

Montana State Library

Geographic Information Program Vision



FY 2015, FY 2016, FY 2017

50 % Draft

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Introduction

Land and Water. Aside from Montana's diverse and resilient human resources, few things are as important to Montanans as land and water. For the Montana State Library's Geographic Information Program this means that to impact our patrons in meaningful and positive ways, land and water information must be current, accurate and available. From a statutory perspective MSL Geographic Information inherits broad mandates from statute related to Montana's land and water. The Montana Land Information Act (MLIA), the Natural Resource Information System (NRIS), the Water Information System (WIS) and that related to the Montana Natural Heritage Program (MTNHP) are all connected to land and water information in some way.

The year after legislative change merged the Department of Administration's GIS program with the MSL Digital Library has provided staff and management insight into how the Geographic Information Program should plan to efficiently accomplish current mandates while preparing for the future. This document lays out what is envisioned to be a three year effort to insure stability, sustainability and availability of critical spatial data related to Montana's land and water resources.

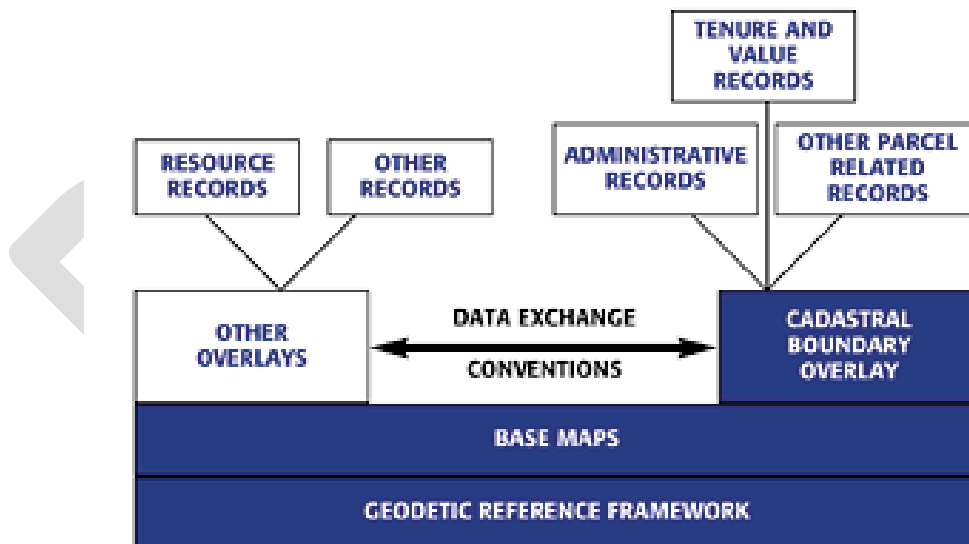
This Vision should not be interpreted as a massive reorganization. Through a series of incremental steps that will move us toward documented workflows that with minor annual adjustments can be maintained over time. Beyond the paperwork however lies better data with improved access. We must address the unavoidable fact that many of the program's staff are approaching retirement age. If undocumented data and workflows are allowed to persist, the program will not be prepared for the inevitable transitions that will take place. The Geographic Information Program can't deal with all the changes that need to be accomplished in one year. Therefore, under the overarching goal of ensuring long term sustainability, we will focus on organizing and documenting the workflows, along with several data enhancements, associated with our land and water systems.



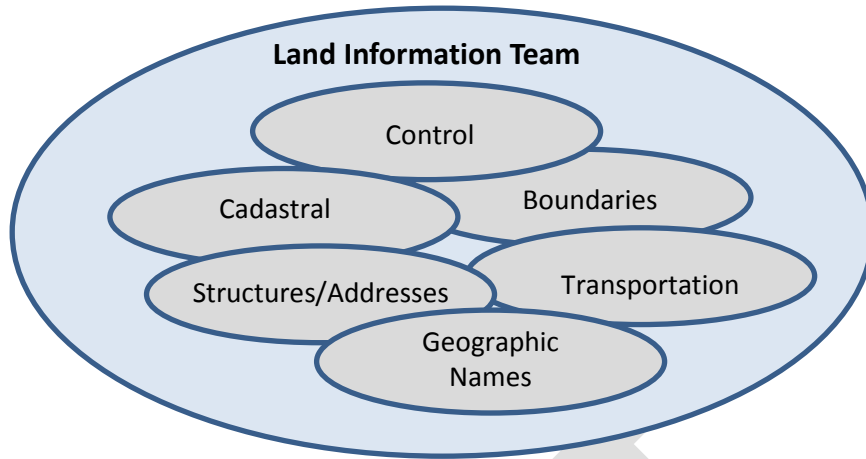
We acknowledge that everything we try in the coming years will not always result in a direction that we wish to continue to pursue. However as management and staff engage in the tasks associated with this plan we will learn together what will work and what won't. What we learn will help us fine tune this sustainability model in subsequent fiscal years.

Land Information

Over the years several attempts have been made to compartmentalize the work related to the Montana Spatial Data Infrastructure (MSDI). Natural resource data versus non-natural resource data, and human versus physical geography are two examples of such attempts. Whether trying to make logical sense of things or to help distinguish differences between programs to demonstrate non-duplication, these efforts often generated a good deal of passion from the GIS community, not all of it positive. However internally, strictly from a program management perspective, it is time to investigate the possibilities this type of classification present. There is some logic associating the management and workflows of the following themes – Geodetic Control, Cadastral, Boundaries, Structures and Addresses, and Transportation. The concept of a multi-purpose cadastre has been proposed for years, possibly starting with the 1980 publication by the National Research Council entitled “Need for a Multipurpose Cadastre”. One (of many) attempts to diagram a multi-purpose cadastre follows.



Liberal interpretations of this model result in almost all spatial data residing under such a system. However that doesn't seem appropriate for the way MSL Geographic Information conducts business and would likely provoke some resistance. Therefore in FY 15 we will initiate a Land Information team involved in the business process associated with the following MSDI themes.

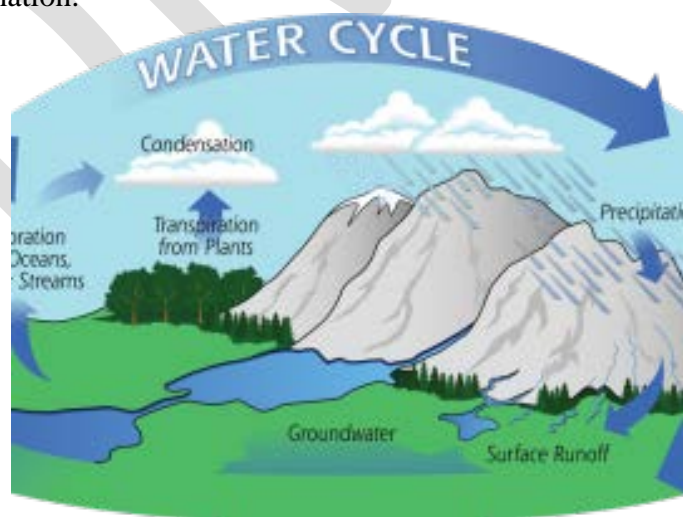


Water Information

Based on MCA 90-15-305(1) and (2) it would appear that Water Information should be relatively easy to manage:

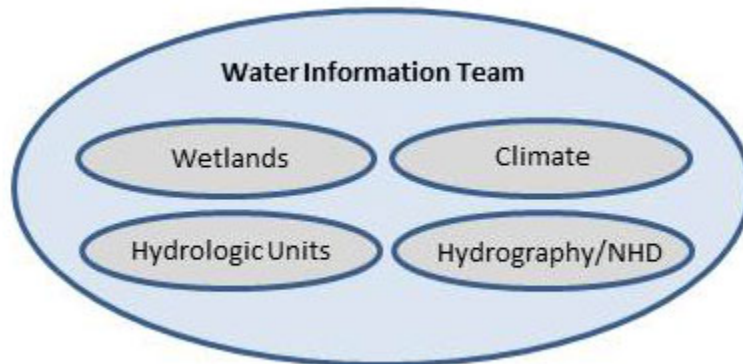
- (1) There is a Montana water information system, to be operated within the natural resource information system referred to in [90-15-301](#) and that is to be considered a part of the system.
- (2) The Montana water information system shall make available and readily accessible, in a usable format, to state agencies and other interested persons, information on the state's water resources, out-of-state water resources that affect the state, existing and potential uses, and the existing and potential demand.

However the complexity of the water cycle, not to mention the diversity of data that comes out of various hydrologic models, means that in many ways water information systems are not nearly as mature as land information.



Adding to the complexity, MSL is the steward of only one of four logically related MSDI themes; Hydrography generally described as surface waters. Unlike MSDI cadastral which is

generally accepted as the authoritative source for tax parcel data, the National Hydrography Dataset which MSL stewards for the USGS, has not been always accepted as the authoritative source for surface water data. Water related data also comes from other MSDI stewards NRCS (Hydrologic Units and Soils), the University of Montana (Climate) and the MT Heritage Program (Wetlands).



Information Clearinghouse/User Engagement Team

It is well understood by both management and staff that data coordination, public outreach and data access are woven into everything the Geographic Information Program does. Additionally there are the remaining MSDI themes, for some of which MSL is the named steward (Imagery and Geographic Names), and the others in which we work closely with the named stewards (Climate, Elevation, Hydrologic Units, Land Cover, Soils, Wetlands).

It is also conceivable that this team could better integrate with Library and Information Services and the Montana Natural Heritage Program to synergize outreach and coordination efforts. More work will be done in FY 15 to understand how this team can fully meet its potential in the future.

Conclusion

(to be added to 80% draft)