

Lower Cloquet River 1W1P Measurable Goals

SSL SWCD

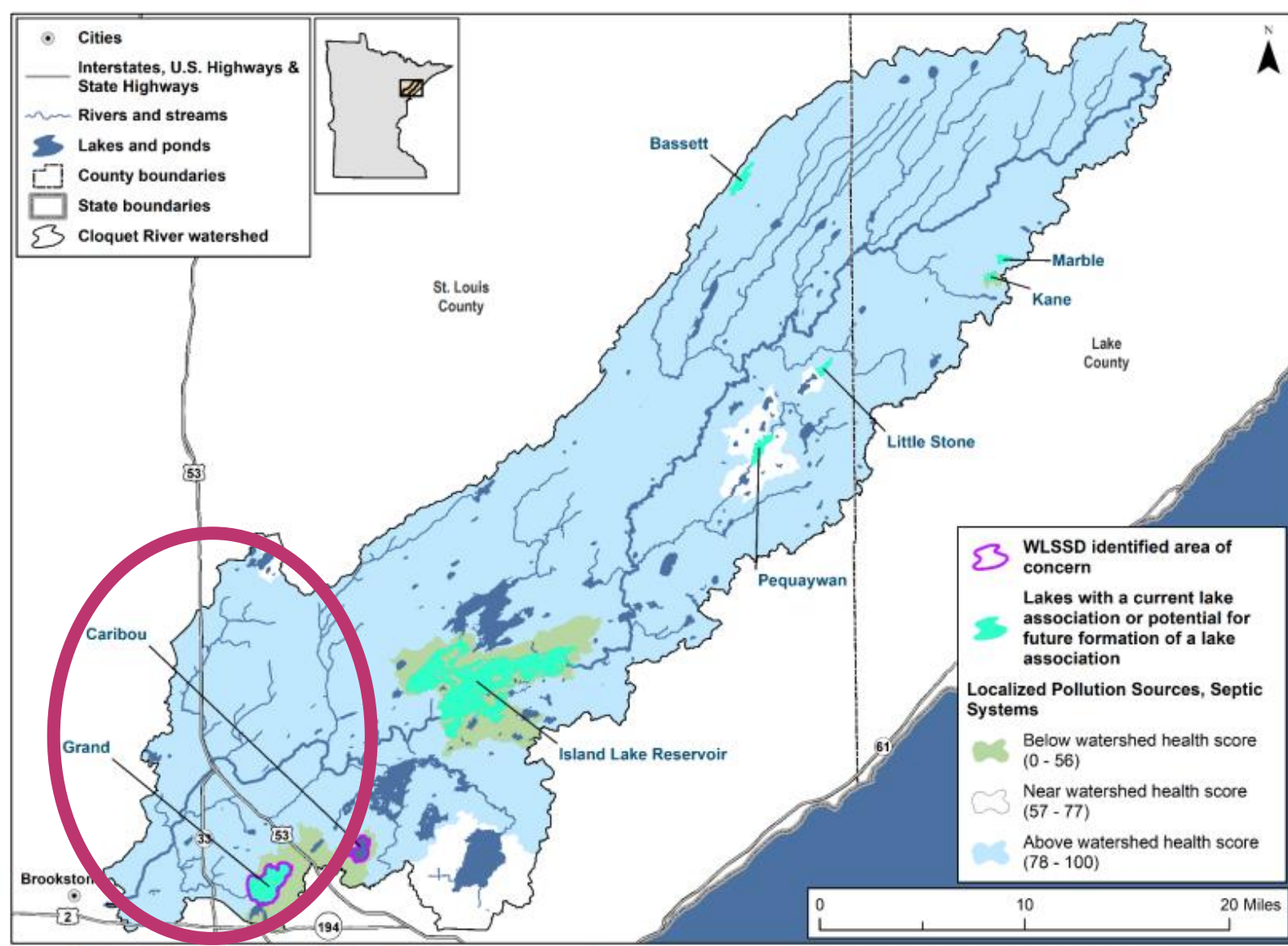
Water Quality



Septic Systems

- ▶ Identify and address ground and surface water quality problems stemming from inadequate wastewater treatment by supporting the enforcement of SSTs ordinances and inventory and upgrade **X%** of non-compliant systems in priority areas.

What are the priority areas?



Grand Lake

- ▶ Work with WLSSD

Septic Systems

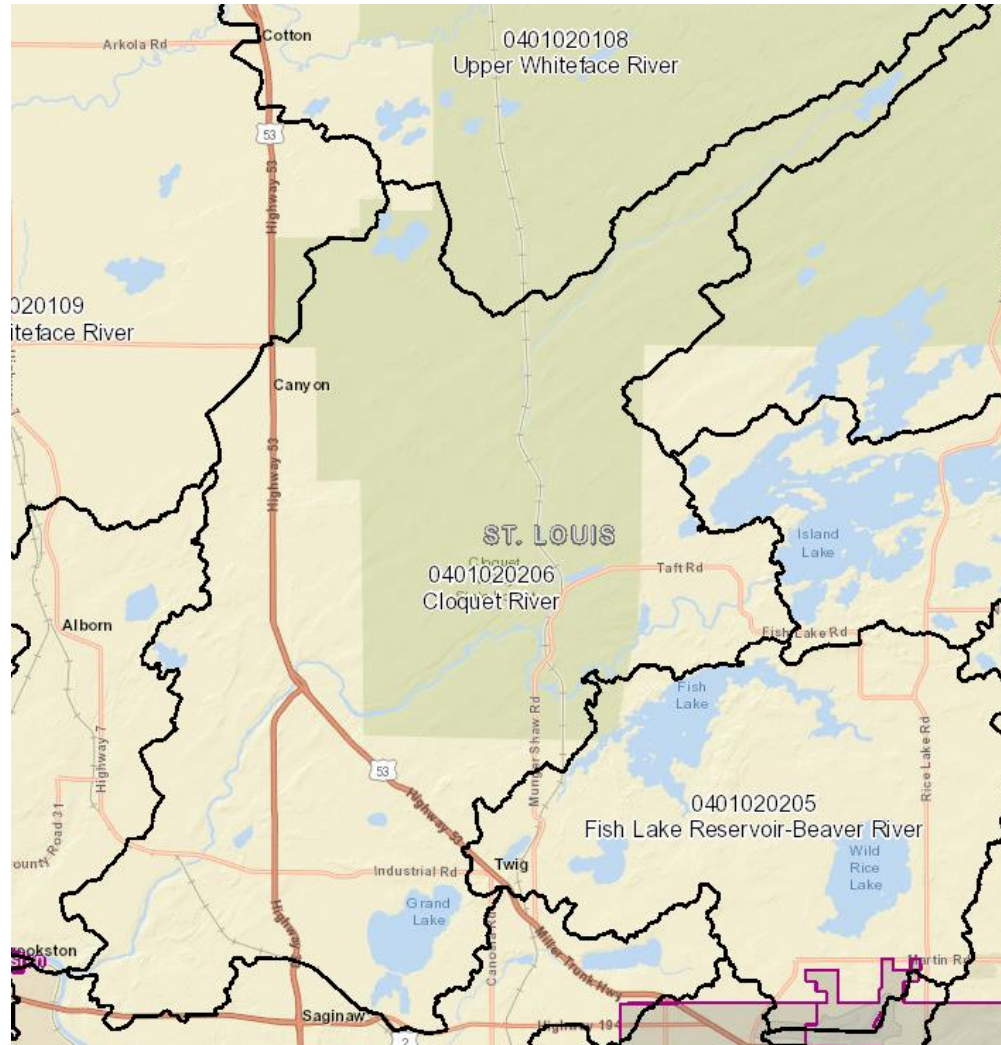
- ▶ Identify and address ground and surface water quality problems stemming from inadequate wastewater treatment by supporting the enforcement of SSTS ordinances and inventory and upgrade **X%** of non-compliant systems in priority areas.

Pollutants

- 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,
- Education & outreach to X% of priority landowners.

Who are the Municipalities?

► St. Louis County



Pollutants

- Manage chlorides reaching surface and ground water from road salts and water softener salts by ensuring **100%** of municipalities have Smart Salt Certified Staff,
- **100%** Communities achieved Level 2 Certified,
- Education & outreach to **X%** of priority landowners.

Who are the priority landowners?

- ▶ Commercial landowners and/or landowners with >10 acres of land

Pollutants

- Manage chlorides reaching surface and ground water from road salts and water softener salts by ensuring **100%** of municipalities have Smart Salt Certified Staff,
- **100%** Communities achieved Level 2 Certified,
- Education & outreach to **X%** of priority landowners.

Land Use

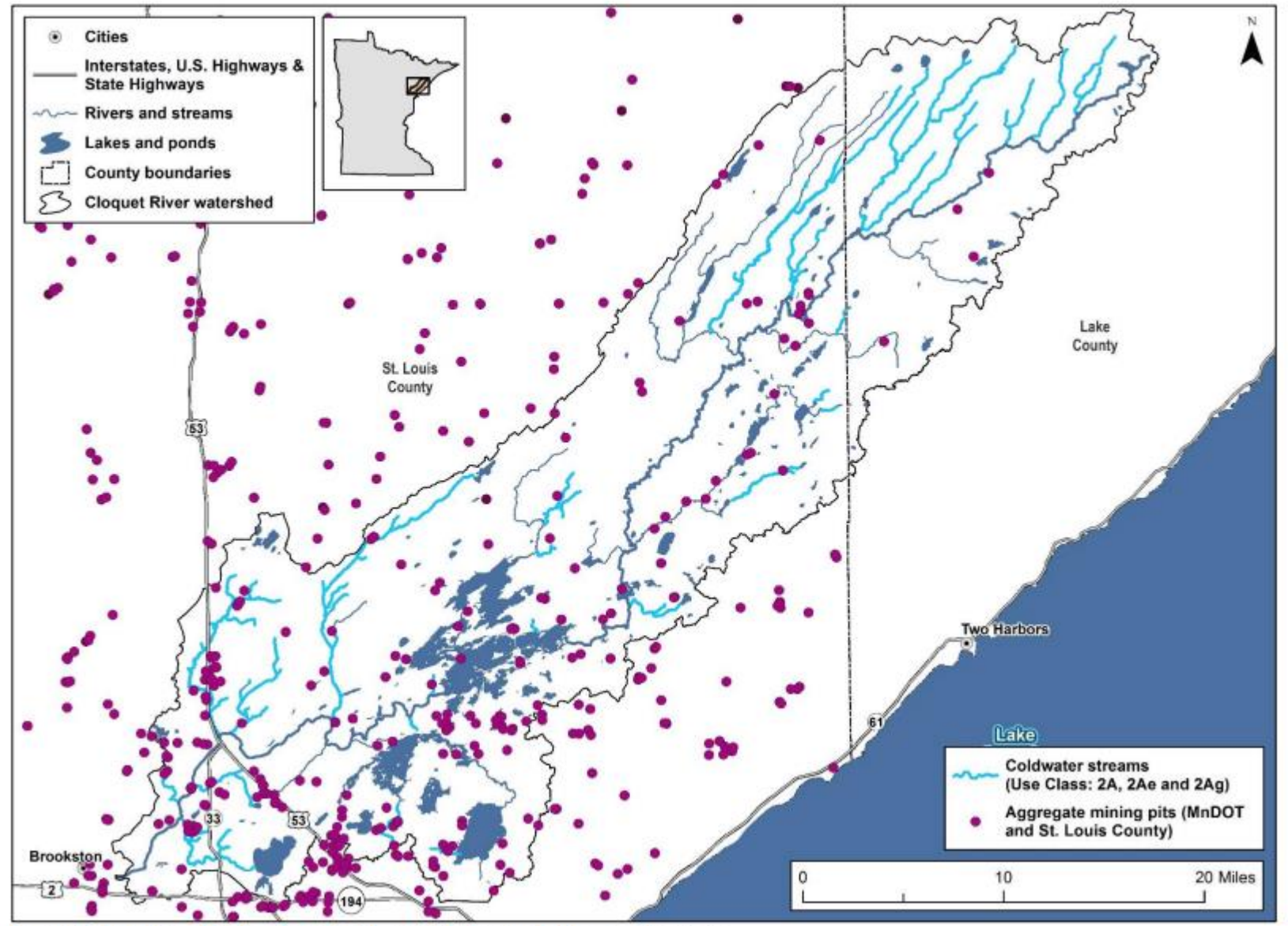


Aggregate Mining

- Evaluate impacts of aggregate mining at **X %** of high priority sites that have the potential to impact sensitive surface and ground water resources.

What are the high priority sites?

- ▶ Hellwig Creek Watershed
- ▶ Beartrap Creek Watershed
- ▶ We can address aggregate mining in both of these priority watersheds = 100%



Aggregate Mining

- Evaluate impacts of aggregate mining at **100 %** of high priority sites that have the potential to impact sensitive surface and ground water resources.

Altered Hydrology



Fish Passage Barriers

- Reconnect **X miles** of priority streams and tributaries to benefit aquatic life and improve water quality.

Priority Crossings

Stream Name	Street Name	Upstream Miles	Tier
Beartrap Creek 1	Railroad upstream of CR 694	11.23	2
Beartrap Creek 2	MN 33	9.38	2
Beartrap Tributary #2	Beartrap Rd - CR 872	0.58	3
Beartrap Tributary #3	Industrial Rd - CR 7	0.85	3
Hellwig Creek	Swan Lake Rd	31.92	1
Hellwig Creek Tributary	MN 53 - Northbound	1.82	3
Hellwig Creek Tributary	MN 53 - Southbound	1.79	3

- Prioritize Tier 1 and 2 crossings
- We could replace 2 of these 3
- Average length for 2 = 35 miles

Fish Passage Barriers

- Reconnect **35 miles** of priority streams and tributaries to benefit aquatic life and improve water quality.



Channel Stability

- Restore stream reaches that have been altered by human activity, including impounded, straightened, and incised stream reaches on **X Linear Feet** of high priority streams and tributaries.

Priority Reaches

Stream	Length (feet)	Location
Chalberg	1,600	HWY 8
Hellwig	1,400	Shipley Road



Channel Stability

- Restore stream reaches that have been altered by human activity, including impounded, straightened, and incised stream reaches on **3,000 Linear Feet** of high priority streams and tributaries.

Habitat



Forest Fragmentation and Loss

- Protect & manage **X acres** of private owned forests in areas that protect surface water, drinking/groundwater water quality and riparian habitat.

St. Louis River LSP

Forest Fragmentation and Loss

- Protect & manage **X acres** of private owned forests in areas that protect surface water, drinking/groundwater water quality and riparian habitat.

Aquatic, Riparian, and Shoreland Habitats #1

- Shoreline ordinances are updated, developed, and enforced for **X %** of municipalities with priority resource shoreline areas.

Who are the municipalities?

- ▶ St. Louis County



Aquatic, Riparian, and Shoreland Habitats #1

- Shoreline ordinances are updated, developed, and enforced for **100 %** of municipalities with priority resource shoreline areas.

Aquatic, Riparian, and Shoreland Habitats #2

- X % (or feet) of shoreline in prioritized lakes and streams have natural buffers and near shore areas are protected and restored to reduce erosion using bank stabilization, bioengineering, etc. techniques.

Prioritized reaches

Aquatic, Riparian, and Shoreland Habitats #2

- **X % (or feet)** of shoreline in prioritized lakes and streams have natural buffers and near shore areas are protected and restored to reduce erosion using bank stabilization, bioengineering, etc. techniques.

Aquatic, Riparian, and Shoreland Habitats #3

- Protect/Restore **x%** of high priority wild rice stands/populations (water levels, disturbance, shoreland development).

Where are the priority rice stands?

Aquatic, Riparian, and Shoreland Habitats #3

- Protect/Restore **x%** of high priority wild rice stands/populations (water levels, disturbance, shoreland development).