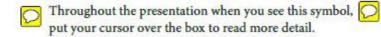
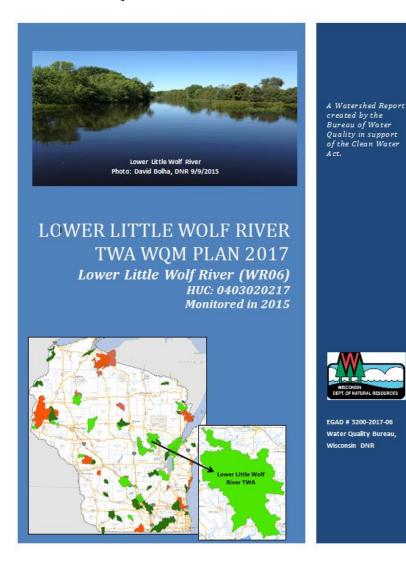
Lower Little Wolf River TWA WQM Plan 2017

Lower Little Wolf (WR06)

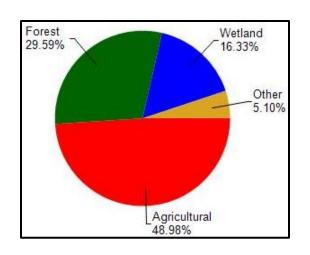


Dave Bolha, DNR Stream Biologist

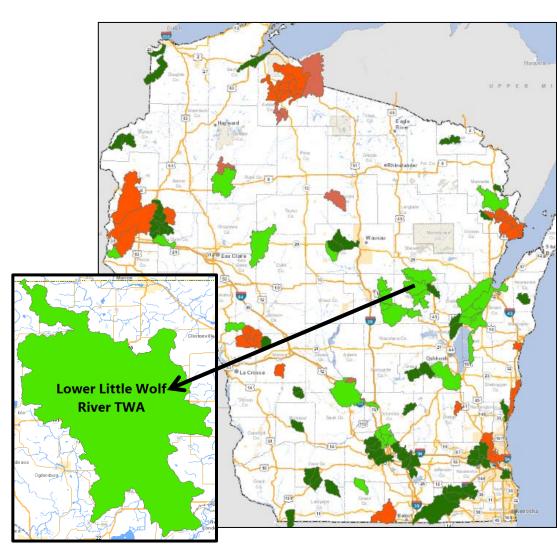




Project Location and Land Use



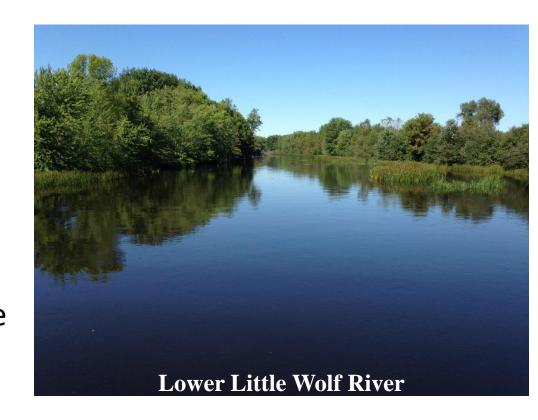
• The Lower Little Wolf River watershed is 153.60 mi². Land use in the watershed is primarily agricultural (48%), forest (29%) and a mix of wetland (16%) and other uses (5%) (Figure 2). This watershed has 189.20 stream miles, 1,038.51 lake acres and 21,932.16 wetland acres.





Purpose

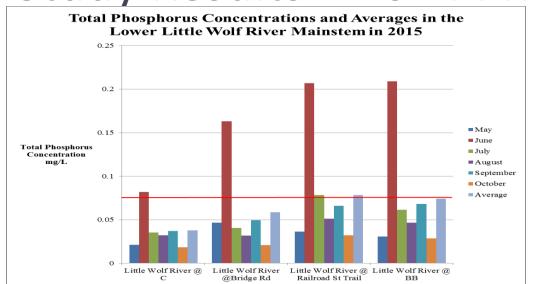
- Evaluate water quality improvements made in the Lower Little Wolf River watershed since implementation of best management practices from 1997 through 2008
- Parameters monitored: temperature, quantitative habitat surveys, wadeable fish surveys, macroinvertebrate surveys, and water chemistry



Monitoring Stations 693130 Spaulding Creek at G **Lower Little Wolf** 693151 Little Wolf River at C River TWA 693128 Whitcomb Creek at E 693154 North Fork Blake Creek at E South Fork Blake Creek at E 10013573 10016223 Whitcomb Creek at OO 693131 Shaw Creek at O Beaver Creek at O 10030800 Little Wolf River at Hwy 22 Symco 693147 693129 Blake Creek at Hwy 22 693128 Blake Creek at Hwy 22 693163 Little Wolf River at Bridge Rd 693147 Little Creek at O 10043199 Little Wolf River at Railroad St Trail 693143 Thiel Creek at Swan Rd 693142 Spiegelberg Creek at Cemetery Rd 693141 Little Wolf River at BB

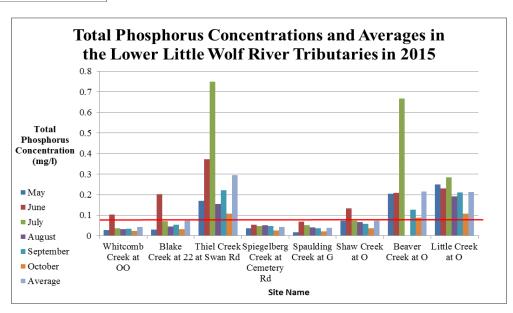


Study Results – 2014 Phosphorus



The 2015 TP sample analysis
results in the Lower Little Wolf
River Watershed ranged from
0.0172 mg/L at Spaulding Creek
in May to 0.749 mg/L at Thiel
Creek in July.

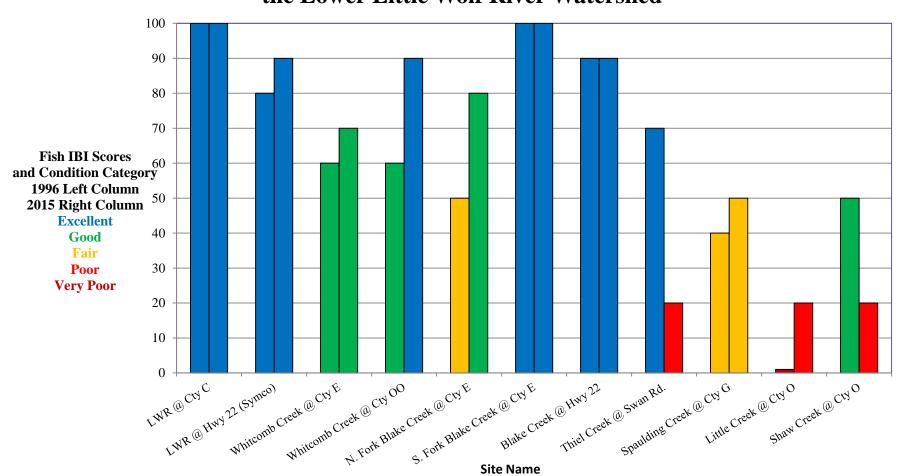
 The TP sample analysis results in the Little Wolf River Mainstem ranged from 0.0182 mg/L at County Hwy C in October to 0.209 mg/L at County Hwy BB in June.





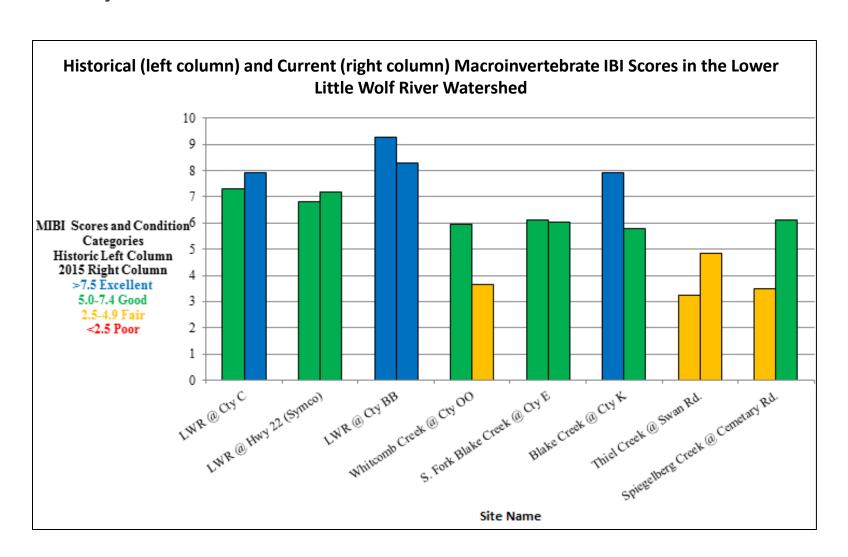
Study Results – Fish IBI

Historical (left column) and Current Fish (right column) IBI Scores in the Lower Little Wolf River Watershed



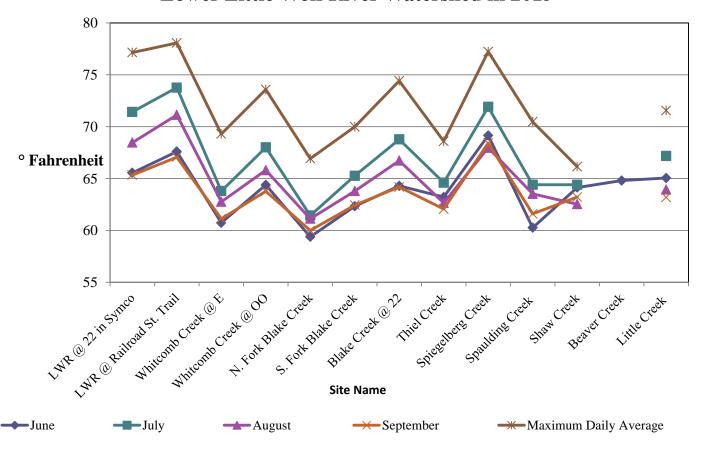


Study Results – Macroinvertebrates



Study Results – Temperature

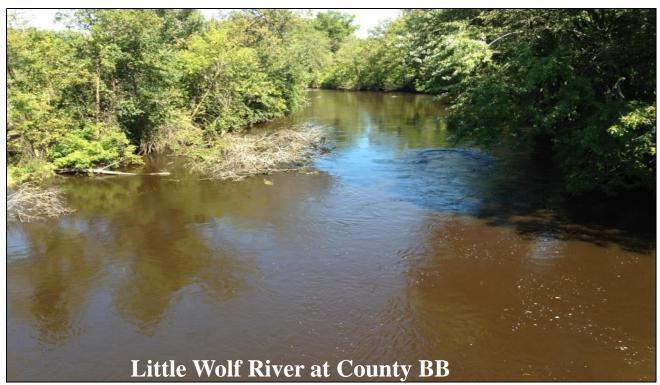
Average Monthly and Maximum Daily Average Temperatures of the Lower Little Wolf River Watershed in 2015





Management Priorities

- Reduce phosphorus and sediment loads in the Little and Thiel Creeks
 - Identify target areas within Thiel and Little Creeks in need of best management practices
- Maintain water quality in the Lower Little Wolf River for fish habitat and aquatic life





Recommendations

- Little and Thiel Creeks should be listed on Wisconsin's 303(d) list of impaired waters for phosphorus
- Continue temperature, phosphorus, and sediment monitoring above and below Big Falls and Manawa
- Continue phosphorus and nitrate monitoring in streams of the Lower Little Wolf River
- Implement best management practices with Waupaca County LWCD and NRCS

Contacts

- For more information contact:
 - Dave Bolha, Eastern District, Wisconsin DNR
 - (920) 424-7892
- Link to the <u>TWA WQM Plans website</u>
- Report Link