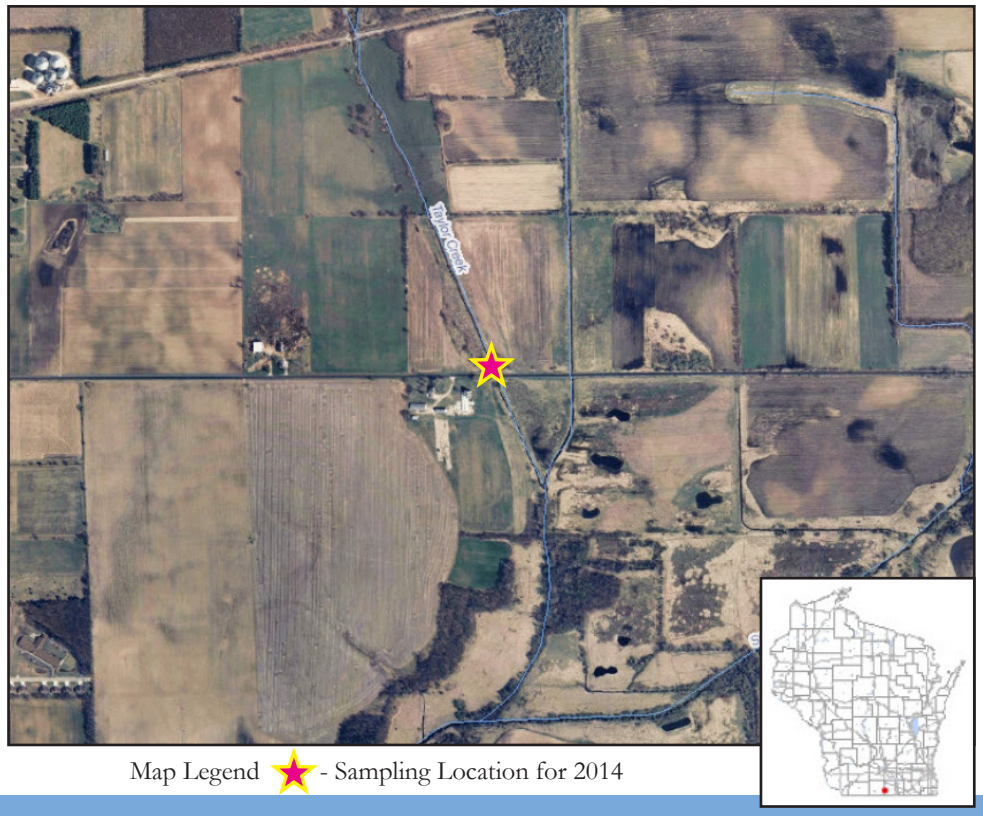
Monitoring Site Information

SWIMS Station ID	10042014
County	Rock
Watershed	Lower Sugar River
Watershed Area	217.85 sq miles
Total Stream Miles in Watershed	168 miles
Downstream Waterbody	Sugar River
Volunteer(s)	Dick Tripp

2014 Monitoring Results

Min TP Value	0.0114 mg/L
Max TP Value	0.0703 mg/L
Median TP Value	0.04485 mg/L
No. Samples > 0.075 mg/L	0



Map Legend - Sampling Location for 2014

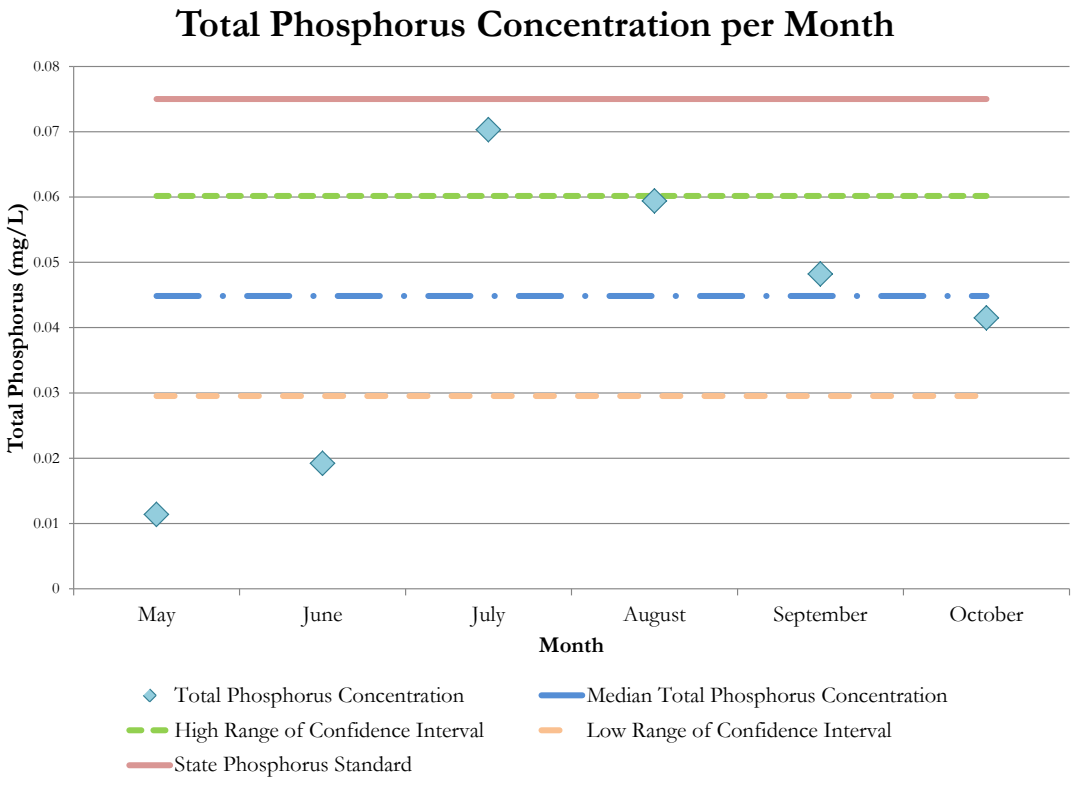
TP Criteria Met

Volunteer Total Phosphorus Monitoring

Taylor Creek at Keesey Road

2014 Monitoring Results

The goal of this Target Watershed Assessment (TWA) is to monitor the contemporary status of streams from two subwatersheds in the Lower Sugar River watershed, as well has evaluate the overall health of these watersheds. The DNR needs current fish, habitat, and macroinvertebrate data for streams in these watersheds. The data will be used to determine whether these streams are achieving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act.



Why Phosphorus?

Phosphorus is an essential nutrient responsible for plant growth, but it is also the most visible, widespread water pollutant in Wisconsin lakes. Small increases in phosphorus levels in a lake can bring about substantial increases in aquatic plant and algae growth, which in turn can reduce the recreational use and aquatic biodiversity of said lake. When the excess plants die and are decomposed, oxygen levels in the water drop dramatically which can lead to fish kills.

Additionally, one of the most common impairments in Wisconsin's streams is excess sediments that cover stream bottoms. Since phosphorus moves attached to sediments, it is intimately connected with this source of pollution in our streams. Phosphorus originates naturally from rocks, but its major sources in streams and lakes today are usually associated with human activities: soil erosion, human and animal wastes, septic systems, and runoff from farmland or lawns. Phosphorus-containing contaminants from urban streets and parking lots such as food waste, detergents, and paper products are also potential sources of phosphorus pollution from the surrounding landscape. The impact that phosphorus can have in streams is less apparent than in lakes due to the overall movement of water, but in areas with slow velocity, where sediment can settle and deposit along the bottom substrate, algae blooms can result.

Photo credits to Matt Berg, David Seligman, Linda Warren, and Adrian Konell

Volunteer Monitoring Protocol

To assess in stream phosphorus levels, WAV volunteers collected water samples that were analyzed for total phosphorus (TP) at the State Lab of Hygiene during the growing season (May through October). Following Wisconsin Department of Natural Resources (WDNR) methods, six phosphorus water samples were collected at each monitoring site - one per month for each of the six months during the growing season, The water samples were collected approximately 30 days apart and no samples were collected within 15 days of one another.
Total phosphorus impairment is assessed using the criteria in the table below.

TP Criteria Exceeded

The total phosphorus criteria is exceeded if the lower confidence limit of the sample median exceeds the state total phosphorus criteria of 0.075 mg/L.

Watch Waters

The site is classified as Watch Waters if the median total phosphorus concentration falls within the confidence limit.

TP Criteria Met

The total phosphorus criteria is met if the upper limit of the confidence interval does not exceed the state total phosphorus criteria of 0.075 mg/L.

PROJECT PARTNERS

WISCONSIN DEPT. OF NATURAL RESOURCES

Water Action Volunteers

Decatur Lake Mill Race Assoc. Brodhead, WI

UW Extension University of Wisconsin-Extension

LSRWA LOWER SUGAR RIVER watershed • association