MEMO

To:	MSL Commission
From:	Michael Fashoway, Land Information Lead
Subject:	Next Generation 9-1-1 and the Montana State Library
Date:	May 31, 2023

This informational presentation is offered to educate the State Library Commission and others about how the Montana State Library (MSL) meets its statutory obligation to support Next Generation (NG) 9-1-1 services in Montana.

MSL's authority for this work is found 10-4-310, Montana Code Annotated (MCA). This law creates a GIS mapping account and directs MSL to carry out its coordination and management responsibilities to collect, maintain, and disseminate GIS land information in the state as it pertains to supporting public safety answering points on the ongoing assessment and improvement of next-generation 9-1-1 GIS data sets.

10-1-304 (5), MCA is a statutory appropriation that appropriations $450,000 per year through June 30, 2030, to the 9-1-1 GIS mapping account. The $450,000 annual appropriation funds one FTE, a contract for software and services with 1Spatial, and other operating costs.

The Montana Department of Justice is responsible for coordinating statewide NG9-1-1 services. Local and tribal government public safety answering points (PSAP) receive 9-1-1 calls.

Metrics regarding the output of this work are maintained online at: https://next-generation-9-1-1-montana.hub.arcgis.com/pages/status-911. Key measures of success are:
- PSAPs can validate their 9-1-1 GIS data as often as necessary, and the number of errors for any given validation decrease over time
- A statewide PSAP boundary exists, free of gaps and overlaps, to enable geospatial call routing in a statewide NG9-1-1 system
- PSAPs can share and aggregate their 9-1-1 GIS data to the statewide database as often as necessary for provisioning to a NG9-1-1 system
  - MSL can access that GIS data, including current address point data, for other critical business needs including geocoding services and supporting the counties and state with geo-enabled elections

Key takeaways are:

- A standards-based NG9-1-1 system requires accurate and up-to-date GIS data (service boundaries, road centerlines, address points) maintained by local and tribal governments

and aggregated to statewide datasets to route 9-1-1 calls based on the caller's actual location (whether it's a landline telephone or wireless device)

- The GIS data need to adhere to national NG9-1-1 standards that have been adopted by the State of Montana to ensure they meet the requirements for call routing
- Using the cloud-based software from 1Spatial, local and tribal GIS data providers can assess and validate their 9-1-1 GIS data for NG9-1-1 readiness and aggregate their data to statewide datasets ready for use in a NG9-1-1 system
- Bob Cochran, MSL's 9-1-1 GIS Analyst, is dedicated to supporting PSAPs and their GIS data providers in:
  - Using the 1Spatial GIS data validation and aggregation service
  - Coordinating the development of the required NG9-1-1 statewide datasets
  - Developing workflows and tools to streamline data editing and maintenance
- While the primary focus of this work is to ensure GIS data are ready for NG9-1-1 call routing, improvements to datasets such as GIS address points have many additional uses that increase the return-on-investment of the data:
  - Address points created for 9-1-1 and aggregated into the Montana Spatial Data Infrastructure (MSDI) Structures/Addresses Framework are being used by local and state elections officials to ensure voters receive the correct ballot
  - MSDI address data were incorporated into the state's Broadband Availability Map being used to guide state broadband access funding
- Significant accomplishments to date:
  - Procured, implemented, and provided online training to all PSAPs in Montana in use of the 1Spatial GIS data validation and aggregation service
  - MSL's 9-1-1 GIS Analyst provided training and support to two local government staff with little to no GIS experience who were recently assigned the responsibly of maintaining their PSAP's 9-1-1 GIS data, enabling them to begin maintaining and improving the required NG9-1-1 GIS datasets.
  - MSL's 9-1-1 GIS Analyst has spent 900 hours since being hired in October of 2021 on outreach to PSAPs and supporting their GIS data providers