

# Water Quality Report for the Potato River at Sullivan Fire Lane and Lawrence Creek at Hwy. 122

The Potato River is listed as a Class II trout stream\* and has an Outstanding Resource Water classification\*\* by the State of Wisconsin. These classifications identify the Potato River at this location as one of Wisconsin's highest quality waters, with no changes in baseline water quality allowed. Lawrence Creek at Hwy. 122 does not have any special classifications by the State of Wisconsin. Further downstream at its confluence with Mud Creek, Lawrence Creek becomes a Class II trout stream, identifying it as having water quality capable of supporting trout populations.

**\*Trout Stream Classification (State of Wisconsin)**

**Class 1:** Highest quality trout waters. No stocking needed to maintain populations.

**Class 2:** Some natural reproduction, but stocking is needed to maintain a desirable sport fishery.

**Class 3:** No natural reproduction. Populations maintained by stocking.



Brook Trout *Salvelinus fontinalis*

Sampling began at these two sites for *E. coli* in the summer of 2010. These were the first samples of any kind collected by BRWA volunteers at these sites. The following is a summary of *E. coli* data for the Potato River at Sullivan Fire Lane and Lawrence Creek at Hwy. 122. We will be presenting these data compared to other volunteer data in the Bad River Watershed at a public meeting later in 2011.

**\*\*Water Classification**

Wisconsin's highest quality surface waters are classified as:

**Outstanding Resource Waters (ORW):** Highest quality waters, typically no human point sources of pollution exist, no changes in baseline water quality allowed.

**Exceptional Resource Waters (ERW):** Similar to ORW but some human point sources of pollution exist. No changes in baseline water quality allowed.

## **E. coli Data Summary and Conclusion**

*Escherichia coli* (*E. coli*) are a type of fecal coliform bacteria found in the intestines of all warm-blooded animals, including humans. The presence of *E. coli* in water may indicate contamination from sewage or animal waste. During rain events or snow melts, *E. coli* may be washed into streams. BRWA compares its *E. coli* data to the United States Environmental Protection Agency (EPA) criterion of 235 CFU/100mL (colony forming units per 100 mL). Colony counts above this number may indicate water that is unsafe for drinking and swimming.

### *Potato River at Sullivan Fire Lane*

A total of three *E. coli* samples were collected from the Potato River at Sullivan Fire Lane. All three samples were well below EPA's criterion, indicating good water quality. This is a remote site where we would not expect to see contamination from human sources. The small amounts of *E. coli* found at this site are typical of other remote sites in the Bad River Watershed and are likely due to wildlife populations. An additional year of monitoring at this site is advised, focusing on getting samples during the summer months and rain events.

### *Lawrence Creek at Hwy. 122*

A total of seven *E. coli* samples were collected from Lawrence Creek at Hwy. 122 during 2010. One of the seven samples was above EPA's criterion and one was just below it. Both of these samples were collected during or following rain events. Because elevated levels of *E. coli* were detected at this site, it is recommended that another year of sampling occur, with a focus on sampling rain events.

Thanks to Don Smith for collecting data at this site!