

# Building the Foundation of a Spatial Data Infrastructure (SDI) in the State of Michigan

## Michigan Geographic Framework Geospatial Data Hub

**Mark Holmes**, GISP – DTMB  
Geospatial Services Manager

**Sheila Steffenson** – 1Spatial  
CEO

**Kevin Sigwart** – 1Spatial  
COO



NSGIC Annual Conference 2021

# Mentimeter Pre-Presentation Poll Questions

- Does your State\Customer Provide data roll ups to support SDI?
- Does your organization require data sharing agreements or MOU's for each data provider?
- Does your organization keep those data sharing agreements up to date?
- List the layers that are contained within your SDI's
- Is your SDI on-prem, cloud hosted, within a SaaS (AGOL) or all of the above?



The voting code: **6769 7512**

<https://www.menti.com/ow7qu5jsic>

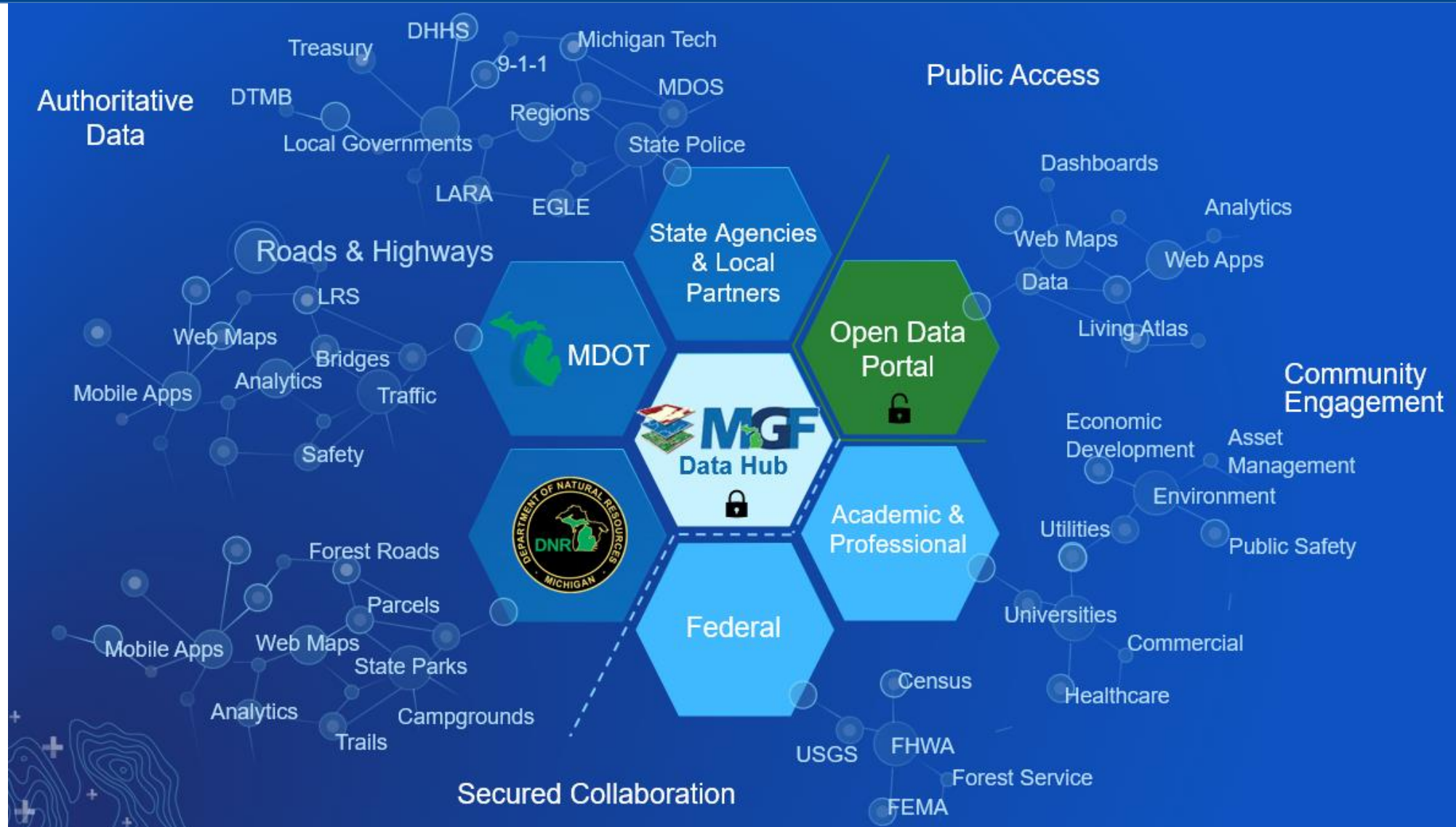
# Michigan Geographic Framework Geospatial Data Hub

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Geospatial Services Manager

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# State of Michigan Geospatial Enterprise Ecosystem



# Guiding Principles to MGF Geospatial Data Hub

- Create data once, use many times
- Data from authoritative sources
- Data classification by data owners
- Regular data updates and maintenance
- Effective metadata
- Partnerships and data sharing agreements
- Consistent data for decision making
  - Local, state, federal, public

# Enterprise Information Management

*There are 6 key elements, or work-streams, that guide the EIM program.*

<b>1</b> <b>Op</b> Organizational Processes	<b>ORGANIZATIONAL PROCESSES</b> <ul style="list-style-type: none"><li>• Key roles (Chief Data Steward)</li><li>• Responsibilities</li><li>• Org Model and Principles</li></ul>
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<b>4</b> <b>Im</b> Identity Master	<b>IDENTITY MASTER</b> <ul style="list-style-type: none"><li>• Centralized service for the identification of individuals across state interactions</li></ul>
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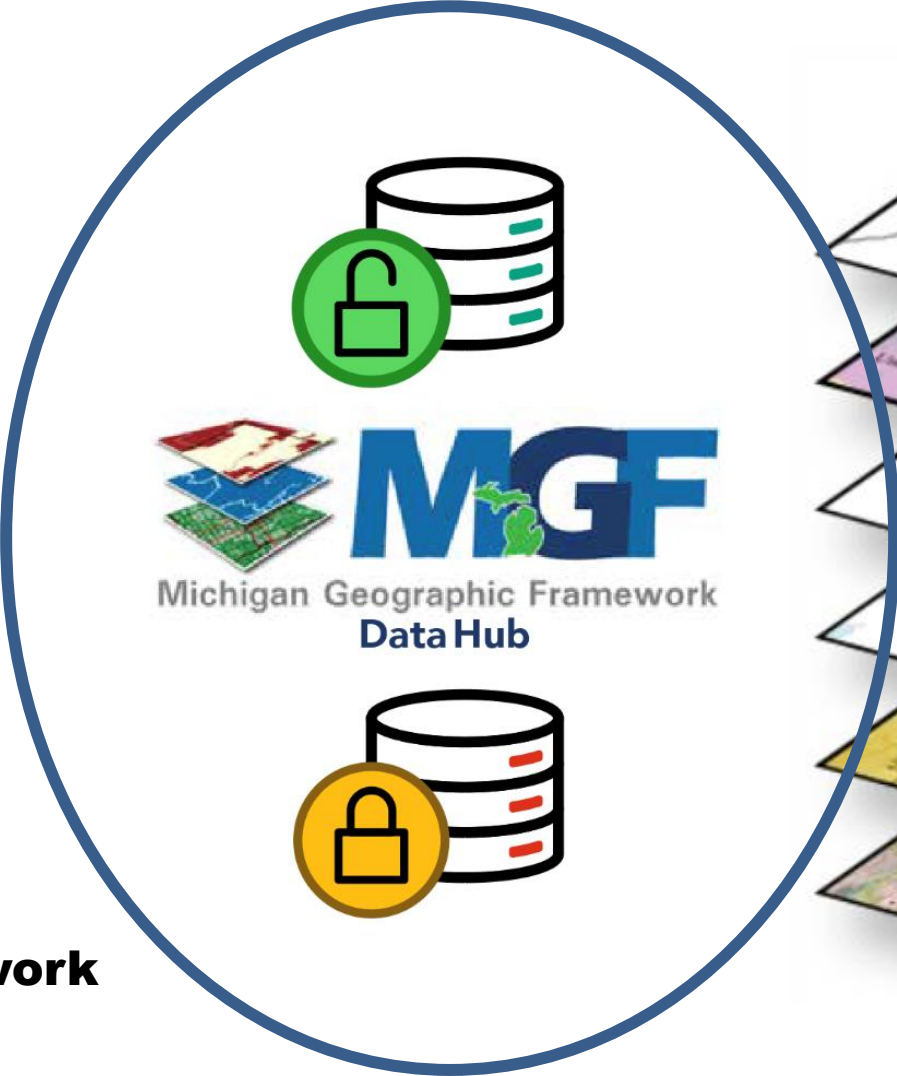
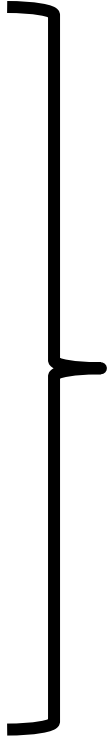
<b>2</b> <b>Ds</b> Data Sharing	<b>DATA SHARING</b> <ul style="list-style-type: none"><li>• Secure environment to deliver a “share first” capability across the enterprise</li></ul>
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<b>5</b> <b>Lm</b> Location Master	<b>LOCATION MASTER</b> <ul style="list-style-type: none"><li>• Centralized service for location data that leverages addresses and geographical information</li></ul>
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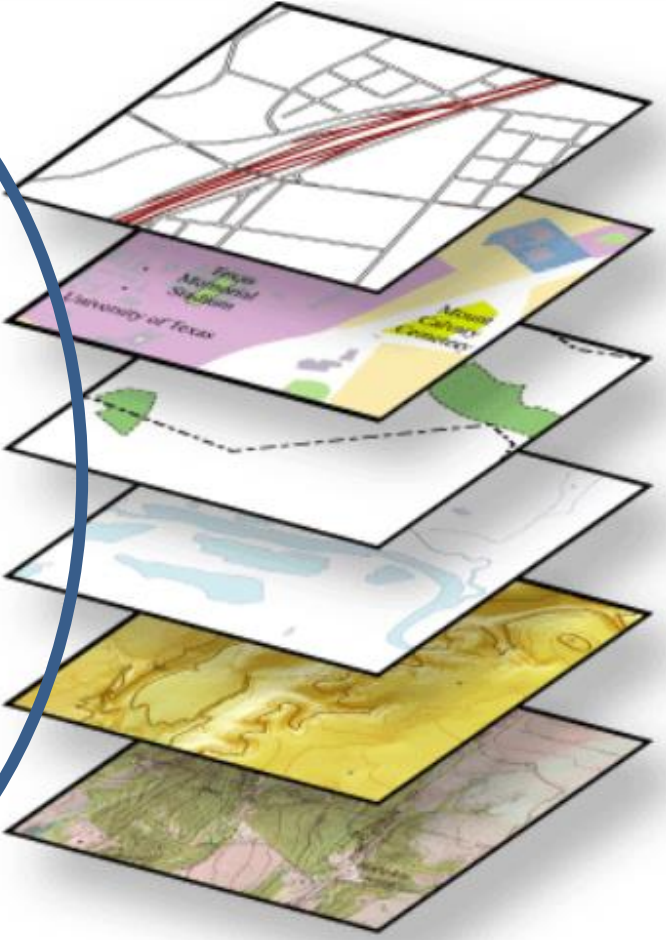
<b>3</b> <b>Bg</b> Business Glossary	<b>BUSINESS GLOSSARY</b> <ul style="list-style-type: none"><li>• Creation and management of enterprise business vocabulary</li><li>• Speaking the same language</li></ul>
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<b>6</b> <b>An</b> Analytics	<b>ANALYTICS</b> <ul style="list-style-type: none"><li>• Skills, processes, and tools to enable data-driven insights and decision making.</li></ul>
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# MGF Data Hub Framework Layers



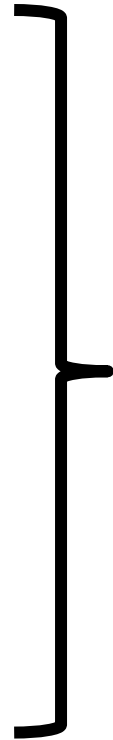
## Framework Data



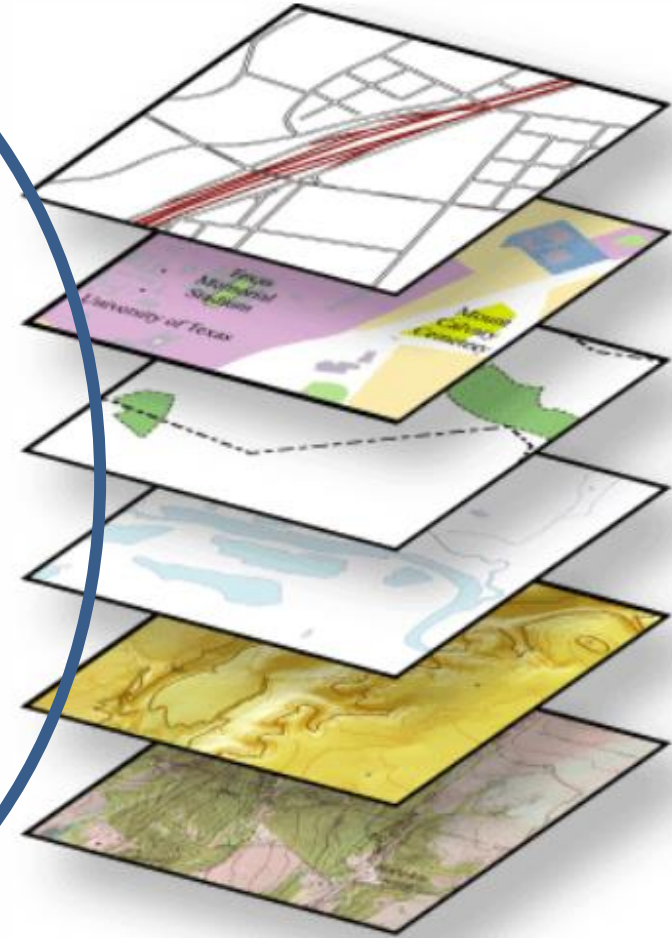
- Roads
- Parcels
- Address Pts
- Boundaries
- Hydrography
- Elevation
- Geodetic Control

**Authoritative Framework Data Contributors**

# MGF Data Hub GIS Data Layer Examples



## Location-Based Data



Hospitals

Fire Stations

Schools

Polling Stations

Voter Precincts

Wells

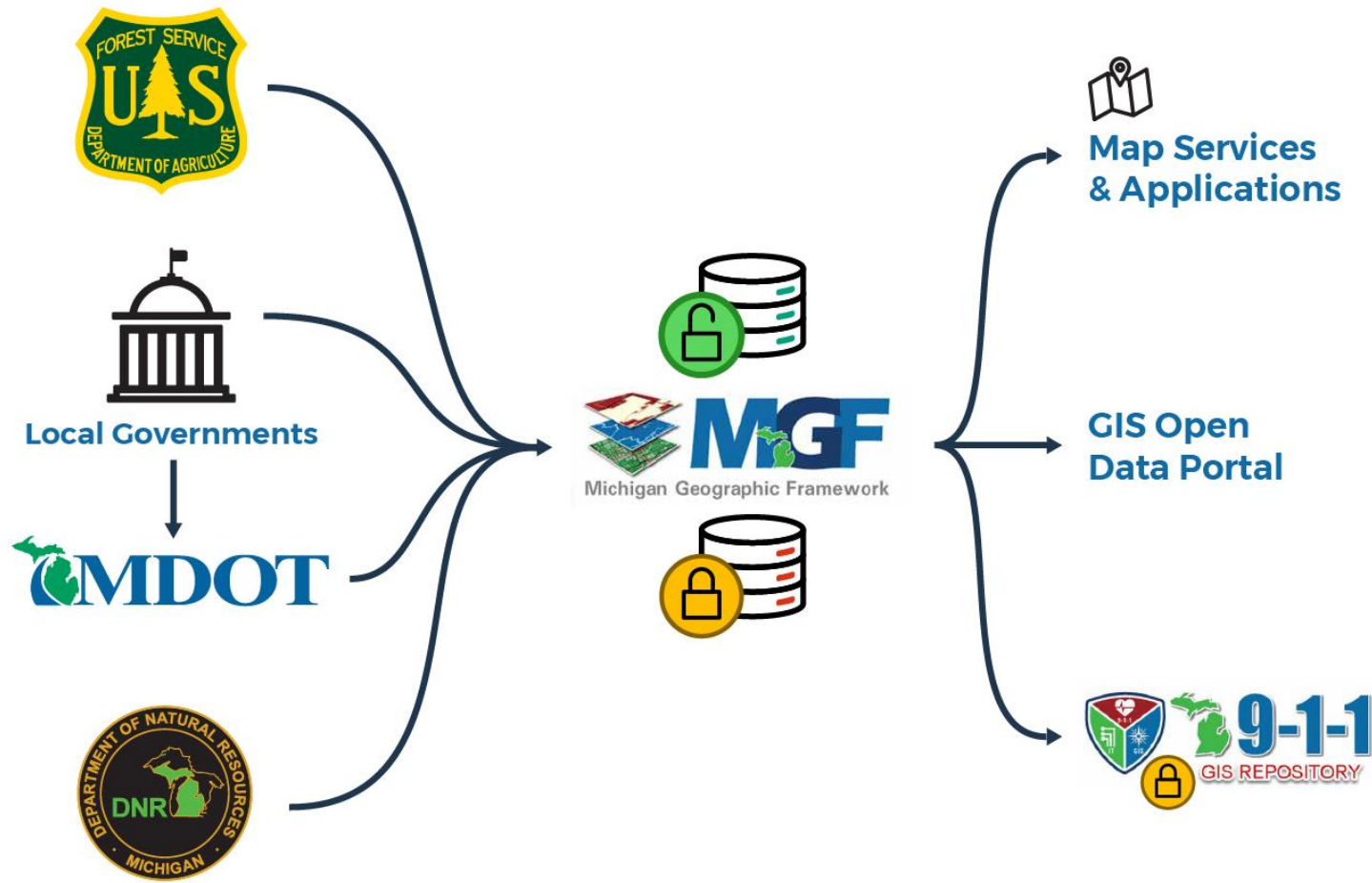
Trails

Child Care

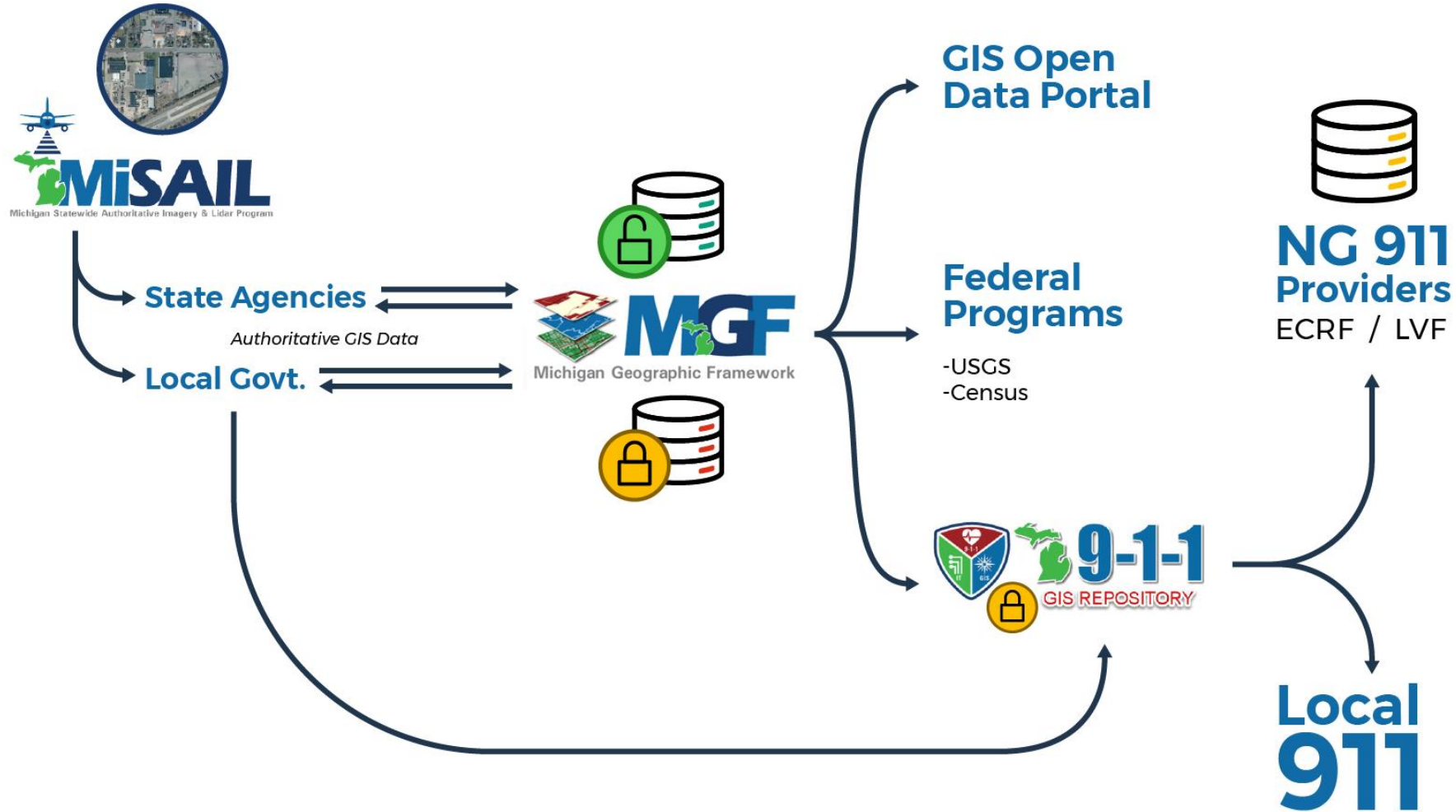
**Authoritative Framework  
Data Contributors**



# MGF Data Hub Road Centerline Data Flow




# GIS Coordination and Integration






# Statewide 911 GIS Repository Import


**My Assignments** 5

 Address Points - NENA 911 - Address Points - NENA 911 - Jackson County  
Jackson County

CURRENT SUBMISSION   MY SUBMISSIONS   INFORMATION   DASHBOARD

Upload Data   Configure Mapping   Process Submission   Submission Results

Data Set	File Type	Upload File
ADDRESS_NENA_Template	 Esri File Geodatabase (GDAL Reprojecting)	 Please upload a file Drop files here, or click to browse 

 Please upload input data.

**CANCEL**   **CONTINUE** ▶

# Statewide 911 GIS Repository Import

GLOBAL

SPECIFICATION

Start date...  
08/08/2021



End date...  
09/08/2021



Active Users  
3



Active Projects  
5



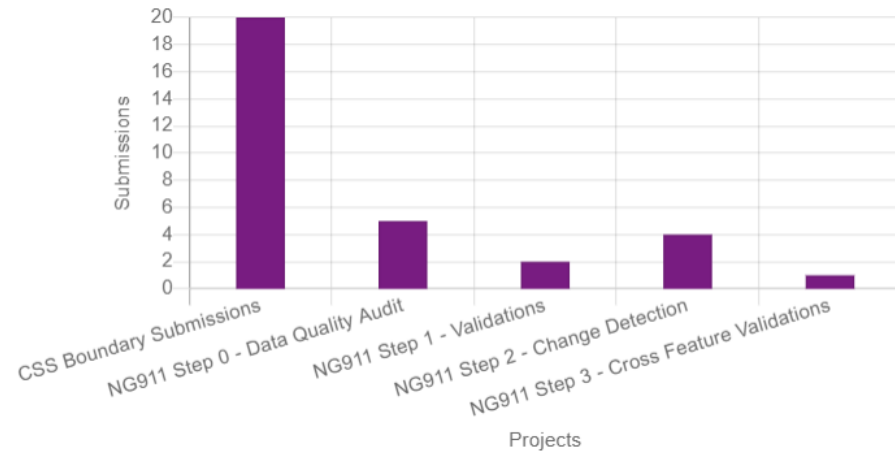
Active  
Assignments  
15



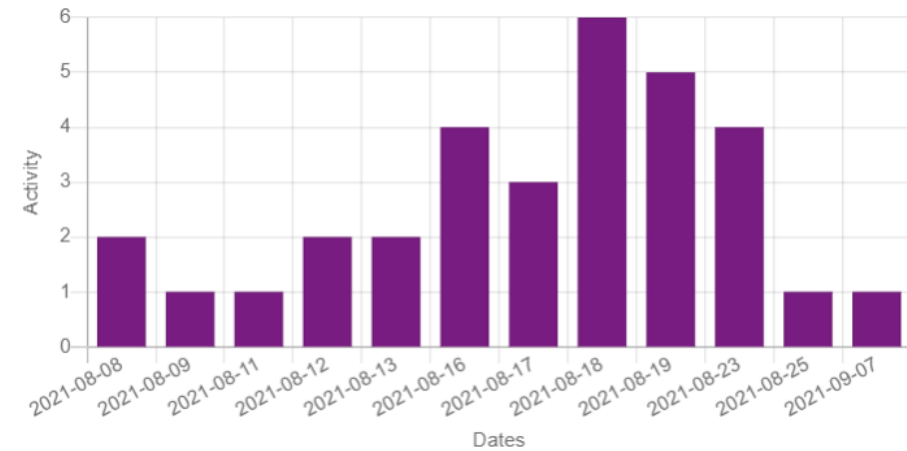
Submissions  
32



### Submissions per project



### Submissions per day





# Statewide 911 GIS Repository Download

## Download Data

- ... Download Selections
- Data Fields
- Terms and Conditions
- Confirmation

## Download Data

Follow the steps below to select which data you would like to download

### Layer Selection

- Road Centerlines
- Site Structure Points
- PSAP Boundaries
- Emergency Service Zones

### Selected Regions

Select Regions by List

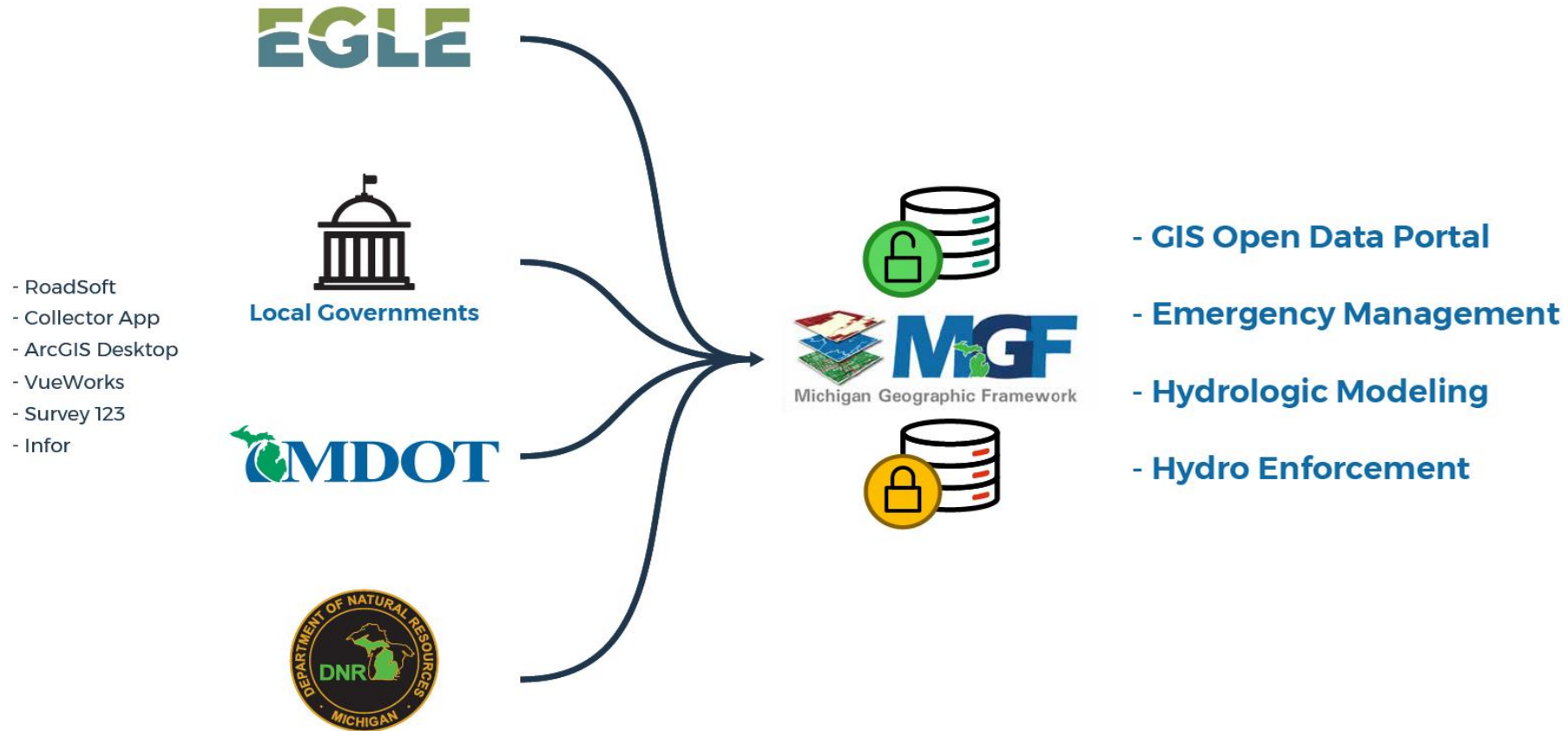
Select Regions by Map

You must select one or more regions to continue.

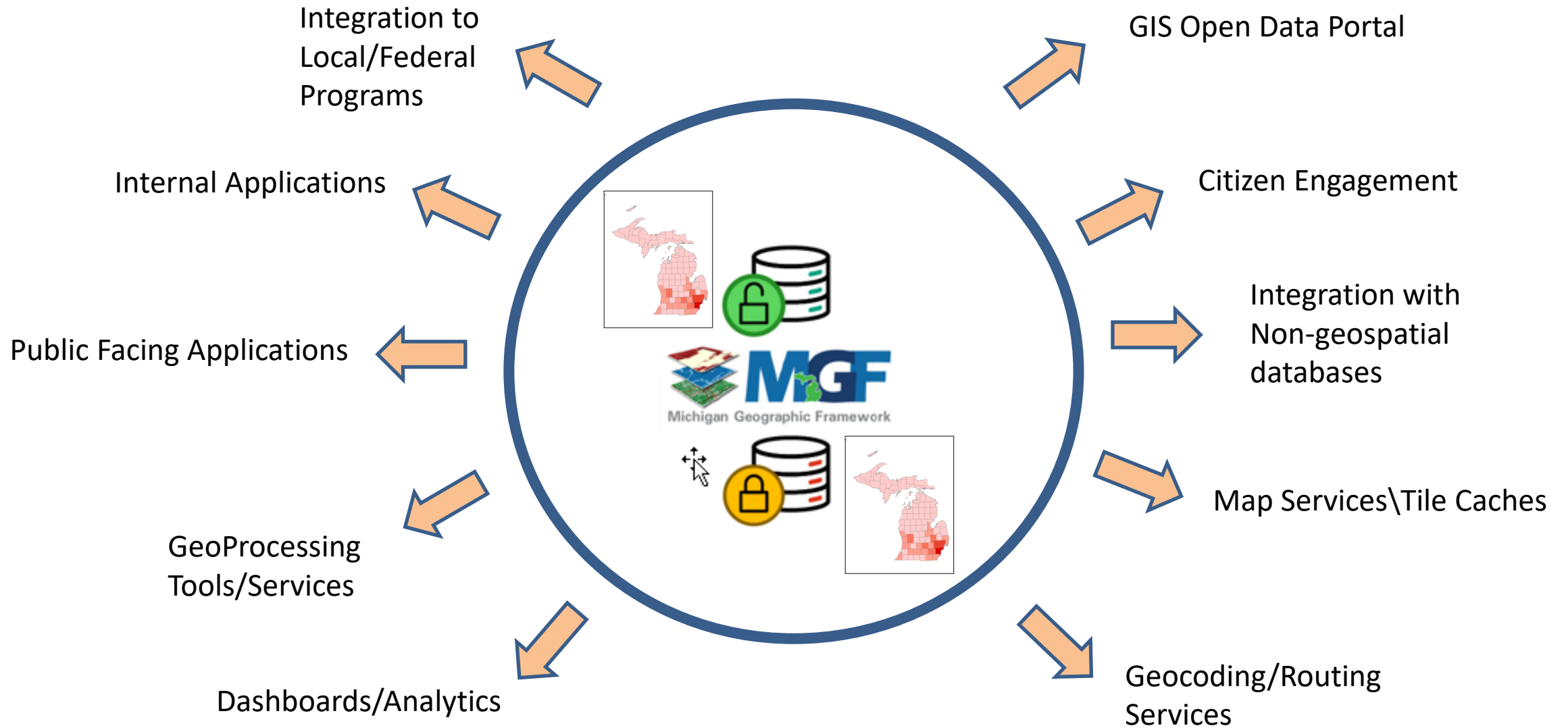
### Select a Projection

WGS\_1984\_Web\_Mercator

# MGF Geospatial Data Hub Culverts Data Flow and Use Cases

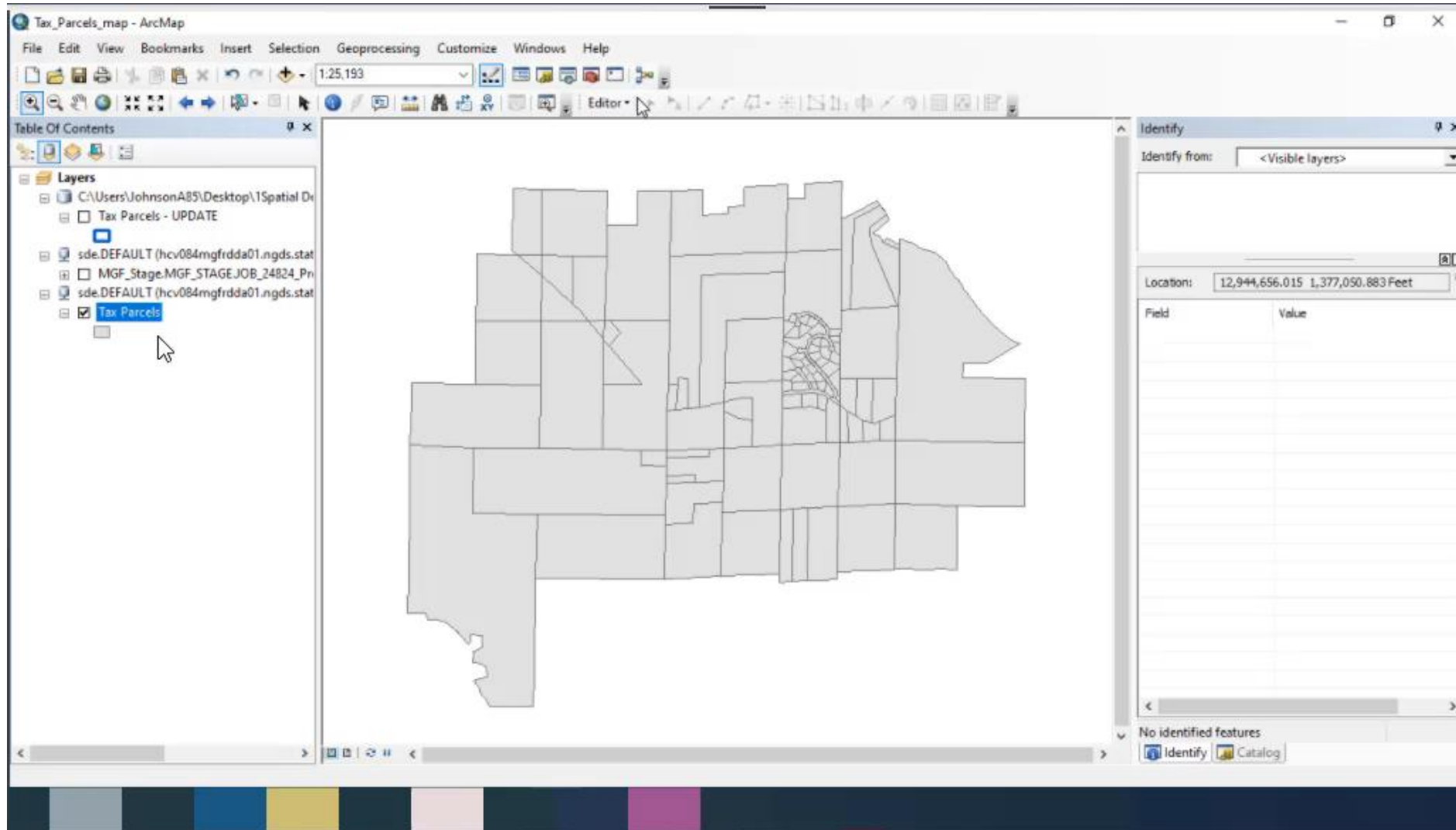


# MGF Geospatial Data Hub





# Demonstration



# Mentimeter Post-Presentation Poll Questions

- Further Discussion Topics to Rank
  - How Michigan creates and maintains data sharing agreements?
  - How Michigan keeps their SDI secured?
  - How Michigan manages data governance throughout the system
- Others?



The voting code: **6769 7512**

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THANKS!  
Questions?

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