particularly attractive to communities buying higher resolution data.

Much more work is needed to identify data standards and cost estimates for data acquisitions but, with staff support limited and an all-volunteer work group, the GeoLibrary is not able to keep up with its legislative mandates. Orthoimagery is just one of several data layers needing work to develop standards and a strategy for data acquisition. This lack of progress on other data layers exemplifies why the GeoLibrary needs to pursue and update to its strategic plan and identify its true staffing needs and a funding solution to meet those needs.

3. FINANCIAL EXPENDITURES 2016

The 2016 GeoLibrary projects were all dependent upon funding from outside sources (state, county, and community agencies or grants). The Legislature has not provided funding to the GeoLibrary or MeGIS for data acquisition and maintenance since a bond was issued in 2003. This funding has been depleted for several years.

LiDAR Acquisition

The Maine Drinking Water Program and the Bureau for Public Lands were the only two state entities providing funding for this year's LiDAR application. The United States Department of Agriculture's Natural Resources Conservation Service (NRCS) and USGS are providing $1.3 million of the projected $1.4 million needed to acquire 5,312 square miles of data.

Orthoimagery Acquisition

The 2012 – 2016 orthoimagery project was funded with $480,000 from state agencies, $393,561 from counties and $819,045 from municipalities. The GeoLibrary did not receive any federal funding for this year's project. Fortunately the GeoLibrary will realize a small estimated surplus of $14,718 when the program is closed out. The carry over funds are available only because MeGIS has not charged fees for providing coordination and support services to complete these annual orthoimagery acquisitions.

Parcel Mapping

The GeoLibrary received parcel data updates from just eight communities this year. Rangeley is the only new town providing data to the geo-parcel data layer. The parcel data layer has data from a total of 291 communities and the unorganized territories. Many communities have not been updated for several years and some have not been updated since they first participated in the program 2006. The Maine Revenue Service is working on updates to the mapping of unorganized territories but has a very

large backlog of data yet to be incorporated into the parcel maps. Communities contact MeGIS regularly to inquire whether parcel grant money is available to convert town maps to digital products or for updating the maps.

Table 1 GeoLibrary Project Expenses 2016

GEOLIBRARY PROJECT FUNDING SUMMARY							
Project	**Total Committed**	**GeoLibrary**	**Federal Agencies**	**State Agencies**	**Counties**	**Municipalities ***	**Private - Nonprofits**
Ortho Imagery	$ 404,516.00	$103,803.00	$ 0.00	$ 100,000.00	$149,834.00	$50,879.00	$0.00
LiDAR	$ 1,434,325.00	$ 0.00	$ 1,258,850.00	$38,950.00	$ 0.00	$7,000.00	$129,905.00
Parcel Mapping	$0.00	$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ 36,000.00	$0.00
Total	$1,838,841.00	$103,803.00	$1,258,850.00	$138,950.00	$149,834.00	$93,879.00	$129,905.00

* Estimated value of municipal parcel data updates

4. GEOLIBRARY *OneMAP for ME*

Maine's geospatial data needs have changed dramatically since the GeoLibrary was established. The evolution in technology and public expectations has outstripped the state's ability to maintain geospatial data meeting today's needs. Twenty years ago, USGS 1:24000 scale (1 inch equals 2,000 feet) mapping was seen as adequate with an accuracy of about forty feet; today the latest NG911 requirements are for 1:4800 (1 inch equals 400 feet) scale mapping with an accuracy of about thirteen feet. Whether mapping for emergency services, floodplains, transportation or myriad other applications, people expect accuracy within a few feet, not forty feet.

To achieve this accuracy, new base mapping is required to form a foundation for other accurate mapping applications. No single state agency is in charge of base mapping. The GeoLibrary was created, in part, to provide leadership in identifying state needs and pursuing the resources for acquiring base mapping data, eliminate duplicative mapping, and reduce data acquisition costs.

In most instances state and federal agencies, communities and other interested parties all have an interest in developing base mapping. This represents numerous opportunities to leverage work and funding from these sources.

The last strategic plan for the GeoLibrary was completed in 2009 and needs to be updated to reflect a lack of funding and to evaluate the work that has been accomplished in the last decade. The costs for data acquisition have become more affordable and technology solutions for data dissemination have changed tremendously.

The MeGIS draft report on the Maine GeoSpatial Architecture identified framework data layers of strategic importance to Maine. These include:

- Geodetic Control points
- Digital Orthoimagery
- Elevation

- Hydrography
- Governmental Unit Boundaries
- Cadastral/Parcel
- Transportation
- Structures
- Land Cover and Impervious surfaces
- Emergency response
- Geographic names
- Regulatory data

(MeGIS and the GeoLibrary may not be entirely responsible for data development and maintenance in all of these data layers. However they do have a charge and responsibility to ensure cooperation and coordination in the development of the data at the very least.)

Geodetic control points, emergency response and regulatory data have specific agency sponsors charged with maintaining mapping quality. However the remaining data are not specifically assigned to any one agency for maintenance and in several cases have multiple agencies editing and maintain more than one set of base level data. The state would benefit from a well thought out and coordinated approach to updating its base level geospatial data.

The state's current base mapping was initiated over 30 years ago based on USGS topographic mapping at 1:24000 scale (1 inch equals 2,000 feet). This data was based upon the familiar USGS topographic quad sheets, familiar to hikers and hunters. Since then the use of mapping has become more ubiquitous for all constituencies. The new NG911 system recently adopted by the Emergency Services Communications Bureau is just one example where, particularly in urban areas, a much more precise level of mapping is needed. The National Emergency Number Association, who sets standards for NG911 data exchange and GIS mapping, recommends 1:4800 scale mapping. Other data layers including roads, land cover and boundary data are also in need of being updated. The GeoLibrary asked its Geospatial work group to develop technical options and cost estimates for developing 1:4800 base mapping. However to do this scale of mapping requires more support than is available within current OIT/MeGIS resources.

OneMAP for ME Data

The key data layers below need more study to develop plans for coordinated data updates and maintenance. Each data layer has a short description of its current status and perceived need. Additionally, an estimate of costs and potential partners for data acquisition are provided when information is available.

Digital Orthoimagery

These data require constant updating. The GeoLibrary initiated a program for acquisition of minimum twenty-four inch base resolution imagery for the state in 2011. The GeoLibrary initiated an RFP for orthoimagery acquisition services to complete a new six-year acquisition plan from January 2017 through December of 2022. Due to economies of scale and advances in technology, the unit costs for data acquisition have decreased dramatically with eighteen inch resolution being available at the same costs as the twenty-four inch resolution acquired under the previous program. This level of resolution will meet the needs of 1:4800 scale mapping (1"= 400').

Partners in this project included Maine counties, state agencies and communities.

Elevation/Bathymetry

The GeoLibrary has been pursuing high resolution base elevation or topographic data since 2009. For much of the State, elevation data will not change much over time and once acquired will retain a high level of accuracy for a long time. However, there will be areas undergoing development or natural changes that need to be updated more frequently. Examples are changing coasts due to erosion, or river meanders and general development related changes within communities as they grow and develop. The total cost for terrestrial elevation data is estimated to be approximately $6,600,000. The GeoLibrary has been successful in acquiring terrestrial elevation data for about fifty percent of the state so far through various cooperative initiatives. Updated bathymetry, or elevation data for submerged near shore areas of the coast, is necessary throughout the coastal waters of Maine. These data are key to identifying important jurisdictional boundaries of ownership and responsibility.

Current bathymetry data is a hodgepodge of data acquired piecemeal for numerous independent studies and of varying accuracies. New consistent high resolution data is needed to complete studies of the land, sea interface for myriad applications. Near and offshore high resolution data is needed for a better understanding of Maine's fisheries, support to aquaculture and impacts of development. No estimate is available for the cost of acquiring this data at this time.

So far partners for acquiring elevation and bathymetry include the USGS, NOAA, USDA, State agencies, the University of Maine, Non-Profit Organizations, the Bureau of Ocean Energy Management, counties, communities and private enterprise.

Hydrography

The USGS maintains this data at a scale of 1:24000. However, to be useful at the local level and for most state agencies and communities, a resolution of 1:4800 is needed. To achieve this level of mapping requires high resolution topographic and orthoimagery data to create the higher resolution mapping of the Maine's lakes, ponds, river, streams and watersheds. Potential partners for developing this level of data quality include the USGS and state agencies. An assessment of cost for developing this data needs to be done.

Governmental Unit Boundaries

Maine's township and county boundaries have evolved over time. For most of the state, no modern surveying of boundaries has been done. Frequently, parcel data submitted by communities does not agree with the boundaries in the Maine Township boundary data due to the latter's original accuracy as depicted on the familiar USGS topographic Quad sheets. A system for updating township and county boundaries to reflect modern technical capacity for accuracy should be established. This will require engaging with stakeholders to determine a long term plan for improving this data, preferably, with participation from all stakeholders. Potential partners would be state agencies, counties and communities. No estimate of cost for this data is available.

Cadastral/Parcel

The GeoLibrary has provided leadership in developing a coordinated, statewide parcel data layer. The primary responsibility for parcel data lies with individual Maine municipalities. However, such data is a key tool for many state agencies, the private sector and the general public. Having this data accessible in a coordinated, centralized distribution center is very useful. Providing matching funds for conversion of

hardcopy parcel maps to digital products and providing some level of maintenance is very desirable. (Appendix F provides a potential program outline.)

Two hundred and ninety-two communities have invested in digital parcel maps; approximately two hundred and eight communities that have not invested at this time. The estimated cost for conversion is $20,000 per town, however, this price can vary based on many factors. The estimate for converting all communities would be approximately $4,200,000.

Costs for updating parcel maps will vary according to how large the community is and level of subdivision activity. Again an estimate of average cost for updating parcel maps would be about $2,000 every six years. Maine has approximately 500 organized communities. If the GeoLibrary were to set a goal of obtaining updates from communities every six years and paying them $200 for the extra work of submitting them, the cost would be approximately $17,000 per year leveraging community investment of $170,000. Potential partners besides the communities would be state agencies.

Transportation

The Department of Transportation and the Public Utilities Commission, Emergency Communications Services Bureau have business requirements for developing transportation data. Each entity has divergent technology for developing this type of data resulting in overlapping efforts and a level of redundancy. New technology exists to eliminate this duplication. However, the costs for each agency to adopt the new technology have substantial upfront costs that are beyond the scope of existing budgets. The exact costs are unknown at this time but should be investigated and a plan development for a single transportation platform that provides for the combined business needs of both agencies.

This would provide all stakeholders with more usable and accurate transportation data. Potential partners are state and federal agencies.

Structures

Having an accurate representation of structures is very useful for emergency response to calls for police, fire and other emergency services. It can also be helpful in evaluating changes to transportation routes, development and many other applications. Maine does not have an adequate data layer. Potential partners for development of this important data layer include state and federal agencies, counties and communities. No estimate has been completed for developing this data.

Land Cover and Impervious Surfaces

Maine's most recent land cover data was developed in 2006 and is at a resolution of 5 meters. This is entirely inadequate for the level of analysis required today. Urban communities planning for storm water runoff and retention from impervious surfaces, oil and hazardous spill responders charged with protecting the environment, Inland Fisheries and Wildlife professionals identifying prime habitat for the states aquatic and land species all require resolution of at least 1 meter. NOAA estimates the cost of developing these data for the State of Maine would be about $570,000. NOAA has already committed to invest $230,000 to develop a 10 meter data layer and Maine could buy up to 1 meter resolution for an estimated additional estimated cost of $300,000. Potential partners for this project besides NOAA would include, state agencies and non-profits and other federal agencies.

Recommendation: *Since all of the data sets described above are not specific to any one particular agency, the GeoLibrary recommends the state adopt an OneMAP for ME program for updating and maintaining these data. The Legislature should provide funding to update the State's geospatial data acquisition and maintenance as part of an overall strategic plan. This plan should identify priorities for data updates, cost estimates, potential partnerships and funding mechanisms for the Legislature to consider.*

5. GEOSPATIAL DATA LIBRARY

The first purpose specified in the GeoLibrary's enabling legislation was to create an electronic gateway for distributing GIS data to the public. The GeoLibrary has pursued several attempts to create a Geoportal to meet the needs of the GIS community. So far, these efforts have been unsuccessful. Changes in technology, the costs of operating an electronic gateway, and a funding source to maintain and operate such a Geoportal beyond the demonstration phase have placed significant obstacles in the way. Due to lack of funding, the GeoLibrary discontinued its latest attempt. However the need for an organized library of geospatial data still exists. A GeoLibrary must continually maintain and acquire new data and reference material to stay current and meet Maine's geospatial data needs.

Recommendation: *The GeoLibrary should be provided funds to develop a new plan and estimate of costs for managing a geospatial data portal. The plan should include estimates for hardware, software and staff support for acquisition, development and ongoing maintenance.*

6. APPENDIX A – ACRONYMS & SELECTED DEFINITIONS

GeoLibrary	GeoLibrary of Directors for the Maine Library of Geographic Information
CIO	Chief Information Officer for the state
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee, sets metadata standards
GeoLibrary	Common name for Maine Library of Geographic Information
GIS	Geographic Information System
LiDAR	Light Detection And Ranging, a remote sensing system used to collect topographic data
MDIFW	Maine Department of Inland Fisheries and Wildlife
MDOT	Maine Department of Transportation
MEMA	Maine Emergency Management Agency
MeGIS	Maine Office of GIS
MEGUG	Maine GIS Users Group
MPUC	Maine Public Utilities Commission
NGA	National Geospatial-Intelligence Agency
NGO	Non-Government Organization
NG911	Next Generation 911
NMDC	Northern Maine Development Commission
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NSDI	National Spatial Data Infrastructure, a consortium to promote the sharing of geospatial data and standards
OGC	Open Geospatial Consortium, a non-profit international organization that develops standards for geospatial and location based services
OIT	Office of Information Technology
Orthoimagery	Aerial imagery corrected to represent the earth's surface, having been adjusted for topographic relief, lens distortion, and camera tilt so that it can be used as an accurate base map
Resolve 23	Legislative committee that drafted the plan that resulted in the GeoLibrary
USDA	United States Department of Agriculture
USGS	United States Geological Survey

7. APPENDIX B – GEOLIBRARY LEGISLATION

Maine Revised Statutes
Title 5: ADMINISTRATIVE PROCEDURES AND SERVICES
Chapter 163: OFFICE OF INFORMATION TECHNOLOGY

§2001. SHORT TITLE

This subchapter may be known and cited as "the Maine Library of Geographic Information Act." [2005, c. 12, Pt. SS, §16 (NEW).]

SECTION HISTORY

2005, c. 12, §SS16 (NEW).

§2002. Definitions

As used in this subchapter, unless the context otherwise indicates, the following terms have the following meanings. [2005, c. 12, Pt. SS, §16 (NEW).]

1. Association. "Association" means an organization:

A. Whose membership is identifiable by regular payment of organizational dues and regularly maintained membership lists; [2005, c. 12, Pt. SS, §16 (NEW).]

B. That is registered with the State or is a corporation in the State; and [2005, c. 12, Pt. SS, §16 (NEW).]

C. That exists for the purpose of advancing the common occupation or profession of its membership. [2005, c. 12, Pt. SS, §16 (NEW).]

[2005, c. 12, Pt. SS, §16 (NEW) .]

2. Data custodian. "Data custodian" means a federal data custodian, state data custodian or nonstate data custodian.

[2005, c. 12, Pt. SS, §16 (NEW) .]

3. Federal data custodian. "Federal data custodian" means any branch, agency or instrumentality of the Federal Government.

[2005, c. 12, Pt. SS, §16 (NEW) .]

4. Geographic information GeoLibrary. "Geographic information GeoLibrary" means the Maine Library of Geographic Information GeoLibrary.

[2005, c. 12, Pt. SS, §16 (NEW) .]

5. Geographic information system. "Geographic information system" or "GIS" means a computer system capable of assembling, storing, manipulating, analyzing and displaying information identified according to locations. A GIS includes operating personnel, hardware, software and the data that go into the system.

[2005, c. 12, Pt. SS, §16 (NEW) .]

6. Maine Library of Geographic Information. "Maine Library of Geographic Information" or "library" means the statewide network created pursuant to this subchapter by which data custodians or their designees organize and catalog public geographic information and provide access to that information to all levels of government and to the public.

[2005, c. 12, Pt. SS, §16 (NEW) .]

7. Nonstate data custodian. "Nonstate data custodian" means any agency or instrumentality of a political subdivision of the State.

[2005, c. 12, Pt. SS, §16 (NEW) .]

8. Public geographic information. "Public geographic information" means public information that is referenced to a physical location. Public geographic information includes, but is not limited to, physical, legal, economic or environmental information or characteristics concerning land, water, groundwater, subsurface resources or air in this State relating to:

A. Topography, soil, soil erosion, geology, minerals, vegetation, land cover, wildlife and associated natural resources; [2005, c. 12, Pt. SS, §16 (NEW).]

B. Land ownership, land use, land use controls and restrictions, jurisdictional boundaries, tax assessments, land value and land survey records and references; and [2005, c. 12,Pt. SS, §16 (NEW).]

C. Geodetic control networks, aerial photographs, maps, planimetric data, remote sensing data, historic and prehistoric sites and economic projections. [2005, c. 12, Pt. SS, §16(NEW).]

[2005, c. 12, Pt. SS, §16 (NEW) .]

9. Public information. "Public information" means information that is stored, gathered, generated, maintained or financed by a data custodian. Information of state and nonstate data custodians is public information only if it is either:

A. A public record under Title 1, section 402, subsection 3; or [2005, c. 12, Pt. SS, §16 (NEW).]

B. Otherwise expressly authorized by law to be released. [2005, c. 12, Pt. SS, §16 (NEW).]

The presence of data in the library does not, by itself, make that information a public record.

[2005, c. 12, Pt. SS, §16 (NEW) .]

10. State data custodian. "State data custodian" means any branch, agency or instrumentality of State Government.

[2005, c. 12, Pt. SS, §16 (NEW) .]

11. State funds. "State funds" means bond revenues and General Fund money appropriated by the Legislature for the purposes of this chapter.

[2015, c. 267, Pt. YYY, §1 (AMD) .]

SECTION HISTORY

2005, c. 12, §SS16 (NEW). 2015, c. 267, Pt. YYY, §1 (AMD).

§2003. MAINE LIBRARY OF GEOGRAPHIC INFORMATION GEOLIBRARY

1. **Purposes and duties.** The Maine Library of Geographic Information GeoLibrary, as established by section 12004-G, subsection 30-B, has the following purposes and duties:

A. To oversee the Maine Library of Geographic Information to ensure that it operates as a coordinated, cost-effective electronic gateway providing public access to data custodians' public geographic information. Nothing in this paragraph may be construed to affect the rights of persons to inspect or copy public records under Title 1, chapter 13, subchapter 1, or the duty of data custodians to provide for public inspection and copying of those records; [2005, c. 12, Pt. SS, §16 (NEW).]

B. To establish and maintain standards, rules and policies for nonstate data custodians' geographic information that is incorporated into the Maine Library of Geographic Information. These standards, rules and policies must be consistent with the standards, rules and policies set by the Chief Information Officer that govern state data custodians' information technology. The geographic information GeoLibrary shall adopt rules to carry out this subchapter. Rules adopted pursuant to this paragraph are routine technical rules as defined in chapter 375, subchapter 2-A. Standards and policies may concern, without limitation:

(1) Methods of access and delivery of information held by the library;

(2) Geographic information system technical specifications;

(3) Data content, metadata and security, including guideline criteria for accepting 3rd-party data from data custodians or data volunteered by the private sector;

(4) Privacy and privacy protection;

(5) Mechanisms to correct inaccuracies; and

(6) Data validation tools and processes; [2005, c. 12, Pt. SS, §16 (NEW).]

C. To reduce redundancies in the creation, verification and maintenance of public geographic information and to enhance its utility for complex analyses.

(1) Each state data custodian, or its designee, that acquires, purchases, verifies, maintains or produces geographic information with state funds or grants shall:

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

(a) Inform the geographic information GeoLibrary and the Office of Geographic Information Systems of the existence of this information and its geographic extent; and

(b) Upon request, provide to the library and office an electronic copy of all information classified as public, in a form compatible with standards set by the Chief Information Officer.

(2) Each nonstate data custodian, or its designee, that acquires, purchases, verifies, maintains or produces geographic information with state funds specifically provided for that purpose shall:

(a) Inform the geographic information GeoLibrary and the Office of Geographic Information Systems of the existence of this information and its geographic extent; and

(b) Upon request, provide to the library and Office of Geographic Information Systems an electronic copy of all information classified as public, in a form compatible with standards set by the Chief Information Officer; [2005, c. 12, Pt. SS, §16 (NEW).]

D. To set priorities and authorize the expenditure of state funds, including awarding of grants or subgrants to data custodians when available. The geographic information GeoLibrary may seek federal and other funding partners, accept gifts and grants and expend the funds acquired for purposes consistent with this subchapter; [2005, c. 12, Pt. SS, §16 (NEW).]

E. To promote innovative uses of geographic information through the provision of verified, coordinated, intergovernmental information via the Maine Library of Geographic Information. The geographic information GeoLibrary shall seek advice from the general public, professional associations, academic groups and institutions and individuals with knowledge of and interest in geographic information regarding needed information and potential innovative uses of geographic information; [2005, c. 12, Pt. SS, §16 (NEW).]

F. To enter partnerships to promote the purposes of this subchapter; [2005, c. 12, Pt. SS, §16 (NEW).]

G. To hear and resolve disputes that may arise between data custodians or with respect to information to be placed in the Maine Library of Geographic Information, enforcement of geographic information GeoLibrary standards, rules or policies or other related matters, all in accordance with the Maine Administrative Procedure Act. Complainants may directly present their case to the geographic information GeoLibrary, which has the power to hold investigations, inquiries and hearings concerning matters brought to its attention and to make decisions with respect to the case. All interested parties must be given reasonable notice of the hearing and an opportunity to be heard. Hearings must be open to the public; [2005, c. 12, Pt. SS, §16 (NEW).]

H. To conduct studies relating to the coordination, development and use of statewide geographic information; [2005, c. 12, Pt. SS, §16 (NEW).]

I. To report annually by January 1st to the joint standing committees of the Legislature having jurisdiction over natural resources matters, and state and local government matters. The report must provide a review of the past year's activities, including, but not limited to, a description of standards adopted, data added to the library, partnerships established, disputes addressed, studies conducted and financial activity. The library shall also make this report available to the public. This report may also include suggested legislative language intended to address geographic information issues needing legislative action; and [2005, c. 12, Pt. SS, §16 (NEW).]

J. To develop appropriate internal services to facilitate generalized access for and use of data by governmental agencies and the public. The library may not compete directly with private enterprise. The library shall work in partnership with nonstate data custodians to promote the purposes of this subchapter. [2005, c. 12, Pt. SS, §16 (NEW).]

[2005, c. 12, Pt. SS, §16 (NEW) .]

2. **Membership.** The geographic information GeoLibrary consists of 15 voting members as follows:

A. The commissioner or the commissioner's designee; [2005, c. 12, Pt. SS, §16 (NEW).]

B. The Chief Information Officer or the Chief Information Officer's designee; [2005, c. 12, Pt. SS, §16 (NEW).]

C. Two members, or the members' designees, who are responsible for overseeing GIS functions of a state department that is a data custodian of geographic information, appointed by the Governor; [2005, c. 12, Pt. SS, §16 (NEW).]

D. Eight representatives as follows:

(1) A representative of the University of Maine System, appointed by the Chancellor of the University of Maine System;

(2) Two representatives of a statewide association of municipalities, one representative appointed by the President of the Senate from nominations made by the association's governing body and one representative appointed by the Speaker of the House from nominations made by the association's governing body;

(3) One representative of a statewide association of regional councils, appointed by the Speaker of the House from nominations made by the Department of Agriculture, Conservation and Forestry;

(4) One representative of a statewide association of counties, appointed by the Governor from nominations made by the association's governing body;

(5) One representative of a statewide association representing real estate and development interests, appointed by the President of the Senate;

(6) One representative of a statewide association representing environmental interests, appointed by the Speaker of the House; and

(7) One member representing public utilities, appointed by the Governor; [2011, c. 655, Pt. EE, §1 (AMD); 2011, c. 655, Pt. EE, §30 (AFF); 2011, c. 657, Pt. W, §5 (REV).]

E. Two members of the private sector representing geographic information vendors, one member appointed by the President of the Senate and one member appointed by the Speaker of the House; and [2005, c. 12, Pt. SS, §16 (NEW).]

F. One public member, appointed by the President of the Senate. [2005, c. 12, Pt. SS, §16 (NEW).]

The terms for the members appointed pursuant to paragraphs C, D, E and F are 3 years. A member who designates another person to serve on the geographic information GeoLibrary as that member's designee shall provide written notice to the geographic information GeoLibrary's staff of the name and title of the designee.

[2011, c. 655, Pt. EE, §1 (AMD); 2011, c. 655, Pt. EE, §30 (AFF); 2011, c. 657, Pt. W, §5 (REV) .]

3. **GeoLibrary chair.** The geographic information GeoLibrary shall annually elect a chair from its membership at the first meeting in each year.

[2005, c. 12, Pt. SS, §16 (NEW) .]

4. **Staff.** Staff support to the geographic information GeoLibrary is provided by the Department of Administrative and Financial Services.

[2005, c. 12, Pt. SS, §16 (NEW) .]

5. **Quorum; action.** Eight members of the geographic information GeoLibrary constitute a quorum. The affirmative vote of 7 members is necessary for any action taken by the geographic information GeoLibrary. A vacancy in the membership of the geographic information GeoLibrary does not impair the right of a quorum to exercise all the powers and perform the duties of the geographic information GeoLibrary. The geographic information GeoLibrary may use video conferencing and other technologies to conduct its business but is not exempt from Title 1, chapter 13, subchapter 1.

[2005, c. 12, Pt. SS, §16 (NEW) .]

6. **Meetings.** The geographic information GeoLibrary shall meet at the call of the chair but not less than quarterly. Notice must be provided no less than 5 working days prior to the meeting. Notice may be in writing by facsimile or electronic transmission.

[2005, c. 12, Pt. SS, §16 (NEW) .]

7. **Memorandum of understanding.** Information to be provided by a nonstate data custodian or its designee to the Maine Library of Geographic Information is governed by a memorandum of understanding between the geographic information GeoLibrary or its designee and the nonstate data custodian or its designee.

[2005, c. 12, Pt. SS, §16 (NEW) .]

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

8. **Data custodian responsibilities.** Federal and nonstate data custodians may voluntarily contribute data to the Maine Library of Geographic Information, except that data developed with state funds must be submitted to the library. Data custodians or their designees are responsible for:

A. Ensuring that the public information is accurate, complete and current through the creation of adequate procedures; [2005, c. 12, Pt. SS, §16 (NEW).]

B. Updating source data bases following verification of suggested corrections that users submit in accordance with geographic information GeoLibrary standards; [2005, c. 12, Pt. SS, §16 (NEW).]

C. Complying with standards adopted by the geographic information GeoLibrary; and [2005, c. 12, Pt. SS, §16 (NEW).]

D. Providing reasonable safeguards to protect confidentiality. [2005, c. 12, Pt. SS, §16 (NEW).]

[2005, c. 12, Pt. SS, §16 (NEW) .]

SECTION HISTORY
2005, c. 12, §SS16 (NEW). 2011, c. 655, Pt. EE, §1 (AMD). 2011, c. 655, Pt. EE, §30 (AFF). 2011, c. 657, Pt. W, §5 (REV).

§2004. LIABILITY

The geographic information GeoLibrary and any of the parties submitting data to the Maine Library of Geographic Information for public use may not be held liable for any use of those data. [2005, c. 12, Pt. SS, §16 (NEW).]

SECTION HISTORY
2005, c. 12, §SS16 (NEW).

§2005. COPYRIGHTS AND FEES

Copyright or licensing restrictions may not be fixed by the geographic information GeoLibrary or data custodians to the information made available through the Maine Library of Geographic Information. The geographic information GeoLibrary may set fees for electronic copies of library data that are no more than 3 times the actual cost of reproduction. Fee schedules must be set annually and made readily available to requestors. [2005, c. 12, Pt. SS, §16 (NEW).]

SECTION HISTORY
2005, c. 12, §SS16 (NEW).

§2006. GEOSPATIAL DATA ACCOUNTS

1. Accounts established. There are established within the office separate accounts, referred to in this section as "the accounts," to be administered by the geographic information GeoLibrary.
[2013, c. 122, §1 (NEW) .]

2. Sources of funding. The following must be paid into the accounts:

A. All money appropriated for inclusion in the accounts; [2013, c. 122, §1 (NEW).]

B. All interest earned from investments of the accounts; [2013, c. 122, §1 (NEW).]

C. Any money allocated from Other Special Revenue Funds accounts for the purpose of the accounts; [2013, c. 122, §1 (NEW).]

D. Proceeds from any bonds issued for the purpose of the accounts; and [2013, c. 122, §1 (NEW).]

E. Matching funds received from the Federal Government or other legal entity for geospatial data acquisition expenditures made from the accounts pursuant to subsection 4. [2013,c. 122, §1 (NEW).]
[2013, c. 122, §1 (NEW) .]

3. Use of accounts. The purpose of the accounts is to continue projects developed by the geographic information GeoLibrary. The accounts must be used to provide and maintain to the extent practicable statewide

GIS data sets necessary for the efficient delivery of state services and to conserve state expenditures through partnerships with other GIS stakeholders interested in acquiring the same data sets. The accounts may be used at the discretion of the geographic information GeoLibrary for acquiring geospatial data primarily including but not limited to the following data sets:

A. An orthoimagery program. Imagery collected through this program must be from all areas of the State and be 4-band images that include the red, green, blue and near infrared bands; and [2013, c. 122, §1 (NEW).]

B. An elevation data set. A consistent statewide elevation data set must be collected using light detection and ranging technology or an equivalent method. [2013, c. 122, §1(NEW).]

[2013, c. 122, §1 (NEW) .]

4. Matching funds. State funds used to purchase geospatial data must be matched by funding from other sources at at least a one-to-one ratio.

[2015, c. 267, Pt. YYY, §2 (AMD) .]

5. Annual report. The Chief Information Officer shall submit a written report by January 15, 2014 and annually thereafter to the Governor and the Legislature on the accounts' balance and expenditures.

[2013, c. 122, §1 (NEW) .]

SECTION HISTORY

2013, c. 122, §1 (NEW). 2015, c. 267, Pt. YYY, §2 (AMD).

8. APPENDIX C - PAST PROJECTS

Return on Investment Study for Orthoimagery: The Maine GeoLibrary, in cooperation with the Maine Office of GIS, received a FGDC grant to conduct a return on investment (ROI) study of orthoimagery in Maine. The independent study was conducted by Applied Geographics, and showed ROI of 400-1200%.

Strategic Plan: When the Maine Library of Geographic Information was formed in 2002 its first strategic plan was developed under Legislative Resolve 23. The GeoLibrary completed an update to this plan in 2009. The strategic plan serves the same function for the GeoLibrary GeoLibrary as a Comprehensive Plan for a municipality. The plan guides the development of the GeoLibrary and is a living document that needs to be updated regularly. The pace of technological advance in the field of digital mapping is fast and requires the GeoLibrary to make continual adjustments in how it approaches the acquisition of data and the delivery of geographic information to the many users of this information. This plan identified a series of recommendations for:

- Expanding Participation
- Improving Statewide GIS Coordination
- Improving Access to Geospatial Data
- Developing and Maintaining Statewide Geospatial Data
- Lowering the Barriers to the Use of GIS
- Improving Access to Training and Education
- Establishing Sustainable Funding For the GeoLibrary

2003 -2005 Orthoimagery Acquisition: The project was a $3.2M project to create, in cooperation with the U.S. Geological Survey (USGS), full color, high-resolution digital orthophotos for most of the populated areas of Maine.

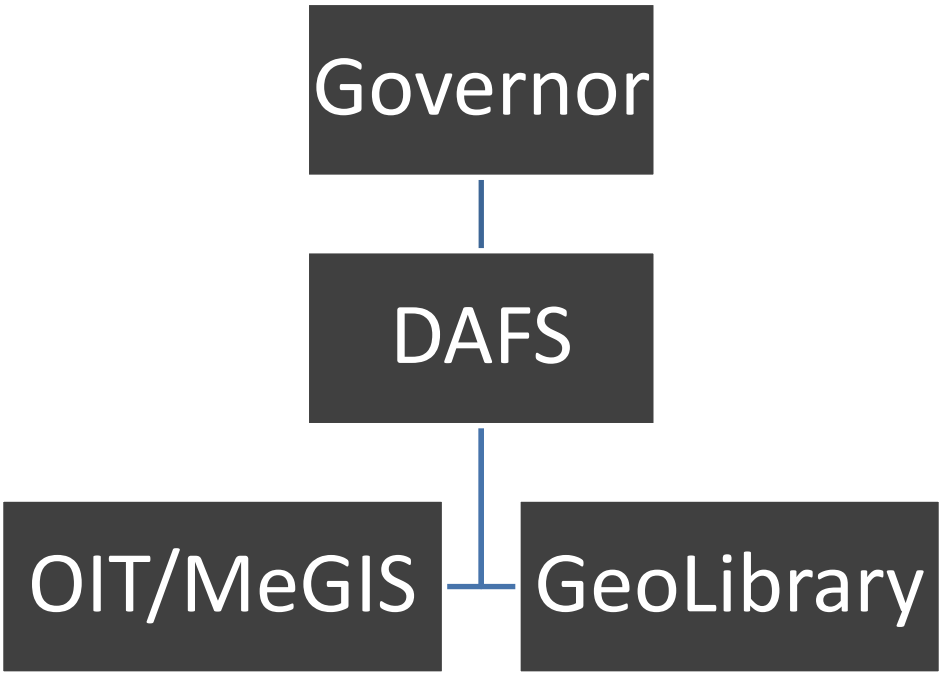
Parcel Grants: In the Resolve23 Study that lead to the creation of the Maine Library of Geographic Information (GeoLibrary), surveyed municipalities placed great emphasis on acquiring and updating digital tax parcel data. Having this local information in a standard format, and in a central repository, would assist individual communities and regional planners in various planning activities. In addition, municipalities will also be able to develop a regional outlook for whatever data is being studied. Consequently, the GeoLibrary GeoLibrary approved two rounds of grants to Maine municipalities for the upgrading and creation of digital parcel data, budgeting $371,419 in total with awards varying from $1,000 to $10,000.

Land Cover Partnership: The Maine Landcover Dataset (MELCD 2004) project provided updated land cover and imperviousness data for Maine based on 2004 satellite imagery. Previously, the most recent such data for Maine was based on 13-year old imagery and was at a very coarse resolution of 30 meters. This project provided data at a higher resolution of 5 meters, and was tightly integrated with federal landcover mapping projects. In addition, imperviousness data were developed at a 5-meter resolution as well.

2005 County GIS Study: This study focused on county GIS needs and identification of opportunities to support county use of GIS. Data gathered from the study resulted in four general areas of information, Lessons Learned, Opportunities for Collaboration to Build and Fund County GIS, Planned Information Forums, the need to collect more detailed information.

Resolve 23: This was the original comprehensive strategic plan developed in 2002. This plan set the stage for implementing a statewide partnership approach to collection and distribution of GIS data. It provided a comprehensive analysis of needs and benefits to all GIS providers

9. APPENDIX D – GEOLIBRARY ORGANIZATION



The GeoLibrary is staffed by agreement with the Office of Information Technology (OIT). OIT/MEGIS provides an Executive Director and support staff to manage and operate the GeoLibrary website, GIS database, and data access facilities. It meets monthly or as needed. Agendas and meeting notes can be found on the GeoLibrary website: http://www.maine.gov/geolib/.

The GeoLibrary has three standing committees:

1) **Finance Committee, with responsibility for:**
   - budget oversight;
   - recommending budget or other financial actions to the GeoLibrary for approval;
   - primary interaction with outside entities on financial issues.

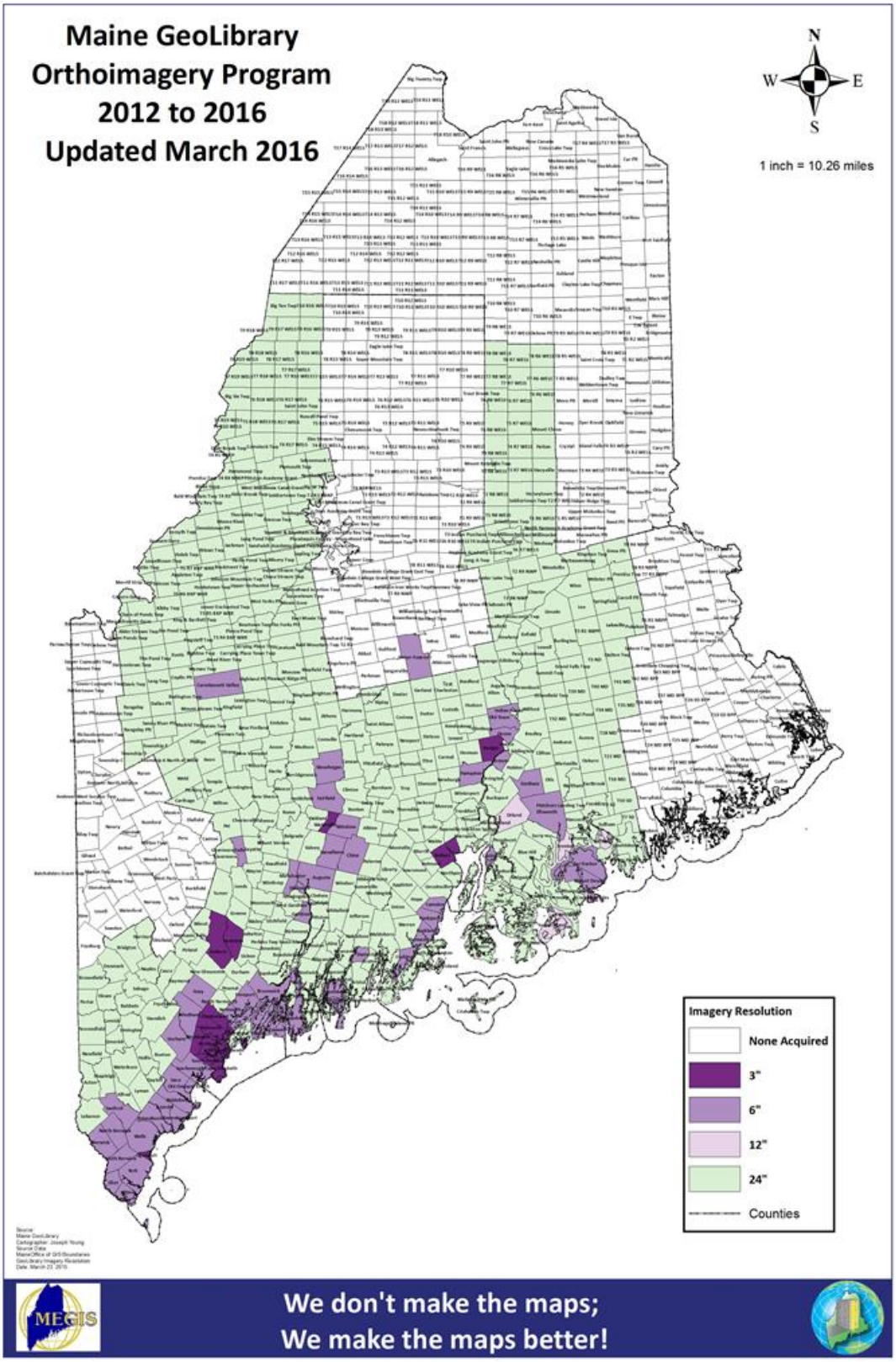
2) **Policy Committee, with responsibility for:**
   - policy oversight;
   - recommending policy adoptions and amendments to the GeoLibrary;
   - memorializing approved GeoLibrary policies;
   - primary interaction with external entities on policy issues.

3) **Technical Committee, with responsibility for:**
   - advising the GeoLibrary on all technical matters;
   - oversight of all GeoLibrary projects;
   - primary interaction with outside entities on technical issues.

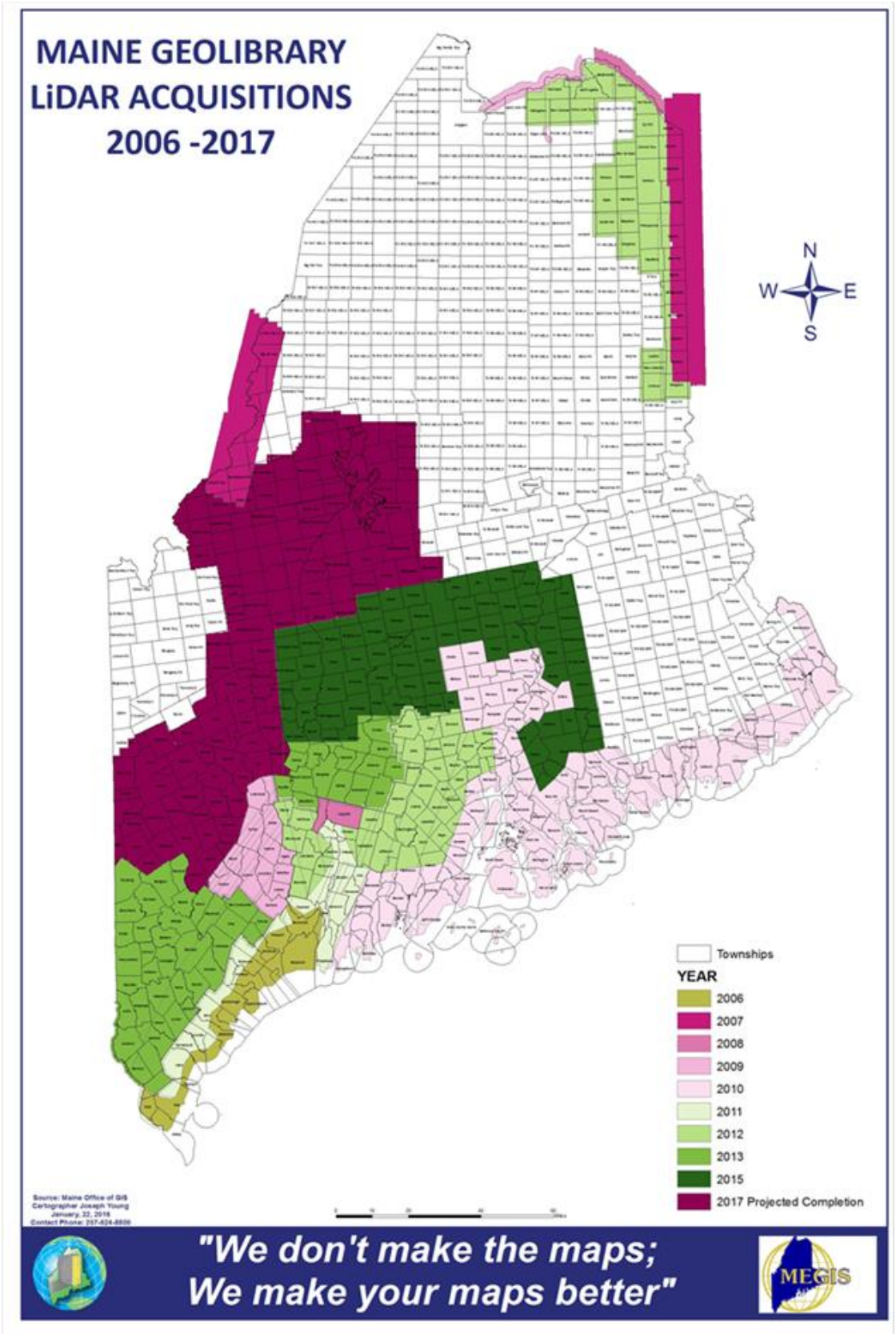
In addition to the three standing committees, the GeoLibrary has four workgroups with members solicited from the states geospatial community. These members provide for a broad cross section of interests in a geographic sense and in terms of their use of GIS data. These work groups are:

1) **Coordination and Communication**
   - The Communication/Coordination Workgroup seeks to continually improve GeoLibrary outreach relations with federal, state, county, and local governments, academia, non-profits, private industry, and the public, by way of documenting and promoting the activities of the GeoLibrary through various media delivery methods. The workgroup also seeks to educate people about the importance of GIS and using geographic data to solve problems, find new data contributors to the GeoLibrary, and obtain a wide base of support for the efforts of the GeoLibrary
2) **GeoSpatial Data**
   - The mission of the GeoSpatial Data Work Group is to develop appropriate geospatial data standards and define the geospatial data needs and flows between all levels of government, private sector, and academia to permit the ongoing acquisition of multi- purpose geospatial data for Maine. The workgroup will seek out a strong coalition of state, local, federal, private and non-profit partnerships to achieve this mission.
3) **Education and Training**
   - The mission of the Education and Training Workgroup is to expand and improve coordination of geospatial education, training and other outreach activities in support of better public use of geospatial data. In this capacity the Workgroup seeks to develop and ensure a broad-based and efficient strategy for GIS education and training initiatives among all organizations and institutions state wide, taking into account special needs of the various constituencies --- K-12, academia, local government, non-profits, and any Maine citizen
4) **GeoParcels**
   - The mission of the GeoParcels work group is to develop a statewide parcels data layer with links to the registry of deeds, assessing data and other related databases.

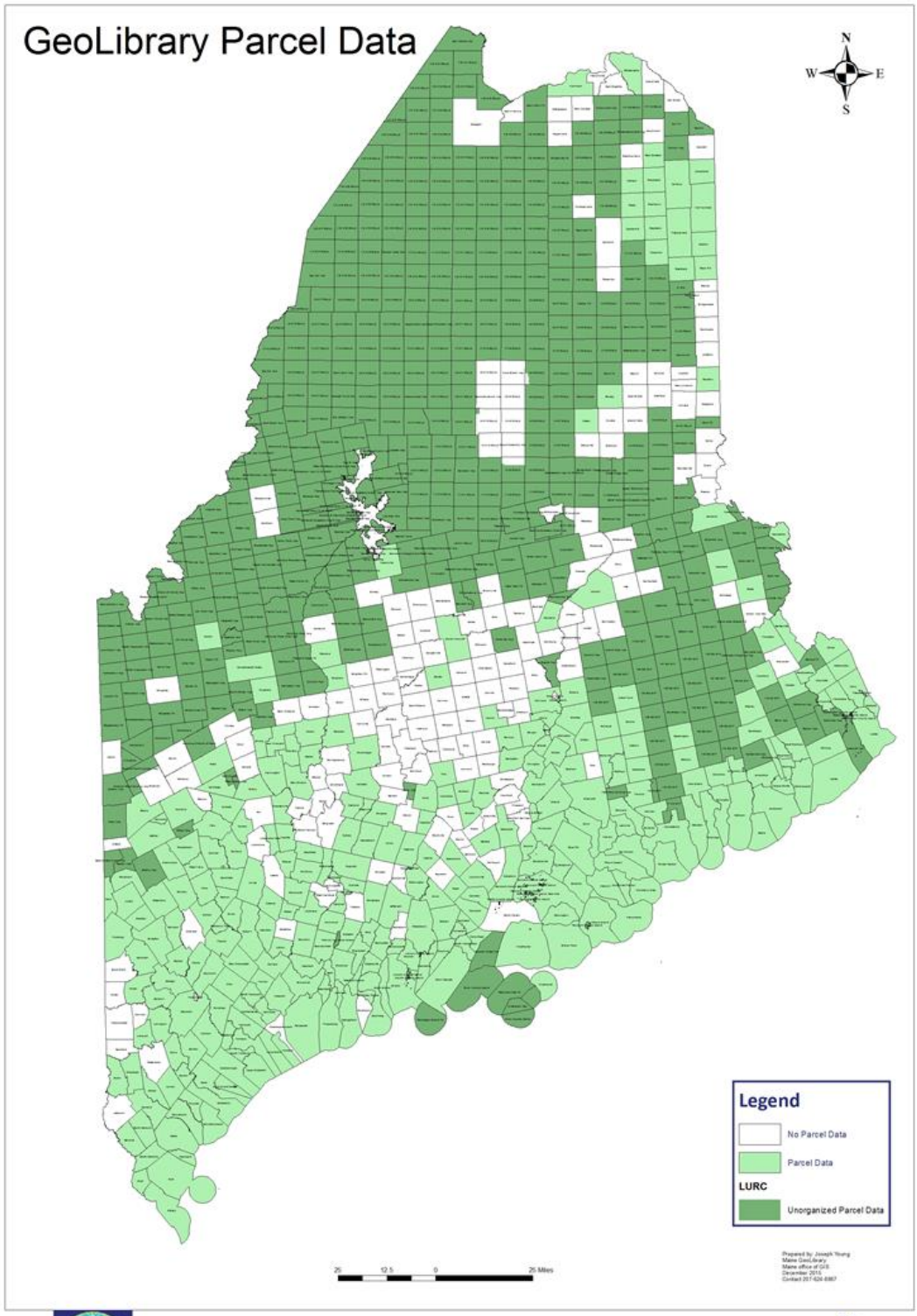
10. APPENDIX E – DATA ACQUISITION PROGRESS MAPS



This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).



This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).



This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).

11. APPENDIX F – GEOPARCEL PARTNERSHIP PROGRAM OUTLINE

This program is designed to provide funding for communities in this order of priority:

- Towns that do not have any parcel maps
- Towns that have just paper parcel maps
- Towns that have digital maps but have not updated them in more than five years
- Proposed Allocation of Funds
    - New Digital Parcel Maps $280,000
    - Updating Existing Parcel Maps $16,500
    - Total $296,000

New Digital Parcel Map Funding Applications

Applications for funding are due on August 1st of each year. The Geolibrary will provide up to 50% of the funding necessary to develop new parcel maps. To qualify for these funds communities must provide the GeoLibrary with parcel data meeting Digital Parcel Standards minimum of Level I as described in the GeoLibrary's "Standards for Digital Parcel Files".

Parcel Map Update Funding Applications

Applications for funding are due on August 1st of each year. The Geolibrary will provide 10% of the funding necessary to develop new parcel maps. To qualify for these funds communities must provide the GeoLibrary parcel data meeting Digital Parcel Standards minimum of Level I as described in the GeoLibrary's "Standards for Digital Parcel Files".

12. APPENDIX G – GeoLibrary Board Membership

	MEMBER	SEAT
Picture not available	Paul Sandlin State of Maine, 51 Commerce Drive 145 State House Station Augusta, Maine 04333 Paul.Sandlin@maine.gov	# 1 Department of Administrative and Financial Services Commissioner Designee
	Brian Guerrette, OIT Child Street Augusta, ME 04333 (207) 649-3838 Brian.Guerrette@maine.gov	# 2 Chief Information Officer Designee
Picture not available	Nate Kane Dept. of Transportation Child Street, Augusta ME 04333 (207) 624-3297 Nate.Kane@maine.gov	#4 State GIS Stakeholders
Picture not available	Vinton Valentine University of Southern Maine 303 Bailey Hall Gorham ME 04038 (207) 228-8455 Vinton.Valentine@maine.edu	# 5 University of Maine System
	Patrick Cunningham Blue Marble Geographics 22 Carriage Lane Hallowell, ME 04347 (207) 624-4622 patrickc@bluemarblegeo.com	# 6 Municipal Representative
Picture not available	Vern Maxfield Town of Woodstock P. O. Box 317 Woodstock, ME 04219 (207) 665-2668 vhm24@megalink.net	#7 Municipal Representative
	VACANT	# 8 Regional Councils Representative

	Betsy Fitzgerald Washington County 85 Court Street Machias, ME 04655 (207) 255-3127 manager@washingtoncountymaine.com	# 9 County Representative
	William Hanson Rudman & Winchel Law Firm 84 Harlow Street Bangor, ME 04402 (207) 947-4501 whanson@rudman-winchell.com	# 10 Real Estate and Development Interests
	Jake Metzler Forest Society of Maine 115 Franklin Street Bangor, ME 04401 (207) 945-9200 jake@fsmaine.org	# 11 Environmental Issues
	Alina Taus Greater Augusta Utilities District 12 Williams Street Augusta, ME 04330 (207) 485-7585 ataus@AugustaWater.org	# 12 Public Utilities Interests
Picture not available	Aaron Weston CAI Technologies 2725 Western Ave. Newburgh, ME 04444 207-944-5898 aweston@cai-info.com	#13 Geographic Information Systems Vendors
	Jon Giles Sebago Technics 75 John Roberts Road South Portland, ME 04106 (207) 200-2128 jgiles@sebagotechnics.com	#14 Geographic Information Systems Vendors
Picture not available	David Edson James W. Sewall Company P. O. Box 433 Old Town, ME 04468 (207) 827-4456 edson@sewall.com	# 15 Public

Picture not available	Maria Jacques Maine Public Utilities Commission 101 Second Street Hallowell, ME 04347 (207) 287-6083 Maria.Jacques@maine.gov	# 16 State GIS Stakeholders

This page intentionally left blank

This report was prepared for the Library of Geographic Information with support from the Maine Office of GIS, Office of Information Technology, Department of Administrative and Financial Services

This Maine Library of Geographic Information Annual Report for calendar year 2015 has been prepared in accordance with 5 M.R.S.A. §2003(I)(L).