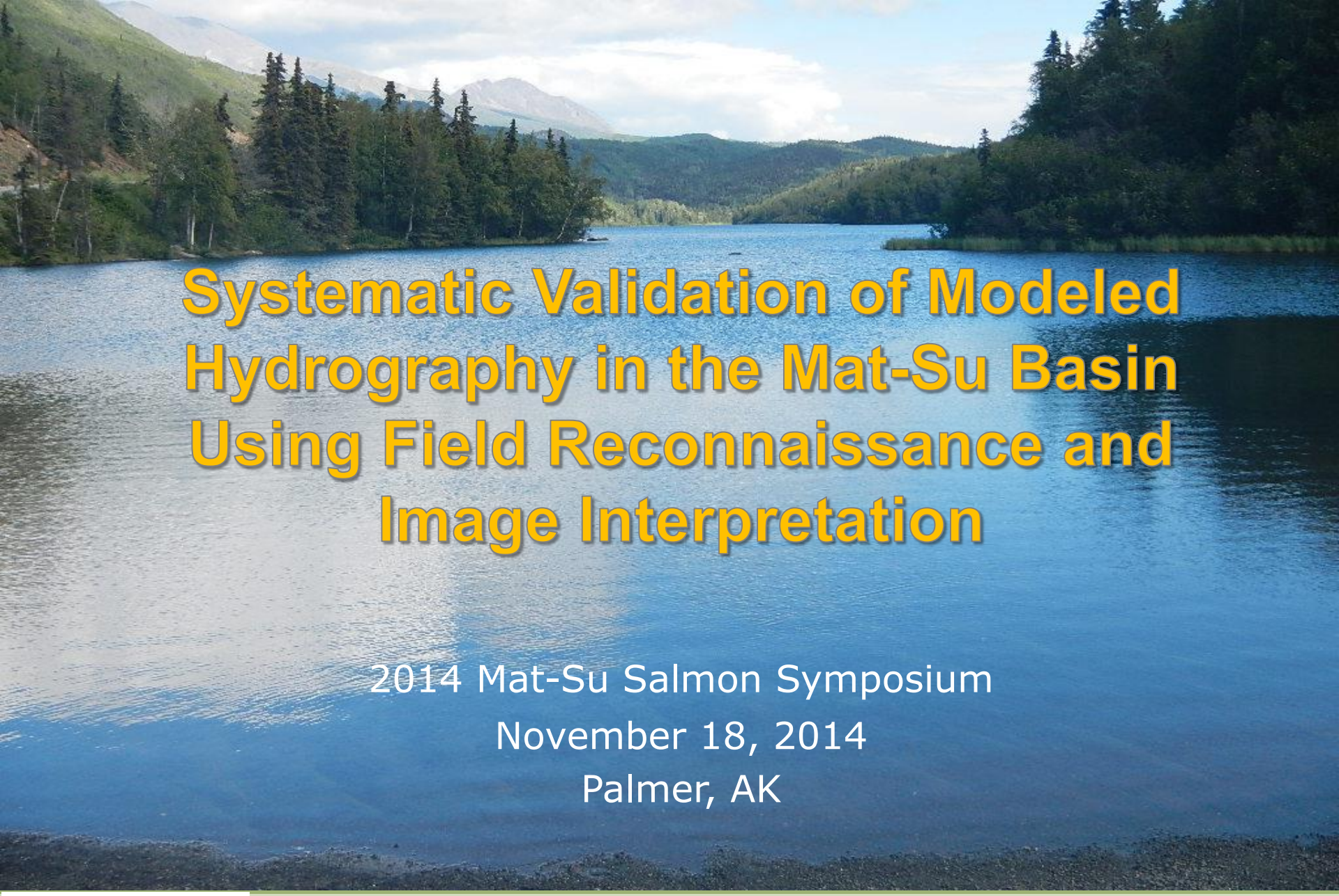


Systematic Validation of Modeled Hydrography in the Mat-Su Basin Using Field Reconnaissance and Image Interpretation

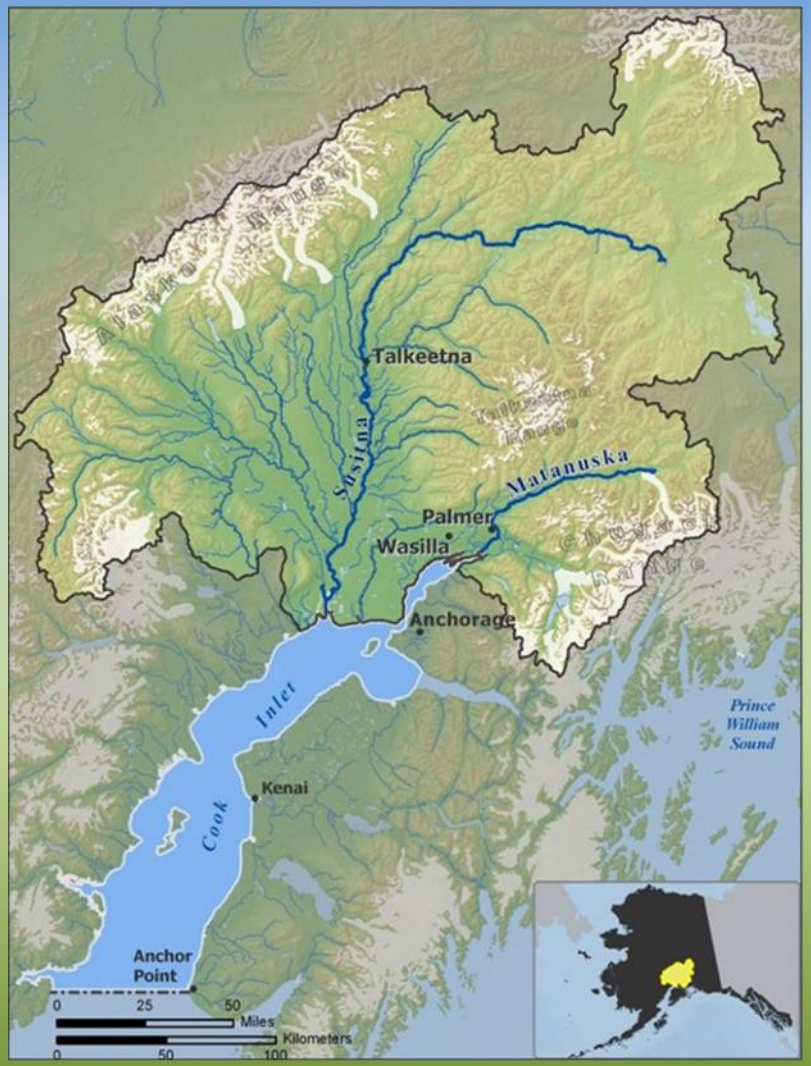
2014 Mat-Su Salmon Symposium

November 18, 2014

Palmer, AK

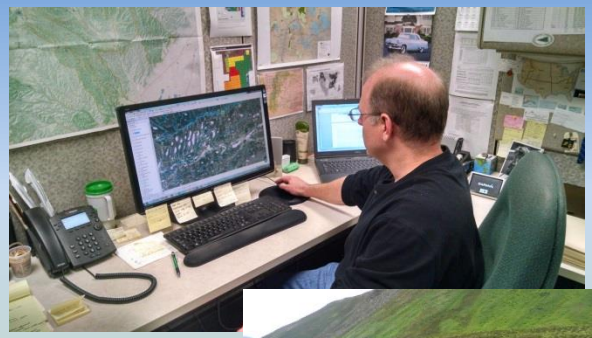
GeoSpatialServices
Saint Mary's University
OF MINNESOTA

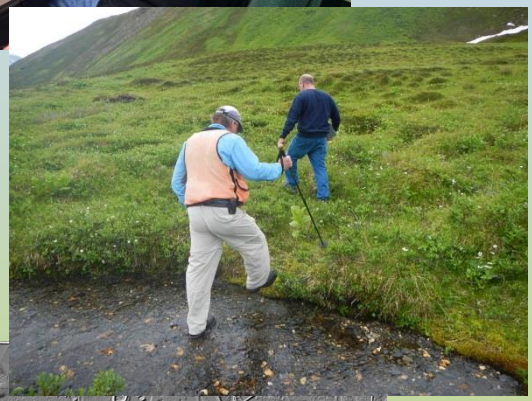
Introduction

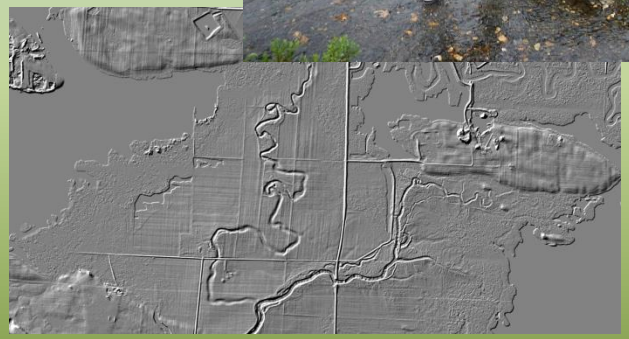


- Availability of high resolution elevation and imagery data has made a basin-wide hydrography update possible
- Mat-Su LiDAR, SDMI SPOT and IfSAR, Gracz and NWI wetlands, modeled flow lines, 2D breaklines
- AK Hydro and NHD data standards, stewardship initiatives, tools and techniques

Introduction



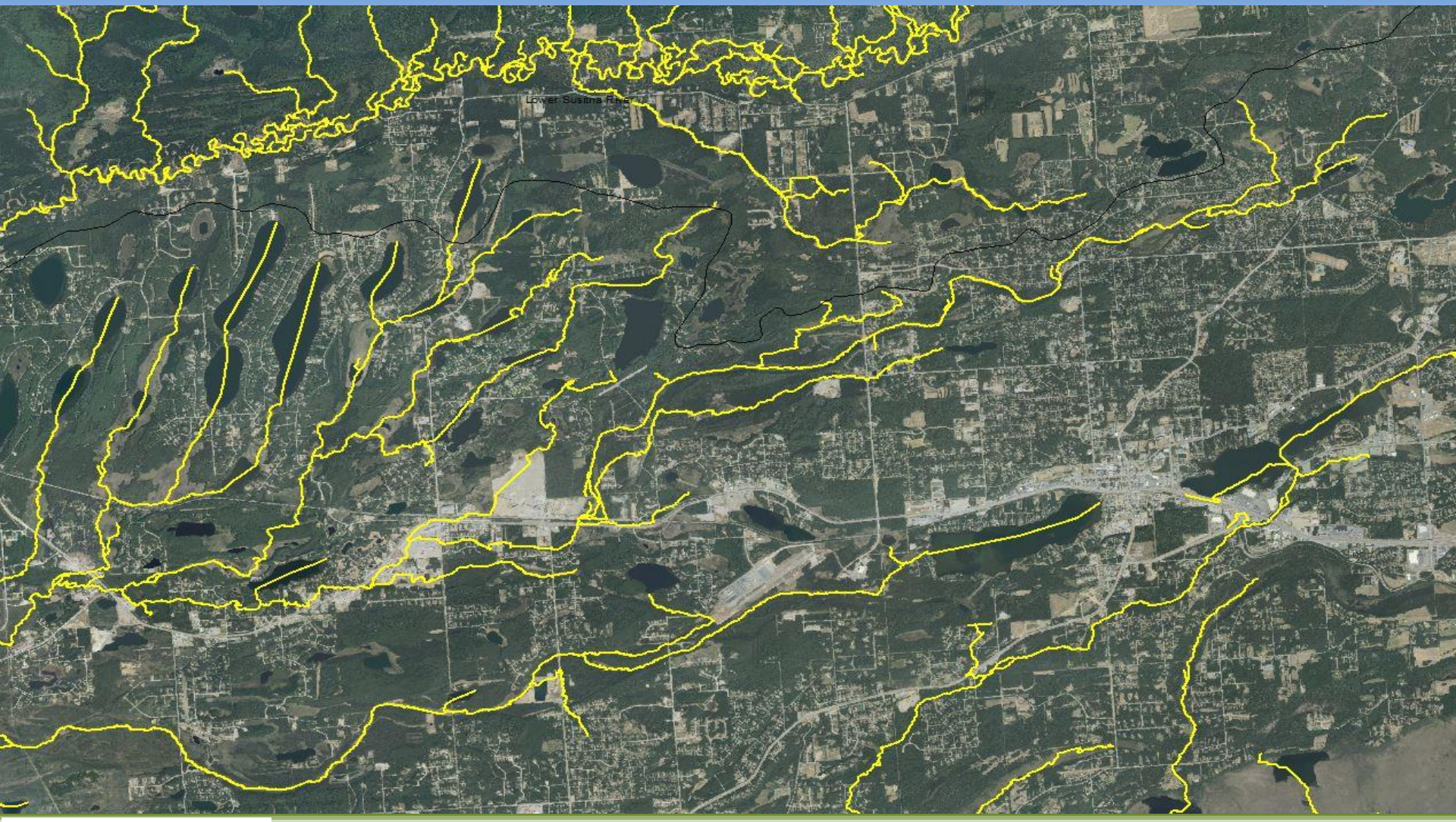




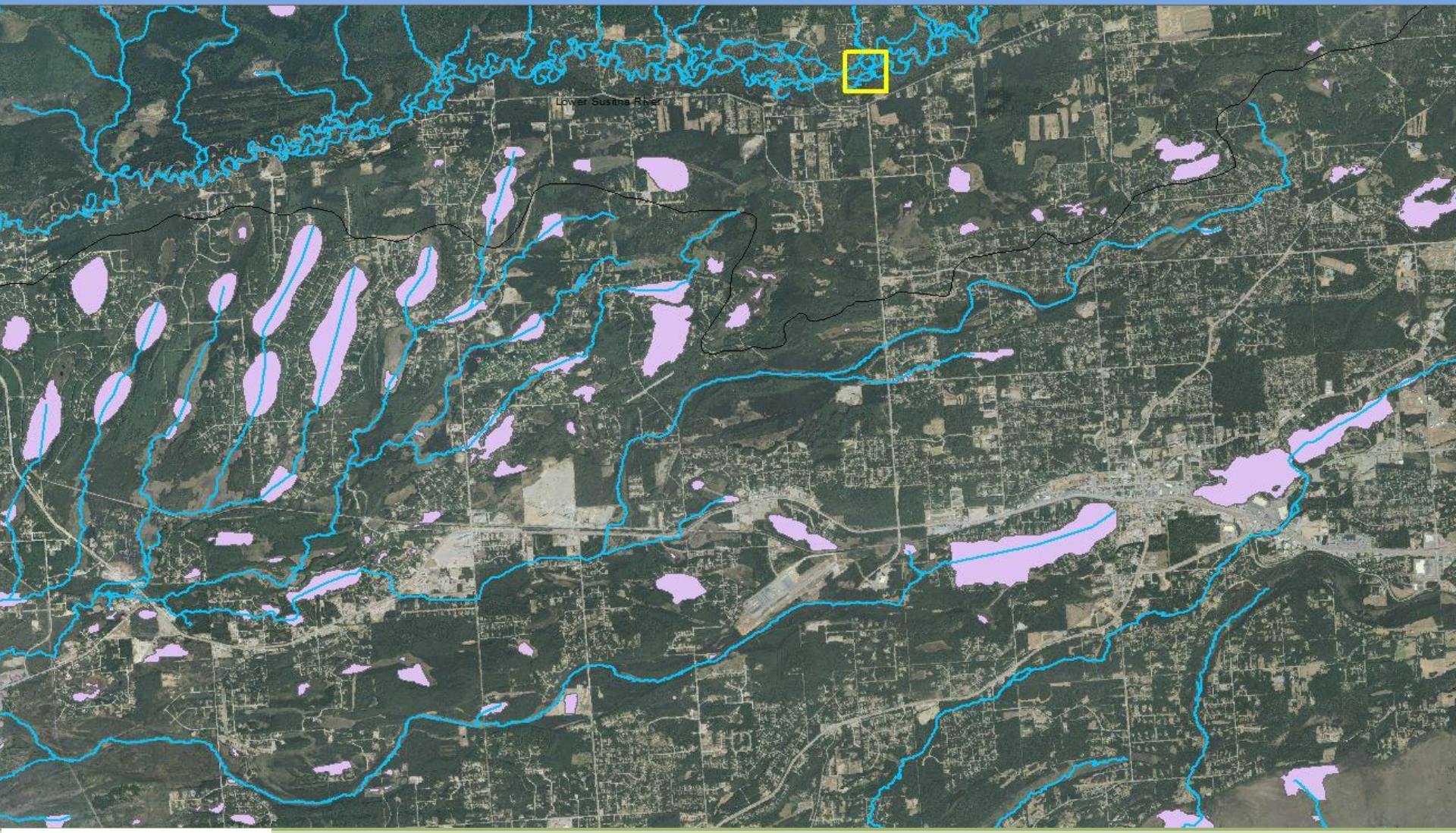
Hydrography Validation

- Independent photogrammetric review of modeled streams
- Incorporate reconnaissance level fieldwork to verify ground conditions
- Utilize collateral spatial databases to verify stream location and flow paths
- Once validated stream network will be conflated to the USGS NHD from AK Hydro

Starting Point



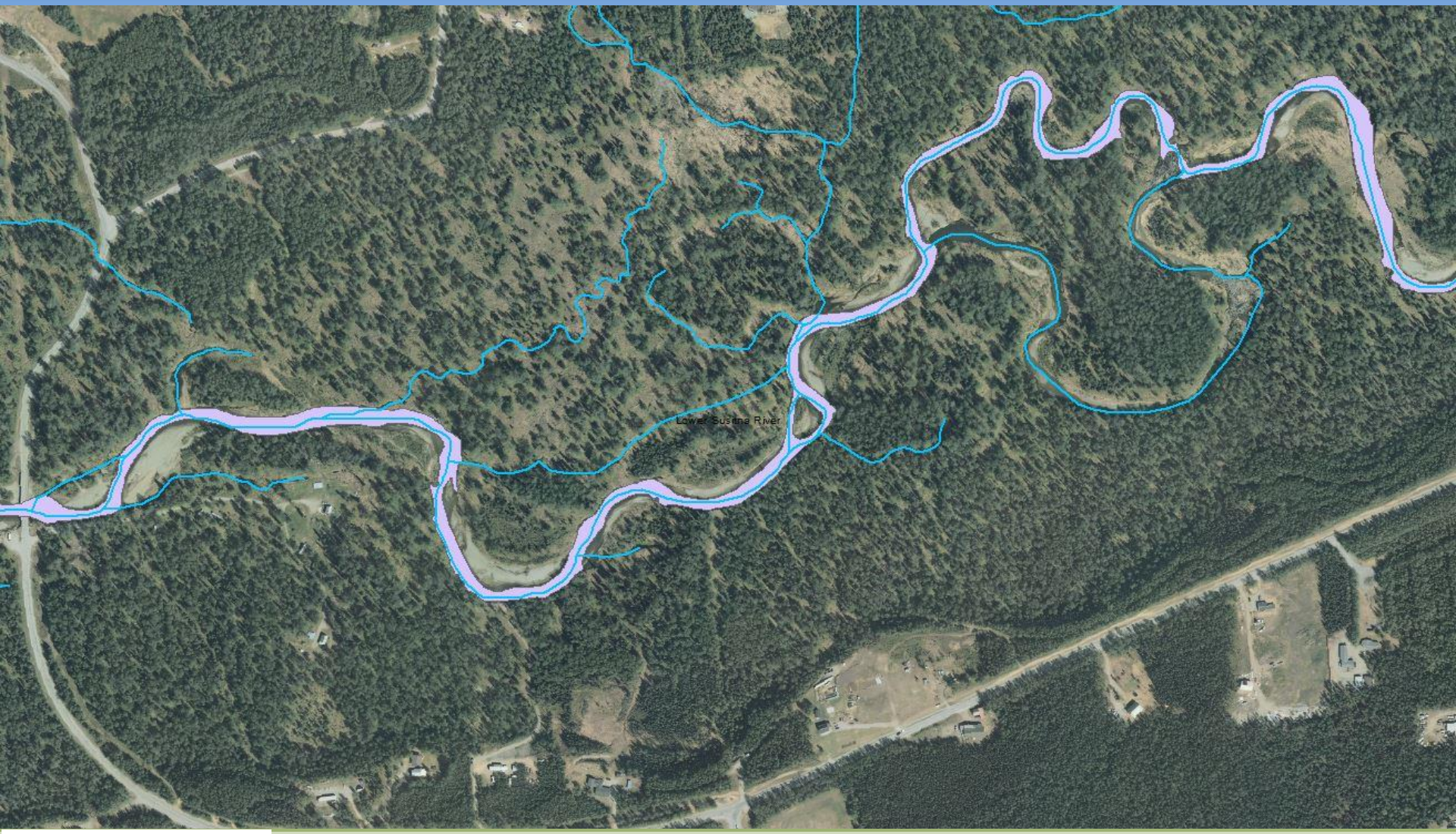
Final Edits



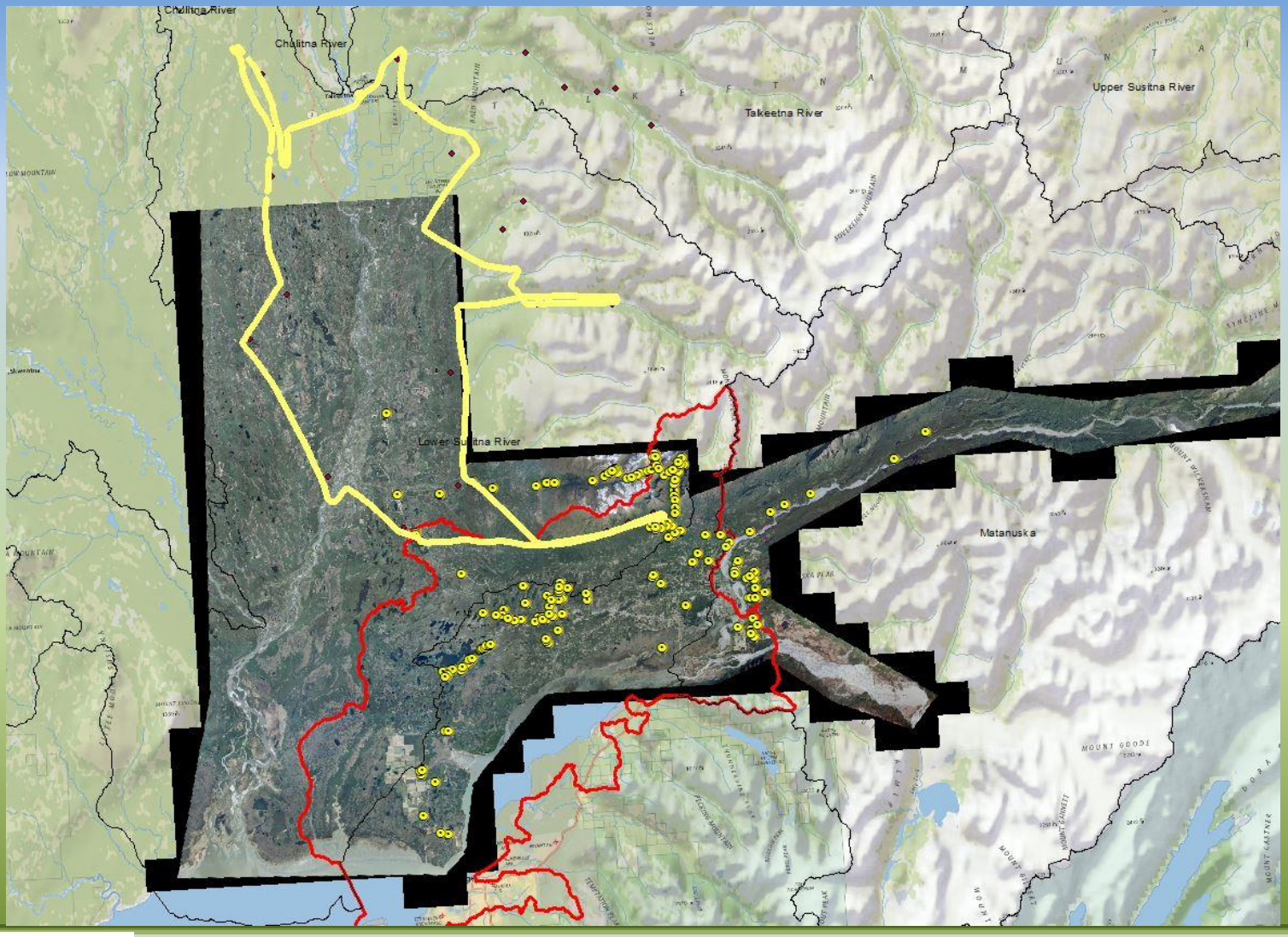
GeoSpatialServices

Saint Mary's University OF MINNESOTA

Level of Detail



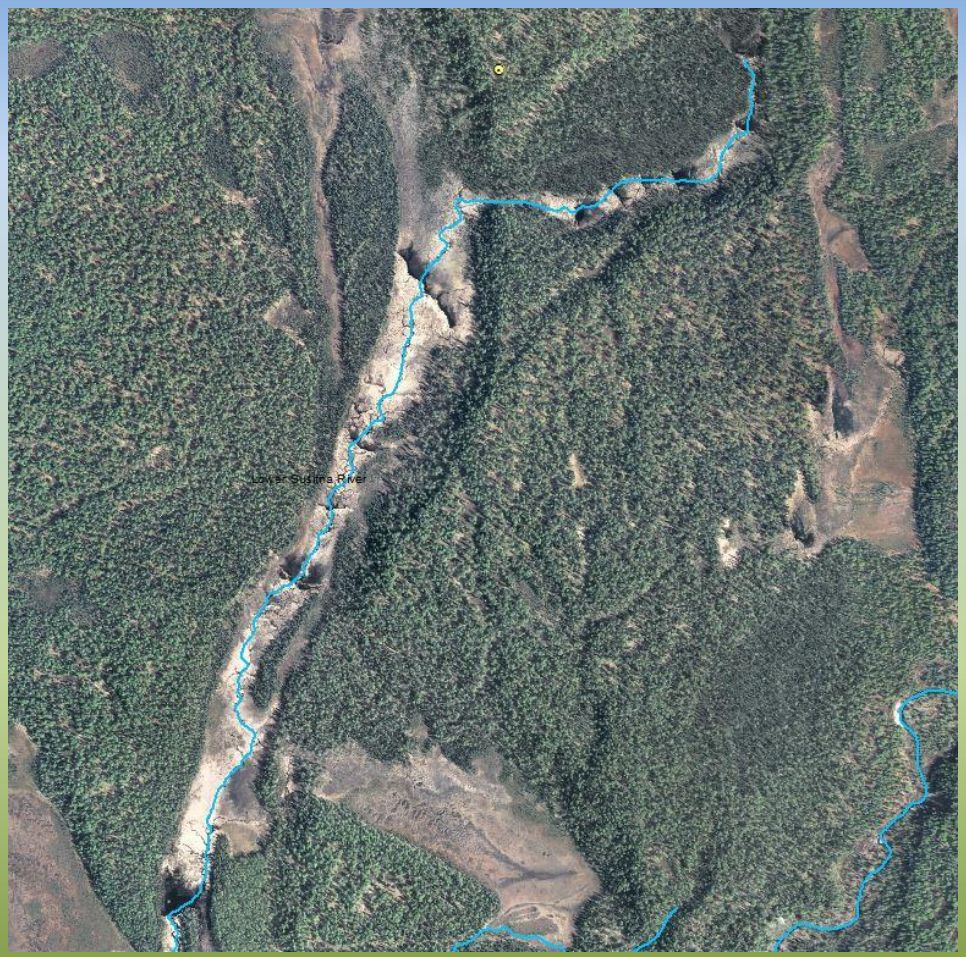
Field Reconnaissance



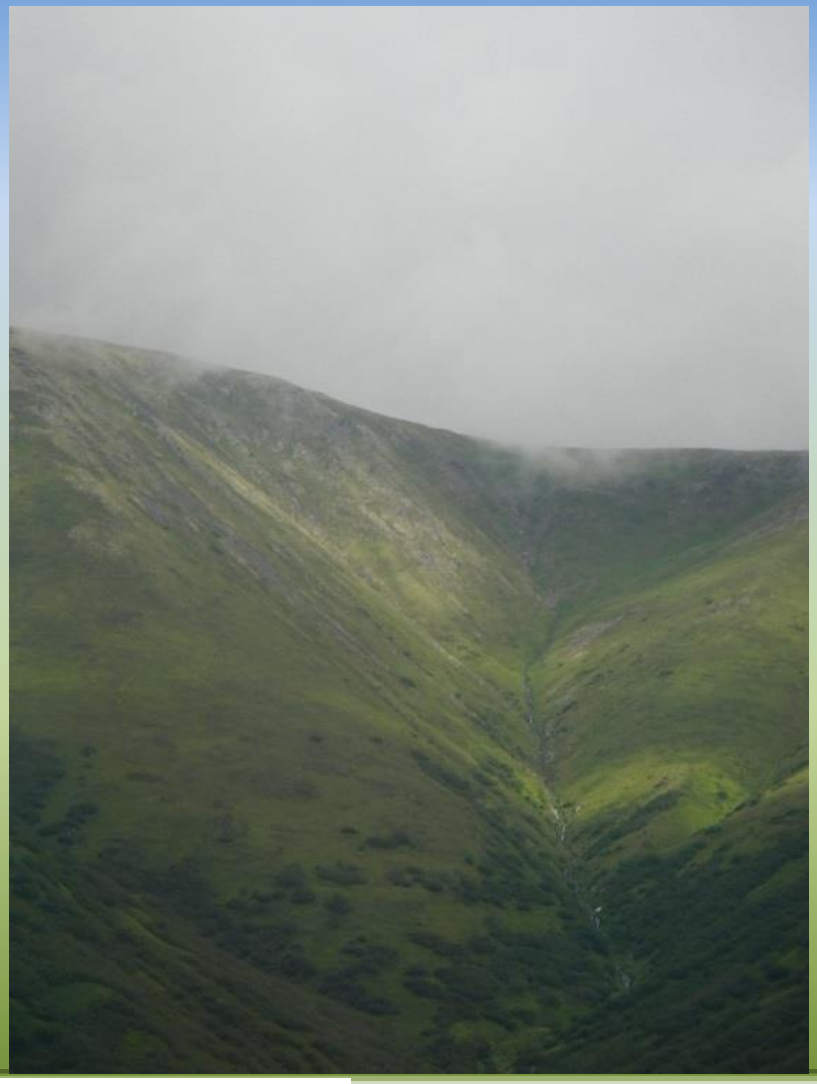
GeoSpatialServices

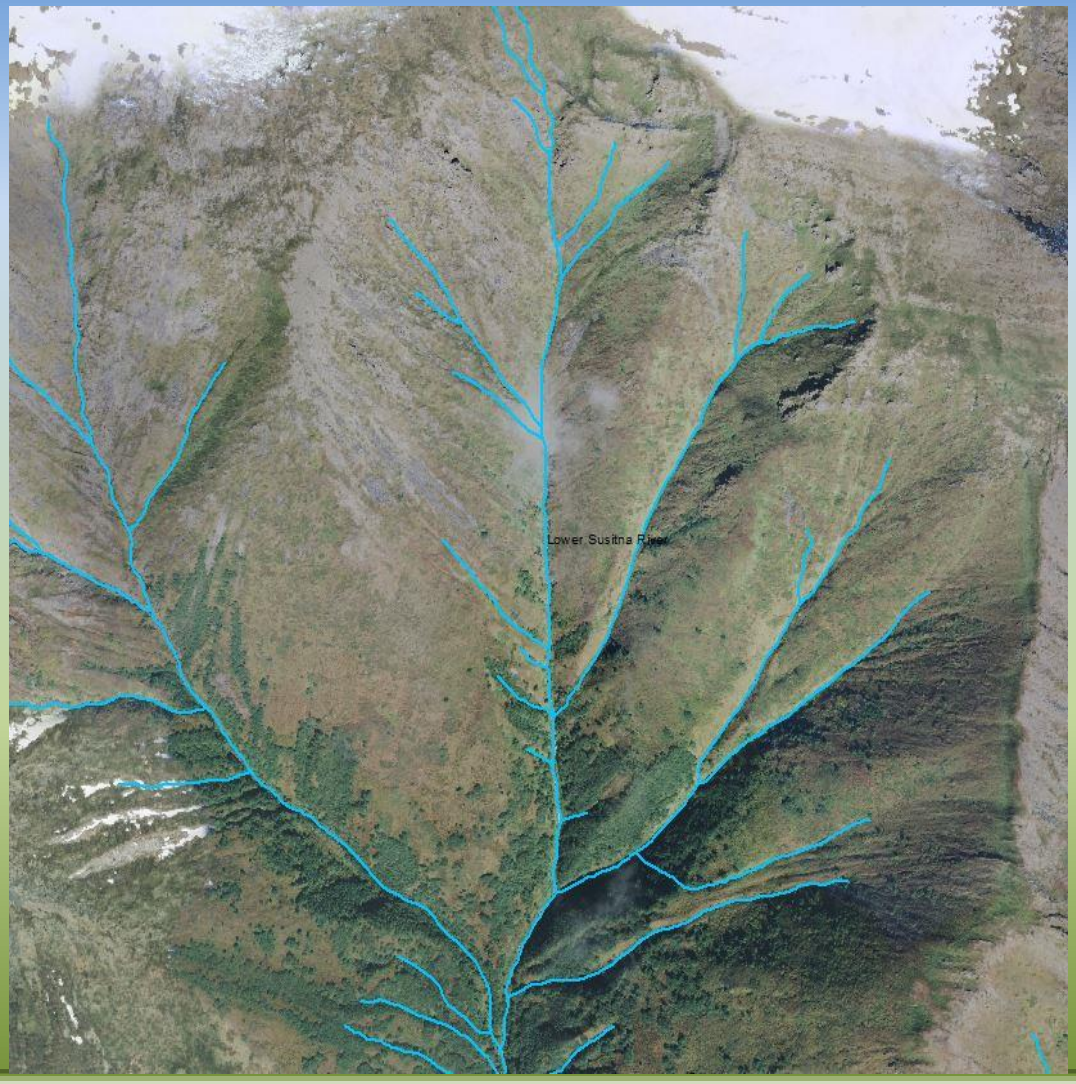
Saint Mary's University OF MINNESOTA

Field Reconnaissance



Field Reconnaissance





Field Reconnaissance

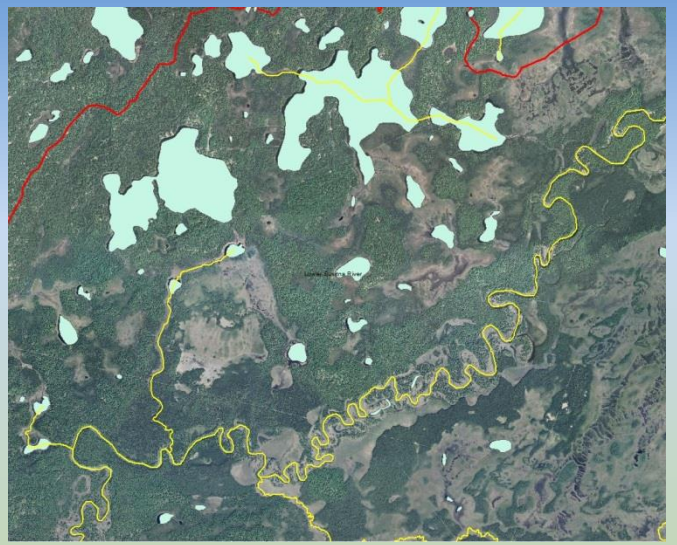




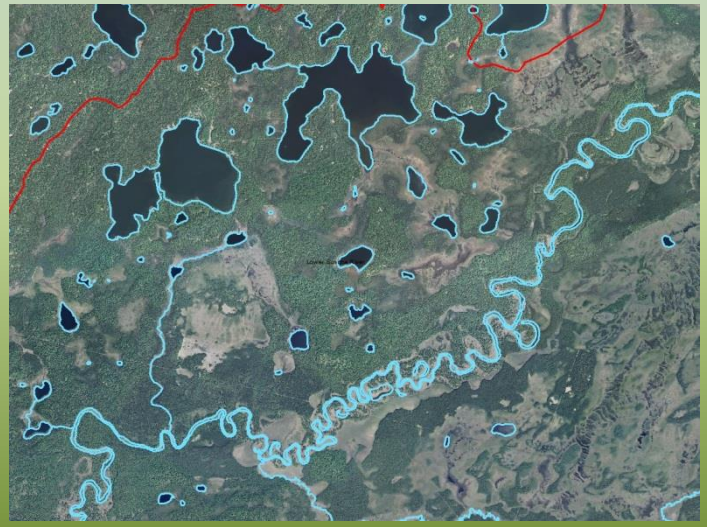

Collateral Data

AWC

NHD



MSB



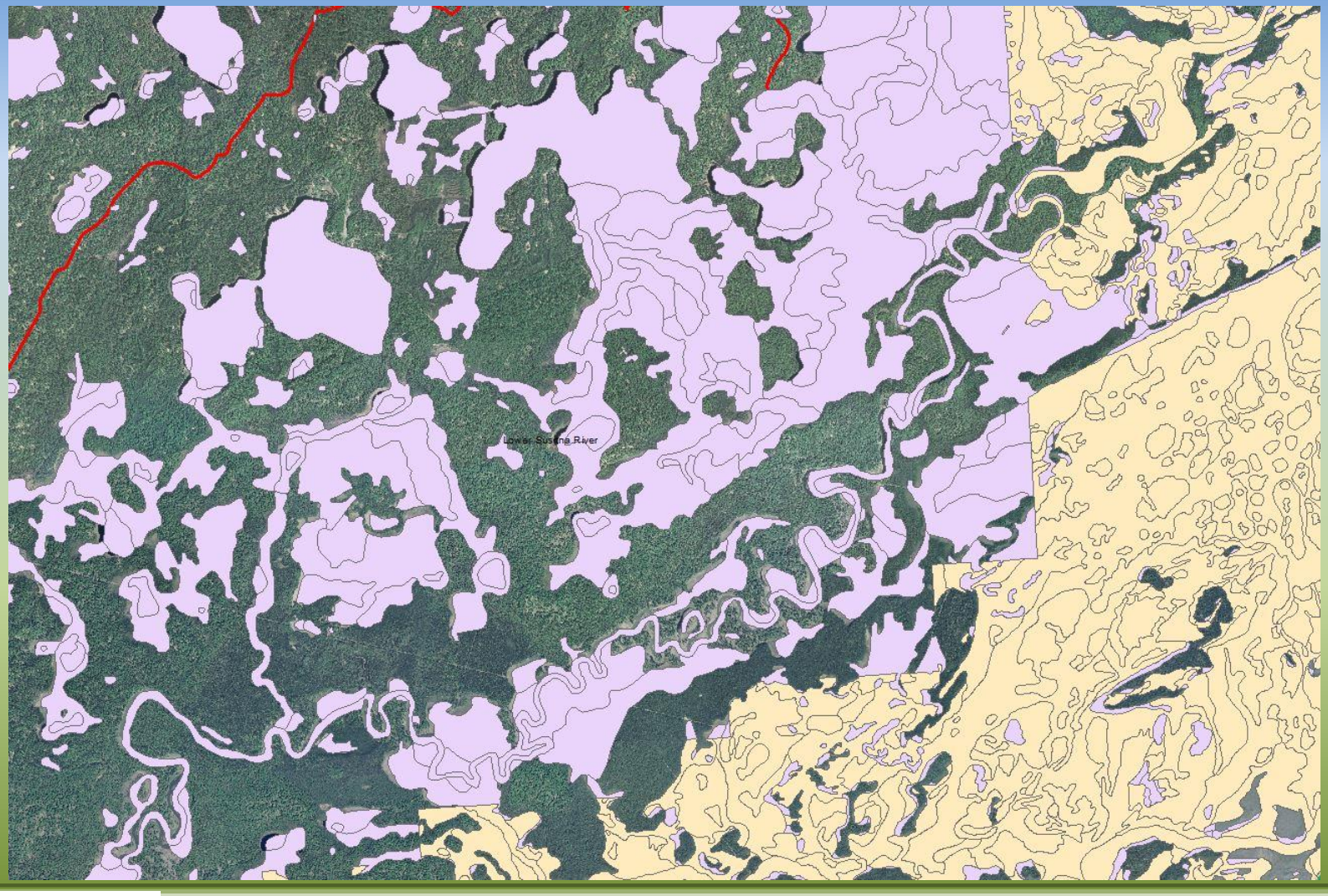
New

Collateral Data

GeoSpatialServices
Saint Mary's University
OF MINNESOTA

Elevation Surfaces

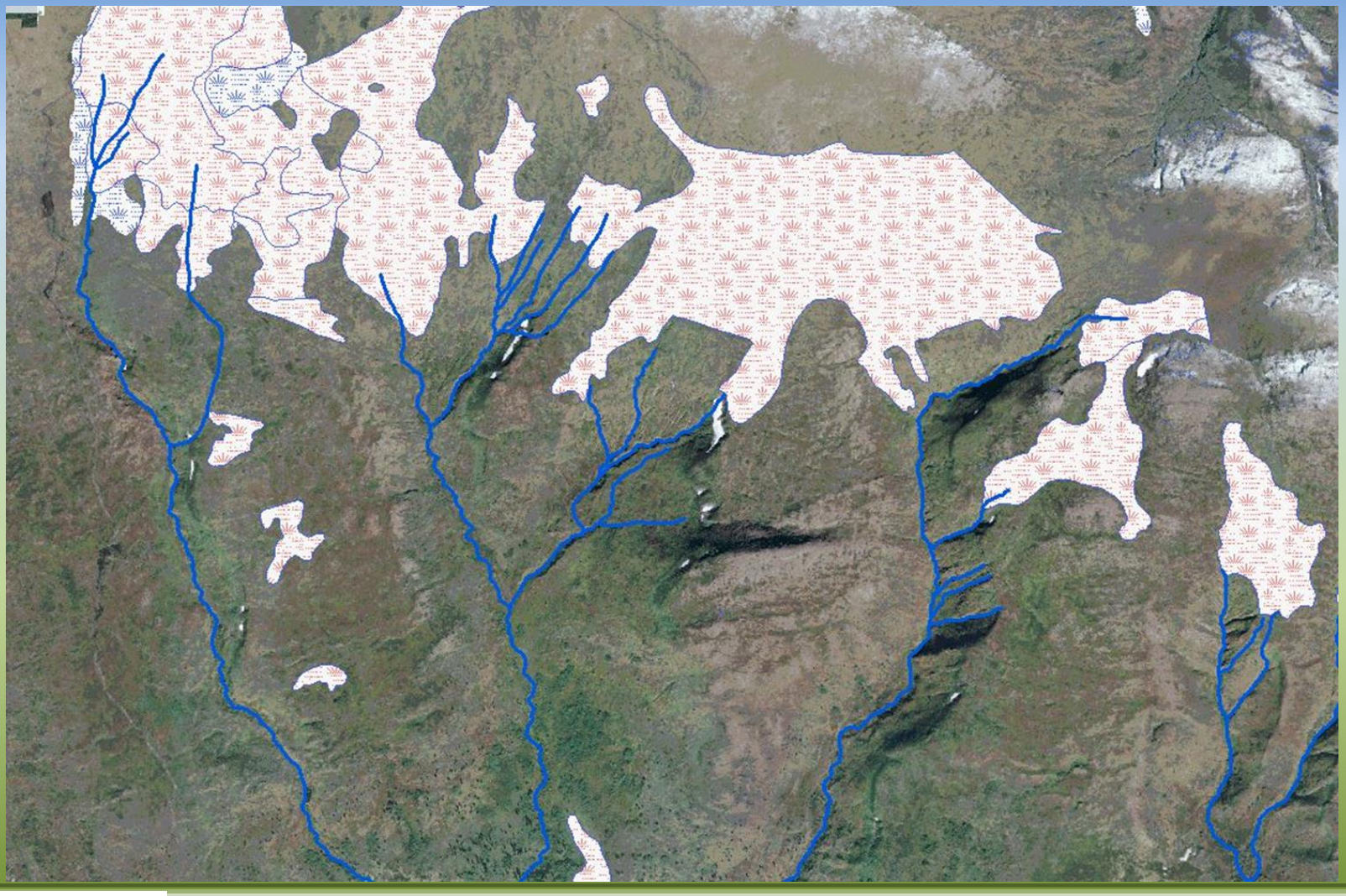
Collateral Data



GeoSpatialServices
Saint Mary's University
OF MINNESOTA

Wetlands

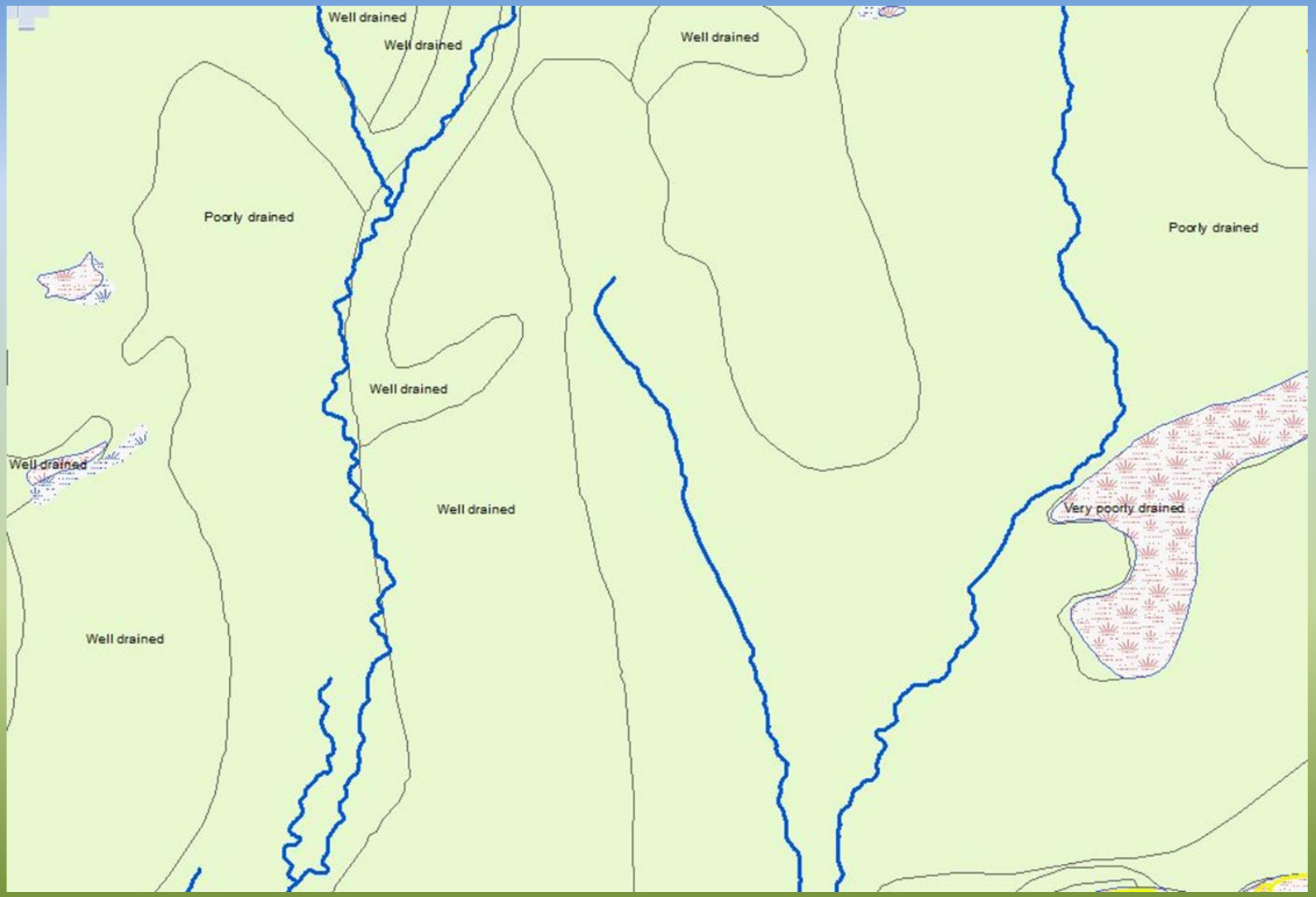
Collateral Data



GeoSpatialServices
Saint Mary's University
OF MINNESOTA

Wetlands

Collateral Data



GeoSpatialServices
Saint Mary's University
OF MINNESOTA

Soils Data

Challenges

GeoSpatialServices
Saint Mary's University
OF MINNESOTA

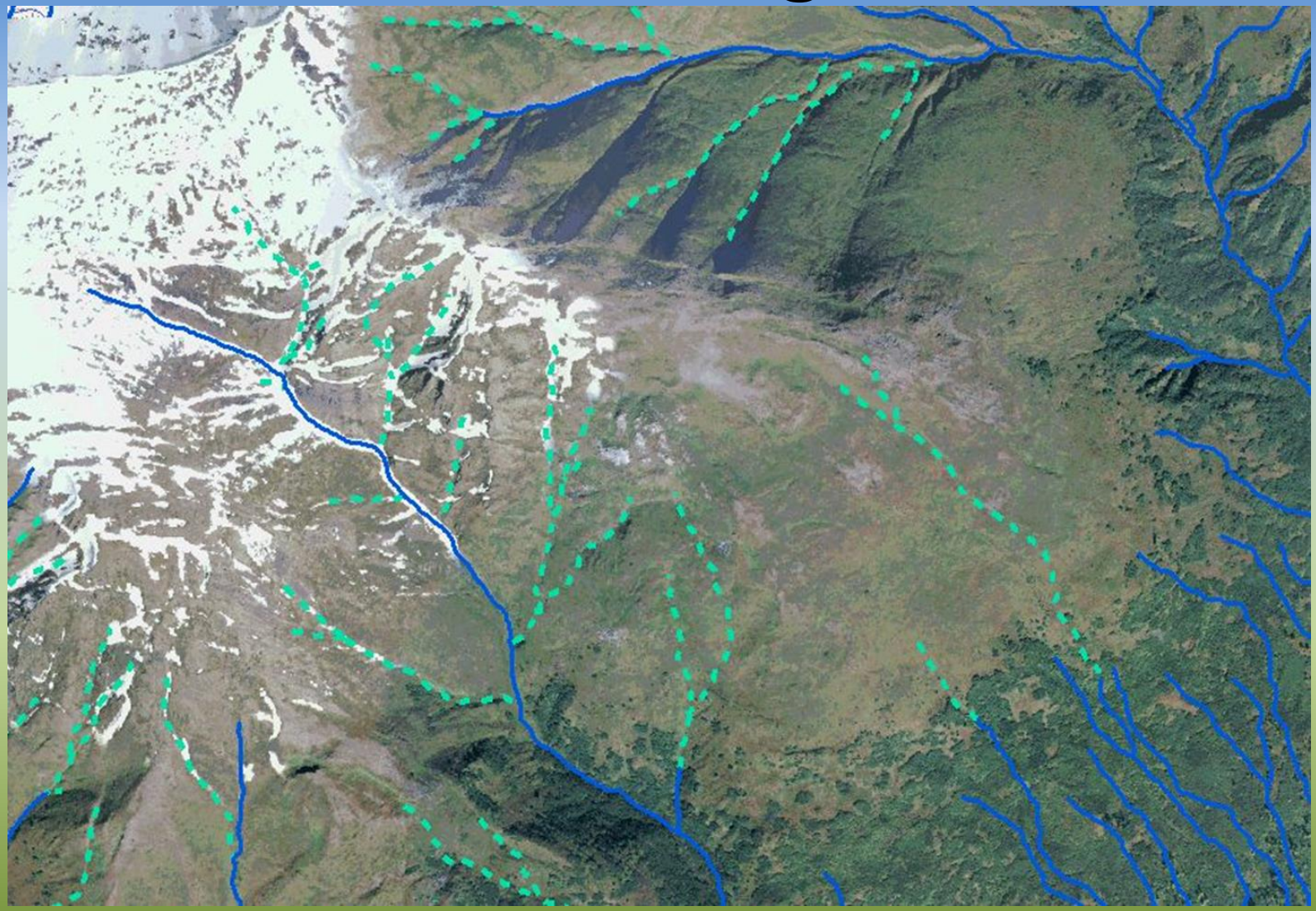
Data Cleanup

Challenges

GeoSpatialServices
Saint Mary's University OF MINNESOTA

Data Cleanup

Challenges

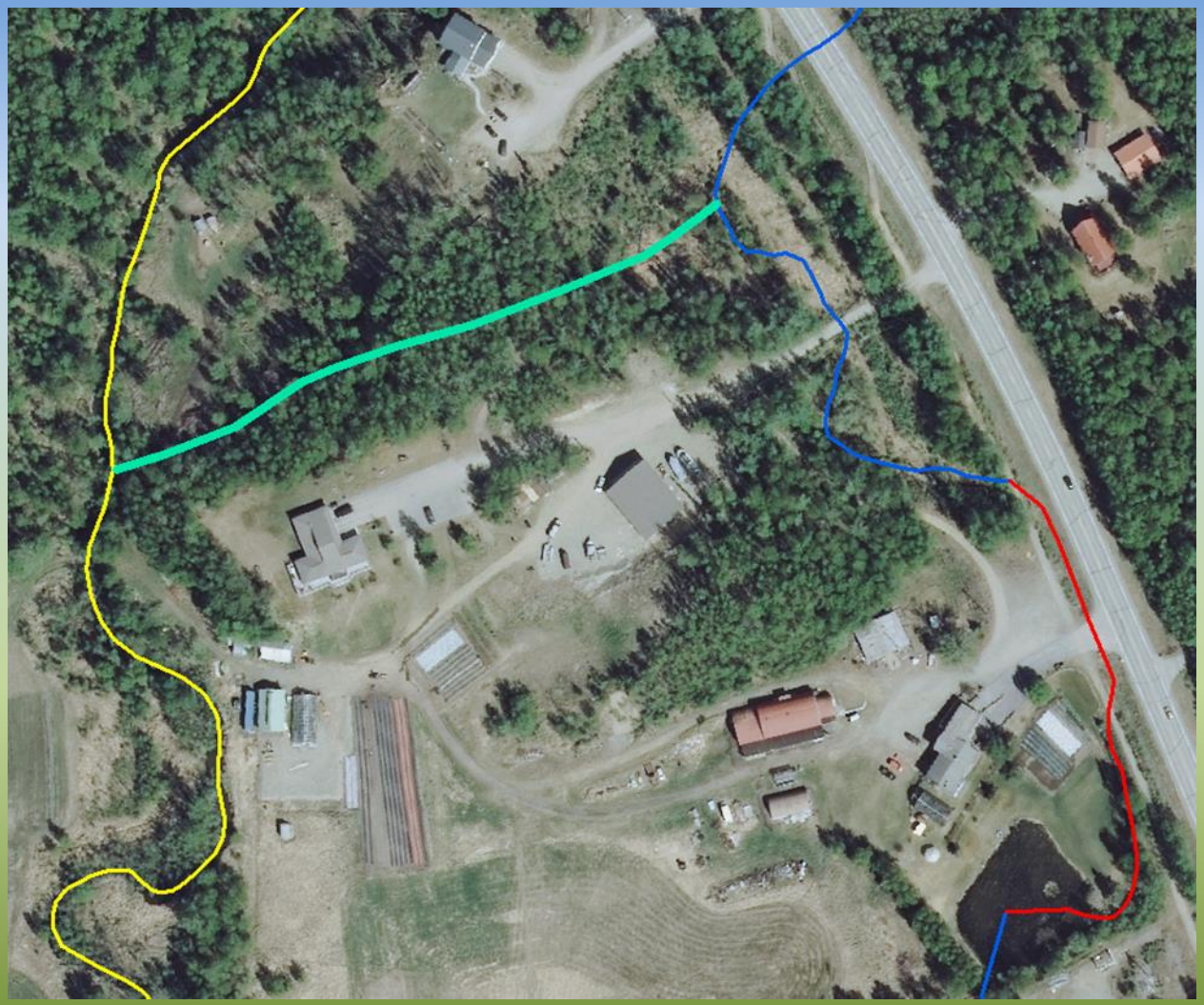


Challenges

GeoSpatialServices
Saint Mary's University OF MINNESOTA

Disconnected Streams

Challenges



GeoSpatialServices
Saint Mary's University OF MINNESOTA

Disconnected Streams

Challenges

GeoSpatialServices
Saint Mary's University OF MINNESOTA

Disconnected Streams

Challenges

GeoSpatialServices
Saint Mary's University OF MINNESOTA

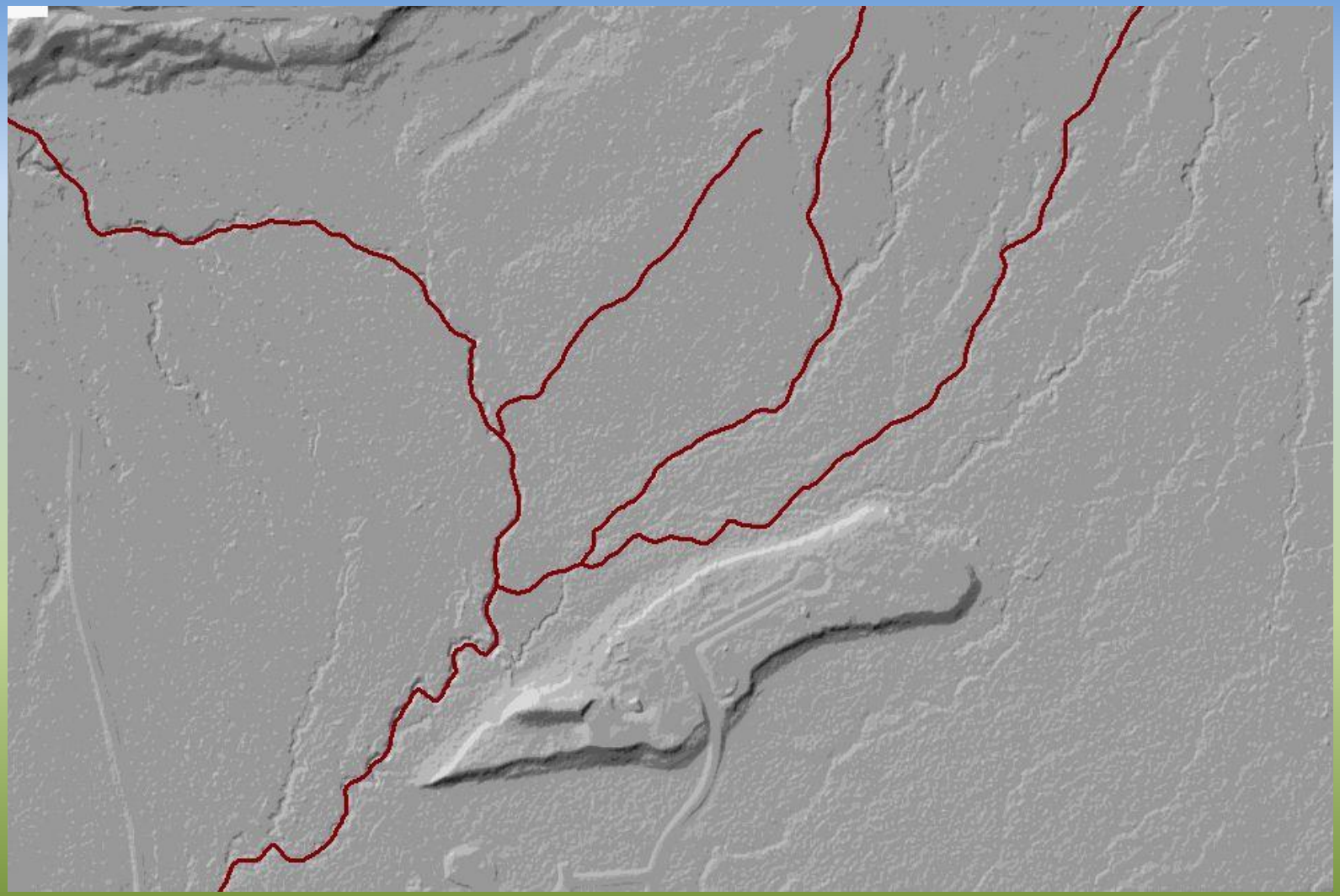
Wetland Connections

Challenges

GeoSpatialServices
Saint Mary's University
OF MINNESOTA

Disturbance Looks Channels

Example



Example

Example

Example

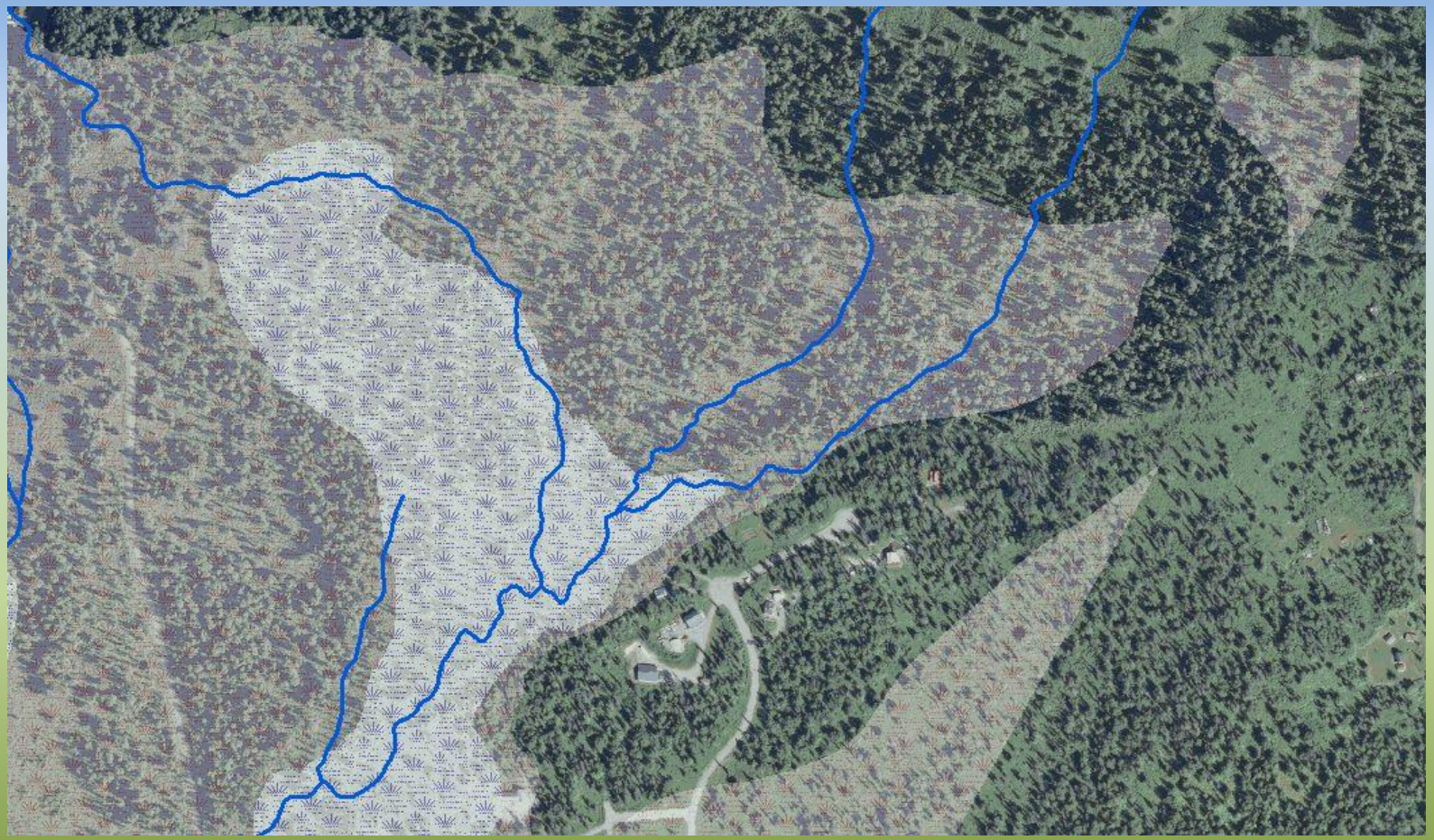
Example

Example

Example

Example

Example



Example

Questions?

Andy Robertson
Associate Director
GeoSpatial Services
Saint Mary's University of Minnesota
aroberts@smumn.edu
507-457-8746