

**Ohio Lake Erie Phosphorus Task Force Meeting**  
**March 27, 2008**  
**ODNR Building H-2, Columbus, OH**

**Attendance:** Rick Wilson, Julie Letterhos, Gail Hesse, Larry Antosch, Julie Weatherington-Rice, Dave Baker, Paul Bertram, Jack Kramer, Seth Hothem, Steve Davis, Todd Hestermann, Chris Riddle, Libby Dayton, Robert Mullen, Kevin Elder, Eric Partee (Observer)

**Objectives:** *Continue to work through and revise the matrix of recommendations; provide updates on IJC Nearshore workshop, Toledo Harbor dredging, and efforts to relook at some of the non-agricultural sources of DRP.*

Chair Gail Hesse welcomed all. She noted that we were planning to complete a draft report from this committee by May for presentation to Ohio EPA Director. The report would consist of an introduction detailing the background of the increasing DRP issue, the purpose of the Task Force, process, recommended actions/next steps, and identification of additional research needs.

Several members had attended a March workshop in Toledo sponsored by the IJC's Council of Research Managers and the Lake Erie Millennium Network. The focus of the workshop was loading from the land and the influence on the nearshore. While the workshop was relevant to all the Great Lakes, most of the presentations were specifically related to Lake Erie. Some of the observations reported included:

- There are many viewpoints on the causes of current conditions in the nearshore.
- The zebra/quagga initiated nearshore shunt is not that much of a factor in the western basin
- Most agencies do not have the resources to track river load/mass out into the lake. Models can do this, but the data to feed and verify the models is needed. Canada is doing a study in the central basin that may provide some data.
- U.S. EPA monitors only twice a year and then only in the open lake.
- The Detroit River loads more TP to the lake than the Maumee River.
- Should parameters in addition to TP be monitored, i.e. nitrate, iron, pharmaceuticals?
- How should the nearshore zone be monitored to better measure what is being loaded from watersheds (or based on what is happening in a watershed)?
- Mostly because of depth, the nearshore shunt is more important in the other lakes because the open lake waters there have become nutrient deficient while the nearshore is supporting much algal growth.
- Once again, the more we know the more we don't know
- Workshop organizers are working up overall observations/summary. These conclusions may help inform the next steps of the Ohio Lake Erie

Task Force. Jeff Reutter was one of the organizers of the workshop and Gail will follow up with him to get the workshop summary results (which will be presented at the next P Task Force meeting).

At the workshop, the use of pilot watersheds to test/monitor was discussed. The Maumee River is often presented as an area to fund pilot projects because of its huge impact on the lake. However, the Maumee should better be viewed as the gorilla rather than a pilot. It is too difficult to measure the results of implementation in the Maumee watershed on the lake. It may be best to concentrate on multi-year sampling in a very small watershed where the entire watershed can be monitored.

Dave Baker reported that February sampling in an unnamed tributary to Lost Creek revealed DRP concentrations higher than nitrate, a totally surprising and highly unusual result. Heidelberg speculated this was the result of winter fertilizer application and lots of no-till in the area. Tod Hestermann cautioned not to lump all no-till practices together as a cause. There is long term no-till, rotational no-till, chisel point, etc. They could all affect runoff differently. It was acknowledged that there is very little moldboard plowing any more. More constant monitoring is needed under different no-till situations. Most of the land along the unnamed tributary to Lost Creek is owned by the same person who is very cooperative and utilizes conservation methods. The group discussed the potential to have additional sampling funded by the Environmental Defense Fund, and perhaps partnering with a college to get students involved in the sampling program.

The annual Western Basin WaterKeeper conference was also held in March. Lyngbya was a big topic there. A presenter recommended that nitrogen as well as phosphorus was likely an issue. There also needs to be some guidance on how to remove the algae that has already accumulated along the shore.

Discussion then moved on to the further fleshing out the Matrix. Highlights of the ensuing conversation follow.

We need a better, more practical way to collect P data as related to NPS. If NPS is a big issue nationwide, then U.S. EPA should set some standard protocols for collection. In order to really address the issue, we need a lot more data than Ohio EPA can collect under their existing monitoring program. We need an easy way to get dependable, consistent NPS related data. This needs to be added to the recommendations in the matrix.

Agencies can promote the agronomic recommendations listed in the matrix, but the producers are the ones that need to follow them. How can we get buy in from private industry and producers to follow the prescription set by OSU? There needs to be increased training on this of agency staff, producers, crop consultants, etc.

The cost of a soil test is typically ~\$60. Stratification sampling would be extra. More data and research is needed to better understand how to reduce the risk of P transport off the fields and to water bodies. Better BMPs to manage the risk of P runoff from the land must be developed.

Continue to recommend more work to standardize soil tests and how they are used. Currently, Wisconsin is the only state with a certification program for soil test labs.

Managers must identify the needs and researchers need to solve the problems related to addressing those needs. Dave Baker, Libby Dayton and Robert Mullen agreed to work on a research needs section for the recommendations report. Gail Hesse would prepare the front piece.

Gail raised the issue of open lake disposal related to the maintenance of Toledo Harbor. Prior to about 1987, most of the nearly 1 million cubic yards of sediment annually dredged from the Toledo shipping channel was placed in a CDF. The Corps of Engineers has been trying to open lake dispose more and more of the sediment as they feel it is no longer contaminated. Currently, 400,000 to 600,000 cu yds are disposed in the open lake, and now the Corps wants to dispose about 1.25 million cu yds. Will Open Lake Disposal (OLD) contribute to the P loading problem?

Related discussions included whether OLD could be contributing the spread of Lyngbya and if this sediment should be considered a major source of DRP. Most of the sediment being dredged is already in the lake, but moving it stirs it up and potentially releases DRP. There is enough aluminum in the sediment to effectively tie up most of the P. There may be some advantage to overall net removal.

Topics to be discussed further at future meetings are include the contributions of P from: home sewage disposal systems (ODH is compiling a report), orthophosphate in drinking water, Toledo Harbor OLD, storm water, review of contributions from industrial sources, lawn fertilizer application, climate change impacts, and internal P cycling.

The next meeting was scheduled for April 25.