Blue Accounting ErieStat

Tracking Progress Toward a Healthier Lake Erie

February 6th 2017
In-person meeting summary
Location: NOAA-GLERL

Overview:

On February 6th, the ErieStat Work Group convened at NOAA-GLERL to continue discussions toward establishing a goal, geography, and initial metrics for the pilot phase of ErieStat, an online information management and delivery system. In addition to this summary, a companion Word file, "Goal, Geography, & Metrics_021617.docx," identifies an initial suite of Work Group outcomes that will be used for Phase I website development, upon Work Group agreement.

Next steps and action items are also underlined in the more-detailed summaries by agenda item.

Next steps & Action Items

- ✓ GLC committed to revise the ErieStat pilot phase goal for final approval by the Work Group. A revised goal is included within the companion file "Goal, Geography, & Metrics_021617.docx." ***Please provide comments on this document by March 1, 2017.***

- ✓ Ontario representatives committed to reassess whether they would like the Leamington Tributaries included in ErieStat during the pilot phase.

- ✓ Representatives from Michigan will recommend whether (and how) to include the Detroit River.

- ✓ GLC staff will follow-up with Laura Johnson to discuss a process for sharing data to build a website, with proposed dashboards, for Work Group review and discussion.

- ✓ The Group will provide revisions or other suggestions on the draft document, "A Comparison of Nutrient Controls Across WLEB Jurisdictions" to Ken Gibbons (kgibbons@glc.org) ***by March 1, 2017. Reminder: GLC staff require specific feedback from jurisdictional representatives on agriculture programs.***

- ✓ The next Work Group meeting will be held via webinar in mid- to late April and include a discussion on incorporating investments and outcomes into ErieStat. GLC staff will work with US-EPA and ECCC to assure alignment with other Annex 4-related activities and send a Doodle poll.

- ✓ GLC staff will be working with a contractor to construct the initial ErieStat website for the Work Group to review.

Detailed Summaries by Agenda Item:

Metrics, Targets, Indicators, and Objectives:

Victoria Pebbles with the GLC presented an overview of some terminology used to determine the direction of ErieStat. The purpose of this presentation was to build consensus on terminology and agree on a pilot phase goal.

The group then went on to discuss the proposed goal of ErieStat:

> *The goal of ErieStat is to track trends in total and dissolved reactive phosphorus entering Lake Erie's Western Basin from selected tributaries in order to measure progress toward a 40% reduction by the year 2025 and a 20 % reduction by 2020, as compared to 2008 loads.*

Participants desired additional language indicating that ErieStat will support state and provincial domestic action plans (DAPs). The group also debated whether the goal for ErieStat should include timeframes. Overall, the group decided a timeframe is important and aligns with the 2015 Collaborative Agreement. GLC committed to revise the goal for final approval by the Work Group. (A revised goal is included within the companion file "Goal, Geography, & Metrics_021617.docx.")

OEPA Nutrient Mass Balance Study for Ohio's Major Rivers: an overview

During this session, Sandra Kosek-Sills from the Ohio Lake Erie Commission presented on the OEPA's recently published Nutrient Mass Balance Study for Ohio's Major Rivers. Sandra highlighted both Ohio's process and results in examining sources of phosphorus, including Western Lake Erie Basin watersheds. The study calculated contributions from point sources, home sewage treatment systems, and nonpoint sources for 7 watersheds during water years (wy) 2013 and 2014. Future mass balance reports, required by statute, will focus on wy15 and wy16.

Participants discussed interesting metrics, including phosphorus yield per acre, that could be considered during future ErieStat meetings.

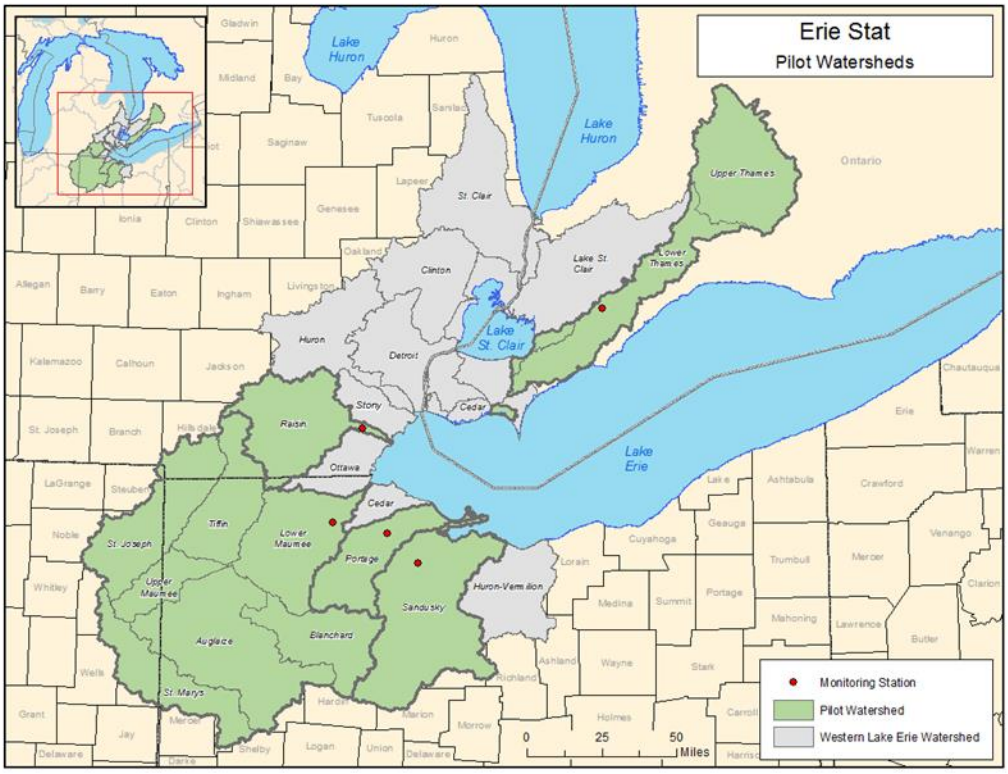
Discussion on metrics and data availability

Pilot Tributaries

In this session, Nicole Zacharda from the GLC facilitated conversation about the proposed geography of ErieStat during its pilot phase, foundational metrics, data sources and gaps, and assuring consistency with other Annex 4 work.

During the December webinar the group was presented with a broad footprint for ErieStat, depicted as the Western Lake Erie Watershed. For the purpose of the pilot phase, the Group agreed to focus on the Sandusky, Portage, Maumee, Raisin, and Thames watersheds, depicted as Pilot Watersheds. The inclusion of the Leamington Tributaries and Detroit River require additional consideration.

Figure 1: Proposed pilot watershed map prepared by GLC and presented to the ErieStat workgroup at the February 6th in-person meeting.



Ontario representatives committed to reassess whether they would like the Leamington Tributaries in ErieStat during the pilot phase.

Representatives from Michigan would also like to come back to the Work Group with recommendations on whether (and how) to include the Detroit River.

Data Sources and Metrics

The Work Group discussed the "Summary of monitoring activities in Lake Erie tributaries" document prepared by Laura Johnson, Heidelberg University, and shared with the Annex 4 subcommittee. Per that summary, monitoring data is sufficient to calculate loads and flow-weighted mean concentrations (annual and spring, for both total and dissolved reactive phosphorus) for the identified ErieStat pilot watersheds, with the exception of the Leamington Tributaries. Monitoring the Detroit River is complex, but is sufficient for calculating loads and FWMC.

The Group agreed to use the Heidelberg Tributary Loading Program (HTLP) data as a consistent source of data and cautioned about including any data that did not meet credible data standards. For the Thames River, data will need to come from Canadian sources. The monitoring station at Thamesville, run by the Great Lakes Nutrient Initiative, was suggested in the summary document.

The Group then discussed water quality metrics to serve as the foundation of the initial ErieStat webpage. The Group agreed to the following, with the potential to add precipitation as an additional measurement:

Annual	***Spring (March-July)***
Total Phosphorus (TP) load	TP load
Dissolved Reactive Phosphorus (DRP) load	DRP load
TP as flow-weighted mean concentration (FWMC)	TP as FWMC
DRP as FWMC	DRP as FWMC
Discharge	Discharge

GLC staff will follow-up with Laura Johnson to discuss a process for sharing data for use to build a website, with proposed dashboards, for Work Group review and discussion.

Watershed Level Metrics

The Group also discussed the future inclusion of metrics that fully-embrace the principles of Blue Accounting by informing decision-makers on various investments in phosphorus reduction. GLC staff suggested setting a framework within the initial website to incorporate this information later on. The Group thinks that ErieStat should highlight work that aligns with DAPs and focus on current doable goals for the pilot phase. However, representatives from state agricultural programs would still like to be a part of ErieStat since they think eventually the addition of conservation practices will be important information to add into ErieStat. For example, NRCS' CEAP program has conservation data currently available at the HUC 4 scale and at a 5 year reporting interval.

GLC intends to follow-up on additional Blue Accounting metrics through additional Work Group webinars as the first phase of website development occurs.

Base progress is tracked against

Since jurisdictions have agreed to 2008 as base year against with the 40% reduction goal will be measured, the Work Group agreed to incorporate that into ErieStat's reporting. For Pilot Watersheds that do not have data from 2008, the base year will be estimated by using a transparent and consistent protocol.

Overview of GLC-compiled background material on nutrient sources and data availability

During this session, Ken Gibbons presented a draft document, "A Comparison of Nutrient Controls Across WLEB Jurisdictions," compiling background information on state and provincial programs to address phosphorus sources considered by the Work Group during the Group's December 6, 2016, webinar. The draft serves as a starting point for narrative information on the ErieStat website. The Work Group agreed to review the document and send revisions or suggestions to kgibbons@glc.org by March 1st. In addition, a request was made to agricultural agency officials to provide short summaries of their jurisdiction's programs for inclusion.

Discuss ErieStat's potential services for jurisdictions' Domestic Action Plan needs

This session focused on suggesting other potential services ErieStat could provide to the Jurisdictions' Domestic Action Plans, but was cut short as the meeting drew to a close. Laura Johnson suggested that an existing Annex 4 inventory of monitoring become an online document that groups can contribute to. Becky (GLOS) suggests that GLOS could help set up a webpage that could do that.