

Montana State Digital Library

April to May 2010

Prepared for the June 9, 2010 Commission meeting
by Jennie Stapp, Digital Library Division Administrator.

This report represents accomplishments of:

Library Information Services (LIS),
Montana Natural Heritage Program (MTNHP),
Natural Resource Information System (NRIS).

Goal One, Content: MSL acquires and manages relevant quality content that meets the needs of Montana library partners and patrons.

Having signed a memorandum of understanding (MOU), LIS worked with Montana Fish, Wildlife and Parks (FWP) to process, ship, and have scanned the complete series of the popular title, *Montana Outdoors*. The digital series includes all the title variations going back to the 1960's including *Montana Wildlife Bulletin* and *Montana Wildlife*. Completion of this special wildlife magazine collection will be of particular interest to tourists, hunters, fishermen, and researchers. MSL will work with FWP to market this newly available digital collection as is outlined in the MOU. Further, LIS will receive from FWP digital copies of all future issues for online access. Per the MOU all but the two most recent issues of the magazine will be made available online.

Following a lengthy legal review of the copyright status of State Publications, LIS created and posted online usage guidelines to better inform users of the legalities associated with newly created digital versions of formerly print-only state publications. This new digital format raises complicated questions involving the interplay between federal copyright law and the state statutes regarding state publications, public records, and public access to state information, as well as how technology affects the legal rights and duties encompassed in those laws. This legal review is available upon request.

MTNHP's Spatial Analysis Lab completed final updates to the 2009 land cover layer which maps 78 land cover types (natural ecological systems as well as human-altered landscapes) across Montana. In association with this effort, MTNHP's Ecology Program completed accounts for the natural ecological systems and these are now available on the Montana Field Guide <http://fieldguide.mt.gov/>. The 2009 land cover map and ecological systems field guide are huge additions to the content offered by MTNHP. They make a great deal of information on Montana's habitats available to resource managers and the general public, including: photos, general descriptions, distribution information, information on dynamic process and management, and restoration considerations. Also in connection with this effort, MTNHP Zoology staff associated more than 500 vertebrate species with 78 land cover types in the 2009 land cover map and identified whether these land cover types represented high, medium, or low habitat quality for each species. Animals associated with particular ecological systems are now listed in the ecological systems portion of the Montana Field Guide http://fieldguide.mt.gov/displayES_LCLU.aspx and the ecological systems associated with a particular animal species are now listed under individual species accounts in the animal portion of the Montana Field Guide <http://fieldguide.mt.gov/displayClasses.aspx?Kingdom=Animalia>.

MTNHP Zoology and Information Services Staff completed an effort to map Black-tailed Prairie Dog colonies across their range in Montana using the 2005 National Agriculture Imagery Program (NAIP) imagery. This information is important because the burrows of this species create habitat for a large number of vertebrate and invertebrate species. The accuracy of this mapping effort still needs to be assessed with ground truthing, but the mapped polygons will be a valuable source of information for a variety of state and federal resource planning efforts.

NRIS has been fulfilling user requests for the recently delivered National Aerial Imagery Program (NAIP) 2009 imagery data set. Since March 1, NRIS has sent 2009 NAIP data to 21 people who requested it. 12 of the requests were for the whole state, the others were for individual counties or small groups of counties. Additionally, during the month of April, 7673 of the MrSID 12-kilometer tiles of NAIP imagery were downloaded from the NRIS web site.

Goal Two, Access: MSL provides libraries, agencies, and its partners and patrons with convenient, high quality, and cost-effective access to library content and services.

As part of the ongoing efforts of NRIS to support the Montana Spatial Data Infrastructure (MSDI) Hydrography Framework Dataset, NRIS arranged for Al Rea of the United States Geological Survey (USGS) Boise office to attend the Montana Association of GIS Professionals (MAGIP) Intermountain GIS Conference to discuss the potential for a web-based StreamStats Application to be developed for Montana. Among others participating in this discussion were NRIS partners from the USGS, the Department of Natural Resources and Conservation (DNRC), the Department of Environmental Quality (DEQ) and the National Resources Conservation Service. This tool would allow access to the power of the Hydrography dataset well beyond the traditional desktop GIS community. More information about StreamStats is available from the USGS web page - <http://water.usgs.gov/osw/streamstats/>

LIS created a series of four postcards with covers from recently scanned historic Montana state publications to promote use of the growing digital depository at the Internet Archive. These postcards were distributed to select state agency libraries, e.g. State Law Library of Montana, Montana Historical Society, and Legislative Reference Center. Postcards will also be made available for the upcoming federation meetings and library commission meeting for general distribution outside of Helena.

LIS reviewed and updated the multiple online methods for patrons to request library cards. These revisions will make it easier and more likely that only eligible patrons will apply for library cards and do not mislead out-of-state web visitors about their eligibility to obtain MSL library privileges. New links for requesting a library card were added to the left navigation column on the LIS portion of the MSL website. Users can also apply for library cards online through the Montana Shared Catalog.

MTNHP Information Services and Ecology staff has made significant progress on developing a web-based mapping application that will allow resource managers, county planners, and the

general public to summarize land cover (both natural ecological systems and human-altered landscapes) by county, watershed, township, and section. Because the associations between animal species and these land cover types have already been created, predicted lists of animals will also be made available for these administrative units. This application will be an important addition to the information sources provided by MTNHP because it is the first time predicted lists of species will be made available rather than just documented observations of species.

Goal Three, Consultation and Leadership: MSL provides consultation and leadership to enable its patrons and partners to reach their goals.

Sixteen NRIS and MTNHP staff gave 13 presentations at the MAGIC Intermountain GIS Conference in Bozeman Montana, April 19th through 22nd. The conference was well attended by GIS professionals across Montana and the Intermountain West and NRIS and MTNHP received a great deal of positive feedback on our data products and data delivery devices. Additionally, NRIS staff served on the conference planning and mentoring committee.

Linda Vance and Karen Newlon of MTNHP's Ecology Program also gave talks on wetland mapping and wetland assessment at the National Water Quality Conference in Denver, Colorado, May 3rd through 6th.

LIS through heavy correspondence with Internet Archive staff wrote a programming script to grab the OCLC number from MARC records for soon-to-be digitized state publications, so that this unique identifier would display on the details pages. LIS is lobbying the Internet Archive to make this process automatically available for other library partners at the Internet Archive. LIS has also been working with the Internet Archive to revise current arcane metadata practices for populating the call number field in the search results. LIS suggested metadata revisions will benefit all Internet Archive partners because the call number field will only include true call numbers and not some other bibliographic identifier.

Goal Four, Collaboration: MSL promotes partnerships and encourages collaboration among its partners and patrons so that their information needs can be met.

During the MAGIP Intermountain GIS Conference NRIS held two MSDI Framework Data Workgroup meetings. On Tuesday April 20, the MAGIP Imagery Workgroup met. The primary topic was the recent NAIP 2009 data delivery. Participants were encouraged to provide feedback about the quality of the data set, the applicability of the data set to their needs, and the data distribution options currently available via NRIS and the Base Map Service Center (BMSC). This feedback will be integrated into a MSDI Imagery Framework Work Plan to be finalized by June 30, 2010.

On Thursday April 21, the MAGIP Hydrography Workgroup met. The primary topic was a discussion of the value of a StreamStats application for Montana. Other business included updates on projects in DNRC, DEQ, and FWP that should result in improved overall data quality for the MSDI Hydrography Dataset. This feedback will be integrated into a MSDI Hydrography Framework Work Plan to be finalized by June 30, 2010.

In collaboration with a variety of state and federal resource managers, the MTNHP Ecology Program, led by Linda Vance, developed a report summarizing information needs relative to weed mapping across the state. There is widespread agreement that a web application and a statewide centralized database are needed. MTNHP may be involved with this effort to support database and web application development if the Department of Agriculture can provide a position that could coordinate data entry. Collaborators agreed that the Weed Trust Fund might be the best avenue to fund this effort.

The MTNHP Zoology Program collaborated with FWP on review of the state conservation status of a variety of animal species, including Bighorn Sheep, Mountain Goat, and Gray Wolves.

Goal Five, Sustainable Success: MSL is a well-run organization and a sought-after employer; it is efficient and effective (measured against partner and patron outcomes), and successfully engaged in its ongoing mission.

Jess Tobin, LIS Cataloger, is one of 19 Montana recipients of the SWIM (South Dakota, Wyoming, Idaho and Montana) scholarships. Jess will begin her Masters of Library Science program through the University of North Texas in the Fall.

Duane Lund, NRIS GIS Analyst received the MAGIP Distinguished Achievement Award at the Intermountain GIS Conference. Duane was one of two recipients of this award at the MAGIP Intermountain GIS Conference. The award is based on a nomination from peers in the professional association and selected by an awards committee.

In early May, MTNHP completed a draft four year strategic plan for fiscal years 2011 through 2014. This draft strategic plan was developed by staff and program managers and covers major goals and objectives for the Botany, Zoology, Ecology, and Information Services programs. For each program area, general and specific goals are listed in order of priority given current data deficiencies and funding sources. Strategic plans for each program area cover goals for staffing, data acquisition, data management, and data dissemination. It is important to recognize that NHP does not currently have the staff capacity to fully meet all goals listed during this time period. However, it is important to identify all of these goals in order to bring them to the attention of others and take advantage of any potential collaborations or funding opportunities that arise. NHP is seeking feedback from partners and information users to ensure that this strategic plan can be used to guide the program toward successful achievement of its mission.

NRIS staff has taken advantage of a number of training opportunities this spring made available at no additional cost to state employees through the ESRI Enterprise Licenses agreement. Staff attended the "Building Web Maps Using the ArcGIS API for Javascript" training in April. This Javascript API training is critical to NRIS development staff since this will

be the tool used in the updated Digital Atlas tool that is expected to be released later this year. Additionally staff attended an introductory and advanced training on writing Python scripts.

Evan Hammer attended the Essentials of Management II training class offered by the Department of Administration Professional Development Center. This class emphasized a number of management and supervision related topics including Leadership, Resolution, Diversity, Performance, and Envisioning.

Jeff Dobb attended the GIS Professional (GISP) certification workshop at the Intermountain GIS Conference. The GISP certification is offered by the GIS Certification Institute to professionals in the field of GIS that have established their value to the trade through education, training, work experience, and service. NRIS is supportive of Jeff's efforts to receive his GISP.