

Water Quality in the Bad River Watershed

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Water Quality Monitoring: Total Phosphorus

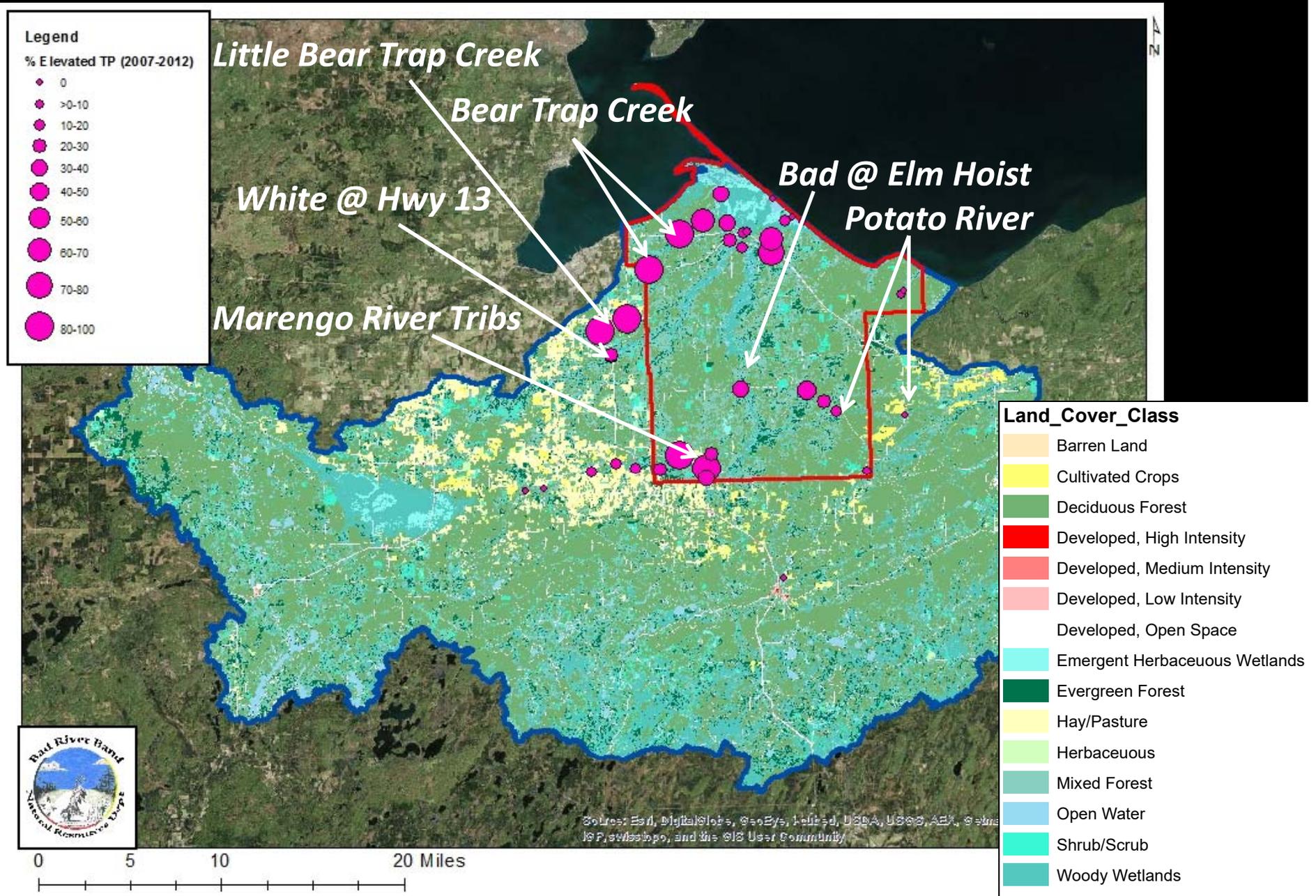
Bad River Natural Resources Department collects water samples from select surface water sites that are analyzed for total phosphorus (TP). The next two maps illustrate the percentages of samples collected at each site that had elevated TP concentrations. Please note that the number of samples collected varies by site and varies by year.

Samples with a concentration of 0.075 mg/L or greater are considered elevated TP concentrations; this concentration is one of Wisconsin's numeric water quality criteria applicable to streams. The TP criteria was derived to protect fish and aquatic life.

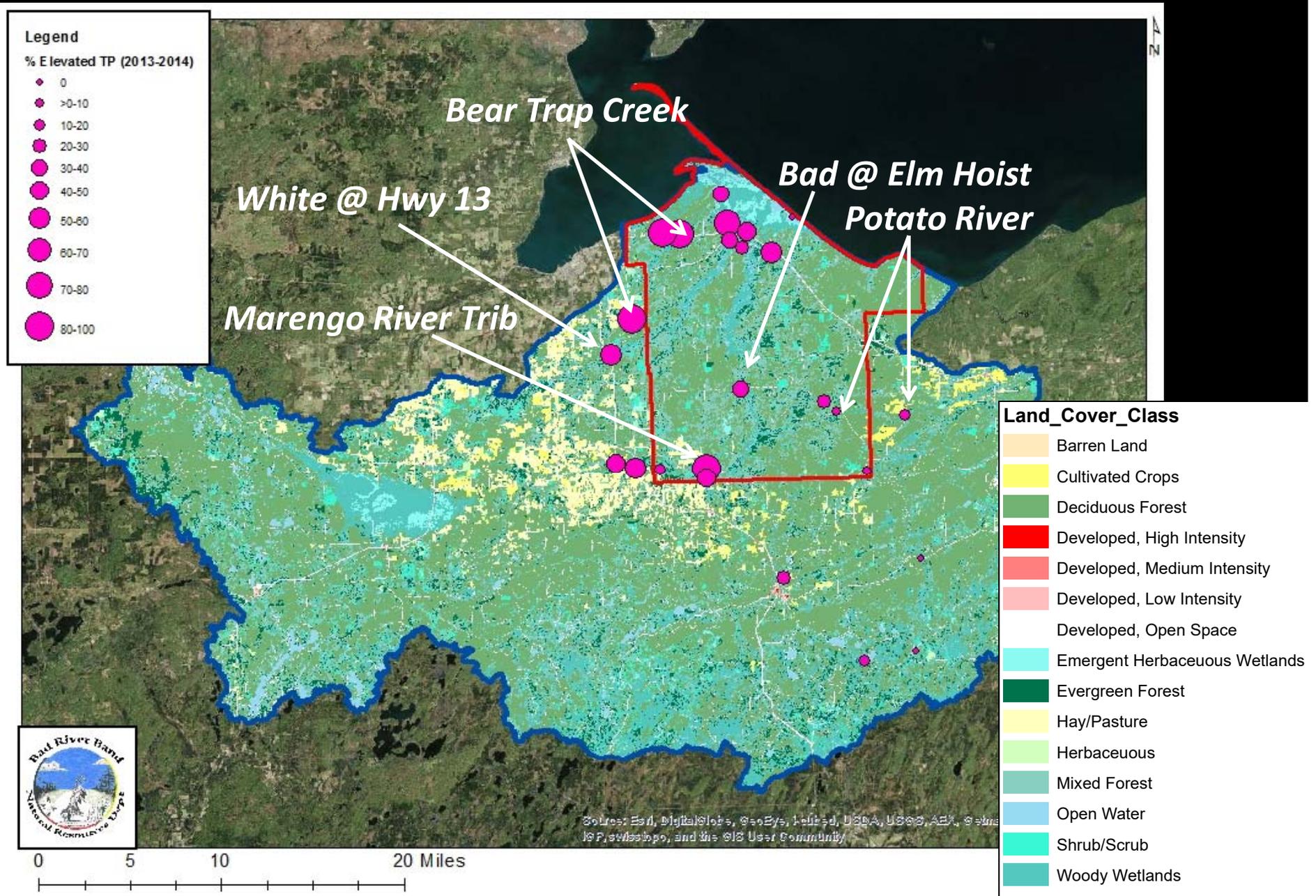
In 2007-2012, 449 out of the 822 samples collected and analyzed for TP had elevated concentrations. Out of the 38 sites sampled, 9 sites had over half of the samples with elevated TP. These 9 sites were located within the Marengo River watershed, the Beartrap Creek portion of the Lower Bad watershed, or the Denomie Creek portion of the Lower Bad watershed.

In 2013-2014, 106 out of the 226 samples collected and analyzed for TP had elevated concentrations. Out of the 26 sites sampled, 11 sites had over half of the samples with elevated TP. These 11 sites were primarily located within the Marengo River watershed, the White River watershed, the Beartrap Creek portion of the Lower Bad watershed, or the Denomie Creek portion of the Lower Bad watershed.

% of Samples with Elevated TP (2007-2012)



% of Samples with Elevated TP (2007-2012)



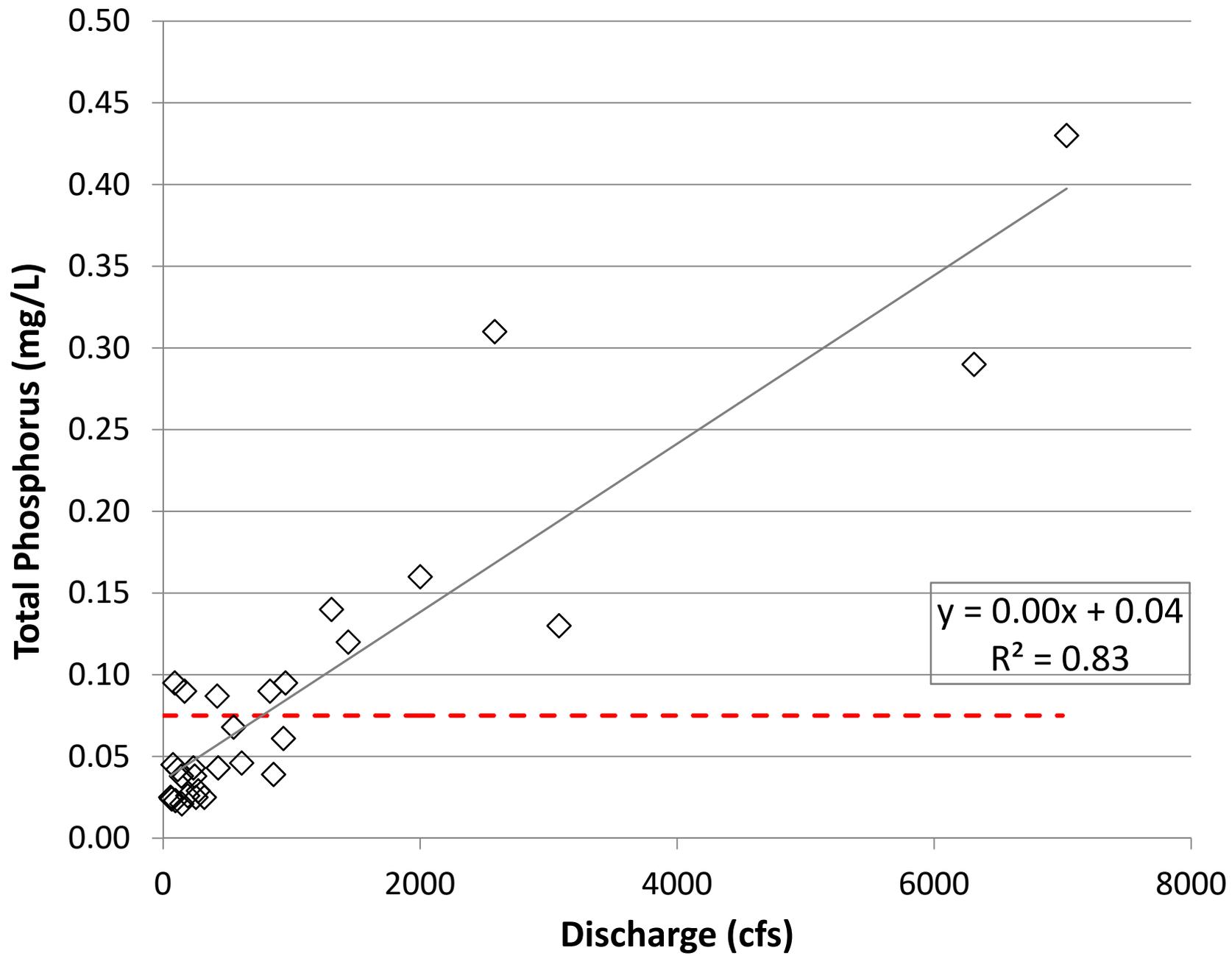
Water Quality Monitoring: Total Phosphorus

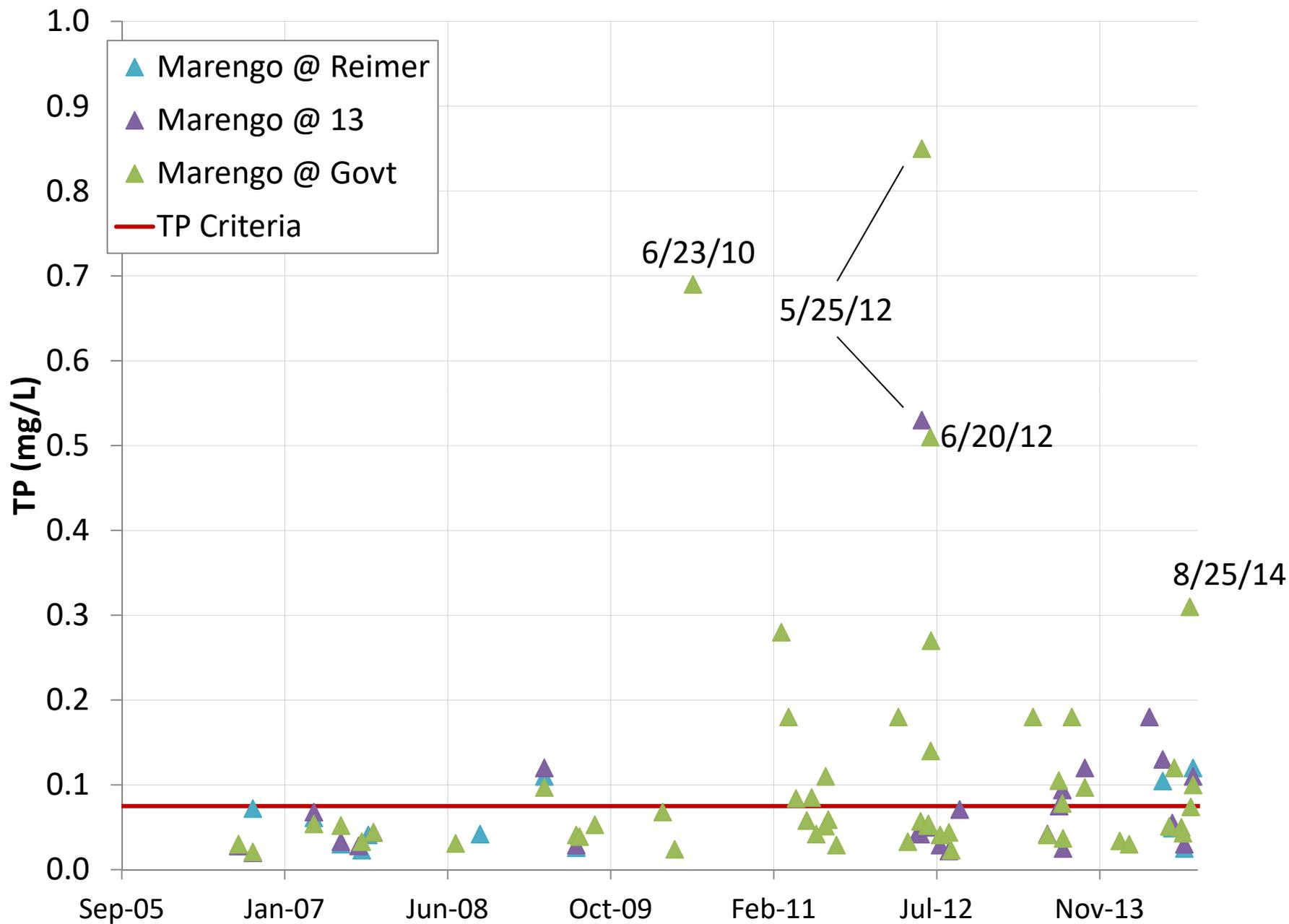
The graph following this slide illustrates the total phosphorus (TP) concentrations measured in the Bad River at the Elm Hoist Road crossing increase with flow (or discharge). The data displayed was collected between 2007-2012 and includes the discharge (in cubic feet per second or cfs) measured by U.S. Geological Survey.

The second graph following this slide displays the TP concentrations collected at three sites located on the Marengo River from 2006-2014. The TP criteria of 0.075 mg/L is displayed as a red line on this graph to help visualize the samples with elevated TP concentrations.

Additional information about nutrient pollution can be found at:

<https://www.epa.gov/nutrientpollution/problem>





Water Quality Monitoring: E. coli

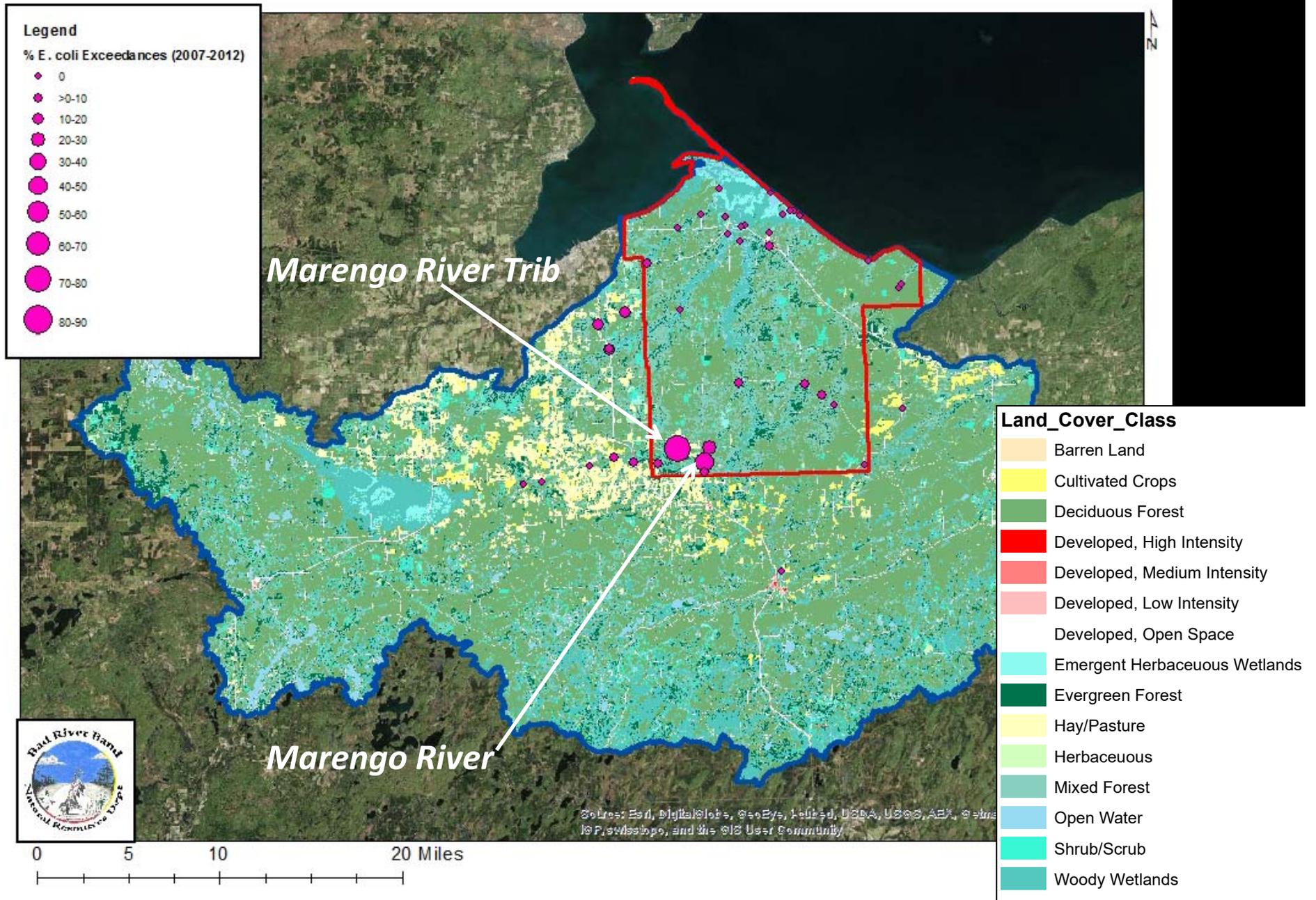
Bad River Natural Resources Department collects water samples from select surface water sites that are analyzed for E. coli. The next two maps illustrate the percentages of samples collected at each site that had elevated E. coli concentrations. Please note that the number of samples collected varies by site and varies by year.

Samples with a concentration of 235 CFU/100 mL or greater are considered elevated E. coli concentrations; this concentration is Bad River Tribe's numeric water quality criteria applicable to surface waters. The E. coli criteria was derived to protect human health during swimming or other primary contact activities.

In 2007-2012, 60 out of the 1137 samples collected and analyzed for E. coli had elevated concentrations. Out of the 41 sites sampled, 2 sites had over 40% of the samples with elevated E. coli. These 2 sites were located within the Marengo River watershed.

In 2013-2014, 35 out of the 253 samples collected and analyzed for E. coli had elevated concentrations. Out of the 46 sites sampled, 5 sites had over 40% of the samples with elevated E. coli. These 5 sites were located within the Marengo River watershed.

% of Samples with Elevated E. coli (2007-2012)



Water Quality Monitoring: E. coli

The graph following this slide illustrates the E. coli concentrations measured in the Bad River at the Elm Hoist Road crossing does not have a strong correlation with flow (or discharge). The data displayed was collected between 2007-2012 and includes the discharge (in cubic feet per second or cfs) measured by U.S. Geological Survey.

The second graph following this slide displays the E. coli concentrations collected at three sites located on the Marengo River from 2001-2014. The E. coli criteria of 235 CFU/100 mL is displayed as a red line on this graph to help visualize the samples with elevated E. coli concentrations.

Additional information about E. coli can be found at:

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-383659--,00.html

