

Anne Arundel County Clean Water Program

Our wAAter Public Advisory Group Meeting

February 22, 2023

Our wAAter.



Agenda



- 01** Integrated Management Plan Feedback
- 02** Our wAAtEr Program Feedback
- 03** Weighting Exercise Results
- 04** Advisory Group Future
- 05** Closing



01

Integrated Management Plan Feedback

ourwAAtEr.org



About Our wAAtEr

Septic-to-Sewer Connection Program

Resources & FAQs

Application Review Process

Wastewater Treatment Enhancements

Small System Upgrades

Stormwater Improvements

Groundwater Resiliency

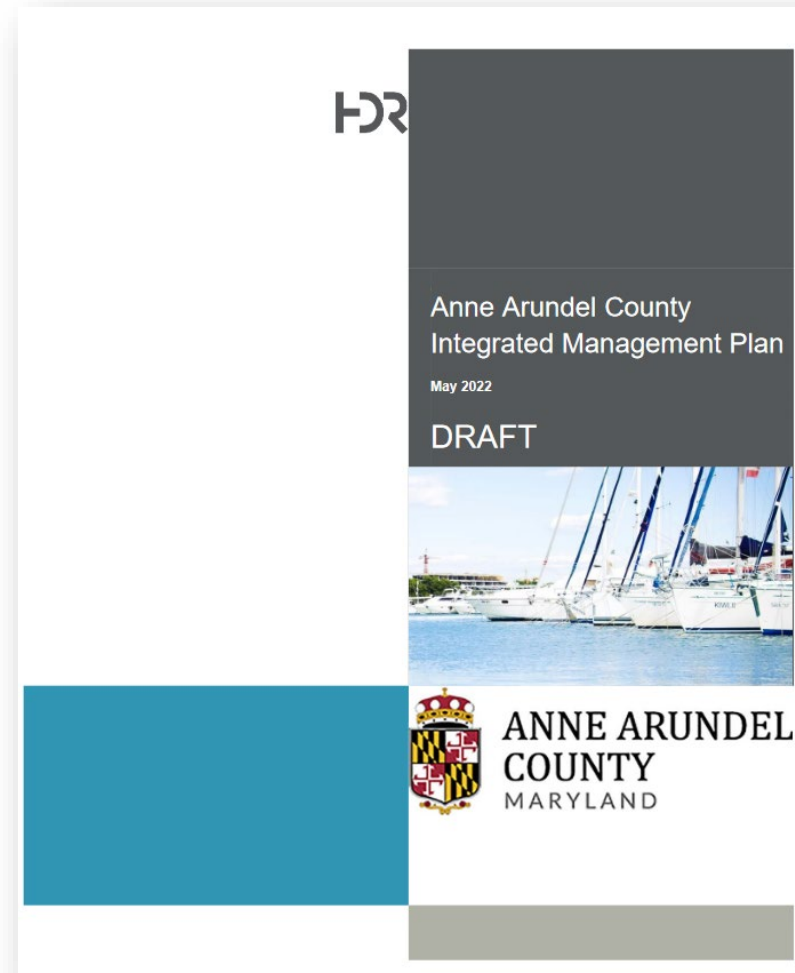
Managed Aquifer Recharge (MAR)

[Integrated Management Plan](#) ←

News & Events

Our wAAtEr Blog

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Integrated Management Plan (IMP) Feedback



Comment	Action
The 30-year total investment curve needs to flatten because it probably won't change much over time	<ol style="list-style-type: none">1. Add trendline to 30-year investment schedule to communicate additional projects will be added through adaptive management process2. Emphasize in IMP that costs are not escalated to date of project implementation
Provide a glossary of terms and acronyms associated with the IMP and Our wAAter program	<ol style="list-style-type: none">1. Add additional terms to the IMP glossary to explain unfamiliar definitions to public



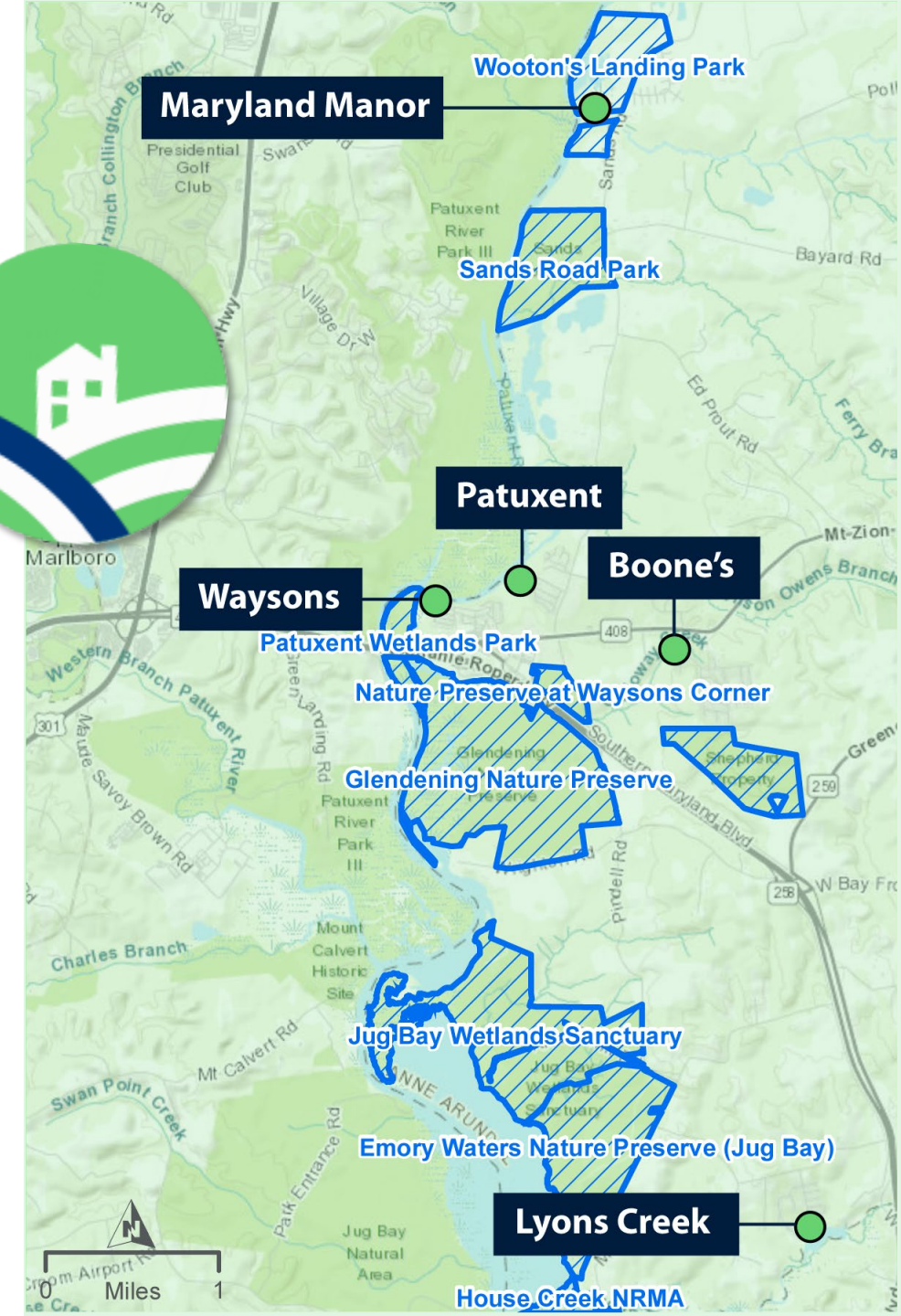
02

Our wAAter Program
Feedback

Small Systems Upgrades

Goal:

- To work with smaller Anne Arundel County communities to find cost-effective ways to improve their privately owned wastewater treatment or to connect them to a County-owned water reclamation facility.



Small Systems Upgrades Feedback



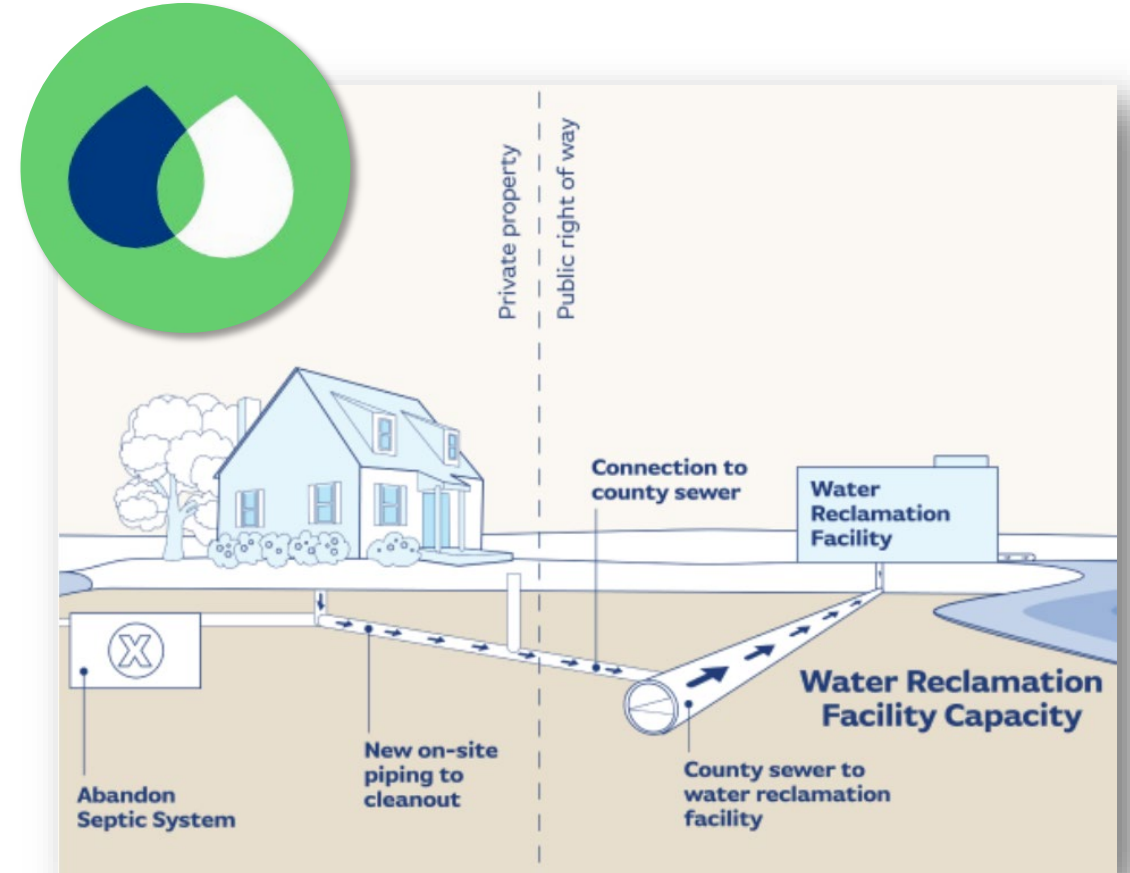
Comment	Action
<p>Develop a plan to prevent unintended consequences such as residents losing homes because of redevelopment.</p>	<ol style="list-style-type: none">1. Review zoning regulations through coordination with the Office of Planning and Zoning (OPZ) to assess redevelopment risk and determine what developers use for property selection.2. Emphasize through public outreach efforts that DPW is planning to improved failing private treatment systems to3. Communicate how additional connections in surrounding area will be controlled.



Septic-to-Sewer Connections

Goals:

- Convert eligible communities from septic systems to publicly owned water reclamation facilities operating at advanced treatment levels
- Reduce the costs of converting from private septic tanks to the county sewer system
- Convert up to 6,000 private septic systems to public sewer connections over the next 30 years.



Septic-to-Sewer Feedback



Comment	Action
<p>Present tangible benefits to prospective communities (i.e., increased home values, reduced maintenance burden)</p>	<ol style="list-style-type: none">1. Include / expand septic system maintenance as a topic during meetings and/or on website2. Consider potential home value differences and approach for conveying this information3. Implement education campaign to communicate septic tank operation and impacts on the environment

Septic-to-Sewer Feedback



Comment	Action
<p>Consider a firmer stance in requiring connection to public sewer</p>	<ol style="list-style-type: none">1. Emphasize in communications materials that the current County funding is subject to annual funding renewals and may not be available going forward.2. Consider alternate approaches where subsidies and deferments would be available for a limited time only.

Septic-to-Sewer Feedback



Comment	Action
<p>Identify an advocate for the program to present water quality benefits, such as a watershed organization</p>	<ol style="list-style-type: none">1. Determine the role that an advocate could play in the Septic-to-Sewer program while maintaining the community-driven structure2. Engage environmental groups or the Climate/Resiliency working group to see how they could be involved

Septic-to-Sewer Feedback



Comment	Action
<p>Cluster systems should be evaluated as an alternative within the program</p>	<p>The County previously evaluated this alternative</p> <ul style="list-style-type: none">• Costs were high since the cost for the treatment system would be additive to the average cost of collection and conveyance to the system• If systems dispose to surface water, the County may face environmental permitting issues <ol style="list-style-type: none">1. Consider developing criteria where they could be viable2. Identify considerations other than \$ / TN that could influence project selection

Managed Aquifer Recharge

Goals:

- To replenish groundwater supplies
- Mitigate potential ground subsidence from the dewatering of our aquifers through increased withdrawals
- Provide cost effective alternative for reducing nutrient discharges to surface waters

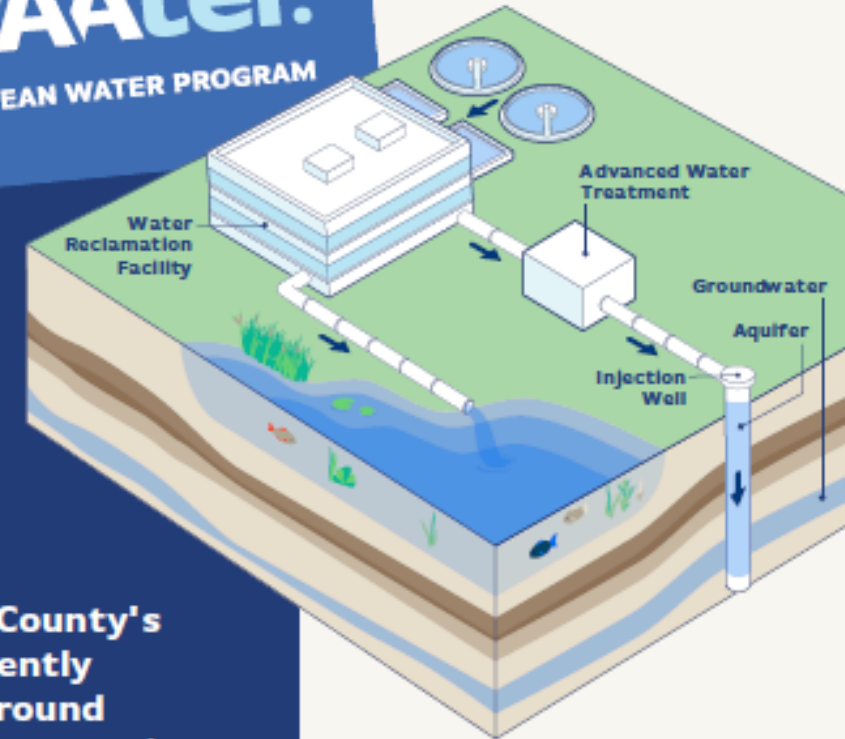


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Managed Aquifer Recharge

All of Anne Arundel County's drinking water currently comes from underground aquifers. But our consumption is outpacing the rate that these underground aquifers naturally recharge.

Managed Aquifer Recharge can replenish groundwater supplies while simultaneously providing nutrient removal benefits by directly reducing the discharges to nearby water bodies.



The County is considering an approach that involves injecting recycled water that has been treated to drinking water standards into groundwater aquifers.

When water seeps into the ground to naturally recharge the aquifer, it creates a reserve that is less vulnerable to environmental influences (e.g. extreme weather, agriculture, and wildlife) than surface water in rivers and streams.

Managed Aquifer Recharge Feedback



Comment	Action
Make it clear to public that starting effluent is cleaner than local surface water	Incorporate communication through public outreach emphasizing that source water for MAR is high quality prior to the advanced treatment process
Communicate to the public how the Advanced Water Treatment (AWT) process for treating wastewater effluent has been well-tested and implemented in other parts of the country	Implement case study communication through public outreach (e.g., SWIFT Program) Create more opportunities for public to visit facilities including the pilot treatment facility



03 Weighting Exercise Results

Weighting Exercise Takeaway



Criteria weighting generally aligned with County's weighting

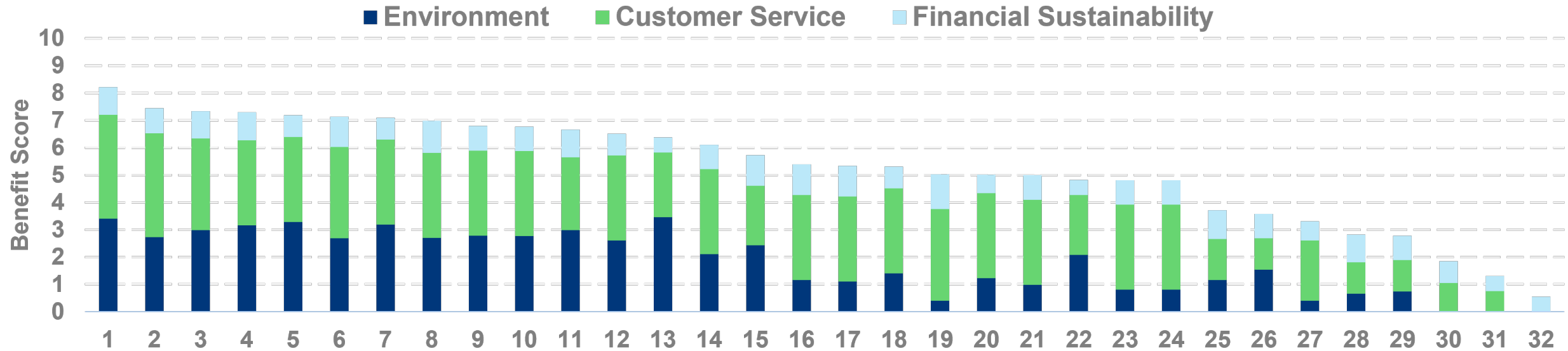
- PAG ranked Sustainable, Forward-Thinking Use of Natural Resources higher than Meet Regulatory Objectives

Project ranking results generally aligned with ranking based on County's weighting

Action

Weighting exercise results will be used as a starting point for additional future iterations of the plan

Project Ranking – County (PAG)



- 1 (2) - Sewer Main Repl./Recon. (-1)
- 2 (4) - Stormwater Infrastructure (-2)
- 3 (1) - **Minor Systems Upgrades (+2)**
- 4 (10) - **Upgrade/Retrofit SPS (-6)**
- 5 (5) - Ongoing WRF Upgrades (+0)
- 6 (7) - Septic-to-Sewer (-1)
- 7 (6) - Ongoing WTP Upgrades (+1)
- 8 (3) - **Managed Aquifer Recharge (MAR) (+5)**
- 9 (8) - **Broadneck WRF Upgrade (+1)**
- 10 (12) - Baltimore County Sewer Agreement (-2)
- 11 (9) - Grinder Pump Repl. & Upgrades (+2)
- 12 (11) - WRF Infrastructure Up/Retro (+1)

- 13 (13) - SW Permit Cycle 3 Placeholder (+0)
- 14 (16) - Sewer Extensions (-2)
- 15 (21) - **SPS Fac. Generator Repl. (-6)**
- 16 (15) - **Water Main Repl./Recon., Water Storage Tank Painting, & WTR Infr. Up/Retro (+1)**
- 17 (17) - Existing Well Redev. & Repl. (+0)
- 18 (14) - Aquifer Storage & Recovery (ASR) (+4)
- 19 (19) - Fire Hydrant Rehabilitation (+0)
- 20 (18) - TM-M Rte 32 @ Meade & EWTM (+2)
- 21 (20) - Elevated Water Storage (+1)
- 22 (24) - Planning (-2)

- 23 (22) - Water Facility Emerg. Generators (+1)
- 24 (23) - Water Extensions (+1)
- 25 (25) - Billing (AMI/AMR) (+0)
- 26 (26) - Cox Creek WRF Expansion (+0)
- 27 (27) - Wastewater Service Connections (+0)
- 28 (28) - Biosolids (+0)
- 29 (29) - WTP Construction/Expansions (+0)
- 30 (30) - State Highway Sewer Relocation (+0)
- 31 (31) - Dorsey Road Offline (+0)
- 32 (32) - Demolition (+0)

Weighting Exercise Results



Objective	County Weight	PAG Weight	Sub-Objective	County Weight	PAG Weight	County Weight (Combined)	PAG Weight (Combined)	Difference
Safeguard the Environment	0.40	0.41	Meet Regulatory Objectives	0.40	0.19	0.16	0.08	-0.08
			Watershed Protection and Restoration	0.24	0.31	0.10	0.12	+0.02
			Sustainable, Forward-Thinking Use of Natural Resources	0.16	0.29	0.06	0.12	+0.06
			Resiliency, Ability to Adapt	0.20	0.21	0.08	0.09	+0.01
Customer Service	0.38	0.39	Maximize Public Health, Safety, Welfare, & Equity	0.60	0.75	0.23	0.29	+0.06
			Provide for Reliable Services	0.40	0.25	0.15	0.10	-0.05
Financial Sustainability	0.22	0.20	Affordable for Customers	0.48	0.40	0.11	0.08	-0.03
			Partnered Financial Support	0.28	0.35	0.06	0.07	+0.01
			Economic Impact	0.24	0.25	0.05	0.05	+0.00



04 Advisory Group Future

Future of Advisory Group

Meeting Frequency

- Quarterly meetings

Program topic focus

- Septic-to-Sewer
- MAR
- Minor Systems
- Equity, Diversity & Inclusion
- Other topics

Summary of Feedback



Future of Advisory Group



Program topics

- Septic-to-Sewer
- MAR
- Minor Systems
- Equity, Diversity & Inclusion



Goal of improving communications and implementation

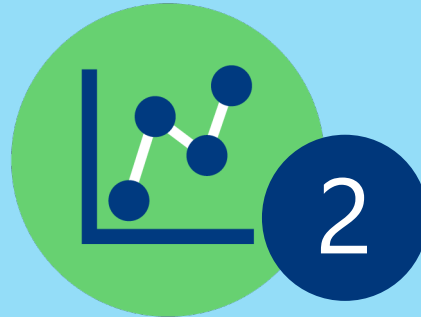


Mission statement to be developed at first meeting

Future of Advisory Group



**Increased
diversity**



**Additional members
(aiming for 10-12)**



**DPW to collect
applications via
Our wAAtEr
website**

Next Steps



Let us know if you would like
to remain involved with future
efforts

Rahkia.Nance@hdrinc.com



Project team will consider
PAG feedback as the
Integrated Management
Plan is finalized

A person is silhouetted while sitting on a white plastic chair on a wooden pier, fishing with a long rod. The scene is set against a vibrant sunset sky with orange and yellow clouds over a body of water. A bicycle is parked on the pier next to the person.

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Thank you!

