

MECC – Regional Water Roundtable

Western Lake Erie Nutrient Pollution Monitoring

Day 2 10:15 AM Session

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Harmful Algae Blooms- Lake Erie



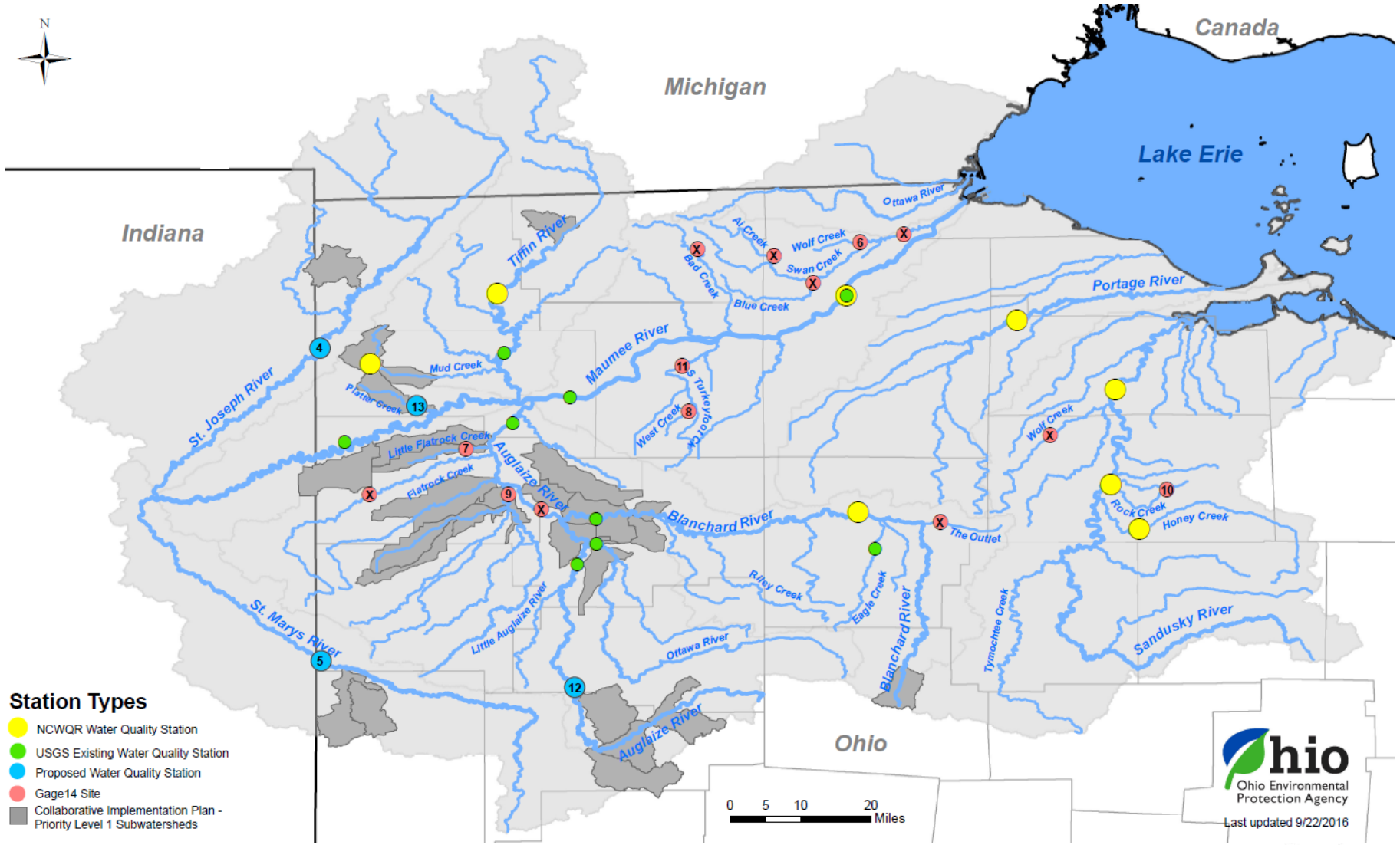
DEVELOPING NOW
TAKING ACTION LAKE ERIE ALGAE BLOOM



Nutrient Overview

- Nutrient Pollutants
 - Drinking Water – Nitrate
 - Harmful Algae Blooms – Total Phosphorus (TP), Dissolved Reactive Phosphorus (DRP), Nitrate + Nitrite Nitrogen (NO₂ + NO₃)
- Guiding Documents –
 - Great Lakes Water Quality Agreement - Annex 4
 - EPA Stoner (2011) and Beauvais (2016) Memos

Western Lake Erie Basin Monitoring



2015 Monitoring Results

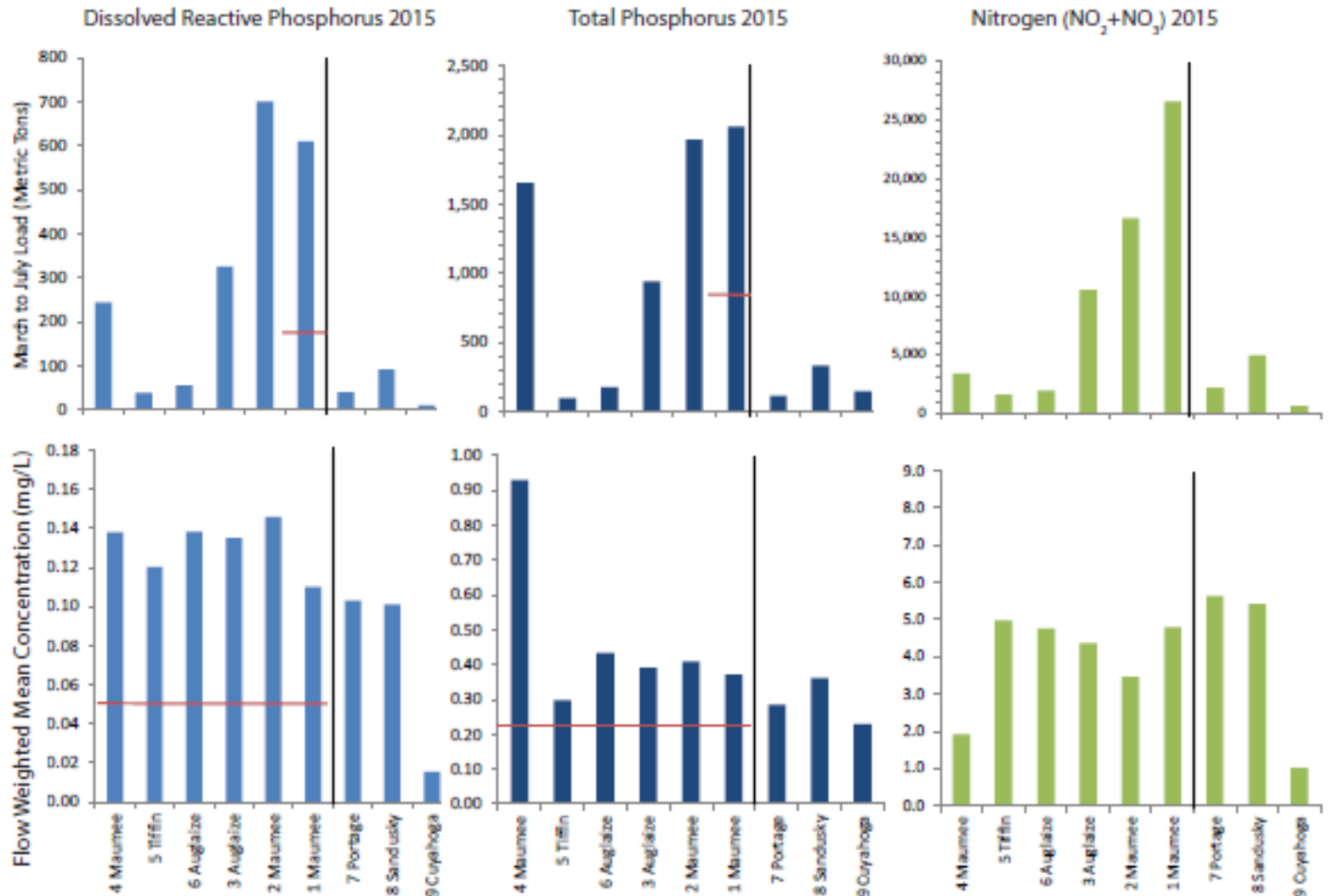


Figure 2: Side by side comparison of loads and flow weighted mean concentrations. Axis titles at bottom and left. Red lines indicate target levels at the points where they apply (not all targets are the same at all locations).

How Does 2015 Compare

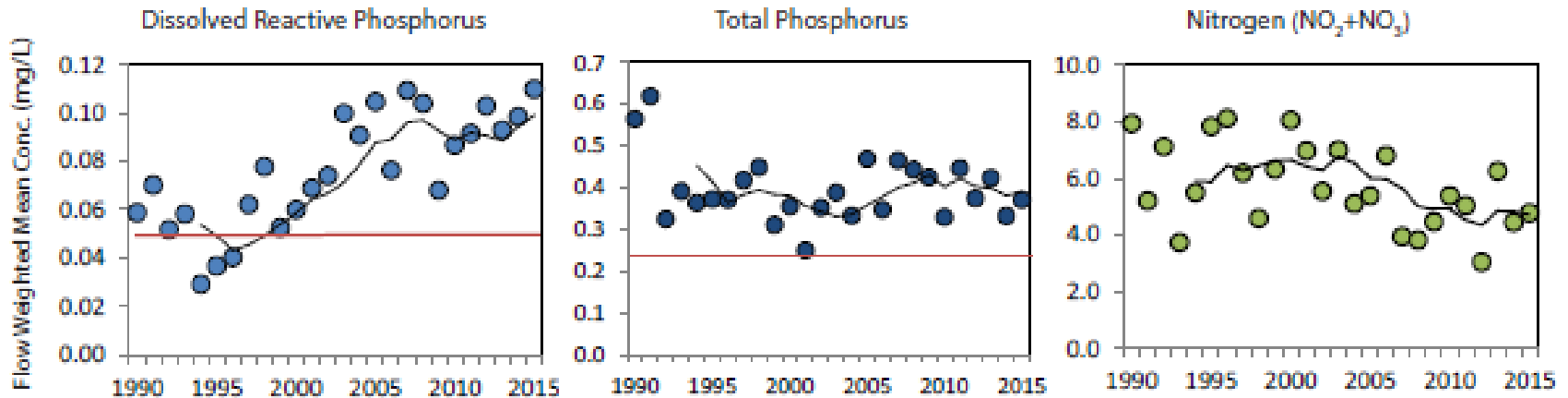


Figure 3: Annual nutrient flow weighted mean concentrations for the Maumee River at Waterville by water year. The five-year running average (black line) smooths out the annual variation and gives an indication of the trends. The red line indicates the Annex 4 target flow weighted mean concentrations.

<http://lakeerie.ohio.gov/Portals/0/Reports/Water%20Monitoring%20Fact%20Sheet%202015%20Data%20v2.pdf>

When Does TP Enter the River - 2015

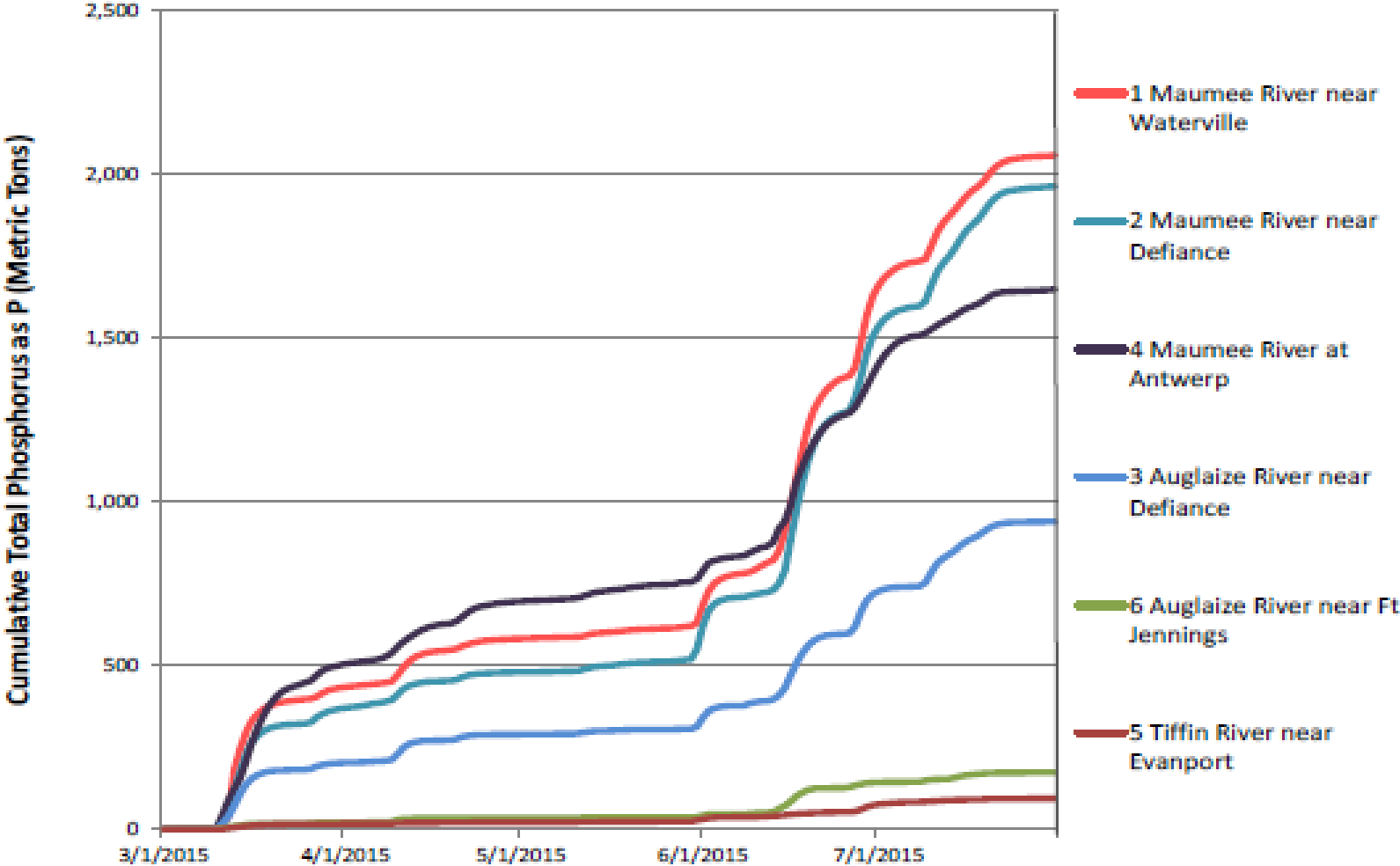


Figure 5: Cumulative total phosphorus loads at monitoring stations in the Maumee River watershed.