Status of Lake Erie Phosphorus Loads and Concentrations

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Under the Great Lakes Water Quality Protocol of 2012, nutrient loading and nutrient concentrations for open and nearshore waters must be re-evaluated for Substance Objectives that are consistent with overall Ecosystem Objectives. One of the primary driving nutrients of interest is phosphorus and is updated here to aid and move forward in satisfying the Protocol requirements. Lake-wide total phosphorus loading has been below or around the target of 11,000 MTA for the last decade including through 2011. Loads to Lake Erie are dominated by monitored tributaries which contribute approximately 70% of the total external load. Largest tributary loads are observed from the Maumee, Detroit and Sandusky Rivers. Historical trends for the Detroit River and Detroit River sewage treatment plant which have shown reductions over time will be discussed. The Maumee River and other Ohio Rivers will be discussed in another presentation during this platform session. Additionally, present in-lake concentrations which exhibit higher levels than in the past will be presented. A preliminary lake-wide mass budget together with future research needs will be provided. This abstract does not necessarily reflect U.S. EPA policy.