



PO Box 201800 1515 East 6th Avenue Helena, MT 59620 (406) 444-3115

The Montana State Library and 911 Funding

House Bill 633 and State 911 funds

As part of a larger interim study, the Legislative Finance Committee (LFC) Education Subcommittee recommends to the LFC that \$450,000 of state 911 funds be annually appropriated to the Montana State Library (MSL) to support the creation and maintenance of GIS data to implement Next Generation 911 (NG 911). Draft legislation is available online: https://leg.mt.gov/content/Publications/fiscal/2021-Interim/Aug-2020/PD0007_SN-911-fees.pdf.

MSL and 911

MSL is the steward of statewide geographic information systems (GIS) data for the State of Montana. MSL helps local governments create and maintain GIS data and aggregates that data into statewide data sets for use in GIS systems. Among our charges are the creation, maintenance, and dissemination of address points, government boundaries, and road centerlines, data required for NG 911 systems.

How is NG 911 different from Montana's current 911 system?

- In Montana's current Enhanced (E)911 systems, emergency calls are located and routed to the 911 call center, or Public Safety Answering Point (PSAP), by the telephone service provider based on a series of database tables that associate a landline phone number with an address location.
- In the current E911 system, emergency calls placed from wireless phones use the location of the cell tower the phone connected to, which could be miles from the caller's actual location.
- NG911 calls will be located and routed using the actual device location (like how Google or Apple Maps displays a phone's location) and GIS data to determine which PSAP to route the call to in real time, as the call is placed.

What kinds of GIS data are necessary to support NG911?

- To match 911 calls to GIS data, PSAPS must have accurate and up to date address points and GIS data of all road networks.
- To ensure accurate and timely 911 call routing, Montana will need GIS data of PSAP boundaries, developed in coordination with neighboring PSAPs, to ensure there are no gaps or overlaps in service areas.

Does Montana have the data we need to implement NG911?

- No. With funding appropriated by the Legislature from State 911 funds, during the 2019 biennium, MSL contracted with Digital Data Technologies, Inc. to assess the completeness and accuracy of Montana's existing data. Current national standards require 911 GIS data to be 98% complete and accurate. The results of Montana's assessment determined that our data is only 49% ready for NG911. Only one PSAP met the 98% standard for both datasets.
- Most PSAPs have not mapped their PSAP boundaries, the most critical GIS layer for NG911.

How will MSL use 911 funding help to resolve this problem?

- MSL will procure software as a service and/or a cloud-based application for use by all PSAPs in Montana to perform ongoing assessment of their data as they make data improvements. This service would give PSAPs feedback on errors found or needed improvements
- MSL GIS staff will assist those PSAPs that lack the resources necessary to create and update their GIS data.
- MSL will coordinate the development of statewide PSAP boundary map first, then other required boundary maps (Emergency Services – fire, law, EMS)

Why is a statewide approach preferred over the current data development process?

- Data assessments
 - To detect where there might be gaps or overlaps in PSAP boundaries, or duplicate or missing address points or road centerlines assessments need to both analyze data both within a PSAP, and between PSAPs. This work is most efficiently done statewide.
 - Current GIS data assessment work occurs in those counties with dedicated GIS resources and/or is funded through one-time-only grants. By procuring an assessment service and providing GIS staff support, MSL can ensure that all PSAPs have access to the resources they need so that no PSAPs are left behind.
- GIS data development
 - PSAP boundary maps are currently being developed by some PSAPs but the approaches taken to develop the boundaries vary greatly. Some PSAPs likely base their PSAP boundary on an existing boundary such as their E911 Emergency Service Zone boundaries or their county boundary. Other PSAPs coordinate with neighboring PSAPs to identify where their shared boundaries should be. Other PSAPs likely have not started to map their boundaries. The most efficient way to ensure PSAP boundaries are ready for NG911 is to coordinate their development and test for gaps or overlaps at the statewide level.
- Cost efficiencies
 - In FY 21, the 911 grant program will fund GIS data assessments for 10 PSAPs at a cost of \$168,000. If all PSAPs funded this work individually, MSL estimates the cost to be \$850,000 to \$950,000 annually. Procuring this service for the State is a far more cost effective use of 911 funds, it ensures that the service is available for all PSAPs, not just those who receive grant funds, and it eliminates the redundancy that exists when individual PSAPs procure this service.

Legislative Next Steps

The LFC will consider the recommendation of the Education Subcommittee at a meeting on September 15. If they accept the recommendation it will become a committee bill during the 2021 legislative session.

Contact Information

Jennie Stapp
State Librarian
Montana State Library
406.444.3116
jstapp2@mt.gov

Michael Fashoway
GIS Analyst
Montana State Library
406.444.2793
mfashoway@mt.gov