

MAINE GEOLIBRARY

FY2022 ANNUAL REPORT

MAINE LIBRARY OF GEOGRAPHIC INFORMATION

**TO THE JOINT STANDING COMMITTEES OF:
ENVIRONMENT & NATURAL RESOURCES AND STATE & LOCAL GOVERNMENT
130TH LEGISLATURE – SECOND SESSION**



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ABOUT THE GEOLIBRARY

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 Geographic Information Systems (GIS) in statewide strategic planning. The Committee developed a needs assessment – the conclusion of which recommended the creation of the Maine 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” or “Board”) 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.



EXECUTIVE SUMMARY

The following is a summary of the GeoLibrary’s data acquisition activities and data needs over the past Fiscal Year (FY) 2022, which is July 1st, 2021, through June 30th, 2022. This represents a change in when the GeoLibrary develops their report as in the past it was developed at the end of the Calendar Year (by December 31st).

The GeoLibrary continued its efforts to coordinate agency data acquisitions in FY 2022.

LIDAR

The United States Geological Survey (USGS) approved and partially funded the acquisition of over 2000 square miles of LiDAR to replace outdated information along the Southern portions of Maine. The contractor was successful in acquiring the entire dataset, along with capturing the remaining rollover portion from the 2021 LiDAR project. Anticipated delivery for both projects is in early 2023.

ORTHOIMAGERY

The GeoLibrary initiated a refreshment of base mapping orthoimagery in multiple counties as well as at the community levels in Maine (see Figure 1 for extent of coverage).

An interactive map is located on the GeoLibrary’s website which provides more detail regarding the orthoimagery base mapping efforts.

<http://www.maine.gov/geolib/programs/ortho/index.html>

LAND COVER

A land cover initiative was adopted by the Board in fiscal year 2021 to update the outdated 2004 land cover dataset. Fundraising, community outreach, and contracting were accomplished with a goal of new landcover datasets available to the public in 2023.

STRATEGIC PLAN

The Board voted to fund a project to update our Maine GeoLibrary Strategic Plan. The last revision to the plan was developed in 2009. In July of 2021, the GeoLibrary Board launched a project working with the Timmons Group to develop the updated strategic plan. After an extensive review of current programs and operations and gathering GIS community stakeholder input, Timmons delivered a report with recommendations that provide a blueprint for future Board operations, data acquisition and hosting, and dissemination of geospatial data to the

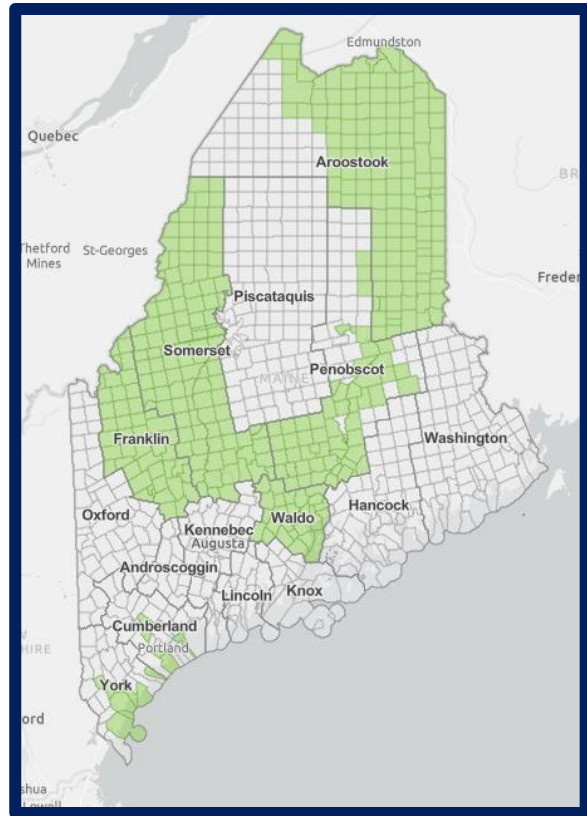


Figure 1. Extent of imagery coverage from rollover 2021 and current 2022 orthoimagery program.



greater GIS community and the citizens of Maine. There are five key recommendations that the Board will be working to implement in FY2023.

1. Enhance the GeoLibrary Board's legislative mandate
 - a. A revised statement of the Maine Library of Geographic Information Board purpose and duties (defined in §2003. Paragraph 1) that better reflects the current and near-term mission, goals, and objectives of the GeoLibrary
 - b. The addition of staff functions to §2003. Paragraph 4 required to meet operational and stakeholder needs identified during this project.
 - c. The addition of a new paragraph to §2003 to establish an executive committee to do most of the management of Board activities.
 - d. Expanding funding sources and use of accounts defined in §2006. Paragraph 2.
2. Enhance stakeholder outreach
 - a. Initiate a regularly planned outreach cycle to provide more frequent feedback on successes and needs of the stakeholder community in relationship to the GeoLibrary mission
3. Pursue sustainable funding for the GeoLibrary
 - a. Work to develop a sustainable funding source that will provide a foundation for operations staffing project development and matching funds for grant applications
4. Develop a data acquisition and maintenance plan for high priority data layers
 - a. Define future project plans for developing and maintaining high use geospatial data
5. Enhance geospatial data hosting and access
 - a. Develop an updated GeoLibrary Portal that enables equitable access to geospatial content develop by the Maine GeoLibrary, Maine state agencies, and guides user to content provided by authoritative third parties such as the U.S. Geological Survey.

More details of the work outlined in this executive summary can be found in the full report that follows.



KEY DATA LAYER ACTIVITIES

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

LEAF-OFF ORTHOIMAGERY PROGRAM

Leaf-off imagery is a key data set for all agencies and other users needing to see through the canopy cover to the ground for a multitude of planning and development purposes. This is true in organized communities as well as the unorganized territories where it is useful to the wood products industry and other commercial purposes. Due to the lack of funding from state sources, the GeoLibrary has not been able to acquire a statewide data set. The current program is based on a *pay-to-play* system where only those communities and counties with resources can participate in the GeoLibrary Orthoimagery Program. The coverage of orthoimagery can be seen in **Appendix A**.

Through an open RFP process, the GeoLibrary contracts with a reputable service provider to acquire orthoimagery annually. The target area is developed in concert with counties that are willing to pay for one-third of the costs of acquisition. The remaining two-thirds of the costs are covered through funds provided by state agencies with memorandums of agreement. Communities can participate in acquiring high-resolution imagery by paying into the program to cover the additional acquisition cost for increased resolution. The costs for counties and communities are substantially lower than what they would be if they had to contract for service on their own. Figure 2 shows an example of high-resolution imagery.



Figure 2. An example of high-resolution imagery. Location Belfast, Waldo County. Imagery captured in Spring 2022.



MAINE GEOLIBRARY

The imagery base map data is available for use by public, private, nonprofit corporations, and individuals at no additional charge through the GeoLibrary’s data services. **This program is a notable example of a cost-sharing approach leveraging state, county, and municipal funding sources.** The imagery base map serves as an accurate base map upon which other data is developed and registered.

The GeoLibrary initiated its third program (2017-2022) for imagery base mapping and is in its final year of the current program. Several counties and unorganized territories within those counties purchased eighteen-inch resolution imagery. In addition, seven communities (Gorham, Belfast, Ogunquit, Old Orchard Beach, Sanford, South Portland, and York), joined in to purchase higher 3-inch resolution imagery. Eleven communities upgraded to 6-inch resolution imagery. Many communities are repeat customers where their county had already participated in the program.

This year's acquisition included aerial imagery for over 16,000 square miles ranging in location from the Town of York to the Town of Frenchville!

Please note that due to adverse weather conditions in 2021, a few counties and communities were not flown and their acquisition ‘rolled over’ to the 2022 project. The spreadsheet (see Table 1) shows the entity, resolution, and the year the contract was signed. Orthoimagery should be publicly available by the beginning of March 2023.

The GeoLibrary needs an ongoing funding source to stabilize the orthoimagery program for the future. This will provide enough funds to continue to provide matching funds to counties and attract additional funding from local communities. On-going funding will provide continuity for a program that has substantially benefited the state, counties, and municipalities. The GeoLibrary encourages counties that have not participated to join its efforts to acquire an orthoimagery base map for all of Maine.

Entity	Resolution	Year Contract Signed
Aroostook County	18"	2021
Aroostook County UTs (partial)	18"	2021
Franklin County	18"	2022
Franklin County UTs	18"	2022
Somerset County	18"	2022
Somerset County UTs	18"	2022
Waldo County	18"	2021
Belfast	3"	2022
Gorham	3"	2021
Ogunquit	3"	2022
Old Orchard Beach	3"	2022
Sanford	3"	2022
South Portland	3"	2022
York	3"	2022
Carthage	6"	2022
Caribou Utilities District	6"	2022
Jay	6"	2022
Kennebunk	6"	2022
Kennebunkport	6"	2022
Presque Isle	6"	2022
Rangely	6"	2022
Skowhegan	6"	2022
Wells	6"	2022
Weston	6"	2022
Windham	6"	2022

Table 1. Listing of participating entities, resolution, and year the contract was signed.



ELEVATION PROGRAM

Since 2009, the GeoLibrary has initiated several projects to acquire high-resolution elevation (see Figure 3), also known as topographic, data. Topographic data is used to create contour maps at one- or two-foot elevation intervals suitable for planning development at the parcel level. Accurate elevation data is important to many programs such as: flood risk mapping, watershed delineation and hydrographic mapping, mapping landslide hazards away from the coast, and mapping infrastructure and managing wildlife.

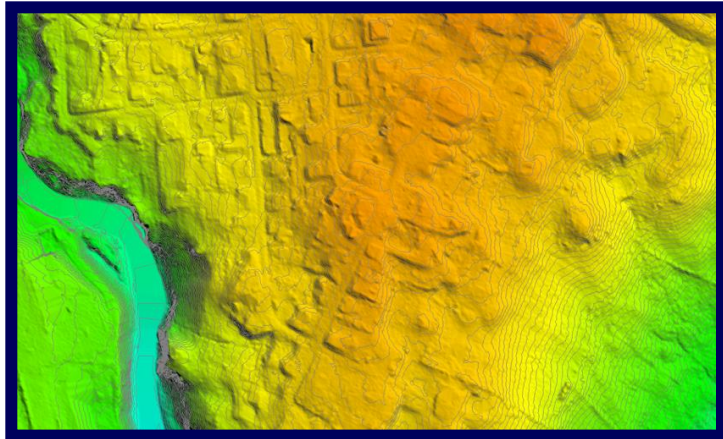


Figure 3. A derivative product developed from LiDAR called a shaded relief.

Despite a lack of a state budget specifically for the GeoLibrary, it has developed partnership proposals to acquire new data with Light Detection and Ranging (LiDAR) Technology for **all** the state's land area. (See map in **Appendix A**). LiDAR provides elevation and topographic information, and derivative products include shaded relief models and contours.

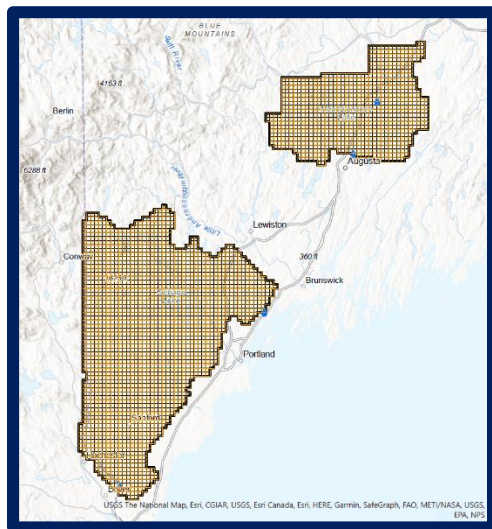


Figure 4. Extents of the 2022 South Central LiDAR project.

The current **2022 South Central LiDAR project** (see Figure 4) covers a total of 2505 square miles (sq mi) and provides a complete set of USGS Quality Level 2 (QL2) accuracy data with tidal coordination where applicable.

The GeoLibrary received funding from numerous public and private sources including the Natural Resource Conservation Service (NRCS), state agencies such as the Maine Department of Transportation, The Nature Conservancy, and others. This year, the GeoLibrary solicited over \$235,000 from state and local partners to apply for USGS matching funds. **The cost of the total project is over \$427,000, which means that Federal partners are providing approximately 48% of the total project costs.**

These data are having a transformative effect on land development costs for private and public sectors in Maine's economy. In addition, elevation data provides a rich resource for analyzing natural and manmade environments.



LAND COVER AND IMPERVIOUS SURFACES

High-resolution land cover and impervious surfaces data provide critical information for tracking changes in our environment important to designing numerous development projects.

Urban communities planning for stormwater 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 state’s aquatic and land species, all require resolution of at least 1-meter resolution landcover data. In addition, with a regular refresh rate, this data will provide important insights regarding the effects of climate change and provide much-needed information to support decisions impacted by the changing climate. See Figure 5 for a comparison of older and current land cover classifications.

The GeoLibrary was successful in raising funds for three land cover projects:

1. a comprehensive, statewide 1-meter land cover map (to be developed by NOAA),
2. a statewide 10-meter forestry type map (to be developed by University of Maine), and
3. a statewide 10-meter forest biomass and carbon density map (also to be developed by University of Maine).

Contracting with NOAA and the University was completed in the spring 2022 and the projects officially started prior to the end of the current fiscal year. Funding for this project came from NOAA, University of Maine, Maine DOT, Maine DEP, Cooperative Forestry Research Unit, The Nature Conservancy, and the Maine GeoLibrary. The **value of all three projects is over \$800,000.**

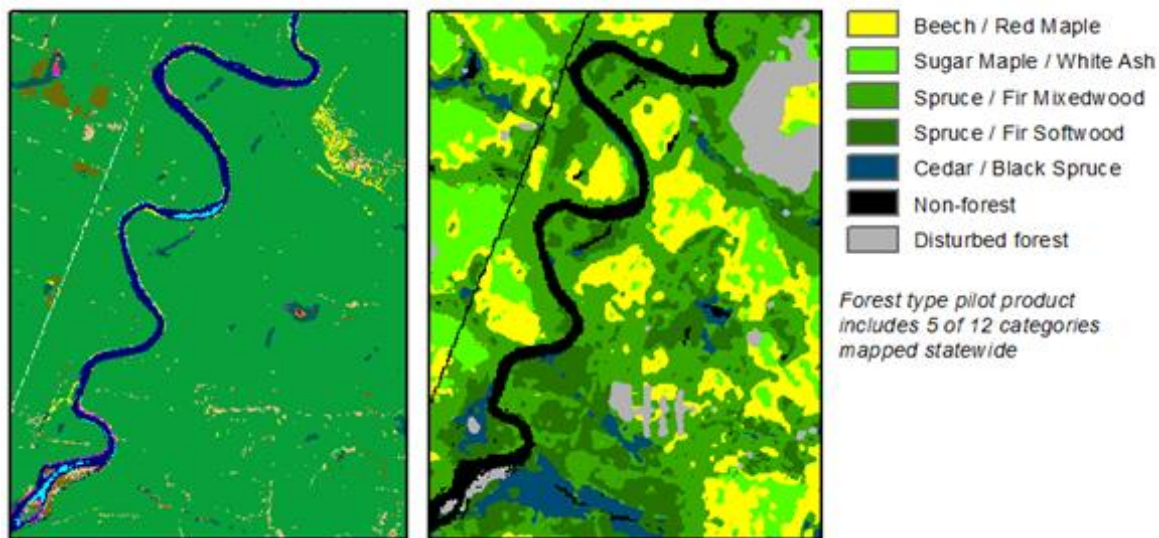


Figure 5. An example of old (2004 data) vs. new (2016) land cover. Notice the detail on the right image.

Land cover data is most useful when comparing data over time and the GeoLibrary will need to develop a reasonable update cycle for land cover data and set aside annual funds to do this. NOAA’s update cycle is every 4-6 years and is a reasonable refresh rate.



PARCEL DATA PROGRAM

Current parcel information is a frequent request posed by data consumers and they are frustrated by the lack of a statewide, comprehensive, current, and accurate dataset. Having access to community parcel maps in a digital format (see Figure 6) that is updated on a regular basis is an important resource to state agencies, real estate, and development interests as well as many other users of data. The Board has collected data from many communities through various grant programs, however, it lacks the resources to continue outreach to towns for soliciting updated data and assisting communities without digital maps to acquire them.



Figure 6. Parcel data with orthoimagery underlaid beneath it. An example of using multiple geospatial data layers.

Data from many towns in the state's composite parcel data layer is very out of date, which happens for several reasons. Some communities do not update their data every year and others may update the data but **do not share it with the GeoLibrary**. Several times a year, inquiries from communities are made regarding the availability of grant funds to help pay for the conversion of paper maps to a digital format.

In addition, the state's parcel data for the unorganized communities, maintained by Maine Revenue Service (MRS), is several years out of date and in poor condition for inclusion in the statewide parcel map.

For budget purposes, the GeoLibrary assumed an estimated cost for converting paper maps to digital products at \$20,000 per town. However, this price can vary based on many factors including the number of parcels, currency, and quality of existing maps. **Using this average cost, the estimate for converting all communities to digital products would be approximately \$4.2 million.**

An interactive map showing communities that have submitted parcel information to the GeoLibrary is located here:

<https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=28e35c8fcf514d2685357b78bdd0b246>

The GeoLibrary sees a need for a partnership grant program that would assist communities to maintain parcel maps in a digital format meeting a state standard for data sharing.



BATHYMETRY

Bathymetry data is an important component for transportation planning and development, monitoring fisheries, and analyzing climate change. Near and offshore high-resolution data is needed for a better understanding of Maine’s fisheries, support to aquaculture, and impacts of development.

Current bathymetry data is an eclectic mix of data acquired from numerous independent studies and is of varying accuracies. New consistent high-resolution data is needed to complete studies of the land-sea interface for many applications. Large sections of the coast lack current near-shore bathymetry. Portions of the Gulf of Maine data date as far back as the times when lead sinkers and ropes were used to determine ‘depth to the bottom’. The state needs a systematic approach to updating bathymetric data by taking advantage of modern technology for increased accuracy. Better bathymetry would contribute to improved navigation, provide an understanding of fisheries habitat, support aquaculture and model floods. This data is especially important to the state’s tidal areas including the river systems and to heads-of-tide.

The state should acquire Atlantic Ocean near-shore bathymetry data (see Figure 7) on an annual basis with a goal of updating the data in a regular refreshment rate for areas susceptible to change due to accretion and erosion of shorelines.

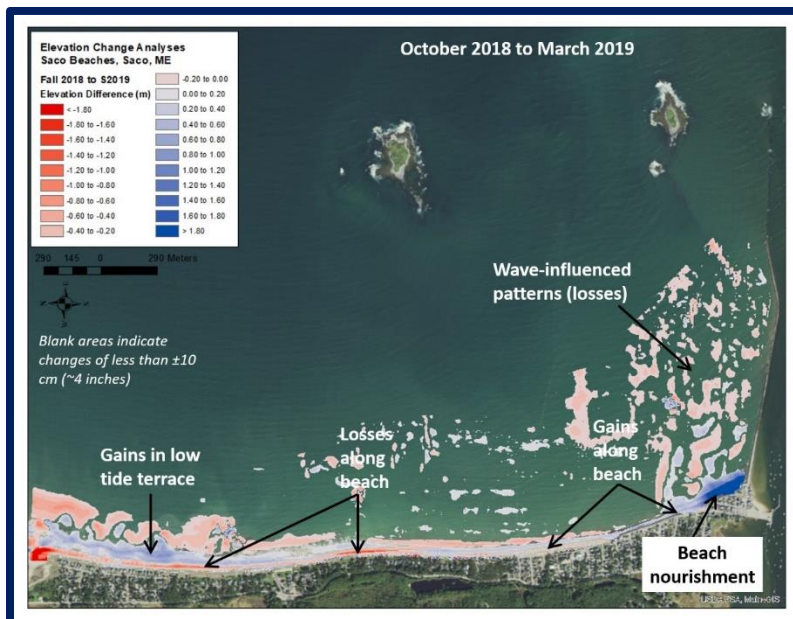


Figure 7. Example of bathymetric LiDAR and resulting analysis along Saco Beach.

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. This data is one of several geospatial datasets that supports the development of value-added products such as the Land Cover layer, which is critical to assess the effects of climate change.



FINANCIAL STATUS

The GeoLibrary has not received an appropriation through the Legislature for either operations or data acquisition. Despite the lack of funding, GeoLibrary staff have been successful in building partnerships and leveraging funding from cooperating partners to finance data acquisition. As a result, the GeoLibrary has managed to accrue a positive balance in its Geospatial Reserve Fund (Account # 013-18B-3057) – See Table 2. **This balance results from good fiscal control, strategic planning, and engaging partners by providing community outreach.**

	A	B	C	D	E	F	
	Cash Balance Projection	Vendor	Agreement	End Date	Amount	Notes	
1	OSR Revenue						1
2	Funds Available (6/30/2022)				\$ 1,897,755.89		2
3	Receivable Expected				134,565.00		3
4	OSR Expenses/Current Obligations						4
5	Contract Liability	USGS	20210226000000002347	7/1/2024	(141,624.98)		5
6	Contract Liability	Quantum Spatial	20200423000000010581	3/31/2021	-		6
7	Contract Liability	Woolpert	20210409000000008474	12/31/2021	(579,631.05)		7
8	Contract Liability	HUC USGS	20210426000000002931	12/31/2021	-		8
9	Contract Liability	Timmons Group Inc, Consulting	20210819000000000403	3/31/2022	(4,130.00)		9
10	Contract Liability	US Geological Survey	20220211000000001841	7/1/2025	(235,000.00)		10
11	Contract Liability	Dept of Commerce, NOAA	20220218000000001917	3/1/2027	-		11
12	Contract Liability	Umaine	20220411000000002424	12/31/2024	(150,000.00)		12
13	Total 014 Cash Expected after Current Obligations				\$ 921,934.86		13
14							14
15	OSR Revenue						15
16	Receivable Expected in SFY 2023 based on future obligations				-	See Page 3 Column E	16
17							17
18	Obligations Expected in SFY 2023						18
19	USGS LiDAR				(300,000.00)	See Page 3 Column C	19
20	Strategic Plan Amendment				(25,000.00)	See Page 3 Column C	20
21	STACAP (4.6667%)				(2,946.09)	See Page 3 Column C	21
22							22
23	Cash Balance at Yearend (6/30/2023)				\$ 593,988.77		23
	Notes:						
	1. This report is based on obligations and does not factor in cash flow						

Table 2

The GeoLibrary manages and supports a variety of geospatial acquisition projects every year which include orthoimagery, LiDAR and land cover. Funds for all these projects require matching funds from the GeoLibrary, as well as raising funds from outside sources. The GeoLibrary has been successful in its fundraising campaign but still requires an ongoing funding source.



STRATEGIC PLAN UPDATE

The Maine Library of Geographic Information Board has just completed an update to its 2009 strategic plan. With the help of the [Timmons Group](#), the Board engaged with over 130 stakeholders across Maine and solicited assistance from numerous local and national recognized subject matter experts to review trends, operations, and the funding necessary to provide the level of services required by communities, educational institutions, and state agencies in Maine. This review highlighted the fact that the GeoLibrary is inadequately supported to meet its legislative mandate as established under [Title 5, Part 4, Chapter 163 2001 through 2006](#).

The Strategic Plan identified five recommendations to implement as part of a continuous improvement process work cycle designed to develop long term sustainability approach to achieving mission objectives (see Figure 8):

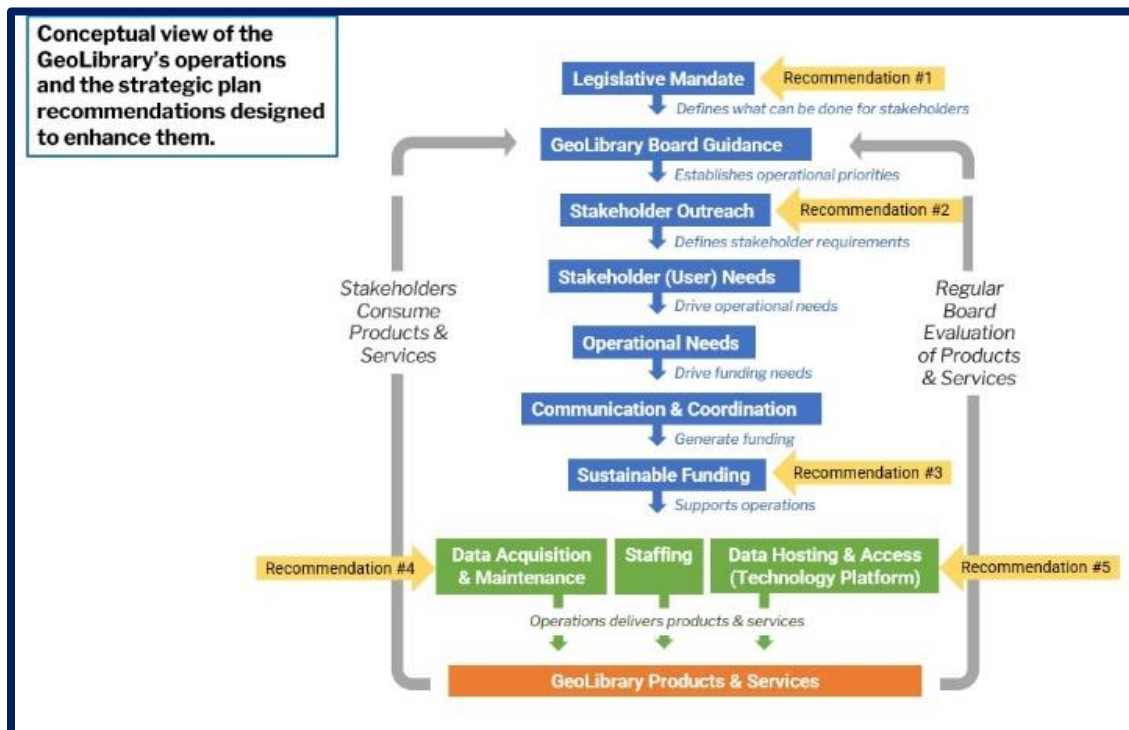


Figure 8. Strategic Plan Recommendations

1. Enhance the GeoLibrary Board's legislative mandate
 - a. A revised statement of the Maine Library of Geographic Information Board purpose and duties (defined in §2003. Paragraph 1) that better reflects the current and near-term mission, goals, and objectives of the GeoLibrary
 - b. The addition of staff functions to §2003. Paragraph 4 required to meet operational and stakeholder needs identified during this project.
 - c. The addition of a new paragraph to §2003 to establish an executive committee to do most of the management of Board activities.
 - d. Expanding funding sources and use of accounts defined in §2006. Paragraph 2.



2. Enhance stakeholder outreach
 - a. Initiate a regularly planned outreach cycle to provide more frequent feedback on successes and needs of the stakeholder community in relationship to the GeoLibrary mission
3. Pursue sustainable funding for the GeoLibrary
 - a. Work to develop a sustainable funding source that will provide a foundation for operations staffing project development and matching funds for grant applications
4. Develop a data acquisition and maintenance plan for high priority data layers
 - a. Define future project plans for developing and maintaining high use geospatial data
5. Enhance geospatial data hosting and access
 - a. Develop an updated GeoLibrary Portal that enables equitable access to geospatial content develop by the Maine GeoLibrary, Maine state agencies, and guides user to content provided by authoritative third parties such as the U.S. Geological Survey.

The full details of the updated strategic plan and associated supporting documents are located here: [Maine GeoLibrary Strategic Plan Update \(arcgis.com\)](https://arcgis.com).

With the support of the Maine Department of Administrative and Financial Services, Maine Office of Information Technology and the Maine Office of GIS, the Maine GeoLibrary will be working to implement these recommendations in 2023. The priority will be to define sustainable funding sources that will enable the GeoLibrary to continue its historical programs such as the statewide orthoimagery and elevation data programs that continue to provide a high return on investment. If the GeoLibrary can develop additional long-term funding, then new initiatives for data to support projects in climate change mitigation, new energy sources, and resource sustainability will be attainable.



RECOMMENDATIONS

FY2023 marks a transition period for several Maine GeoLibrary programs. As current contracts with aerial service providers close, we will develop scopes of services for RFP to be posted in 2023. The scope of services defined will depend on program definitions that have a direct relationship to available funding. Currently the GeoLibrary has no regular funding source to provide matching funds for grants or to otherwise fund projects for most of the identified stakeholder interests for statewide geospatial content. The Board continues to apply for grants and develop plans on a limited basis. Where we can develop teaming agreements, funds are pooled with stakeholder’s resources and applied as the match for grant funding to develop data products such as orthoimagery, landcover mapping, elevation data, parcel mapping, and environmental data to name a few. This foundational infrastructure supports state agency services, economic development, scientific studies, emergency services statewide, and every industry supporting Maine’s citizens. Continuing funding is **essential** to Maine’s future statewide geospatial data needs.

1

Support the Maine GeoLibrary Board’s efforts to implement the revised strategic plan adopted in 2022.

The Maine Library of Geographic Information is the logical vehicle to accomplish the data acquisition components of the most common statewide data collection and to assist in developing accessibility and collaboration resources. Despite the complications of limited staff support and no regular funding allocations, the GeoLibrary has partnered in developing a complete statewide coverage of elevation and imagery data that plays a critical role in many community-based programs and businesses across the region. As outlined in the 2022 Strategic Plan Reports, with regular funding, the Board can do so much more and produce an even higher rate of return on these investments.

2

Support the deployment of a modern web portal that enhances access to the GeoLibrary contents for all users.

The Maine GeoLibrary is a web portal that provides access to authoritative geospatial content developed by the Maine GeoLibrary, the Maine Office of GIS and other Maine State agencies, Maine communities and our Federal Agency partners. In addition to being a point of download for some data, a modern GeoLibrary provides access to content in the form of data and map services, connections to web applications and links to trusted third party sites. Though some enhancements have been made to the current website, it is still largely based on an older model for communicating content. With funding to support expanded staffing, we will be able to focus more attention to modernizing the website and proactively collaborating with communities to provide better access to their content.

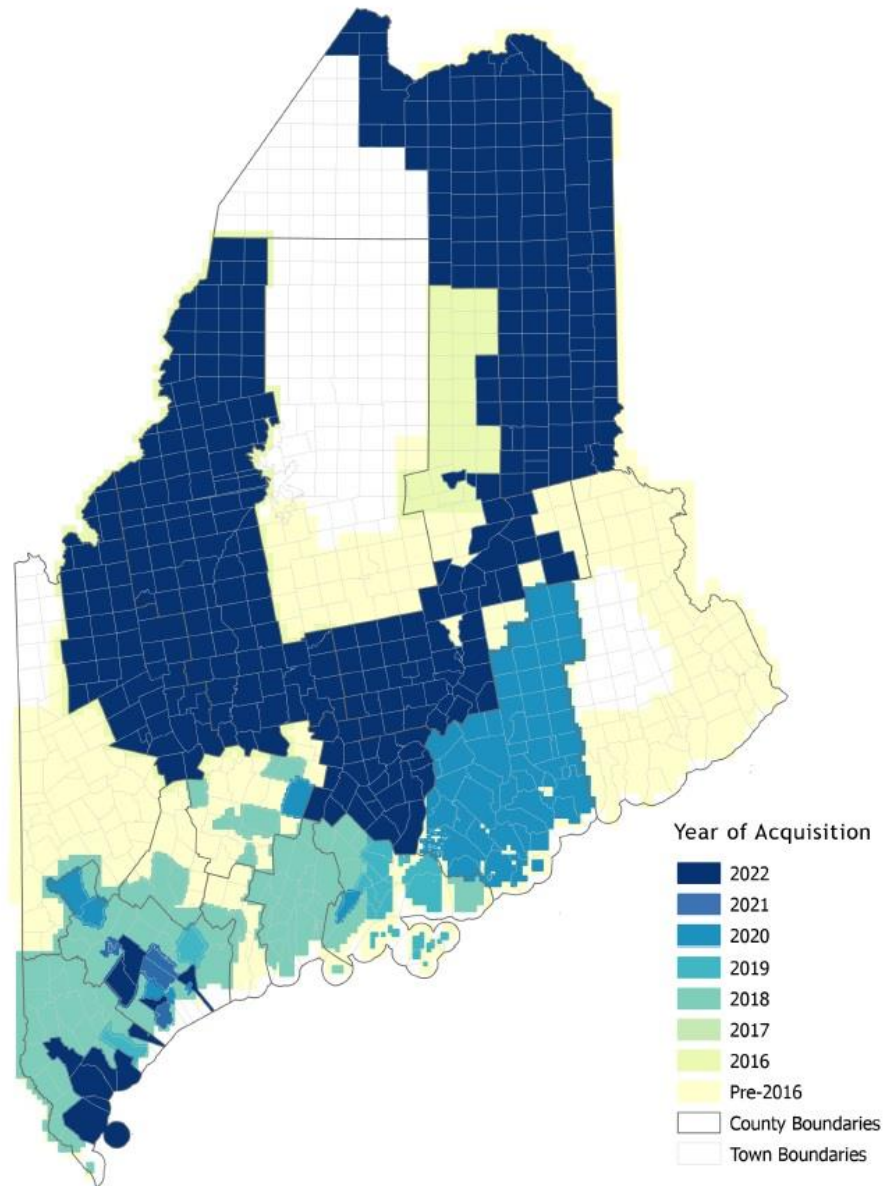


APPENDIXES

APPENDIX A: DATA ACQUISITION PROGRESS MAPS

ORTHOIMAGERY (AS OF 6/30/2022)

Maine GeoLibrary Orthoimagery Project



Data Sources: Maine GeoLibrary; Maine Office of Geographic Information Systems



Maine GeoLibrary

Contact Information

Email: GeolibaryBoard.OIT@maine.gov

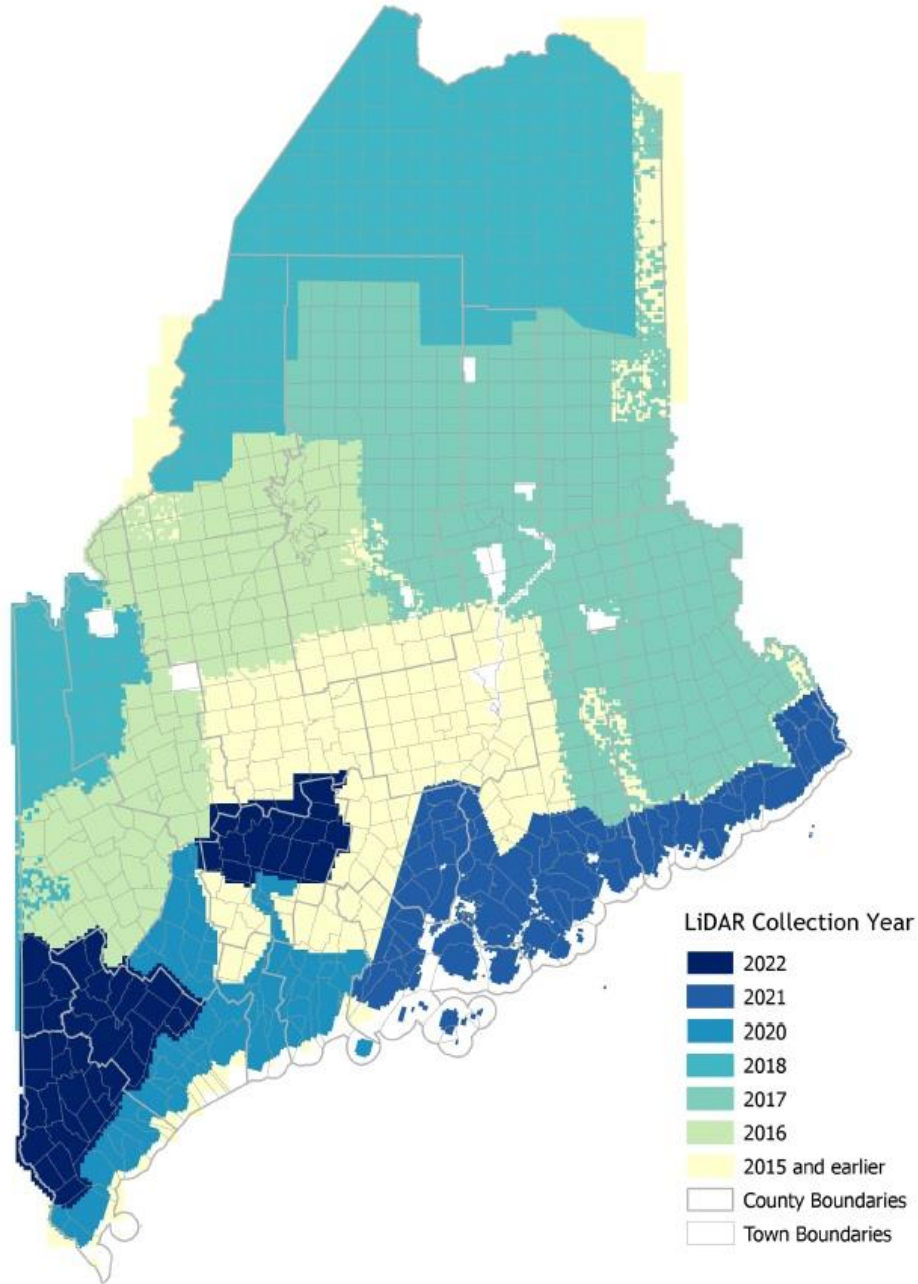
Web: <https://www.maine.gov/geolib/index.html>

Map produced by the Maine Office of GIS



LIDAR (AS OF 6/30/2022)

Maine GeoLibrary LiDAR Project



Data Sources: Maine GeoLibrary; Maine Office of Geographic Information Systems



Maine GeoLibrary

Contact Information

Email: GeolibBoard.OIT@maine.gov

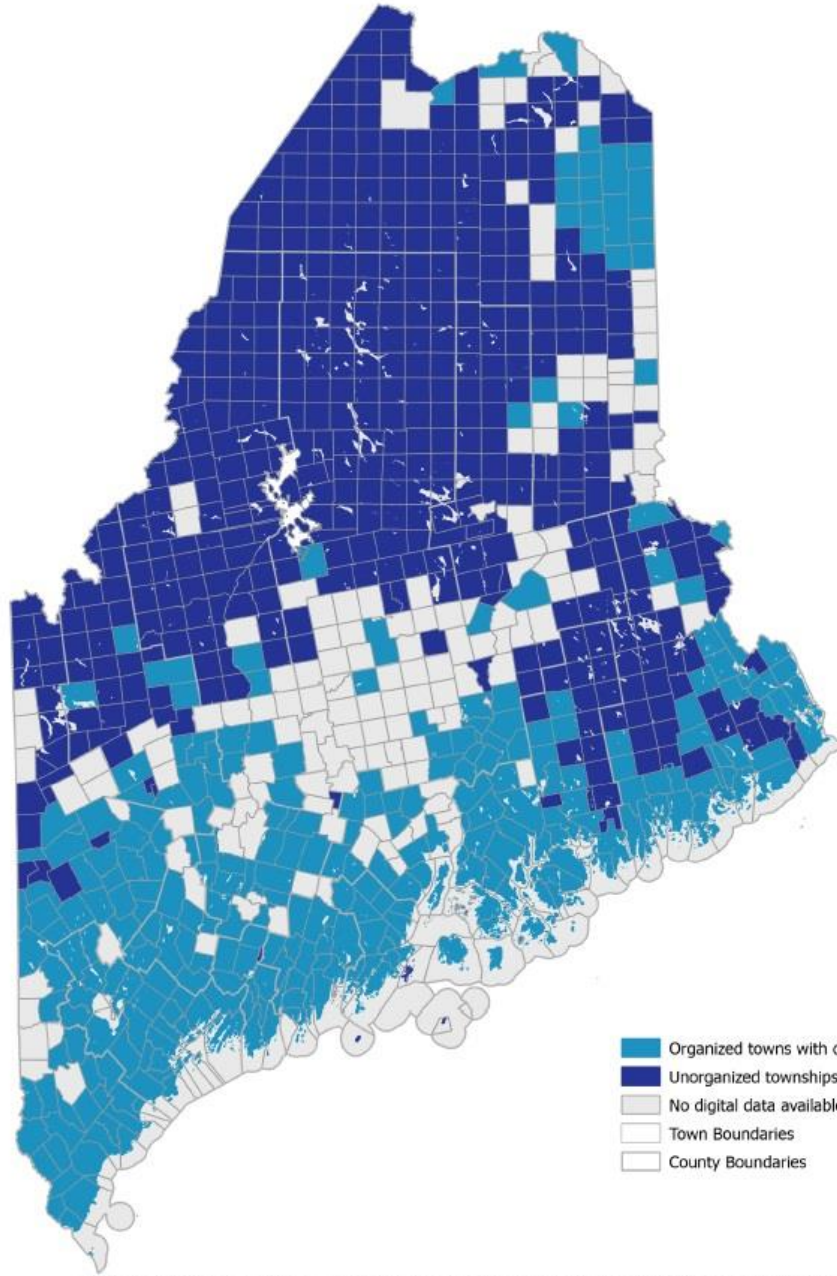
Web: <https://www.maine.gov/geolib/index.html>

Map produced by the Maine Office of GIS



PARCELS (AS OF 6/30/2022)

Maine Parcel Data



Data Sources: Maine Revenue Service; Maine Geological Survey; Maine GeoLibrary; Maine Office of Geographic Information Systems



Maine GeoLibrary

Contact Information

Email: GeolibaryBoard.OIT@maine.gov

Web: <https://www.maine.gov/geolib/index.html>

Map produced by the Maine Office of GIS



APPENDIX B: 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. The GeoLibrary Board meets monthly or as needed. Agendas and meeting notes can be found on the GeoLibrary website: <http://www.maine.gov/geolib/>.

STANDING COMMITTEES

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.

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.

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.

WORKGROUPS

Workgroups are currently not active as the GeoLibrary focuses on its strategic planning and funding sources.



APPENDIX C: BOARD MEMBERSHIP

Seat	Member	Term Ends	Representing	Appointed By
1	Nicholas Marquis Client and Infrastructure Department of Administrative and Financial Services (207) 624-7776 Nicholas.Marquis@maine.gov	Permanent	Dept. of Administrative and Financial Services (DAFS)	DAFS Commissioner
2	Brian Guerrette Enterprise Shared Services Department of Administrative and Financial Services (207) 649-3838 Brian.Guerrette@maine.gov	Permanent	State CIO	State Chief Information Officer
4	Nate Kane* Dept of Transportation (207) 624-3297 Nate.Kane@maine.gov	9/17/2018	Governor	State GIS Functions
5	Vinton Valentine University of Southern Maine (207) 228-8455 vvalentine@maine.edu	6/22/2025	University of Maine Chancellor	University of Maine System
6	Greg Copeland GIS Manager, City of Biddeford (207) 710-6666 Gregory.Copeland@Biddefordmaine.org	1/25/2025	Senate President	Municipal Government
7	Vern Maxfield Town of Woodstock (207) 665-2668 vhm24@megalink.net	5/06/2023	House Speaker	Municipal Government
8	Leticia vanVuuren Knox County EMA (207) 594-5155 vanvuuren@knoxcountymaine.gov	10/28/2025	House Speaker	Statewide Association of Regional Councils
9	VACANT		Governor	Statewide Association of Counties
10	Katie Bernhardt American Title (207) 404-3231 ckbernhardt@gmail.com	11/25/2022	Senate President	Real Estate and Development Interests
11	Sarah Haggerty Maine Audubon (207) 781-2330 x225 shaggerty@maineaudubon.org	6/17/2023	House Speaker	Environmental Interests
12	VACANT		Governor	Utility Interests
13	Aaron Weston Cartographics Associates, Inc. (207) 944-5898 aweston@cai-tech.com	9/21/2025	Senate President	GIS Vendors
14	Patrick Cunningham Blue Marble Geographics (207) 622-4622 patrickc@bluemarblegeo.com	1/30/2025	House Speaker	GIS Vendors



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15	Joseph Young, Chair* Private Citizen (207) 931-7626 joe.younggis@gmail.com	4/28/2022	Senate President	Public
16	Maria Jacques* Maine PUC (207) 287-6083 Maria.Jacques@maine.gov	9/12/2021	Governor	State GIS Functions

NOTE: Seat 3 was eliminated by Legislature

“**” Renewals for these seats are awaiting appointment.

Executive Director: Claire Kiedrowski, (207) 266-7087, claire.kiedrowski@maine.gov



APPENDIX E: ACRONYMS & DEFINITIONS

Term	Description
Board	Board of Directors for the Maine Library of Geographic Information
CIO	Chief Information Officer for the state
ESCB	Emergency Services Communications Bureau
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
HUC	Hydrologic Unit Code
LiDAR	Light Detection and Ranging, a remote sensing system used to collect topographic and other 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
NHD	National Hydrography Dataset
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

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