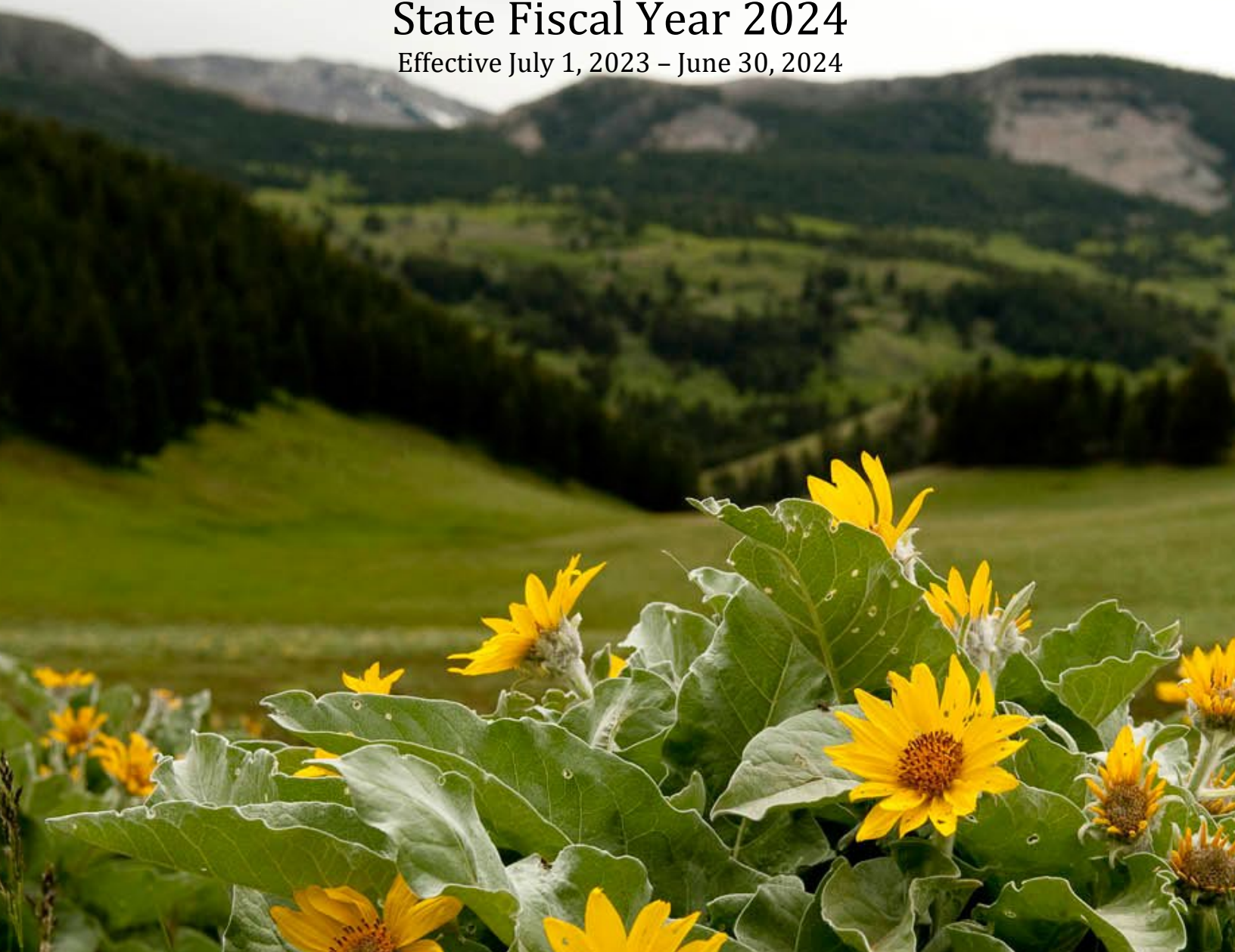


Montana Land Information Plan

State Fiscal Year 2024

Effective July 1, 2023 – June 30, 2024



***Produced by the Montana State Library in Coordination with the
Land Information Plan Subcommittee of the Montana Land Information Advisory Council***

**Pursuant to Section 4 (c) of the Montana Land Information Act (Senate Bill 98) and
Administrative Rule IV of the Montana Land Information Act**

Endorsed by the Montana Land Information Advisory Council at the 11/17/2022
Approved by the Montana State Library Commission: 12/7/2022

Montana Land Information Plan

State Fiscal Year 2024



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Executive Summary

The Montana Land Information Plan for state fiscal year 2024 has been prepared by the Montana State Library (MSL) with input from the Montana Land Information Advisory Council. Section 90-1-404 (1)(c) of the Montana Code Annotated (MCA) calls for an annual land information plan that “describes the priority needs to collect, maintain, and disseminate land information. The land information plan must have as a component a proposed budget designed to accomplish the goals and objectives of the plan.”

Land information is collected and managed using computer-based technology, known as geographic information systems or GIS¹, and is used by federal, tribal, state, and local entities to provide critical services. As defined in the Land Information Act, “Land information means data that describes the geographic location and characteristics of natural or constructed features and boundaries within or pertaining to Montana.” (Section 90-1-406 (5), MCA) Collaboration and partnership across all levels of government, nonprofit and private sectors is fundamental in building and maintaining this information. GIS is imperative in planning, implementation, and recovery of adverse events and challenges. GIS and land information are required for disaster and emergency response; the development and maintenance of transportation, sewer and water infrastructure; natural resource management and conservation; and overall land use development, planning, and land transactions.

The priorities set forth in this plan:

- Guide the work of the Council,
- Identify the areas of focus for the Montana Land Information Act Grant Program,
- Guide the development and maintenance of the Montana Spatial Data Infrastructure (MSDI), and
- Provide foundation for GIS Coordination in Montana.

Given limited Montana Land Information Act dollars and human resources, the priorities outlined in the Plan become particularly important for the Montana State Library to fulfill the purpose of the Montana Land Information Act: “[ensuring] that digital land information is collected consistently, maintained accurately in accordance with standards, and made available in common ways for all potential uses and users, both private and public.” (Section 90-1-402, MCA)

- Support the use of GIS in Safety and emergency response, elections, US Census programs, etc.
- Developing local government capabilities for the planning, collection, maintenance, sharing and dissemination of land information.
- Coordinate the development of geographic information system standards for creating land information
- Coordinating the development and promotion of geographic information system standards for creating, maintaining, disseminating, and using land information.

¹ Section 90-1-403, MCA – “Geographic information system” or “GIS” means an organized collection of computer hardware, software, land information, and other resources, including personnel, that is designed to or assists to efficiently collect, maintain, and disseminate all forms of geographically referenced information.

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The Montana Land Information Plan

The Components of the Montana Land Information Act

In 2005, the Montana Legislature enacted the Montana Land Information Act (MLIA). The passage of the Act recognized the vital role that geographic information plays in Montana, as stated in the purpose section of the Act:

“The purpose of this part is to develop a standardized, sustainable method to collect, maintain, and disseminate information in digital formats about the natural and artificial land characteristics of Montana. Land information changes continuously and is needed by businesses, citizens, governmental entities, and others in digital formats to be most effective and productive. This part will ensure that digital land information is collected consistently, maintained accurately in accordance with standards, and made available in common ways for all potential uses and users, both private and public. This part prioritizes consistent collection, accurate maintenance, and common availability of land information to provide needed, standardized, and uniform land information in digital formats.” (Section 90-1-402, MCA)

Land Information Plan

In accordance with the MLIA, the Montana Land Information Plan (the Plan) is prepared annually by the Montana State Library with advice from the Montana Information Advisory Council, henceforth referred to as the “Council.” (Section 90-1-401 et seq., MCA). The Plan addresses the goals, objectives, and funding priorities for the Council, the Grant Program, the Montana Spatial Data Infrastructure, and GIS Coordination.

Grant Program

The purpose of the MLIA Grant Program is to provide development and maintenance of services relating to the GIS and land information. The Plan establishes the goals and priorities that guide the MLIA Grant Program. State agencies, local governments, and Indian tribal governments are eligible to apply for grant funding. Preference is given to applicants that demonstrate intergovernmental or interagency partnerships in their grant projects. All information or products created or updated through the MLIA Grant Program must be made publicly available.

In accordance with Montana Administrative Rule 10.102.9105, the grant application guidelines will be announced by January 15, 2023. Announcements will be made through the Montana Association of GIS Professionals (MAGIP), the Montana Association of Counties (MACo), the Council distribution list, and other communication channels. Grant applications must be received by MSL by February 15, 2023. Grant applications then go through a competitive process of review and ranking conducted by a subcommittee of Council. Final grant awards are approved by the MSL Commission in May 2023. Grants are administered by MSL and are awarded for a period of one-year, July 1, 2023 – June 30, 2024.

GIS Coordination

The State Library and the Montana State GIS Coordinator work to coordinate the development of geographic information system standards for creating land information and the program development of the Montana Spatial Data Infrastructure. The GIS Coordinator implements, manages, and administrates the Montana Land Information Act Grant program.

The GIS Coordinator serves as the primary point of contact for national, regional, state, and other GIS coordinating groups for the purpose of channeling issues and projects to the appropriate individual, organization, agency, or other entity.

The Montana Land Information Account

The Montana Land Information Act also created the Land Information Account, which is funded from a portion of recordation fees collected by each county. “Fee for recording a standard document” are assessed on a per page basis. Of

the fees collected, 50 cents are deposited in each individual county’s land information account and \$1.50 dollars are transmitted to the State Department of Revenue to be placed in the Montana Land Information Account (Section 7-4-2637, MCA).

Section 90-1-404, MCA requires the MSL to administer the Montana Land Information Act. When possible, these funds may be supplemented by the State of Montana’s General Fund or other funding sources. Funds for the state Land Information Account are generated through collection of county recordation fees as described in Section 7-4-2637 (3) (a) (iii), MCA. This account represents the primary state funding source to accomplish the priorities of the Land Information Plan.



Figure 1. Total collections deposited into the Montana Land Information Account from state fiscal years 2006 (July 1, 2005) through 2022 (June 30, 2022). These collections account for 75% of the total collected for land information pursuant to section 7-4-2637 (3)(a), MCA.

The Montana Land Information Advisory Council

The preparation of the Plan is guided by the Montana Land Information Advisory Council, henceforth referred to as the “Council,” a 22-member body. The Council includes representatives from federal, state and local government entities, private businesses and the Montana Legislature. The Council is authorized in Section 90-1-406, MCA and has the following *advisory* duties:

- (a) advise the state library about issues relating to the geographic information system and land information;
- (b) advise the state library on the priority of land information, including data layers, to be developed;

- (c) review the land information plan described in 90-1-404 and advise the state library on any element of the plan;
- (d) advise the state library on the development and management of the granting process described in 90-1-404(1)(e);
- (e) advise the state library on the management of and the distribution of funds in the account;
- (f) assist in identifying, evaluating, and prioritizing requests received from state agencies, local governments, and Indian tribal government entities to provide development of and maintenance of services relating to the GIS and land information;
- (g) promote coordination of programs, policies, technologies, and resources to maximize opportunities, minimize duplication of effort, and facilitate the documentation, distribution, and exchange of land information; and
- (h) advocate for the development of consistent policies, standards, and guidelines for land information.

Key Dates

The table below highlights the key MLIA dates set in Administrative Rule.

Date	Task
December 31, 2022	Land Information Plan for FY2024 Completed & Approved by MSL Commission
January 13, 2023	MLIA Grant Materials for FY2024 Published
Feb. 26 – March 2, 2023	NSGIC Midyear Meeting – Pittsburgh, PA
March 1, 2023	Preliminary FY2024 MLIA Grant Application Review
March 5, 2023	FY2024 MLIA Grant Applications Due
April 3-7, 2023	MAGIP Annual GIS Conference: <i>Big Sky GeoCon</i> – Bozeman, MT
April 4, 2023	<i>PROPOSED MLIA Council Meeting</i>
May 12, 2023	<i>PROPOSED MLIA Council Meeting</i>
May 15, 2023	MLIA Grant Applicants for FY2024 Prioritized for Funding
May 31, 2023	MLIA Grant Applicants for FY2024 Finalized & Approved by MSL Commission
June 16, 2023	MLIA Council Meeting
June 30, 2023	<ul style="list-style-type: none"> • End of State Fiscal Year 2023 • End of FY2023 Land Information Plan • FY2023 MLIA Grant Year Ends
July 1, 2023	<ul style="list-style-type: none"> • Start of State Fiscal Year 2024 • FY2024 Land Information Plan Begins • FY2024 MLIA Grant Year Begins
Aug. 28 – Sept. 1, 2023	NSGIC Midyear Meeting – New Orleans, LA
September 15, 2023	<i>PROPOSED MLIA Council Meeting</i>
November 1, 2023	Publish Draft Land Information Plan for FY2025
November 17, 2023	<i>PROPOSED MLIA Council Meeting</i>
December 15, 2023	Land Information Plan for FY2025 Completed & Approved by MSL Commission
January 15, 2024	MLIA Grant Materials for FY2025 Published
February 15, 2024	MLIA Grant Applications for FY2025 Due
May 1, 2024	MLIA Grant Applicants for FY2025 Prioritized for Funding
May 15, 2024	MLIA Grant Applicants for FY2025 Finalized & Approved by MSL Commission
June 30, 2024	<ul style="list-style-type: none"> • End of State Fiscal Year 2024 • End of Land Information Plan FY2024 • FY2024 MLIA Grant Year Ends • Council Members 2-Year Terms End

Montana GIS Coordination Strategic Plan

Fiscal Years 2023 – 2027

The Montana State Library adopted a strategic plan in April 2022. The Strategic Plan can be read in its entirety [here](#); see *Appendix A*. The Montana GIS Coordination Strategic Plan addresses five strategic goals for MSL GIS Coordination:

- Improve GIS Coordination within the Library (Priority 5)
- Improve Communication with Geospatial Stakeholders (Priority 1)
- Develop Policies and Best Practices for Geospatial Data (Priority 2)
- Continue to Improve the Collection, Maintenance, & Dissemination of Authoritative Land information (Priority 4)
- Create and Strengthen Partnerships (Priority 3)

The strategic plan outlines priorities to accomplish these goals over the next the five years: Fiscal Years 2023 – 2027. All identified goals are important, however certain goals will take precedence due to goal interdependencies or due to workload of accomplishing that single goal. The order in which these goals will be achieved can be seen in the figure below; see overall timeline in *Appendix B*. MSL will continue to work to develop and execute individual business plans for each strategic goal. These five strategic goals build upon MSL’s annual work of managing and providing geospatial data and serving as a statewide leader in GIS; as outlined in this Plan.

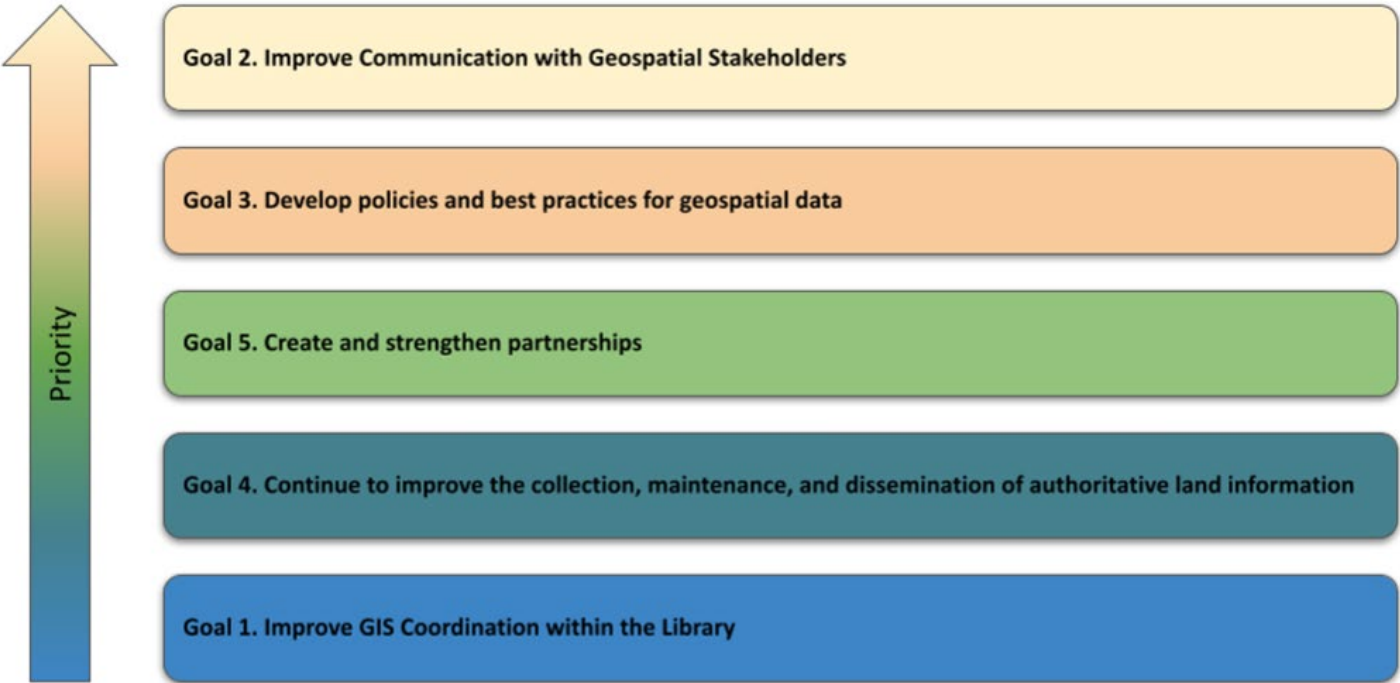


Figure 2. Prioritization of the Strategic Goals

Land Information Plan Outcomes

The FY2024 Land Information Plan sets the annual priorities for Council, the Montana Land Information Act Grant Program, the MSDI, and GIS Coordination, and for the successful use of reliable land information in the State of Montana.

The Montana Land Information Act establishes a Land Information Account that provides funding to the Montana State Library to support the Council, the Montana Land Information Act Grant Program, Montana's Spatial Data Infrastructure or MSDI – the personnel, technology, standards, and policies that are used to guide the collection, maintenance and dissemination of the state's land information, and GIS Coordination.

The management of Montana's land information and the disbursement of the Land Information Account funds are guided by the overarching goals and priorities set forth in this Plan. Work to achieve these priorities will result in:

- The existence of a sustainable and collaborative Montana Spatial Data Infrastructure that is, in accordance with standards, consistently collected, accurately maintained, and disseminated.
- Improved quality and efficiency of critical business processes of stakeholders through the use of GIS technology and adoption of MSDI data layers.
- The promotion of the use of GIS across the state through funding, coordination, education, and outreach.

The Montana Spatial Data Infrastructure Framework

As detailed in the Montana Land Information Act section of this Plan, the MLIA was enacted to ensure that land information was consistently collected, accurately maintained, and made commonly available in a standardized format. The Montana Spatial Data Infrastructure provides that framework. The MSDI is composed of 15 geographic data themes. The themes, identified by the Council, serve as the critical base geographic data layers of Montana. Each MSDI Theme has a corresponding theme steward, or agencies/organizations responsible for collection, maintenance, dissemination, and promotion of the information defined under that theme. As stated in ARM 10.102.9102, “The MSDI can and does include data themes identified in the National Spatial Data Infrastructure and where collaborative opportunities exist, presents an opportunity to support framework data for the nation.” The 15 MSDI themes are as follows, themes that are also a part of the National Spatial Data Infrastructure are marked with an asterisk:

- Administrative Boundaries*
- Cadastral*
- Climate
- Elevation*
- Geographic Names*
- Geology
- Hydrography*
- Hydrologic Units
- Land Cover
- Mapping Control*
- Imagery*
- Soils
- Structures & Addresses*
- Transportation*
- Wetlands & Riparian

Developing, maintaining, standardizing, and disseminating each of these themes is a collaborative effort made possible through essential partnerships between the theme stewards and local, regional, tribal, state, and federal governments; universities; nonprofit; private sectors; and others. Collaboration and partnerships across all levels of government and other sectors are fundamental for MSDI Framework maintenance.

It is essential that the MSDI data is carefully collected and recorded using best practices that include:

- Collaboration and partnership to improve efficiency and reduce duplication of efforts,
- Consistency in data formats, and
- The presence of supporting information and references (referred to as metadata).

FY 2024 Land Information Plan Priorities

This section of the Land Information Plan establishes the priorities for the 2024 fiscal year. The successful development and maintenance of land information, referenced in these priorities, relies on the availability of appropriate funding and resources, and on collaboration and partnership across all levels of government and the private sector. These priorities provide general guidance for land information-related activities for each of the following:

- The Montana Land Information Advisory Council,
- The Montana Land Information Act (MLIA) Grant Program,
- Development, maintenance, and dissemination of Montana’s Spatial Data Infrastructure (MSDI), and
- GIS coordination necessary to support the MSDI and other associated land information.

Priorities for the Montana Land Information Advisory Council

1. Develop Policy Recommendations and Legislative Priorities to Support and Improve the MSDI Framework
 - a. Review information and recommendations provided by MSDI Framework Theme Stewards to determine theme status and needs, including:
 - i. Requirements for designation as an MSDI theme,
 - ii. Funding and staff support needs,
 - iii. Data collection, maintenance, and dissemination best practices, and
 - iv. Annual status reporting for each MSDI layer.
 - b. Identify key theme stakeholders and potential data contributors and funding partners.
 - c. Identify requirements of existing federal, state, local, and tribal statutes that rely on the use of MSDI for the preparation of reports, maps, permit applications, or associated compliance activities.
 - d. Prepare summary documents outlining the information collected in the preceding sections that can be used to educate and inform stakeholders, legislators, and potential funding partners.
2. Evaluate the MLIA Grant Program against previously established benchmarks and regularly review and revise benchmarks as needed.
3. Educate, support GIS Coordination, and foster advantageous relationships to promote understanding and use of GIS in Montana.

Priorities for Grants

The purpose of the Montana Land Information Act Grant Program is to assist state agencies, local governments, or Indian tribal governments with implementing the priorities of the Land Information Plan. Collaboration is extremely important, and the granting process gives preference to interagency or intergovernmental grant requests whenever multiple state agencies, local governments or agencies, or Indian tribal governments or tribal entities have collaborated to meet a requirement of the Land Information Plan.

The grant priorities have been broken into priority tiers. Tier 1 Priorities align with Goals 1-3 of this Plan. Tier 2 Priorities are to assist local, tribal, and state governments with implementing GIS programs and data collection efforts in their government planning, business practices, and asset management.

Tier 1 Priorities

Create or update datasets and develop workflows for the purpose of continued participation in the Montana Spatial Data Infrastructure or other statewide data collection initiatives listed below:

- a. Develop GIS Information to Support Next Generation 9-1-1 (NG9-1-1) – Development of GIS data that are National Emergency Number Association (NENA) Standard Compliant
 - i. Boundaries – Development of the Public Safety Answering Point (PSAP) boundaries, service boundaries (law, fire, emergency medical services), and/or provisioning boundaries.

- ii. Addresses – Development of address data that are NENA standard compliant that can be integrated into the MSDI Structures and Addresses theme.
- iii. Road Centerlines – Development of road centerline data that are NENA standard compliant and meet requirements for integration into the MSDI Transportation theme.
- b. Montana Spatial Data Infrastructure Improvement to Cadastral and Administrative Boundaries Themes
 - i. Cadastral: Improvements to digital representation of Public Land Survey System (PLSS) for the purpose of improving accuracy of the MSDI Cadastral and Administrative Boundaries themes:
 - 1. Collecting new survey control data.
 - 2. Digitization and dissemination of documents related to PLSS corners.
 - ii. Administrative Boundaries: Development and enhancement of data layers recognized by the MSDI Administrative Boundaries theme.
- c. Integrating GIS into the Planning and Preparation for Geo-Enabled Elections
 - i. Collaboration across local government to implement a single address point dataset that is NENA NG9-1-1 standard compliant and meets the needs of elections processes.
 - ii. Collaboration across local government to create and maintain essential election boundary datasets that meet MSDI Administrative Boundaries standards.

Tier 2 Priorities

Development of geographic information systems that support on-going government workflows and build GIS capacity:

- a. GIS Planning: Create a plan to assist potential MSDI partners for MLIA Grants to clearly identify their current GIS needs and to help them develop a realistic scope of work, budget, and schedule to achieve a project. The Montana State Library will make up to 4% of funds available for GIS Planning Project grants. These projects will help MSL partner with local governments to prepare grant partners.
- b. Development of base geographic data layers that are standardized, regularly maintained, and made publicly available to support information needs and support activities including, but not limited to, land use planning, infrastructure, water resources, and asset management.
- c. Support Geographic Information Systems for Public Safety, Emergency Management, Disaster & Emergency Services Operations, and Community Resilience[†] Planning. Support the creation, maintenance, and standardization of local, tribal, and state geographic information systems or geographic information to be used for planning, mitigation, and recovery in the event of man-made, natural, and/or economic hazards or challenges.
- d. RTN Network Buildout: Support the buildout of the MTRSN Realtime Network.

[†] The Montana Department of Commerce's Montana Ready Communities Initiative ([MRCI](#)) defines resilience as, "the ability of individuals, communities and systems to adapt and thrive in the face of adverse events and challenges."

Priorities for the Montana Spatial Data Infrastructure

General MSDI Priorities

- Coordinate with stakeholders (e.g. local, tribal, regional, federal, university, private, nonprofit, and international national partners) on the development and maintenance of themes.
- Complete the regular maintenance of MSDI theme data layers. The schedule of maintenance may vary depending on themes.
- Publish all MSDI data, in compliance with adopted standards, to the Montana GIS Data List.
- Continue to develop the Montana spatial data archive collection, including annual MSDI entries.
- Work with the non-MSL MSDI stewards to support data partners and identify staffing, funding, and coordination needs.

MSDI Theme Specific Priorities – Stewarded by the Montana State Library

Administrative Boundaries

- a. Perform annual update of existing layers (including geometry and attribution updates and alignment to the CadNSDI).
- b. Participate in the U.S. Census Bureau’s programs including the Boundary and Annexation Survey and School District Review Program.
- c. Research NG9-1-1 boundaries (public safety answering point, law enforcement, emergency medical service, and fire districts).
- d. Collaborate with local governments and the Secretary of State’s Office to prioritize the collection of election-related administrative boundaries and implement data best practices and workflows for geo-enabling elections.

Cadastral

- a. Perform monthly Cadastral updates, including parcels, public lands and conservation easements.
- b. Perform annual update of CadNSDI.
- c. Update Cadastral adjustment workflows to meet the current needs within ArcGIS Pro.
- d. Collaborate with the Cadastral Working Group and stakeholders to create a Cadastral Theme Plan

Elevation

- a. Continued implementation of the Montana Lidar Plan.
- b. Participate in national 3D Elevation Program/lidar initiatives, i.e., [NSGIC’s 3DEP for the Nation](#).
- c. Collect, maintain, and disseminate lidar data and standard derived products in a central repository at the Montana State Library.

Geographic Names – Theme Under Review

- a. Implement Council’s recommendation for Geographic Names Theme Review to include Montana Geographic Names dataset.

Hydrography

- a. Prepare for 3D Hydrography Program (elevation-derived hydrography), such as completing outstanding NHD edits, developing a plan and or workgroup, and identifying potential partners.
- b. Participate in national 3D Hydrography Program (3DHP) work groups and other initiatives, i.e., [NSGIC’s 3D Hydrography Program for the Nation](#).

Imagery

- a. Disseminate and host statewide imagery data and services, including 2023 NAIP, if/when collected.

- b. Collaborate with the Imagery Working Group & stakeholders to create an inventory of publicly available imagery datasets for the state of Montana.
- c. Represent Montana in national discussions regarding Imagery for the Nation and ensure availability of the data for Montanans.

Land Cover – *Stewarded by MSL's Natural Heritage Program*

- a. Carry forward activities outlined in the adopted MSDI Land Cover Plan and work to extend the current plan.
- b. Transition from ecological system classifications to National Vegetation Classification (NVC) group and alliance classifications.
- c. Continue outreach and coordination efforts through the MSDI Land Cover Working Group.

Mapping Control

- a. Work with stakeholders, specifically Montana state agencies, to obtain existing mapping and survey control.
- b. Coordinate best practice development with stakeholders, including county governments and the Montana Association of Registered Land Surveyor (MARLS).
- c. Participate in the MLIAC Low Distortion Projections (LDP) Working Group.

Structures & Addresses

- a. Promote the use of NENA NG9-1-1 standard compliant address data that meet the needs of both 9-1-1 and elections management.
- b. Coordinate with addressing authorities to continue to collect address point datasets and focus efforts on areas with no address point data.
- c. Coordinate with addressing authorities to transition to structure-based address point placement.

Transportation

- a. Develop a statewide NG9-1-1 NENA standard compliant road centerline dataset.
- b. Research and identify possible data sharing partnerships with the Montana Department of Transportation, Bureau of Land Management, US Forest Service, and other stakeholders.

Wetland & Riparian – *Co-stewarded by MSL's Natural Heritage Program & the MT Dept. of Environmental Quality*

- a. Continue mapping modern statewide wetland and riparian layer in areas with outdated or incomplete mapping.
- b. Incorporate new value-added attributes and the corresponding metadata and routinely update modern wetland and riparian layer in areas with rapidly changing land-use.
- c. Compile a georeferenced photo and aerial imagery of wetland/riparian signatures dataset to assist in photo interpretation by mappers and understanding of the final product by end-users.

MSDI Theme Specific Priorities – Stewarded Outside of the Montana State Library

Climate – University of Montana's Climate Office

- a. Maintain and improve Montana's 1991 - 2020 climate normal data layers.
- b. Develop and perform analysis of future climate normals across Montana using CMIP6 climate projections.
- c. Publish all new MSDI Climate data, in compliance with standards, to the Montana GIS Data List as they become available.

Geology – Montana Bureau of Mines & Geology

- a. Continue geologic mapping in western Montana toward the goal of completing the state at the

1:100,000 scale.

- b. Implement the Geologic Mapping Schema (GeMS).
- c. Develop larger scale (i.e., 1:24,000) datasets for special focus areas or inclusion in the 1:100,000 scale dataset.

Hydrologic Units – US Dept. of Agriculture (USDA) Natural Resources Conservation Service (NRCS)

- a. The NRCS will continue to collaborate with the MSL and the U.S. Geological Survey (USGS) to review and incorporate Watershed Boundary Dataset (WBD) updates identified by the USGS and state partners.

Soils – USDA Natural Resources Conservation Service

- a. Perform annual updates to the spatial and tabular data for soil survey areas prioritized by the NRCS' National Cooperative Soil Survey Program (NCSS).
- b. Incorporate the annually updated spatial and tabular Soil Survey Geographic Database (SSURGO) data into the Montana Hydrologic Unit Code (HUC) Environment databases and Montana Site Reviewer ArcGIS online web mapping application.
- c. Update the MSL SSURGO Soils webpage.

Priorities for the Montana State Reference Network (MTSRN) – Stewarded by the Montana State Library, in partnership with Montana Dept. of Transportation

The [Montana State Reference Network \(MTSRN\)](#) is a Real Time Network (RTN) for Montana that was launched in March 2022 with 55 stations providing centimeter accuracy GNSS/GPS data correction to its users. The priority of MSL is to expand the network with additional stations to provide full statewide coverage. Subscribers who connect to the network, using a GPS receiver, receive the real-time corrected positioning coordinates. GIS data collection and accuracy will be improved immensely with this system. In addition to GIS, MTSRN correction can be used for machine guidance, construction & transportation, land surveying and engineering, precision agriculture, and any location-based activities.

- a. Coordinate with partners to add new reference stations to support a statewide RTN following NGS guidelines for unbiased solution.
- b. Coordinate with partners to promote the RTN for build-out and to increase subscribers.
- c. Administer and maintain RTN software and associated hardware.
- d. Adjust the network with the latest realizations of both horizontal and vertical datums.

GIS Coordination Priorities

Implementation of the Montana GIS Coordination Strategic Plan

- a. Develop and implement business plans for each identified goal of the strategic plan.

Promote the Use of GIS in Montana

- b. Advocate for the use of MSDI data in state and local business processes, programs, and workflows.
- c. Attend relevant conferences and meetings including the Montana Association of Counties, Montana Association of Planners, Montana Association of Registered Land Surveyors (MARLS), Montana League of Cities & Towns, State IT Conference, Montana Association of Geographic Information Professionals, Tribal Transportation Planners Symposiums, the National States Geographic Information Council (NSGIC), Esri Senior Executive Seminar, and other meetings of subject matter experts.
- d. Preserve and improve relationships with MSDI data providers through support and local visits that foster knowledge transfer.
- e. Promote the use of Mobile GIS technology:
 - i. Improve field data collection efforts by integrating the use of GIS.
 - ii. Create new mapping applications that are optimized for mobile use.
 - iii. Explore the use of citizen science through mobile technology.

Explore New Technology and New State & Federal Partnerships

- a. Continued coordination and collaboration with local government stakeholders and the Montana Secretary of State's Office on geo-enabling Montana's elections, which includes the integration of the MSDI into election workflows.
- b. Continued coordination and collaboration with the Department of Health & Human Services on the COVID-19 Response mapping.
- c. Coordinate with the MSDI Elevation Working Group to continue to implement the Montana Lidar Plan.
 - i. Work with stakeholders in organizing resources for a unified Montana funding request through the Broad Agency Announcement (BAA) for the USGS' 3D Elevation Program (3DEP).
- d. Coordinate with the MSDI Imagery Working Group and Federal Partners for future opportunities in the USDA NAIP buy-up program, NAIP Collection for Montana, and NAIP archival solutions.

Promote Best Practices and Standards

- a. Engage stakeholder work groups to seek input on the priorities and best practices for data development.
- b. Support local data providers as they adopt appropriate data standards and data collection methodologies.
- c. Advocate for the use of MSDI data as a best practice.

Promote the Dissemination of GIS Data

- a. Deliver data via download and web services.
- b. Explore emerging tools and investigate opportunities to partner and share information.

FY 2024 Land Information Plan Budget

In accordance with administrative rule, the final determination for available grant funds will be made at the end of March 2023. If additional funds are available, there may be an opportunity to further increase grant funding.

Montana Land Information FY2024 Budget	
Description	Allocated Funds
Personal & Indirect Costs	
Personal Services (estimate)	\$1,094,400.00
Agency Indirect Costs	\$176,600.00
<i>Personal & Indirect Costs Subtotal</i>	\$1,271,000.00
Operations	
Fixed Costs, General Operations*	\$125,000.00
MLIA Strategic Plan Priorities Implementation	\$90,000.00
Council	\$10,000.00
Land Cover MSDI Theme	\$20,000.00
<i>Operations Subtotal</i>	\$245,000.00
<i>*SITSD, Licensing, Travel, Training, & Outreach</i>	
MLIA Grant Funding	\$250,000.00
<i>Grants Subtotal</i>	\$ 250,000.00
<i>Totals</i>	\$ 1,766,000.00

HB2 - Special Land Information Act Budget FY2024 Biennium Appropriation - Montana RTN	
Description	Allocated Funds
Personal Services (estimate)	\$100,000.00
Operations	
Software, Outreach, Services, Fixed Costs, General Operations	\$362,500.00
<i>Total</i>	\$462,500.00

Conclusion

The purpose of the Montana Land Information Act is to develop a standardized method for collecting, maintaining, and disseminating land information. The Montana Spatial Data Infrastructure is the necessary framework for carrying out the intention of the Act. The MSDI Framework provides the basic geographic information needed by both the public and private sectors for program support, day-to-day activities, conducting business, planning for the future, and solving mission critical problems. The success of the Montana Spatial Data Infrastructure relies on having appropriate resources; standardized and accurately maintained information; and effective collaboration and coordination. The priorities defined in this plan are intended to help strengthen the MSDI and support the development of standardized land information spatial data for the State of Montana.



Appendix A – Montana Land Information Resources

GIS Coordination Strategic Plan:

https://docs.msl.mt.gov/MLIA/StrategicPlan/2022_GISCoordinationStrategicPlan.pdf

Montana Land Information Plan 2022/2023:

<https://docs.msl.mt.gov/MLIAC/LandPlan/LandInformationPlanFY2023.pdf>

Montana Elevation Plan:

https://ftpgeoinfo.msl.mt.gov/documents/MSDI/ElevationWorkingGroup/LidarPlan_web/MT%20LIDAR%20PLAN-AccessibilityFormatted_June2019.pdf

Montana Land Cover Plan:

https://docs.msl.mt.gov/Central_Services/Commission_Councils/Montana_Land_Information_Advisory_Council/Archive/2020/12/20201216_Draft_MSDI_LandCoverPlan_V1.pdf

Appendix A – Strategic Plan Timeline

Montana GIS Coordination Strategic Plan Goal and Recommendations 5-year Implementation Timeline

Goals and Recommendations	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Ongoing?	Timeline Notes
1. Improve GIS Coordination within the Library																						
1.1 Clarify roles and responsibilities for MSL Work Group Areas as they pertain to geospatial activities.																						Other process and policy activities would help to make clear how roles and responsibilities should be structured. Should revisit this annually.
2. Improve Communication with Geospatial Stakeholders																						
2.1 Create and execute on a formal communications plan for MSL GeoInfo.																						
2.2 Reorganize the Library GIS web content to make it easier to discover and use.																						May be included in current rebranding effort.
2.3 Define incoming communication pathways for support requests and public inquiries.																						
3. Develop policies and best practices for geospatial data																						
3.1 Lead the creation of formal data governance policies for state geospatial data.																						
3.2 Publicize GIS best practices and educate the geospatial community on them.																					Y	Will follow working group tasks and data governance policies, since these will define best practices.
3.3 Coalesce policy and practice-specific working groups with partners and peers.																						Can start fairly quickly, because several areas of concern / interest are already defined
3.4 Promote policies that foster the use of authoritative datasets to ensure efficiencies and cost savings.																					Y	Will need to follow initial policy efforts from 3.1 and 3.3
4. Continue to improve the collection, maintenance, and dissemination of authoritative land information																						
4.1 Define and implement a state agency archive for geospatial data.																						Dependent on 3.1 defining archive policy as part of governance
4.2 Improve data collection by defining and/or documenting existing update processes.																						
4.3 Improve data maintenance by making it easy for users to report issues with services and data.																						
4.4 Improve data dissemination.																						
5. Create and strengthen partnerships																						
5.1 Create a business plan to define how to assist other government entities (local, state agencies, tribal) to become GIS-enabled through enhanced coordination activities.																						Might like to start sooner, but already have communications plan starting in Y1, Q1.
5.2 Explore models for regional collaboration.																						The timing of this might change depending on what a business plan (see 5.1) states about assisting other government entities.
5.3 Use national and statewide initiatives (e.g., NG9-1-1, Broadband) to strengthen relationships with counties																					Y	Input to the communication plan and also taking advantage of favorable funding opportunities in near-term; Ongoing work in later quarters continues building strong relationships
5.4 Demonstrate leadership and expertise to national peers to build new and strengthen existing partnerships.																					Y	Initial year is used to build relationships, then ongoing effort is staying in communication with them.
5.5 Define partnership structures that are easy for the Library to maintain, including regular communication between partners.																						Comes out of the communication plan