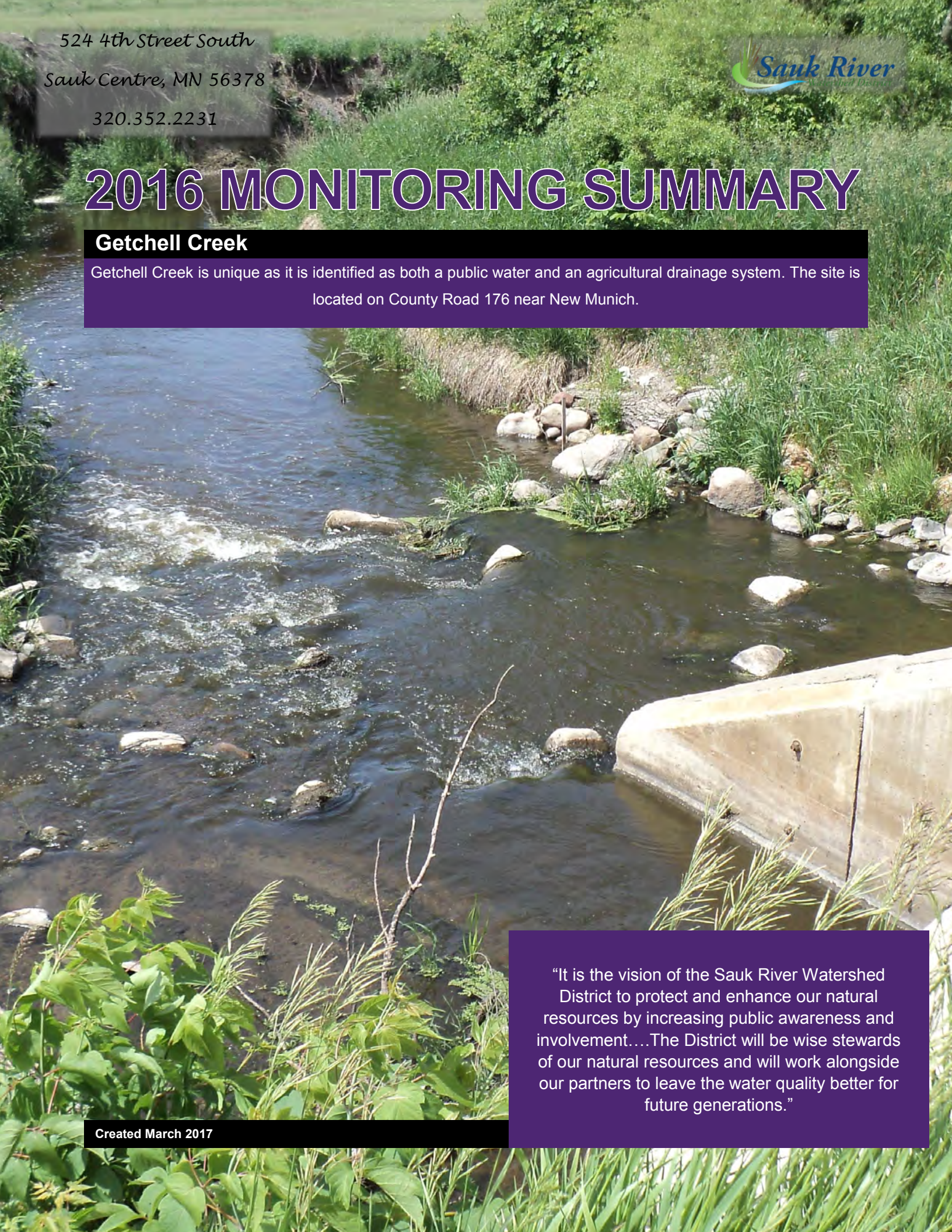
524 4th Street South
Sauk Centre, MN 56378
320.352.2231

Sauk River

2016 MONITORING SUMMARY

Getchell Creek

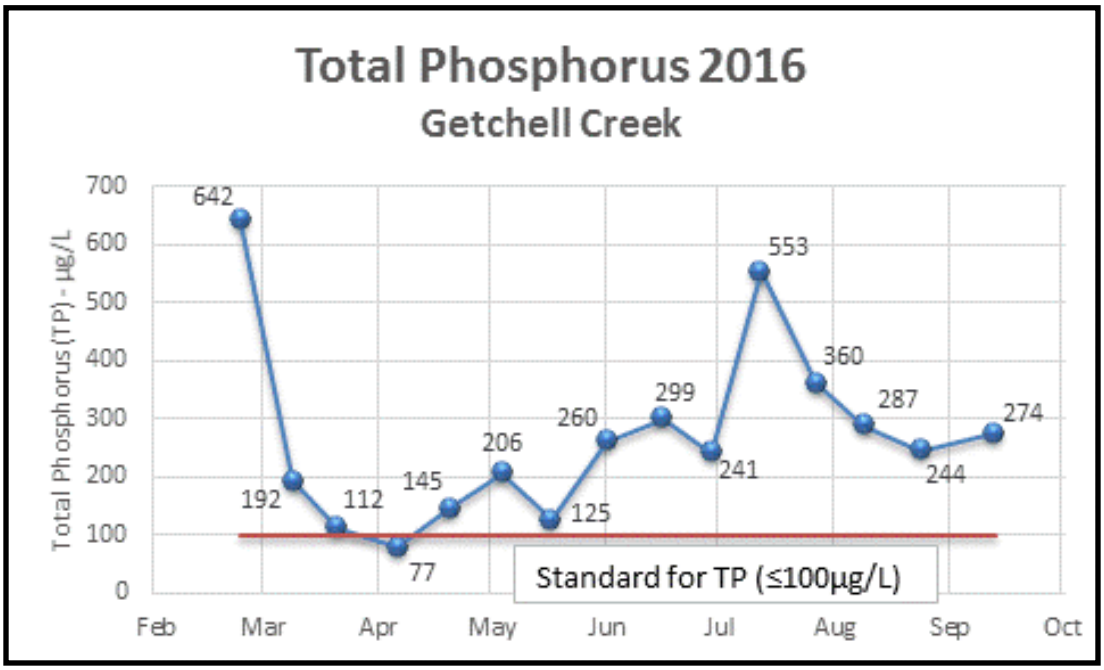
Getchell Creek is unique as it is identified as both a public water and an agricultural drainage system. The site is located on County Road 176 near New Munich.

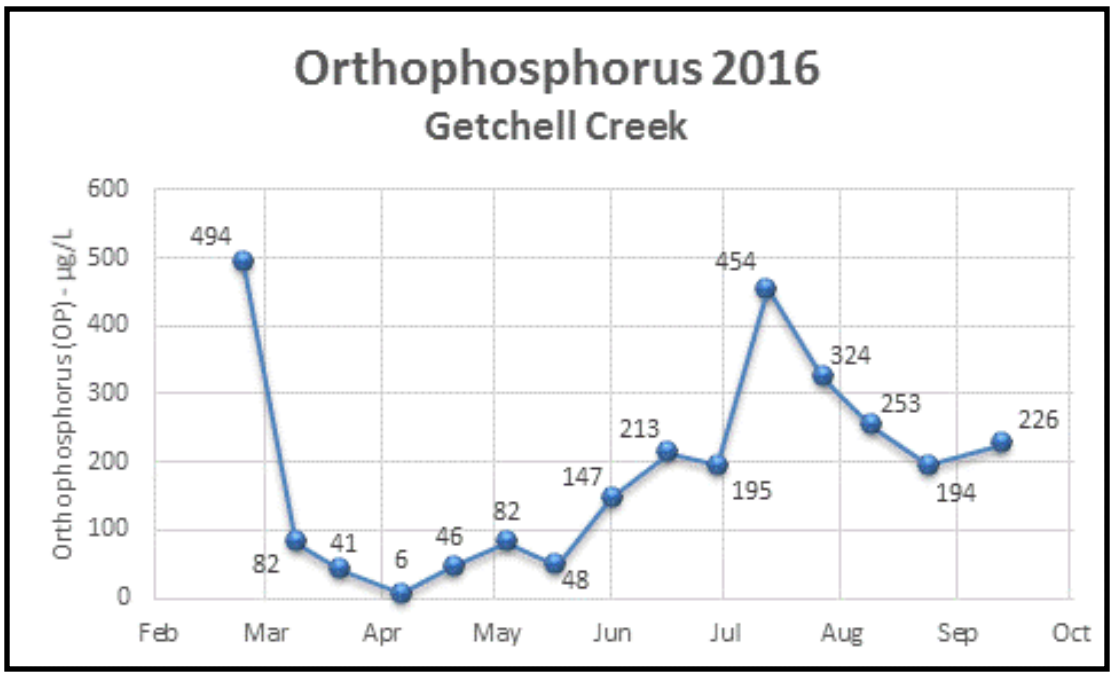


"It is the vision of the Sauk River Watershed District to protect and enhance our natural resources by increasing public awareness and involvement….The District will be wise stewards of our natural resources and will work alongside our partners to leave the water quality better for future generations."

Created March 2017

Getchell Creek on County Road 176





Total Phosphorus (TP)

Total phosphorus is made up of both organic and inorganic (ortho-phosphorus) materials. It can be found suspended in the water or in the bottom materials of a water body. The eutrophication standard for total phosphorus in streams within the Central River Nutrient Region is <100µg/L.

As shown in the figure to the left, fourteen out of fifteen samples collected from Getchell Creek in 2016 exceed the standard for total phosphorus.

Orthophosphorus (OP)

Orthophosphorus is composed of inorganic materials, and although natural processes produce it, it is also produced through human activities such as agricultural runoff, fertilizers, and sewage. Orthophosphorus is required for plants to grow, and excessive amounts of it can lead to excessive plant growth and can dictate chlorophyll-a levels. Excessive plant growth can, in turn, negatively affect the amount of dissolved oxygen available for fish and other organisms.

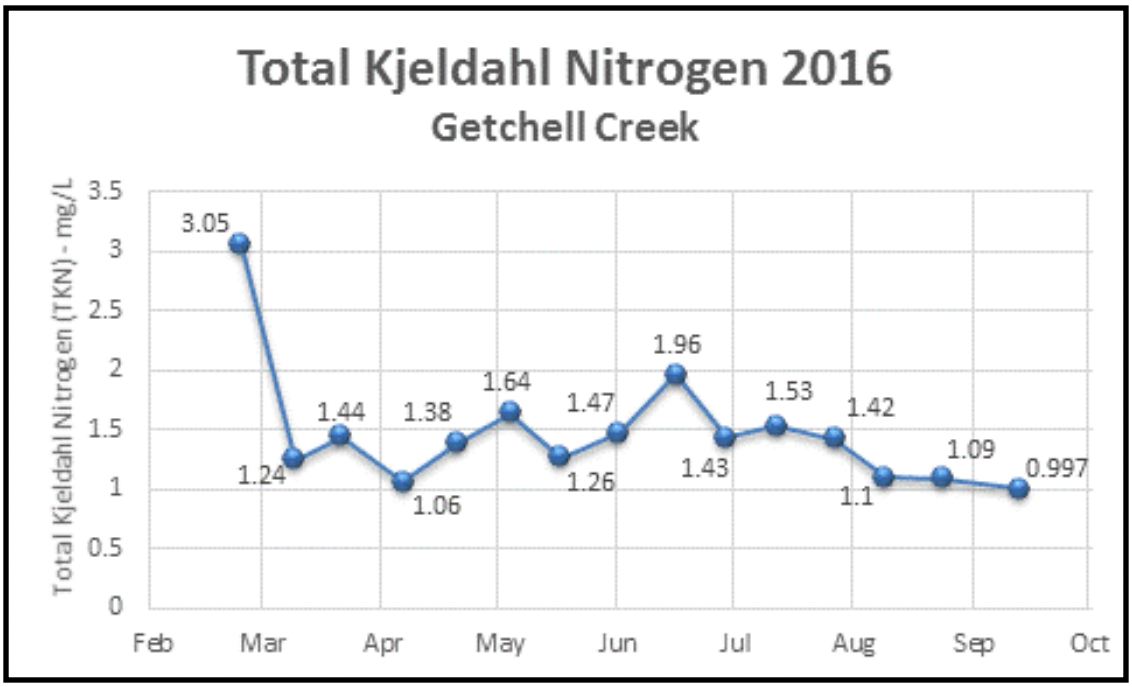
Currently there is not a state standard for orthophosphorus, and the data is mainly used to assist staff in determining the source(s) of phosphorus in a waterbody.

Total Kjeldahl Nitrogen (TKN)

Total Kjeldahl Nitrogen measures the amount of ammonia and organic nitrogen in the water. As with most nutrients, an abundance of TKN will lead to excess plant growth and eventually to eutrophication of the water body.

High levels of TKN may be due to animal and/or human waste or decaying organic matter (plant material).

Currently there is not a state standard for TKN.

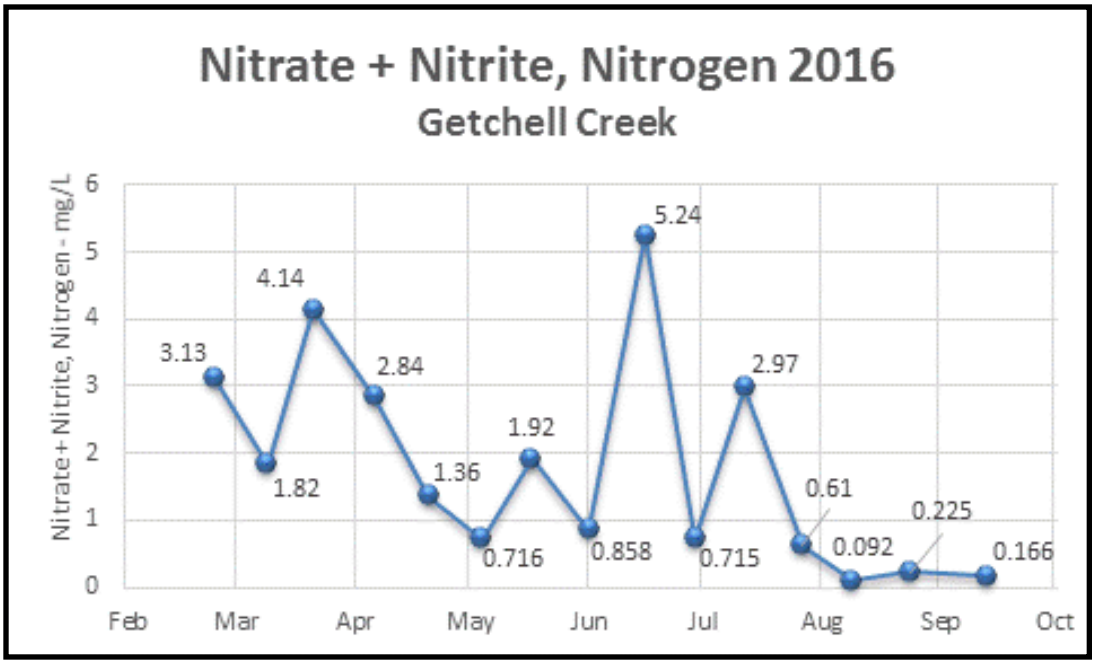


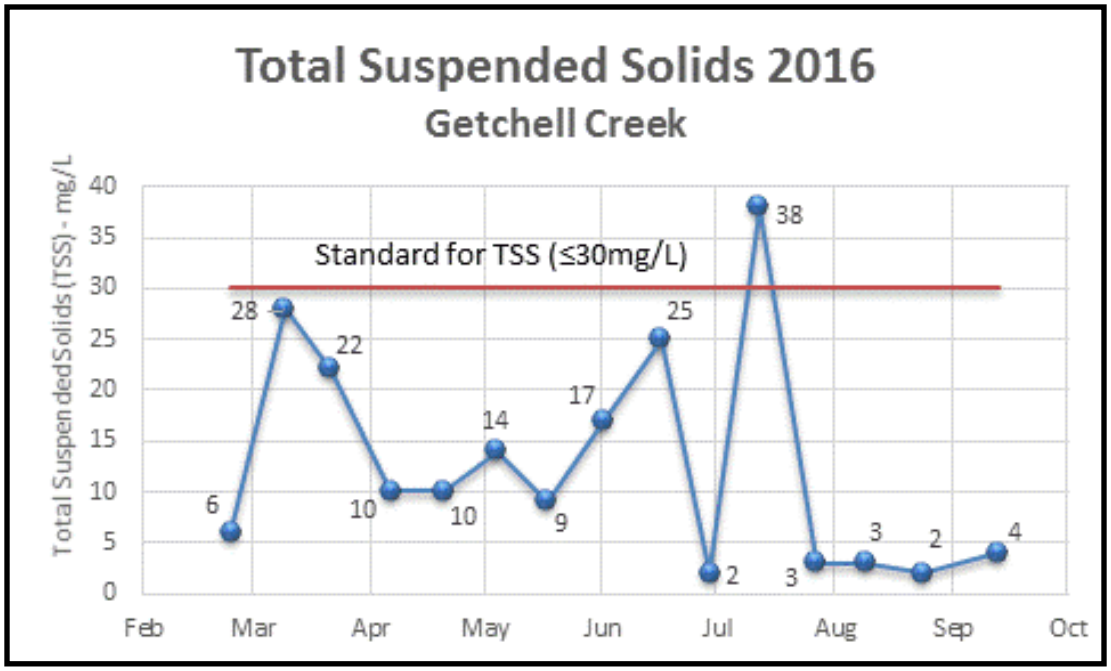
Nitrate + Nitrite (N+N Nitrogen)

Nitrate Nitrite Nitrogen levels are naturally low, and when they appear to be elevated it is usually caused by fertilizer runoff, septic system failure, runoff from manure storage areas, and industrial discharge.

High levels of N+N can cause hypoxia (low dissolved oxygen conditions) which can be dangerous, and even deadly, for fish.

Currently there is no standard for N+N.





Getchell Creek Data Summary

Of the data that was collected from Getchell Creek during the 2016 monitoring season, only two of the five parameters (TP and TSS) have state standards to compare to. Of these parameters, 93% of the TP samples collected exceeded the standard and 7% of the TSS samples exceeded the standard. This indicates that phosphorus levels are the main concern in Getchell Creek.

Of the parameters that do not have state regulation standards (OP, TKN, and N+N), the levels are higher several other sites within the watershed.

A drainage system cleanout has been taking place on Getchell Creek (also known as CD 26) since 2014. 2017 is scheduled to be the final year of the cleanout. Ideally, finishing the cleanout will allow the water quality within the system to improve from the conditions that have been observed during the years of construction required by the Minnesota State Drainage Statute.

The data and analysis in this report are based on the data collected during the 2016 monitoring season. It is important to remember that one year of data is not a complete picture of all conditions. Please contact Sarah, Monitoring Coordinator, with any questions or concerns regarding the data presented in this report.

Total Suspended Solids (TSS)

The North Central Hardwood Forest Ecoregion standard for total suspended solids is 30mg/L.

As shown in the figure on the left, only one of the fifteen samples collected from Getchell Creek in 2016 exceeded the standard for TSS.

Site Photos

Getchell Creek Downstream on May 9th, 2016

Getchell Creek Upstream on August 17th, 2016

Contact Us

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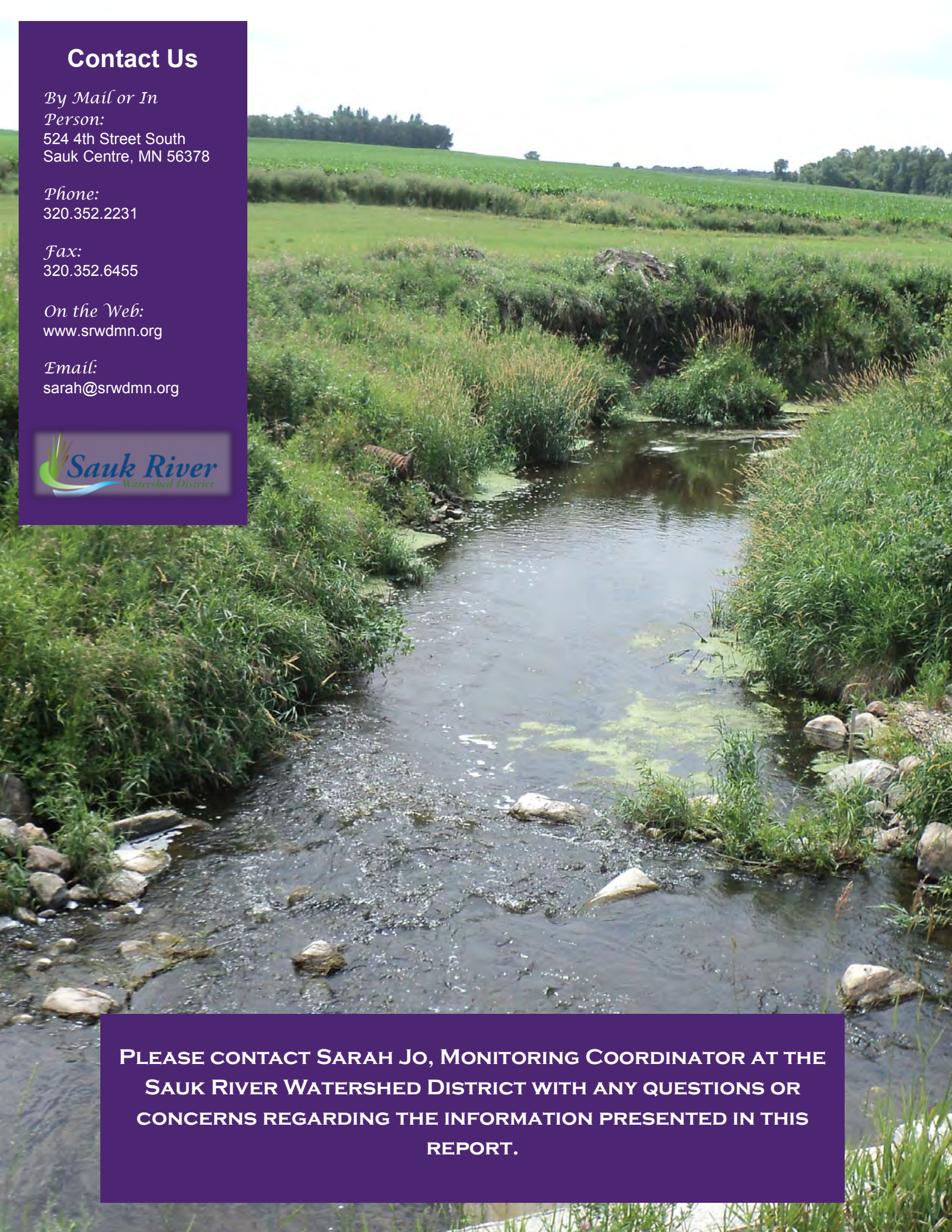
Sauk River Watershed District



Please contact Sarah Jo, Monitoring Coordinator at the Sauk River Watershed District with any questions or concerns regarding the information presented in this report.