

Sochacki Park

Sub-Watershed Study Spring 2021 Update

Three Rivers Park District, in coordination with Golden Valley, Robbinsdale, and the Bassett Creek Watershed Management Commission, is assessing the sub-watershed in Sochacki Park to identify potential water quality improvements to its wetlands. Common to wetlands in urban areas, the wetlands (ponds) have high amounts of nutrients that contribute to water quality problems, prompting concern from residents and park visitors. The purpose of the study is to better understand how and why the wetlands have reached their present condition, and what steps can be taken to improve the wetlands' water quality. The wetlands drain into Bassett Creek, so decisions about the wetlands affect the health of the creek and ultimately the Mississippi River.

The assessment is the first step toward improving the ecological health, aesthetics, and condition of the wetlands and providing additional outdoor recreation and education opportunities.

The assessment began in spring of 2020 and will continue through 2021.



Staff surveying water quality at South Rice Pond in September 2020.

2020 Recap

Collecting water quality and quantity data is essential in assessing wetland condition in Sochacki Park.

- Flow meters and automated equipment were used to collect watershed water quality data flowing into each of the ponds after a rain event.
- Each individual pond was monitored monthly for water quality.
- Vegetation surveys were conducted in the spring and fall in each pond.
- Sediment cores from each pond have been collected for nutrient analysis.

Preliminary data indicate that water in each of the ponds is high in nutrients and low in dissolved oxygen.

Staff from Three Rivers Park District and Barr Engineering will use the data collected to develop a sub-watershed model that simulates the flow of water and nutrients into the ponds.

The model will be used to:

- Identify those areas in the watershed that are major sources of nutrients that flow to the ponds.
- Determine the total amount of nutrients that end up in each of the ponds.
- Determine how the nutrients impact pond water quality.
- Develop recommended best management practices to be implemented for pond water quality improvement.



Sediment cores were collected from the ponds in January 2021. The cores will be used to determine the levels of phosphorus in the sediment at the bottoms of the ponds.

What's ahead in 2021

Barr Engineering will develop the sub-watershed model with data collected by Three Rivers Park District in 2020 and 2021. Once the model is complete, it will be used to identify significant sources of nutrients that flow to the ponds, and develop guidelines for nutrient levels that support a healthy wetland ecosystem.

Following the assessment, a report will detail the findings and recommend potential options and costs to improve water quality and the ecological health of the wetlands. Based on this report, staff will determine best management practices to implement to meet the long-term goals of the plan.

Project Timeline

Summer 2021

Data collection and monitoring by Three Rivers Park District and Barr Engineering staff will continue.

This includes:

- Water quality monitoring
- Vegetation surveys
- Sediment analysis
- Watershed stormwater monitoring

January – March 2022

Development of watershed model.

2022

Sochacki Steering Committee reviews final report and develops plan for implementing water quality improvement measures.

Want to learn more?

A detailed report about the data collected in 2020 is available on Three Rivers Park District's website. To view the report, visit ThreeRiversParks.org/page/water-quality-improvement-projects.

About Sochacki Park

Sochacki Park includes land in Robbinsdale and Golden Valley and is jointly operated under a partnership between Three Rivers Park District and the Cities of Golden Valley and Robbinsdale. The park is located within the Bassett Creek Watershed Management Commission. The park entrance is located at 3500 June Ave. N., Robbinsdale.

A project steering committee, including staff from the partner agencies, the consulting engineer, and a neighborhood citizen liaison, is meeting quarterly to help guide the sub-watershed assessment process.

