



GEOSPATIAL COORDINATION WITH TRIBAL NATIONS

December 2022

Montana Tribal GIS Coordination

Montana State Library Geospatial Professionals work to coordinate with all tribes across Montana. This story map gives a bit of insight into the work of geospatial professionals and highlights the importance of coordination and collaboration with the Montana Tribal GIS Community.

Montana Land Information Advisory Council (MLIAC) - Indian Tribal Interests Representative

The Governor appoints an Indian Tribal Interests Representative every two years to serve on the Council. The representative communicates tribal priorities and geospatial interests. The [MLIAC](#) advises the State Library on geospatial technology, GIS, and geospatial information. These include the priority of developing statewide geospatial data layers, the annual Land Information Plan, MLIA Grant Program, and the distribution of funds collected in the Montana Land Information Account.

Outreach to Tribal Geospatial & Surveying Professionals

Tribal Surveyor Training

Montana State Library coordinates with geospatial and surveying professionals. Staff recently attended a 2-day Tribal Surveyor Training. At this training, our staff presented on the GIS technology trends and

the geospatial information maintained by MSL. Day 2 of the training was for demonstrating how to use new technology, including connecting to the Montana State Reference Network.



Tribal Surveyor Training & Field Demonstration. Photo credit Jeff Hedstrom, GIS Analyst Montana State Library

Site Visits

Montana State Library GIS Professionals strive to coordinate with Montana Tribal GIS Professionals virtually and in-person. Recently staff were able to visit with Confederated Salish Kootenai Tribes (CSKT) GIS Department. When visiting with Tribal GIS Professionals we communicate our programs, discuss integration of MSDI into Tribal geospatial workflows, and provide technical assistance/support.

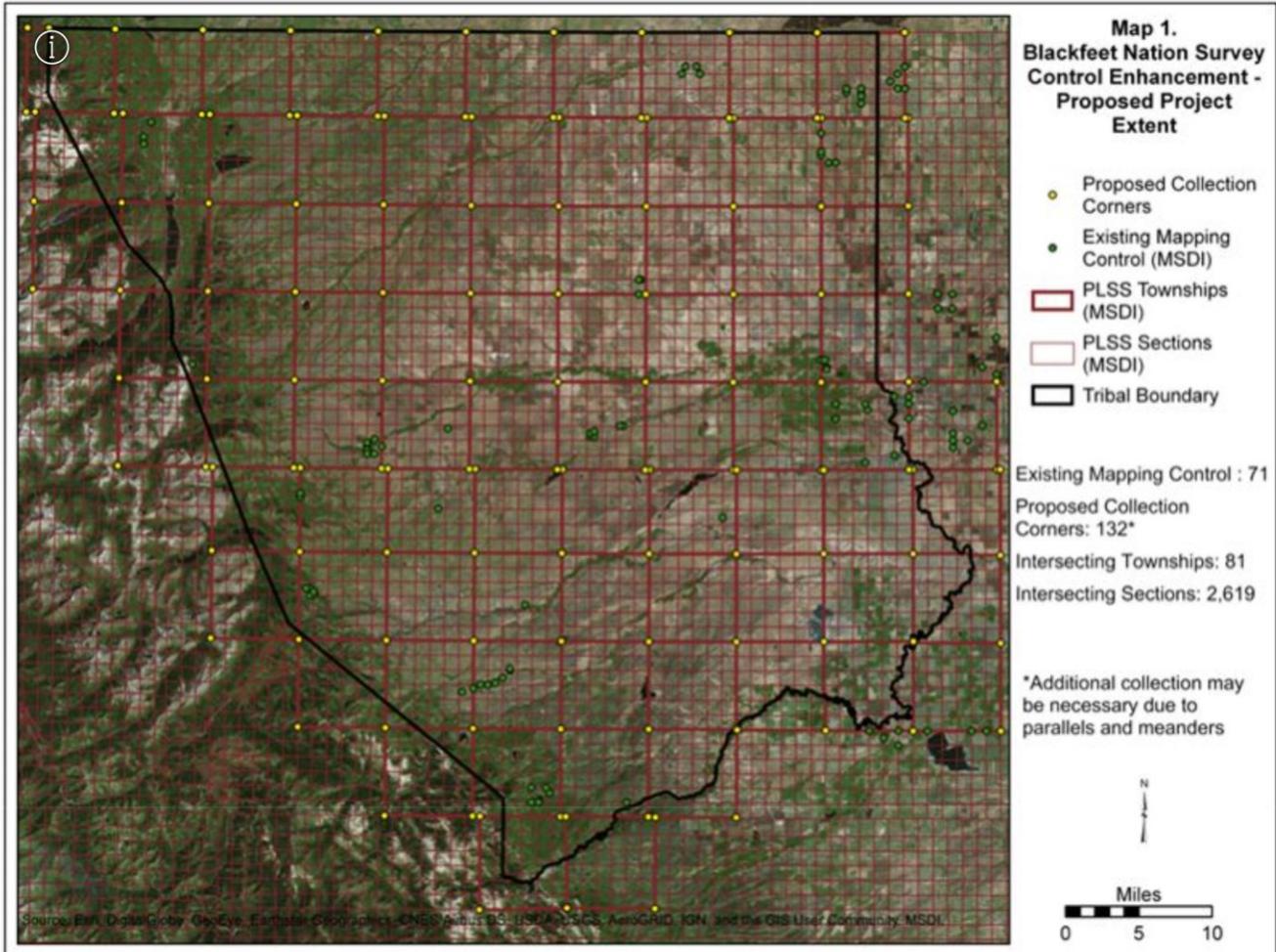
Blackfeet Nation Watershed Tour

MSL GIS Professionals attended the [2022 Fall Watershed Tour](#) with the Montana Watershed Coordination Council (MWCC), Blackfeet Nation, and over 70 conservation leaders. The theme of the tour was drought and climate resilience in the Blackfeet Nation. MSL learned about Blackfeet Nation partnerships, Tribal Government law, and current needs.

Montana Land Information Grant Program

Indian tribal governments or tribal entities that exist within Montana are eligible for the [MLIA Grant Program](#). The purpose of the MLIA Grant Program is to provide development and maintenance of

services relating to the GIS and land information. Over the past seven years, the MSL has awarded over \$107,000 in MLIA Grant funds to tribal entities.



FY 2020 MLIA Grant Award to the Blackfeet Nation - Collecting Survey Control to Improve the Digital Representation of the Public Land Survey System

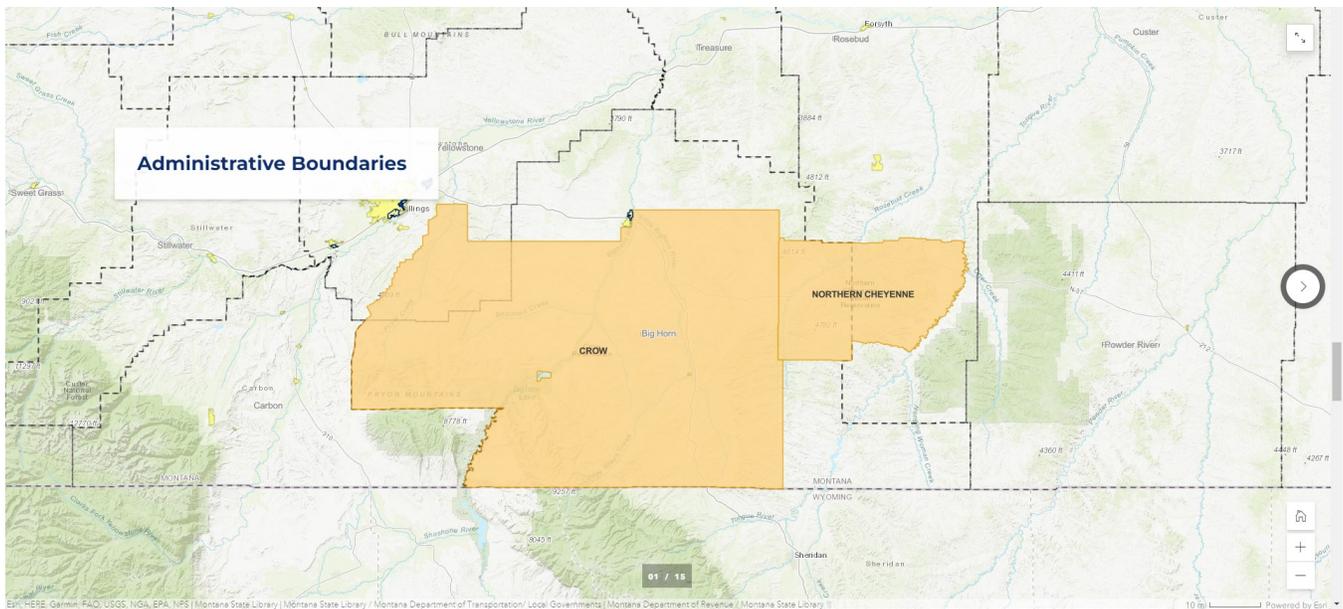
Montana Spatial Data Infrastructure & Geospatial Initiatives

Montana Spatial Data Infrastructure (MSDI)

The Montana Spatial Data Infrastructure is made up of fifteen “framework” geographic layers vital for making maps of Montana and understanding its geography.

The Montana State Library coordinates with Tribal GIS Professionals to collect, maintain, and incorporate Tribal GIS data into these standardized statewide framework layers.

Navigate through the [online carousel](#) to explore examples of all 15 MSDI geospatial data layers.



November 30, 2022 screenshot of the MSDI geospatial data layers carousel, available in the [StoryMap](#) version of this report. This example shows the Administrative Boundaries layer.

NextGen 9-1-1

The Montana State Library (MSL) is supporting Tribal Public Safety Answering Points (PSAPs) in preparing their GIS data for NG9-1-1 in a couple of ways:

Cloud-based GIS data assessment tool - Provide a cost efficient and standardized tool for all PSAPs to regularly assess their 9-1-1 GIS data for NG9-1-1 readiness and for local and state 9-1-1 and GIS stakeholders to track progress of GIS data readiness statewide.

MSL 9-1-1 GIS Analyst - Provide a dedicated 9-1-1 GIS Analyst to support all of the PSAPs, including Tribal, and help coordinate the development, improvement, and maintenance of local and statewide GIS datasets required for NG9-1-1.

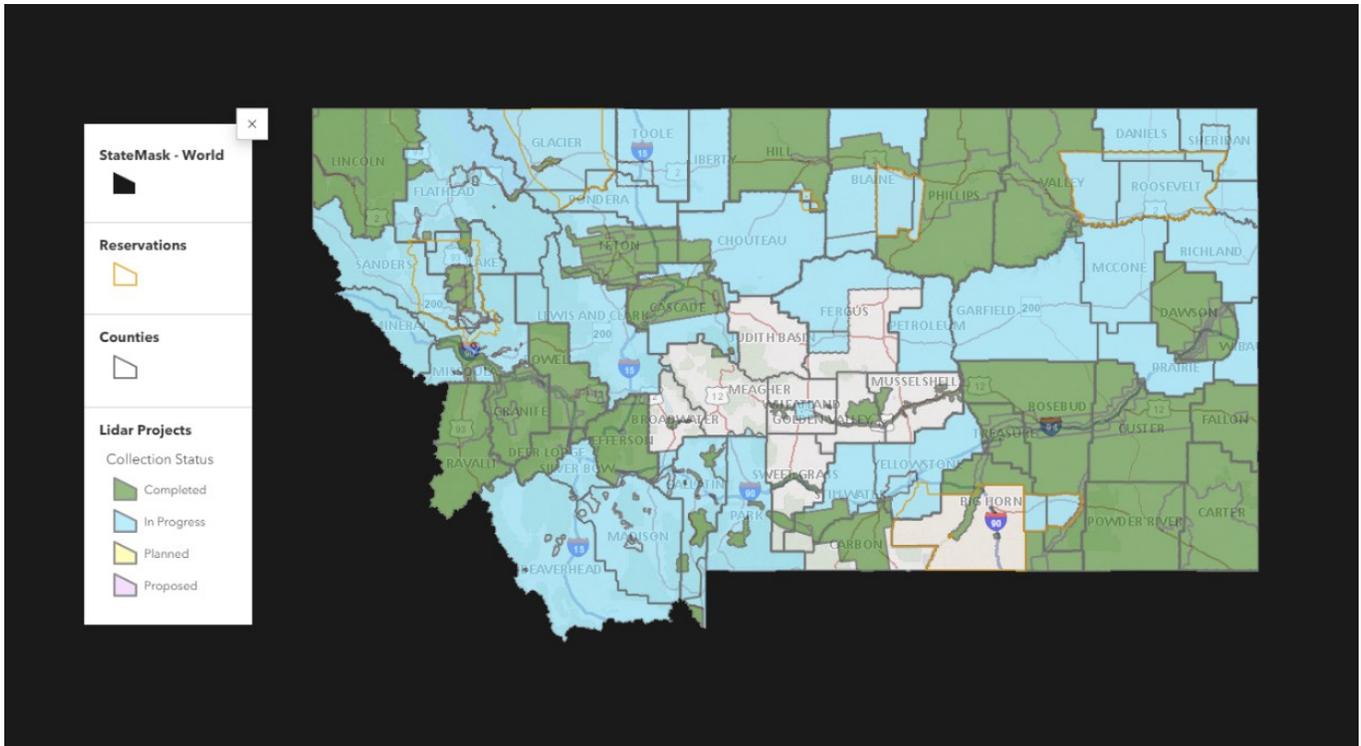
Montana Lidar Collection

Lidar (light detection and ranging, also spelled LiDAR) is a remote sensing technology that uses hundreds of thousands, or even millions, of pulses of light to measure distance with high accuracy. Products derived from lidar reveal Montana landscapes in ways previously unseen.

Montana State Library leads the Montana MSDI Elevation Working Group and serves in a coordination role to identify lidar needs and funding opportunities. In 2019, MSL worked with the Blackfeet Tribe, Fort Belknap Tribe, and Fort Peck Tribes to acquire lidar. While funding was a challenge, MSL helped identify additional partners interested in funding the collection of lidar and submitted one, consolidated state application to the USGS 3D Elevation Program. With the collaboration and pooling of funding resources and by demonstrating a single, coordinated effort within Montana, the application for federal funding was successful and lidar was flown across the Hi-Line over the following years.

Similarly, in 2020, the Confederated Salish and Kootenai Tribes joined federal and state partners to acquire lidar for the Flathead Reservation and nearby counties. Again, MSL coordinated and submitted a single application for Montana. Because other funding partners were involved, the CSKT was able to do a "buy up" to a higher lidar quality level for their primary areas of interest.

In 2022, the Bureau of Indian Affairs within Montana used the Montana Lidar Plan to gain funding support. MSL assisted the BIA with getting a funding agreement in place with the USGS to acquire lidar for the Crow Reservation. The agreement can be executed in 2023 as part of the Montana 3DEP BAA project.



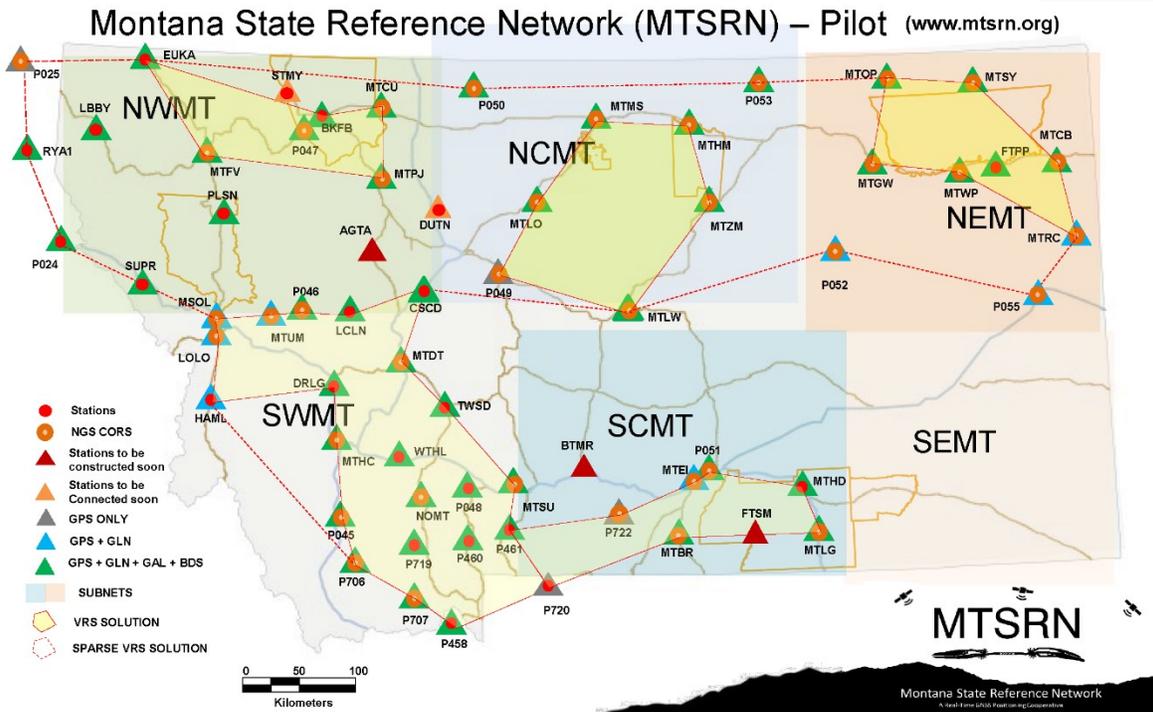
November 30, 2022 screenshot of the [Montana Lidar Acquisitions Status map](#).

Montana State Reference Network

A result of a successful collaboration with Tribal Nations, the Montana Department of Transportation (MDT), and the Montana State Library, the [Montana State Reference Network \(MTRSN\)](#) was launched in March of 2022. MTRSN is Montana's real time GPS/positioning network (RTN).

A subscriber who connects a GPS receiver to the network will receive the corrected positioning coordinates. GPS data collection accuracy will be improved immensely with this system. MTRSN correction can be used for GIS data collection, machine guidance, construction & transportation, land surveying and engineering, precision agriculture, and any location-based activities.

As of November 28, 2022, there are 58 MTRSN stations. MDT is currently working to expand the network by adding several stations per year. The goal for initial build-out (3-5 years) is about 130 stations statewide.



November 25, 2022 version of the Montana State Reference Network (MTRSN) map