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

Our wAAter.
THE ANNE ARUNDEL CLEAN WATER PROGRAM

Our wAAter | Public Advisory Group Meeting #9

Date: September 3, 2024
Time: 4:30 – 6:30 p.m.
MS Teams: **Join the meeting now**; Meeting ID: 214 357 959 423 & Passcode: yTHhpG
MS Teams Call-In Info: (833) 255-2803,,988567809#
Location: 2664 Riva Road, Annapolis, MD 21401 [Independence Room – Heritage Complex Building]

Attendees

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

Public Advisory Group (PAG) Members
Matt Johnston *(for Elle Bassett)*
Sally Hornor
Erik Kreifeldt
Lloyd Lewis
Doug Nichols
Jerry Pesterfield
Elizabeth Rosborg
Bill Squicciarini
Tim Williams

Anne Arundel County, Department of Health
Al Herb
Don Curtian

Anne Arundel County, Office of Planning and Zoning
Cindy Carrier

HDR
Ed Shea
Chris Phipps
Ziwei He
Meghan Robinson
Jessica Host

Agenda

Topic	Time	Speaker
Introductions & Agenda	5 minutes	George Heiner
Mayo Tank Replacement	20 minutes	Maribel Moore
MAR Policy Outreach	30 minutes	Jimmy Howard
Break	*5 minutes*	
Minor Systems	50 minutes	George Heiner
Outreach & Closing Remarks		George Heiner

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Introductions and Agenda *(slide 1- slide 3)*

George Heiner welcomed participants to the ninth Public Advisory Group (PAG) meeting. Attendees who were present in person and virtually introduced themselves. George briefly reviewed the agenda items and noted the pre-meeting email that was sent out which provided background information on the agenda items to be discussed. He welcomed PAG members to provide their feedback and edits on the managed aquifer recharge (MAR) legislation fact sheet that was attached to the email.

Mayo Tank Replacement *(slide 4 – slide 10)*

Maribel Moore presented on the Mayo Tank Replacement project. This project is part of a multi-year replacement program of aging fiberglass tanks and tank controls and necessary appurtenances, as well as any easements to include future maintenance of tank controls and connections to tanks in Mayo. She highlighted that this project would work to replace the original 2,224 tanks over the next few years and highlighted the five phases of the replacement sequence (slide 5 of the presentation). Once the design team and contractor(s) have been placed under contract the Department of Public Works (DPW) plans to complete approximately 200 tanks per year. The tanks are approximately 32-35 years old, and the fiberglass tank lifespan is around 35-40 years. Anticipated program timeline was provided on slide 10 of the presentation. Maribel also provided a three-page printout to PAG members which is attached to this meeting summary.

DPW is currently in the prioritization phase (slide 6 and slide 7 of the presentation) which will follow the “oldest in - first out” sequence for replacement. In the design task agreement, DPW is hoping to award the Consultant Selection Process by the end of 2024. Maribel noted that the construction contract and major materials contracts may be separate contracts. Inspection will be onsite during construction and the main point of contact for the residence sites.

DPW anticipates communications and outreach needs for the impacted communities (slide 8 of the presentation), specifically for the Mayo Peninsula, individual homeowner’s associations, and individual residents. All outreach will be done in partnership with the selected consultant, construction manager, and inspector. One concern to note is not everyone in the area will be getting their tanks replaced based on the tank age and needs.

DPW plans to create a community advisory group for communities within the Mayo Peninsula area to host a quarterly meeting to provide an outlet to voice any issues and challenges. Once complete, DPW would like to present the project plan to the community for their feedback. At this time for the first 2,000 tanks, it is looking to be a 10-12 year effort, after that DPW will likely replace 10-20 tanks every year.

DPW has gathered the program challenges and opportunities (slide 9 of the presentation) they believe will occur during the replacement including:

- Access and easement – will be different from house to house pending the location on the property. The County does not have easements for some properties where the tanks are located near the back of the property.
- Resident communication – there are several communities on the Mayo Peninsula and not all residents will have the same questions and concerns. Will want to discuss and have participation from residents to receive feedback and suggestions.
    - Lloyd Lewis suggested that the elementary or high school be used for outreach events. Neighbors of Mayo Peninsula have offered their help as well to connect with residents and help with any outreach efforts with project information and feedback. He also suggested the project team consider their responses to questions they will receive on landscaping. People have unfortunately landscaped in areas with restrictions according to the easement which could make the replacement effort difficult. Maribel suggested that she would propose the County meet with the Mayo community once they have finalized the Prioritization Plan.
    - Mr. Lewis strongly suggested that DPW have a policy established to communicate how the properties will be restored recognizing some residents may have placed landscaping or other items over the existing infrastructure/easements. Expectations will need to be set early on and be consistent to effectively manage citizen concerns.
    - Tim Williams suggested that from right-of-way easement negotiations be a rolling process. Maribel clarified that it is a rolling process and the easement at the tank is 15 ft x 12ft.
- Construction and mobilization
    - Jerry Pesterfield asked about the staging areas for the project. Maribel stated that there are limited staging areas because the properties are already developed and the pump stations around the area have limited yard space. There was some discussion about using the area around the decommissioned Mayo Water Reclamation Facility (WRF).
    - Don Curtian asked what the plans are for the type of new tanks. Maribel shared that the new tanks will be high-density polyethylene (HDPE) versus the original fiberglass tanks, which is a corrosion-resistant material and durable. They would not be deviating from that choice unless there is an equal or better option.
    - Sally Hornor asked about the HDPE life expectancy. Maribel stated that HDPE is similar to fiberglass but more tolerable to take movements in the soil which is important with groundwater being high in the Mayo peninsula area.
    - Ms. Hornor also asked how this related to the OSDS program. It was explained that these septic tanks are already connected to the public system. They serve to settle out solids that could not be handled at the Mayo WRF.
    - Tim Williams asked about DPW's practice on landscaping issues. Will they sod, and seed or put it back to how it was? Maribel stated that it tends to be on a case-by-case basis.

- Bypass during installation - when DPW takes the tank out it will be out of service for a while.
- Avoid critical community needs - avoid bus stops and community beaches and access points.

MAR Legislation *(slide 11 – slide 20)*

Jimmy Howard presented on the MAR policy outreach and updates beginning with an overview of how MAR ties into the Our wAAter program, being one strategy with five initiatives (slide 12 of the presentation).

He shared where the legislation currently stands, what the desired approach for 2024 is, and the goals to meet the desired outcomes (slide 13 of the presentation). The project team is currently running, collecting samples, and reviewing the operational data to agree on critical control points within the process (slide 14 and slide 15 of the presentation).

Jimmy noted that page three of the MAR factsheet highlights the critical control points. At each point, there are stop gaps to make sure the criteria are being met (slide 18 of the presentation). He also confirmed that DPW will always be under the mandate to meet drinking water standards.

- Jerry Pesterfield asked if all samples have passed the water quality tests? Particularly if one were to fail when injecting.
    - Jimmy Howard shared that the treatment process uses granular activated carbon (GAC). GAC is exhausted over time and must be replaced to return to optimal performance. To date, for the contaminants with maximum contaminant levels (MCLs), the effluent from the GAC has not been above their corresponding MCL.
    - Contaminant concentrations have in some cases increased due to the GAC increased bed volume or exhaustion rate. The pilot is helping to inform the County when to expect ‘breath through’ that would result in a contaminant level exceedance. The GAC would be changed before the maximum contamination level is exceeded. George Heiner added that the County has a critical control point, and a failsafe will be implemented as well. There are also ways to remove any injected water by reversing flow in an injection well. This is a final measure if water not meeting specifications is injected.
- A few PAG members suggested creating a one or two-page document that is lighter and does not use a lot of technical terminology. This ‘lighter’ version could also be used on the Our wAAter website. It was also noted that Advanced Water Treatment (AWT) is not defined anywhere on the factsheet.
- Lloyd Lewis asked why the County did not agree with the original legislation, what they want to see changed.

    - Jimmy Howard shared that last year's legislation limited treatment to only reverse osmosis (RO). The County felt that was too restrictive and eliminated other equally effective processes like GAC that provide the same level of contaminant removal. The County has met with one of the agencies to discuss why the County wants to pursue GAC but is hoping to educate and lessen resistance to the legislation. RO is a separation process that still yields a highly concentrated residual that must be treated and properly disposed. GAC is an adsorptive treatment process that when reactivated under high thermal conditions, destroys the chemical bonds. There is no residual to treat and handle.

- Jerry Pesterfield asked if any other counties in Maryland would be interested in partnering to help support. Currently, it seems like the County has not found any.
    - Karen Henry shared that Westminster's pilot is being conducted in their reservoir, which is where the RO piece came from. They have led the effort for water reuse, but it is not going into the aquifer like it would with the County. The highly concentrated RO residual is released downstream in the adjacent receiving stream. Charles County and the City of Bowie have mentioned interest in the approach.
- Matt Johnston asked three questions for the County to consider when preparing for future meetings with stakeholders:
    - Where would the discharge point be? How close is it to the drinking well water? Is there a failsafe needed?
        - Jimmy Howard shared that the closest public well is several miles away. The County is working with USGS and MGS on a groundwater model. There is a desktop analysis from 1 year up to 10 years from injection that shows it stays near the site. The process will utilize multiple critical control points to monitor performance through the treatment steps that are being developed through the pilot testing. The demonstration facility would be designed to divert flow back to the current surface water discharge should any of these control points reach their associated action level.
    - Why not inject the water below the confined aquifers?
        - The County would be going mostly lower than residential wells by drawing out of the lower Patapsco and upper Patuxent aquifers. Injecting below the aquifer would not provide any recharge benefit to the aquifer. There are no more aquifers below Patuxent.
    - What are the effluents from the pilot? Drinking water standard? Nitrogen is lower coming out of the Annapolis Wastewater Treatment Plant (WWTP).
        - The Total Nitrogen effluents from wastewater treatment plants are lower than what is allowed in the drinking water contaminant level. By injecting into the aquifer, it is essentially a 'zero surface water discharge'. The pilot is removing many other contaminants of emerging concern, such as pharmaceuticals from the Annapolis WWTP
- Karen Henry proposed that if the PAG members were interested in another tour of the pilot that the County would be happy to have them reach out.

- Jerry Pesterfield asked if the County at the next meeting could provide an update on a contaminant plume from Fort Meade that appeared near Odenton Town Center about 10 years ago.

Minor Systems *(slide 22 – slide 34)*

George Heiner shared that several Minor Systems in the County face some challenges (DPW user rates, resident affordability, and maintaining affordable housing), and provided info on potential strategies the County would like to consider moving forward. He highlighted the potential costs, the different funds, and where the funding may come from to support the Minor Systems program (slide 23 - slide 29 of the presentation).

- The biggest challenge is funding for long-term Operation and Maintenance (O&M) costs. There is significant Bay Restoration Fund (BRF) funding for the capital cost, but the long-term O&M cost is significant, and DPW has not found any significant funding sources.
- DPW explained the components that go into the sewer bills. The Environmental Protection Fee in the rates, covers the debt service. This was passed in the code a couple years back at a 35 percent rate.
- One of the PAG members asked about the timeline. The answer was no timeline. EPA is in charge of the enforcement but only to the current treatment standards, and not to the Enhanced Nutrient Reduction (ENR) standards that County facilities abide by.

George asked the PAG members to participate in a brief interactive survey through mentimeter to gauge where they think the funds should come from to help support and address some of the challenges faced by Minor Systems within the County.

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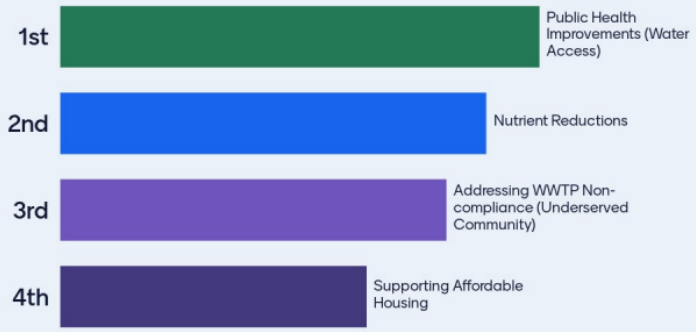
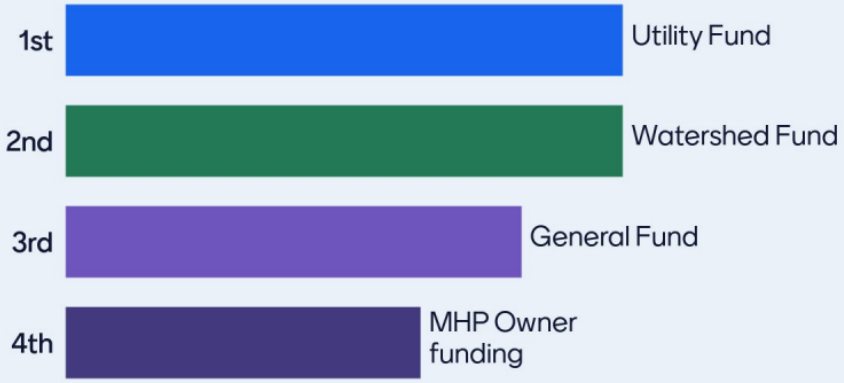
Rank the importance of each "driver" below that define success for the Minor System Upgrades



Rank each fund below for its relevance to addressing <u>Nutrient Reduction</u>



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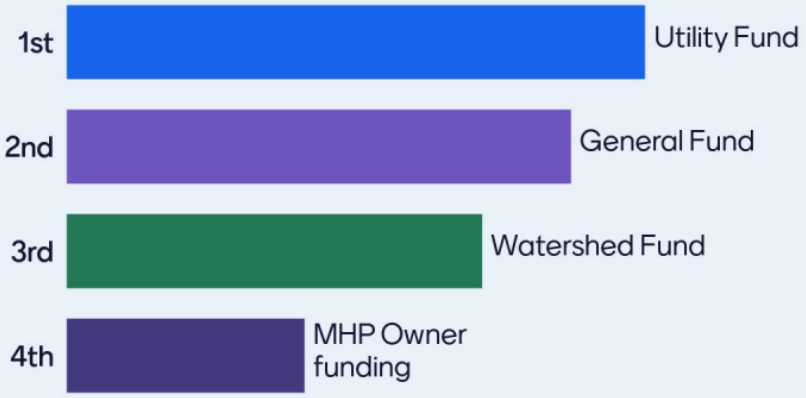
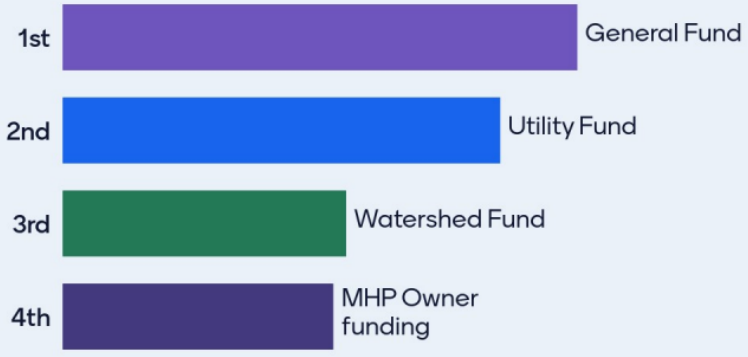
Rank each fund below for its relevance to addressing Public Health (Water Access)



Rank each fund below for its relevance to addressing Underserved Community Needs (WWTP Non-compliance)



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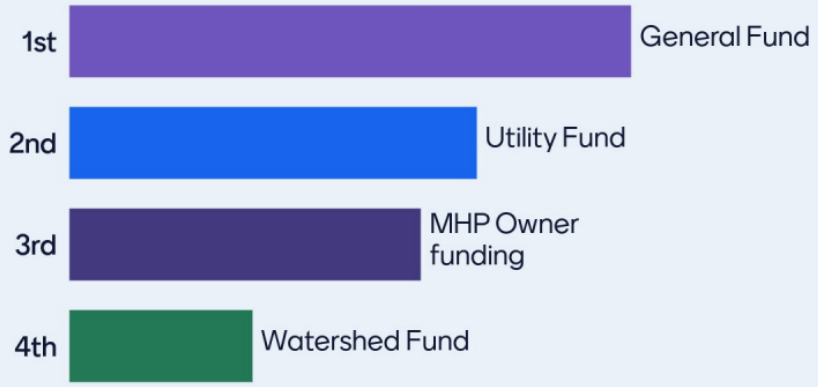
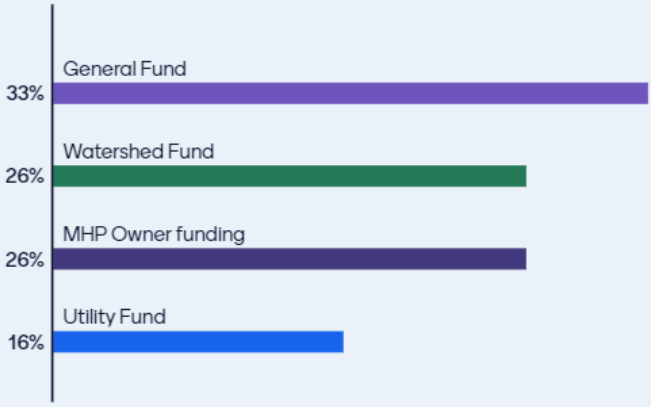
Rank each fund below for its relevance to addressing Affordable Housing



Distribute your suggested percentage contribution from each fund to support the Minor Systems Upgrades



Outreach and Closing Remarks *(slide 35 – slide 38)*

George thanked the group for their participation. He mentioned that the next PAG meeting will be at the end of October – early November 2024 and that the team would be following up once a date is picked.