

Allegan County Ground Water Study Ad-Hoc Work Group



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WATER STUDY WORKGROUP – AGENDA

Wednesday, January 22, 2025 – 2PM

County Services Building – Board of Commissioners Meeting Room

3255 122nd Avenue, Allegan, MI 49010

Virtual Meeting Options – Connectivity Instructions

2PM

CALL TO ORDER:

ROLL CALL:

PUBLIC PARTICIPATION:

PRESENTATIONS:

COMMUNICATIONS:

DISCUSSION ITEMS:

- 1) Action Items (Dunham)
- 2) Monitoring Well Update (Kunetz)
- 3) Outdoor Discovery Center Curriculum Update (Kunetz)
- 4) Workshop #2 Survey Results Discussion (Kunetz)
- 5) Final Report Outline (Kunetz)

PUBLIC PARTICIPATION:

ADJOURNMENT:

Workgroup Tasks and Deliverables:

1. Review the final Allegan County Groundwater Study, conducted by Hydrosimulatics, Inc. and submitted to the Board on March 25, 2021.
2. Provide regular updates to the Board and a final written summary of observations and recommendations of the workgroup, within one-year of the appointment of its members, relative to the study content (and any other aspects of Allegan County's current and future state relative to water quality, including recommendations for how the County (as a geographic area) should proceed with next steps (if any) and provide particular focus on Hydrosimulatics, Inc. recommendation to pursue an interactive Decision Support System. All recommendations must be specific as to the management/oversight model, funding, root need/issue to be addressed and expected results of any next steps to be considered.
3. The Allegan County Health Department will participate in the discussions of the work group and will provide administrative support, guidance and expertise.
4. As an ad-hoc workgroup, the work of the group will be considered complete upon the delivery of item number 2 above.

ALLEGAN COUNTY GROUNDWATER WORKSHOP #2

For Government Leaders | October 29, 2024

PREPARED BY:

williams&works

Hydrosimulatics



ALLEGAN COUNTY GROUNDWATER WORKSHOP #2

Allegan County’s four-year groundwater research efforts are coming to an end. As part of the Allegan County Groundwater Strategic Plan process, two workshops were held. The first focused on sharing this research while the second was an active planning session on strategic groundwater management. The goal of this report is to synthesize feedback gathered during Workshop #2 and share the results so they may be used to guide county-wide groundwater strategy development.



Groundwater Workshop #2 took place on October 29, 2024 from 4:00 pm to 7:30 pm at the Trestle Stop in Hamilton, Michigan. This event focused on reviewing the results of Workshop #1 and engaging with local government representatives on feasible priorities and actions to address groundwater concerns within the County. It was also an opportunity to gain insight into the groundwater needs and concerns of each community.

Postcard invitations were sent to District Representatives, the Michigan Department of Energy, Environment, and the Great Lakes (EGLE), the Michigan Department of Health and Human Services (DHHS), County Commissioners, and each Local Government Unit (LGU) in Allegan County. A total of 32 participants attended the workshop, representing 18 jurisdictions and included several members from county and state departments. The workshop followed the agenda below and focused on exploring methods and strategies for groundwater management.

ALLEGAN COUNTY GROUNDWATER WORKSHOP #2 AGENDA

- 4:00 p.m. Check-In
- 4:15 p.m. Welcome & Overview of the Process
- 4:45 p.m. Activity #1. Virtual Polling
- 5:00 p.m. Activity #2. Draft Groundwater Strategies
- 5:20 p.m. Break / Dinner Served
- 5:45 p.m. Introduction to Groundwater Management
- 6:15 p.m. Activity #3. Effort Sharing Stations
- 7:00 p.m. Next Steps & Closing Questions
- 7:25 p.m. Departure



WELCOME & OVERVIEW OF THE PROCESS

The meeting began with a recap of Allegan County's groundwater journey, Workshop #1 highlights, goals, and anticipated outcomes for Workshop #2.

Workshop recordings and resource documents can be found on Allegan County's website at

[Allegancounty.org/connect/projects/water-study](https://allegancounty.org/connect/projects/water-study)



ALLEGAN COUNTY
• MICHIGAN •

INTRODUCTION TO GROUNDWATER MANAGEMENT

To establish a common understanding, the differences between groundwater strategies and management was elaborated upon. A brief introduction about existing tools, efforts, and the authorities that lead groundwater management programs in Michigan were shared. This included:

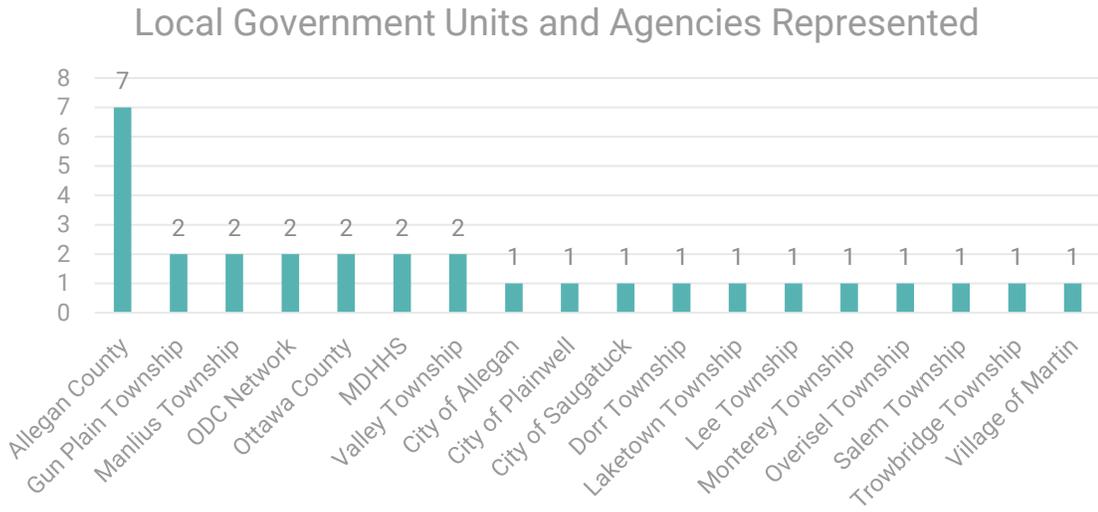
- Wellhead Protection Program - Local Government(s) Voluntary Program
- Ottawa County's "Be Water Wise" Campaign
- Olive Township Master Plan - Ottawa County
- EGLE's Water Withdrawal Assessment Tool

Case studies across the country were assessed. The commonalities among these management strategies were then synthesized and shared with attendees. Overarching conclusions were as follows:

- Resource management is informed by good data.
- When populations increase, the need for groundwater management increases.
- Most groundwater strategies are implemented at the state level.
- Advisory boards and committees are often developed to make decisions about groundwater and are comprised of stakeholders, scientists, local leaders, etc.
- On-going education is a focus for many agencies that also acts as an outreach and relationship building opportunity. Education and relationship building takes time and needs to be on-going.

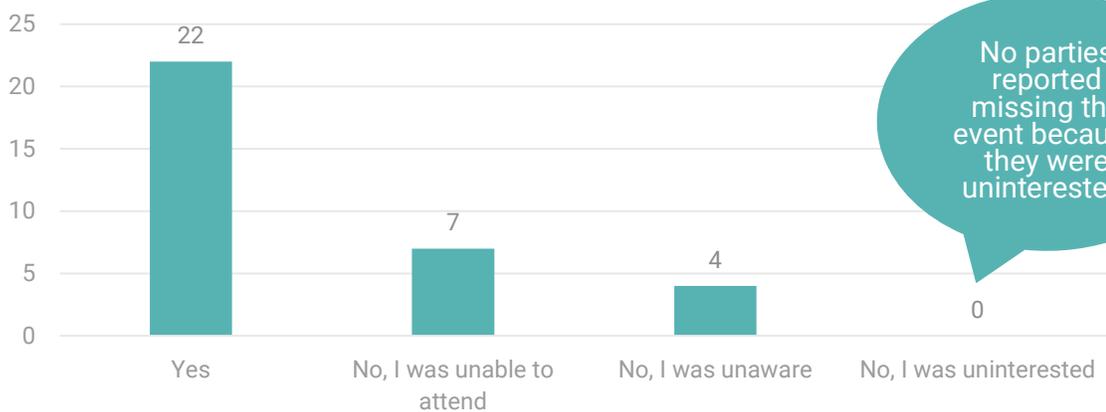
A live Decision Support System (DSS) demonstration was given to inform attendees about other groundwater management tools that could be developed. By connecting publicly available datasets, information generated through Allegan County's recent groundwater studies, and data from the newly installed monitoring well program, a DSS tool could provide on-demand visualization and predictive analytics to inform future decision making.

What local government unit or agency are you representing?



Local leaders from Gun Plain, Manlius, Valley Township, Ottawa County, ODC Network, and MDHHS all had two participants. The other eleven LGU’s had a single representative in attendance. This relatively even representation demonstrates that meeting participation should not be skewed toward the opinion of a single LGU because of greater attendance. Of the other participants in attendance, Allegan County had the most representatives. When compared to the attendees who checked-in to the workshop, representatives from Allegan County included both commissioners and members of staff.

Did you attend Allegan County Groundwater Workshop #1, held on April 23, 2024?

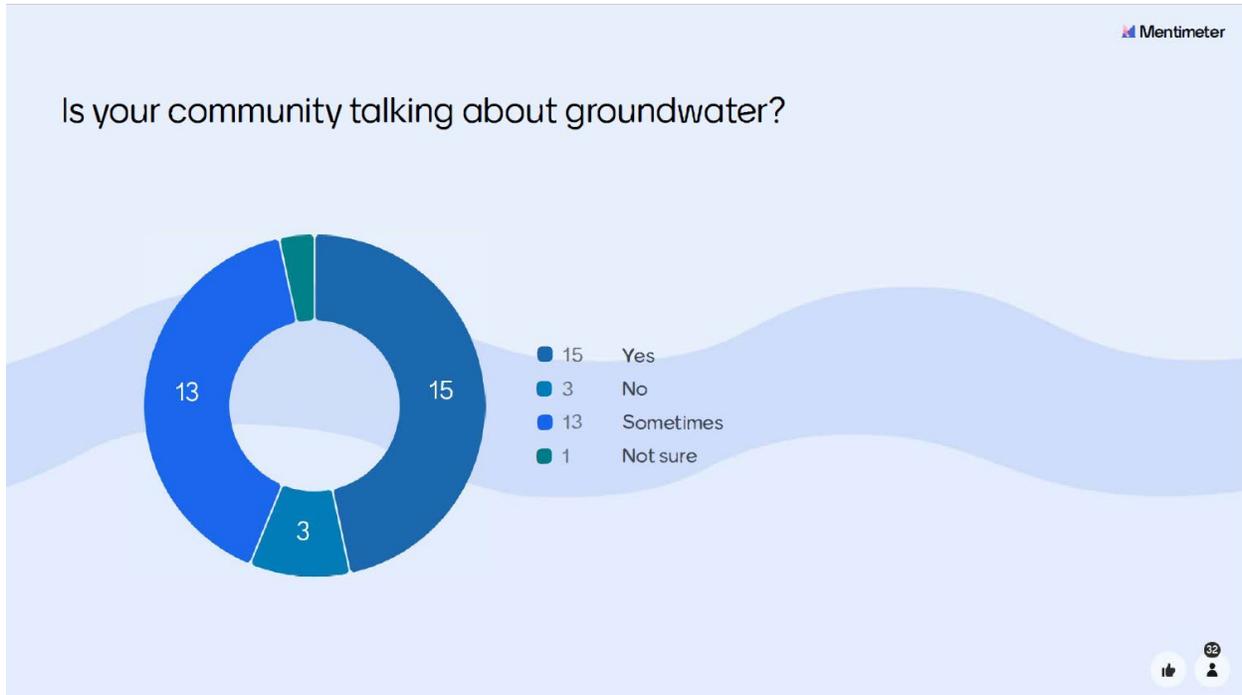


Though many of the representatives had attended Workshop #1, those who did not expressed that they were “unable to” or “were unaware” of the event. This is noteworthy, as no party was uninterested in attending the first groundwater workshop.

If you attended Workshop #1, share something that you learned or liked.

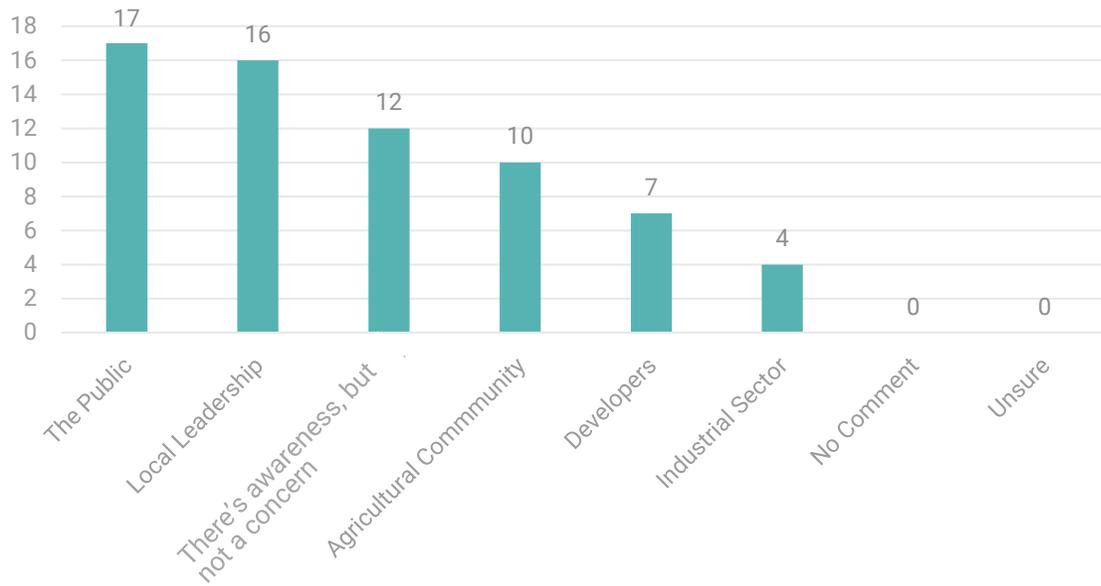
Additionally, many of those who were present at Workshop #1 indicated that they learned about the status of groundwater quality and projected availability across Allegan County, the importance of groundwater monitoring, and that the county is being proactive in assessing groundwater conditions.

Is your community talking about groundwater?



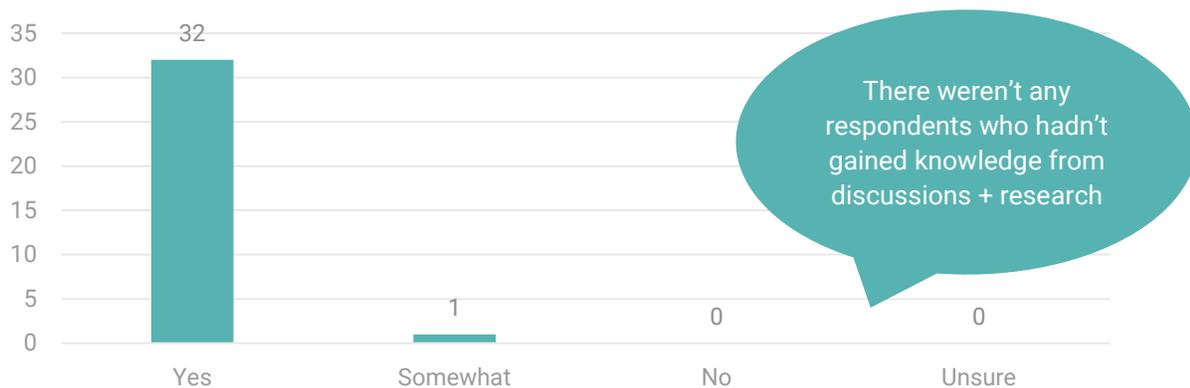
47% of respondents said “Yes” to the question asking if their community is talking about groundwater, followed closely by “Sometimes” (41%). Representatives from Trowbridge and Gun Plain Townships, as well as one Allegan County local leader, said that their communities are not talking about groundwater. This could suggest a lack of concern or awareness about groundwater issues in these communities.

In your community, who primarily voices concerns about groundwater?



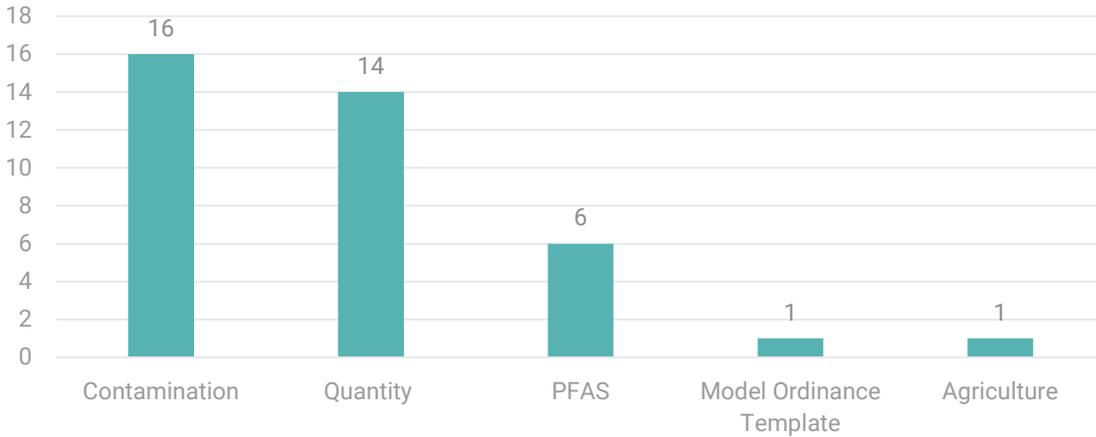
The public was reported by attendees as being the most concerned about groundwater in their community, followed closely by local leadership. The answer choice “There’s awareness, but not a major concern” scored the third highest. This supports the idea that some communities are not very concerned about groundwater, as suggested by the results of the previous question. Local leaders also expressed that developers and those in the industrial sector tend to show less concern about groundwater issues as well.

Do you find yourself more aware of potential groundwater impacts as a result of ongoing research and discussion?



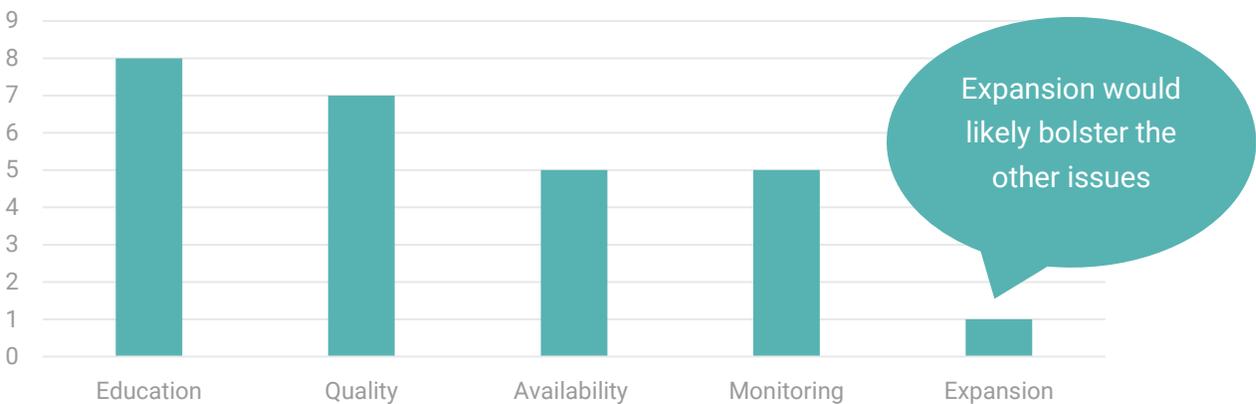
The majority of attendees agreed that their growing awareness of groundwater impacts is the result of more research and discussion around the topic. These results emphasize the value of these workshops and other educational events.

What is the top groundwater CONCERN in your community?



Answers to this open-ended question were categorized based on common themes submitted by attendees. Of the results collected, the most common groundwater concern was general contamination, followed by the quantity/availability, and PFAS contamination. The fact that contamination was the most common concern suggests that the community is more worried about the present and future quality of the groundwater than the amount available. This may be a result of the information shared in Workshop #1 and suggests a focus on this topic area for groundwater strategy development.

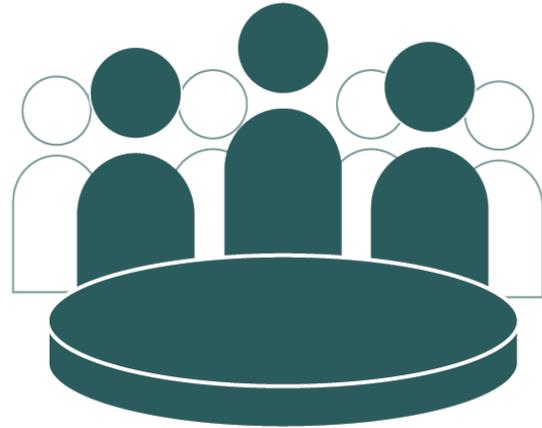
What is the top groundwater NEED in your community?



Like the previous question analysis method, the open-ended answers were categorized by theme. Education about groundwater was the most frequently mentioned need for communities, followed closely by a need for quality groundwater, availability, and contamination monitoring.

ACTIVITY #2. DRAFT GROUNDWATER STRATEGIES

Draft groundwater strategies were developed in preparation for local leader review and revision during Workshop #2. The working statements were crafted based on input gathered from Workshop #1, brainstorming with the Water Study Workgroup, and research of other successful programs. Workshop attendees were asked to collectively review, revise, and prioritize the preliminary groundwater strategies by completing three rounds of assessments.



- Round 1: Individual Assessment
- Round 2: Small Group Comparison
- Round 3: Large Group Consensus Building

Draft groundwater strategies were presented in the form of an activity worksheet completed by participants in the first two rounds. The following includes a summarization of this assessment and a matrix of averaged prioritization and requested edits from the first two rounds of this activity.



Averaged Priority Ranking for Education Strategies

Revised Groundwater Strategies	Individual Priority	Group Priority
1. Develop an intentional education and outreach campaign that has a call to action and inspires change in conditions of groundwater for members of the public, business community, agricultural producers, and local government staff and officials.*	2.3	2.1
2. Host periodic educational events, like classes, workshops, or webinars, that would allow the public, business community, agricultural producers, and local government staff and officials to grow their knowledge of groundwater related issues, management strategies, mitigation approaches, and foster relationships, partnering with agencies like MSU Extension, the Allegan Conservation District, or the Michigan Water Stewardship Program.*	2.1	1.9
3. Create an interactive online resource as a landing platform that is easy to find, use, and update with access to groundwater information, including research, maps, management techniques, educational events, and periodically updated content summarizing the state of groundwater in Allegan County.*	2.2	1.9
4. Engage with other counties, regional entities, or state-level efforts to build relationships and share knowledge.	2	1.4
5. Research, develop, and incorporate a school-grade curriculum to educate children about groundwater and groundwater management. (NEW STATEMENT)	N/A	N/A

For this exercise, the room was divided into a total of seven small groups. Each group was then asked to converse and prioritize the same strategies previously reviewed individually. Four (4) Educational Strategies were ranked on a scale of 1-3 points (**1= low priority, 2= medium priority, 3= high priority**), with the average rankings from the individual and group assessments represented above. The top rankings from each evaluation round have been enlarged.

During the workshop, some attendees offered suggestions to modify the wording of the strategies. Based on these suggestions, revisions to the statements are provided above and are identified with ~~strikethroughs~~ (removed) and **bold** text (added or modified words). Average scores are based on the original wording.

Averaged Priority Ranking for Coordination Strategies

Revised Groundwater Strategies	Individual Priority	Group Priority
1. Continue facilitating groundwater-related conversations with local government units to help communities build relationships, share information, improve accessibility of resources , and collaboratively find solutions for their concerns.	2.6	1.7
2. Develop a locally-driven organizational structure to support and manage surface and groundwater initiatives.	2.1	2
3. Develop a groundwater technical advisory component comprised of a variety of stakeholder members to assist County efforts and provide expertise.	2.2	1.9
4. Evaluate the staffing at local and county levels that would be needed to help with the groundwater management effort.	1.8	1.9
5. Encourage every municipal water supply program to provide resources to develop a local Wellhead Protection Program that will be supported by the County.	2.4	2
6. Coordinate with other communities across the state that have groundwater issues to develop a statewide network of people who can to learn from and support each other.	2	1.6
7. Coordinate with other communities across the state to learn from and share information with each other. <i>(Note that several individuals and small groups suggested removing this statement because of redundancy.)</i>	2	1.4
8. Collaborate with the EGLE Geology Resources Management Division on their statewide monitoring database to provide data and observe statewide trends.	2.1	1.4

For this exercise, the room was divided into a total of seven small groups. Each group was then asked to converse and prioritize the same strategies previously reviewed individually. Eight (8) Coordination Strategies were ranked on a scale of 1-3 points (**1= low priority, 2= medium priority, 3= high priority**), with the average rankings from the individual and group assessments represented above. The top rankings from each evaluation round have been enlarged.

During the workshop, some attendees offered suggestions to modify the wording of the strategies. Based on these suggestions, revisions to the statements are provided above and are identified with ~~strikethroughs~~ (removed) and **bold** text (added or modified words). Average scores are based on the original wording.

Averaged Priority Ranking for Action Strategies

Revised Groundwater Strategies	Individual Priority	Group Priority
1. Decision-making will be data-informed to prioritize the alignment, centralization, and accessibility of well data and groundwater information through a decision support system.	2.6	2.1
2. Identify and enhance codes and best practices for facilities improvements (county roads, government buildings, parks, etc.) to further protect groundwater.	2.4	2
3. Develop and maintain a well monitoring network.	2.6	2.6
4. Require well and septic water inspections and testing when a property is sold or transferred.	2.4	2.9
5. Work with local government units to establish a revolving grant assistance program for private well testing to Allegan County residents.	2.2	2.1
6. Build a Homeowner Tool Kit as an easy-to-follow guide to help individuals more sustainably use and protect local water sources and maintain septic systems.	2.4	2.6
a. Include household conservation, landscape, fertilizers , and irrigation strategies and recommendations.	2.1	2.3
b. Demystify the process for addressing water quality issues for private well owners and provide information about available support (monetary or expertise) for assistance with common issues.	2.3	2.3
7. Provide support for local government units and the public to help navigate processes with state and federal officials regarding groundwater contamination identification, mitigation, look for funding sources, and accountability claims.	2.4	2.6
8. Develop model groundwater zoning standards that outline recommendations for development patterns, use compatibility, stormwater management requirements, or other key groundwater conservation and recharge areas, and protection best practices that local government units may adopt as a stand-alone ordinance or integrate into local zoning.	2.2	2.3
9. Develop a county-level , locally-governed groundwater management body.	1.9	2.1
10. Develop a water testing lab at the County Health Department.	2.2	2.5

For this exercise, the room was divided into a total of seven small groups. Each group was then asked to converse and prioritize the same strategies previously reviewed individually. Ten (10) Action Strategies were ranked on a scale of 1-3 points (**1= low priority, 2= medium priority, 3= high priority**), with the average rankings from the individual and group assessments represented above. The top rankings from each evaluation round have been enlarged.

During the workshop, some attendees offered suggestions to modify the wording of the strategies. Based on these suggestions, revisions to the statements are provided above and are identified with ~~strikethroughs~~ (removed) and **bold** text (added or modified words). Average scores are based on the original wording.

INDIVIDUAL STRATEGY ASSESSMENT & SMALL GROUP COMPARISON

All participants in the room were first asked to complete the groundwater strategy worksheet individually. They were tasked with reviewing, revising, and prioritizing a total of four educational, eight coordination, and ten action strategies using a scale of 1-3 points (1 = low-, 2 = medium-, 3 = high-priority).

Once completed, the room was divided into a total of seven small groups. Each group was then asked to converse and prioritize the same strategies previously reviewed individually. This encouraged collaboration, compromise, and a healthy debate about which strategies were important and why. Overall small group strategy prioritization was assessed and is illustrated in the table to the right.

Education Strategy Statements

Education strategy 1, which focuses on the development of targeted education and outreach campaign, was collectively prioritized the highest during both the individual and small group exercises. Support for this strategy primarily came from individuals representing the county and local townships. Strategy 3 calls for the creation of an interactive online resource and was ranked as the second highest education strategy in both the individual and small group assessments.

Strategy 2 tied for second in the group priority assessment. This strategy focuses on the creation of expert-led educational events/workshops and received more support from state level organization attendees, potentially alluding to their ability to share professional knowledge and resources with Allegan County.

A new strategy was suggested that specifically includes engagement of school-aged children, an idea discussed at various times throughout the workshop.

Small Group Prioritization of All Strategies	
Strategy	Average Priority Score
Action 4	2.9
Action 3	2.6
Action 6	2.6
Action 7	2.6
Action 10	2.5
Action 6.a	2.3
Action 6.b	2.3
Action 8	2.3
Education 1	2.1
Action 1	2.1
Action 5	2.1
Action 9	2.1
Coordination 2	2
Coordination 5	2
Action 2	2
Education 2	1.9
Education 3	1.9
Coordination 3	1.9
Coordination 4	1.9
Coordination 1	1.7
Coordination 6	1.6
Education 4	1.4
Coordination 7	1.4
Coordination 8	1.4

Overall, education strategies were often prioritized lower than action strategies by the small groups, but higher than most coordination strategies. Consistent with the lower ranking coordination strategies, Strategy 4, which focuses on engagement with other government entities, was the lowest scoring education strategy and tied overall for the lowest ranking strategy by the small groups. Note that group priority rankings for education strategies were generally lower than when assessed individually.

Coordination Strategy Statements

Coordination strategies ranked in the bottom half of all strategy types assessed by the small groups. Interestingly, these strategies averaged much higher in the individual assessment, as can be seen by the evaluation of Strategy 1 that focuses on the continued facilitation and sharing of information about groundwater with local governments. This strategy received the highest coordinated priority score by individuals, but dropped dramatically in scoring when prioritized by the small groups.

Strategies 2 and 5, which focus on the development of a locally-driven organizational structure and the encouragement of local water supply programs to support a Wellhead Protection Program, were ranked as the highest priorities by the small groups. It is important to note that during the individual assessment, most of the support for Strategy 5 came from respondents associated with Allegan County. When excluding county representative scores, Strategy 3, which calls for the development of a groundwater technical advisory component, received the highest priority ranking by individuals. This strategy also tied for second in the small group assessment.

Overall, these coordination results suggest that workshop attendees may have some interest in participation with a structured program or local organizational advisory board to support groundwater initiatives, with administration and funding at the county level.

Action Strategy Statements

Action Strategy 4 calls for well and septic inspections and testing when buying or transferring property. This was deemed as the highest priority of all strategy types by the small groups. This result shows awareness about the impacts damaged well and septic systems can have on the local groundwater resources and recognition about this juncture being a logical point to protect the health, safety, and welfare of new property owners.



Action strategies were overall prioritized higher than education and coordination strategies. 9 of the top 10 average priority rankings were action strategies. Action strategies 3, 4, 6, and 7 were all ranked highest in both the individual and small group prioritization.

Strategy 3, centering on well monitoring network establishment, received support from a variety of LGUs and agency representatives in attendance, suggesting a level of agreement on groundwater monitoring as a pivotal need.

Strategies 6 and 7 focus on building a homeowner toolkit to promote groundwater agency and provide support for local governments and members of the public when exploring issues of contamination. When considered together, the high prioritization of these strategies may suggest that local leaders want more tools to help them navigate these complex groundwater issues. Accountability for groundwater contamination was discussed during the previous workshop, and it's clear that participants of this activity resonated with these strategies.

Strategy 1 focused on data-informed decision making through a DSS system. This strategy tied for the second highest priority in the individual assessment. Allegan County respondents tended to rank this priority higher than other groups, and its average score fell when ranked by the small groups.

LARGE GROUP CONSENSUS BUILDING

For the third round of revisions on the strategy statements, the room was split in half to form two large groups. The two large groups were then tasked with coming to a consensus on their top three groundwater strategy priorities.

Large Group 1	Large Group 2
<p>Create an interactive landing platform that is visual with a clear call to action. This landing platform needs to be well promoted, as this component is essential to it being a successful public resource.</p>	<p>Focus on educational programming in multiple forms, including a website, informational mailers, newspaper articles, events like a "water fair", a school curriculum to help students learn about groundwater so they can take home this knowledge to share with their families.</p>
<p>Support a groundwater technical advisory component.</p>	<p>There needs to be a central planning entity or framework established by Allegan County that acknowledges their shared groundwater resources.</p>
<p>Develop or utilize existing public resources to provide a homeowner toolkit.</p>	<p>Stakeholders, including municipalities/townships, would inform this living plan.</p>
<p>Domestic well testing and well monitoring efforts should continue and include the capability to monitor contaminant data and provide solutions/support if test results are unfavorable so property owners have a course of action.</p> <p>Concerns about the cost of these priorities and if property owners even want to know this information was also discussed.</p>	<p>Develop county water testing lab to provide more testing levels for detecting contamination and inspect well and septic systems when properties are sold. This opens up opportunities for 319 grant monies.</p>

ACTIVITY #3. EFFORT SHARING STATIONS

The final exercise served as a brainstorming session, asking attendees to consider what they and their communities could potentially support for future groundwater initiatives. The topics of financial contributions, devotion of time, and the sharing of resources were explored. Of all the responses collected, non-LGU agencies, like MDHHS, Outdoor Discovery Center (ODC) Network, or Ottawa County representatives, often provided more input. Participation from LGU leaders was lower, as many were keen to observe during this activity. This may indicate a stronger interest by non-LGU groups to collaborate with Allegan County on future groundwater efforts.

A list of all open-ended question responses from this activity are included in the Appendix of this report.



COST SHARING IDEAS

When considering ways of which the attendees and their communities could support the groundwater initiatives from a financial standpoint, six ideas were shared, most of which were from non-LGU agencies. Several of these ideas centered around pursuing grants, leveraging state or federal funds/established resources, or fundraising. These results suggest that local governments may not be comfortable committing to monetary cost sharing for groundwater efforts at this time. The ideas provided do show that there are other interested agencies who are willing to help the county navigate available funding opportunities.

Utilizing existing contacts
as event sponsors
(Water Fair,
Workshops)
ODC Network

KRG (Kalamazoo River
Greenway) or other
existing funds as match
for grants?
ODC Network

- Fundraising
groundwater fair w/
education component

TIME SHARING IDEAS

Attendees were asked to think about ways they and their communities could volunteer time to support groundwater efforts. Eleven ideas were shared. Many of the responses offered to share their established educational resources and expertise. Several other ideas offered space for monitoring wells or public meetings to educate government leaders and people of all ages. One idea suggested engaging retirees who may have a background in finance, law, or engineering in stakeholder groups.

Organize (as part of a group :) a water fair
ODC Network

Host educational session
@ Planning Commission
MTG
Monterey Twp

Ottawa Co. willing to
share experiences

RESOURCE SHARING IDEAS

The group was asked to consider what resources they and their communities may be able to contribute to support groundwater efforts such as equipment, technology, expertise, etc. Eleven post it notes were shared, many with multiple ideas. Common resource sharing ideas included newsletter or article writing, marketing, and educational outreach to schools or planning commission meetings. Some participants offered expertise in establishing a conservation district (which was discussed as an option to open up grant opportunities), experience in sharing groundwater information and effective outreach methods, and staff for sampling or inventory work. ODC Network offered partnership suggestions on aligning with the Kalamazoo Greenway, creating a water fair, and marketing events.

Educate all grades of
School Children

Valley Twp
Retired folks who have e
xperience in finance, law,
engineering etc.
-For stakeholder group

Township meeting level.
To educate all ages!

APPENDIX:

MENTIMETER OPEN ENDED QUESTION RESPONSES

What is your favorite river, lake, or stream?

- Lake Michigan
- Lake Allegan
- Lake Michigan
- Kalamazoo River
- Kalamazoo River, Miner Lake, Lake Michigan
- Lake Michigan
- Michigan Rabbit
- Lake Michigan
- Lake Macatawa
- White River
- Ely Lake
- Lake Michigan, Grand River, Puddles
- Lake Superior
- Lake Michigan, Green Lake
- Swan Creek, Lake Michigan, Felts
- The Pere Marquette
- Lake Allegan
- Lake Michigan, Straits of Mackinac, Superior
- Lake Michigan
- Lake Superior
- Lake Michigan, Kalamazoo River, Pike lake
- Thornapple, Huron, Michigan
- Lake Michigan, Kalamazoo River, Dumont Lake
- Minor Dumont, Big lake
- Black River, Lower Scott, Lame Scott, Creek Drain
- Lake River Stream
- Lake Michigan, Rabbit
- Lake Michigan, Kalamazoo River, Grand River
- Caloosahatchee
- Michigan, Heath, Yes

What local government unit or agency are you representing?

- Monterey
- Salem
- Ottawa County
- Valley Township
- City of Saugatuck
- Allegan Conservation District
- Gun Plain Township
- ODC Network
- Ottawa County
- Allegan County Health Department
- Lee Township
- ODC Network
- Allegan County
- Allegan County
- Dorr
- City of Allegan
- County
- Valley Township
- Overisel Township
- Manlius Twp
- Laketown Twp.
- Trowbridge Township

- Allegan County Commissioner
- Manlius Township
- State Health - MDHHS
- Allegan Twp
- Gun Plain Charter Township
- City of Plainwell
- Village of Martin
- Allegan County
- Valley township
- Townships
- State Health - MDHHS
- Trowbridge Township
- Overisel Township
- Manlius Township
- Manlius Twp
- Village of Martin

If you attended Workshop #1, share something that you learned or liked.

- Mainly the topographical stuff
- Water Quality and quantity
- Groundwater supply is expected to last with monitoring.
- We have the best water in the state
- Allegan Co is leading the State
- We are all connected underground
- We are paying attention and preparing for the future.
- How the geography of the aquifer works.
- Allegan County has plenty of groundwater
- We have water
- Maps
- Lots of information
- Monitoring our water is important
- Ground water 101 was very accessible
- Water quantity
- The small percentage of actual drinking water
- Looking for more collaboration but not additional layers, also we lack water testing
- Water quality & quantity
- Great to learn that Allegan County is not dealing with imminent groundwater shortages.
- The studies that were already taking place
- The local units are interested in groundwater.
- The expert panel discussion after the presentations
- Local community concerns
- Most local units of government are interested in ground water
- The county' s ground water amount currently
- Allegan County is being proactive!
- Local units of Government are engaged on this topic.
- Local interest and investment in groundwater

What is the top groundwater CONCERN in your community?

- Quality
- PFAS
- Quantity
- Contamination
- PFAS
- Contamination
- Contamination
- Pfas
- That it will remain available
- Contamination
- Pfas
- Quantity
- Availability
- Who will pump it and quality.
- Lack of well water
- Contamination and quantity
- If there is enough and contamination.
- Safe potable water now and in the future- PFAS
- Contamination
- Agricultural wells pulling major amounts of water
- Quality
- Quantity
- Possibly of contamination and what if we run out
- Water quality
- Quality and Availability
- Contamination
- Groundwater table will drop with drought
- Presence of pollutants, especially PFAs and pathogy
- Well levels if lake Allegan is altered or remove
- A comprehensive ordinance template much”

What is the top groundwater NEED in your community?

- Public awareness
- Availability
- Education
- Monitoring
- Understand how new homes impact existing wells

- Availability
- Clean water
- Sampling and testing.
- Quality and monitoring for contaminants.
- Education
- Quality
- Availability
- Education
- Testing
- Education, monitoring, and social contracts to benefit all
- knowledge about the quality of their well water
- Tools to help control usage. Especially since the state seemingly gives large well permits at the drop of a hat
- Availability
- Private well quality
- Clean water
- Expansion
- More studies to find contamination and the source
- Water Quality
- GW education
- Pollutant tracking
- Water quality

EFFORT SHARING STATION RESPONSES

Cost Sharing Ideas:

- Fundraising: groundwater fair w/ education component
- conservation district: federal + state funds available
- Contact MDHHS for free educational resources for Private well material + collaboration - 800-648-6942
- Utilizing existing contacts as event sponsors (water fair, wor4kshpos) ODC Network
- KRG (Kalamazoo River Greenway) or other existing funds as a match for grants? ODC Network
- Grant Consulting Letters of support ODC Network

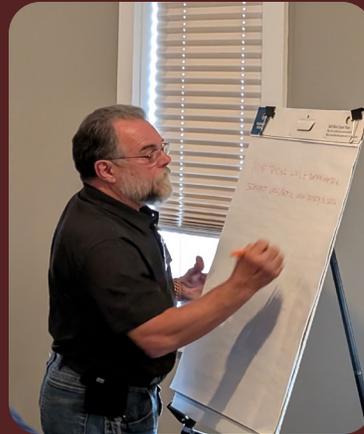
Time Sharing Ideas:

- Conservation district: - educational resources - BMP knowledge/advice - Resource Management Planning
- Educational Resources ACHD

- Township meeting level. To educate all ages!!
- Ottawa County Expertise
- Valley Twp - Retired folks who have expertise in finance, law, engineering - etc. For a stakeholder's group.
- Connections to numerous local partners ODC
- Space for a well - Monterey
- Gun Plain Charter Twp - building space, well
- Space for public education - LUGS - Students - Residents ODC Network
- Educate all grades of school children
- Scientific/GIS knowledge of groundwater conservation ODC Network

Resource Sharing Ideas:

- Find volunteers
- Gun Plain Charter - wellhead
- Articles, stories for inclusion in twp. Newsletter
- Host education session @ planning commission meeting - Monterey Twp
- Conservation District - Staff for sampling/inventory work - outreach & information sharing - Attend Meetings
- Develop groundwater efforts in step w/ Kalamazoo Greenway ODC Network
- Work/Consult/give feedback on outreach efforts/materials ODC Network
- Market events ODC Network
- Ottawa Co. Willing to share experiences
- Educational Outreach to schools, boards, etc. ACHD
- Organize (as a part of a group) a water fair ODC Network



**ALLEGAN COUNTY
GROUNDWATER WORKSHOP #2**
For Government Leaders

Top Ranked Strategies from Workshop #2

1. Develop an intentional education and outreach campaign that has a call to action and inspires change in conditions of groundwater for members of the public, business community, agricultural producers, and local government staff and officials.
2. Host periodic educational events, like classes, workshops, or webinars, that would allow the public, business community, agricultural producers, and local government staff and officials to grow their knowledge of groundwater related issues, management strategies, mitigation approaches, and foster relationships, partnering with agencies like MSU Extension, the Allegan Conservation District, or the Michigan Water Stewardship Program.*
3. Create an interactive online resource as a landing platform that is easy to find, use, and update with access to groundwater information, including research, maps, management techniques, educational events, and periodically updated content summarizing the state of groundwater in Allegan County.
4. Continue facilitating groundwater-related conversations with local government units to help communities build relationships, share information, improve accessibility of resources, and collaboratively find solutions for their concerns.
5. Develop a locally-driven organizational structure to support and manage surface and groundwater initiatives.
6. Develop a groundwater technical advisory component comprised of a variety of stakeholder members to assist County efforts and provide expertise.
7. Evaluate the staffing at local and county levels that would be needed to help with the groundwater management effort.

8. Encourage every municipal water supply program to provide resources to develop a local Wellhead Protection Program that will be supported by the County.
9. Decision-making will be data-informed to prioritize the alignment, centralization, and accessibility of well data and groundwater information through a decision support system.
10. Identify and enhance codes and best practices for facilities improvements (county roads, government buildings, parks, etc.) to further protect groundwater.
11. Develop and maintain a well monitoring network.
12. Require well and septic water inspections and testing when a property is sold or transferred.
13. Build a Homeowner Tool Kit as an easy-to-follow guide to help individuals more sustainably use and protect local water sources and maintain septic systems.
14. Provide support for local government units and the public to help navigate processes with state and federal officials regarding groundwater contamination identification, mitigation, look for funding sources, and accountability claims.

Water Study Ad-Hoc Work Group
Final Report to the Board of Commissioners
Outline

Rev. 1/22/2025

Section 1. Background

- A. Driver and Formation of the Water Study Ad-Hoc Work Group
- B. Charge
- C. Members of the Work Group
- D. Purpose of this Final Report

Section 2. Funding Requests From LUGs

- A. Background on review process
- B. Number of requests
- C. Table: LUG, purpose, and amount of grants issued
- D. Recommendations from the Work Group (Follow-up that projects are completed.)

Section 3. Phase 2 Screening Level Modeling, Risk Analysis, and Ranking

- A. Background and purpose of the study
- B. Brief synopsis of the study
- C. Table: Top 25 sites by risk
- D. Link to full report
- E. Recommendations from Work Group

Section 4. Groundwater Assessment Report

- A. Background and purpose of the GAR
- B. Link to the Report
- C. Recommendations from Work Group (incl. update the report every 5 years (eg.))

Section 5. Groundwater Monitoring Well Network

- A. Background and Purpose of the network
- B. Map: Locations of all monitoring wells
- C. Recommendations from the Work Group

Section 6. Well and Septic Grant Program

- A. Background and purpose of the program
- B. Brief description of the program and agreement with CAAC
- C. Recommendations from the Work Group

Section 7. Public Education and Outreach

- A. Clearinghouse for information for private well owners on ACHD Website
- B. Plan for ACHD developing printed material and distribution
- C. Outdoor Discovery Center education curriculum
- D. Recommendations from the Work Group

Section 8. Workshops with Local Units

- A. Purpose and outcomes of Workshop 1
- B. Purpose and outcomes of Workshop 2
- C. Recommendations from the Work Group of next steps based on feedback from LUGs.

Section 9. Acknowledgements



Allegan County

Water Study Group



Allegan County
3283 122nd Ave
Allegan, MI 49010

STEP 1: Connect to the Meeting

- **OPTION 1: Zoom over Telephone**

- Call (929) 205-6099 -or- (312) 626-6799 -or- (253) 215-8782
- Type in Meeting ID: 897 7693 0617, then #, then # again
- Type in Meeting Password: 2024, then #
- To raise your hand to speak, press *9
- To Mute and Unmute, press *6

<STOP here>

You do not have to continue reading the rest of the instructions.

- **OPTION 2: Zoom over Web browser**

- Open Internet Explorer or Chrome
- Navigate to <https://zoom.us/j/89776930617>

- Meeting Password: 2024

<Continue with the rest of the instructions>

STEP 2: Enter registration information

The screenshot shows a web browser window with the URL `zoom.us/webinar/register/WN_YneHxuk_SjqfnMwchbtUEg`. The page title is "Webinar Registration".

Registration details:

- Topic: BOC Meeting - 4/9/2020
- Time: Apr 9, 2020 01:00 PM in Eastern Time (US and Canada)

Registration form fields (marked as required with an asterisk):

- First Name *
- Last Name *
- Email Address *
- Confirm Email Address *

Below the form is a reCAPTCHA challenge with the text "I'm not a robot" and a "reCAPTCHA Privacy - Terms" link. A blue button labeled "Join Webinar in Progress" is positioned below the reCAPTCHA.

At the bottom of the page, there is a navigation menu with the following categories:

- About: Zoom Blog, Customers, Our Team, Why Zoom, Features, Careers, Integrations, Partners, Investors
- Download: Meetings Client, Zoom Rooms Client, Browser Extension, Outlook Plug-in, Lync Plug-in, iPhone/iPad App, Android App
- Sales: 1.888.799.9666, Contact Sales, Plans & Pricing, Request a Demo, Webinars and Events
- Support: Test Zoom, Account, Support Center, Live Training, Feedback, Contact Us, Accessibility

On the right side, there is a language selection dropdown (set to "US Dollars") and a "VERIFY" button.

1. Enter name and email

2. Click this box

4. Click when done.

3. Answer challenge question

STEP 3: This Window will appear when connected.



STEP 4: Adjust audio settings (if needed)

The image shows a Zoom meeting interface with the 'Settings' window open to the 'Audio' tab. A vertical black bar on the left side of the meeting window has a blue arrow labeled '1' pointing to it. A blue arrow labeled '2' points from the 'Audio' tab in the settings window to the meeting content area. The meeting content area displays the name 'Economic Development - Greg King, Director' and 'ADMINISTRATIVE REPORTS:'. Below this, it lists 'DISTRICT 4' with contact information for Mark DeYoung and a list of 'CONSENT ITEMS:'. The first item is '1. Motion to approve of claims paid and to incorporate into proceedings of the Board (3/20/20 & 3/27/20)'. The Zoom settings window shows 'Speaker' set to 'Remote Audio' and 'Microphone' set to 'Test Mic'. Other settings include volume sliders, 'Automatically adjust volume' checked, and several other options like 'Use separate audio device to play ringtone simultaneously' and 'Automatically join audio by computer when joining a meeting' which are unchecked.

Audio Settings

- General
- Video
- Audio**
- Share Screen
- Virtual Background
- Recording
- Statistics
- Feedback
- Keyboard Shortcuts
- Accessibility

Speaker

Test Speaker Remote Audio

Output Level: _____

Volume:

Microphone

Test Mic _____

Input Level: _____

Volume:

Automatically adjust volume

Use separate audio device to play ringtone simultaneously

Automatically join audio by computer when joining a meeting

Mute my microphone when joining a meeting

Press and hold SPACE key to temporarily unmute yourself

Sync buttons on headset

Advanced

Economic Development — Greg King, Director
ADMINISTRATIVE REPORTS:

DISTRICT 4
Mark DeYoung
616-318-9612
mdeyoung@allegancounty.org

CONSENT ITEMS:

1. Motion to approve of claims paid and to incorporate into proceedings of the Board (3/20/20 & 3/27/20)

Chat Raise Hand Q&A

STEP 5: Raise hand to be recognized to speak.

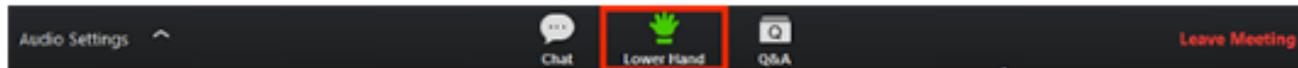
- Once “Raise Hand” is clicked, the Board Chairperson will receive notice and may UNMUTE your microphone when ready and verbally recognize you to speak.

On bottom of screen.

1. Click **Raise Hand** in the Webinar Controls.



2. The host will be notified that you've raised your hand.
3. Click **Lower Hand** to lower it if needed.



STEP 6: To leave the meeting

The screenshot displays a Zoom meeting window. At the top, a green banner reads "You are viewing Allegan County Administration's screen" with a "View Options" dropdown. The main content is a document viewer showing a Microsoft Word document titled "BOC20200409_agenda [Compatibility Mode] - Word". The document header includes the "Allegan County Board of Commissioners" logo and contact information for Jim Storey and Gale Dugan. The agenda items are listed under "BOARD OF COMMISSIONERS MEETING - AGENDA", including District 1-4 contact info and meeting topics like "CALL TO ORDER", "ROLL CALL", "OPENING PRAYER", "PLEDGE OF ALLEGIANCE", "COMMUNICATIONS", "APPROVAL OF MINUTES", "PUBLIC PARTICIPATION", "ADDITIONAL AGENDA ITEMS", "PRESENTATIONS", "PROCLAMATIONS", "INFORMATIONAL SESSION", and "ADMINISTRATIVE REPORTS". A blue arrow points to the "Leave Meeting" button in the bottom right corner of the Zoom interface.

Allegan County Board of Commissioners

County Services Building
3283 - 122nd Avenue
Allegan, MI 49010
269-673-0203 Main Office
269-686-5331 Main Fax
<http://www.allegancounty.org>

Jim Storey, Chairperson
Gale Dugan, Vice Chairperson

BOARD OF COMMISSIONERS MEETING - AGENDA

DISTRICT 1
Dean Kasperge
616-218-2599
dkasperge@allegancounty.org

DISTRICT 2
Jim Storey
616-848-9767
jstorey@allegancounty.org

DISTRICT 3
Max R. Thiele
269-673-4514
mthiele@allegancounty.org

DISTRICT 4
Marti DeYoung

Virtual Meeting - Connectivity Instructions **Attached**

1PM

CALL TO ORDER:
ROLL CALL:
OPENING PRAYER:
PLEDGE OF ALLEGIANCE:
COMMUNICATIONS: Attached
APPROVAL OF MINUTES: Attached

PUBLIC PARTICIPATION:
ADDITIONAL AGENDA ITEMS:
APPROVAL OF AGENDA:
PRESENTATIONS:
PROCLAMATIONS:
INFORMATIONAL SESSION: Attached
ADMINISTRATIVE REPORTS:

CONSENT ITEMS:

PAGE 1 OF 2 251 WORDS 100%

Audio Settings ^

Chat Raise Hand Q&A

Leave Meeting