

Stream Status

Overall Strategy: Routine Watershed Management

Water Quality Rating: B

Stream Class: Groundwater Small Watershed Nonurban (GWS)

Stream Type: Slightly entrenched, meandering, gravel dominated, channel; relatively stable and not a high sediment supply stream.

Subwatershed Land Cover: 5% developed, 85% forests and woodlands, 2% lakes and open water wetlands, 6% planted or cultivated, 2% wetlands.



BASIC FACTS

Section	6
Township	32
Range	19
Stream Length	0.015 miles
Subwatershed Area	74 acres
Baseflow	0.92 cfs
Bankfull Flow	2.83 cfs
Entrenchment Ratio	1.50
Width:Depth Ratio	13.50
Sinuosity	1.00
Slope	0.03
Rosgen Class	B4
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	25	21
Invertebrate Taxa Richness	38	31.75
HBI	4.96	4.4
%EPT	19.22	36.9
% Dominance	34.23	35.5
Most Common Families	Scuds, Midges, and Small Minnow Mayfly	

Water Chemistry (2000-2002)*

Parameter	Site Mean	Site σ	MPCA NCHF Benchmark		Mean of Spring Creeks
			MIS	St. Croix River	
TP [$\mu\text{g/L}$]	40.44	5.37	90	55	42.47
$\text{NO}_2^- + \text{NO}_3^-$ [mg/L]	3.75	0.12	0.1	0.203	2.15
TSS [mg/L]	1.56	0.67	8.8	7.5	15.96
Temperature [$^{\circ}\text{C}$]	7.42	4.91	13.0	10.3	9.95

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

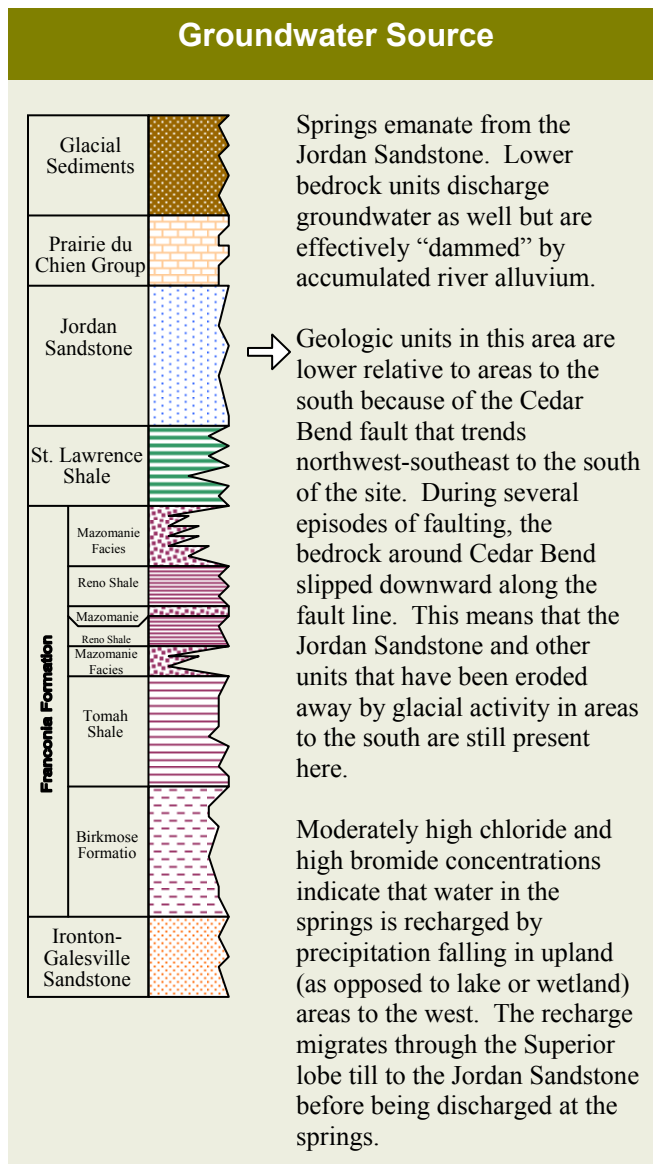
Overall Assessment: Cedar Bend Trout Farm

The Cedar Bend Trout Farm includes several small stream sections that extend from the outfall of culverts outletting a series of eight individual ponds. These ponds were excavated along the base of a steep, wooded bluff, where numerous groundwater seeps discharge, and were used historically as trout ponds. Associated with the seeps is a narrow band of hardwood seepage swamp.

Although much of this site is disturbed from excavation and subsequent placement of fill for the eight ponds, a substantial quantity of groundwater discharges from this system. The surrounding forested bluff includes high quality mesic oak forest, oak woodland and dry sand-gravel prairie. Two rare plants and one rare bird species have been found in this area. The in-stream biological community at this site is one of the most diverse sites sampled.

Based on macroinvertebrate data from the 2003 *Lower St. Croix River Spring Creek Stewardship Plan*, Cedar Bend Trout Farm has a water quality rating of ‘B.’ A decent Hilsenhoff’s biotic index (HBI) is likely low due to wetlands and a moderately low percent EPT (percent of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) which should be better on gravel substrate.

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



Key Management Recommendations

- Maintain natural buffer along bluffline and slopes above seepage area.
- Restore groundwater seepage wetlands and stream to pre-pond excavation condition.

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