

# Cloquet River Watershed

## Watershed approach

Minnesota has adopted a watershed approach to address the state’s 80 major watersheds. This approach looks at the drainage area as a whole instead of focusing on lakes and stream sections one at a time, thus increasing effectiveness and efficiency. This watershed approach incorporates the following activities into a 10-year cycle:

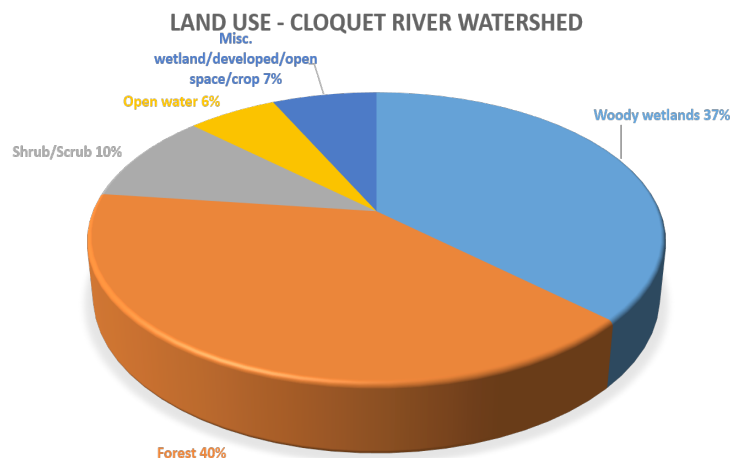
1. Monitoring water bodies and collecting data over two years on water chemistry and biology. (2015, 2016)
2. Assessing the data to determine which waters are impaired, which conditions are stressing water quality, and which factors are fostering healthy waters.
3. Developing strategies to restore and protect the watershed’s water bodies, and report them in a document called Watershed Restoration and Protection Strategies (WRAPS).
4. Coordinating with local One Watershed-One Plan efforts for implementation of restoration and protection projects.

The Minnesota Pollution Control Agency (MPCA) leads the technical work and coordinates and supports strategy development with local partners. The main purpose of the WRAPS report is to summarize all the technical information so that local partners like Soil and Water Conservation Districts can use it for planning and implement the best strategies in prioritized locations.



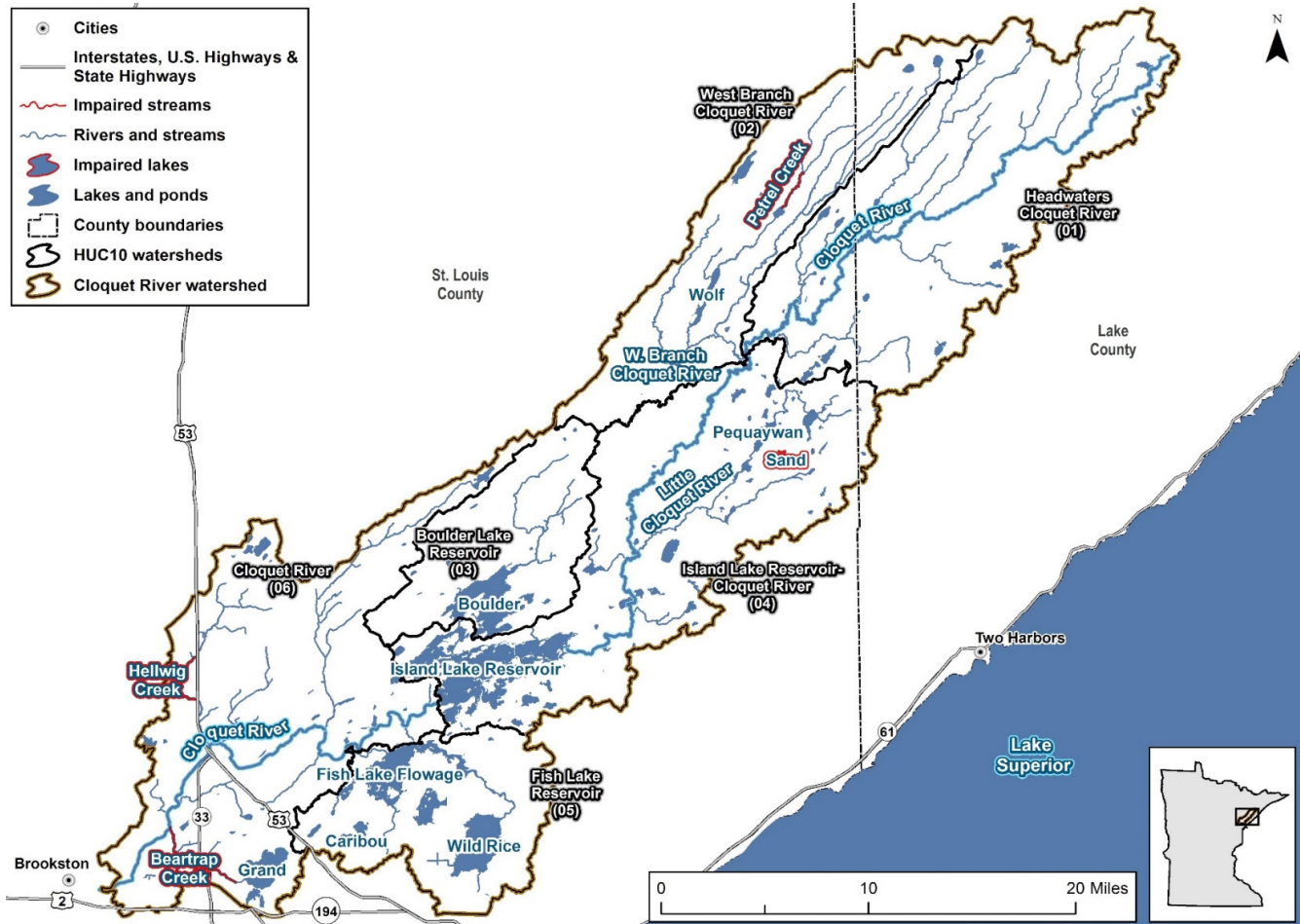
## Watershed characteristics

- Size: 793 square miles or 507,862 acres
- Counties: Lake and St. Louis
- Ecoregion: Northern Lakes and Forests
- Municipalities: Brimson, Burnett, Fredenberg, Independence, and Twig
- Land Use: Predominantly forested and/or wetlands, with less than 1% urban development
- Tributary to the St. Louis River
- The 8-digit hydrologic unit code (HUC): 04010202



## Assessments: Are waters meeting standards and providing beneficial uses?

During the first phase of the watershed approach – intensive watershed monitoring – the MPCA collected data about biology such as fish populations, chemistry such as pollutant levels, and flow to determine if streams were meeting water quality standards designed to ensure that waters are fishable and swimmable. Waters are “impaired” if they fail to meet standards. The map at below shows the three impaired streams and one impaired lake in the Cloquet River Watershed.



Twenty-eight uniquely identified stream/river reaches in the watershed were assessed in 2017. Twenty-five stream segments fully support aquatic life. Of the three impaired streams, two of the impairments were attributed to non-pollutant stressors (e.g., lack of quality physical habitat, loss of connectivity), and one stream was impaired due to natural background conditions (wetland dominated watershed with minimal anthropogenic influences).

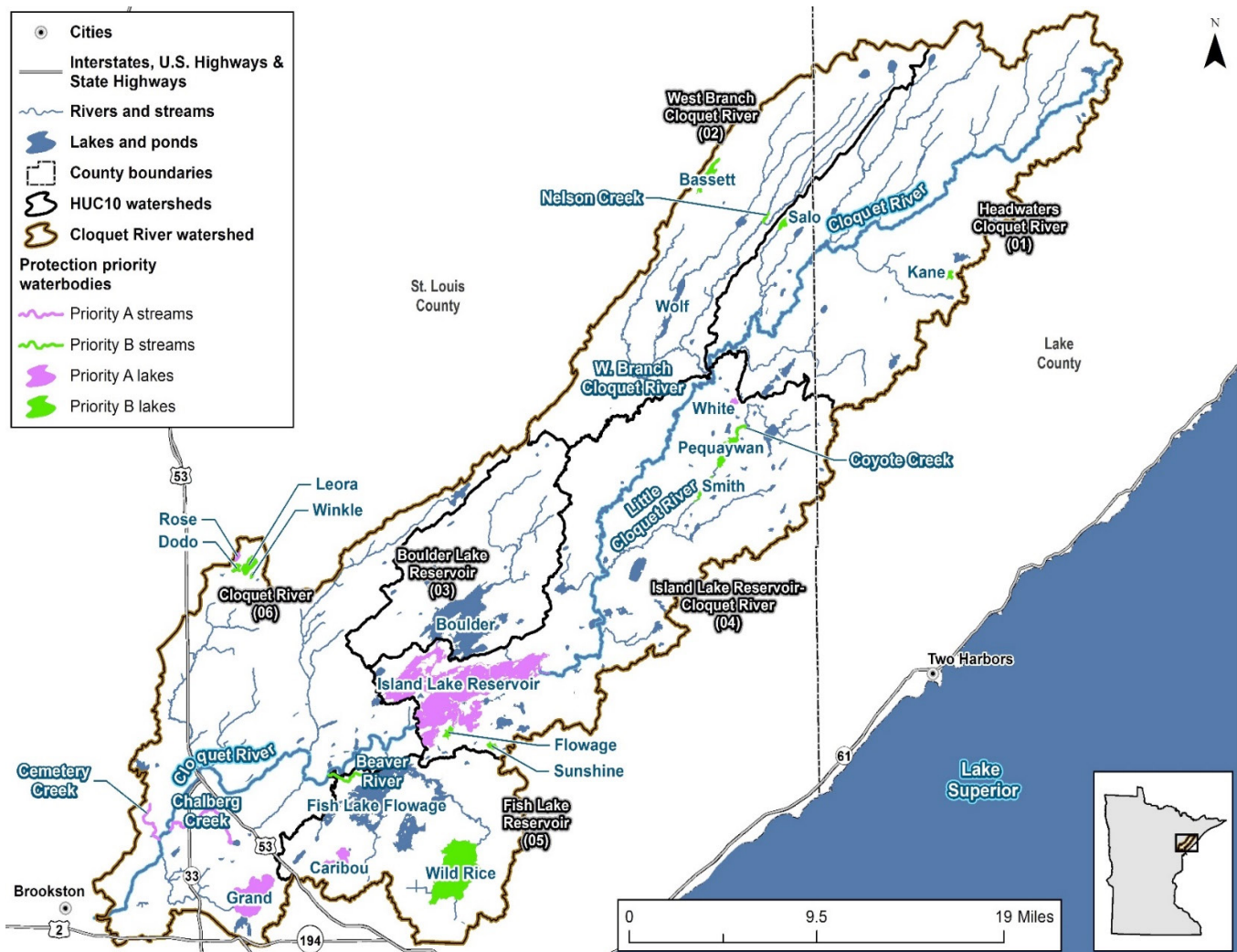
Twenty-eight lakes fully supported aquatic recreation. One lake did not meet the aquatic recreation standards, however, the impairment was driven by the shallowness of the lake, and by the lake being designated a trout lake and managed by the DNR as a rainbow trout fishery.

## Conditions stressing fish and bugs, and affecting water quality

The biological impairments found in the Cloquet River Watershed are on relatively small streams. This suggests that there are not widespread, systematic stressors throughout the watershed, but rather ones that are more local in both cause and effect. No point-source discharges (such as industry or wastewater treatment plants) contribute to any of the biological impairments. Biological stressors in the watershed include lack of quality physical habitat and loss of connectivity. Road infrastructure and inadequately sized culverts are also contributing to restricting fish movement in some areas.

## Restoration and protection strategies

Strategies for addressing the identified issues in the Cloquet River Watershed include promoting shoreland protection, implementing programs for forest protection to maintain healthy working forests on private lands, and restoring altered stream hydrology. The map below displays priority areas for restoration and protection.



## Key conclusions of first cycle

- Overall, the Cloquet River Watershed is quite healthy. Protection strategies will help keep it that way.
- The stressors to aquatic life (fish and bugs) in the watershed are largely due to lack of quality physical habitat and improperly sized road crossings of streams.
- Best Management Practices include management of septic systems and managing runoff from rain and snow.
- Key watershed-wide strategies that will maintain or improve the water quality of impaired and unimpaired lakes and streams include protecting forested lands, shoreland ordinance enforcement, education, and updating land use controls.



*A relaxing view of the annual canoe & kayak float of the Cloquet River in 2019. The event is coordinated by the three SWCDs in the watershed – Lake, North St. Louis & South St. Louis SWCDs. (photo by Kate Kubiak)*



*An example of the beauty you'll see throughout the Cloquet River watershed. (photo by Tom Estabrooks)*

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## Full report

Full reports as well as supporting documents can be found at: <https://www.pca.state.mn.us/water/watersheds/cloquet-river> or search "Cloquet River Watershed" on the MPCA website.

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