



## Western Lake Erie Basin (WLEB) Advisory Group – Inaugural meeting

August 3, 2023

Meeting Notes

### Takeaways:

- To meet our 40% goal we need clear, justifiable, defensible approaches that are science based;
- The state is using an adaptive management approach to guide decisions and investment;
- The process is collaborative among the Quality of Life Agencies, now seeking input from Advisory Group;
- Environment, Great Lakes, and Energy (EGLE) has made progress on point sources because they are regulated; two-thirds of the state's realized 753 MT reduction is from point sources, the rest will need to be reduced from nonpoint sources;
- Michigan Department of Agriculture and Rural Development (MDARD) is seeking effective methods for communication w/ landowners; looking for best management practice implementations that are workable for landowners;
- Consistent messaging was identified as a need across agencies and organizations working in the WLEB.

### 10:00 am: Jen Read (Water Center Director)

- Kickoff and intros (by group)
- Advisory group coordination supported by Fred A. and Barbara M. Erb Family Foundation (Amanda Herzog, present)
- Approximately 60 people in attendance
- Goals:
  1. Understanding process and programs of Domestic Action Plan (DAP)-related activities;
  2. Activating network of networks represented by those present;
  3. Fostering communication and trust, generating input to the Domestic Action Plan.
- Reviewed community guidelines: open-mindedness, acceptance, curiosity, discovery, sincerity, brevity

### 10:45 am: Tim Boring (MDARD Director) comments

- Tim is a 6th generation farmer in Lake Michigan watershed (Stockbridge), Michigan State University (MSU) PhD; he has a background conducting on-farm phosphorus research; recent focus on soil health and regenerative agriculture. Tim worked on water quality research while at Michigan Agri-Business Association. He founded [Michigan Agricultural Advancement](#). He worked with the US Department of Agriculture under the Biden administration before MDARD.
- Tim noted that the role of government is improving quality of life.
- Priorities for MDARD:
  1. Climate resilience to drought, floods, greater variability. The WLEB sees variable weather. How are we building cropping systems to respond to these climate realities?
  2. Appropriate/diverse cropping systems. These should be local, value-added, aligned with values, consumer-responsive, low carbon footprint.



3. We are at risk of losing specialty crops (e.g., cherries, blueberries, asparagus) if we don't take action now; we already see fewer acres of wheat, dry beans, ect., lost processing in rural areas, and labor shortages. We can grow a lot of different things and have narrow supply chains in Michigan.

4. Investment in rural communities: How are we attracting people to live here and improve quality of life?

- Water quality goals set forth by [governor's executive order for Lake Erie](#)
- MDARD is committed to achieving the 40% loading reduction target.
- Chesapeake Bay and Mississippi River offer examples of how to understand challenges, successes, and opportunities.
- There is an alignment of public support, scientific support, government support, and funding
- To meet our 40% goal we need clear, justifiable, defensible approaches that are science based. Therefore we need to:
  - Invest in science and knowledge capacity;
  - Find out what is working and what is not working.
- We also need better research and monitoring; can't manage what you can't measure.
- Managing farms with more biology, living roots, diversity, minimal disturbance, the principles of regenerative agriculture. However this means:
  - Asking farmers for a higher level of management – more difficult day-to-day;
  - Talk about actions and changes in farm management within the context of values;
  - Focus on outcomes instead of just processes;
  - Take some big, bold, innovative steps.
- Groups like this advisory group are important: transparency, clarity, listening.

Os from Advisory Group:

Q: Need to acquire more data; is there an initiative more than what's being done? There's also a lot of money.

*Tim Boring Response:*

- What are the barriers to not achieving goals? Need to be goal oriented.
- Need to look at the sub-acre level.
- We need to fill in deficiencies with measurements.

**11:00 am:** Quality of Life Agency Panel

Michelle Selzer (MDARD - WLEB lead), Tim Boring (MDARD Director), Steve Shine (Michigan Department of Natural Resources (MDNR) - wetlands), Phil Argiroff (EGLE - point sources)

Michelle Selzer Comments:

- Primary 2018 Domestic Action Plan (DAP) tools were Michigan Agriculture Environmental Assurance Program (MAEAP) and traditional Farm Bill programs;
- 2014 Toledo water crisis drove political action;
- State departments started talking and at binational and local levels;
- Recognized monitoring gaps – esp. up in Maumee; Michigan worked w/ EGLE, US Geological Service, Ohio to establish a monitoring station;



- Identified and working in 5 priority subwatersheds;
- Currently in the process of analyzing that data. Will update Domestic Action Plan (DAP) w/ that data.
- Progress:
  - Improving tracking on 250 MT nonpoint phosphorus reduction (e.g. more gages are in place)
  - Maintained Michigan Agriculture Environmental Assurance Program (MAEAP) enrollment (161 verified farms, 100,000 acres verified [over last 5 years] out of about 850,000 acres)
  - Developed an Adaptive Management Plan (2021)
  - Agricultural Conservation Planning Framework (ACPF) to guide actions
  - MDARD added internal capacity (Michelle Selzer, GIS analyst, 4 conservation specialists);
  - University of Michigan Water Center - 3-yr project to support an advisory group and science panel;
  - Michigan Conservation Partnership (federal level);
  - FY22 \$25M appropriation from legislature, planning for expenditure is underway;
  - Conservation Reserve Enhancement Program (CREP) reconstituted for WLEB (not just River Raisin);
  - Tri State Regional Conservation Partnership Program (RCPP) (2 rounds);
  - Drainage water management control research (2 rounds);
  - Washtenaw drain easement purchase pilot in Saline River watershed underway (targeting only 10 acres right now, discussing vegetation types and operation and maintenance; will scale if it works);
  - Agriculture wetland restoration pilot with MDNR/Ducks Unlimited;
  - Great Lakes Water Management System (GLWMS) with Michigan State University to track progress

Tim Boring Comments:

- We are at the 5-yr check in point;
- Need to identify and expand what's working;
- Endorsed the adaptive management approach to guide decisions and investment;
  - Implementing practices w/ clear expectations, re-evaluations;
  - We are in an assessment phase to determine what to continue doing and what to change;
  - Where do we need research and incentives?

Steve Shine Comments:

- Steve has been watching WLEB for 25 years. At statehood, Michigan had 10.7 million acres of wetland, since then we've lost 4.2 million; state laws encouraged draining wetlands; Pre-settlement wetlands can't be restored because hydrology is altered.
- DNR is contributing three projects:
  1. Agricultural wetlands at the base of drainage systems (plus ducks!) based on Iowa experience, Natural Resources Trust Fund + Great Lakes Restoration Initiative (GLRI)



funds in place, 5 yrs of work to identify sites (>200) and find sellers (most uninterested), in-ditch construction (gravity-fed), LimnoTech monitoring;

2. Looking at DNR-owned land that is being farmed to enhance production practices;
  3. \$10M federal funds for American Rescue Plan (ARPA) to restore Lake Erie and Saginaw Bay wetlands; North American Waterfowl Conservation Act (NAWCA) funds for restoration too.
- Permanent easements will be put in place for some of the restored wetlands.

Phil Argiroff Comments:

- EGLE has made lots of progress on point sources because they are regulated; two-thirds of the state's realized 753 MT reduction is from point sources, the rest will need to be reduced from nonpoint sources.
- Great Lakes Water Authority (GLWA) manages the largest Wastewater Treatment Plant in North America, discharges to Detroit River, one of the keys to load reduction; also Ypsilanti, Downriver, and Monroe; 440 MT reduction based on these upgrades; 25 plants being bundled, 4 done, 9 already below limits, 12 need to be addressed, that is, their current 1.0 mg/L phosphorus discharge to be reduced to 0.5 mg/L phosphorus.
- EGLE is also contributing to nonpoint source reductions, including planning (supporting an agricultural inventory for focusing best management practice (BMP) efforts, providing the information to the Conservation Districts) and implementation programs (319 grants).

Qs from Advisory Group:

*Q for Phil Argiroff:* Clarification - 2/3 of reductions would come from point sources (PS) and 1/3 by nonpoint sources (NPS)?

*Phil Argiroff Response:* Yes. About 500 MT will be from point sources. There will be some additional PS reductions in other watersheds, but most will be in the Detroit River watershed.

- *Follow up Q:* Is that coming from the Detroit River or Lake St. Clair?
- *Response:* In the Detroit River, the large sources are the direct discharges from the Great Lake Water Authority and Downriver Wastewater Treatment Plant - [referenced Annex 4 Report](#).
- *Follow up Q:* How much is that influencing phosphorus loading? River Raisin, vs Maumee vs upstream?
- *Response:* Looking at particle models [showing water flow] through Lake Erie, the Detroit R discharge follows a north route to the Central Basin and contributes to the hypoxia issue. What we're focused on for the WLEB will be the Raisin and Maumee; what we do on the Detroit will largely affect the Central Basin.

*Q for Panel:* How did you land on 40%?

*Phil Argiroff Response:*

- [EPA targets report](#) – annex 4 process.
- 2008 base year, 9-10 different models that looked at algal blooms and hypoxia and landed on a 40% reduction target.
- Went through an EPA science panel review, confirmed a 40% reduction target for all Lake Erie Basin jurisdictions.



*Q for Panel:* What is happening in Leamington, Ontario? Where farm fields create the same algae pollution.

*Michelle Selzer Response:* Canadians are shoring up monitoring through local Essex Region Conservation Authority work (especially in greenhouse regions).

*Q for Panel:* Can you provide more detail on the drain easement project?

*Michelle Selzer Response:*

- Often producers are farming right up to the drain. We are looking for the incentive to back away. What's the right size of easement for water quality and which producers will adopt? We have a pilot process that could be scaled up. Pilots in Saginaw Bay, Monroe, and West Michigan; interest from partners.
- Partnered w/ Washtenaw County Water Resources Commissioners Office in headwaters of Saline River, a priority subwatershed of the River Raisin. This is still in early stages; it needs a strong process, since taking land potentially out of production (team is exploring harvestable buffers). We are currently identifying interested landowners. We have a 10 acre goal for implementation.
- We are also seeking effective methods for communication w/ landowners; looking for implementation that's workable for landowners. The easements for the pilot will be held by the Washtenaw County Water Resource Commissioner's Office or be held by a non-profit; long-term operation and maintenance of the buffers is also something the pilot project will address; if the pilot is deemed a success, the approach will be scaled up to the other areas of the WLEB.
- Nick Machinski, Washtenaw Conservation District; Harry Sheehan, Water Resources Commissioner's Office; Chris Kosmowski, MDARD lead (and former drain commissioner).

*Q for Panel:* 40% goal: How are we doing right now? Pilots are underway, but probably won't affect the timeline. There's a lot of \$ available. To solve the problem, we need \$\$ ([Alliance Report](#))

*Tim Boring Response:* Studies show programs are cost prohibitive so we need to look at different incentive programs. This is why we need to look at systems differently.

*Phil Argiroff Response:* On point source side, Michigan progress has been significant.

- 440 MT removed of the 750 MT goal from Detroit and WLEB.
- Getting to 40% is going to take some time.
- The 2025 time-bound commitment under the 2015 WLEB Collaborative was ambitious.

*Tom Zimnicki Response:* Michigan will need \$40-65M needed per year for the foreseeable future. Referencing [Alliance Report](#).

*Q for Panel:* How could the 440 MT goal be influenced by climate change and extreme storms?

*Phil Argiroff Response:*

- Climate change is going to have an impact.
- Climate resiliency is a problem, EGLE's Water Resources Division has a plan coming out soon.
- The reductions could be less, e.g., from combined sewage overflow, bypassing the treatment plant.



*Q for Panel:* The work on wetlands is great, but what about wetlands preservation (i.e., not destroying them)?

*Steve Shine Response:* Any activity [potentially affecting wetlands] has to have a permit. Impacts have to be mitigated.

*Q for Tim Boring:* Value added commodities may be difficult. With experience at USDA, looking at Conservation Reserve Program (CRP) filter strips as best management practices (BMPs), we are in the middle of a new Farm Bill. How do we change the conservation program to get more practices? Since many were lost due to CRP loss? How do we get more filter strips, they work and are easy to manage?

*Tim Boring Response:* We need to determine what we want as the outcome, for example, buffer strips to reduce nutrient loss. Then we need to be flexible and be clear-eyed on reaching these outcomes/goals.

*Q for Panel:* Re: Michigan Agriculture Environmental Assurance Program (MAEAP) what % of farming acres w/ in WLEB are verified. Awareness among the farming community and why there is a push and promotion of the initiative?

*Joe Kelpinski Response:*

- There is about 850-1M acres of agricultural land in the WLEB
- About 10-15% of that is Michigan Agriculture Environmental Assurance Program (MAEAP) verified.

*Follow up:* Newly verified?

*Joe Kelpinski Response:*

- Program based with local Conservation Districts, commodity partners, newsletters, trade expos and other in-person appearances; covid canceled this - hurt program but building back up now.
- Normal rates are 500 new verifications/year w/ 80% retention (5-year re-verification cycle). Still building back to this level.

*Tim Boring Response:* Department will be placing a high priority on outcomes within all our programs.

*Q for Panel:* Over the last five years, what's working? What is being done to encourage growers to implement practices?

*Tim Boring Response:*

- Need quantifiable data: tillage, cover crops, variable rate. Generally, those practices should improve water quality; need more data on the variability; need to look in concert.
- In true no-till, nutrient management needs to change.
- Still don't have widespread adoption.
- One practice alone probably isn't enough, but stacking practices probably is.
- Outcome based...carbon sequestration, credits; the practices need to pay.



*Q for Panel:* EGLE point source: Interest in state's tracking costs. How much is the state spending on point source reductions?

*Phil Argiroff Response:* We have approached point source reductions operationally instead of large capital expenditures.

- Great Lakes Water Authority (GLWA) spends \$1M / year
- At other plants, more precipitation, aeration, more biological removal.
- Financing can happen through the State Revolving Fund (SRF), but hopefully it can happen through operations.

12-1 Break for Lunch and Networking

**1:00 PM** Alison Bressler - summary of Advisory Group interviews (60 hours)

[Alison's Slides](#)

**1:30:** Panel response to summary of Advisory Group interviews

*Tim Boring Comments:*

- Reinforces much of what we know about perceptions and sentiments around water quality.
- MDARD is committed to a clear, attainable path forward.

*Michelle Selzer Comments:*

- Resonant topics include building networks;
- Coordination: prior to 2014, 2016, the state departments worked in silos. Interdepartmental coordination began while working on the collaborative agreement - a government success.
- We now have models in place for networking and coordination, e.g., River Raisin; Statewide Public Advisory Council (PAC) – the Domestic Action Plan (DAP) has really facilitated Quality of Life agency coordination at senior levels; Area of Concern (AoC) Public Advisory Council (PAC) is an analogous network to this new Advisory Group.
- Engaging w/ federal partners:
  - Big for MDARD to implement farm bill programs. We have identified barriers to implementation, looking forward to working with the Director to overcome barriers.
  - Some of the solutions are: flexibility in programs; access to data to inform strategic planning; data sharing agreements between federal and state programs.
- Agree with the need for more monitoring. Prior to 2016: only one monitoring station on the River Raisin. Envision having the 4 stations, but it's expensive; low-cost water quality monitoring options should be looked into.
- Dashboard concept: Michigan State University dashboard - Great Lakes Monitoring System (GLMS). Will look to this group for input on the social and environmental metrics to include.





Phil Argiroff Comments:

- Need to make sure we focus, with Quality of Life agencies, with leadership - need a consistent message.
- Point and nonpoint source work isn't being adequately conveyed
- Need to show the effectiveness of best management practices (BMPs) and how they are working when they're in place.

Steve Shine Comments:

- Michigan Agriculture Environmental Assurance Program (MAEAP) program is fairly demanding for verification, so while voluntary it still requires accountability; the Forestry, Wetland, and Habitat MAEAP Category effort has gotten off to a slow start but is getting underway to assess functionality of these property components too; Methodical way of looking at farm, landscape; e.g. when wetlands are restored they'll function as intended;
- More going on with MAEAP than people realize;
- On wetland pilot monitoring: it's expensive. Have faith in federal program to evaluate BMPs;
- Important to have confidence in people: they'll get to the work they need to.

Qs from Advisory Group:

*Q for Phil Argiroff:* Are there additional point sources allowed in WLEB? Moratorium on new sources?

*Phil Argiroff Response:* No. The process for new wastewater treatment plants - would have to comply with tighter limits. But there are a lot of steps for anti-degradation, for new or increased discharges.

*Q for Phil Argiroff:* Onsite wastewater treatment plants: Are there a lot of requests? Are they being approved?

*Phil Response:* Surface water: a lot of new, smaller facilities that will potentially discharge from new developments. Section 208 of the Clean Water Act requires plans for that. However, that work was dropped in the '90's when we were losing staff. Facilities on the edge.

- We're going to start that back up. Have those questions answered when new developments come up.
- Section 208 will allow us to have a more thoughtful process when new facilities come online.
- Total Maximum Daily Loads (TMDLs) would add additional restrictions.

*Q for MDARD:* 10% of land in Michigan Agriculture Environmental Assurance Program (MAEAP). Has there been a reduction in phosphorus at the mouth?

Has there been an increase in animal operations and does that counteract?

*Tim Response:* roughly 10% verification, can't speak to data trends over time. Tracking numbers, flat loading numbers.

*Michelle Response:* River Raisin loads dropped, but are now back up.





*Q for Panel:* Coordination needs to be carried further into research, with other states in WLEB; we hear about research in Ohio or Michigan, but sometimes see the results. Farmers need to know what we should be doing and if what we're doing is going to work.

*Tim Boring response:* That point is spot on; we need research results to be guiding priorities.

*Michelle Selzer response:* Good point about enhancing our coordination.

- The Edge of Field study w/ Michigan State University (MSU) is a good example of partnering with universities and farmers to learn about what's coming off the field. But we're having challenges getting interest from producers.
- Perception that we're going to use the information against them, but it's the opposite.
- Still looking for opportunities to partner w/ universities; also, across jurisdictions, e.g., w/ OSU. We will be hosting a State of the WLEB conference annually for info sharing.

*Participant A:* I reached out to water researchers at MSU and haven't heard back. Michigan Farm Bureau, Laura Campbell, and Conservation Districts are trying to line up people, but they aren't hearing back. Will depend on the researcher. MSU needs to get back to realizing why they were founded and their responsibility to the state.

*Participant B:* Conservation Districts needs to be a trusted resource as a middleman between programs and farmers. Mixed messages, not coordinated messaging between researchers (MSU) and what Conservation District is trying to sell. Conservation Districts are lining up participants, then MSU paper said grab sampling is not effective, reducing the credibility of the new grab sample study.

*Q for Tim Boring:* How many soil scientists are employed at QoL and how many are dedicated to WLEB?

*Tim Boring Response:* While Michelle spends all her time in WLEB, the department is in the process of adding additional staff to achieve environmental outcomes.

### **Breakout Group Report-Outs:**

#### *Mechanisms for connecting with producers/conservation delivery:*

Goals:

- Find mechanisms to connect producers, fishermen, urban, and rural residents - bridge urban/rural divide
- Build trust in people and process
- Educate non-operating agricultural landlords

Processes:

- Community delivery through local partners (varies by location)
- Timing of meetings (e.g., evening vs. daytime)
- Go to farmers instead of inviting them to meetings
- Think about rewards:
  - Save time or money with practices
  - Lower drain assessments



- Loan discounts
- Equipment discounts
- Target sensitive areas (e.g., fields with high phosphorus loss potential)
- Provide technical assistance to producers

**Messaging:**

- Keep it simple
- Engage agronomists and crop specialists to synchronize messages
- Short newsletters with links, email and print

**Collaboration and Communication:**

- Collaboration around research and data:
  - Bring researchers together to respond to frequently asked questions (e.g., Harmful Algal Blooms (HABs) collaborative)
  - Compile research data, including from other states
  - Interest in WLEB monitoring data (create a dashboard) and how they fit together
  - Peer-review of data methodology and generated data; link with marketing data
  - Good Agricultural Practices analysis, wildlife habitat and ecosystem services related to best management practices
- Communication:
  - Webinars
  - Updates - brief - monthly or quarterly
  - Infographics
  - 2-minute videos
  - Farm visit/lake visit
  - People do not understand what it is to farm, or do other jobs in different sectors, understanding the other sectors' constraints/roles is important
- Water affordability and eco-justice is important; this work impacts savings or costs for ratepayers

**Leveraging our networks:**

- Michigan State University Extension
- Downtown Development Authorities and Chambers of Commerces across watershed
- Newspapers and radio
- Drain commissioner website
- Lake homeowners' associations
- Recreation groups
- Healing Our Waters
- Agribusiness and lending communities

**Mechanisms for Communications:**

- Messaging is key
  - Consult with communications experts within agency departments and private sector
  - Share freely, consistent messages, think about audience, keep the message simple
- Partner with universities and students
- In person:



- Importance of one-on-one, esp. with older producers
- Coffee talks (mixed bag)
- Value of hard copy
  - Mailings - use Farm Service Agency Freedom of Information Act to get addresses
  - Leverage municipal newsletters
  - Billboards
- Online:
  - Paid social media ads (e.g., TikTok)
  - Ease of access on websites - linked websites
  - Webinars
    - Quarterly subjects area meetings
    - Annual webinar for monitoring data
    - Michigan State University Thurs. webinar series with schedule in advance
  - Short documentaries (<15 mins), Great Lakes Now
- Consider that producers have 2nd jobs
- Meeting opportunities:
  - 4H, Future Farmers of America youth outlets
  - Dinner meetings and evening webinars
  - Meet people where they're at: bars, churches, senior centers
  - Listening sessions
- Develop assessment approaches linked to goals, comms. metrics for impact

**Next steps:**

- Website coming soon from University of Michigan Water Center
- Regroup December 12th for State of the Western Lake Erie Basin Conference and December 13<sup>th</sup> for the Advisory Group and Science Panel joint meeting.