



1. Organizational Approach to GIT:

The Montana Department of Natural Resources and Conservation's (DNRC) Forestry Division (<http://www.dnrc.state.mt.us/forestry/index.htm>) is an active user of GIS. The Division includes fire and cooperative forestry programs, and the Fire and Aviation Management Bureau has a dedicated GIS Specialist headquartered in Missoula. Forest Land Management is conducted by another part of DNRC, the Trust Land Management Division, which includes the state's Forest Inventory Section. This Section also has a dedicated GIS Specialist headquartered in Missoula. While an enterprise wide approach to GIT does not exist within either one, the two divisions work closely together, particularly in the field as the Divisions share and jointly manage six area offices. No GIS staff is designated as such at the Unit or Area Offices, though some are tasked to do this work because of their interest and/or aptitude. These two GIS Specialists use GIS to support program missions, and work with each other and other GIS staff in the state on an as needed, project basis. Both GIS Specialists and other state employees with GIS expertise are often busy working on wildland fire management during fire season. There are no specific policy directives concerning GIT in either Division. However, the benefits of GIS are increasingly recognized. An important example is that the Fire and Aviation Management Bureau was able to save the state approximately \$6 million during the 2000 fire season. A leading use of GIS has been to accurately document the location of lands for which the state has responsibility for fire suppression costs as compared to the federal government. Through the development of detailed data and use of GIS, the state was able to prove that the federal government had overestimated state responsibilities and costs by this amount. Because geographic data is public information, and is useful for public safety, specifically during emergency operations, plans are to provide public access to the data, both static and interactive, on the Internet. However, privacy issues such as posting data dealing with Community Fire Risk Rating in digital form and displayed on maps using GIS, may limit the ability to fulfill this goal.

2. GIT Applications and Data Utilized:

As indicated above, the Forestry Division primarily uses GIS for **fire** management. A major effort is to develop a Fire Protection Coverage Map including the specific geographic jurisdictions of individual local fire departments. This information is used to help clarify and determine roles and responsibilities. It also is used to determine state financial responsibilities for fire suppression costs, which helped the state to save money during the 2000 fire season as described above. GIS is also used for **state land** management and **forest characterization** in the Trust Land Management Division for various applications such as forest timber inventory, timber harvest levels, and timber harvest tracking. Two other designated GIS professionals are located in DNRC working for the Water Rights Compact Commission and the Water Resources Division. The Water Rights Commission maintains the digital and printed record for **water** adjudication in Montana, while Water Resources uses GIS to record such things as the condition and location of all dams in the State. Both divisions primarily use GIS and have made little use of remote sensing (RS) internally, though a satellite data archive, including SPOT imagery, is available through the Natural Resource Information System (NRIS), the state GI clearinghouse described below. It is envisioned that RS would be helpful to conduct fire perimeter mapping, fire severity delineation, and fuels modeling within Fire Management and resource management alternatives, forest productivity, forest growth and potential tax revenue from forest harvesting within Trust Lands. Both the Forestry and the Trust Land Management Divisions have investigated the use of satellite imagery on a project basis, particularly in coordination with the University of Montana. DNRC has received GIS data and assistance from the GIS Division of the NRIS since 1980. Other state agencies, like the Census and Economic Information Center (CEIC) of the Department of Commerce have also used GIT for forestry applications. In particular, CEIC has assisted local governments in the creation of maps to be used in fire mitigation

efforts. More information about Montana's use of GIT for fire is available at: <http://www.fireplan.gov/statebystate/montana.cfm>.

3. Statewide and Other GIT Linkages:

Two state organizations with statewide GI/GIT roles are the GIS Services Bureau (GISB) of the Department of Administration's (DOA) Information Technology Services Division (ITSD), and the Natural Resource Information System (NRIS) at the Montana State Library. ITSD is considered to be both the IT policy and technology arm of the DOA. GISB manages the Montana Cadastral project, a private/public partnership to develop cadastral landownership data. NRIS serves as the leading clearinghouse for geospatial data in Montana as described below. Montana has several coordination groups that specifically address GI/GIT coordination. The leading group in the state that provides policy direction for GI/GIT is the Montana Geographic Information Council (MGIC), which is staffed by GISB. A second group is the Interagency Technical Working Group (ITWG). Specific tasks of the ITWG include data acquisition and coordination, development of a state GIS Standards Plan; and the coordination and development of statewide data layers. It also formulates issues for MGIC policy consideration and provides technology and data expertise to MGIC. Coordination, clearinghouse and other data access and framework data development information is available at: <http://mtgeo.org>.

Montana's main geospatial clearinghouse can be found through the this site, or at (<http://nris.state.mt.us/gis/gis.html>). Public access to many data themes is available through the NRIS clearinghouse, using their interactive mapping system at (<http://www.nris.state.mt.us/interactive.html>). For regional wildland fire coordination, the Northern Rockies Coordinating Group (NRCG) sponsors an interagency Geospatial Task Group which provides input and direction to GIS activities to Interagency Command Teams (ICTs) in the Northern Rockies Region of Montana, northern Idaho, North Dakota, and the Black Hills area in South Dakota. DNRC and Disaster and Emergency Services (DES) are two of the State agencies represented in these efforts.