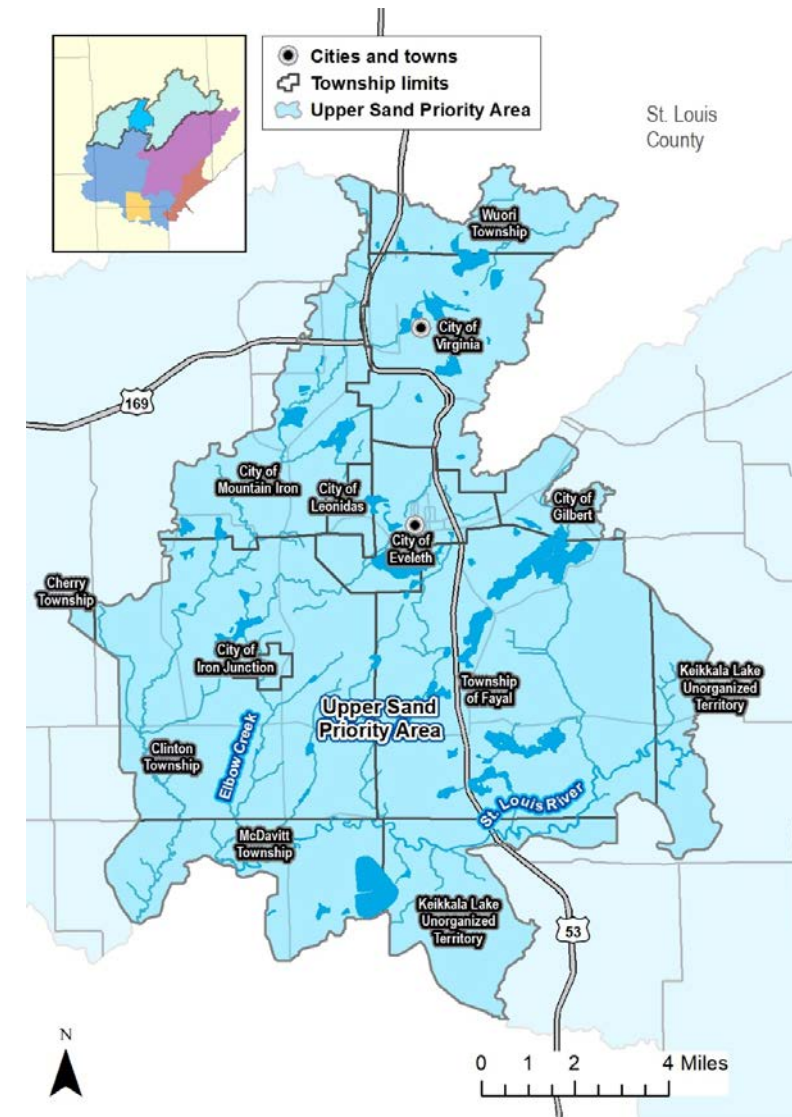
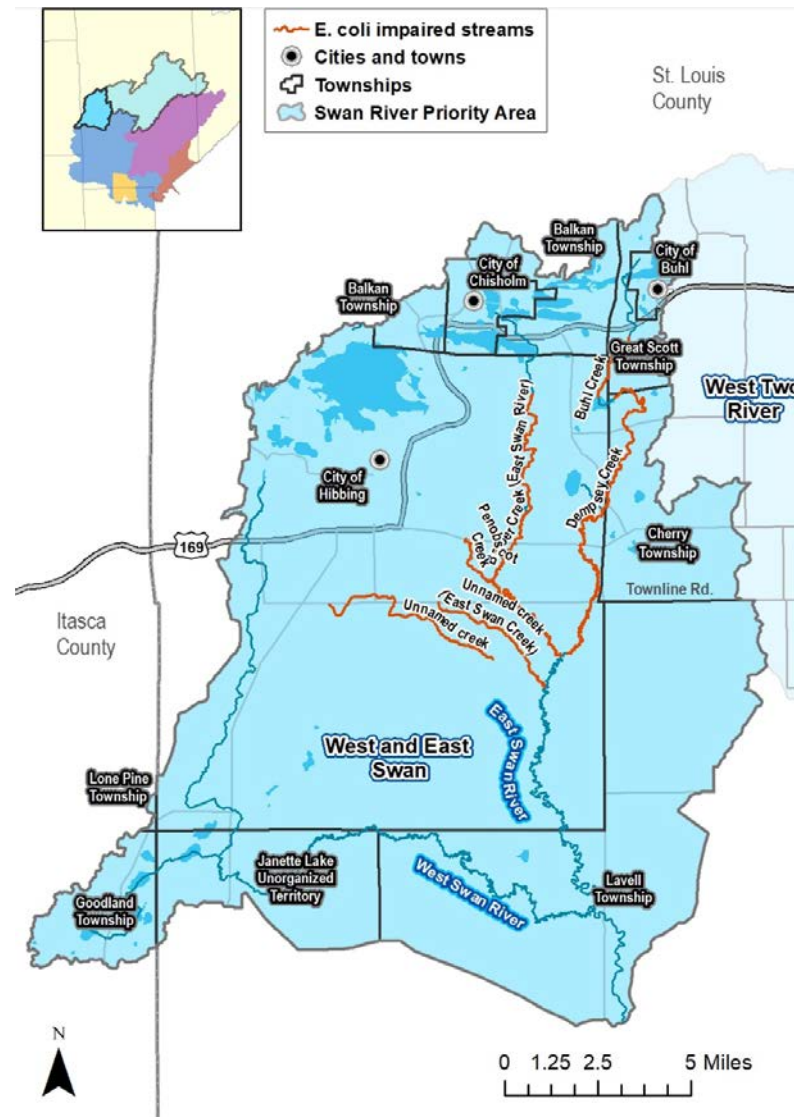


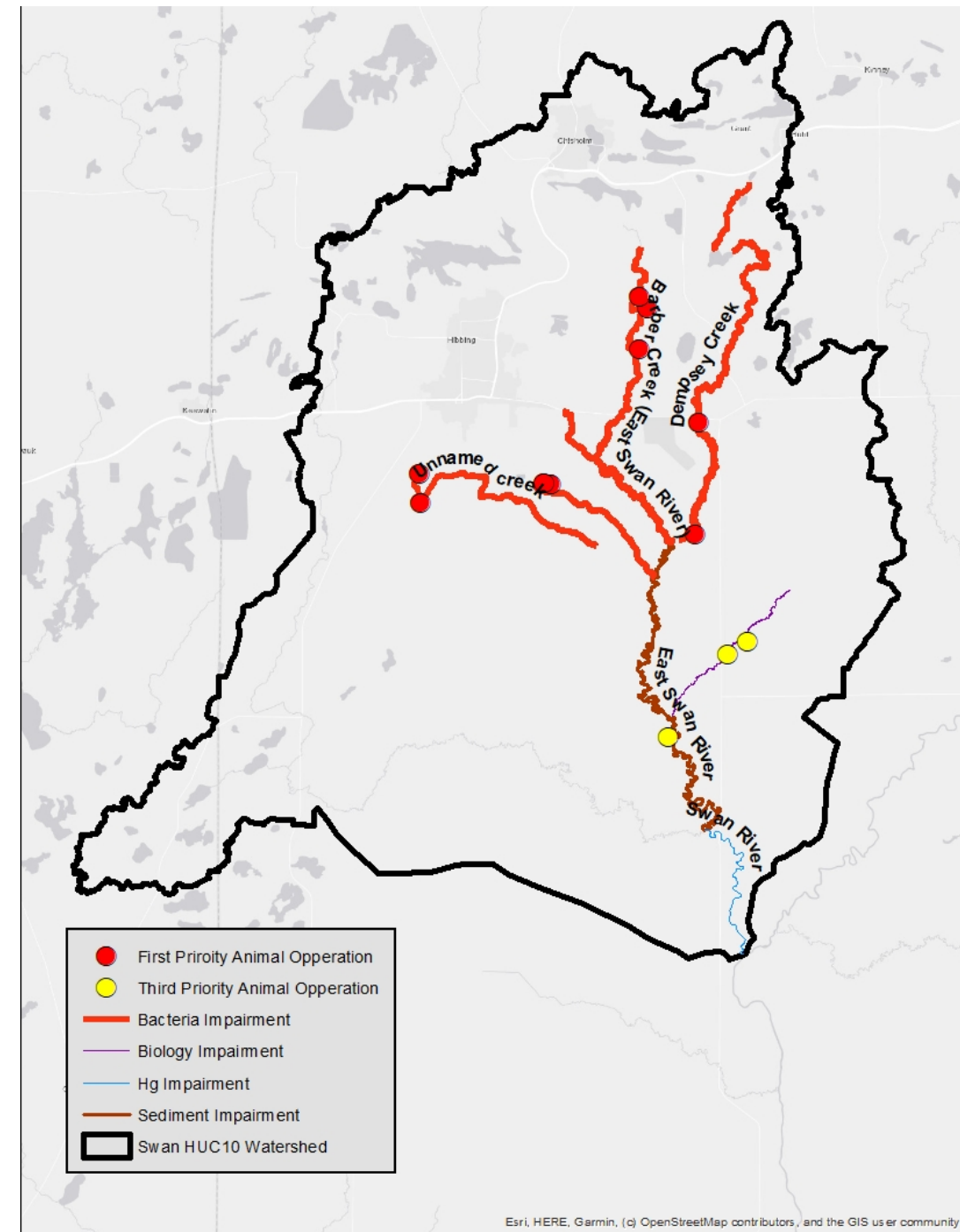
Priority Areas – Swan River Watershed and Upper Sand River Watershed

# North St. Louis Goals



# Agriculture

- Complete farm projects on 50% of properties identified as needing enhancements (e.g., livestock exclusion, manure storage, pasture management) where there are bacteria impairments.
- Within the Swan River, complete projects on 9 priority farms.



# Bacteria

- X% of municipalities with identified bacteria impairments are implementing plans to reduce bacteria in surface waters.
  - Swan River: 2 municipalities (67%)
  - Upper Sand: 3 municipalities (no bacteria impairments within the priority area- 50%)

## Swan River Cities

- Hibbing- MS4
- Chisholm
- Buhl

## Upper Sand River Cities

- Virginia
- Mountain Iron
- Eveleth
- Gilbert
- Iron Junction
- Leonidas

# Chlorides

- Manage chlorides reaching surface and ground water from road salts and water softener salts by ensuring X% of municipalities have Smart Salt Certified Staff, X% Communities achieved Level 2 Certified and education and outreach to X% of priority landowners.
  - Swan River: 2 municipalities (67%)
  - Upper Sand: 3 municipalities (50%)

## Swan River Cities

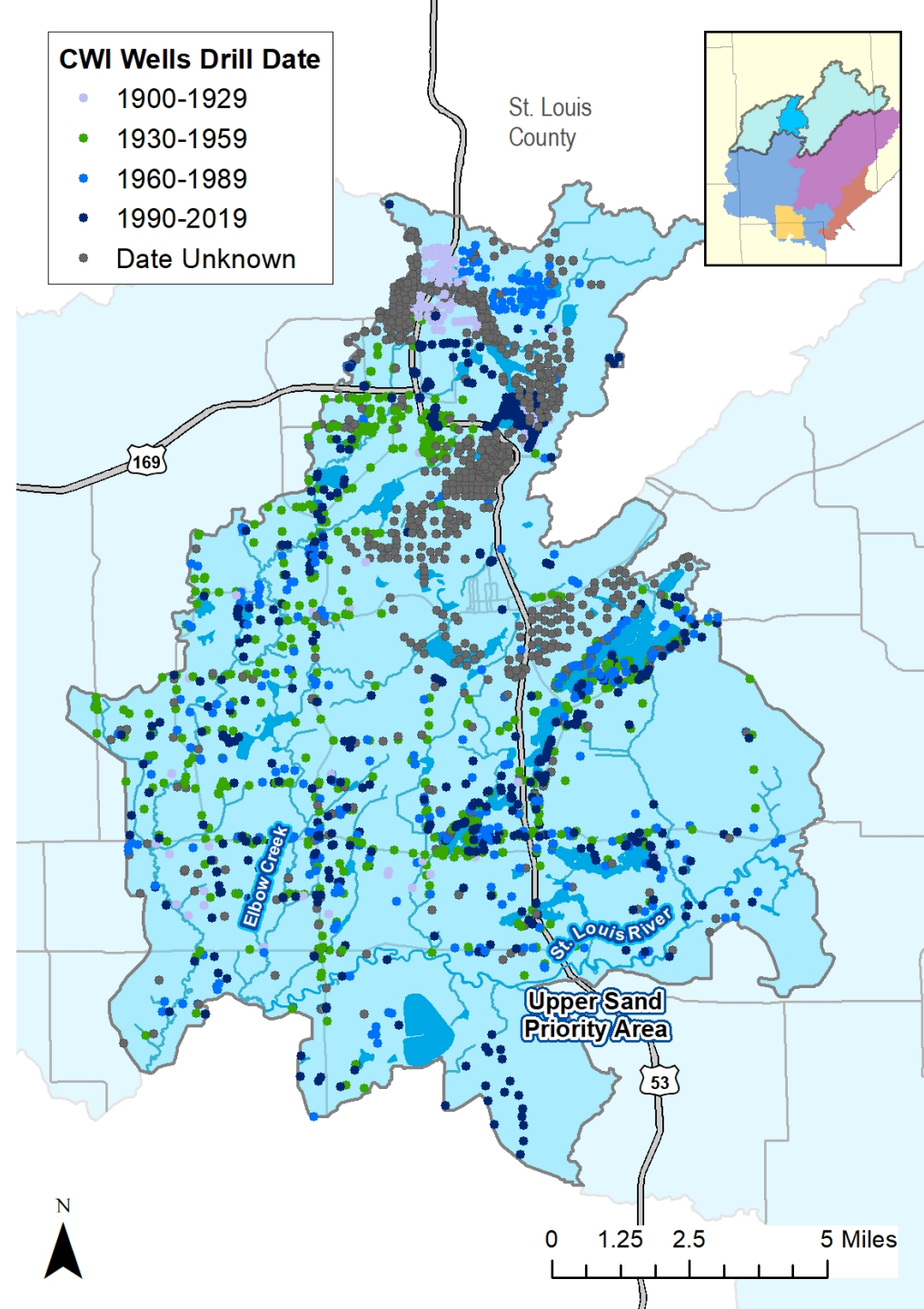
- Hibbing
- Chisholm
- Buhl

## Upper Sand River Cities

- *Virginia – smart salt certified staff*
- Mountain Iron
- Eveleth
- Gilbert
- Iron Junction
- Leonidas

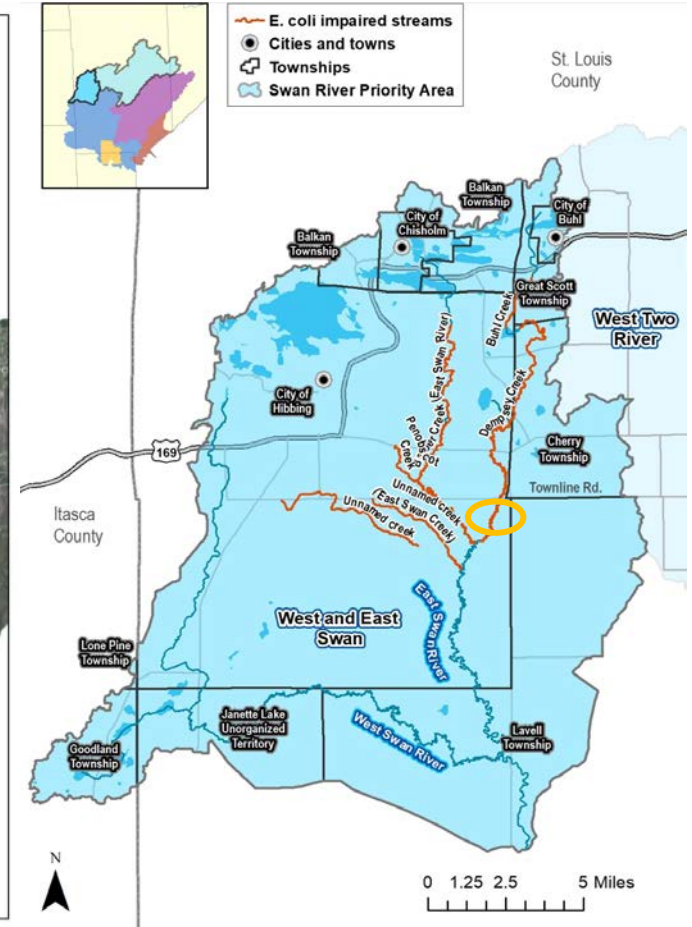
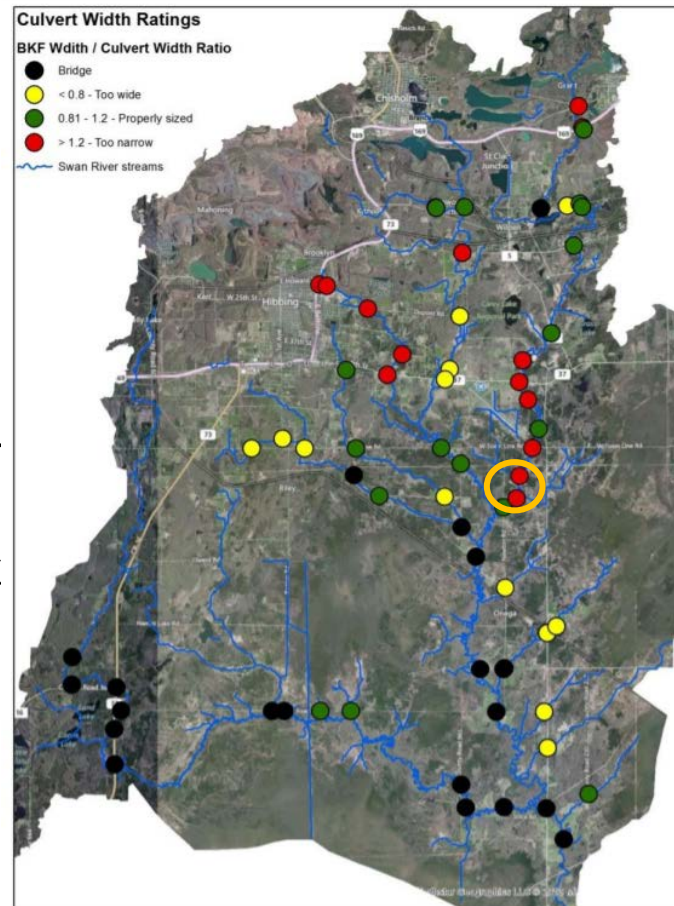
# Wells

- Protect groundwater quality by sealing X unused, unsealed wells watershed wide.
  - Swan River: 10 wells
  - Upper Sand: 10 wells
- *Currently no well sealing taking place through SWCD programs*
- *Unsure the # of unsealed, unused wells*



# Altered Hydrology

- Swan & Upper Sand Combined:
  - Reconnect 3 miles of priority streams and tributaries to benefit aquatic life and improve water quality.
  - Restore stream reaches that have been altered by human activity, including impounded, straightened, and incised stream reaches on 2000 linear feet of high priority streams and tributaries.
    - Replace 2 culverts on Dempsey Creek at Foss and Mestek Rds.
    - Stream Crossing Inventory Upper Sand
    - Dam Removal Ely Creek?



# Shoreline

---

- Swan and Upper Sand Combined:
  - Establish 1,500 linear feet of vegetated riparian/lakeshore buffers in areas that protect surface water, drinking water quality, and habitat.