Department of Public Works
2662 Riva Rd, Annapolis, MD 21401

Our wAAter | Public Advisory Group (PAG) Meeting #11

Date: May 27, 2025
Time: 4:30 – 6:30 p.m.
MS Teams: **Join the meeting now**; Meeting ID: 294 503 880 407,
Passcode: xMx8vs MS Teams Call-In Info: (833) 255-2803,,233739721#
(US Toll Free)
Location: 2664 Riva Road, Annapolis, MD 21401 [Independence Room – Heritage Complex Building]

Attendees

Anne Arundel County, Department of Public Works (DPW)
George Heiner
Karen Henry
Erin Dey
Chris Murphy

HDR
Ed Shea
Ziwei He
Meghan Robinson
Sophia Fox (virtual)

PAG Members
Elle Bassett
Tammy Domanski
Sally Hornor
Erik Kreifeldt
Lloyd Lewis
Craig Myers
Elizabeth Rosborg (virtual)
Bill Squicciarini
Tim Williams

Agenda

Topic	Time	Speaker
Introductions & Agenda	5 minutes	George Heiner Meghan Robinson
MAR Legislation	35 minutes	George Heiner Meghan Robinson
Septic Policy	20 minutes	George Heiner
Minor Systems	5 minutes	George Heiner
Break	*10 minutes*	
Management Alternatives Update	35 minutes	George Heiner
CIP Program	25 minutes	George Heiner

Introductions & Agenda (slide 1 – slide 3)

George Heiner opened the meeting and ran through the agenda for the meeting.

Managed Aquifer Recharge (MAR) Legislation (slide 4 – slide 12)

George Heiner presented an update on the MAR legislation *(Senate Bill 930 and House Bill 1296)*, noting that the general assembly is advancing a bill to pilot the MAR research program. The bill includes reverse osmosis, which creates affordability concerns. The team is assisting with preparing a proposal to identify pilot locations, with the goal of reaching an agreement with the Maryland Department of the Environment (MDE) regarding possible locations. To help identify priority areas, the effort will also consider land subsidence and the County health department data on saltwater intrusion in well water.

PAG members raised concerns about the short timeframe for the permit application process, especially since only one permit will be issued for MAR, and other counties are facing urgent water supply shortages. It was recommended that a draft application be prepared soon to help advance the process.

Work towards finalizing an agreement with the U.S. Geological Survey (USGS) on a groundwater model is ongoing, with an update expected soon. Lloyd Lewis noted that, under an Executive Order, the USGS - Ecological Mission Area is slated for proposed budget cuts in the 2026 budget, including the local Patuxent Research Center, which could impact the County's potential collaboration with USGS if the change moves forward.

Questions and Open Discussion

Q: Are there other jurisdictions in the state that may be interested in managed aquifer recharge other than Anne Arundel County?
A: Yes, there is interest from Calvert County, Charles County, and DC Water.

Q: How does the purpose and need outlined in the legislation relate to water quality?
A: The purpose and need addresses challenges related to groundwater supply or groundwater quality, rather than water quality in general (such as surface waters).

Q: Can you define our water quality problem? How is this connected to our surface water?
A: The legislation itself does not specifically define a water quality issue. However, potential concerns could include saltwater intrusion or existing contamination in aquifers. The legislation does require that potential water quality issues be defined in 25 years.

Q: Do they have a timeframe in the legislation?
A: Yes, a timeframe is included in the permitting process. The team will help determine the location and justification, and a separate contract will be established for hydrogeologic studies.

Q: Are all jurisdictions using the same aquifers?
A: No, private/residential users rely on the upper aquifers, and public systems (including the City of Annapolis) primarily draw from deeper, lower aquifers. Counties southeast of Anne Arundel, such as Charles County and Queen Anne's County, use the same deeper aquifers for their water supply.

MAR Outreach
Meghan Robinson provided an update on outreach efforts for the Our wAAter program with a focus on MAR related outreach. The update included a review of outreach tactics categorized by short, mid, and long-term. The Our wAAter website is currently being updated to improve usability. Meghan invited the PAG to share any suggestions, noting that the menu structure is being redesigned. A MAR video is currently being developed and will be shared with the PAG next month, with social media also utilizing clips from the video. One of the tactics identified in the MAR workshop was to develop MAR presentation(s) to be used at future community meetings. PAG members were asked to suggest materials or communities that they felt would benefit from MAR/Our wAAter information. Meghan also mentioned that saltwater intrusion could be a useful talking point, especially once there is a groundwater model and a timeframe. Outreach to elected officials will remain ongoing, with materials available for distribution throughout the process.

Suggested Outreach Strategies and Discussion Topics for Introducing MAR:

- **Highlight 'Saltwater Intrusion'** – use this as a relatable entry point for residents in Anne Arundel County who may already be aware of its local impact.

- **Engage County Councilmembers and Staff** – keep them informed of key milestones and involve them where possible to build trust and support within the community.

- **Use Data and Real-World Examples** – incorporate facts, statistics, and tangible examples of MAR implementation in other parts of the country to help people connect with the concept of MAR on a personal level.

- **Explore Public Perceptions through Media** – Draw insights from podcasts or interviews – similar to the 'word on the street' format to understand public awareness and attitudes towards MAR.
    - Example - Waterloop – Would You Drink Treated Wastewater?

Questions and Open Discussion

Q: How far in the future is the water supply crisis?
A: We are not currently experiencing a water crisis. It is not expected that the groundwater water supply and water quality will become a crisis within the next 25 years for the aquifers used for the public supply. The regional groundwater model should provide a better understanding of the interactions throughout the different aquifers both vertically and horizontally. We do expect it to indicate that the current approach is not sustainable.

Q: What are the plans for incorporating research perspectives from universities into the project?
A: The idea of collaborating with universities has been proposed and is considered a backup plan if current discussions with the USGS don't go as expected. The USGS is the national leader in groundwater modeling, and MDE may not or may not view academic partners as having the same level of credibility.

Q: Before DPW has a model, how should we communicate the urgency of the situation to the public?

A: This is the type of feedback we hope to gather from the PAG members during the break – how best to communicate with the public on the what and the why on MAR.

Septic Policy (slide 13 – slide 17)

George Heiner presented upcoming septic policy changes, including the County's collaboration to update eligibility layers. A change to the deferment option will mean that when a property is sold, the new owner will assume responsibility for the remaining deferred payments. This is similar to how other deferments are handled and will therefore be easier to explain to the public. The team is working to establish contract mechanisms for smaller Capital Improvement Projects (CIPs), anticipating similar challenges with costs and homeowner affordability despite the lower price.

Questions and Open Discussion

Q: Does the new deferment policy pass the deferred costs to the next homeowner upon sale?
A: Yes, the policy changes mean the next owner will assume responsibility for the remaining payments.

Q: What is the outreach strategy for the 1,300 potential connectors to existing sewers?
A: The outreach plan is still under development. The Bureau of Watershed Protection and Restoration (BWPR) suggested we thoroughly review an outreach approach and any potential impacts it could have on the Health Department. Currently the number of individual connections in an entire year is less than 30. The County is exploring a memorandum of understanding with BWPR to fund the Health Department for this purpose and are open to suggestions.

Q: Is there an economic benefit to connecting to public sewer as an individual vs. as a community?
A: The economic benefit to packaging projects is rather minimal because there is no current legislation mandating connection and the location of these individual connections are scattered around the County. The benefit we would see most is from contractor mobilization, which is not a large percentage.

Q: If the Health Department finds a failing system during a site change inspection, must it be reported?
A: Under the Anne Arundel County Property Maintenance Code, property owners are responsible for maintaining their septic system. If the Department of Health witnesses a failing septic system that results in an overflow or could cause a concern to public health, repair is required. If the owner does not make those repairs, they could be subjected to citations and fines.

Q: What is the process in place for current inspections and communication with the health department if septic fails?
A: For a permit that is on an onsite sewage disposal system, the Department of Health reviews the OSDS to determine if it is adequate for the proposed work. The replacement area for a septic system is also part of this review. If the building permit is not approved, revisions to the building permit may be needed, or a replacement or upgrade to the OSDS may be required. In some instances, the building permit may be denied.

If the Department of Health is made aware of a failing OSDS via a complaint or for other reasons, an inspection is done to verify the complaint and steps are followed to gain compliance. Replacing a septic system doesn't automatically require connection to public sewer, so it would be considered a repair.

Q: What is STEP? Where is it implemented?
A: STEP stands for Septic Tank Effluent Pumping. It's currently implemented in the Mayo area and has higher operation and maintenance needs.

Q: Could legislation also require homeowners to inform new buyers about the opportunity to connect to public sewer? A suggestion for the County is to consider adding sewer availability language in home sale disclosure forms.
A: There is currently no such legislation. Additional disclosures could be considered regarding recommended legislation for the County, which could include septic tank maintenance requirements.

Q: Is the reduction in nitrogen per housing unit the same?
A: Yes, it is the same. While small CIP and individual connections are on a much smaller scale than large CIP, the per-unit reduction remains constant.

Minor Systems Update (slide 18)

George Heiner presented how the administration has agreed to provide support and is open to using funds outside the Utility Fund for the operation and maintenance due to the unique circumstances. The process is now moving to the legal office to draft the framework for the agreement with owners, the next step will set up a meeting with the property owner to review and discuss any proposed agreement. Another step will be to meet with MDE to discuss the transfer of the permit.

Questions and Open Discussion

Q: Is the intent to still transfer minor systems to the County?
A: Yes.

Q: Regarding the consent agreement for the fine, what is the homeowner's compliance status?
A: This falls under EPA/MDE's jurisdiction, so the County is not aware of the owners' implementation status and is not directly involved. The County's role is to assist, as the minor systems issue doesn't strictly fall under County responsibility.

Q: What is the status of Summerhill's wastewater planning?
A: The Crownsville Wastewater Treatment Plant (WWTP) was transferred to the County and is currently dysfunctional. The immediate priority is to upgrade the Crownsville WWTP before connecting Summerhill.

Q: Is there a schedule for improving the Lothian WWTP? Is there any progress?
A: Several steps are required, including working with the law office and meeting and having an agreement with the owner. The County will be taking on risks and will need to mitigate the risks with the owner. EPA/MDE would be responsible for confirming progress on this front.

Break

Management Alternatives Update (slide 19 – slide 34)

George Heiner presented an overview of information that was shared at a recent workshop that reevaluated and discussed the managed alternatives for the integrated program (septic-to-sewer, small system upgrades, stormwater, groundwater resiliency, and wastewater treatment enhancements). The intent is to address changes that would assist in meeting future nutrient reduction targets, particularly for nitrogen, from what was developed six years ago. The changes to the Chesapeake Assessment Scenario Tool - Bay Model, updated in May 2024, shows a need for more nutrient removal in the future. The current strategy assumed stormwater would meet MS4 permit requirements and was created to maintain the current progress and new initiatives.

An analysis of past efforts revealed stormwater, wastewater, and public outreach as being more successful components of the program due to DPW's direct control. MAR, septic systems, and minor systems were less successful due to DPW having less control. Moving forward, the strategy will adjust costs, knowing the increased expenses for stormwater, septic systems, and MAR. Water Reclamation Facility (WRF) upgrades are being considered, including sand filtration and granular activated carbon. The County may also be interested in permeable reactive barriers as a potential new alternative, even though there are concerns about private property intrusion and cost-effectiveness compared to sewer connections. The County will continue to work with the Sever River Association to learn about similar efforts they have underway and any best management practices (BMP) that should be considered.

Oyster Aquaculture

George Heiner shared with the PAG a high overview of the County considering oyster aquaculture as a potential alternative for nutrient credit generation, even if oysters aren't harvested. A concern from Elle Bassett was that environmental justice communities should be considered with this topic, as well as this option seems to be taking more of a reactive versus proactive approach.

The group discussed placing oysters in already polluted areas, the credibility and verifiability of nitrogen removal credits, and whether oysters should be left in place. Tim Williams highlighted that DPW holds water quality permits and is the primary entity to fund oyster aquaculture. Further details will be discussed at the next meeting.

Questions and Open Discussion

Q: In the permitted nitrogen discharge from the treatment plants, the majority of discharges are far below the permitted level. What caused the upset in the discharge analysis?
A: There was an upset in the biological process, which is rare.

Q: What is the process for substances that would be removed at the treatment plants?
A: Spent activated carbon is returned to the manufacturer for reactivation through thermal processes. They subject the carbon to a reactivation that breaks down per- and polyfluoroalkyl substances PFAS into non-toxic compounds.

Q: If oyster aquaculture credits are used, would the oysters be returned to Anne Arundel County?
A: Yes, there would be no benefit in another county receiving the credit and the County would not be interested in such an arrangement

Q: What is the impact on nutrient loads?
A: The total maximum daily load for nitrogen is based on the Chesapeake Bay model, which was updated in May 2024. These updates will require greater nutrient reduction efforts in the future, but not necessarily immediately.

Q: Among the various options, what is the nitrogen removal potential?
A: The overall nitrogen contribution from individual septic connections and minor systems are relatively small. Major upgrades to MAR, large CIP and WRF have the largest potential.

CIP Program

(Not discussed during the meeting due to time constraints)

Closing Remarks (slide 35 – slide 36)