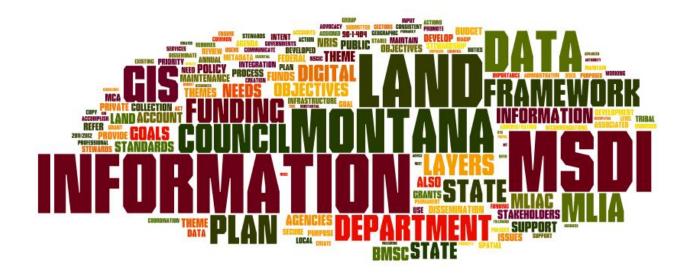# Montana Land Information Plan

## Effective January 15, 2011 to January 14, 2012

Produced by the Montana Department of
Administration, Information Technology Services
Division 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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## 1. PURPOSE

The purpose of this plan is to establish and communicate achievable goals and objectives that will fulfill the intent of the Montana Land Information Act (MLIA). The primary purpose of the MLIA (MCA-90-401) is:

To collect, maintain, and disseminate information (in digital format) about the natural and artificial land characteristics of Montana.

As stated, the intent of the Montana Land Information Act (MLIA) is intentionally broad. It recognizes the importance of digital land information for all sectors of Montana society. It also recognizes the need to ensure that digital land information is:
1) Collected consistently – in accordance with standards;
2) Maintained accurately - in accordance with standards;
3) Made available in common ways for all potential uses and users, both private and public.

The MLIA assigned the Montana Department of Administration (the Department) oversight for ensuring the objectives of the MLIA are accomplished. The MLIA also established the formation of the Montana Land Information Council (MLIAC, the Council). This council is composed of policy level appointees from state and federal agencies and local governments, representatives of tribal, university, surveying and other private sector interests, members of GIS professional associations along with the Montana Legislature, who serve in an advisory capacity to the Department. The Council does not have any fiscal, administrative, regulatory, or supervisory authority. Refer to http://data.opi.mt.gov/bills/mca_toc/90_1_4.htm for a complete copy of the MLIA describing in detail the duties of the counties, the Department and the Council.

The MLIA requires that an annual land information plan be prepared by the Department with advice from the Council. The intent of the annual land information plan is to describe the **priority needs** to collect, maintain, and disseminate land information (MCA 90-1-404(c)). The Department uses the priority needs, expressed as goals and objectives in the annual land information plan, in part to allocate funds from the state land information account through a granting process. The MLIA requires that the granting process give preference to interagency or intergovernmental grant requests whenever multiple state agencies, local governments or agencies, or Indian tribal governments or tribal entities have partnered together to meet a requirement of the land information plan (MCA 90-1-404(e)). This plan is therefore also intended to provide direction to stakeholder groups wishing to collaborate and apply for MLIA grants.

In addition to providing goals for data creation, maintenance, and dissemination the purpose of this plan is also to provide guiding goals and objectives to promote coordination of programs, policies, technologies and resources to

maximize opportunities and minimize duplication of effort.  This plan may also advocate for the development of consistent policies, standards and guidelines for land information.

## 2. BACKGROUND

The extensive integration of geographic information systems (GIS) and their associated digital data into the business processes of the public and private sectors in Montana has been evolving for over three decades. Nationally the need for standardized digital land information has also been advanced for several decades and is embodied in the National Spatial Data Infrastructure (NSDI). The Montana Spatial Data Infrastructure (MSDI), which complements the NSDI, consists of 14 digital geospatial data themes that have been identified and agreed upon as "…necessary to meet the land information needs of the state of Montana and its citizens." In 2006 the Council endorsed the theme stewardship protocols developed by the National States Geographic Information Council (NSGIC).  In 2007, to ensure the long-term integrity of the MSDI, the Department adopted the MSDI stewardship approach endorsed by the Council (refer to the MSDI Directive on Theme Stewardship at http://giscoordination.mt.gov/MSDI_Theme_Stewardship_20060907.pdf ). Several of the MSDI themes are developed and maintained solely by federal agencies or by federal agencies in partnership with state agencies. Stewardship of MSDI themes not sponsored by other state or federal agencies was absorbed by the State Information Technology Services Division (SITSD) and prompted the formation of the Base Map Service Center (BMSC). The Department receives input from all MSDI theme stewards in the form of annual theme steward reports .

Montana Spatial Data Infrastructure Theme Stewardship

| MSDI Theme | Stewarding Agency |
|---|---|
| Cadastral | BMSC |
| Elevation | USGS |
| Geodetic Control | BMSC |
| Governmental Units | BMSC |
| Hydrography | Natural Resource Information System (NRIS) |
| Orthoimagery | BMSC / NRIS |
| Transportation | BMSC |
| Geology | Bureau of Mines and Geology |
| Hydrologic Units | USDA-NRCS |
| Land Use / Land Cover | MT NHP |
| Soils | USDA-NRCS |
| Wetlands | MT DEQ/MT NHP |
| Structures | BMSC |

Today there are literally hundreds of GIS practitioners in Montana creating, maintaining, and distributing digital land information. Of particular importance to Montana's GIS community is the NRIS of the Montana State Digital Library (MSDL). NRIS was created by statute in 1985 and has functioned as the state GIS clearinghouse since that time. More recently NRIS has expanded its services to provide the Montana GIS portal for the discovery and retrieval of GIS data from metadata records submitted by a wide range of GIS sources.

In 2007 a Montana Geospatial Strategic Plan was developed by the Council with input from all GIS sectors. This strategic plan provides a background of GIS activities and organizations in Montana prior to and following the passage of the MLIA in 2005. The strategic plan examined the current status of GIS data, uses, and users, and made recommendations for future emphasis areas essential to accomplish the intent of the MLIA and maintain a robust GIS environment in Montana. Refer to http://itsd.mt.gov/content/policy/councils/mliac/docs/Strategic_Plan for a copy of the Montana Geospatial 2006-2010 Strategic Plan.

In 2009, at the request of the Council, the Montana Association of Geographic Information Professionals (MAGIP) conducted a baseline technical review of MSDI themes to identify and prioritize related needs and issues. See URL for a summary of the MSDI technical review. In 2010 an MLIAC sub-committee conducted a policy review of the MSDI and submitted recommended action items to the Council and the Department. See http://itsd.mt.gov/content/policy/councils/mliac/docs/MSDI_Policy_Review_pdf for a copy of the MSDI policy review. The goals of this plan incorporate input from these reports.

To date the activities of the Department and the Council have focused primarily on advancing the MSDI framework layers. This is reflected in the goals and priorities of the land information plans from previous years. Although they have been endorsed as priority framework layers, many of the MSDI themes do not have dedicated and stable sources of funding to support collection, maintenance, and dissemination so therefore rely on MLIA grants. Support to the MSDI has had a substantial impact on reducing funds in the land information account that would otherwise be available for grants to other important digital land information needs. Funding to support the GIS coordination duties assigned to the Department is also dependent on the land information account.

The need for secure and stable funding from the state budget that is devoted strictly to the MSDI framework layers has been an on-going topic of concern for the Council and the Department. Goals in the 2010-11 Land Information Plan (refer to http://giscoordination.mt.gov/landplan.asp) that sought to address the MSDI funding dilemma were not successfully met. In 2009 an MLIAC funding sub-committee prepared a comprehensive MSDI consolidated funding proposal that was submitted to the Department. This proposal was not advanced through the 2011 state budgeting process (refer to

http://itsd.mt.gov/policy/councils/mliac/MLIAC_Funding_Activities/default.mcpx).
Given the continued need for support to create, maintain and disseminate the
MSDI framework layers and the lack of alternative funding, this land information
plan will continue to emphasize the MSDI and the importance of a funding
solution that is independent of the land information account.

## 3. ADMINISTRATION AND IMPLEMENTATION

The primary state funding mechanism in place to support the objectives of the
MLIA comes through the collection of fees for recording standard documents.
Twenty-five percent of these fees are to be deposited in county land information
accounts, with seventy-five percent deposited in a state land information account
within the state special revenue fund (MCA 7-4-2637). The legislative directives
regarding these accounts require both the State and counties to use their land
information funds to support geographic information systems and digital land
information collection, maintenance and dissemination. Responsibility for
management of the County land information accounts is given to the governing
board of each County and accountability is ensured through the legislative audit
process. Administration and oversight of the state land information account is
assigned to the Montana Department of Administration.

This plan will be in effect from January 15, 2011 to January 14, 2012.
The Department and the Council do not have the authority to mandate the
actions of other stakeholders. They recognize that accomplishing the purpose of
the MLIA, and the goals and objectives of the 2011/2012 Montana land
information plan, will require substantial coordination and the cooperation of
public and private users of digital land information.

To fulfill the goals and objectives of this plan the Department or any recipient of
MLIA funds may contract with a public or private entity. Where appropriate, the
products of the grants shall be in compliance with general State Information
Technology (IT) and geospatial data standards and/or policies as defined by the
Montana Information Technology Act (MITA) and the Federal Geographic Data
Committee (FGDC).

Any data and associated products developed through the use of funds from the
land information account have been paid for by the taxpayers of the State of
Montana and are thereby deemed public property with the exception of statutorily
determined sensitive data.  All grants with a data development component shall
be required to prepare compliant metadata and register that data with the
Montana GIS Portal (refer to the MLIA 2012 grant criteria and guidelines at
http://giscoordination.mt.gov/grant.asp).

Upon adoption of the FY 2011/2012 Land Information plan, the Geographic
Information Officer (GIO), with advice from the Council shall build an action plan

to accomplish the goals and objectives of this plan.  This plan, including actionable dates shall be presented to the Council for adoption at the March, 2011 MLIAC meeting.

## 4.  PROGRAM GOALS – STATE FISCAL YEARS 2011/2012

## GOAL 1: Develop land information data that are consistently collected using all applicable standards.

### *Objectives:*
1. Establish, publish, and utilize standards, best practices, and data dictionaries for MSDI framework layers.
2. Develop GIS data for inclusion in MSDI framework layers.
3. Develop GIS data that will support the following priority needs: public health & safety, response services, economic development, land use, planning, sensitive resources, or physical infrastructure.

## GOAL 2: Maintain existing land information data.

### *Objectives:*
1. Maintain the integrity of MSDI framework layers and other GIS data supporting Goal 1 Objective 3, through creation, implementation, and publication of an update process, including update schedules.
2. Identify existing data layers that were not collected using accepted MSDI standards and develop conformity plans; with an emphasis on MSDI framework layers.
3. Maintain current metadata records for MSDI framework data.
4. Theme Stewards shall establish long term partnerships with local, tribal, state, and federal data providers for comprehensive data updates.

## GOAL 3: Disseminate land information data efficiently and cost effectively

### *Objectives:*
1. Create a working group to examine the dissemination needs of MSDI framework data.  The working group should consist of MSDI Stewards, MLIA Council Members, MAGIP, and other stakeholders.
   a. Create a needs assessment for MSDI framework data dissemination.
   b. Develop and promote policy on State mandated use of MSDI framework data.
2. Ensure accessibility and security of land information data.
3. Register MSDI metadata and data created from MLIA grant funds, with the Montana GIS Portal.

4. Establish a common consistent MSDI web presence where information can be easily accessed by the public.

## GOAL 4: Improve Communication, Coordination, Education, and Outreach.
### *Objectives:*

1. Sponsor at least one MSDI Stewards and Theme Leads Meeting for purposes of meeting objectives of this plan.
2. Create a permanent working group for the purposes of data integration, consisting of theme stewards and theme stakeholders.
   a. Develop integration methods for MSDI framework layers where issues have been identified by framework theme stewards
3. Support MAGIP's professional development and educational initiatives.
4. Communication with stakeholders
   a. By July 2011 the GIO, in conjunction with MLIAC, will develop an advocacy agenda similar in form to the NSGIC advocacy agenda (refer to http://www.nsgic.org/committees1/documents/2009_NSGIC_Advocacy_Agenda.pdf) and will distribute that agenda to the Governor, State Budget Office, State Agency directors, MACO, the Montana League of Cities and Towns, the Montana Association of Planners, and other stakeholders at the highest level to communicate status, needs and actions associated with MSDI and other federated GIS issues.  This advocacy agenda should be reviewed and updated annually.
5. Reduce cost, eliminate duplication of effort and services, and ensure the long-term continuity of the MSDI framework layers and other essential digital land information.
   a. Encourage and support additional coordinated efforts by the BMSC and MSDL NRIS, including administrative and policy actions to accommodate additional programmatic integration.
   b. MLIAC shall initiate communication with the State's Information Technology Manager's Council/Budget Office GIS Task Force in order to provide them with GIS funding recommendations and other policy level information.
6. Support the creation of partnerships that promote data and technology sharing to resolve core business issues.

## Goal 5 – Acquire permanent and secure funding for the consistent collection, accurate maintenance and common availability of MSDI framework layers.
### *Objectives:*

1. Establish a standing MLIAC Committee to address stable and reliable MSDI funding.
   a. Prioritize MSDI framework layers for funding purposes.

b. Update the MLIAC's existing funding document: *A Consolidated Funding Proposal for Montana Spatial Data Infrastructure.*
c. Communicate the funding issues to appropriate officials in state, local government, and other stakeholders in coordination with the GIO (see Goal 4 Objective 4a).
d. Draft proposed legislation or budget recommendations to secure stable funding for the MSDI framework layers.
e. Work with the State Representatives on the Council to introduce and secure passage of legislation or budget recommendations.

## 5. ANNUAL PROGRAM COST AND BUDGET

MCA 90-1-404(k) requires the Department to annually prepare a budget to carry out the duties of the department as described in MCA 90-1-404. The Department's GIS Coordination Budget allows the BMSC to staff the MLIAC and cover other Council expenses, as well as provide staff time to assist MLIAC, MAGIP, MSDI stewards and others accomplish the goals and objectives that are primarily administrative in nature. It does not cover all the costs associated with collection, maintenance and distribution of MSDI themes or other land information.

| FY 2011 MLIA DOA General Coordination and MLIAC Council Coordination Budget | | | | |
|---|---|---|---|---|
| | | DOA Admin (766000) | Council (766010) | |
| Budget Category | Appropriated Budget | Projected | Projected | Total Year End Estimated Expense |
| Other Services | 52,121 | 30,677 | | 30,677 |
| RST Leg Audit | 365 | 365 | | 365 |
| Supplies | 1,300 | 1,650 | | 1,650 |
| Communications | 2,200 | 1,110 | 2,400 | 3,510 |
| Travel | 10,600 | 9,550 | 4,380 | 13,930 |
| Rent | 12,575 | 12,575 | 500 | 13,075 |
| Software Programs | 8,300 | 8,300 | | 8,300 |
| Repair & Maintenance | 230 | 1,000 | | 1,000 |
| Other | 6,950 | 220 | - | 220 |
| Total Operating | 94,641 | 65,447 | 7,280 | 72,727 |
| Personal Services (2 FTE) | 164,570 | 167,273 | - | 167,273 |
| | | | | |
| Total MLIA Budget * | 259,211 | 232,720 | 7,280 | 240,000 |

MCA 90-1-404(c) states that this plan must have a proposed budget designed to accomplish the goals and objectives of this plan.  This is difficult if not impossible to accommodate.  For example attempting to construct a budget for the MSDI and other land information objectives contained in Goal 1 is not realistic other than to estimate that the land information fund, based on past years, will likely have approximately $800,000 for grants to help accomplish those objectives.

## 6. COMPLETE LIST OF URLS TO REFERENCE DOCUMENTS USED IN CONSTRUCTING THIS PLAN IN ORDER OF THEIR REFERENCE IN THE DOCUMENT

1. Montana Land Information Act complete statute:
   http://data.opi.mt.gov/bills/mca_toc/90_1_4.htm
2. Montana Spatial Data Infrastructure Directive on Theme Stewardship:
   http://giscoordination.mt.gov/MSDI_Theme_Stewardship_20060907.pdf
3. Montana Geospatial Strategic Plan 2006 – 2010:
   http://itsd.mt.gov/content/policy/councils/mliac/docs/Strategic_Plan
4. Montana Association of Geographic Information Professionals 2009 Technical Review of their Montana Spatial Data Infrastructure study: Erin will provide
5. Montana Land Information Advisory Council's policy review of the MAGIP Montana Spatial Data Infrastructure study:
   http://itsd.mt.gov/content/policy/councils/mliac/docs/MSDI_Policy_Review_pdf
6. Montana 2010/2011 Land Information Plan:
   http://giscoordination.mt.gov/landplan.asp
7. 2010 Montana Spatial Data Infrastructure Consolidated Funding Proposal:
   http://itsd.mt.gov/policy/councils/mliac/MLIAC_Funding_Activities/default.mcpx
8. Montana Land Information Act 2012 grant criteria and guidelines:
   http://giscoordination.mt.gov/grant.asp
9. National States Geographic Information Council's 2010/2011 Advocacy Agenda:
   http://www.nsgic.org/committees1/documents/2009_NSGIC_Advocacy_Agenda.pdf