



**MONTANA
STATE LIBRARY**
A GREATER STATE OF KNOWLEDGE

MSDI Administrative Boundaries

Meghan Burns, MSDI Boundary Theme Lead

MAGIP Local Government SIG | Thursday, September 19

Outline

- National Spatial Data Infrastructure (NSDI)
- NSDI Governmental Units, and Administrative and Statistical Boundaries
- National Boundaries Working Group
- US Census Bureau Updates
 - Boundary and Annexation Survey (BAS)
 - School District Review Program (SDRP)

- Montana State Library
- Montana Spatial Data Infrastructure (MSDI)
- MSDI Administrative Boundaries
 - General Updates
 - Geo-Enabled Elections and Redistricting
 - Upcoming Tasks

National Spatial Data Infrastructure (NSDI)



National Spatial Data Infrastructure (NSDI)

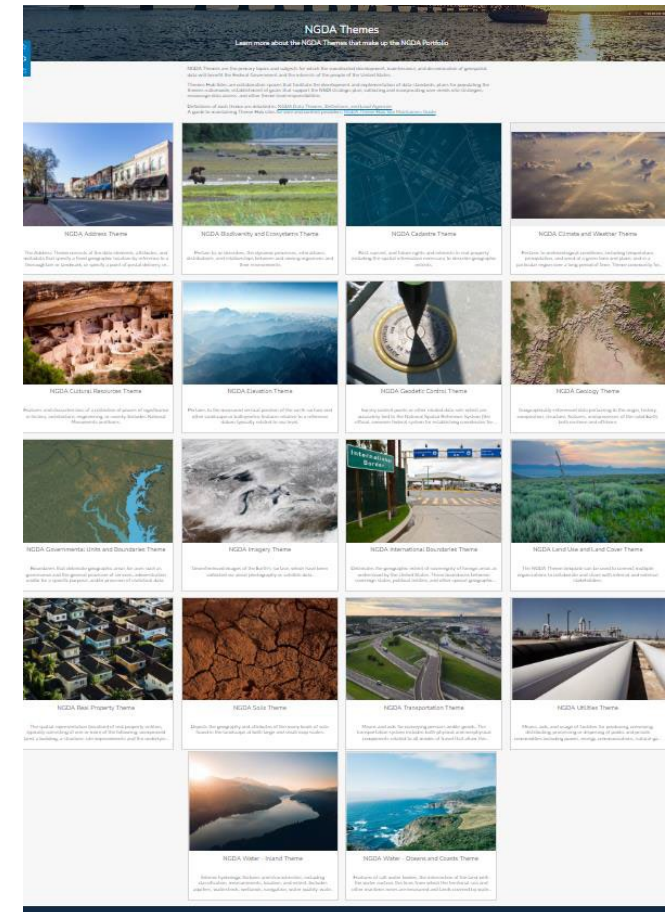
- Executive Order 12906: Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure, was signed by Bill Clinton April 11, 1994
- [EO 12906](#), Vol. 59, No. 71, pp.17671-17674, published April 13, 1994, established executive branch leadership for the development of the NSDI, and called for the development of the National Geospatial Data Clearinghouse, spatial data standards, and a Framework and partnerships for data acquisition.
- [EO 13286](#), Vol. 68 No. 43, pp.10619-10633, published March 5, 2003, amended EO 12906
- The NSDI was codified into law with the [Geospatial Data Act in 2018](#)

National Geospatial Data Asset (NGDA) Themes

- August 19, 2011: Revised original list of 34 NSDI Data Themes to 16 National Geospatial Data Asset (NGDA) Themes

- NGDA Theme Pages:

- | | |
|---|--|
| <ul style="list-style-type: none">• Address• Biodiversity and Ecosystems• Cadastre• Climate and Weather• Cultural Resources• Elevation• Geodetic Control• Geology• Government Units, and Administrative & Statistical | <ul style="list-style-type: none">• Boundaries• Imagery• Land Use – Land Cover• Real Property• Soils• Transportation• Utilities• Water – Inland• Water – Oceans and Coasts |
|---|--|



NSDI Governmental Units, and Administrative and Statistical Boundaries Theme



National Spatial Data Infrastructure (NSDI): Governmental Units, and Administrative and Statistical Boundaries

- Theme Lead: Dierdre Bevington-Attardi, US Census Bureau
- Purpose of Governmental Units Theme:

“The Governmental Units Theme of the National Spatial Data Infrastructure enables people to access, visualize, analyze, and integrate boundary data for official governmental units, administrative, and statistical areas as described by a consistent set of rules and semantic definitions, and reported/certified to the U.S. Census Bureau by responsible officials of international, tribal, federal, state, and local governments for purposes of reporting the Nation’s official statistics.”

Governmental Units Theme Page

FGDC.gov Governmental Units, and Administrative and Statistical Boundaries Theme

NGDA Portfolio Community Overview Annual Reports Subcommittees & Working Groups Standards in Use Search Hub Site Search GeoPlatform Internal

Governmental Units, and Administrative and Statistical Boundaries Theme

Theme Lead Agency: United States Census Bureau (US Census)
Theme Lead: Dierdre Bevington-Attardi (US Census)
Email: NGDATeam@FGDC.gov

Definition

Boundaries that delineate geographic areas for uses such as governance and the general provision of services (e.g., States, American Indian reservations, counties, cities, towns, etc.), administration and/or for a specific purpose (e.g., Congressional Districts, school districts, fire districts, Alaska Native Regional Corporations, etc.), and/or provision of statistical data (census tracts, census blocks, metropolitan and micropolitan statistical areas, etc.). Boundaries for these various types of geographic areas are either defined through a documented legal description or through criteria and guidelines. Other boundaries may include international limits, those of federal land ownership, the extent of administrative regions for various federal agencies, as well as the jurisdictional offshore limits of U.S. sovereignty. Boundaries associated solely with natural resources and/or cultural entities are excluded from this theme and are included in the appropriate subject themes.

Governmental Units Websites

- [TIGER/Line Geodatabases](#)
- [TIGER/Line Shapefiles](#)

Governmental Units National Geospatial Data Assets (NGDA)

An NGDA is defined as a geospatial dataset that has been designated by the FGDC Steering Committee and meets at least one of the following criteria:

- Used by multiple agencies or with agency partners such as State, Tribal and local governments;
- Applied to achieve Presidential priorities as expressed by OMB;
- Required to meet shared mission goals of multiple Federal agencies; or
- Expressly required by statutory mandate

The table below contains the **Governmental Units NGDA** derived from the **Official List of NGDA Endorsed by FGDC** with a link to the NGDA metadata in Data.gov and GeoPlatform.gov. The list includes the agency responsible for managing the NGDA.

This list is updated on an as needed basis. If you discover errors or if you have questions about NGDA, please contact the NGDATeam@fgdc.gov.

Governmental Units NGDA

34

Derived from the Official List of NGDA Endorsed by FGDC
Source: [Governmental Units NGDA List](#)

NSDI: Governmental Units

- ➔ 57 Congressional Districts
- 58 ZCTAS
- 60 PUMAS
- 61 Urban Areas
- 62 Urban Growth Areas
- ➔ 63 VTD Voting Precincts
- ➔ 64 AIANNH Tribal Nations Reservations
- 65 AITS
- 66 ANRC
- 69 Block (Pop & Hou), 2020
- 70 Block Group
- 72 Census Tract
- 74 CSA
- 75 Consolidated Cities
- ➔ 76 County and Equiv
- 77 County Subdivision
- ➔ 78 Elem School District
- 80 Estates
- 81 HUD Entitlement Grantee Jurisdiction
- 82 U.S. and Mexico
- 83 Metro Division
- 84 CBSA
- ➔ 88 Places
- ➔ 89 Sec School Districts
- ➔ 90 States and Equiv
- ➔ 91 SLD Lower Legislative: Senate/House
- ➔ 92 SLD Upper
- 93 Subbarrios
- 94 Tribal block groups
- 95 Tribal census tracts
- ➔ 96 Unified School District K-12
- 97 U.S. and Canada
- 186 BLM Admin Bdys and Points
- 202 School District AA
- **NEW Proposal: U.S. International boundaries with Canada and Mexico**

<https://ngda-gov-units-geoplatform.hub.arcgis.com/datasets/geoplatform::governmental-units-ngda-list/explore>

National Boundaries Group (NBG)

<https://ngda-gov-units-geoplatform.hub.arcgis.com/pages/national-boundaries-group>

National Boundaries Group

- Purpose: To develop and integrate nationally consistent boundaries with the goal to make sure federal boundary sources are consistent, accurate, and integrated.
- Meets Quarterly
 - Next Meeting: October 3

<https://ngda-gov-units-geoplatform.hub.arcgis.com/pages/national-boundaries-group>

US Census Bureau Updates



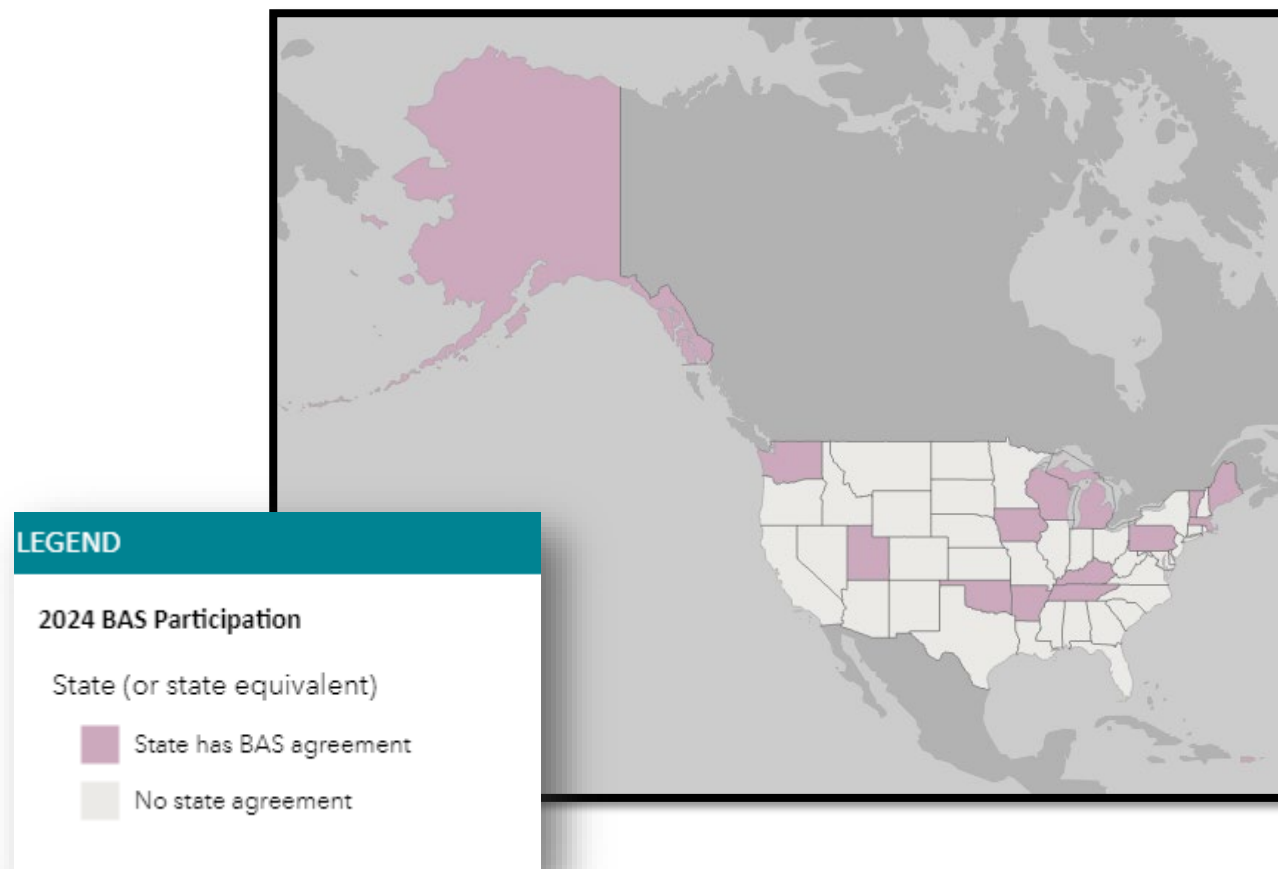
Boundary and Annexation Survey (BAS)

- Annual Program to submit Boundary Corrections and Annexations
- Schedule
 - January 1: Changes must be legally in effect on or before this date
 - March 1: Submit your changes to be reflected in ACS/PEP
 - May 31: Deadline to submit changes to be included in next year’s BAS material
- All Places (Cities, Towns, Counties) are asked to participate
- Survey Response Options
 - No Changes: Submit Online Form
 - Boundary Update Options:
 - BAS Partnership Toolbox (using ArcMap or ArcGIS Pro)
 - GUPS (Census provided software)
 - Paper BAS (Use map sheets provided by Census)
 - **New Web-based Update Process Coming!**

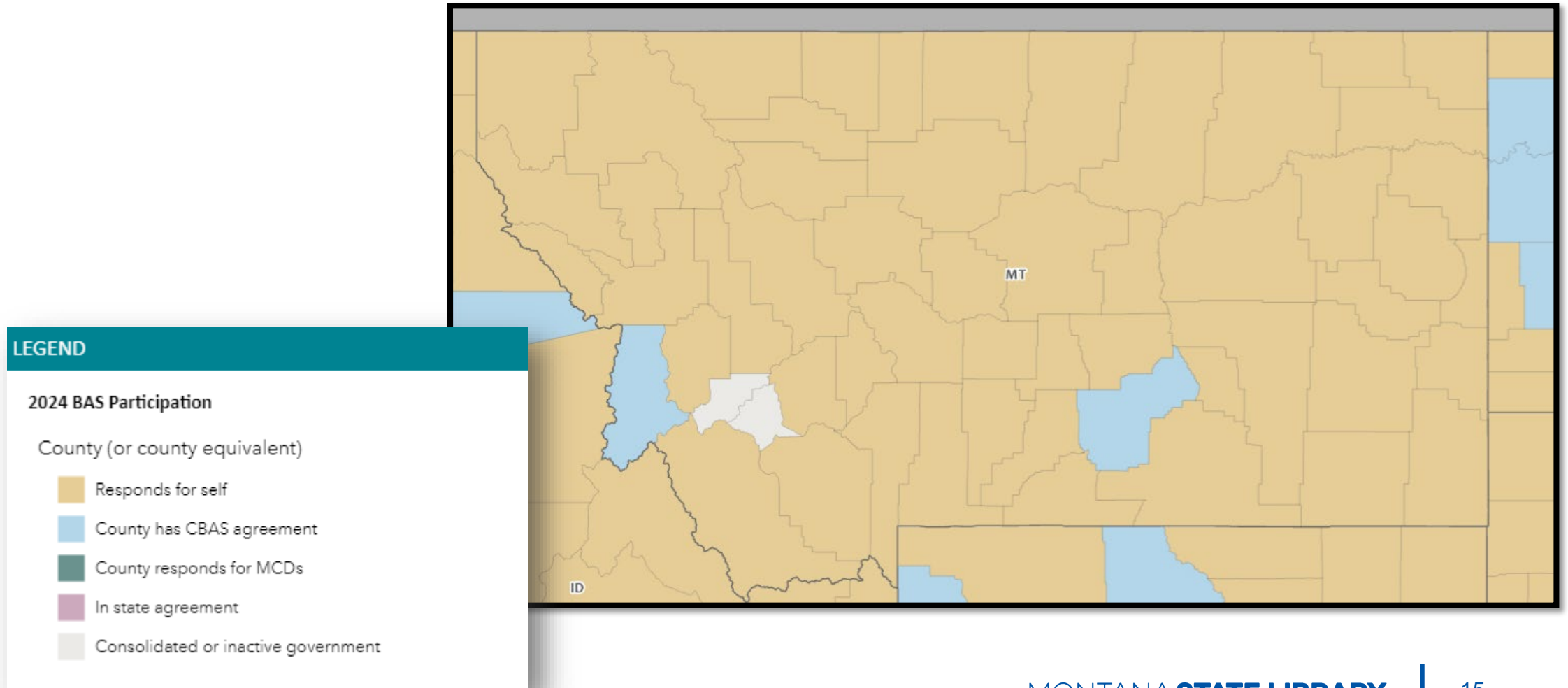
Even if you do not have any changes, please respond to the survey with “No Changes” and review and update your contact information

BAS Participation Map

- Montana does not have a State BAS agreement



BAS Participation Map by County



School District Review Program (SDRP)

- Annual Program to verify and update:
 - School District Boundaries
 - Names
 - Grade Levels
- Schedule
 - June: Designate a School District Mapping Coordinator (Me)
 - September: School District Mapping Coordinator receives instructions and materials
 - September – December: Reach out to OPI and County School Superintendents for updates
 - **December 31: Deadline for Mapping Coordinator to submit changes to the US Census Bureau**
 - April: Verification Phase to be performed by Mapping Coordinator (Just Completed)

New Web-based Update Process Coming!

Montana State Library (MSL)



The Montana State Library provides information, resources, and guidance to Montanans to help expand their knowledge and empower their decisions.

We offer leading-edge data and applications, plus a dedicated staff, to help all people efficiently seek accurate and transparent answers about Montana.





Montana State Library – An Online Portal to Information you Need

Government Information

Access state publications, state agency databases, archived state and local government websites, and federal documents

Cultural and Historic

Learn about Montana through cultural and historic photographs, documents, yearbooks, oral histories, and more

Water and Natural Resources

Find field guides, plant and animal species reports, mapped information on lakes and rivers, drought and water supply maps, elevation data, and more

Services for Libraries and out Patrons

Benefit from our programming, education, and consulting services; e-books, online research databases, and additional robust library resources

Geographic Information

View statewide information on land ownership, boundary, structure, address, transportation, and other datasets through maps, application, and data feeds

Services for those unable to Read Printed Materials

If reading print is difficult due to permanent or temporary conditions, sign up for braille and audio reading services

Montana Spatial Data Infrastructure (MSDI)

<https://msl.mt.gov/GIS/Boundaries>

What is MSDI?

- Fifteen (15) Framework Geographic Data Themes
 - Eight (8): federally defined in the National Spatial Data Infrastructure (NSDI)
 - Seven (7): added by the Montana Geospatial Information Advisory Council (MGIAC)
 - New themes must be approved by the Montana State Library Commission
- Vital to Montana for understanding its geography
- Accepted as the best available, standardized, statewide data
- Each theme lead is responsible for:
 - production, maintenance, distribution, promotion and support
- Montana State Library is the Theme Steward of eleven (11) themes

MSDI Framework Themes

- Administrative Boundaries*
- Cadastral*
- Climate
- Elevation*
- Geographic Names
- Geology
- Hydrology*
- Hydrologic Units
- Land Cover (MTNHP)
- Mapping Control*
- Imagery*
- Soils
- Structures & Addresses*
- Transportation*
- Wetlands & Riparian (MTNHP)

*National Spatial Data Infrastructure Framework (NSDI) Theme
___ Indicates Montana State Library is the Theme Steward

MSDI Administrative Boundaries

<https://msl.mt.gov/GIS/Boundaries>

What are Administrative Boundaries?

- Legally documented jurisdictional boundaries
- They define the rights, responsibilities, and interests on the land
- A collection of sub-themes
- Maintained and Published by the Montana State Library
 - Work closely with local, federal, and state data providers to integrate
 - Vertically aligned with the Montana CadNSDI (public land survey system)

<https://msl.mt.gov/GIS/Boundaries>

MSDI Boundary Sub-Themes: Core

- State*
- Congressional Districts*
- County*
- Incorporated Cities/Towns*
- Rural Fire Districts*
- Legislative Districts (House and Senate)*
- Managed Areas
- National Park Boundaries
- Precinct Splits*
- School Districts (Elementary, High School, K-12)*
- Soil Conservation*
- Tax Increment Financing Districts
- Tribal Nations Reservations and Off Reservation Trust Land
- Voting Precincts*
- Weed Management Districts

***both core and election district**

MSDI Boundary Sub-Themes: Election Districts*

- Ambulance/EMS
- Cemetery
- City
- Community Council
- Congressional
- County Commissioner
- County
- Fire
- House District
- Irrigation
- Judicial
- Jury
- Library
- Mosquito
- Park and Recreation
- Public Hospital
- Public Service Commission
- Resort
- Rural
- Rural Improvement
- School
- School Single Member Trustee
- Senate District
- Sewer
- Soil Conservation
- Special
- State
- Study Commission
- Supreme Court Justice
- Transportation
- Voting Precinct
- Ward
- Water

***Election Districts are the building blocks of Precinct Splits**

MSDI Boundary Theme Summary

- Data Layers Published Monthly as needed
 - FTP (file gdb and shapefile)
 - Web Services
 - ArcGIS Online hosted feature services – Coming Soon!

- Map Gallery

- Geo-Enabled Election Information Hub

Data Layer Updates

- ✓ Election Districts are current as of September 18
- ✓ Incorporated Places
 - Annexations: Bozeman and Helena
- ✓ Election Districts
 - Updated Community Council, Jury, Rural, and Fire
- ✓ Precinct Splits
 - Current
 - No additional changes until after the General Election in November

Data Layer Updates

✓ Managed Areas:

- Updated GAP Status Fields from PAD-US 4.0
- Added American Prairie land
- Updated US Fish and Wildlife Service (USFWS) lands
- Updated Montana Fish, Wildlife, and Parks State Parks lands:

Closures:

- 1 - MTFWP permanently closed the Pennington Bridge Fishing Access Site (MA_ID: 641) on the Big Hole River four miles south of Twin Bridges effective June 17, 2019;
- 2 - MTFWP did not renew its lease with the MTDNRC for the Elmo Fishing Access Site (MA_ID: 567) on Flathead Lake. The lease expired February 29, 2020

Map Gallery Updates



Enter search terms

Grid Date Modified Filter

Items: 34

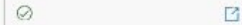


Montana Geo-Enabled Elections

Hub Site Application
Updated: Apr 1, 2024

An ArcGIS Hub site describing the implementation of Geo-enabled Elections in Montana through a partnership between the Montana Secretary of State's Office and the Montana State Library

[View item details](#)



Montana Legislative (2024-2032) and Public Service Commission Districts by City

Document Link
Updated: Apr 1, 2024

This is a large format map of Montana's Legislative Districts adopted in 2023 for the 2025 through 2033 legislative sessions and the current Public Service Commission Districts by City

[View item details](#)



Montana Legislative (2024-2032) and Public Service Commission Districts

Document Link
Updated: Apr 1, 2024

This is a large format map of Montana's Legislative Districts adopted in 2023 for the 2025 through 2033 legislative sessions and the current Public Service Commission Districts

[View item details](#)



Montana School Districts Enrollment - Fall 2021

Document Link
Updated: Mar 14, 2024

Statewide school district map displaying Montana's elementary, high school, and unified school districts, Fall 2021

[View item details](#)

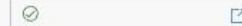


Montana School Districts Enrollment FY2022-2023

Document Link
Updated: Mar 14, 2024

Statewide school district map displaying Montana's elementary, high school, and K-12 school districts, FY 2022-2023

[View item details](#)



Montana Legislative Districts, 2004-2013

Document Link
Updated: Mar 14, 2024

Legislative Districts Static Maps

[View item details](#)



Montana Voting Precinct Analysis GIS Data Layers

Document Link
Updated: Mar 14, 2024

Montana Voting Precinct Analysis GIS Data Layers including 2020 Census 18 and Older Population Numbers and the current (2014-2022) and new Legislative House and Senate Districts (2024-2032)

[View item details](#)



Montana Libraries and Legislative Districts

Web Mapping Application
Updated: Dec 28, 2023

Montana Libraries and Legislative Districts application

[View item details](#)



Montana Schools and School Districts

Web Map
Updated: Dec 28, 2023

This Interactive Map represents Montana School District Boundaries (Elementary, Secondary, & K-12), and Public and Non-Public K-12 Schools Accredited by the Montana Board of Public Education. [Note: Zoom in to view the school locations. Click on a sc...

[View item details](#)

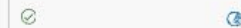


Montana Schools and School Districts Swipe Map

Web Mapping Application
Updated: Dec 28, 2023

Elementary, Secondary (High School), and Unified (K-12) School Districts within Montana

[View item details](#)

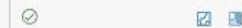


Montana Administrative Boundaries

Web Map
Updated: Dec 28, 2023

This maps represents Montana counties, incorporated cities & towns, TIFDs, reservations, school districts, and state boundary.

[View item details](#)



Montana Managed Areas

Web Map
Updated: Dec 28, 2023

Montana Managed Areas with Public Lands, Conservation Easements, and Parcels

[View item details](#)

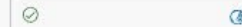


Montana Administrative Boundaries

Instant App
Updated: Oct 17, 2023

Interactive web map application of MSDI Administrative Boundaries

[View item details](#)

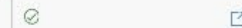


Montana Legislative Districts, 2024-2032

Document Link
Updated: Jul 4, 2023

This is a large format map of Montana's Legislative Districts adopted in 2023 for the 2025 through 2033 legislative sessions

[View item details](#)



Montana Legislative Districts, 2024-2032, by City

Document Link
Updated: Jul 4, 2023

This is a large format map of Montana's Legislative Districts adopted in 2023 for 35 Montana Cities and Towns

[View item details](#)



Montana Legislative Districts 2014-2023 by City

Document Link
Updated: Jul 4, 2023

Montana Legislative Districts 2014-2023 for 36 Montana Cities and Towns

[View item details](#)



Geo-Enabled Elections



Geo-Enabled Elections

All 56 Counties have been updated
in the Election System and are ready
for the General Election!

Congratulations Counties!
Awesome Job!

Redistricting Timeline

From the Constitution – Article V. Part V. The Legislature, Section 14:

- Following a federal decennial census new Congressional and Legislative Districts must be redrawn: <https://mtredistricting.gov/>
 - Within 90 days after the official final decennial census figures are available, the commission shall file its final plan for congressional districts with the secretary of state and it shall become law
 - November 12, 2021: The Congressional Districts were adopted:
 - The commission shall submit its plan for legislative districts to the legislature at the first regular session....
 - February 23, 2023: Legislative House & Senate Districts were adopted
- MCA 13-3-102: Once redistricting is complete each county now has **90 days** to review their Voting Precincts to make sure they conform to the new legislative districts. Precincts should equalize the number of electors as nearly as possible
- MCA 7-4-2102: County Commissioner Districts should also be reviewed to be as compact and equal in population and area as possible following a decennial census

The Hub Site has Redistricting Info:

<https://geoenabled-elections-montana.hub.arcgis.com/pages/redistricting>

Elections Timeline

- MCA 13-3. Precincts and Polling Places
 - MCA 13-3-102: No changes may be made within 100 days of an election
 - No changes can be made between the primary and the general election
 - MCA 13-3-103:
 - (1) Not more than 10 days after an order of the governing body has established or changed the boundaries of an election precinct, the governing body shall ensure that a written legal description and a map showing the borders of all precincts and districts in which elections are held within the county are prepared and delivered to the election administrator.
 - (2) Not more than 10 days after school district or other election district boundaries have been changed, the governing body making the change shall certify any changes or alterations in the boundaries to the election administrator and deliver a written legal description and a map showing boundaries of the wards, school districts, or other election districts. The map must be sufficiently detailed to clearly identify the wards or districts and the territory included in each.
- MCA 7-4-2102: Division of County into Commissioner Districts
 - A change in the boundaries of any commissioner district may not be made between the date that falls 6 months before a county commissioner primary election and the date of the general election.

Election System Division of Responsibilities

–Secretary of State

- Update Statewide Election Districts including:
 - Congressional Districts
 - Legislative Senate/House Districts
 - Public Service Commission
 - Judiciary
- Uploads Precinct Split Map

–Election Administrators

- Add/Update Precincts, Precinct Splits, and Election District Names
- Review and approve Precinct Split Map

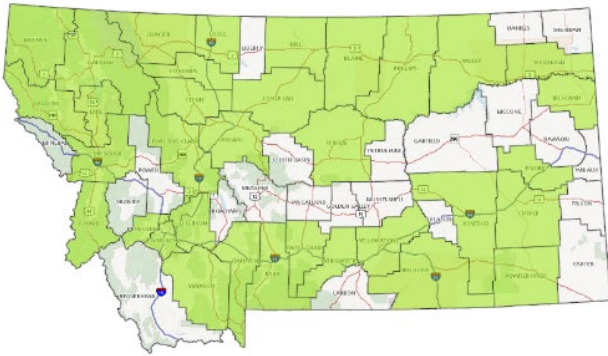
–Montana State Library

- Works with Election Administrator to create Precinct Split boundary data layer
- Send Precinct Split layer to SOS for them to upload
- Update and send ancillary data layers: County, City, School Districts, Zip Code (from US Census Bureau) for SOS to upload

Geo-Enabled Elections - Redistricting

- Voting Precincts: 34 counties
- County Commissioner Districts: 22 counties to-date

2023 Redistricting Summary

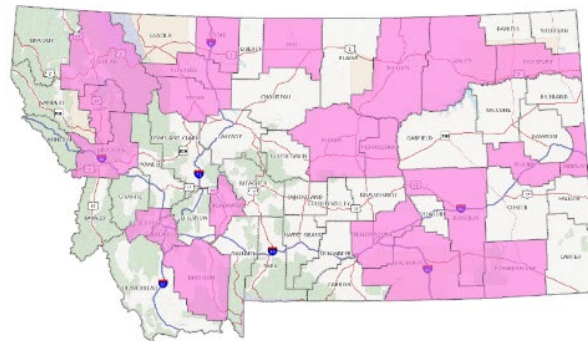


Voting Precinct Updates

Following the redistricting of the Montana Legislative Districts, thirty-four (34) counties revised their Voting Precincts to conform to the new House and Senate Districts.

County Commissioner Districts

As of April 1, 2024, twenty-two (22) counties have revised their County Commissioner Districts to ensure that the districts are as compact an equal in area and population as possible following the 2020 decennial census.



Geo-Enabled Elections

Hub Updated with:

- 2023 Redistricting Summary
- Election Dates
- Related Laws
- Map Gallery
- Links to data & web services
- Precinct Splits Status Map & Dashboard
- Precinct Splits Map for each County (pdf)



Upcoming Tasks



Upcoming Tasks

- Adjust Boundary Data Layers to the Latest CadNSDI
- Migrate Managed Web Services to ArcGIS Online Feature Services
- Replace MSL Data List with a new Open Data Hub Site

Thank you!



Contact Info:

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<https://msl.mt.gov/GIS/Boundaries>

Sign up for MSL Email Updates:

<https://public.govdelivery.com/accounts/MTLIBRARY/subscriber/new>

