Web GIS Project: Montana Water Usage

Erik Neemann
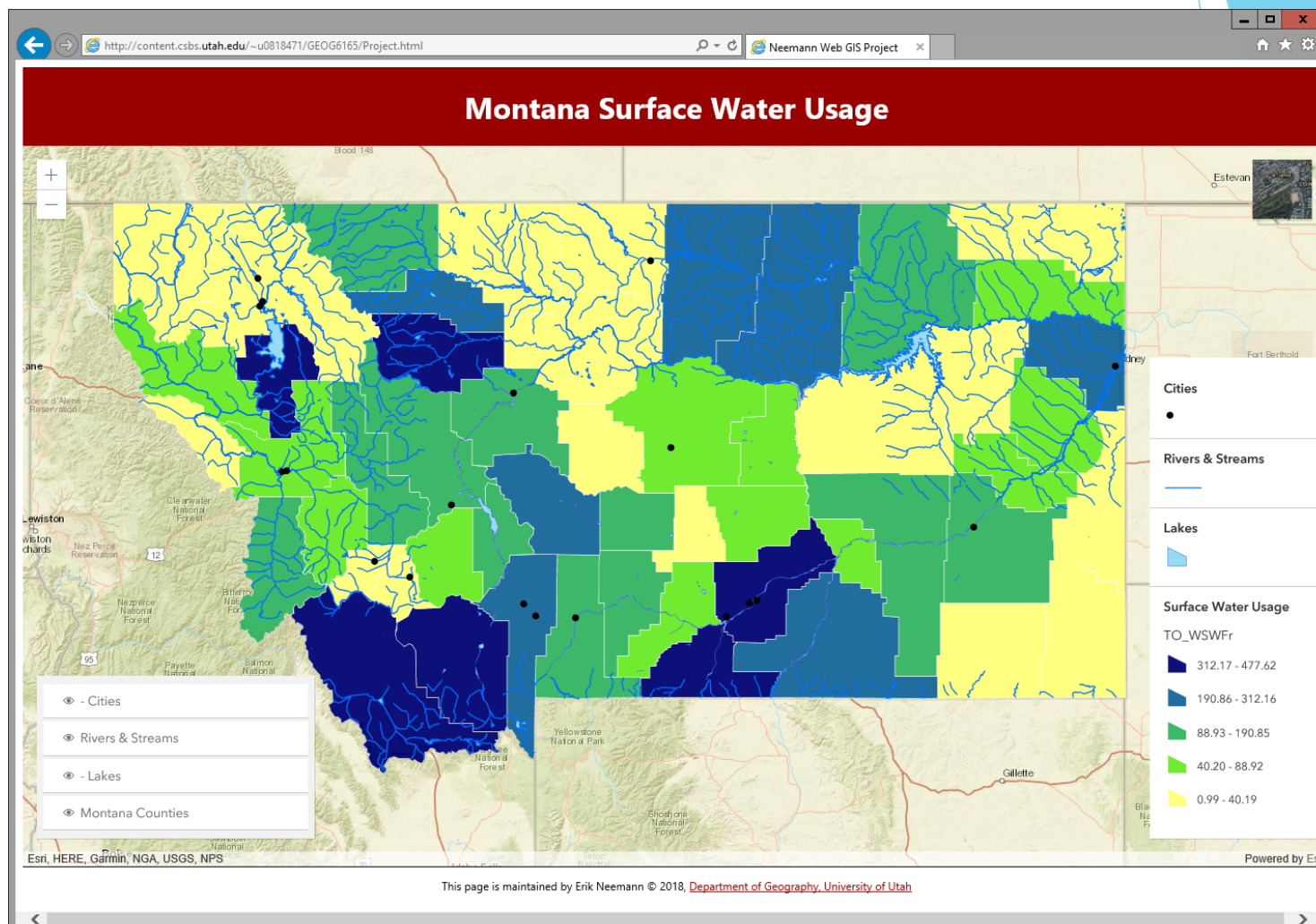
18 Apr 2018

Overview

- Geographic Area
- Service Types and Functionality
- Implementation Challenges
- Lessons Learned
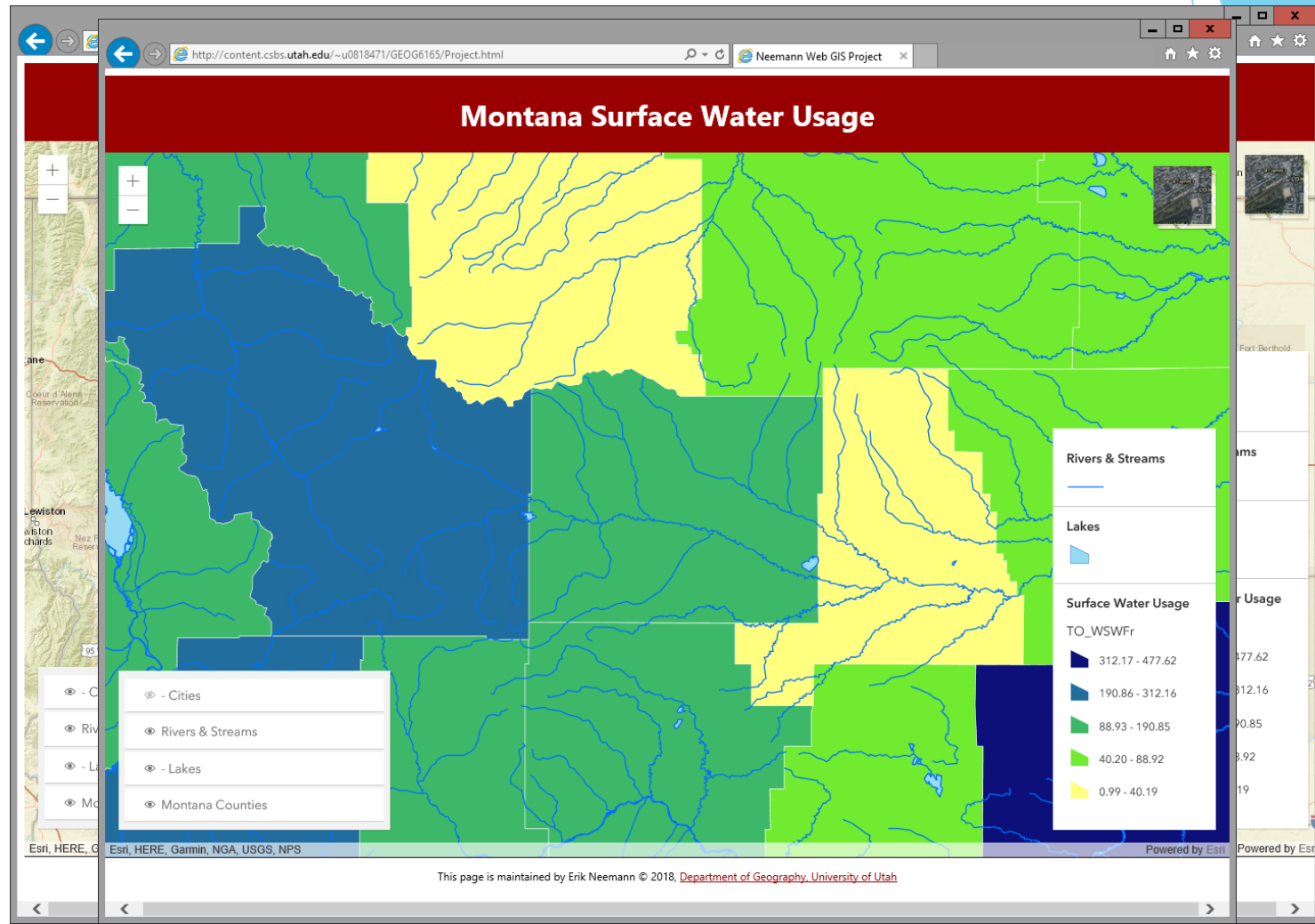
Geographic Area

▶ Encompasses the state of Montana

▶ County boundaries outlined within the state
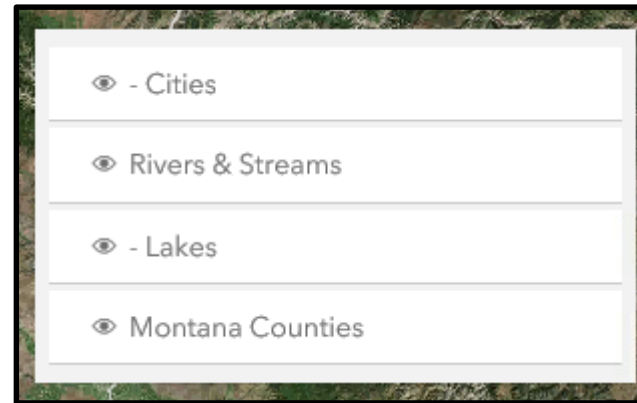
▶ Zoom-in/out to desired level

Geographic Area

▶ Encompasses the state of Montana

▶ County boundaries outlined within the state

▶ Zoom-in/out to desired level

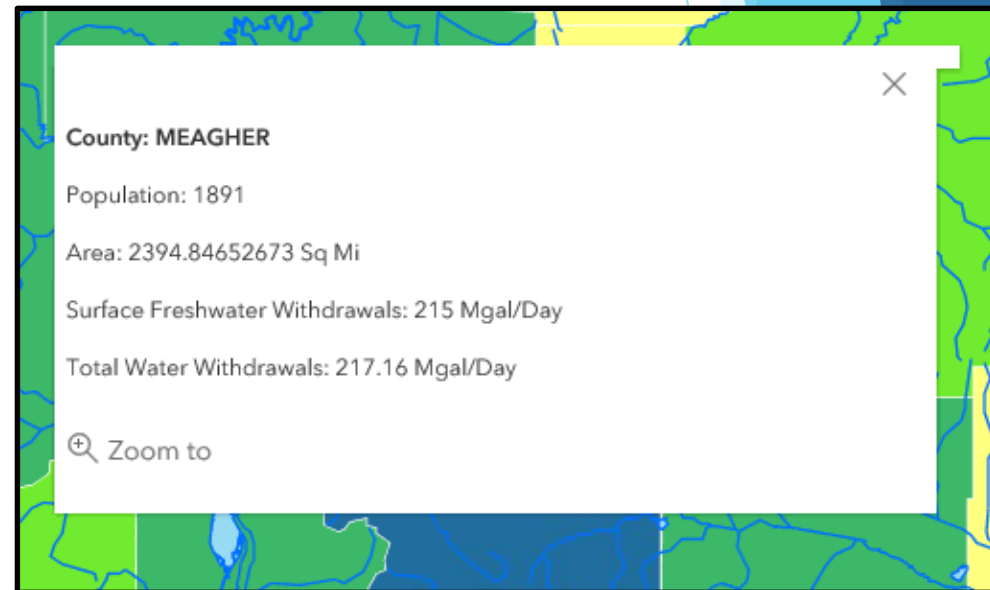# Services Types and Functionality

- ▶ 4 Map Services
  - ▶ Montana Counties
  - ▶ Montana Streams & Rivers
  - ▶ Montana Lakes
  - ▶ Montana Cities
- ▶ Query Function
  - ▶ Pop-up window on-click provides:
    - ▶ County Name
    - ▶ Population
    - ▶ Area
    - ▶ Surface Freshwater Withdrawals
    - ▶ Total Water Withdrawals
- ▶ Layer List on/off capability
- ▶ Basemap toggle from "Streets" to "Satellite"

- ⊙ - Cities
- ⊙ Rivers & Streams
- ⊙ - Lakes
- ⊙ Montana Counties

County: MEAGHER

Population: 1891

Area: 2394.84652673 Sq Mi

Surface Freshwater Withdrawals: 215 Mgal/Day

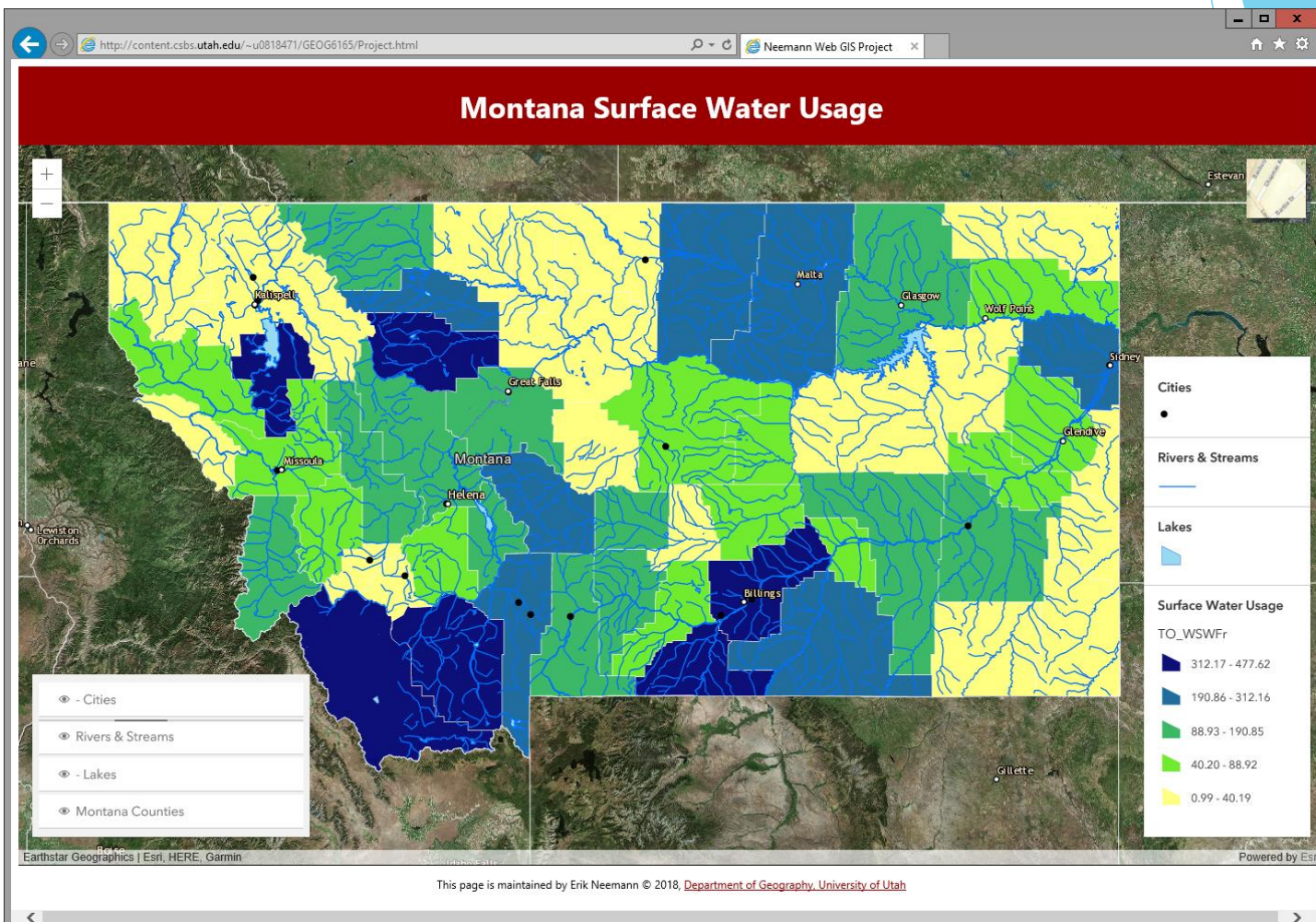Total Water Withdrawals: 217.16 Mgal/Day

⊕ Zoom to

Implementation Challenges

- Formatting header/footer with CSS
- Failed addition of live-updating radar layer
    - Confusion on layer type???:
        - FeatureLayer
        - DynamicFeatureLayer
        - MosaicLayer
        - RasterLayer
        - WMSLayer
- Labels not displaying on Cities or Counties
- More sophisticated query function

Lessons Learned

▶ Keep it simple

▶ It takes time to troubleshoot, format, clean up

▶ Expect unexpected problems

Questions?

Sources:

- Montana County Borders: http://ftp.geoinfo.msl.mt.gov/Data/Spatial/MSDI/AdministrativeBoundaries/

- Montana Towns: https://mslservices.mt.gov/Geographic_Information/Data/DataList/datalist_Details.aspx?did={81C76ED6-0A8E-4F08-A210-C92C67A8F859}

- Montana Streams & Lakes: https://mslservices.mt.gov/Geographic_Information/Data/DataList/datalist_Details.aspx?did={4F05B659-42F2-4F61-8D36-F132FC9AF99B}