

Ohio Lake Erie Phosphorus Task Force Meeting
November 9, 2009
ODNR, Building H-2

Attendance: Gail Hesse, Jack Kramer, Dave Baker, Seth Hothem, Roger Knight, Jeff Reutter, Norm Fausey, Rick Wilson, Chris Riddle, Kevin Elder, Julie Letterhos, Julie Weatherington-Rice, Libby Dayton, Robert Mullen, Dan Button, John Kessler, Mark Scarpitti. Observers: Ron Wyss, Joe Logan

Updates

Paul Bertram has not been able to attend the last few P Task Force meetings but has been using our progress to inform the preparation of the Great Lakes Regional Initiative (GLRI) RFP.

Gail participated in a tour of the facilities at Battelle in Columbus. They are working on a project to recapture phosphorus and nitrogen in agricultural runoff for reuse. So far they have only conducted laboratory tests.

Cam Davis, Great Lakes Advisor to USEPA Administrator Lisa Jackson, will be in Ohio on November 12 and 13 to participate in the annual Law Conference at the University of Toledo. He will be meeting with ODNR Director Logan and Ohio Lake Erie Commission Executive Director Ed Hammett (and others) to visit/view some of the priority project locations under Ohio's proposed GLRI application. He will be briefed on the Toledo Harbor/open lake disposal issue and the algal bloom problem (as well as the P Task Force work).

Recommendations Report Discussion

Dave Baker said Maumee and Sandusky phosphorus export rates are high in comparison to other Midwest watersheds. Rates are twice the average of the other agricultural watersheds, even though they have lower erosion rates (1.9 tons/acre).

In the Sandusky River watershed, 884,000 acres are classified as prime farmland compared to only 158,000 acres classified as non-prime farmland. There is higher than average suspended solids export even though there is a low erosion rate. Assume the cause is high clay content soils. Higher nitrate export is due to the intensive use of tile drainage. The majority of the agricultural use is in soy beans.

It is significant to highlight the Maumee and Sandusky as problem watersheds overall, draining to a vulnerable lake. The increasing trend in flashiness has started to taper off. It was suggested that we add a slide to the report to show the complexity of these two watersheds and we need to include some comparison of Ohio watersheds to other Midwest watersheds.

Soil test Ps in the Sandusky watershed are actually very low, but export to the lake is large. (Soil loss < 5 tons/acre is considered good.) Is high P load in runoff related to increased compaction, inappropriate application of fertilizer, connection to tile runoff,

stratification in soils, multi-year soybean fields rather than crop rotation and how they are fertilized, or soil mineralogy? Is the issue soil test P or management activities? Is the load coming from certain areas or is it widespread?

We need to identify the key concerns and identify actions that can be taken in the short term and actions that need to be taken over the long term. Perhaps we should focus on one watershed and experiment with adaptive management. We do still need to focus on spring application or at least incorporation if fertilizer is applied in the fall. There is still more winter runoff than we used to see.

In the report, perhaps we need to better combine the soil and water phosphorus discussions. They are currently separate, but we need to develop “talking points” to better describe the relation of phosphorus in soil and water and how they relate to each other. Dave and Robert are to work to come up with language to help shape the report and spread the message for better implementation of management actions.

Make sure that recommendations in matrix are incorporated into the text and vice versa. We are still missing a discussion of timing of application in the report. Need to establish overall recommendations for ag-NPS section to include: timing and incorporation, compaction (controlled traffic), monoculture impacts.

Clearly show the problem using actual pictures and graphics and include point source and nonpoint source recommendations. Whoever reads this will need to see why they should change their practices and why their practices are important in the context of the entire problem (excessive eutrophication). We need a big reduction in nutrient loads to change the current conditions.

Add discussion on glyphosate. Add compaction and stratification. Add reference to proposed Lake Erie LaMP P targets. Include ag recommendations for more use of soil test, how to reduce compaction (crop rotation, controlled traffic), timing of fertilizer application and incorporation, crop rotation sequences, the use of variable incentives based on P index scores.

Include these issues in the education and outreach recommendations. Is agriculture regulated or not? We can't penalize a farmer for not doing the right thing if we can't tell them what the right thing is. Folks outside the industry do not think it is regulated. Folks inside the industry think it is strongly regulated. The SWCDs, OSU Extension and those overseeing EQIP incentives should be involved in outreach and education. Heidelberg considers themselves to be comparable to extension agents due to the numerous presentations they give on their data and making the connections of land use to lake impacts. SWCDs do K-12 as well as adult education.

There should be a distinction between public outreach and targeted education. Need to focus on how the recommended practices will improve the producers' bottom line. Chris Riddle will revise Education piece.

We need to acknowledge stratification. P index soil test is still 8 inches. Present some of Heidelberg's Sandusky watershed results and other literature that do acknowledge stratification is occurring. Libby offered to expand on stratification a bit in her soils section, but we will not include any specific recommendations for addressing stratification.

Overall, there has been a significant reduction in sediment load from the Maumee and Sandusky. Nitrogen has been increasing over the years.

Note that P index is a measure of the risk of P transport and not the soil test P.

States can be more stringent in their standards than the national standards.

For research needs, cite in the paper when additional research is recommended and cross-reference to matrix. Dave has drafted an overall research agenda and Task Force members should comment directly to him. His approach is to highlight the various research needs and to build the case for using Lake Erie as a pilot.

What should we do about the ever increasing loads of nitrogen?

The group does not want to disband when the Task Force report is done. Rather, they want to keep meeting to follow-up on the research agenda and the impacts of the implementation of the recommendations.

Ron Wyss offered the following observations: More tiling is put in now and at much closer spacing; Increased tiling is a huge issue; Try to bring agro-economic and environmental P index closer together; What is the lever to pull?; Can we make better use of GIS mapping.