

Water Use Advisory Council (WUAC) Meeting

Hosted by the Department of Environment, Great Lakes, and Energy (EGLE)

Tuesday, September 13, 2022

1:00 p.m. - 4:00 p.m.

Con Con Conference Room
South Atrium, Constitution Hall
525 West Allegan
Lansing, MI 48933

Remote Option Available Via Teams

[Click here to join the meeting](#)

Or call in (audio only)

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Phone Conference ID: 825 311 627#

NOTES

1. Welcome

Laura Campbell, Co-Chair, Farm Bureau, welcomed members and guests and shared the logistics for participation in the meeting. She noted she would be sharing the Chair role with fellow Chair Eggers.

2. Roll Call

Campbell took roll call attendance of members and/or alternates.

WUAC Members/Alternates Present at Constitution Hall:

Abby Eaton, Michigan Department of Agriculture and Rural Development
Ben Tirrell, Michigan Farm Bureau
Brian Eggers, AKT Peerless
Christine Alexander, EGLE
Dave Hamilton, The Nature Conservancy Retired
Doug Needham, Michigan Aggregates Association
Kelly Turner, Michigan Agricultural Irrigators
Laura Campbell, Michigan Farm Bureau
Megan Tinsley, Michigan Environmental Council
Rachel Proctor, Jackson Consumers Energy

A quorum was not physically present therefore the WUAC could not take any official actions requiring a vote during this meeting.

WUAC Members/Alternates Present via Teams:

Frank Ettawageshik, United Tribes of Michigan
James Clift, Deputy Director, EGLE
Jay Wesley, Michigan Department of Natural Resources
Jim Nicholas, Nicholas-H2O
John Yellich, Michigan Geological Survey

Mike Gallagher, Michigan Lake Stewardship Associations
Steve Kohler, Kalamazoo River Watershed Council
Tom Frazier, Michigan Townships Association

WUAC Members/Alternates Absent:

Buddy Sebastian, Michigan Ground Water Association
Charlie Scott, Michigan Golf Course Owners Association-no
Clyde Dugan, Michigan Section American Water Works Association
Grenetta Thomassey, Tip of the Mitt Watershed Council
Jason Geer, Michigan Chamber of Commerce
Jason Walther, Michigan Agricultural Irrigators
Jim Johnson, Michigan Department of Agriculture and Rural Development (MDARD)
Kyle Rorah, Ducks Unlimited
Margaret Bettenhausen, Michigan Attorney General
Pat Staskiewicz, Michigan Section American Water Works Association
Rich Bowman, The Nature Conservancy
Sue Hanf, Michigan Aggregates Association
Bryan Burroughs, Michigan Trout Unlimited

Non-members present:

Aaron Asher, MSU
Adam Zwickle
Andy LeBaron, EGLE
Austen York, EGLE
Brandon Ellefson, OHM Advisors
Clayton Joupperi
Emily Finnell, EGLE
Hannah Arnett, EGLE
James Milne, EGLE
Joel Henry, Fishbeck
John Esch, EGLE
Katy Lindstrom
Lena Pappas, EGLE
Lyndon Kelley
Mark Seamon
Michael Frederick, MGWA
Ralph Haefner, USGS
Ross Helmer, EGLE
Sherry Thelen EGLE
Simon Belisle, EGLE
Steven Crider
Todd Feenstra, Tritium
Younsuk Dong, Michigan State University

3. Approval of Agenda-Roll Call Vote

Campbell noted there is not a quorum in person today so the approval of agenda could not be voted on.

4. Approval of Minutes-Roll Call Vote

Campbell noted there is not a quorum in person today so the approval of minutes could not be voted on.

5. Public Comment (3 Minute Limit)

There were no comments at this time, but a comment received via email will be read during the open comment period.

6. Legislative Update

Clift shared there are no updates on the legislative front to report. Yellich asked if there are any updates specific to ARPA funding issues. Milne said that there has been some discussion of supplemental funding, but nothing official. EGLE is still waiting to see if there will be a supplemental gap this year.

7. Reappointment Process

Campbell reported that current WUAC representatives were made in the legislative session in 2019. Reappointments will have to wait until after January 2023 when new state political leaders are decided. Once the new leaders are appointed, the Chairs will get that information out to members to begin the reappointment process. If you cannot find your appointment letter with your exact appointment date, she suggests that you get your reappointment request out sooner than later so you can be reappointed if you so choose. A template will be created for members to use as part of the reappointment requests to explain what the WUAC does and why it is important to keep consistent members.

Hamilton suggested the WUAC co-chairs send a letter to the Governor, Senate Majority Leader, and the Speaker of the House to introduce the WUAC and the value of maintaining consistent members. Campbell concurred.

8. New Technical Advisor Application

Campbell noted that due to a lack of a quorum the WUAC cannot vote on Dr. Dong's application to serve as a new technical advisor to the Council. She thanked Dr. Dong for attending and taking part in WUAC Committees and Council meetings. His application has been submitted and she urged members to ask Dr. Dong questions regarding his expertise and experience. Hamilton and Turner agreed that he has a strong resume and has been provided valuable professional insight to the WUAC.

(At this time, Co-Chair Eggers assumed role of meeting Chair.)

9. Committee Chairs Report

A. Data Collection Committee

Tinsley stated that they have not met since the WUAC meeting, but they have a meeting scheduled for September 22nd from 10 am to 12 pm. The Committee is moving into report preparation mode and the next meeting is intended to discuss the next steps for inland lakes work. The Committee is looking at drafting language that will help secure funding to continue this work over the next couple years. In addition, Everett Root, DTMB MiSail has been working to connect the Committee with Fugro for a presentation and see if we can get it scheduled to look at inland lake bathymetry surveys. The Committee is looking to see if the aerial light detection and ranging (LiDAR) survey methods that they use are applicable in Michigan.

Eaton commented that Pat Soranno has done a lot of work on inland lake bathymetry as well as looking at the potential impacts of withdrawals on lakes. She wondered if it is worth reaching out to her and her grad students to see where that is and if there is any additional work that might help inform that process.

Milne commented that Brian Roth at Michigan State University (MSU) was the lead for inland lake bathymetry mapping project, but we could follow up with Soranno and see if she is still active.

B. Models Committee

Hamilton said the Committee met and discussed aquifer performance test guidance. Milne and Hamilton have also met to discuss this issue. Nicholas is bringing together key people to further consider and seek resolution to this issue and advise the WUAC.

The Committee is still discussing their recommendations for the 2022 WUAC Report. One item is the return flow accounting/downstream accounting. A model was developed to estimate return flows and depletions downstream. The model showed that this topic has potential impacts on available downstream flow. The other item is the stream flow allocation method that is used. A better method has been developed called web squared that looks promising and has advantages over the current methods. The Committee will continue to discuss at their next meeting and return to the WUAC with final recommendations.

C. New Topics Committee

No new updates were provided for the New Topics Committee.

D. Conservation and Efficiency Committee

Turner said the Committee is still meeting monthly and recently looked at the 2020 recommendations. They are looking at best management practices and how climate change might impact the different water sectors. The Office of the Great Lakes expects to release a Request for Proposals (RFP) through the Great Lakes Protection fund to match the \$50,000 provided by the WUAC funding. The water use sectors are interested and need help facilitating these discussions. The Committee also spoke with representatives from fisheries aquaculture, and they are interested in participating in the conversations regarding best management practices. Committee members also met with the University of Michigan to see if they could develop projects to determine metrics for water and energy savings in infrastructure projects. Money motivates people, so if financial benefit can be proven, it becomes a motivator for adoption of practices.

Turner stated that the Committee submitted 2022 recommendations to the WUAC co-chairs three months ago. The Committee has addressed comments and revised the 2022 recommendations and submitted them back to the WUAC co-chairs. They want to address irrigation efficiency using the mobile lab services. Best management practices are in place for water use, but for the actual equipment, a lab can provide guidance, safety information, and funding information. They are almost ready to submit the plan to the full WUAC. Dr. Dong has worked very closely with Lyndon Kelley and is very familiar with these programs, so it makes sense for Dr. Dong to provide insight on the provided proposal. Turner requested that if anyone has any questions following the presentation, that they bring those items forward so the Committee can respond before the next WUAC meeting.

Hamilton asked for clarification as to whether this is primarily related to safety. Turner said that it is much broader, and that Jason Walther was very pointed in stating that safety is a part of this system. The focus is irrigation system efficiency, but they wanted to pull in other pieces to ensure they are implementing a comprehensive program.

Alexander asked about watering efficiency and whether watering during the day was inefficient due to evaporation. There are generally accepted management practices around irrigation and that the best time to irrigate is during the evening. However, there are situations where it is just not possible. The proposed system will help educate and evaluate alternative ideas like putting in additional wells or changing management practices that make financial sense and improve performance and reduce losses. Campbell acknowledged the challenges surrounding this effort and stated that crops need water to prevent permanent damage. Depending on limitations, farmers can be forced to water at inopportune times. Part of this effort will be the education aspect and finding financially beneficial alternatives to improve performance.

Turner introduced Dr. Dong who presented his research with MSU. The information and proposed recommendations are summarized as follows:

- Importance of agriculture in Michigan and the irrigation that is needed to maintain crops.
- Water and energy consumption as it relates to Michigan agriculture
- Information on the age and types of irrigation systems in Michigan and relevance to identified areas where system improvements could yield large benefits in terms of energy and water consumption in the state.
- Through use of the irrigation scheduling tool and system optimization, large water and energy consumption reductions can be realized.
- On farm demonstrations can help disseminate knowledge and promote the technological improvements.
 - Displayed data for how much improvement can be expected on a farm site after a sprinkler package retrofit from a mobile irrigation lab system.
 - Expected outcomes of the program include improved best management practices, increased efficiency of water and energy use, reduced greenhouse gases, minimal environmental impacts, and improved crop production and farm safety. The 3-year total projected cost of the program is ~\$600,000.

Hamilton asked about potential gains through system optimization and irrigation scheduling. Dong could not specifically comment on changing from high pressure to low pressure but noted that a study on irrigation scheduling in 2021 showed that there was potential to save about 1 inch of application for corn and soybean, but it can vary yearly.

Turner replied that they have been looking at what other states have been able to achieve in terms of energy and water savings by implementing these types of programs. The mobile lab will help farmers learn about savings that can be achieved through these upgrades. If larger farms implement these recommendations, smaller farms will follow suit and realize the potential savings.

Campbell added that if this program can help leverage the support of partners such as farm groups, commodity groups, and others, it will be likely to be more successful. There are cost share programs for providing funds for upgrades, but this information needs to be shared with farmers who are unaware so it can be utilized.

Proctor asked about the funding proposal and if the Committee expects that this will be funded through the WUAC and if there has been a conversation or proposed strategies as to how this can be implemented in the generally accepted agricultural and management practices (GAAMPS) Committees. Turner stated that yes, the Committee wants to bring this to the full Council and evaluate as to whether this can be a full recommendation to the legislature. Turner also noted she and Campbell sit on the Irrigation GAAMPS Committee, so strategic conversations are ongoing.

Milne asked if any of the MSU Extension (MSUE) agents have had the opportunity to hear this presentation so they can take the information back to their regions throughout the state. Dr. Dong has been traveling around the state with Lyndon Kelley giving this presentation and sharing this information. Turner said Marilyn Thelen, MSUE is also part of this Committee, and she was excited to share this information with the educators across the state.

Hamilton asked what Dr. Dong was referring to when he discussed updating systems and inquired about costs and cost sharing. Dr. Dong said this can include changing from high pressure to low pressure or upgrading fittings and parts of the sprinkler system that are aging or have failed. Performing a sprinkler package upgrade costs around \$4,000 for a single pivot, but there is also potentially labor involved when the farmer does not have the knowledge or time to do it themselves.

Eggers asked about the associated cost of the mobile lab that was cited in the presentation at \$50,000. Dr. Dong clarified that this is the cost to develop a dedicated trailer that would be built out to have all the necessary tools and parts needed to perform the proposed work.

Needham asked if the Committee is proposing to buy the trailer for MSU to have them do this work or if it would be put out to bid in an RFP. Campbell said that this could work like other programs where the legislature appropriates the funds to EGLE who puts out an RFP or utilizes their existing agreement with MSU or this is something that could be put together as a grant funded project where the state or MSU could provide a match.

Jim Nicholas suggested that energy co-ops like Great Lakes Electric may be interested in this program.

Tinsley asked if there were specific pieces from the other groups that the Committee took from that they felt worked well for this program. Turner felt that they took some of the best pieces from programs that seemed to work well to try and build a solid program where the roadblocks and pitfalls have already been identified so the money can be spent wisely in this program and still have a product that will meet objectives.

Please see the attached committee report for additional information.

E. Implementation Committee

Needham said the Committee met on September 1 and went through an EGLE spreadsheet that was shared with them online that had a potential roadmap for how they would spend the allotted \$10 million over the next five years. It was reminded that the costs are all estimated, and their current budgeting of items comes in at \$9.5 million. An estimated \$500,000 may be available for further allocation. There were some discussions as to which recommendations can be addressed through existing contracts and which ones will go out via Requests for Proposals. The Committee will further review at their next meeting.

Campbell stated that EGLE needed permission to share those numbers with the WUAC since they were draft. Clift will take these numbers to the Director to make sure they match what EGLE has in its budget and determine if the existing contracts are sufficient to cover needed work. Clift stated that at the next meeting there will be a document they can share with the Council. EGLE is checking to see where they have existing contracts they can use.

Needham mentioned that it would be nice to have some real-world presentation scenarios with real problems that people are facing so that we as a Council can understand what is going on out in the world. Needham also mentioned SSRs and that the 10-day requirement may need to be modified. As this has been discussed, maybe the 10-day clock should start once the application is administratively complete. There were discussions over how to determine this, but Needham assumes this would be done by EGLE.

Milne addressed conversations that have been had about the 10-day limit. The EGLE staff would be happy to participate in that discussion and if there are particular problem files, those should be brought to their attention. A conversation should be had about the full spectrum of applications from the easy cases to the challenging ones to help identify where delays are coming up. Turner supports the idea of having that conversation to better understand the criteria and roadblocks that EGLE is facing with evaluating these things. Listening to some of these real-world cases could help the WUAC better understand if the 10-day period needs to be changed.

Hamilton added the next Committee meeting will include other topics that the group would like to cover including a technical work group that would oversee the creation of the Michigan hydrologic framework. That full proposal is available for review.

10. 2022 WUAC Report Update: Content, Logistics and Timeline

Since the last meeting, Campbell has reviewed the WUAC meeting minutes and notes to capture recommendations that have already been made for the 2022 WUAC Report. In reviewing the WUAC website, she discovered that many links are broken. Recommendations that were found were compiled into a list, but the list is assumed to be incomplete. The list includes the index flows recommendation from the Models Committee and the Implementation Committee recommendation to remove two previous 2014 recommendations. The 2014 recommendations for removal were to make the WWAT registration number a required field in Wellogic and to remove the recommendation to automate the process for checking the compliance of as-built well construction with the WWAT registration and water use reporting data. If anyone has made recommendations that were approved that have been missed, please let Campbell know.

11. EGLE Update

Milne provided the program update for the EGLE water use program. He began with a demonstration on how to identify Water Management Areas (WMAs) in the Water Withdrawal Assessment Tool (WWAT) interactive map user interface and how to determine the current status of stream flow depletion availability.

This feature of the WWAT is not apparent or advertised to the user and so is somewhat hidden. It works like a typical 'Identify' or 'Info' tool seen in many interactive GIS maps. It is used to display more information about a geographic feature seen on the map. For the WMAs, it can provide useful

information about the status, but it does not directly give the full story about a proposed withdrawal assessment result.

Milne showed that if you zoom in to your target area and go into the 'Map Layers' tab on the WWAT tool, you can click the "watersheds" box to display a box with detailed watershed information that includes the stream name, basin name, stream classification and streamflow depletion in each zone. If you scroll to the bottom of the box, you can also see the current real time streamflow depletion within each zone. Negative numbers mean that the WMA has been depleted past that zone by prior registrations or pending SRRs. The displayed flow is the remaining flow available before being downgraded to the next lower zone.

Milne noted that it is important to keep in mind that the gallons per minute of available streamflow depletion is not an intuitive number or target to shoot for. The streamflow depletion for a withdrawal is calculated by the WWAT predictive model for a specific scenario; it is a custom calculation. A specific withdrawal can have vastly different streamflow depletion amounts predicted for different WMAs depending on the local geology, distances from the streams, etc. The result of a withdrawal's assessment is not just determined by the available streamflow depletion in the home WMA or by one WMA, but any of the adjacent WMAs can dictate the WWAT results. If a Site-Specific Review (SSR) is required these results are subject to change upon human intervention.

You can also look at a Withdrawal Assessment Report that will display the debited watershed volume. This predicts the amount of water that is being debited or depleted. With this, you can run different scenarios and check against the WMAs.

Hamilton asked if you must request the report after you have registered. Milne showed that if you run the tool, you will have access to the report prior to registering a withdrawal and can re-run the tool if you do not like the results.

Hamilton and Turner made the point that there needs to be some sort of documentation to educate the public on this aspect of the tool and what the numbers mean. Turner requested a text description that can be shared to and by other organizations. Campbell offered support to LeBaron from her review team to write language to help explain how the tool features work and how to interpret the results.

Feenstra said he does a lot of presentations to growers throughout the year and many of them are frequent users of the WWAT and would be interested in this feature. He suggested that he could include these slides in his presentation to start sharing this knowledge.

Milne shared compliance metrics thus far for 2022. To date there have been 128 compliance communications, 15 violation notices, nine second violation notices, and four complaints. Nat Shuff has taken over doing pre-screening reviews for new or increased public water supply LQWs for EGLE Drinking Water & Environmental Health Division. Overall, there have been 13 pre-screening reviews passed, 0 pre-screening reviews denied, one pre-screening review retracted, and six 327 permits issued.

Between January 1, 2022, and August 31, 2022, there were 238 WWAT registrations and 99 SSR registrations. Ninety-nine SSRs were authorized, five were denied and twelve were retracted by the applicant. Another five were still pending when this data was queried.

Milne then shared a slide with a top graph that showed the cumulative trend in the average number of days to complete an SSR and a bottom graph showing the cumulative trend in the percentage of SSRs completed within 10 business days. The average number of days to complete an SSR was twelve. Fifty-six percent of the SSRs were completed within the 10-business day statutory deadline. The average number of days necessary to complete an SSR has been steadily decreasing for the last several years.

Milne's final slide was a map showing spot stream flow measurements taken on transects been taken at multiple locations around the state by the EGLE staff. Hamilton asked at the significance of this information. Arnett responded that EGLE has been working on a depleted watershed management map. As part of that effort, they are required to go out and sample flows in depleted watersheds. This is a map of part of this effort.

Turner asked how the measurements are used. Joupperi clarified that the plan is to visit the watersheds throughout the summer during low flow months and wet months and compare them against the index flow values for that watershed. These are generally problem watersheds where they will continue to collect more data to get a better picture of what is actually happening in the watershed.

Milne noted that in addition to this data, USGS also has staff going to 30 different locations where they collect miscellaneous flow measurements during the irrigation season. This is in addition to the five continuous stream flow gages that are funded. EGLE has an internal proposal to fund the installation of additional stream gages, so some of these stations might get an additional steam gage in the future.

Turner asked the cost difference between hand measurements versus a stream gage. Milne cited that it costs about \$20,000 per stream gage installation with an additional \$16,000 for annual operation and maintenance. To compare against spot measurements, it is just travel time, labor, and meals.

Yellich asked if the stream depletion area maps were available. Milne responded that they are not available yet, but they could be created.

12. Future

Eggers reiterated the goal to have the report ready by the December meeting.

- a. Remaining 2022 Meeting Dates
 - I. October 11 (Tuesday)
 - II. November 10 (Thursday)
 - III. December 5 (Monday)
- b. Formats

The hybrid format for the meetings will continue.
- c. Quorum

Reminder that in person attendance is needed to obtain a quorum at remaining meetings.

13. Open Comments (3 Minute Limit)

LeBaron read a public comment email from John Stears from Vicksburg, Michigan that Mr. Stears requested to be read into the record in the WUAC monthly meeting. The email is concerning an increase of the Pfizer water withdrawal capacity by 4.32 MGD at the Kalamazoo manufacturing site. The article referenced in the email was run on M Live on September 4th. At that time, no public comments have been received yet for that permit request. Since that time comments have been received and the 45-day comment period closed yesterday. The referenced email has been attached to the meeting record for reference.

Frederick shared that the cement industry has discontinued a specific type of cement that has been the approved formulation used in plugging wells or grouting wells. This means that there is no longer any grouting or plugging cement available that is authorized by statute. The Michigan Ground Water Association (MGWA) has requested EGLE revise the administrative rules to allow for type 1L cement, but until that time, MGA has advised members and local health departments that wells requiring cement cannot be completed according to the law. These activities must be halted until there is an administrative change. It will take an estimated 6-12 months to make this change.

Campbell asked why that type of cement was discontinued and Fredrick explained that it is a carbon issue. The industry is transitioning from a Portland cement to a Portland limestone cement. This is a blending with limestone to reduce the carbon footprint. The cement properties are no different between the two products.

Hamilton requested to return to the email from Stears. He wanted clarification on what Stears was commenting on relating to the one specific water withdrawal location. He asked what he has previously commented on per his email.

Milne reiterated that Stears cited a September 4th news article, but the public notice period for that permit application closed September 12th. The public notice period was still open as of the 4th, and to the best of Milne's knowledge, EGLE had not received any public notice comments at that time. EGLE will treat Mr. Stears email as a public notice comment, and it will be reviewed and responded to appropriately.

Hamilton asked to clarify his understanding of the situation. He understands that Pfizer is increasing their water withdrawal permit limit. There is an EGLE administrative process, and that process is not within the WUAC's purview. It might be shared as an information item, but there is no approval that the WUAC would give with respect to that process. That strictly lies with EGLE to make the decision with the information that is given within the laws of the statute.

Milne agreed that Hamilton's understanding is correct. Milne also cited MCL 324.32723 that an aggrieved party has the ability to file for an administrative contested case hearing within 60 days of that final decision, which has not been made yet.

Eaton and Turner asked if there would be response outlining what the WUAC has purview over and what it does not, where Mr. Stears opportunities lie to voice a grievance and if the WUAC has an obligation to reply to this comment.

Eggers stated that Mr. Stears opportunity lies in his ability to voice his comments to the WUAC and EGLE and he has done that. This is not anything the WUAC has control over and the WUAC has not replied to items like this in the past. These are open and public meetings and Mr. Stears is welcome to attend.

Alexander stated that if the WUAC outlines the process in a response, it should clarify that the avenue is through the contested case process. If someone is aggrieved, that is the proper approach, not through this Council.

14. Motion to Adjourn

There was not a quorum in attendance so no motion to adjourn could be taken and the meeting was ended.

Attachment