

**Stream Status**

**Overall Strategy:** Routine Watershed Management

**Water Quality Rating:** A

**Stream Class:** Groundwater Small Watershed Nonurban (GWS)

**Stream Type:** Slightly entrenched, meandering, gravel dominated, channel. This stream is relatively stable but there is moderate streambank erosion.

**Subwatershed Land Cover:** 21% developed, 63% forests and woodlands, 12% planted or cultivated, 4% wetlands.



**Macroinvertebrate Data (2002-2003)\***

Metric	Score	Mean of Spring Creeks
Chironomidae Species Richness	16	21
Invertebrate Taxa Richness	29	31.75
HBI	4.42	4.4
% EPT	58.75	36.9
% Dominance	37.99	35.5
Most Common Families	Scuds, Black Flies and Small Minnow Mayfly	

**Water Chemistry (2000-2002)\***

Parameter	Site Mean	Site $\sigma$	MPCA NCHF Benchmark MIS/St. Croix River		Mean of Spring Creeks
TP [ $\mu\text{g/L}$ ]	45.22	67.98	90	55	42.47
NO <sub>2</sub> +NO <sub>3</sub> [mg/L]	2.45	0.34	0.1	0.203	2.15
TSS [mg/L]	24.89	38.12	8.8	7.5	15.96
Temperature [C]	11.36	3.20	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.

**BASIC FACTS**

<b>Section</b>	19
<b>Township</b>	32
<b>Range</b>	19
<b>Stream Length</b>	0.36 miles
<b>Subwatershed Area</b>	75 acres
<b>Baseflow</b>	0.88 cfs
<b>Bankfull Flow</b>	11.13 cfs
<b>Entrenchment Ratio</b>	1.40
<b>Width:Depth Ratio</b>	12.00
<b>Sinuosity</b>	1.44
<b>Slope</b>	0.05
<b>Rosgen Class</b>	B4a
<b>DNR Trout Stream</b>	Yes

**Fish Species:**  
Brook Trout

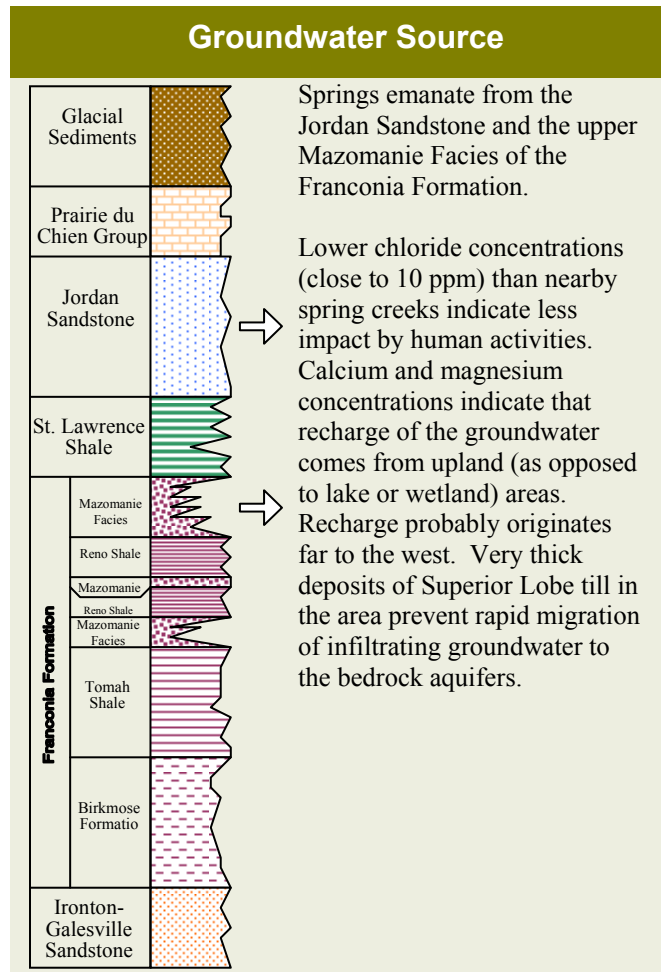
**CMSCWD References:**  
Lower St. Croix River Spring Creek Stewardship Plan ('03)

## Overall Assessment: Gilbertson's Creek

Gilbertson's Creek outlets to the St. Croix River just downstream of the Lighthouse Landing boat access. Gilbertson Creek begins along the Wisconsin-Central Rail where a ditch collects numerous seeps discharging along a terrace slope. From the Wisconsin-Central Rail, Gilbertson's Creek flows a short distance through a black ash seepage swamp, crosses CR 53 and then begins its descent to the St. Croix River.

The total watershed area contributing to Gilbertson's Creek is 85 acres. The watershed land use includes a large agricultural field, some partly wooded residential areas and forest land.

Gilbertson's Creek arises from one of the larger groundwater dependent wetland complexes in the study area. Extending from the north boundary of William O'Brien State Park to just north of the junction of CR 53 and the Wisconsin-Central Rail, this wetland complex includes rich fen, black ash seepage swamp and mixed hardwood seepage swamp. Downstream of CR 53, Gilbertson's Creek drops over a waterfall into a scenic gorge bordered by good quality white pine-hardwood forest.



This ravine/stream system includes records for several rare species including Louisiana waterthrush (*Seiurus motacilla*), red shouldered hawk (*Buteo lineatus*), bald eagle (*Haliaeetus leucocephalus*) and a special concern vascular plant. Gilbertson's Creek contains a population of naturally reproducing brook trout (*Salvelinus fontinalis*) below CR 53, and the Blanding's turtle (*Emydoidea blandingii*), a state-listed threatened species, may be encountered throughout the watershed. Based on macroinvertebrate data from the 2003 *Lower St. Croix River Spring Creek Stewardship Plan*, Gilbertson's Creek has a very good water quality rating of 'A.' Hilsenhoff's biotic index (HBI) is good, and the data show an excellent percent EPT (percent of pollutant intolerant mayflies, stoneflies and caddisflies in the sample) with other values also indicating good stream health.

## Key Management Recommendations

- The public access road (Log House Landing) to the St. Croix River is subject to significant scour and erosion during storm events. The Watershed District should work with the NPS, DNR and Township to stabilize eroded areas and lower peak flow rates into the Gilbertson's Creek Gorge.
- Several short reaches of Gilbertson's Creek cross residential areas where stream-side vegetation has been removed and converted to turf grass. Landowners should be informed of the importance of a continuous stream corridor.

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