

# Summary

Monitoring and Assessment

## Redeye River Watershed



### Why is it important?

The Redeye River watershed covers nearly 900 square miles in the northern part of the Upper Mississippi River Basin in central Minnesota. The watershed includes all or parts of Becker, Otter Tail, Todd, and Wadena counties. The Redeye River begins at Wolf Lake and joins the Leaf River, before draining into the Crow Wing River near Staples.

The Redeye River provides drinking water for households and industries, habitat for aquatic life, riparian corridors for wildlife, and recreation opportunities like fishing, swimming, and canoeing. Nearly half the watershed's land use is agricultural, 30% is forested, 15% is wetlands, and about 4% is developed communities and industries.

### Key issues

Based on intensive watershed monitoring, which began in 2011, results indicate that a handful of streams do not meet water quality standards for beneficial uses such as:

- Aquatic life
- Drinking water
- Fish consumption

The main concerns are excess sediment and high bacteria levels.

### Highlights of report

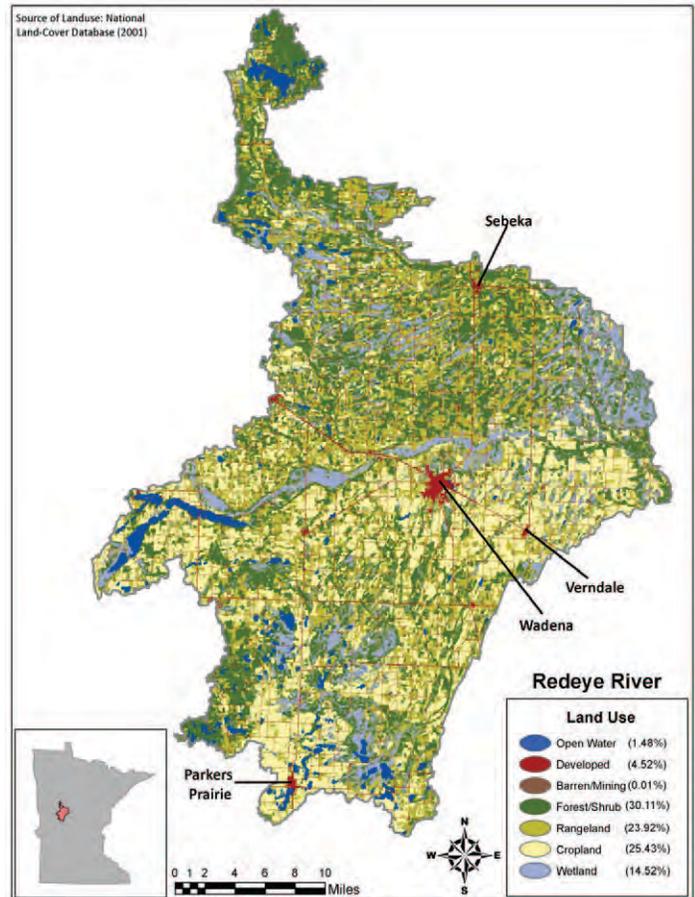
- In 2011, the Minnesota Pollution Control Agency began an intensive watershed monitoring effort at about 40 sites throughout the Redeye River watershed. As part of this effort, MPCA staff joined with the Wadena County Soil and Water Conservation District and the Otter Tail County Coalition of Lake Associations.
- In 2013, a holistic approach was taken to assess all of the watershed's surface waters for support, or non support of aquatic life, recreation, and fish consumption.
- Of the waters that do not fully support aquatic life or aquatic recreation, the main source of impairments are due to high bacteria levels and increased sediment.
- Water resources in the Redeye River watershed are found in a range of conditions, from very high water quality to significantly impaired.
- The primary resource concerns in the watershed are wind and water soil erosion, surface and ground water management and quality, and changing land use patterns.
- Increased development, wetland removal, and increased agriculture have all likely contributed increased sediment and pollutant loadings to surface waters, which leads to reduced populations of sensitive aquatic species.

## About this study

Monitoring of many of the lakes and streams began in 2011, as part of the MPCA's intensive watershed monitoring effort. MPCA monitoring staff was assisted by the Wadena County Soil and Water Conservation District, and the Otter Tail County Coalition of Lake Associations.

Those results can be found in the Redeye River Watershed Monitoring and Assessment report, which is the first step of the watershed restoration and protection strategy (WRAPS) process, and is available on the MPCA website.

The second WRAPS step, or stressor identification, is to find and evaluate factors, natural and human, which are likely responsible for the impaired condition of the fish and macroinvertebrate communities. An important part of stressor identification is to understand the natural features and processes occurring in the watershed, and gaining understanding of the extent of various human activity throughout the watershed that may have potential to degrade streams, rivers, and lakes.



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## Full report

To view the full report, go to <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/watersheds/redeye-river.html#overview>

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