

Water Conservation and Efficiency Committee

January 6, 2022

9-10:30 a.m.

State of Michigan Employees: [Meeting Recording](#)

Other organizations: [Meeting Recording](#)

(Different links due to State server system)

Attendance: Simon Belisle (EGLE), Emily Finnell (EGLE), Sara Pearson (EGLE), Matt Yates (Resource Conservation Partners), Jason Walther (Walther Farms), Chad Rogers (EGLE), Marilyn Thelen (MSU Extension), Andy Lebaron (EGLE), Julie Staveland (EGLE), Ross Helmer (EGLE), Lyndon Kelley (MSU Extension), Abby Eaton (MDARD), Rachel Proctor (Consumers Energy), Frank Ettawageshik (United Tribes of Michigan), Hannah Arnett (EGLE)

Emily introduced Sara Pearson, EGLE, Drinking Water and Municipal Assistance Division, as new member of the committee. Sara is the unit manager for the source water protection unit and previously worked in Remediation and Redevelopment Division.

1. Speaker: Matt Yates, Resource Conservation Partners, www.conservemil.com

- Matt's organization has business contracts with Florida ag department, working with center-pivot irrigation system.
- These systems use a lot of water and cover a lot of ground, looking to create uniformity in center pivot systems by analyzing water distribution.
- Many producers water to get the driest spots causes overwatering in other parts of the field, overwatering can create leaching.
- Creates a lot of data for water consumption for state agencies.
- Irrigation optimization conserves energy, water and fertilizer.
- State of Florida pays for replacement of nozzles of irrigation system based on analysis done by mobile lab.
- Lyndon Kelley asked about comparison with flow meter.
- Matt answered that yes, compared water collected vs. water pumped, also loss with mist and leaks.
- Calculate CU vs DU? Matt answered they calculate both
- Andy asked if Florida has restrictions on large quantity withdrawals limits.
- Matt responded that state is not yet using their data for regulation yet. They use basin management plans to control flow, using water management district, issue consumptive use permits in a district, some districts require reporting from producers on a periodic basis.
- Abby asked about salt intrusion, Matt talked about nitrates, producers have to report their use of fertilizer based on University of Florida research, soil varies

across the state so it impacts fertilizer use. Recommendations, not limits, on what is in water coming off fields. North Florida, which has more ag, shares a border with GA, and some water coming from GA already has lots of nutrients.

- Emily asked about performance improvements and metrics with retrofits.
- Matt responded that state BMP technicians monitor changes in efficiency. He recommended using a fixed coefficient to calculate impact of the irrigation system.
- Frank asked about how producers have reacted to the change.
- Matt responded some really like it, some are not interested, overall well accepted, relationship-building is the most important, build trust with producers.
- Abby asked about working with economists, wondering if efficiency work translates in money savings that will appeal to producers.
- Matt said in their report includes efficiency, using the max efficiency possible for a system to show potential reduction in use, which shows potential savings.
- Emily asked about return on investment for the producers.
- Matt answered you can easily calculate energy savings, but harder to calculate crop improvement.
- Lyndon asked about the frequency of overwatering to get the dry spots.
- Matt responded that it is more frequent than expected. Some use soil moisture probes, some just water a certain amount everyday regardless of any data.
- Emily thanked Matt for his presentation and Jason for linking us with Matt.
- Jason talked about costs of changing irrigation systems, and for ROI, for high value crops like Michigan vegetables, the investment in irrigation efficiency gets repaid rapidly, and that the crops are higher quality, and higher yield.

2. Action Items Updates

- Speaker Series Updates
 - February Meeting Speaker
 - Emily asked if the committee if it would be appropriate to reflect on the information received from speakers over the last year and ensure we have enough time in meetings to discuss, maybe reduce number of speakers.
 - Frank added we need to know what we work on before we can find gaps, then invite speakers, Julie S seconded.
 - There is agreement to send the list of speakers from past year, look at gaps in February, to help build out recommendations.
 - Dow Fellows report discussion and next steps
 - Emily talked about high level findings, looking for reactions from the committee
 - No comments from the committee

- Jim Milne, Andy, Abby, Julie, Emily and Simon gave comments to the Dow team.
- Emily envisioned the team would be able to look at policies for opportunities to collect data in addressing water loss, the report did not get to that level of granularity.
- Emily discussed the recommendations from the report and that they could be discussed within state agencies and with the WCEC committee.
- Simon to redistribute Dow report to the committee as part of the post meeting package.
- Dow team recommended a broader outreach campaign, which will be discussed internally with EGLE.

3. Discussion on what the group will focus on in the coming year

- Review 2021 Work Plan
 - Emily recommended keeping item 1a for 2022. Committee agreed. Need to determine if additional funding is needed.
 - Item 1B: carried to 2022.
 - Item 2: waiting on legislature for appropriation, still ongoing for 2022
 - Item 3: need to find gaps, but keep for 2022
 - Item 4: EGLE to keep sharing assessment
 - Item 5: revisit at a future committee meeting, Pat S. and Mike A. GAPs are not an official term, water conservation measures according to Andy L.
 - Item 6: important to stay up to speed, could lead to speakers
- Develop 2022 Work Plan
 - Emily suggested adding item about identifying and developing WUAC recommendations for 2022 legislative report.
 - Julie proposed adding pollution prevention as an item to cross-reference with water conservation in monthly meetings with Emily

4. International Association for Great Lakes Research Conference, Improving and Implementing Water Conservation and Water Use Efficiency across Basin

- Emily spoke about session to WUAC, sent it to Tribes through Katie Lambeth, discussions happening about potential sessions.
- Emily asked if committee members had heard of potential speakers. None were put forward.

5. Member Updates

- 2022 Great Lakes Freshwater Week, June 4-12, 2022, coordinated with DNR Free Fishing Week, hoping the theme will be water energy nexus and water conservation, hoping to bring some of the WCEC speakers to the public during the week.
- Frank mentioned the concept of assessing quality of water not just at the tap, but in lakes and streams.
- Emily mentioned using the week as part of broader outreach campaign about how water is used and managed in MI.
- Frank talked about IJC regional poll, interesting information about what Emily just discussed, could be used in Freshwater Week.

6. Next Meeting/Next Steps

- Next Meeting: February 3, 2022
 - No Speaker
- Action Items
 - Simon to send notes and follow up documents in one email (Emily Updated Speaker list and Simon added recordings) Dow Fellows report, Draft 2022 Workplan put YouTube links in one page
 - Committee to review Dow Fellows report findings and be prepared to discuss priorities that the committee would like to advance
 - Emily to update Draft 2022 Annual Work Plan and circulate for committee review in order to finalize at next committee meeting on Feb 3