

Stream Status

Overall Strategy: Routine Watershed Management

Water Quality Rating: C-

Stream Class: Groundwater Small Watershed Nonurban (GWS)

Stream Type: Very small, unstable, incised, highly erodible channel primarily comprised of an unconsolidated, heterogeneous mixture of gravel, some small cobble, and sand.

Subwatershed Land Cover: 5% developed, 91% forests and woodlands, 5% planted or cultivated.



BASIC FACTS

Section	14
Township	30
Range	19
Stream Length	0.03 miles
Subwatershed Area	29 acres
Baseflow	0.95 cfs
Bankfull Flow	1.54 cfs
Entrenchment Ratio	1.50
Width:Depth Ratio	25.00
Sinuosity	0.92
Slope	0.08
Rosgen Class	B5a
DNR Trout Stream	No

Fish Species: N/A

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

Macroinvertebrate Data (2002-2003)*

Metric	Score	Mean of Spring Creeks
Chironomidae Species Richness	19	21
Invertebrate Taxa Richness	29	31.75
HBI	5.1	4.4
% EPT	7.6	36.9
% Dominance	61.9	35.5
Most Common Families	Midges and Scuds	

Water Chemistry (2000-2003)*

Parameter	Site Mean	Site σ	MPCA NCHF Benchmark MIS/St. Croix River		Mean of Spring Creeks
TP [$\mu\text{g/L}$]	31.76	9.86	90	55	42.47
NO ₂ +NO ₃ [mg/L]	4.60	0.09	0.1	0.203	2.15
TSS [mg/L]	30.60	26.51	8.8	7.50	15.96
Temperature [C]	9.60	1.24	13.0	10.30	9.95

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

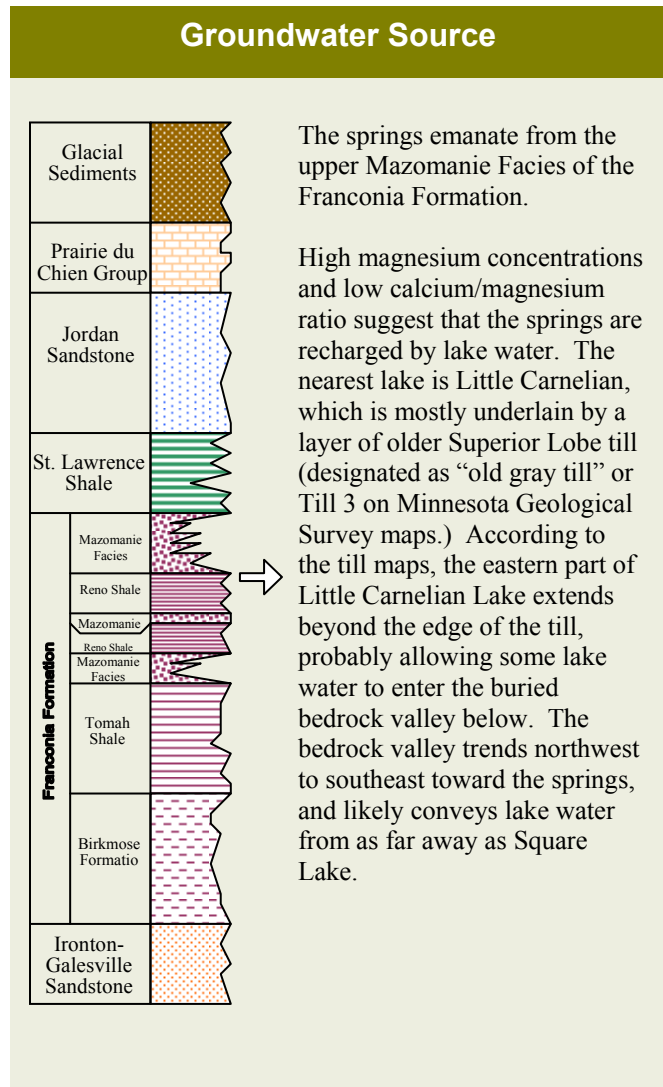
Overall Assessment: Arcola Court Creek

This small watershed is located northwest of Arcola Court Creek and is comprised of maple basswood forest and mesic oak forest. In its upper reaches is an ephemeral stream. The last 0.03 miles of stream is a perennial spring run. Numerous other small perennial springs emanate from the ground adjacent to this site.

The standout feature of this area is a moist cliff area located along the St. Croix River, which has also been inventoried by a bryophyte ecologist. This feature supports several unique species of mosses and liverworts not commonly found in southeastern Minnesota. In addition, the surrounding mesic oak and maple basswood forest communities are relatively intact and of decent quality.

Based on macroinvertebrate data from the 2003 Lower St. Croix River Spring Creek Stewardship Plan, Arcola Court Creek has a water quality rating of ‘C-.’ Hilsenhoff’s biotic index (HBI) is fair but the data show a low percent EPT (percent of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) and high percent diptera (an indicator of poor water quality).

The Blanding’s turtle (*Emydoidea blandingii*) is a state-listed threatened species that may be encountered throughout the watershed.



Key Management Recommendations

- Arcola Court is bordered on the upslope portion of its drainage area by residential development. Discharge of stormwater runoff should be avoided over the bluff slopes.
- Disturbance to the dry ravine extending upslope of Arcola Court should be avoided. Maintain bluff line setbacks in native vegetation above this ravine.

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