

The Middle Huron Initiative and TMDL

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Huron River Watershed Council



What is a TMDL

É TMDL is EPA speak

ó it stands for total maximum daily load

É It is the estimated maximum amount of a specific pollutant entering a water body (lake), that won't cause a problem.

ó Problems with this are

É it is pollutant specific

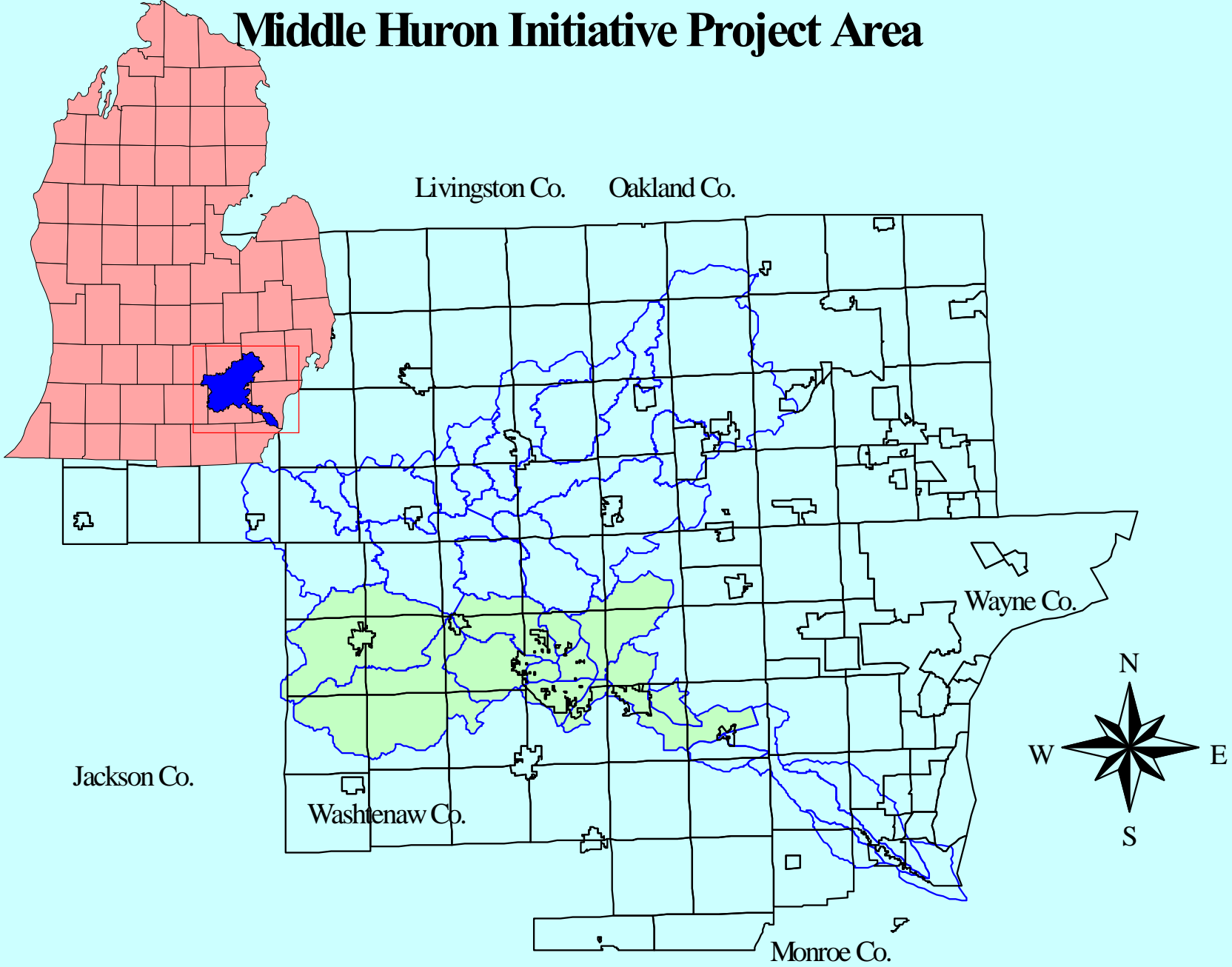
É it does not take into account concerns of community

É it does not look at the whole system and how it functions



Huron River Watershed

Middle Huron Initiative Project Area



Issues

É The Huron River is a high quality resource

ó But

É it is overfertilized

É substantial soil erosion

É flooding and low summer flows

É Results in

É algal blooms - health problems

É weed growth

É sedimentation

É limits to recreational use

É aquatic habitat degradation





MHPI Goals

- É Return Ford and Belleville lakes to their designated uses, and **improve the water quality** of the middle Huron and its tributaries;
- É Work with communities of the middle Huron to **develop a partnership** to achieve these ends in the most cost-effective manner possible;
- É **Reduce summer loading of phosphorus** to the river system to meet the TMDL set by the Michigan Department of Environmental Quality, Surface Water Quality Division; and
- É Improve the overall water, fisheries and recreational qualities of the middle Huron Watershed.



The TMDL for Ford and Belleville Lakes

- É Established in 1996 base on 94-95 data
- É Reduce phosphorus entering the river to achieve target of 50 ug/l in Ford Lake
- É Reduce [P] to 30 ug/l in Belleville Lake
- É Reach this target within five years

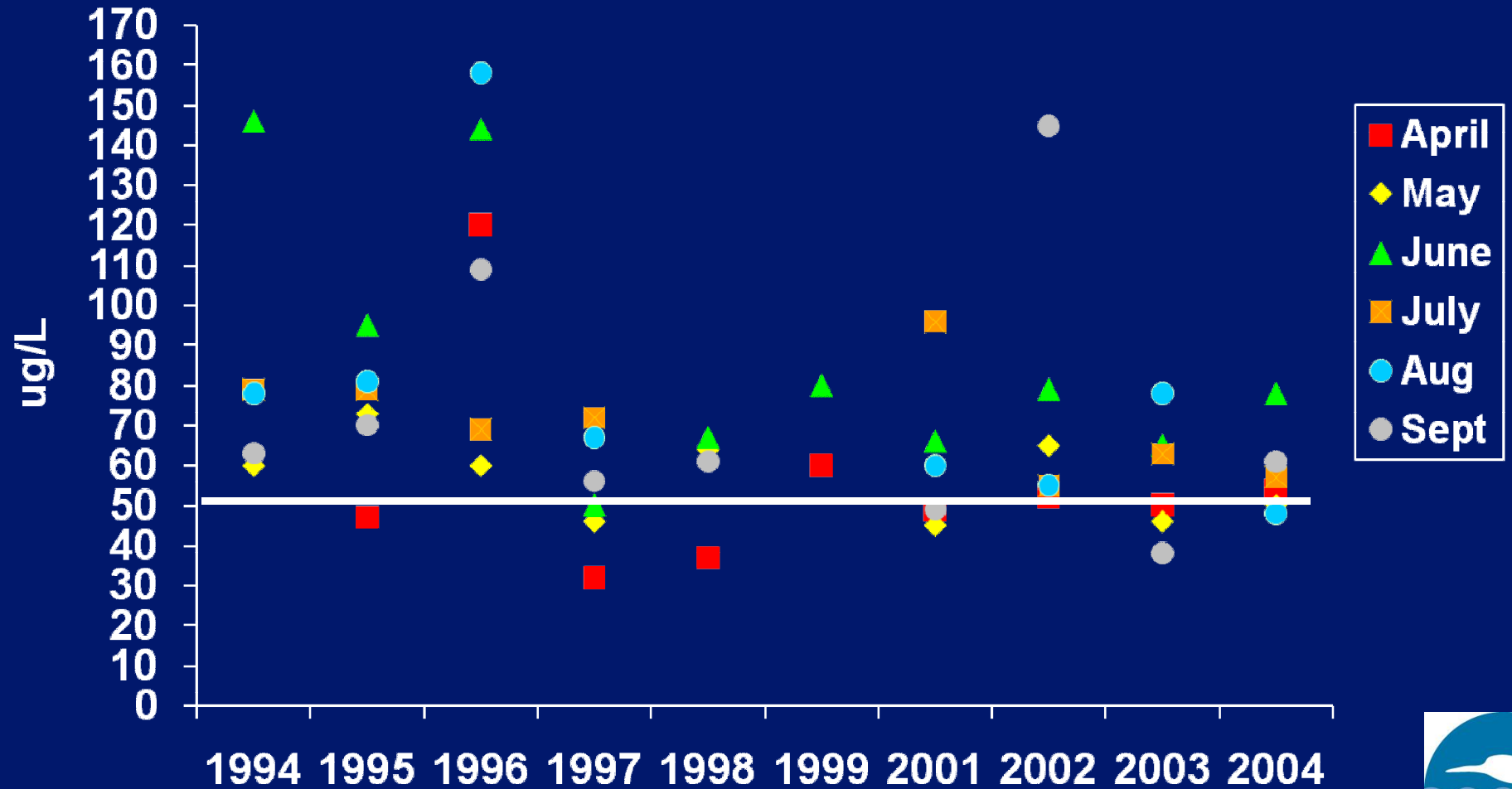


Phosphorus Load Allocation by Month (lbs/day)

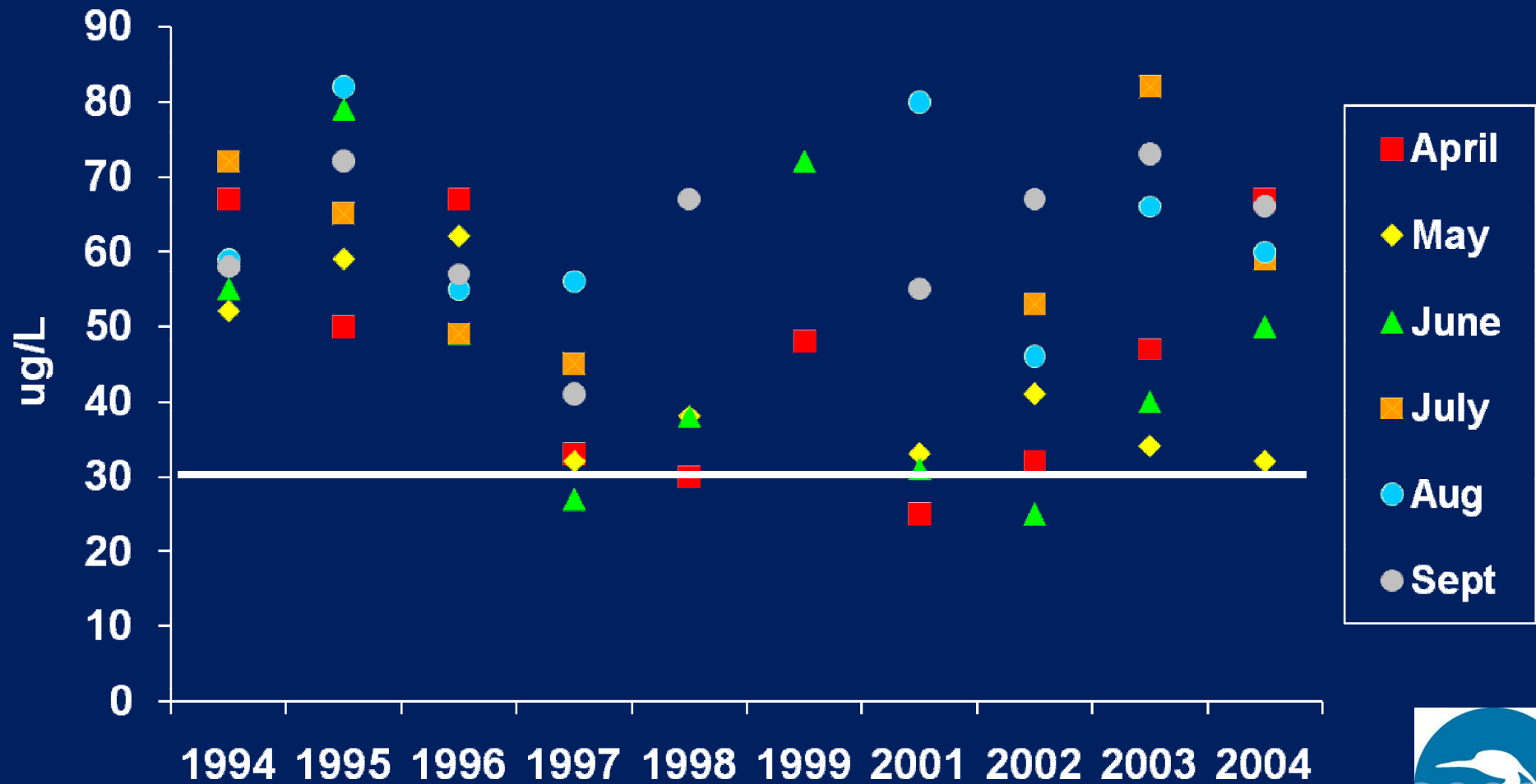
	April	May	June	July	August	Sept
Target Load	304	214	139	88	74	103
Est. PS Load	92	97	77	77	77	77
Est. NPS Load	157	192	123	70	50	67
Est. Total Load	249	289	200	147	127	144
Target Reduction	(55)	75	61	59	53	41



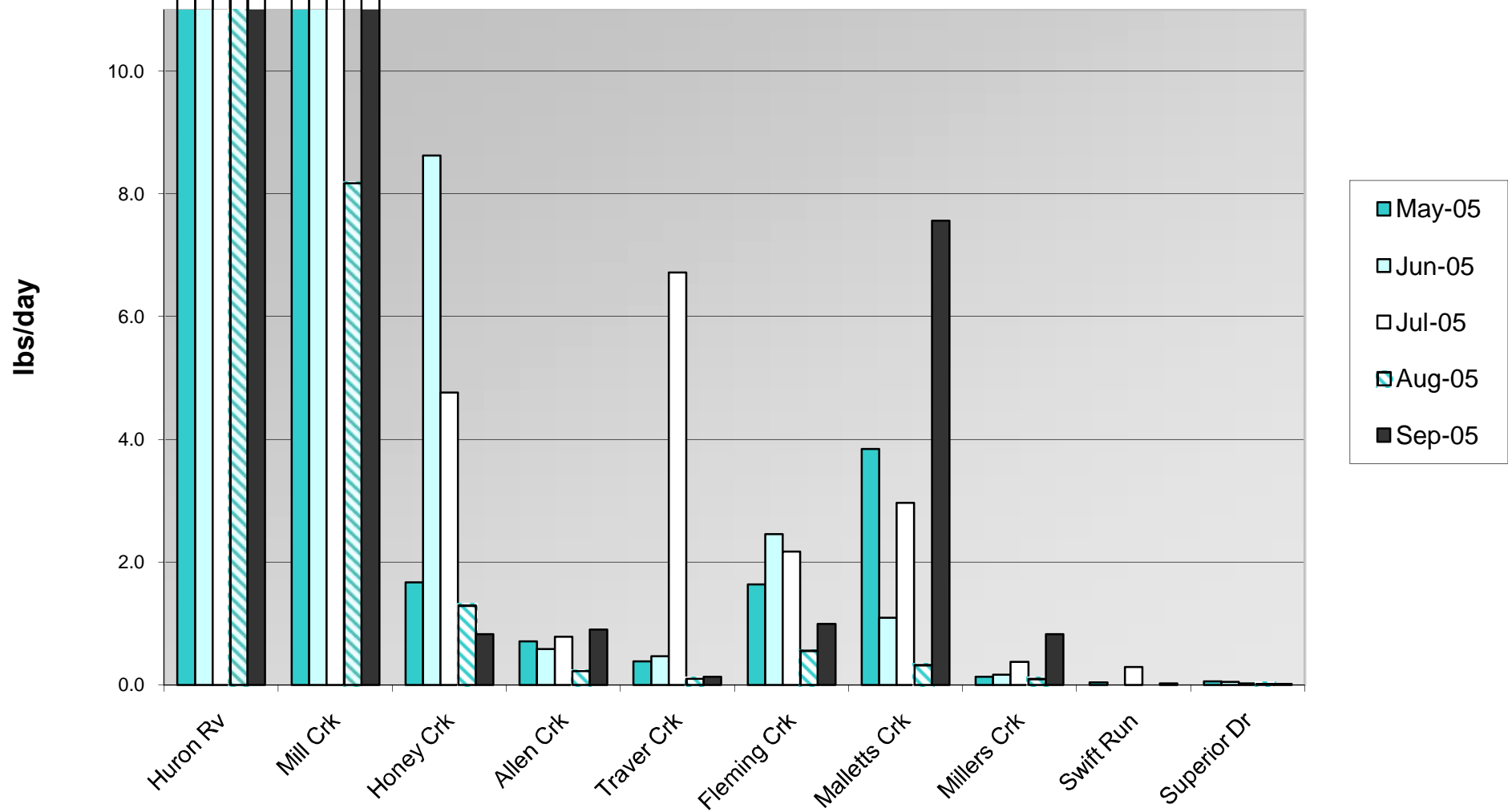
Total Phosphorus Concentrations at Ford Lake



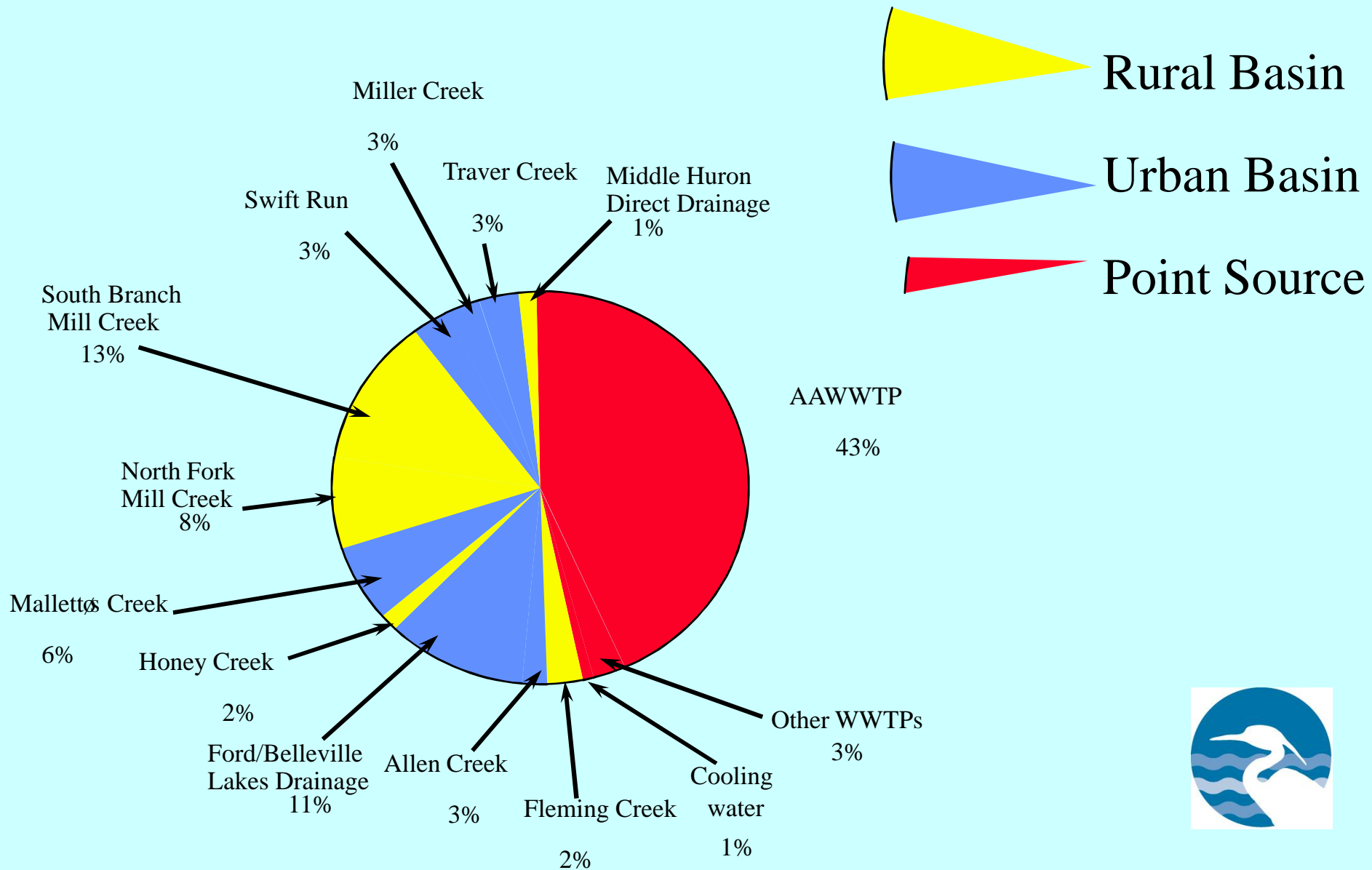
Total Phosphorus Concentrations in Belleville Lake



Phosphorus Load at Monitoring Sites per Month



Phosphorus Load for Subbasin



MH Partners Agreement

- É Point and Non-point source stakeholders and DEQ signed agreement to voluntarily reduce P loading and address TMDL goals
- É Originally set in 1999 and re-evaluated in 2004.
- É Effective through Oct. 2009
- É Point and NPS Reduction Implementation Plans



MH Partners Agreement

- É Ties to NPDES permits for point sources and Stormwater Phase II
- É DEQ commitments to restrict new NPDES permitted discharges
- É Monitoring strategy ó DEQ on lakes, HRWC on tributaries
- É Semi-annual meetings and annual report



MHPI Progress

- É Septic system failure ID and inspection program
- É Recent no-phosphorus fertilizer and other ordinances
- É Educational materials developed and distributed
- É Site-specific projects
- É Point-source improvements



Other Developments

É Ford Lake Study by John Lehman @
U of M

É Subwatershed plans and
implementation for Mill, Mallets,
Allens, and Millers Creeks

É Update of AA-Ypsilanti Area WMP
ongoing



Contact

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