**STREAM NARRATIVES**

**Little Popple River Watershed Assessment Project 2014**

Fish, qualitative habitat and macroinvertebrate surveys were conducted in the summer and fall of 2014. Continuous temperature loggers were also deployed for the duration of the summer. Tables 1, 2, and 3 contain ratings for Coldwater, Warmwater and Coolwater IBIs. Qualitative habitat scores are provided in Table 4. The Hilsenhoff Biotic Integrity (HBI) scores will be available in fall 2015. Temperature data is available through the Water Resources Biologist at the Rhinelander Department of Natural Resources. Table 5 contains a list of streams that could not be sampled during reconnaissance due to the various reasons listed.

*\*Temperature data logger for Unnamed Creek (5004258) at Old HWY B could not be found during retrieval in October 2014.*

**Little Popple River (648000) at Burma Road**

Little Popple River at Burma Road is classified as a Cool-warm Mainstem and a Class II trout stream. Nine species of fish were observed during the electrofishing survey: Common Shiner, White Sucker, Creek Chub, Pearl Dace, Central Mudminnow, Western Blacknose Dace, Hornyhead Chub, Northern Redbelly Dace, and Green Sunfish. Little Popple River scored 60 under the Coolwater IBI model, which indicates good water quality conditions. A qualitative habitat score of 62 under the rating for streams <10m wide indicates good habitat conditions.

**Little Popple River (648000) at CTH N (N 45.79677, W -88.19509)**

Little Popple River at CTH N is classified as a Cool-warm Mainstem and a Class II trout stream. Nine species of fish were observed during the electrofishing survey: White Sucker, Common Shiner, Western Blacknose Dace, Creek Chub, Brook Stickleback, Central Mudminnow, Longnose Dace, Hornyhead Chub, and Pearl Dace. Little Popple River scored 50 under the Coolwater IBI model, which indicates good water quality conditions. A qualitative habitat score of 43 under the rating for streams <10m wide indicates fair habitat conditions.

**Little Popple River (648000) at River Road**

Little Popple River at River Road is classified as a Cool-warm Mainstem and a Class II trout stream. Sixteen species of fish were observed during the electrofishing survey: White Sucker, Common Shiner, Mottle Sculpin, Logperch, Hornyhead Chub, Western Blacknose Dace, Central Mudminnow, Creek Chub, Johnny Darter, Longnose Dace, Longnose Sucker, Rock Bass, Yellow Bullhead, Smallmouth Bass, Bluegill, and Brook Trout. Little Popple River scored 90 under the Coolwater IBI model, which indicates excellent water quality conditions. A qualitative habitat score of 82 under the rating for streams <10m wide indicates excellent habitat conditions.

**Little Popple River (648000) at Sleeter Road**

Little Popple River at Sleeter Road is classified as a Cool-warm Mainstem and a Class I trout stream. Six species of fish were observed during the electrofishing survey: Creek Chub, Common Shiner, Hornyhead Chub, White Sucker, Pearl Dace, and Brook Trout. Little Popple River scored 60 under the Coolwater IBI model, which indicates good water quality conditions. A qualitative score of 58 under the rating for streams <10m wide indicates good habitat conditions.

**Sand Lake Branch (649800) at Sleeter Road**

Sand Lake Branch at Sleeter Road is classified as a Cool-warm Headwater and a Class I trout stream. Ten species of fish were observed during the electrofishing survey: Creek Chub, White Sucker, Brook Stickleback, Central Mudminnow, Pearl Dace, Common Shiner, Brassy Minnow, Finescale Dace, Northern Redbelly Dace, and Western Blacknose Dace. Sand Lake Branch scored 50 under the Coolwater IBI model, which indicates good water quality conditions. A qualitative habitat score of 60 under the rating for streams <10m wide indicates good habitat conditions.

**South Branch Little Popple River (648600) at Carlson Road**

South Branch Little Popple River at Carlson Road is classified as a Cool-warm Headwater. Eight species of fish were observed during the electrofishing survey: Common Shiner, Creek Chub, Pearl Dace, Western Blacknose Dace, Northern Redbelly Dace, Central Mudminnow, Finescale Dace, and Brook Stickleback. South Branch Little Popple River scored 60 under the Coolwater IBI model, which indicates good water quality conditions. A qualitative habitat score of 53 under the rating for streams <10m wide indicates good habitat conditions.

**South Branch Little Popple River (648600) at CTH U (N 45.73767, W -88.19948)**

South Branch Little Popple River at CTH U is classified as a Cool-cold Headwater. Six species of fish were observed during the electrofishing visit: Central Mudminnow, Creek Chub, Western Blacknose Dace, Pearl Dace, and Northern Redbelly Dace. South Branch Little Popple River scored 20 under the Coolwater IBI model, which indicates poor water quality conditions. A qualitative habitat score of 50 under the rating for streams <10m wide indicates good habitat conditions.

**Unnamed Creek (5004258) at Old HWY B**

Unnamed Creek at Old HWY B is classified as a Cool-warm Headwater. Zero fish were observed during the electrofishing survey. One Brook Stickleback was observed at the pool below the culvert. A qualitative habitat score of 40 under the rating for streams <10m wide indicates fair habitat conditions.

**Unnamed Creek (649400) at CTH C**

Unnamed Creek at CTH C is classified as a Cool-cold Headwater. Zero fish were observed during the electrofishing survey. A qualitative habitat score of 60 under the rating for streams <10m wide indicates good habitat conditions.

**Unnamed Creek (5004116) at Franzen Road**

Unnamed Creek at Franzen Road is classified as a Cool-warm Headwater. Two species of fish were observed during the electrofishing survey: Central Mudminnow and Brook Stickleback. Unnamed Creek scored 20 under the Coolwater IBI model, which indicates poor water quality conditions. A qualitative habitat score of 60 under the rating for streams <10m wide indicates good habitat conditions.

Table 1. Coldwater fish index of biotic integrity scores and interpretations (Lyons et al, 1996).



Table 2. Warmwater fish index of biotic integrity scores and interpretations (Lyons et al, 1996).



Table 3. Coolwater fish index of biotic integrity scores and interpretations (DRAFT: Lyons, 2010).

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| **Overall IBI Score** | **Biotic Integrity Score** |
| 100 - 90 | Excellent |
| 80 - 60 | Good |
| 50 - 30 | Fair |
| 20 - 10 | Poor |
| 0 or no score | Very Poor (i.e., fewer than 15 fish captured even after extending station length) |

Table 4. Qualitative habitat ratings for streams.



Table 5. Streams that could not be sampled during reconnaissance.

