

A Summary of Water Resources Monitoring, Planning, and Management Actions in the Kinnickinnic River Watershed: 1990-2018

Monitoring

Temperature Monitoring (1992-2018):

Since 1992, the Kiap-TU-Wish Chapter of Trout Unlimited has been conducting temperature monitoring of the Kinnickinnic River and three tributaries (Sumner Creek, South Fork of the Kinnickinnic River, and Rocky Branch Creek) in the vicinity of River Falls, Wisconsin (Figure 1).

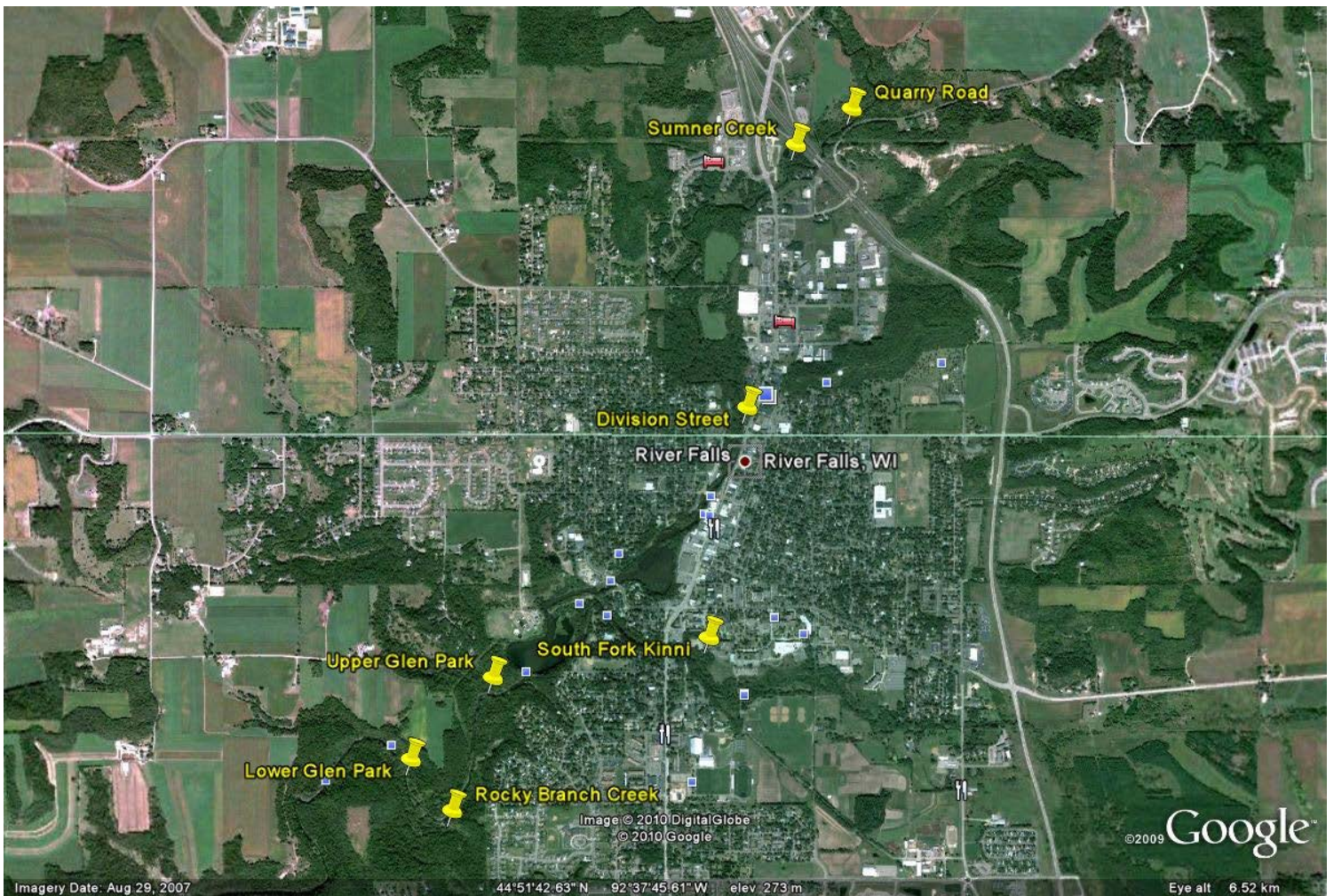


Figure 1. Kiap-TU-Wish temperature monitoring sites on the Kinnickinnic River and tributaries in River Falls, WI.

Temperature monitoring at these eight sites has typically been conducted during the mid-April to mid-October period each year, using electronic instrumentation that continuously measures river

temperatures at 10-minute intervals. The temperature data obtained at these monitoring sites are used to evaluate:

- The thermal impacts of stormwater on the Kinnickinnic River
- The thermal impacts of the two River Falls hydropower impoundments (Lake George and Lake Louise) on the Kinnickinnic River
- The long-term impacts of climate change on the Kinnickinnic River

Hydrological Monitoring (2002-2018):

The United States Geological Survey (USGS) operates a [Kinnickinnic River monitoring station](#) at County Highway F, near Kinnickinnic State Park, approximately five miles west of River Falls. The station measures river stage (water height) and flow at 15-minute intervals, and 15-minute precipitation amounts in 0.01-inch increments. The City of River Falls, Kinnickinnic River Land Trust, and the Kiap-TU-Wish Chapter of Trout Unlimited provide annual cost-share funding to help support the operation of this USGS monitoring station, which has been operating continuously since July 2002.

The flow data obtained at this monitoring site are used to evaluate:

- The impacts of precipitation and watershed runoff on Kinnickinnic River flow and water quality
- Operation of the two River Falls hydropower facilities in a “run-of-river” mode, as required by the FERC Permit
- Recreational suitability of the Kinnickinnic River (examples are kayaking and trout fishing)

Planning

City of River Falls:

City of River Falls Storm Water Management Plan (1994)
City of River Falls Storm Water Utility (1996)
City of River Falls Storm Water Ordinance (2002)
City of River Falls Shoreland Ordinance Revision (2003)
Lake George Area Storm Water Treatment Concept Plan (2005)
City of River Falls Corridor Study (2016)
City Council Resolution for a dam-free Kinnickinnic River (2018)

Kinnickinnic River Watershed:

Kinnickinnic River Priority Watershed Plan (1995)
Kinnickinnic River Watershed Strategic Action Plan (2016)

Management

City of River Falls:

Rain Barrel and Adopt-a-Pond Programs

Rain Garden Demonstration Project (2004)

River Falls West Side Storm Water Retrofit Project (2007) (Retrofit)

Sterling Ponds Subdivision and Monitoring (2004-2014) (New Development)

Spring Creek Estates Subdivision (New Development)

Family Fresh Foods and Walgreens (Re-Development)

Gold Water Star WI Community:

- Become proactive in storm water management measures: city requirements exceed state requirements
- Added a water resources engineer to city staff
- Added the equivalent of time of one full-time street department worker, dedicated to storm water tasks
- Hosted extensive public education including tours, brochures, demonstration sites, and various presentations
- Implemented an illicit discharge response and clean-up program
- Limited the use of fertilizers and herbicides on city properties
- Performed soil tests to determine amount of fertilizer needed
- Promoted recreational use of the river with festivals
- Provided public access areas as well as walking trails along river
- Encouraged, promoted, and demonstrated green infrastructure improvements
- Implemented a comprehensive street sweeping program
- Worked with dentists and other businesses to reduce heavy metals such as waste mercury
- Passed lawn watering ordinances and other water conservation efforts

Kinnickinnic River Watershed:

Kinnickinnic River Priority Watershed Plan Implementation (1998-2009)

Kinnickinnic River Land Trust (1993-2018)

Education

Storm Water Education: “A Storm on the Horizon” (1998)

- 15-minute video, professionally produced in 1998 by Kiap-TU-Wish and Palisade Productions of Minneapolis, MN
- Target audience: general public, land use planners, and local decision-makers

- The video:
 1. Establishes the value of a cold water resource and its importance to the community
 2. Demonstrates the impact of storm water on water resources
 3. Describes key tools that enable development to occur while protecting water resources
- 3,000 copies of the video have been distributed locally and nationally
- Silver Award, 1999 Chicago International Film Festival

Current and Future Water Resources Challenges

Climate Change

Storm Water Impacts (River Falls)

Agricultural Impacts (Excess Sediment, Nutrients, Herbicides/Pesticides)

Groundwater Withdrawal

Hydropower Dams (River Falls)

Habitat Restoration

Land Use Protection and Conservation Practices

Scenic Quality

Recreational Use



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10/27/16

Updated 9/13/18