

Stream Status

Overall Strategy: Routine Watershed Management
Impairment: *Aquatic consumption* due to mercury and PCBs in fish tissue.
Stream Class: N/A
Stream Type: N/A
Subwatershed Land Cover:
 24% developed, 21% forests and woodlands, 8% grassland/shrubland/sparse vegetation, 1% lakes and open water wetlands, 39% planted or cultivated, 7% wetlands.



Water Chemistry*

Parameter	St. Croix River
TP [µg/L]	55
NO ₂ +NO ₃ [mg/L]	0.203
TSS [mg/L]	7.5
Temperature [C]	10.3

*Refer to 2010 Watershed Management Plan Section V, *Stream Management Plans* for definitions of water chemistry parameters.

Overall Assessment: St. Croix River

The St. Croix River is approximately 164 miles long and drains 7760 square miles of Wisconsin and Minnesota. It joins with the Mississippi River at Point Douglas, MN / Prescott, WI and then flows south to the Gulf of Mexico. It forms the eastern border of the CMSCWD (93,610 feet) and directly drains approximately 9,784 acres of the CMSCWD and ultimately the entire District.

The ubiquitous spring creeks and seeps located along the bluffs of the St. Croix River are not only unique and important community resources for residents that reside in northern Washington County, they also are crucial to the overall health of the St. Croix River. Considered to be headwater systems, this network of small streams that blanket the landscape of the St. Croix River are like the capillary system of the watershed. As headwater streams, the spring creeks serve as a portion of the base of the St. Croix River's food web and are a critical food source for the river.

BASIC FACTS

Location:
 East boundary of CMSCWD
Stream Length 93,610 feet
Subwatershed Area 9,784 acres
Baseflow N/A
Bankfull Flow N/A
Entrenchment Ratio N/A
Width:Depth Ratio N/A
Sinuosity N/A
Slope N/A
Rosgen Class N/A
DNR Trout Stream N/A

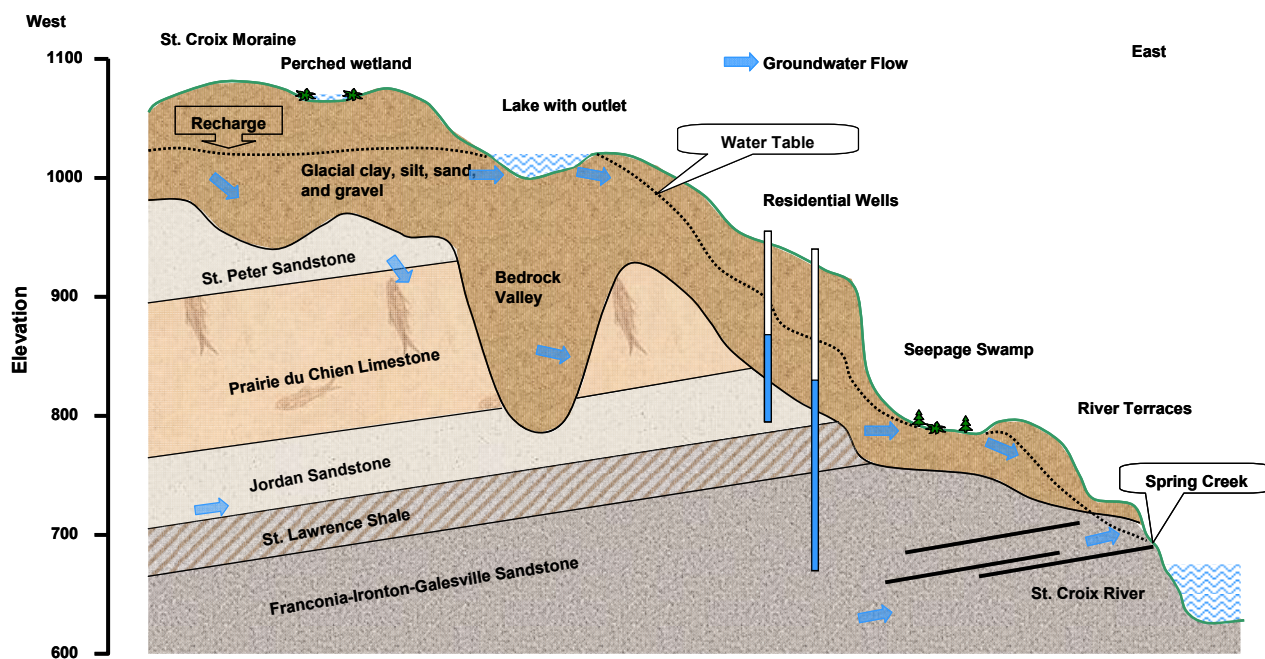
Fish Species:
 At least 95 species

CMSCWD References:
 Lower St. Croix River Spring Creek Stewardship Plan ('03)

St. Croix River

The St. Croix River is currently classified by the State of Minnesota as an Outstanding Resource Value Water for its water quality, wildness and other benefits. The Lower St. Croix River was designated as a National Wild and Scenic Riverway by Congress in 1972. The portion of the St. Croix River that forms the eastern boundary of the CMSCWD is listed on the MPCA Impaired Waters List per Section 303(d) of the federal Clean Water Act. This part of the River is identified as impaired for aquatic consumption by mercury and PCBs in fish tissue. In 2007 the MPCA completed a statewide TMDL study and implementation plan to address the state's mercury impairments. The PCB TMDL study expected completion date is 2021.

The over-arching goal of the Lower St. Croix Spring Creek Stewardship Plan ('03) is to protect the groundwater-dependent natural resources of the St. Croix Basin. The bedrock units in the Twin Cities area are often described as a basin resembling a very shallow bowl. The study area and the St. Croix Valley lie along the eastern edge of the basin. Bedrock units tilt up toward the St. Croix River. Surface topography slopes downward toward the river, so deeper bedrock units such as the Franconia Formation subcrop or outcrop along the St. Croix Valley in unusual ways (see figure below). The geology has been affected by at least four episodes of glacial activity. The oldest periods are known as the Kansan and Illinoian glaciation. Tillands and landforms created in these periods were largely removed or reworked by subsequent glaciers, but a few remnants of old tills can be found buried in the bedrock valleys.



Key Management Recommendations

- Protect the groundwater-dependent natural resources of the St. Croix Basin.
- Manage groundwater within the framework of the three Groundwater Management Zones as defined in the Washington County Groundwater Study.
- Maintain groundwater recharge to groundwater-dependent natural resources.
- Maintain stormwater volume and peak flow rates at predevelopment levels.
- Limit sediment and nutrient loads to spring creeks and the St. Croix River.
- Avoid outletting landlocked basins to spring creeks.

* See 2010 Watershed Management Plan Section V, Stream Management Plans for additional information on District stream management activities.