



# Draft Montana Land Information Plan

State Fiscal Year 2022

Effective July 1, 2021 – June 30, 2022

Draft Version 3 - 6/2/2021

\*2021 Legislative Updates\*

*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**

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# Montana Land Information Plan

## State Fiscal Year 2022

**Prepared By:**

**Montana State Library**

Erin Fashoway, State GIS  
Coordinator

[efashoway@mt.gov](mailto:efashoway@mt.gov)

406.444.9013

In coordination with the Montana Land Information Advisory Council's  
Land Information Plan Subcommittee and the Montana Spatial Data Infrastructure Theme Leads

<b>Montana Land Information Advisory Council Members*</b>	
<b>Name</b>	<b>Type</b>
Robert Ahl	GIS Professionals Representative
Dawn Anderson	State Agency Representative (Designee)   Fish Wildlife & Parks
Allen Armstrong	U.S. Interior Department Representative
Mike Bousliman	State Agency Representative (Designee)   Transportation
Gordon Conn	State Agency Representative (Designee)   Revenue
Janet Cornish	Public Utilities or Private Business Representative
Alex Dado	USDA Representative
Julie Dooling	Montana House Representative
Frank Dougher	Local Government Representative
Elaina Graham	USDA Representative
Jerry Grebenc	Public Utilities or Private Businesses Representative
Carl John Healy, Sr.	Indian Tribal Interests Representative
Matt Heller	U.S. Interior Department Representative
Molly Hirschi	GIS Professionals Representative
Valentijn Hoff	Montana University System Representative
Lee Macholz	Local Government Representative
Quinn Ness	Chief Information Officer (Designee)
Jon Sesso	Montana Senate Representative
Eric Spangenberg	Local Government Representative
Dan Stahly	MARLS Representative
Jennie Stapp	Council Chair, State Librarian
John Tubbs	State Agency Representative   Natural Resources & Conservation

\* As of 12/10/2020

## ***Executive Summary***

The Montana Land Information Plan for state fiscal year 2022 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 GIS<sup>1</sup>, 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 help to:

- 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.

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<sup>1</sup> 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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Draft: 2021 Legislative Updates

# 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, 2021. 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, 2021. 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 2021. Grants are administered by MSL and are awarded for a period of one-year, July 1, 2021 – June 30, 2021.

### ***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

recording fees collected by each county. “Fee for recording a standard document” are assessed on a per page basis. Of the fees collected, 25 cents are deposited in each individual county’s land information account and 75 cents 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.

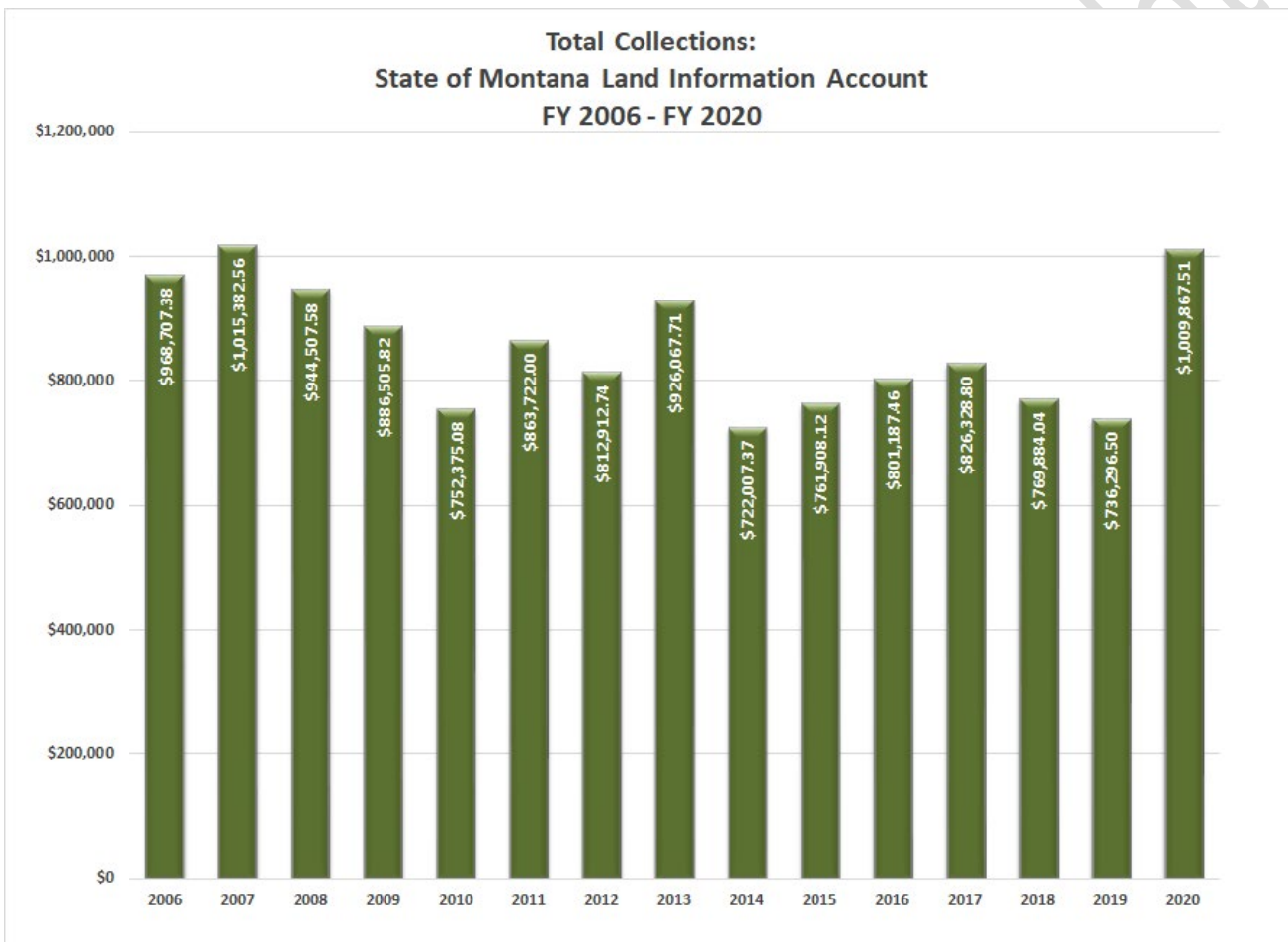


Figure 1. Total collections deposited into the Montana Land Information Account from state fiscal years 2006 (July 1, 2005) through 2020 (June 30, 2020). These collections account for 75% of the total collected for land information pursuant to section 7-4-2637 (3)(a), MCA.

### **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 with regard to 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.

<b>Date</b>	<b>Task</b>
December 31, 2020	Land Information Plan for FY2022 Completed & Approved by MSL Commission
February 1, 2021	MLIA Grant Materials for FY2022 Published
March 1, 2021	Preliminary FY2022 MLIA Grant Application Review
March 5, 2021	FY2022 MLIA Grant Applications Due
April 6, 2021	MLIA Council Meeting
May 12, 2021	MLIA Council Meeting
May 15, 2021	MLIA Grant Applicants for FY2022 Prioritized for Funding
May 31, 2021	MLIA Grant Applicants for FY2022 Finalized & Approved by MSL Commission
June 2, 2021	MLIA Council Meeting
June 30, 2021	<ul style="list-style-type: none"> <li>• End of State Fiscal Year 2021</li> <li>• End of FY2021 Land Information Plan</li> <li>• FY2021 MLIA Grant Year Ends</li> <li>• Council Members 2-Year Terms End</li> </ul>
July 1, 2021	<ul style="list-style-type: none"> <li>• Start of State Fiscal Year 2022</li> <li>• FY2022 Land Information Plan Begins</li> <li>• FY2022 MLIA Grant Year Begins</li> <li>• Council Members 2-Year Terms Begin</li> </ul>
July 2021	MLIA Off-Cycle Grant Application Period
September 16, 2021	MLIA Council Meeting
November 1, 2021	Draft Land Information Plan for FY2023
November 18, 2021	MLIA Council Meeting
December 15, 2021	Land Information Plan for FY2023 Completed & Approved by MSL Commission
January 15, 2022	MLIA Grant Materials for FY2023 Published
February 15, 2022	MLIA Grant Applications for FY2023 Due
May 1, 2022	MLIA Grant Applicants for FY2023 Prioritized for Funding
May 15, 2022	MLIA Grant Applicants for FY2023 Finalized & Approved by MSL Commission
June 30, 2022	<ul style="list-style-type: none"> <li>• End of State Fiscal Year 2022</li> <li>• End of Land Information Plan FY2022</li> <li>• FY2022 MLIA Grant Year Ends</li> </ul>

## ***Land Information Plan Outcomes***

The FY2022 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 2022 Land Information Plan Priorities***

This section of the Land Information Plan establishes the priorities for the 2021-2022 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 together 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, Emergency Service Boundaries (law, fire, emergency medical services), and/or provisioning boundaries.

- ii. Addresses – Development of address data that are National Emergency Number Association (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. The Montana State Library will partner with one or more counties to conduct a pilot project for the purpose of implementing the [National States Geographic Information Council’s Geo-Enabled Elections](#) best practices.
    1. Collaboration across local government to implement a single address point dataset that meets the needs of both public safety and elections and integrate into the MSDI Structures and Addresses Theme.
    2. Collaboration across local government to define and implement essential election boundary datasets and integrate into the MSDI Administrative Boundaries Theme.
    3. Define and implement data validation processes for the purposes of geo-enabling an election system.

**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 local information needs and support activities including, but not limited to, land use planning, infrastructure, and asset management.
- c. Support Geographic Information Systems for Public Safety, Emergency Management, Disaster & Emergency Services Operations, and Community Resilience<sup>†</sup> 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.

**Off-Cycle Grant Program**

Approved by the Council on April 6, 2021. MLIA Off-Cycle Grant, ARM 10.102.9107, for the sole purposes of collecting new survey control to improve digital representation of Public Land Survey System. This aligns with the FY2022 Land Information Plan Tier 1b Grant Priorities.

<sup>†</sup> 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.
- Create a document outlining MSDI Stewardship.
- Complete a strategic planning project of all MSDI themes.

### ***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 and development of County Commissioner Districts, Incorporated Cities and Towns Annexations database, and NG9-1-1 boundaries (public safety answering point, law enforcement, emergency medical service, and fire districts).
- d. Collaborate with local government and the Secretary of State to prioritize the collection of election-related administrative boundaries and develop data workflows for Geo-Enabled Elections.

#### Cadastral

- a. Perform monthly Cadastral updates, including parcels and conservation easements.
- b. Perform annual update of CadNSDI.
- c. Create a tool for reporting feedback on Cadastral layers.
- d. Perform regular update of Public Lands dataset.
- e. Migration of the CadNSDI to the new ArcGIS Pro Parcel Fabric platform.
- f. Update the Cadastral Application and related supporting data service.

#### Elevation

- a. Update the Montana Lidar Plan (last revised June 2019)
- b. Continued implementation of the Montana Lidar Plan.
- c. Collect and store lidar data and standard derived products in a central repository at the Montana State Library.
- d. Develop a Montana lidar data delivery system, including downloadable products and web services.

#### Geographic Names – ***Theme Under Review***

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

### Hydrography

- a. Complete the backlog of hundreds of edits in the *Hydrography Edit Request* application.
- b. Gain knowledge and experience using the NHD Plus, support its development, and promote its use.
- c. Participate in national Elevation-Derived Hydrography (EDH) initiatives and develop prototype workflow for EDH in Montana.

### Imagery

- a. Disseminate and host statewide imagery data and services, including 2021 NAIP.
- 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. Automate Land Cover maintenance and update schedule.
- 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. Develop web application to display mapping control and link to other entities that have information available.

### Structures & Addresses

- a. Perform regular update of data layers.
- b. Coordinate with local governments to promote NENA NG9-1-1 standard compliant address data.
- c. Coordinate with tribal and local governments to complete county-wide address point datasets.

### Transportation

- a. Develop a statewide NG9-1-1 NENA standard compliant road centerline dataset.
- b. Define a new data update schedule.
- c. Research and identify possible data sharing partnerships with the Montana Department of Transportation, Bureau of Land Management, US Forest Service, and other stakeholders.
- d. Establish a MSDI Transportation Working Group.

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

- a. Finish 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 update modern wetland and riparian layer in areas with rapidly changing land-use.
- c. Compile a georeferenced photo and aerial imagery wetland/riparian signatures dataset to assist in future photo interpretation.

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

### Climate – University of Montana’s Climate Office

- a. Maintain existing data layers and also plan to add new layers that include the temperature and precipitation outputs from the Montana Climate Assessment.
- b. Perform analysis and update the Climate data layers. Existing layers are based upon the period from 1980 to 2010.
- c. Publish all MSDI Climate data, in compliance with standards, to the Montana GIS Data List.

### 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.
- b. Update the Hydrologic Units MSDI webpages.
- c. Perform a preliminary review of WBD where high-resolution elevation data (lidar) is available.

### 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.



## ***GIS Coordination Priorities***

### ***Promote the Use of GIS in Montana***

- a. Advocate for the use of MSDI data in state and local business processes, programs, and workflows.
- b. 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.
- c. Preserve and improve relationships with MSDI data providers through support and local visits that foster knowledge transfer.
- d. 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 Governor's Coronavirus Taskforce and the Montana Dept. of Military Affairs Disaster & Emergency Services for the COVID-19 Response. Continue to work with stakeholders to help integrate MSDI into Montana's disaster planning, response, and mitigation activities.
- c. Collaborate with the Montana Dept of Transportation, MARLS, Tribal entities, and the agriculture community, to develop a business plan for the purposes of implementing a Real Time Network (RTN) for the State of Montana.
  - i. Setup statewide RTN.
  - ii. Migrate Montana off of Washington's Reference Network, WSRN.
  - iii. Implement Montana RTN Business Plan/Model.
  - iv. Identify strategic areas for placement of new reference stations to support a statewide RTN.
- d. 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).

### ***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. Identify data that does not currently exist or is not accessible within the Montana GIS Data List.
- b. Conduct ongoing maintenance data discovery through the Montana GIS Data List.
- c. Deliver data via download and web services.
- d. Explore emerging tools and investigate opportunities to partner and share information.

### ***FY 2022 Land Information Plan Budget***

In accordance with administrative rule, the final determination for the amount of available grant funds will be made at the end of March 2021. If additional funds are available, there may be an opportunity to further increase grant funding.

<b>Montana Land Information FY2022 Budget</b>	
<b>Description</b>	<b>Allocated Funds</b>
<b>Personal &amp; Indirect Costs</b>	
Personal Services (estimate)	\$1,094,400.00
Agency Indirect Costs	\$176,600.00
<b>Personal &amp; Indirect Costs Subtotal</b>	<b>\$1,271,000.00</b>
<b>Operations</b>	
Fixed Costs, General Operations*	\$125,000.00
MLIA Strategic Plan Priorities Implementation	\$40,000.00
Council	\$10,000.00
Land Cover MSDI Theme	\$20,000.00
MSDI Partner Training Program	\$50,000.00
<b>Operations Subtotal</b>	<b>\$245,000.00</b>
<i>*SITSD, Licensing, Travel, Training, &amp; Outreach</i>	
<b>MLIA Grant Funding</b>	
MLIA Grant Program	\$170,141.00
MLIA Off-Cycle PLSS Grant Program	\$79,859.00
<b>Grants Subtotal</b>	<b>\$ 250,000.00</b>
<b>Totals</b>	<b>\$ 1,766,000.00</b>

<b>HB2 - Special Land Information Act Budget FY2022 Biennium Appropriation - Montana RTN</b>	
<b>Description</b>	<b>Allocated Funds</b>
Personal Services (estimate)	\$100,000.00
<b>Operations</b>	
Software, Outreach, Services, Fixed Costs, General Operations	\$362,500.00
<b>Total</b>	<b>\$462,500.00</b>

## ***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.

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## ***Appendix A – Montana Land Information Resources***

Montana Lidar Plan: A Plan for Statewide Lidar Acquisition, Storage, and Distribution, June 2019, adopted by the Montana Land Information Advisory Council on June 13, 2019:

[http://ftp.geoinfo.msl.mt.gov/documents/MSDI/ElevationWorkingGroup/LidarPlan\\_web/MT%20LIDAR%20PLAN-AccessibilityFormatted\\_June2019.pdf](http://ftp.geoinfo.msl.mt.gov/documents/MSDI/ElevationWorkingGroup/LidarPlan_web/MT%20LIDAR%20PLAN-AccessibilityFormatted_June2019.pdf)

State Fiscal Year 2021 Montana Land Information Plan, Effective July 1, 2020 to June 30, 2021:

[http://docs.msl.mt.gov/Central\\_Services/Commission\\_Councils/Montana\\_Land\\_Information\\_Advisory\\_Council/Archive/2019/11/LandInformationPlanFY2021.pdf](http://docs.msl.mt.gov/Central_Services/Commission_Councils/Montana_Land_Information_Advisory_Council/Archive/2019/11/LandInformationPlanFY2021.pdf)

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