

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary January 25, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair
- Jim Wieprecht, Vice Chair
- John Dick
- Gary Dye
- Delbert Greene
- Mayor Perry Jones
- Rodney Kuhns
- Alex Perricone
- Kevin Rubenstein
- Dick Swanson

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Ed Singer
- Pat Varga

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Lydia Rogers, CC M&B
- Jason Green, CC DPW

Guest Speakers:

- Phoebe Aron, Hazen & Sawyer
- Josh Weiss, Hazen & Sawyer

Others:

-

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:30 PM. He welcomed Alex Perricone, the new Town Manager for Manchester, to the group. Mr. Perricone introduced himself.

Mr. Hann thanked Chris Heyn for sending the A-StoRM comment letter to Maryland Department of the Environment (MDE).

Vice Chair – Jim Wieprecht

Nothing additional.

2. Approval of Meeting Summary – December 21, 2022

Approval of the December meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Jim Wieprecht and seconded by Alex Perricone to approve the December 21, 2022, meeting summary as written. Motion carried.

3. Water Resources Element (WRE 2024) Update / Discussion / Introductions – Brenda Dinne, Hazen & Sawyer

Ms. Dinne indicated that capacity management plan worksheets were received from all the municipalities except Mount Airy. GIS staff run the Buildable Land Inventory once per year and is anticipated to be complete at the end of January. Ms. Dinne will plug in the residential, commercial, and industrial demand figures at that time.

Josh Weiss and Phoebe Aron with Hazen & Sawyer introduced themselves. Ms. Aron is the technical lead for the WRE update project, and Mr. Weiss is the project manager. For now, they have the information they need, but they anticipate they will have additional data requests as they begin each individual task. Mr. Weiss said they may reach out with particular areas of concern, and the municipalities should feel free to note issues that may need particular attention.

Ms. Dinne offered to meet with Alex Perricone to fill him in on the background of the WRE, both in 2010 and the 2024 update.

Reference/Attachment:

- N/A

4. Areas of Frequent Flooding: GIS Online – Follow Up – Claire Hirt & Chris Heyn

Ms. Hirt shared that all the municipalities responded with information or comments on areas of flooding. She reviewed the results of the additional feedback. The online GIS application is still available online if anyone has information to add. The next step will be to meet with the County Department of Public Works (DPW) to go through a similar exercise. In addition, Bureau of Resource Management (BRM) staff will be asked to evaluate the potential for environmental uplift. The layers of information will be used to prioritize flooding improvement projects.

Mr. Heyn provided background on the A-StoRM letter that he sent to MDE. MDE does not regulate how stormwater gets to the stormwater management facilities. Conveyance systems are dictated by local jurisdictions. The key is to get the water to the facility for treatment. Mr. Heyn does not support the effort by Baltimore City to study where the conveyance problems are, as funds would be better spent in other jurisdictions on actual improvement projects.

Mr. Hann suggested the municipal WRCC members pass the comment letter on to their mayors, as they need to be aware of what is coming.

Reference/Attachment:

- N/A

5. Municipal Stormwater Projects Update – Janet O’Meara

Janet O’Meara provided an update on the municipal stormwater restoration projects.

She mentioned they are always looking for new projects, which can include facilities that may just need a little maintenance. If a project has co-benefits, it makes particular sense to prioritize, as more than just water quality benefits may be accomplished, such as addressing flooding.

Mr. Heyn mentioned that last year the County was successful in keeping required costs down significantly through the implementation of alternative BMPs. We received credit for 419 acres of impervious area treatment, 70 of which were structural. Those 70 acres averaged \$30,550 per acre. The remaining acres, including Mayberry stream restoration, other non-structural practices, and tree planting, averaged \$8,000 per acre of credit. The average cost per acre originally started at \$25,000. However, structural practices are getting more expensive, and the low-hanging fruit has already been picked. The planning number is now at \$35,000 per acre, which is expected, and is reflected in the Memorandum of Agreement.

Reference/Attachment:

- Handout: *Municipal Project Status*

6. Other

- MS4 Public Outreach Plan (POP): Brenda Dinne handed out hardcopies of the updated Public Outreach Plan, to be submitted with the 2023 Annual Report. Thereafter, as with the previous permit, the programs and activities that are accomplished will be cumulatively reported in the Annual Report.

- Legislative Update: Ms. Dinne provided a summary table with the proposed bills introduced so far in the Maryland General Assembly this legislative session that are water-resource/environment related and may be relevant/of interest to the municipalities.
- 20SW Permits: Glenn Edwards shared that MDE has issued the 20SW permit. Applications open February 1. Mr. Edwards has been in contact with most of those who will need to apply.
- Illicit Discharge Detection & Elimination (IDDE): Mr. Edwards indicated that roughly 50 percent of the outfall screenings for the year have been completed. He will be in touch with the municipalities regarding screenings in the municipalities, but he is currently waiting for dry weather.
- Public Outreach & Litter Tracking Sheets for MS4 Reporting: Claire Hirt sent out the sheets to track public outreach efforts and to record litter collection. All efforts need to be recorded and returned to Claire at the end of the fiscal year to be included in the annual reporting. Staff are beginning to add outreach events to the calendar now. If a municipality would like the water resources booth at any events, let her know to add it to the calendar.
- NPDES Permit Presentation: Chris Heyn will be presenting an overview of the permit to the Environmental Advisory Council in February and the Board of County Commissioners in March.
- PFAS: Richard Brace noted that MDE recommended that letters be sent out from the municipalities regarding PFAS, although this may be premature since the new MCL (maximum contaminant level) has not yet been set. The Health Department is starting to get calls from private property owners, but the Health Department does not have the resources to test each individual well. Mr. Perricone shared that he will be discussing PFAS with the Manchester Town Council that evening. Mr. Dye shared that New Windsor's PFAS study is almost complete.
- Public Safety Training Center (PSTC): Chris Heyn provided background information on the PFAS work being done at the PSTC. Tetra Tech was hired for testing. The County applied for State Revolving Load Funds to help with the planning and future projects to address PFAS at originating from this site.
- Next Meeting: Mr. Heyn requested that each municipality come to the next meeting prepared to speak for five minutes about any burning issues the municipality is dealing with. This should be primarily water related, but this is also a good forum to discuss other issues as well. This information will also be used as a guide to help bring in resources to provide more information to the WRCC.

Reference/Attachment:

- Reference: *NPDES MS4 Public Outreach Plan (for Fifth-Generation Permit)*
- Attachment: *WRCC Legislative Update – 2023 General Assembly Proposed Environmental Legislation*

7. Adjournment

The meeting adjourned at 3:46 PM. The next monthly meeting is scheduled for Wednesday, February 22, 2023, at 2:30 PM.

MEETING ADJOURNMENT: Motion was made by Alex Perricone and seconded by Jim Wieprecht to adjourn the January 25, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, February 22, 2023*

MUNICIPAL STORMWATER PROJECT STATUS

January 25, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits. Design proposals came in higher than anticipated—we will rebid the design under the new term contract. We are reviewing the final documents for the term contracts now, so we hope to rebid this soon.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI is currently working on a concept plan of a triple facility design. The concept is being reviewed.

Hampstead Valley 4 (Hampstead) – New surface sand filter and stream restoration proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A review was completed by SWM and the project received concept approval. CLSI is working on the Preliminary design plans and integrating the stream design.

New Windsor Wetland (New Windsor)- Survey data on the sewer force main was obtained to design around for the wetland facility. A resubmittal of the concept plans and report are anticipated at the end of the month. Accommodations for the underlying karst geology are being evaluated.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. Wallace Montgomery & Associates (WMA) has received

comments on the concept plans, and is currently underway with addressing comments for the next submittal.

Carroll County Health Department (Westminster) – We are currently looking at an alternative solution to treat the stormwater from the Health Department and adjacent neighbor storm drains via the Langdon facility. Survey work has been completed to locate the existing sanitary line. CLSI is working on the hydrologic modeling for the storm drain design to the Langdon facility.

FINAL DESIGN:

North Carroll Library (Hampstead) – The construction task has been awarded to White Pine. Construction is expected to begin in February.

CONSTRUCTION:

Locust Street (Citizens Energy) (Union Bridge) – The stormwater management facility and storm drains are complete. The engineer is working to complete the as-built plans and report.

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). The Quality Assurance Project Plan (QAPP) developed by Carroll County and CWP was submitted for review. Comments were received and addressed. The document has been returned to NFWF for further review.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.



WRCC Legislative Update



2023 General Assembly Proposed Environmental Legislation

Status: As of January 25, 2023

Bill + Description	Status + Position
<p>HB 198 WASTEWATER TREATMENT PLANTS – WATER QUALITY TESTING AND SEWAGE OVERFLOW AND PIPELINE BREAKAGE NOTIFICATION (ENVIRONMENTAL ACCOUNTABILITY ACT OF 2023) Requiring an independent third party to oversee all water quality testing conducted at a wastewater treatment plant that falsifies or does not accurately report water quality test results to the Department of the Environment or is experiencing a catastrophic or continuing mechanical failure of operational equipment; requiring the Department to select the independent third party; specifying the duties of the independent third party; and establishing certain notification requirements. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0198F.pdf</p>	<p>> Status: ♦ HB: 2/8 @ 1:30 > Positions: ♦ MML: N/A ♦ MACO: N/A ♦ LRM Position: N/A</p>
<p>SB 225 ENVIRONMENT - PUBLICLY OWNED TREATMENT WORKS - PFAS MONITORING Requiring the owner or operator of a publicly owned treatment works to monitor and report the levels of certain per- and polyfluoroalkyl substances (PFAS) in effluent, influent, and biosolids. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0225F.pdf</p>	<p>> Status: ♦ SB: > Positions: ♦ MML: N/A ♦ MACO: N/A LRM Position: Oppose</p>

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WRCC Meeting Summary

February 22, 2023

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- Jim Wieprecht, Vice Chair
- John Dick
- Gary Dye
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- Ed Singer
- Pat Varga

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Lydia Rogers, CC M&B

Guest Speakers:

- _____
- _____

Others:

-

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:32 PM.

Mr. Hann asked that any municipalities who had not yet sent their Flood Management surveys to Brenda Dinne to do so as soon as possible.

He commented that there are some costly bills making their way through the legislature.

Vice Chair – Jim Wieprecht

Nothing additional.

2. Approval of Meeting Summary – January 25, 2023

Approval of the January meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Alex Perricone and seconded by Gary Dye to approve the January 25, 2023, meeting summary as written. Motion carried.

3. Municipal Concerns for Discussion – Municipalities (5-minute presentation each)

Each municipality shared some of the hot topics, concerns, issues, and projects they currently have or are addressing.

- New Windsor: Mr. Dye shared concerns, projects, and issues, which included aging infrastructure, water main replacement as part of the MD 31 improvement project, bringing the Roops Meadow Spring back online, drilling new wells, looking for new water sources, PFAS

testing, Lead & Copper Rule requirements, rate survey for water and sewer, Blue Ridge Pump Station upgrade, supply chain issues with generators, and ENR upgrade.

- Taneytown: Mr. Wieprecht shared that Taneytown is also experiencing a generator backlog issue. Other items shared included capacity and compliance issues with the wastewater treatment (WWTP) following the ENR upgrade, using American Rescue Plan Act (ARPA) funds for infrastructure improvements, inflow and infiltration (I&I), PFAS, Lead & Copper Rule, and water and sewer rates.
- Manchester: Mr. Perricone felt that the regulations are getting very expensive and making it hard to do business. He was concerned with who would pay for costs of users whose water and sewer debts are wiped out if the proposed bill passes the legislature. He also raised the issues of PFAS and the need to look at additional alternative water sources for the future.
- Sykesville: Mr. Rubenstein shared that the Town is struggling with creative solutions for stormwater management in small-scale, urban spaces. Ms. O'Meara offered to take a look at possible scenarios and solutions with them.
- Mount Airy: Mr. Swanson shared that issues include PFAS, aging infrastructure, I&I, and many of the other issues already mentioned by others. The Town does their own water and sewer rate studies through the Town's Water and Sewer Commission.
- Bureau of Utilities: Mr. Watcher shared that the Enterprise Fund pays for water and sewer infrastructure, but the financial resources to fund these projects are decreasing. He also lamented about the generator backlog and the process for getting the ENR upgrade running, which is doing well now. Other issues included upcoming lining and manhole work.
- Hampstead: Mr. Hann discussed the 2016 study to get a hold on water accountability. Other issues included PFAS, reclassification of certain stormwater management facility structures to significant hazard dams, drilling of wells, Lead & Copper Rule, and I&I/leak detection.

There was a consensus that this type of sharing should occur more frequently.

Reference/Attachment:

- N/A

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Mount Airy has not yet sent its completed capacity management plan workbook, which is needed for the consultant work.
- GIS staff met with Hazen on February 1 to discuss the needs for automating portions of the Buildable Land Inventory model, which is Task 1. They are working on recommendations.
- Hazen is also working on Task 2, which is related to groundwater allocability. They are currently doing research and evaluation. A meeting with the County technical team for this task is anticipated for April.

Reference/Attachment:

- N/A

5. Municipal Stormwater Projects Update – Janet O'Meara

Janet O'Meara provided an update on the municipal stormwater restoration projects.

The Bureau of Resource Management submitted a grant application for funding for PFAS work at the Public Safety Training Center. This project was given higher priority because the Fire & EMS Department is also working on an expansion project for that site.

WRA is one of the new contractors for design and engineering.

Reference/Attachment:

- Handout: *Municipal Project Status*

6. Other

- Flood Management Interview with MDE (A-StoRM): Claire Hirt reported that staff met with a representative of MDE on February 21 for an interview on flood management in Carroll County. She asked the same questions that were sent to the municipalities in a survey. The MDE representative will be contacting municipalities for interviews when she's done interviewing counties. She will not need to contact Carroll's municipalities since input was received through the surveys.
- IDDE Outfalls/Screenings: Glenn Edwards indicated that they anticipate completing the annual screenings in the next two to three months. He will be in touch with each municipality.
- Precipitation and Water Levels: Zach Neal shared that everyone is looking good with groundwater at the moment. Precipitation levels are normal for the month and where we are in the calendar year. Stream levels may be slightly below normal in the northwest area of the county.
- March Meeting: Aaron Fisher will be sharing information on PaveDrain Permeable Pavement at the guest speaker at the March meeting.
- Legislative Update: Brenda Dinne will email the legislative update summary table with the proposed bills introduced so far in the Maryland General Assembly this legislative session that are water-resource related. She indicated that the draft stormwater bill did not get introduced. HB 942 would effectively kill stream restoration projects, and from a permit perspective, MS4 jurisdictions cannot wait 10 years to receive compliance credit. The Forest Retention bill is complicated. We are already doing some proposed provisions but have concerns about others.
- Possible Stormwater Tour: County staff will be meeting shortly to discuss planning for a WRCC stormwater tour in May. If a tour proceeds this year, it will be on May 5. The municipalities were asked to mark their calendars.

Reference/Attachment:

- Handout: WRCC Legislative Update (2023-Feb-23)

7. Adjournment

The meeting adjourned at 4:03 PM. The next monthly meeting is scheduled for Wednesday, March 22, 2023, at 2:30 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Alex Perricone to adjourn the February 22, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, March 22, 2023*

MUNICIPAL STORMWATER PROJECT STATUS

February 22, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits. Design proposals came in higher than anticipated—we will rebid the design under the new term contract. We are reviewing the final documents for the term contracts now, so we hope to rebid this soon.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI is currently working on a concept plan of a triple facility design. The concept is being reviewed by Stormwater, Soil Conservation, Utilities and the Town.

Hampstead Valley 4 (Hampstead) – New surface sand filter and stream restoration proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A review was completed by SWM and the project received concept approval. CLSI is working on the Preliminary design plans and integrating the stream design.

New Windsor Wetland (New Windsor)- Survey data on the sewer force main was obtained to design around for the wetland facility. A resubmittal of the concept plans and report are anticipated this month. Accommodations for the underlying karst geology are being evaluated.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. Wallace Montgomery & Associates (WMA) has received comments on the concept plans, and is currently underway with addressing comments. We anticipate a submittal 2/17.

Carroll County Health Department (Westminster) – We are currently looking at an alternative solution to treat the stormwater from the Health Department and adjacent neighbor storm drains via the Langdon facility. Survey work has been completed to locate the existing sanitary line. CLSI is working on the hydrologic modeling for the storm drain design to the Langdon facility. A preliminary layout was discussed with staff and design is moving forward.

FINAL DESIGN:

CONSTRUCTION:

North Carroll Library (Hampstead) – The construction task has been awarded to White Pine. Construction is expected to begin in March.

Locust Street (Citizens Energy) (Union Bridge) – The stormwater management facility and storm drains are complete. The engineer is working to complete the as-built plans and report.

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). We are currently awaiting final QAPP approval. CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.




WRCC Legislative Update



2023 General Assembly Proposed Water-Resource Related Legislation

Status: As of February 23, 2023

Note: If a bill is crossfiled, the text should be identical in the House and Senate versions.

Bill + Description	Status + Position
<p>HB 198 WASTEWATER TREATMENT PLANTS – WATER QUALITY TESTING AND SEWAGE OVERFLOW AND PIPELINE BREAKAGE NOTIFICATION (ENVIRONMENTAL ACCOUNTABILITY ACT OF 2023) Requiring an independent third party to oversee all water quality testing conducted at a wastewater treatment plant that falsifies or does not accurately report water quality test results to the Department of the Environment or is experiencing a catastrophic or continuing mechanical failure of operational equipment; requiring the Department to select the independent third party; specifying the duties of the independent third party; and establishing certain notification requirements. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0198F.pdf</p>	<p>> Status: ♦ HB: 2/8 @ 1:30 > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: N/A</p>
<p>SB 225/HB 499 ENVIRONMENT - PUBLICLY OWNED TREATMENT WORKS - PFAS MONITORING Requiring the owner or operator of a publicly owned treatment works to monitor and report the levels of certain per- and polyfluoroalkyl substances (PFAS) in effluent, influent, and biosolids. Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0225F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0499F.pdf</p>	<p>> Status: ♦ SB: 2/9 @ 1; unfavorable report ♦ HB: 2/17 @ 1; hearing canceled > Positions: ♦ MML: Oppose ♦ MACO: Not tracked ♦ LRM Position: Oppose</p> 
<p>SB 294 COMPREHENSIVE PLAN - IMPLEMENTATION AND REVIEW IN PRIORITY FUNDING AREAS Altering the implementation and review of a comprehensive plan within a priority funding area. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0306F.pdf From MACo: <i>This bill would upend a carefully crafted policy regarding housing development in county-designated priority funding areas, all at a critical juncture of the State's battle to ensure widespread access to affordable housing. Current law sets clear parameters that serve to funnel money to those projects in the priority funding areas where it is most needed. SB 0294 overburdens this process by introducing new standards and considerations that could very well divert funds that would otherwise be put toward development projects in designated "smart growth" corridors</i></p>	<p>> Status: ♦ SB: 2/14 @ 1; > Positions: ♦ MML: Not tracked ♦ MACO: Oppose ♦ LRM Position: N/A</p>

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>SB 380/HB 538 INCOME TAX - SUBTRACTION MODIFICATION - WATER AFFORDABILITY ASSISTANCE Allowing a subtraction modification under the Maryland income tax for certain water affordability assistance, including water bill arrearage forgiveness, received by an individual during the taxable year and provided by the federal government, the State, or a local government; and requiring a unit of State government or a local government that administers a water affordability assistance program to provide to the Comptroller, within 30 days of a request, certain information about water affordability assistance programs.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0380F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0538F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: 2/22 @ 1; ◆ HB: 2/16 @ 1; <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Oppose ◆ LRM Position: N/A
<p>SB 392 WASTEWATER FACILITY SUPPLEMENTAL OPERATIONS AND MAINTENANCE GRANT PROGRAM - ESTABLISHMENT Establishing the Wastewater Facility Supplemental Operations and Maintenance Grant Program for the purpose of providing competitive grants for publicly owned wastewater facilities facing operations and maintenance challenges that threaten the proper functioning of a facility's enhanced nutrient removal technology; requiring the Governor, for fiscal year 2025 and each fiscal year thereafter, to include in the annual budget bill an appropriation of \$10,000,000 for the Program; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0392F.pdf</p> <p><i>This bill establishes and calls for the annual funding of the Wastewater Facility Supplemental Operations and Maintenance Grant Program, for the purpose of providing competitive grants for publicly owned wastewater facilities. Many of these facilities face operational and maintenance challenges that threaten the proper functioning of their enhanced nutrient removal technology. It is Maryland's counties that bear the primary responsibility for managing the delivery and sanitation of water across the State, and for this reason, the investment requested by SB 0392 would be gladly received. (from MACo)</i></p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Hearing 2/15 @ 1 <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: <u>Support</u> ◆ LRM Position: N/A

Bill + Description	Status + Position
<p>SB 407/HB 848 DRINKING WATER - INNOVATIVE POTABLE REUSE PILOT PROGRAM - ESTABLISHMENT Establishing the Innovative Potable Reuse Pilot Program in the Department of the Environment for the purpose of authorizing the regulated use of reclaimed water as a source for drinking water treatment facilities; providing for the issuance of potable reuse permits under the Pilot Program; applying certain public participation requirements to potable reuse permits; requiring the Department to submit a report on the status of the Pilot Program to the Governor and General Assembly on or before December 31, 2024; etc.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0407F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0848F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Hearing 2/15 @ 1; ◆ HB: Hearing 3/1 @ 1; <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Support ◆ MACO: Not tracked ◆ LRM Position: No position <p>➤ Note: Sponsored by Senator Ready & Delegate Rose</p>
<p>SB 471/HB 607 WATER POLLUTION CONTROL - DISCHARGE PERMITS - STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY Prohibiting the Department of the Environment from authorizing the discharge of stormwater associated with construction activity under a general discharge permit and requiring the Department to instead require an individual discharge permit under certain circumstances; prohibiting a certain permit holder from causing, allowing, or failing to control the runoff of soil or other pollutants from a construction site or causing erosion into certain waters of the State; etc.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0471F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0607F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Hearing 2/23 @ 1; ◆ HB: Hearing 2/22 @ 1; <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Support ◆ MACO: <u>Support</u> ◆ LRM Position: No position
<p>SB 512 DRINKING WATER - LEGIONELLA PNEUMOPHILA BACTERIUM - MINIMIZING GROWTH AND TRANSMISSION Requiring an owner or operator of a public water system to maintain a detectable residual disinfectant level of at least 0.5 milligrams per liter of chlorine, not to exceed the maximum residual disinfectant level set by the U.S. Environmental Protection Agency in the water distribution system and to conduct certain sampling and analysis at frequent and regular intervals; requiring an owner or operator of a public water system to provide certain notice of certain water distribution system disruptions; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0512F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Hearing 2/23 @ 1; <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Oppose ◆ MACO: Oppose ◆ LRM Position: N/A

Bill + Description

Status + Position

SB 513

ENVIRONMENT – COLLECTION AND REPORTING OF DRINKING WATER AND WASTEWATER DATA AND INFORMATION – REQUIREMENTS

Requiring a water utility operating in the State to provide certain data and information to the Department of the Environment and comply with certain reporting requirements; requiring the Department to develop a certain protocol and form to provide and report certain drinking water and wastewater data and information; requiring the Department to create, operate, and maintain a statewide Open Water Data Reporting Platform that includes certain data and information for each water utility operating in the State; etc.

Bill: <https://mgaleg.maryland.gov/2023RS/bills/sb/sb0513F.pdf>

> **Status:**

♦ **SB:** Hearing 2/23 @ 1

> **Positions:**

♦ **MML:** Oppose

♦ **MACO:** Oppose

♦ **LRM Position:** N/A

SB 526/HB 723

NATURAL RESOURCES - FOREST PRESERVATION AND RETENTION

Altering the definition of "qualified conservation" for purposes of provisions of law related to forest mitigation banks; establishing and authorizing certain alternative methods of calculating forest afforestation, reforestation, and preservation requirements; adding certain tree plantings and practices as methods that certain municipal corporations may use to meet afforestation or reforestation requirements; etc.

Bills:

SB: <https://mgaleg.maryland.gov/2023RS/bills/sb/sb0526F.pdf>

HB: <https://mgaleg.maryland.gov/2023RS/bills/hb/hb0723F.pdf>

> **Status:**

♦ **SB:** Hearing 3/2 @ 1;

♦ **HB:** Hearing 3/1 @ 2;

> **Positions:**

♦ **MML:** Opposed

♦ **MACO:** Support w Amendments

♦ **LRM Position:** Support w Amendments

SB 531

PUBLIC WATER SYSTEMS - SUPPLIER REQUIREMENTS (WATER SAFETY AND CYBERSECURITY ACT OF 2023)

Requiring a supplier of water to inspect certain valves in a public water system in a certain manner, repair or replace certain valves, inspect certain fire hydrants, formulate and implement a certain plan, identify the locations of certain valves, and record certain characteristics and identifiers of certain valves; requiring a supplier of water to develop a certain cybersecurity program by February 1, 2024; etc.

Bill: <https://mgaleg.maryland.gov/2023RS/bills/sb/sb0531F.pdf>

> **Status:**

♦ **SB:** Hearing 2/23 @ 1;

> **Positions:**

♦ **MML:** Oppose

♦ **MACO:** Oppose

♦ **LRM Position:** N/A

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>HB 624 ENVIRONMENT - SUPPLIERS OF WATER - NOTIFICATION REQUIREMENTS Altering the means by which a supplier of water must give notice to the Department of the Environment and certain individuals and entities under certain circumstances; requiring that a supplier of water use at least three means to give the notice; requiring a supplier of water to give notice to the Department of the Environment and the Maryland Department of Emergency Management if there is a positive test for E. coli in the system; etc. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0624F.pdf</p>	<p>> Status: ♦ HB: Hearing 2/22 @ 1; > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: N/A</p>
<p>SB 743/HB 840 CLIMATE, LABOR, AND ENVIRONMENTAL EQUITY ACT OF 2023 Requiring the Department of the Environment to conduct a certain evaluation regarding the impact of issuing an approval for certain environmental permits; requiring the Department to provide opportunities for certain communication with certain residents in a certain manner; and altering certain reporting requirements for certain State agencies. Bill Link: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0743F.pdf</p>	<p>> Status: ♦ SB: Hearing 2/23 @ 1; ♦ HB: Hearing 3/8 @ 1; > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: No position</p>
<p>SB 883/HB 893 ENVIRONMENT - WATER UTILITIES - SHUTOFF PROTECTIONS (WATER ACCESS FOR ALL PROTECTION ACT Authorizing a certain water utility to temporarily shut off service for reasons of health or safety or in a State or national emergency, notwithstanding certain provisions of law; prohibiting a water utility from shutting off service for certain reasons; prohibiting a water utility from shutting off service on receipt of certain information; and prohibiting the sale of property solely to enforce a lien imposed for unpaid water, sewer, or sanitary system charges, fees, or assessments except in certain circumstances. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0893F.pdf</p>	<p>> Status: ♦ SB: Rules ♦ HB: Hearing 3/1 @ 2; > Positions: ♦ MML: Oppose ♦ MACO: Support w Amendments ♦ LRM Position: N/A</p>
<p>HB 924 SEWAGE TREATMENT PLANTS - EFFLUENT DISCHARGES, DISCHARGE PERMITS, AND PROPERTY TAX CREDIT FOR IMPACTED DWELLINGS Requiring the Department of the Environment to monitor effluent discharged from sewage treatment plants permitted to process at least 50,000,000 gallons of effluent per day, evaluate whether the effluent impacts area midge populations, and place an inspector at certain sewage treatment plants; requiring the Department to post on its website certain status updates and steps taken to address certain deficiencies; and authorizing a certain property tax credit against the property tax imposed on a certain dwelling. <i>Bill imposes a local government mandate, which is a directive in a bill requiring a local government unit to perform a task or assume a responsibility that has a discernible fiscal impact on the local government unit</i> Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0924F.pdf</p>	<p>> Status: ♦ HB: Hearing 3/1 @ 2; > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: N/A > Note: Same bill introduced last year but didn't pass</p>

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>HB 942 WETLANDS AND WATERWAYS PROGRAM - AUTHORIZATIONS FOR STREAM RESTORATION PROJECTS Requiring the Department of the Environment to revise certain criteria, standards, and requirements for wetlands and waterways authorizations for certain stream restoration projects on or before October 1, 2024; and requiring the Department to provide public notice and hold a certain public information meeting before issuing a wetlands and waterways authorization for a stream restoration project under certain circumstances. Bill Link: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0942F.pdf</p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ HB: Hearing 3/3 @ 1; <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Pending ◆ LRM Position: No position

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary

March 22, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair
- Jim Wieprecht, Vice Chair
- John Dick
- Gary Dye
- Delbert Greene
- Mayor Perry Jones
- Rodney Kuhns
- Alex Perricone
- Kevin Rubenstein
- Dick Swanson
- Delbert Green

CC Land & Resource

Management (LRM):

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Ed Singer
- Pat Varga
- Chad Wasileski

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Lydia Rogers, CC M&B
- Bryan Bokey, CC DPW, Director
- Lynda Eisenberg, CC Planning, Director

Guest Speakers:

- Aaron Fisher, EM, Inc.

Others:

-

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:29 PM.

Chair Hann noted that the date for the annual stormwater tour is Friday, May 5, 2023.

Vice Chair – Jim Wieprecht

Nothing additional.

2. Approval of Meeting Summary – February 22, 2023

Approval of the January meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Alex Perricone and seconded by Delbert Green to approve the February 22, 2023, meeting summary as written. Motion carried.

3. PaveDrain Permeable Pavement – Aaron Fisher, EM, Inc.

- Dr. Aaron Fisher, VP of Business Development for Ernest Maier, shared information about the permeable concrete articulating blocks the company offers as a stormwater management option for pavement. He showed examples through pictures where the system has been used elsewhere, described how the pavement blocks work for stormwater management, and provided information on maintenance.

Reference/Attachment:

- PowerPoint: *Permeable Articulating Concrete Blocks (P-ACB) for Stormwater Management*

- Brochure: *PaveDrain Stormwater's Arch Enemy*

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Ms. Dinne updated on the status of Hazen's work on the WRE update. indicated that a draft technical memo for Task 1: BLI (Buildable Land Inventory) automation is expected from Hazen on March 31. She shared that Hazen is currently evaluating information related to Task 2: Groundwater Allocability and has begun to collect and evaluate information regarding Task 3: Emerging Contaminants as well. A PFAS Technical Workshop is scheduled with Hazen and the appropriate technical staff on the team for April 24.
- LRM GIS staff completed the annual rerun of the BLI model. They are currently updating the tables with the new information. Once that is completed, Ms. Dinne will add the demand info to the capacity management plan worksheets.

Reference/Attachment:

- N/A

5. Municipal Stormwater Projects Update – Janet O'Meara

Janet O'Meara provided an update on the municipal stormwater restoration projects. A letter of support will be requested from the Town of Hampstead for the Roberts Field Restoration Project.

Reference/Attachment:

- Handout: *Municipal Project Status*

6. Other

- Lead & Copper Rule: MDE's deadline for submission by the municipalities of the required information is October 2024. This is a topic raised by the municipalities at the February 2023 meeting. Kevin Hann asked for the municipalities' preference on a future speaker that might be most helpful for them. MDE's contact, Christina Ardito, will be invited to speak.
- Legislative Update: Ms. Dinne updated the members on the status of proposed legislation in the Maryland General Assembly that might impact water, sewer, or stormwater for the municipalities. Most of the bills did not pass out of the original committee, and are, therefore, unlikely to pass. SB 225 regarding PFAS monitoring for publicly owned treatment works received an unfavorable report and is dead. SB 380/HB 538 (water affordability assistance), SB 407/HB 848 (potable reuse pilot program), SB 471/HB 607 (stormwater associated with construction activity), and HB 624 (water notification requirements) have passed in their chamber of origin and are awaiting hearing in the opposite chamber's committee. The bill regarding forest preservation and retention (SB 526/HB 723), which is not shown on the table, has not moved out of either committee. Amendments were proposed late on the crossover deadline, but no action has occurred. This bill may be back next year after the sponsors have had more time to work on it.
- Floodplain: Chris Heyn shared that MDE will be reviewing the County's floodplain ordinance/management program on April 12 and 13, 2023. As part of the A-StoRM initiative, MDE is interested in looking at flooding issues holistically and is investigating how we might work together to solve problems. MDE also requested the LRM staff set aside April 14 to discuss stormwater.
- CC Department of Public Works: Bryan Bokey shared that they are meeting with Westminster on March 24 about water allocation issues. He also shared that they are currently working on building their relationship with Baltimore City.
- Water & Sewer Master Plan Triennial Update: Lynda Eisenberg noted they are in the middle of the Triennial Update. Price Wagoner will be reaching out to the municipalities to review their

maps. Department of Planning will not be processing spring amendments this year due to the Triennial Update.

- **Litter Clean-Up Requirement:** Claire Hirt reminded everyone to be tracking litter clean up for the NPDES MS4 permit. In early April, she will try to gage where we are in meeting our litter collection requirement. If this is something the municipalities could report to Ms. Hirt monthly, it could be an interesting metric to report to the WRCC monthly.
- **Well Databases:** Zach Neal shared that he is working on getting a project started to survey the wells to obtain more accurate location data. This will also help with code compliance.
- **Hydrologic Update:** Mr. Neal reported that well levels overall are generally in the normal range. Two wells are starting to stress, but more rain is expected this month.
- **Sprinkler Fees:** Mr. Neal shared that MDE is reevaluating on this issue and wants to talk to anyone who is willing.
- **Sanitary Sewer Overflow (SSO):** Glenn Edwards mentioned that EPA wants to be sure all are reporting any SSOs. He will contact the municipalities to follow up.
- **Stormwater Tour:** The tour will be held on Friday, May 5, this year, with a rain date of Friday, May 12. The tour will likely be abbreviated this year due to the number of projects actually completed since the last tour.
- **Environmental Stewardship Booklet:** Brenda Dinne noted the Environmental Advisory Council is updating the booklet this year. She will send an email requesting for each municipality to share the number of properties on originally on septic that were connected to public sewer in 2021 and 2022.
- **Community Solar in Agricultural Zone Moratorium:** On March 9, 2023, the Board of County Commissioners adopted a 6-month moratorium on the processing, review, permitting, and construction of community solar energy generating systems (CSEGS) in the Agricultural Zone in Carroll County to allow staff time to review issues and propose changes to the Code to address them. Staff will request direction from the Board on March 23, 2023.

Reference/Attachment:

- Handout: *WRCC Legislative Update (2023-Mar-22)*

7. Adjournment

The meeting adjourned at 3:41 PM. The next monthly meeting is scheduled for Wednesday, April 26, 2023, at 2:30 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Mayor Perry Jones to adjourn the March 22, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, April 26, 2023*

PERMEABLE ARTICULATING CONCRETE BLOCKS (P-ACB) for Stormwater Management

Dr. Aaron Fisher PhD

VP of Business Development
ERNEST MAIER

afisher@emcoblock.com

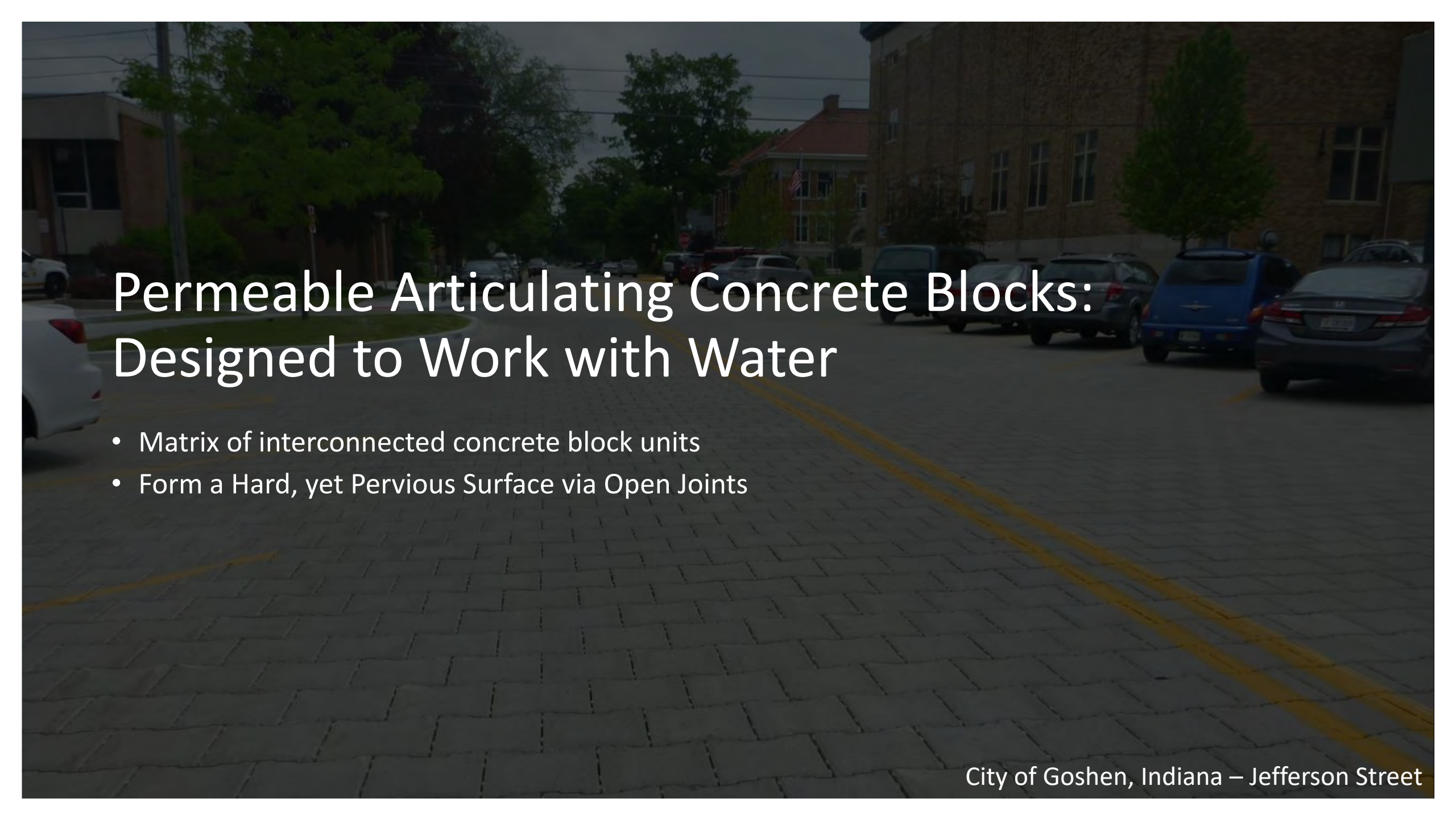
(202) 510-5545

ernestmaier.com | pavedrain.com



BLOCK • MASONRY • HARDSCAPING





Permeable Articulating Concrete Blocks: Designed to Work with Water

- Matrix of interconnected concrete block units
- Form a Hard, yet Pervious Surface via Open Joints

ACB and Pavers

Interlocking
Concrete Paver



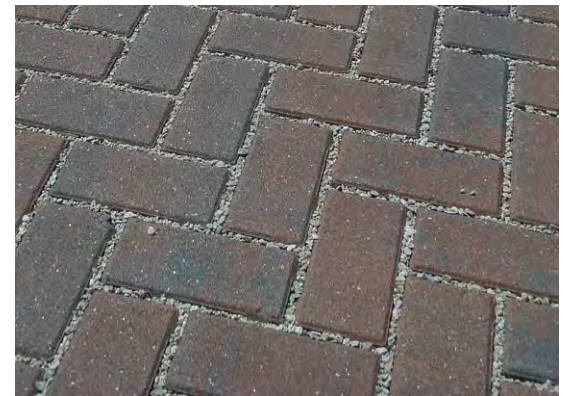
Articulating
Concrete Block

- **Bigger Blocks**
 - 12" x 12" x 5.65"
 - 45 – 48 lbs.
- **Open Joints**
- **Traffic Rated (Trucks)**

similar, but not the same

P-ACB and Pavers: Differences

	P-ACB	Pavers
Governing ASTM Standard	D6684	C936
Joints	Open	Filled
Interlocked	Yes	Sometimes
Bedding	57 Stone	89 Stone
Geofabrics	Required	Optional



Traffic Loading

Pedestrian

Light Duty
Passenger Vehicles: <~7 tons

Medium Duty
H15/HS15: <15 tons

Heavy Duty
H20/HS20: <20 tons

-  Mini-van
-  Utility Van
-  Multi-purpose
-  Mini Pick-up
-  Full-size Pick-up

-  Mini-van
-  Utility Van
-  Crew Compartment Pick-up
-  Full-size Pick-up
-  Mini-Bus
-  Step Van


-  Mini-bus
-  Walk-in
-  City Delivery

-  Conventional Van
-  Large Walk-in
-  City Delivery
-  Landscaping/Utility

-  Bucket
-  Large Walk-in
-  City Delivery

-  Rack
-  Single Axle Van
-  Beverage
-  School Bus
-  Stake Body

-  Home Fuel
-  Refuse
-  Tow
-  City Transit Bus
-  Furniture
-  Medium Conventional
-  High Profile COE

-  Fuel
-  Dump
-  Cement
-  Refrigerated Van
-  Mercury tour bus
-  Fire Engine
-  Heavy Conventional
-  COE Sleeper



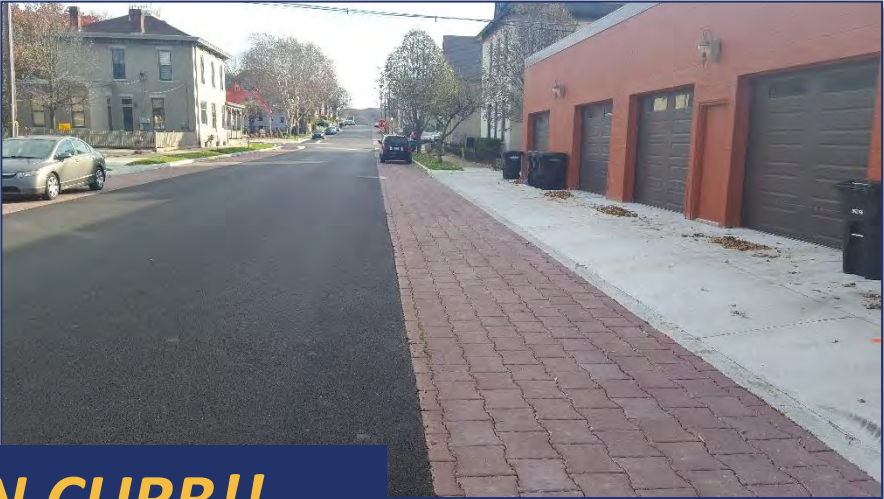
Baltimore City





Permeable Roadway Options with ACBs

The P-ACB System: Multiple Installation Methods



NO RIBBON CURB!!



Permeable Surface Infiltration Rate Comparison



1,640 in/hr

Open Joints = High Infiltration Rates

Table 1: Summary of Infiltration Rates Tested of Various Surfaces

Surface Material	Infiltration rate (in/hr)	Mass of infiltrated water (lb)	Diameter of infiltration ring (in)	Time (sec)
P-ACB	1,640	40.0	12.187	19.53/18.42/24.53
Porous pavers	3.2	2.54	12.187	683
Porous concrete	2.4	3.80	12.187	1,380
Porous asphalt	3.1	5.58	12.187	1,515

Project Objectives – MC DOT and MC DEP

- Neighborhood due for repaving
- Treat existing impervious streets for MS-4 credits
- Pilot projects for BMPs within the Right of Way
- Extensive community outreach
- Improve water quality in Sligo Creek
- Utilize existing parking pads for treatment

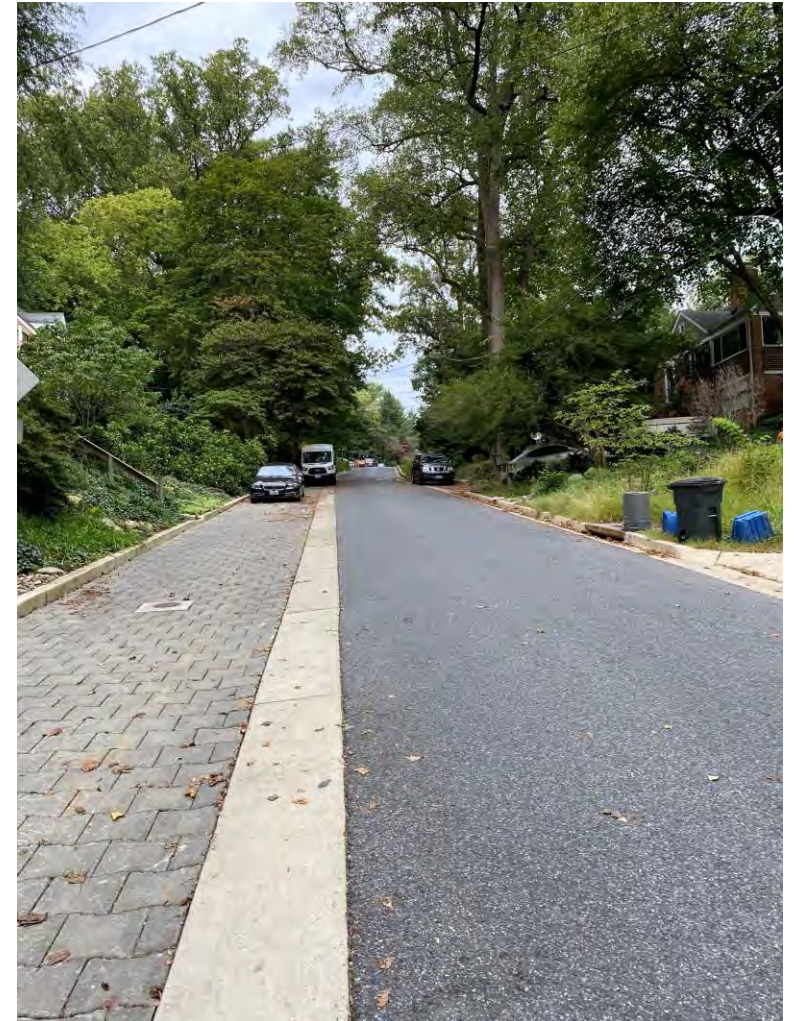


Before: Steep and narrow street with parking

OBJECTIVES

Pave Drain Installation – Sligo Park Hills stormwater management retrofit

- Awareness of Permeable Articulating Concrete Block (P-ACB) systems: a heavy-duty, low-maintenance option for permeable pavement
- Better understand decentralized stormwater management at the source, how this performs under heavy rainfall events, and ancillary benefits throughout the community
- Challenges of the Sligo Park Hills neighborhood with stormwater and runoff
- Initial and Long-Term Performance from the implementation of a PaveDrain system in the Sligo Park Hills Neighborhood



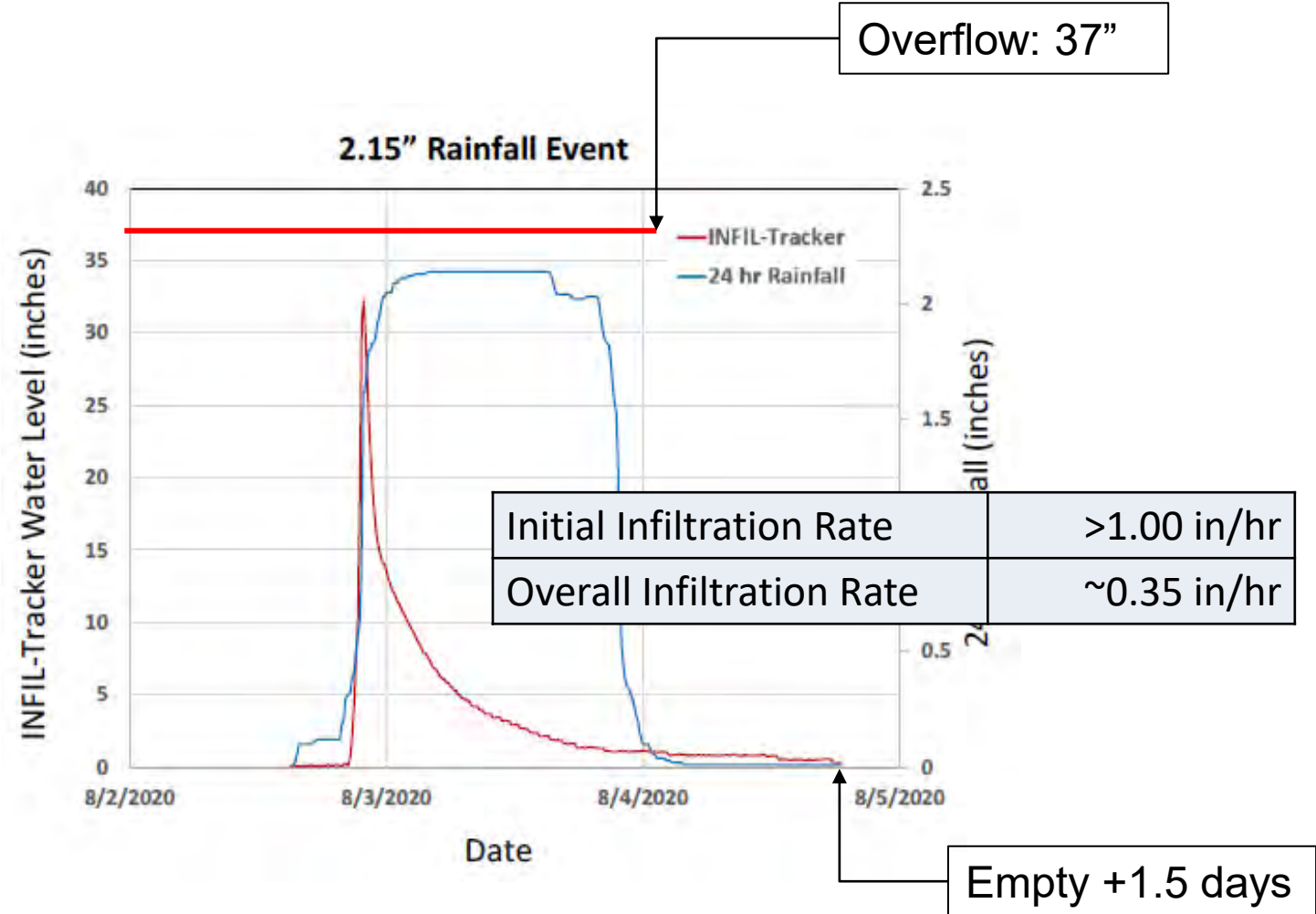
Sep. 2022 – 9 years after installation

Other Examples of SWM Parking Pads



Van Norman Alley-Cudahy, WI

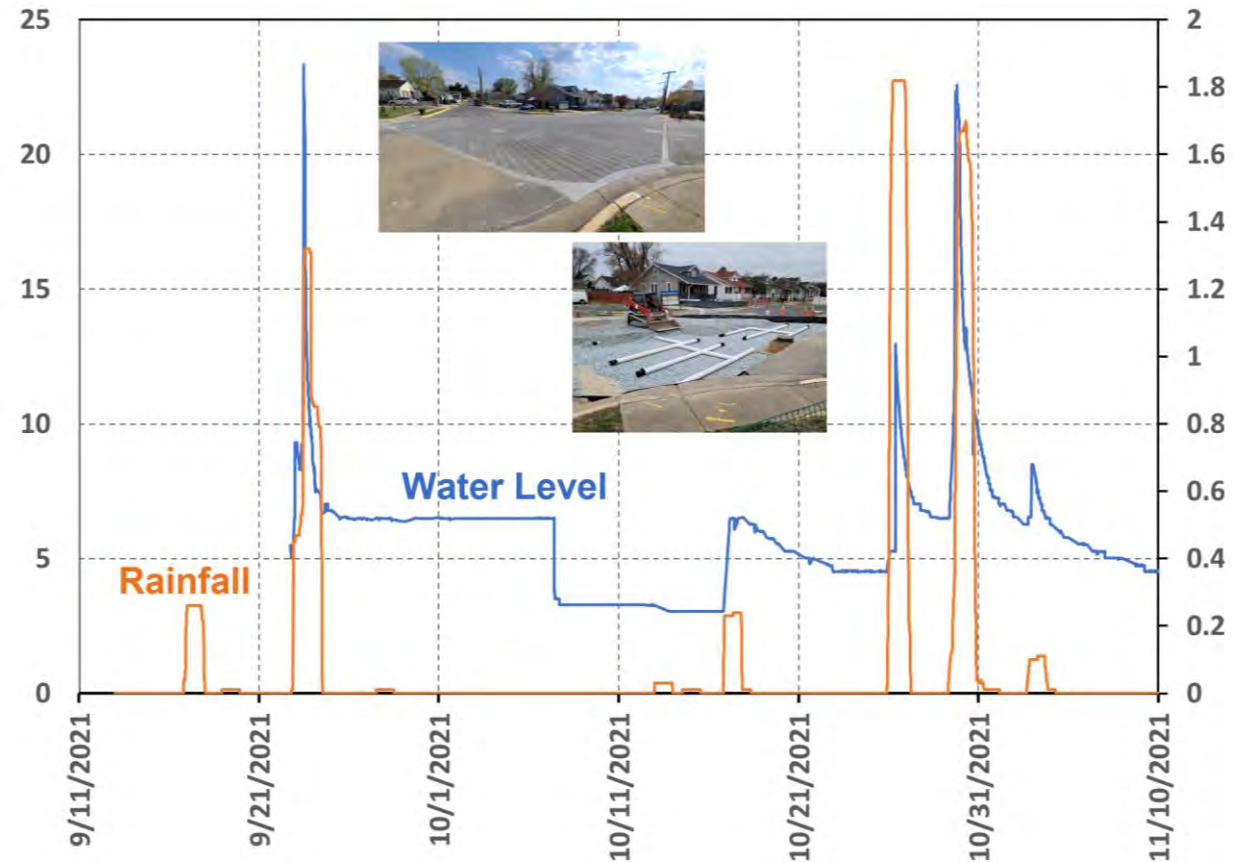
Impervious Cover	28,000 SF
P-ACB	850 SF
Run-On Ratio	33:1
Soil Infiltration Rate	0.04 in/hr



Right-of-Way in Prince George's County

- 2,350 SF intersection (ROW)
- Soil tests confirmed D soils (clay)
- Elevated water table

	Expected	Actual
ESD Volume (ft ³)	376	1645
Soil Infiltration Rate (in/hr)	0.04	>1.00- initial ~0.40- overall



Preliminary data- Study with UMD

The PaveDrain Maintenance Advantage

- ❑ Permeable surfaces start with massive infiltration, but clog quickly
 - ❑ P-ACB highest initial rates of infiltration
 - ❑ Open joints are easier to clean

- ❑ Superior to green infrastructure
 - ❑ No plants to maintain
 - ❑ Keep nature, natural
 - ❑ Drought tolerant

- ❑ Documented with multiple university and governmental studies
 - University of Central Florida – Stormwater Academy
 - EPA
 - University of Louisville – TMDL Removal
 - City of Detroit, MI (TetraTech Study)
 - UMD Study (ongoing)



Abuse Test at Univ. of Central FL



Brought back to 90+% of original infiltration rate

You Don't Collect The Leaves Before They Fall



Maintain As Needed, Not As Scheduled
Skip The Preventative Maintenance On Your Stormwater BMPs

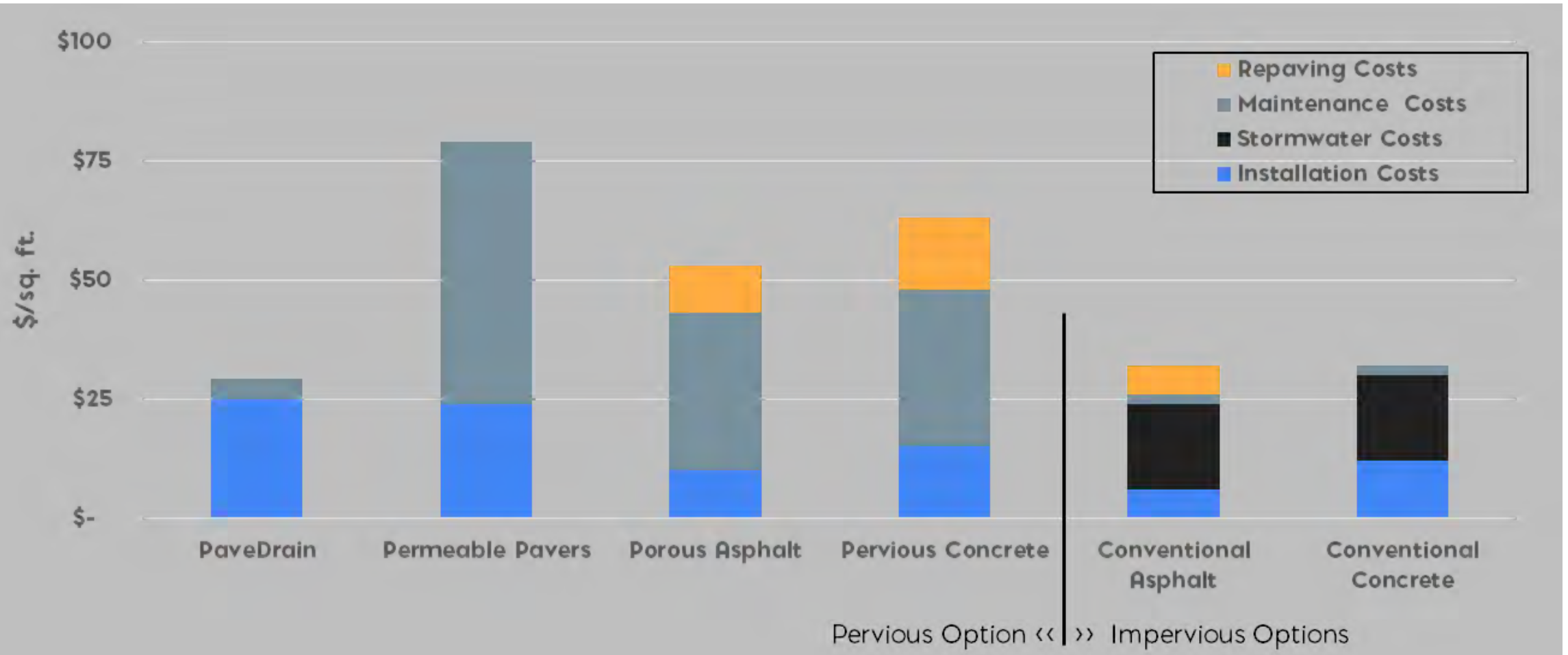
This message brought to you by PaveDrain | www.pavedrain.com

Manufacturer Warranty

- **3 years-500 in/hr** (w/ maintenance)
- **6 years-8 in/hr** (w/o maintenance)
- Restrictions
 - Proper installation
 - Voided if loose aggregate stored on surface (sand, stone, soil, mulch, etc)
 - Other terms as specified



Total Costs @ 10 Years





Thank You

Aaron Fisher
VP of Business Development

Ernest Maier

afisher@emcoblock.com

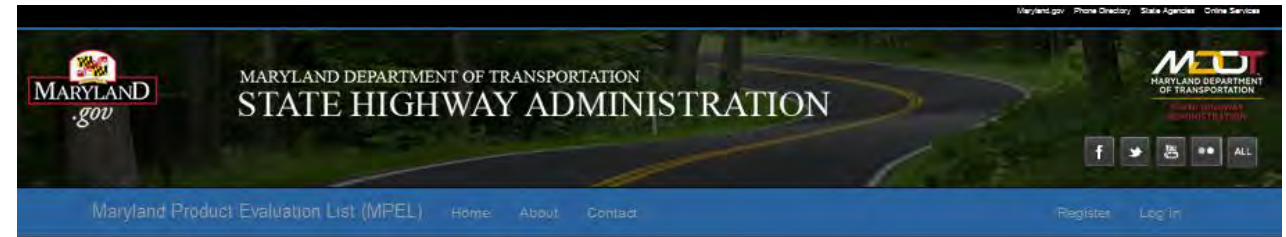
www.ernestmaier.com

www.pavedrain.com



Approvals

- MDOT since 2015
- DOT
 - Florida
 - Georgia
 - Indiana
 - Maryland
 - Wisconsin
- MDE since 2012 and most MD counties



Search Evaluations

Search Criteria:

Product Name: Clear

Vendor Name: Clear

Manufacturer Name: Clear

Category: Clear

Area: ▾

Date From: To:

List of Product Evaluations

Show entries

Date ^	Product Name ^	Status ^	Details
11/4/2015 1:15:48 PM	PaveDrain	Approved	View Details

Showing 1 to 1 of 1 entries

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OUR LOCATIONS

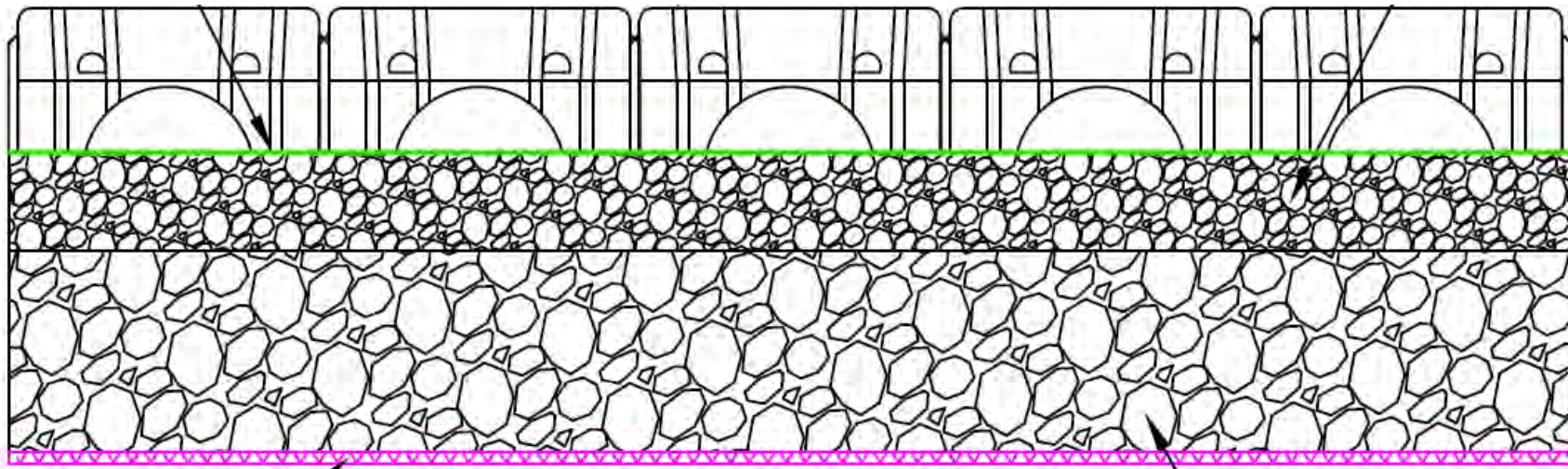
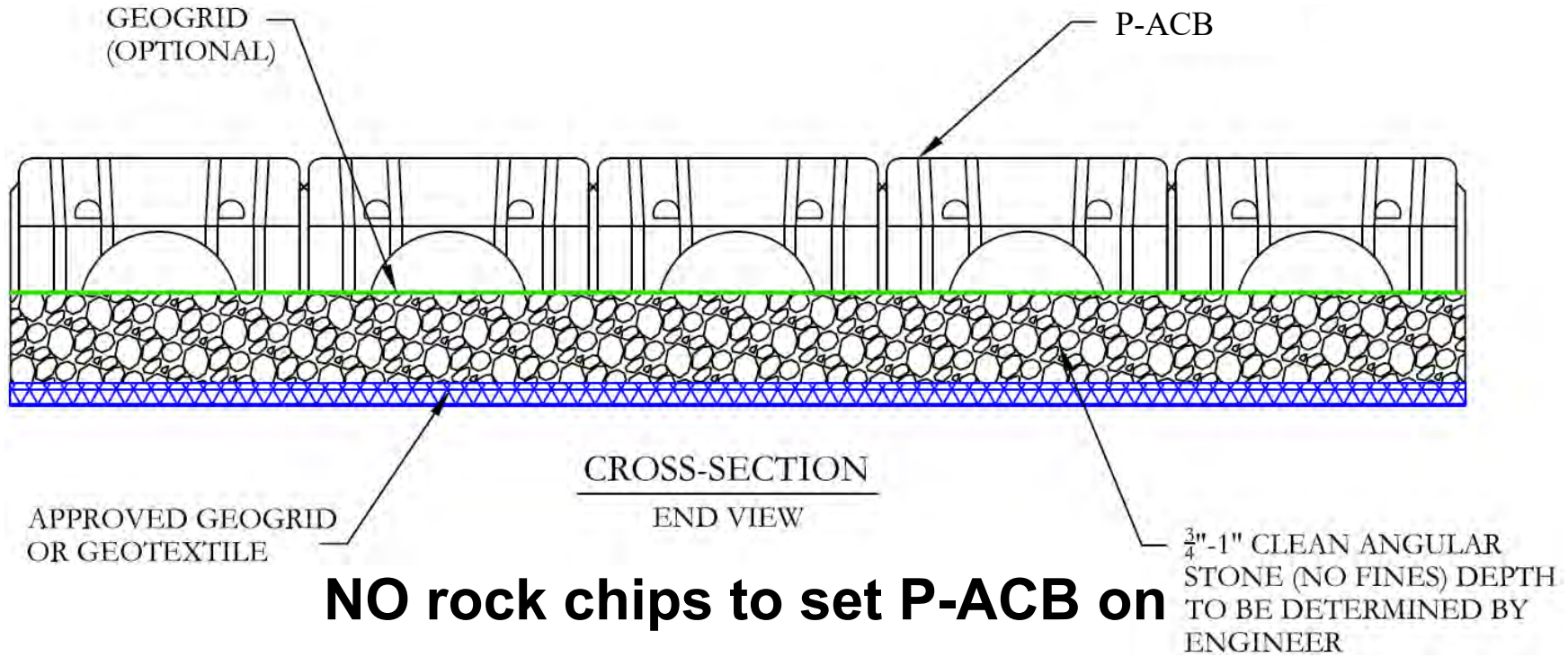


P-ACB & Pavers: Similarities

- Made from concrete
 - Can be basically any color, just like concrete
- Form hard, yet permeable surfaces to prevent erosion
 - ADA Compliant
- Design and installation of the base is critical to performance of the pavement surface
 - Compaction
 - Geofabrics
- Stone base can be used to handle stormwater (including run-on) via soil infiltration



Typical P-ACB Cross- Section(s)



Exponentially easier, faster and cheaper to POUR concrete on a curve than cut and install individual P-ACB.

P-ACB is its OWN Form... BEFORE



AFTER

NOTE: Expansion Joint is up to the EOR/Designer

Asphalt is installed directly against the P-ACB!!!

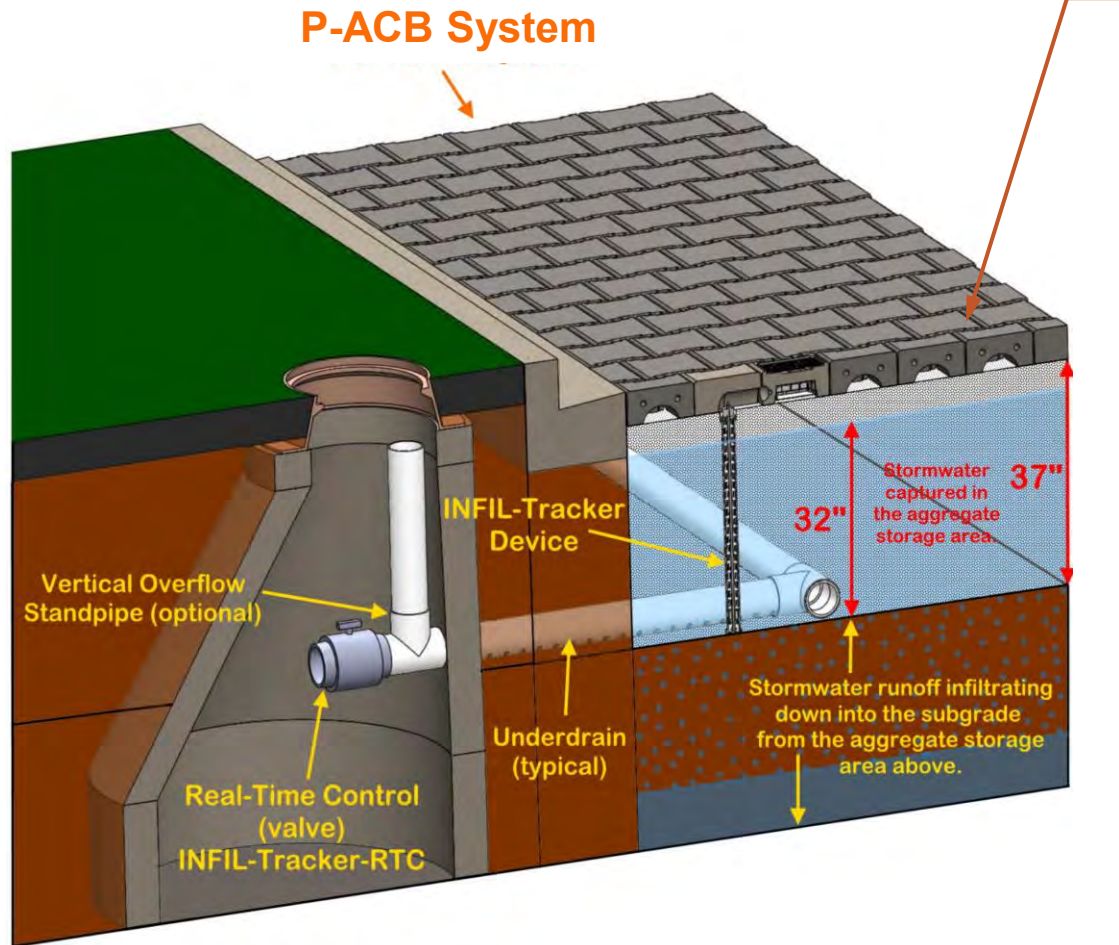
Half Blocks are manufactured!



MINIMAL BLOCK CUTTING

Soil Infiltration

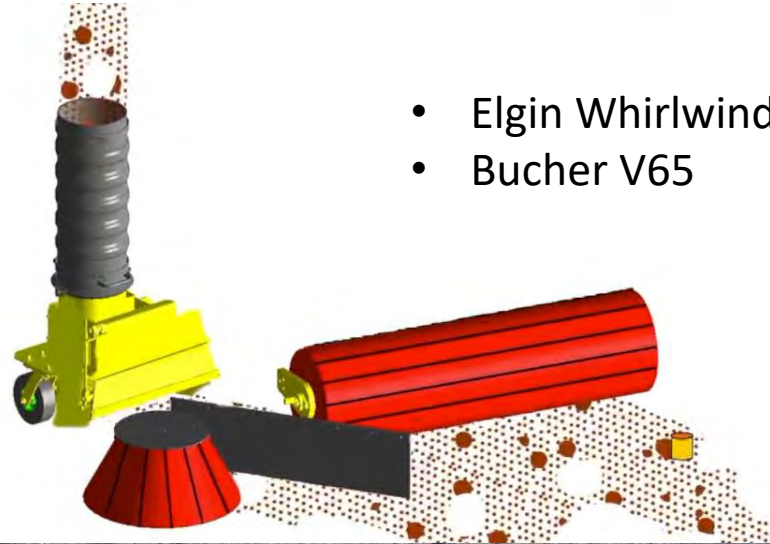
+Tipping Bucker Rain Gauge
Provides site-specific, time-stamped rainfall data



Water Level Logger



P-ACB Maintenance: True Vacuum Truck



- Elgin Whirlwind
- Bucher V65



PRIOR TO CLEANING



First Pass



Ideal Installation Sequence

1. Plan out the system
2. Place and compact the base (including geofabrics)
3. Place the blocks
 - Blocks can be cut to fit curves
 - Use half blocks to create the edge of a form (recommended)
4. Place and pave asphalt/concrete
 - No need for ribbon curbs

P-ACB Maintenance: True Vacuum Truck



Washington St. First Pass

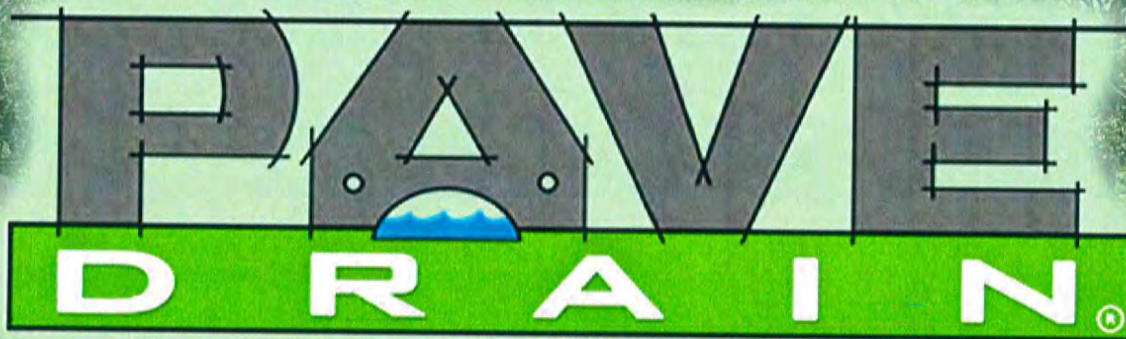


**Washington St.
Full depth of
PaveDrain
Block**



Other P-ACB Benefits

- Never have to replace joint filler (sand/stone dust)
- High void space avoids freeze-thaw and frost heaving challenges
- Can seal after installation to prevent salt damage
- Able to function in high water levels (e.g., sunny day flooding)
- Long lifetime of concrete (40 years)
- Single person can replace an ACB unit with a block extractor
- Increases resiliency of traditional paving surfaces



STORMWATER'S ARCH ENEMY



**THE LOWEST MAINTENANCE
PERMEABLE PAVEMENT SOLUTION**

4 Million SF and Counting

BETTER DESIGNED PERMEABLE PAVEMENT

PaveDrain - A better permeable pavement. All other permeable pavements began with an impermeable pavement surface, which they made permeable. PaveDrain began as an erosion control surface that was made into an ADA-compliant pavement surface. Millions of square feet and over a decade of performance data confirm that it is truly a best management practice for stormwater.

PaveDrain uses a patented arch design under the block to create an internal storage chamber that is used as a reservoir for stormwater runoff. PaveDrain meets the requirements by the ADA by having a 1/4" gap between each individual PaveDrain block.

WHY PRE-CLOG YOUR JOINTS AND PORES?

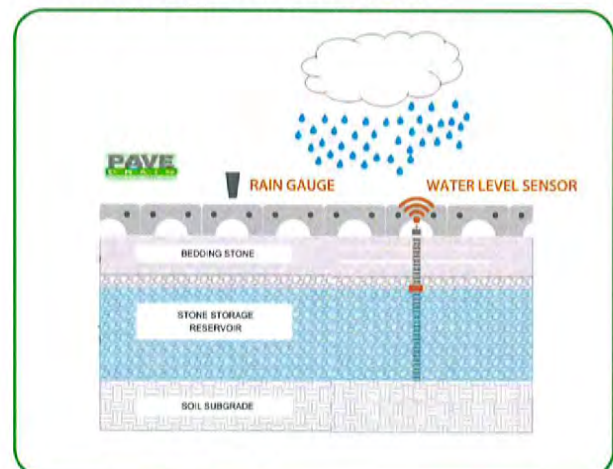
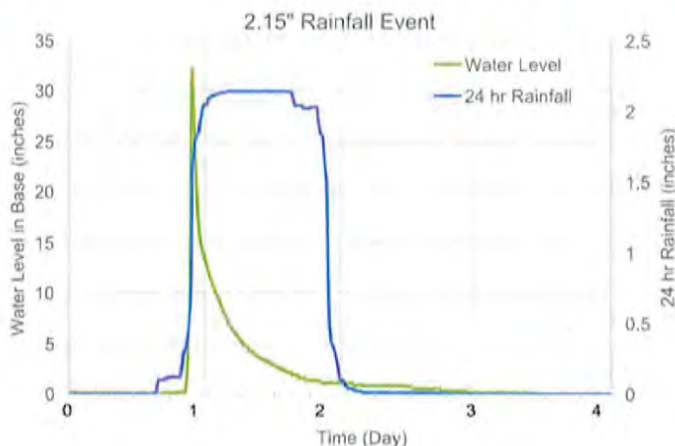
The PaveDrain system incorporates an OPEN JOINT system for easier maintenance and cleaning.

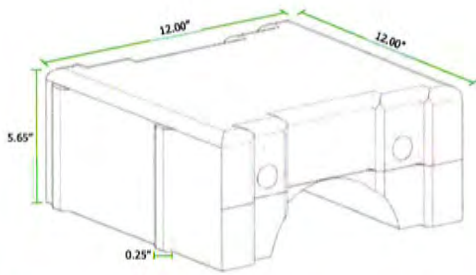


PaveDrain blocks work with existing infrastructure and can be used as the form for concrete or asphalt pours. Half blocks and end blocks square off corners eliminating cutting AND small pieces that are easier to dislodge.

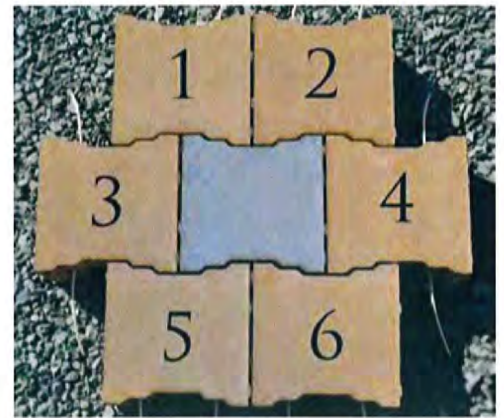
VERIFIED PERFORMANCE

Digital documentation of the stormwater infiltrated can be sent to your computer.





Each block is geometrically interlocked with 6 neighboring units

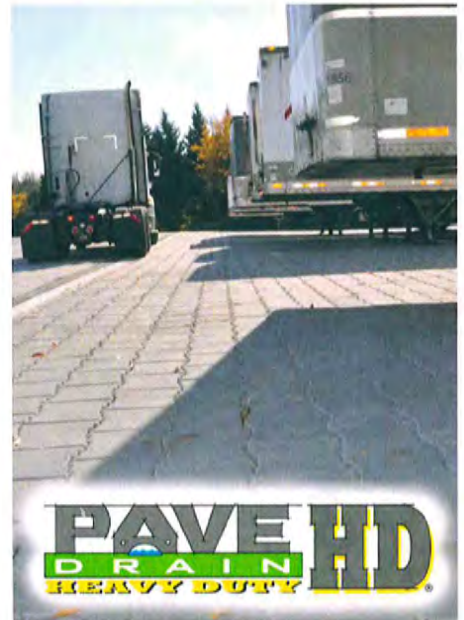
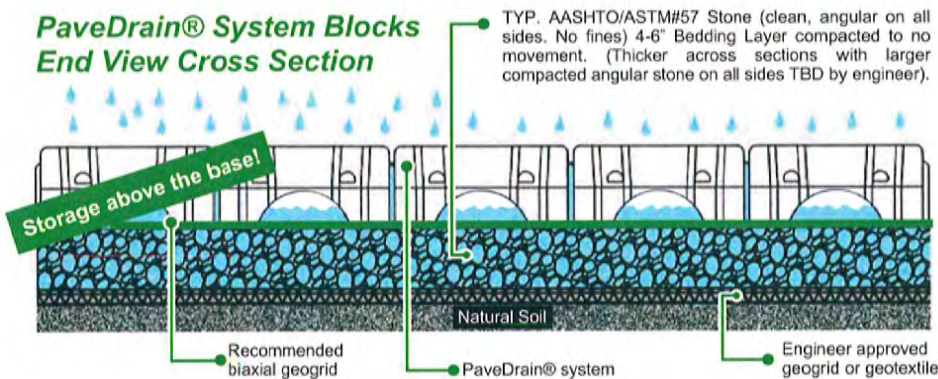


The PavDrain block is 12" x 12" but also has two 0.25" Spacer Tabs on each side of the block. Please consider these when measuring.

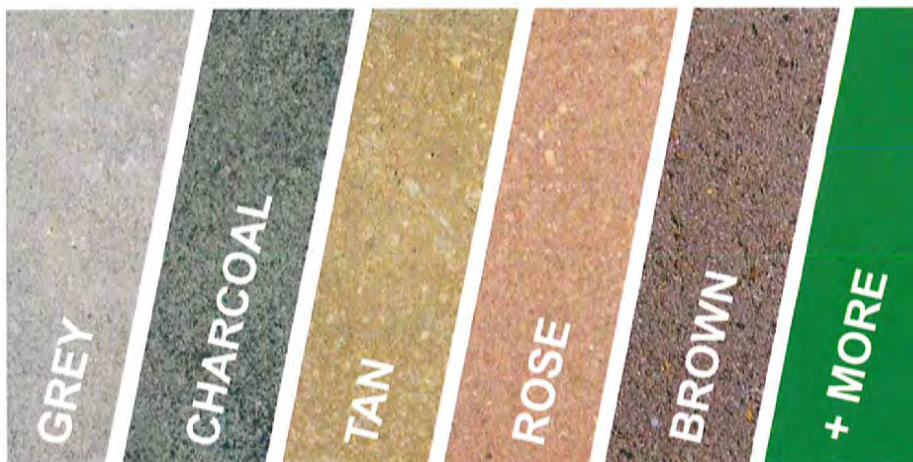
INFILTRATION PERFORMANCE

Initial Infiltration : 1,600+ in/hr
+2 years with no maintenance : 1,500 in/hr

PavDrain® System Blocks End View Cross Section



PAVEDRAIN COLORS



Able to handle heavy traffic:
 fire trucks, garbage trucks,
 and semis (HS-25 rated).

MAINTENANCE AND REPAIR

Decades of installations have shown that most PaveDrain surfaces require **little to no maintenance**. When needed, filled or obstructed joints can be cleaned with a vacuum truck or a PaveDrain Vac Head - restoring the system to **90%+ of its original performance**. Repair of individual PaveDrain blocks can be accomplished by a block extractor without affecting the surrounding blocks or surface.

SIMPLIFIED MAINTENANCE



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VP of Business Development
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The PaveDrain systems is protected by the following U.S and Canadian Patents; U.S No. 8,251,607, No. D609,329, No. 8,366, 343 & Canadian No. 133082.

Additional patents pending.

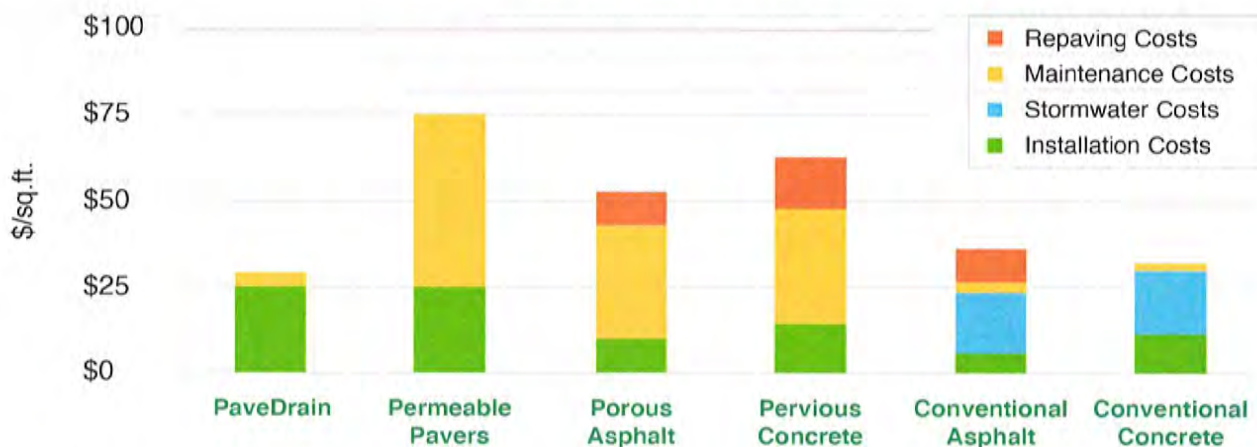
All PaveDrain tests performed by an independent 3rd party according to ASTM C1701/C1701M-09 standard

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Control Stormwater Costs With



Costs At 10 Years



- Repaving Costs:** Costs to repave system at end of life
- Maintenance Costs:** Operational costs (excluding crack sealing, and joint and pothole repairs)
- Stormwater Costs:** Conventional paving does not address stormwater like a permeable pavement system. Additional infrastructure (drains, pipes, inlets, etc.) is needed to manage equivalent stormwater.
- Installation Costs:** Material (including 12" stone base and geosynthetics) and labor costs

	PaveDrain*	Permeable Pavers	Porous Asphalt	Pervious Concrete	Conventional Asphalt	Conventional Concrete
Initial Cost	\$25	\$20	\$10	\$15	\$24	\$30
Cost at 5 Yrs	\$27	\$50	\$28	\$33	\$25	\$31
Cost at 10 Yrs	\$29	\$75	\$53	\$63	\$32	\$32
Cost at 20 Yrs	\$33	\$125	\$83	\$93	\$40	\$34

*Example costs for Washington, DC

\$/SF

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Better Permeable Pavement

The PaveDrain® system was created as a second generation permeable system to overcome the shortcomings of permeable pavers. PaveDrain is a bigger, heavier block with open joints capable of handling heavy traffic loads. Millions of square feet of installations and several independent, university-led research studies confirm its performance.



	PaveDrain	Permeable Pavers	Porous Asphalt	Pervious Concrete
Expected Lifetime (yrs)	35	35	10	10
Traffic Rating	Heavy Traffic	Light Traffic	Parking	Parking
Freeze-Thaw Resistance	Yes	Yes	Yes	Yes
Snowplowing	Yes	No	Yes	Yes
Initial Infiltration Rate (In/hr)	1,600+	200	500	600
Effectiveness Of Regular Maintenance (% of installed infiltration)	90%+	50%	20% – 30%	20% – 30%
Maintenance Interval (months between cleanings)	24+	6	3	3
Pre-Clogged Joints/Pores	No	Yes	No	No
Rehabbing	Individual Rehabbing	Area Rehabbing	Full Replacement	Full Replacement
Ability To Cope With Differential Settling	Yes	No	Yes	No
Heat Island	No	No	Yes	No
Sensor Verification Available	Yes	No	No	No
Soil Limitations	No	Yes	Yes	Yes
Manufacturing Standard	D6684	C936	D6932	C1754

Supporting calculations available upon request • info@pavedrain.com

MUNICIPAL STORMWATER PROJECT STATUS

March 22, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits. The County has begun sending out RFPs under the new term contract. We are expecting to send this one out within the next few months.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. We are investigating the site and plan to solicit proposals next week.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI is currently working on a concept plan of a triple facility design. The concept was reviewed by Stormwater, Soil Conservation, Utilities and the Town, and sent back to CLSI with comment.

Hampstead Valley 4 (Hampstead) – New surface sand filter and stream restoration proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A partial preliminary submittal was made to stormwater.

New Windsor Wetland (New Windsor)- Survey data on the sewer force main was obtained to design around for the wetland facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main. Accommodations for the underlying karst geology are being evaluated.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. Wallace Montgomery & Associates (WMA) re-submitted the

concept on March 6. The new plans route the storm drains from Sportsman Court under the stream to the facility for treatment.

Carroll County Health Department (Westminster) – CLSI is working on the hydrologic modeling for the storm drain design to the Langdon facility. A preliminary layout was discussed with staff and design is moving forward. The layout will be coordinated with the Health Center's plans for development.

FINAL DESIGN:

CONSTRUCTION:

North Carroll Library (Hampstead) – The construction task has been awarded to White Pine. White Pine is waiting for materials to arrive. Construction is expected to begin in April.

Locust Street (Citizens Energy) (Union Bridge) – The stormwater management facility and storm drains are complete. The engineer is working to complete the as-built plans and report.

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). We are currently awaiting final QAPP approval. CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.




WRCC Legislative Update



2023 General Assembly Proposed Water-Resource Related Legislation

Status: As of March 22, 2023

Note: If a bill is crossfiled, the text should be identical in the House and Senate versions.

Bill + Description	Status + Position
<p>HB 198 WASTEWATER TREATMENT PLANTS – WATER QUALITY TESTING AND SEWAGE OVERFLOW AND PIPELINE BREAKAGE NOTIFICATION (ENVIRONMENTAL ACCOUNTABILITY ACT OF 2023) Requiring an independent third party to oversee all water quality testing conducted at a wastewater treatment plant that falsifies or does not accurately report water quality test results to the Department of the Environment or is experiencing a catastrophic or continuing mechanical failure of operational equipment; requiring the Department to select the independent third party; specifying the duties of the independent third party; and establishing certain notification requirements. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0198F.pdf</p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ HB: 2/8 @ 1:30 <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Not tracked ◆ LRM Position: N/A
<p>SB 225/HB 499 ENVIRONMENT - PUBLICLY OWNED TREATMENT WORKS - PFAS MONITORING Requiring the owner or operator of a publicly owned treatment works to monitor and report the levels of certain per- and polyfluoroalkyl substances (PFAS) in effluent, influent, and biosolids. Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0225F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0499F.pdf</p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ SB: 2/9 @ 1; unfavorable report ◆ HB: 2/17 @ 1; hearing canceled <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Oppose ◆ MACO: Not tracked ◆ LRM Position: Oppose 
<p>SB 294 COMPREHENSIVE PLAN - IMPLEMENTATION AND REVIEW IN PRIORITY FUNDING AREAS Altering the implementation and review of a comprehensive plan within a priority funding area. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0306F.pdf From MACo: <i>This bill would upend a carefully crafted policy regarding housing development in county-designated priority funding areas, all at a critical juncture of the State's battle to ensure widespread access to affordable housing. Current law sets clear parameters that serve to funnel money to those projects in the priority funding areas where it is most needed. SB 0294 overburdens this process by introducing new standards and considerations that could very well divert funds that would otherwise be put toward development projects in designated "smart growth" corridors</i></p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ SB: 2/14 @ 1; <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: <u>Oppose</u> ◆ LRM Position: N/A

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>SB 380/HB 538 INCOME TAX - SUBTRACTION MODIFICATION - WATER AFFORDABILITY ASSISTANCE Allowing a subtraction modification under the Maryland income tax for certain water affordability assistance, including water bill arrearage forgiveness, received by an individual during the taxable year and provided by the federal government, the State, or a local government; and requiring a unit of State government or a local government that administers a water affordability assistance program to provide to the Comptroller, within 30 days of a request, certain information about water affordability assistance programs.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0380F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0538F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: 2/22 @ 1; ◆ HB: 2/16 @ 1; passed House w amendments (137-0); awaiting hearing date in Senate committee <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Oppose ◆ LRM Position: N/A
<p>SB 392 WASTEWATER FACILITY SUPPLEMENTAL OPERATIONS AND MAINTENANCE GRANT PROGRAM - ESTABLISHMENT Establishing the Wastewater Facility Supplemental Operations and Maintenance Grant Program for the purpose of providing competitive grants for publicly owned wastewater facilities facing operations and maintenance challenges that threaten the proper functioning of a facility's enhanced nutrient removal technology; requiring the Governor, for fiscal year 2025 and each fiscal year thereafter, to include in the annual budget bill an appropriation of \$10,000,000 for the Program; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0392F.pdf</p> <p><i>This bill establishes and calls for the annual funding of the Wastewater Facility Supplemental Operations and Maintenance Grant Program, for the purpose of providing competitive grants for publicly owned wastewater facilities. Many of these facilities face operational and maintenance challenges that threaten the proper functioning of their enhanced nutrient removal technology. It is Maryland's counties that bear the primary responsibility for managing the delivery and sanitation of water across the State, and for this reason, the investment requested by SB 0392 would be gladly received. (from MACo)</i></p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Hearing 2/15 @ 1 <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: <i>Support</i> ◆ LRM Position: N/A

Bill + Description	Status + Position
<p>SB 407/HB 848 DRINKING WATER - INNOVATIVE POTABLE REUSE PILOT PROGRAM - ESTABLISHMENT Establishing the Innovative Potable Reuse Pilot Program in the Department of the Environment for the purpose of authorizing the regulated use of reclaimed water as a source for drinking water treatment facilities; providing for the issuance of potable reuse permits under the Pilot Program; applying certain public participation requirements to potable reuse permits; requiring the Department to submit a report on the status of the Pilot Program to the Governor and General Assembly on or before December 31, 2024; etc.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0407F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0848F.pdf</p>	<p>› Status:</p> <ul style="list-style-type: none"> ♦ SB: Hearing 2/15 @ 1; passed Senate w amendments (45-0); awaiting hearing date in House committee; ♦ HB: Hearing 3/1 @ 1; passed House w amendments; awaiting hearing date in Senate committee; <p>› Positions:</p> <ul style="list-style-type: none"> ♦ MML: Support ♦ MACO: Not tracked ♦ LRM Position: No position <p>› Note: Sponsored by Senator Ready & Delegate Rose</p>
<p>SB 471/HB 607 WATER POLLUTION CONTROL - DISCHARGE PERMITS - STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY Prohibiting the Department of the Environment from authorizing the discharge of stormwater associated with construction activity under a general discharge permit and requiring the Department to instead require an individual discharge permit under certain circumstances; prohibiting a certain permit holder from causing, allowing, or failing to control the runoff of soil or other pollutants from a construction site or causing erosion into certain waters of the State; etc.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0471F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0607F.pdf</p>	<p>› Status:</p> <ul style="list-style-type: none"> ♦ SB: Hearing 2/23 @ 1; favorable report & second reading w amendments; passed Senate (47-0); House hearing 3/29 @ 1 ♦ HB: Hearing 2/22 @ 1; <p>› Positions:</p> <ul style="list-style-type: none"> ♦ MML: Support ♦ MACO: <u>Support</u> ♦ LRM Position: No position
<p>SB 512 DRINKING WATER - LEGIONELLA PNEUMOPHILA BACTERIUM - MINIMIZING GROWTH AND TRANSMISSION Requiring an owner or operator of a public water system to maintain a detectable residual disinfectant level of at least 0.5 milligrams per liter of chlorine, not to exceed the maximum residual disinfectant level set by the U.S. Environmental Protection Agency in the water distribution system and to conduct certain sampling and analysis at frequent and regular intervals; requiring an owner or operator of a public water system to provide certain notice of certain water distribution system disruptions; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0512F.pdf</p>	<p>› Status:</p> <ul style="list-style-type: none"> ♦ SB: Hearing 2/23 @ 1; <p>› Positions:</p> <ul style="list-style-type: none"> ♦ MML: Oppose ♦ MACO: Oppose ♦ LRM Position: N/A

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>SB 513 ENVIRONMENT – COLLECTION AND REPORTING OF DRINKING WATER AND WASTEWATER DATA AND INFORMATION – REQUIREMENTS Requiring a water utility operating in the State to provide certain data and information to the Department of the Environment and comply with certain reporting requirements; requiring the Department to develop a certain protocol and form to provide and report certain drinking water and wastewater data and information; requiring the Department to create, operate, and maintain a statewide Open Water Data Reporting Platform that includes certain data and information for each water utility operating in the State; etc. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0513F.pdf</p>	<p>> Status: ♦ SB: Hearing 2/23 @ 1 > Positions: ♦ MML: Oppose ♦ MACO: Oppose ♦ LRM Position: N/A</p>
<p>SB 526/HB 723 NATURAL RESOURCES - FOREST PRESERVATION AND RETENTION Altering the definition of "qualified conservation" for purposes of provisions of law related to forest mitigation banks; establishing and authorizing certain alternative methods of calculating forest afforestation, reforestation, and preservation requirements; adding certain tree plantings and practices as methods that certain municipal corporations may use to meet afforestation or reforestation requirements; etc. Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0526F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0723F.pdf</p>	<p>> Status: ♦ SB: Hearing 3/2 @ 1; ♦ HB: Hearing 3/1 @ 2; > Positions: ♦ MML: Opposed ♦ MACO: Support w Amendments ♦ LRM Position: Support w Amendments</p>
<p>SB 531 PUBLIC WATER SYSTEMS - SUPPLIER REQUIREMENTS (WATER SAFETY AND CYBERSECURITY ACT OF 2023) Requiring a supplier of water to inspect certain valves in a public water system in a certain manner, repair or replace certain valves, inspect certain fire hydrants, formulate and implement a certain plan, identify the locations of certain valves, and record certain characteristics and identifiers of certain valves; requiring a supplier of water to develop a certain cybersecurity program by February 1, 2024; etc. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0531F.pdf</p>	<p>> Status: ♦ SB: Hearing 2/23 @ 1; > Positions: ♦ MML: Oppose ♦ MACO: <u>Oppose</u> ♦ LRM Position: N/A</p>

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>HB 624 ENVIRONMENT - SUPPLIERS OF WATER - NOTIFICATION REQUIREMENTS Altering the means by which a supplier of water must give notice to the Department of the Environment and certain individuals and entities under certain circumstances; requiring that a supplier of water use at least three means to give the notice; requiring a supplier of water to give notice to the Department of the Environment and the Maryland Department of Emergency Management if there is a positive test for E. coli in the system; etc. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0624F.pdf</p>	<p>> Status: ♦ HB: Hearing 2/22 @ 1; favorable report & second reading w amendments; passed House (136-0); Senate hearing 3/30 @ 1 > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: N/A</p>
<p>SB 743/HB 840 CLIMATE, LABOR, AND ENVIRONMENTAL EQUITY ACT OF 2023 Requiring the Department of the Environment to conduct a certain evaluation regarding the impact of issuing an approval for certain environmental permits; requiring the Department to provide opportunities for certain communication with certain residents in a certain manner; and altering certain reporting requirements for certain State agencies. Bill Link: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0743F.pdf</p>	<p>> Status: ♦ SB: Hearing 2/23 @ 1; ♦ HB: Hearing 3/8 @ 1; > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: No position</p>
<p>SB 883/HB 893 ENVIRONMENT - WATER UTILITIES - SHUTOFF PROTECTIONS (WATER ACCESS FOR ALL PROTECTION ACT Authorizing a certain water utility to temporarily shut off service for reasons of health or safety or in a State or national emergency, notwithstanding certain provisions of law; prohibiting a water utility from shutting off service for certain reasons; prohibiting a water utility from shutting off service on receipt of certain information; and prohibiting the sale of property solely to enforce a lien imposed for unpaid water, sewer, or sanitary system charges, fees, or assessments except in certain circumstances. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0893F.pdf</p>	<p>> Status: ♦ SB: Hearing 3/15 @ 1; hearing canceled ♦ HB: Hearing 3/1 @ 1:30; > Positions: ♦ MML: Oppose ♦ MACO: Support w Amendments ♦ LRM Position: N/A</p>
<p>HB 924 SEWAGE TREATMENT PLANTS - EFFLUENT DISCHARGES, DISCHARGE PERMITS, AND PROPERTY TAX CREDIT FOR IMPACTED DWELLINGS Requiring the Department of the Environment to monitor effluent discharged from sewage treatment plants permitted to process at least 50,000,000 gallons of effluent per day, evaluate whether the effluent impacts area midge populations, and place an inspector at certain sewage treatment plants; requiring the Department to post on its website certain status updates and steps taken to address certain deficiencies; and authorizing a certain property tax credit against the property tax imposed on a certain dwelling. <i>Bill imposes a local government mandate, which is a directive in a bill requiring a local government unit to perform a task or assume a responsibility that has a discernible fiscal impact on the local government unit</i> Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0924F.pdf</p>	<p>> Status: ♦ HB: Hearing 3/1 @ 2; > Positions: ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: N/A > Note: Same bill introduced last year but didn't pass</p>

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>HB 942 WETLANDS AND WATERWAYS PROGRAM - AUTHORIZATIONS FOR STREAM RESTORATION PROJECTS Requiring the Department of the Environment to revise certain criteria, standards, and requirements for wetlands and waterways authorizations for certain stream restoration projects on or before October 1, 2024; and requiring the Department to provide public notice and hold a certain public information meeting before issuing a wetlands and waterways authorization for a stream restoration project under certain circumstances. Bill Link: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0942F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ HB: Hearing 3/3 @ 1; <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Pending ◆ LRM Position: No position

DEAD



UNLIKELY TO PASS



MOVING FORWARD



N/A = Not applicable to LRM

LRM: No Position = Not enough impact

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary April 26, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair
- Jim Wieprecht, Vice Chair
- John Dick
- Gary Dye
- Delbert Greene
- Mayor Perry Jones
- Rodney Kuhns
- Alex Perricone
- Kevin Rubenstein
- Dick Swanson

CC Land & Resource Management (LRM):

- Gianni Assi
- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Ed Singer
- Pat Varga

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Lydia Rogers, CC M&B
- Bryan Bokey, CC DPW
- Lynda Eisenberg, CC Planning

Guest Speakers:

-

Others:

-

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:29 PM. He had no additional comments.

Vice Chair – Jim Wieprecht

No additional comments.

2. Approval of Meeting Summary – March 22, 2023

Approval of the March meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Jim Wieprecht and seconded by Alex Perricone to approve the March 22, 2023, meeting summary as written. Motion carried.

3. Water Resources Element 2010 Overview – Brenda Dinne

- Ms. Dinne presented an overview of the 2010 Water Resources Element to provide background on the document to WRCC members who did not participate in that process.
- She covered the 3 major sections of the plan – water supply, wastewater, and nonpoint source (stormwater) – and what they include. She briefly discussed the results of the analysis for the water supply and wastewater sections. The nonpoint source section was prepared prior to EPA's setting of Total Maximum Daily Loads (TMDLs) for the Chesapeake Bay, the issuance of our modern NPDES MS4 stormwater permits, and other more current policies and regulations.
- Lastly, she reviewed the components of the options and strategies sections of the plan.

Reference/Attachment:

- PowerPoint: *WRE 2010 Overview – Dinne (2023-Apr-26)*

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- **Task 1 – Buildable Land Inventory (BLI) Process:** Ms. Dinne indicated the draft technical memo was received and reviewed by the GIS staff. Minor comments were returned, and a final technical memo was received. The actual automation of the process was an optional add-on with an extra cost. Staff will determine whether or not to pursue having Hazen complete the automation.
- **Task 2 – Groundwater Allocability:** Hazen is currently evaluating the information and data. A draft technical memo is due June 1.
- **Task 3 – Emerging Contaminants:** Hazen held a workshop with technical staff on April 24. Staff provided feedback and direction. A draft technical memo is due May 10. Ms. Dinne provided copies of Hazen's PFAS handouts to the WRCC members.
- Overall, Hazen is still on schedule.

Reference/Attachment:

- N/A

5. Municipal Stormwater Projects Update – Janet O'Meara

- Janet O'Meara introduced Gianni Assi, LRM's new Stormwater Management Engineer.
- Ms. O'Meara provided an update on the municipal stormwater restoration projects.
- The Willow Pond project was nominated for a BUBBA Award with the Chesapeake Stormwater Network and received third place.

Reference/Attachment:

- Handout: *Municipal Project Status*

6. Other

- **Legislative Update:** Ms. Dinne reviewed the final status of the bills of interest to the WRCC over the 2023 legislative session. (*Reference/Attachment:* Handout: *WRCC Legislative Update (as of Apr 25 2023)*)
- **MDE Floor Forum:** Chris Heyn shared that MDE reviewed the County's floodplain ordinance/management program on April 12 and 13, 2023. As part of the A-StoRM initiative, MDE held a Flood Forum with LRM staff, several agencies within MDE's Water Sciences Administration, State Highway Administration, and City of Westminster DPW staff. The purpose was to how we might work together to solve problems and possibly use Carroll County as a pilot project for a flood management plan.
- **Stormwater Tour:** The tour will be on Friday, May 5, this year, with a rain date of Friday, May 12.
- **Hydrologic Update:** Mr. Neal reported that none of the wells are in dire condition. With the forecasted rain, he will have more representative numbers in mid-May.
- **Blue Catfish:** This is an invasive species that can get very large. There was discussion regarding whether or not they can be found in Carroll County. No one was aware of any.

Reference/Attachment:

- Handout: *WRCC Legislative Update (2023-Apr-26)*

7. Adjournment

The meeting adjourned at 3:17 PM. The next monthly meeting is scheduled for Wednesday, June 28, 2023, at 2:30 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Alex Perricone to adjourn the April 26 meeting. Motion carried.

Upcoming Meetings:

☐ *Regular Monthly Meeting – Wednesday, June 28, 2023*

Overview of 2010 Water Resources Element

Water Resource Coordination Council
April 26, 2023

HB 1141

“Land Use - Local Government Planning”

Water Resources Element of Comprehensive Plan Required:

- To ensure that future county and municipal comprehensive plans reflect the opportunities and limitations presented by local and regional water resources
- To address the relationship between planned growth and water resources

Water supply – Wastewater – Nonpoint Sources (NPS)

Underlying Data

Based on:

- Existing, adopted plans as of Dec 08 (not proposals)
- MDE 8-digit watershed + municipal (designated growth area) system
- Demand projections:
 - Buildout of existing planned service areas (2007 W&S Master Plan) (10-yr plan)
 - Buildout of Designated Growth Area (DGA)

3 Major Sections

- Water Supply
- Wastewater
- Nonpoint Source (stormwater)

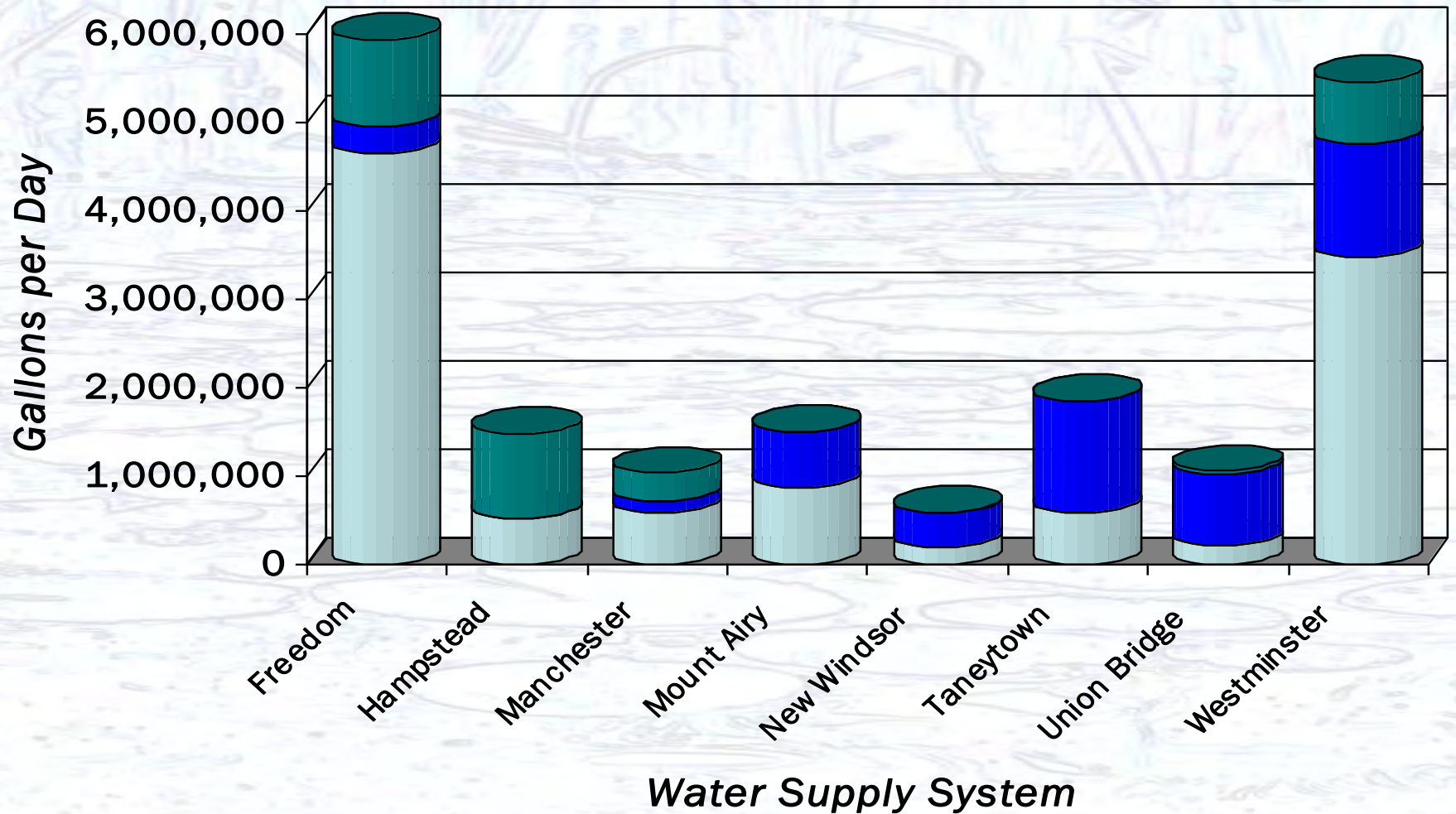
The background features a stylized illustration of a pond. The foreground is filled with concentric, wavy lines representing ripples in the water. In the background, there are several tall, thin reeds or grasses with long, pointed leaves, some of which are slightly blurred to suggest depth. The overall color palette is light and airy, with soft blues, greens, and yellows.

Water Supply

Assessments

- Source water assessments
- Future additional water demand
- Water balance
- Current capacity + existing quantity limitations
 - Buildable Land Inventory
 - Capacity management plan (CMP) worksheets

Water Supply Demand & Capacity



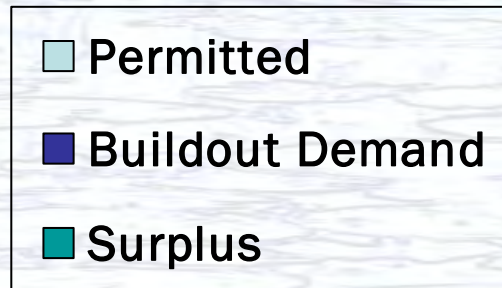
□ Current Permitted

■ Capacity Needed: WSA

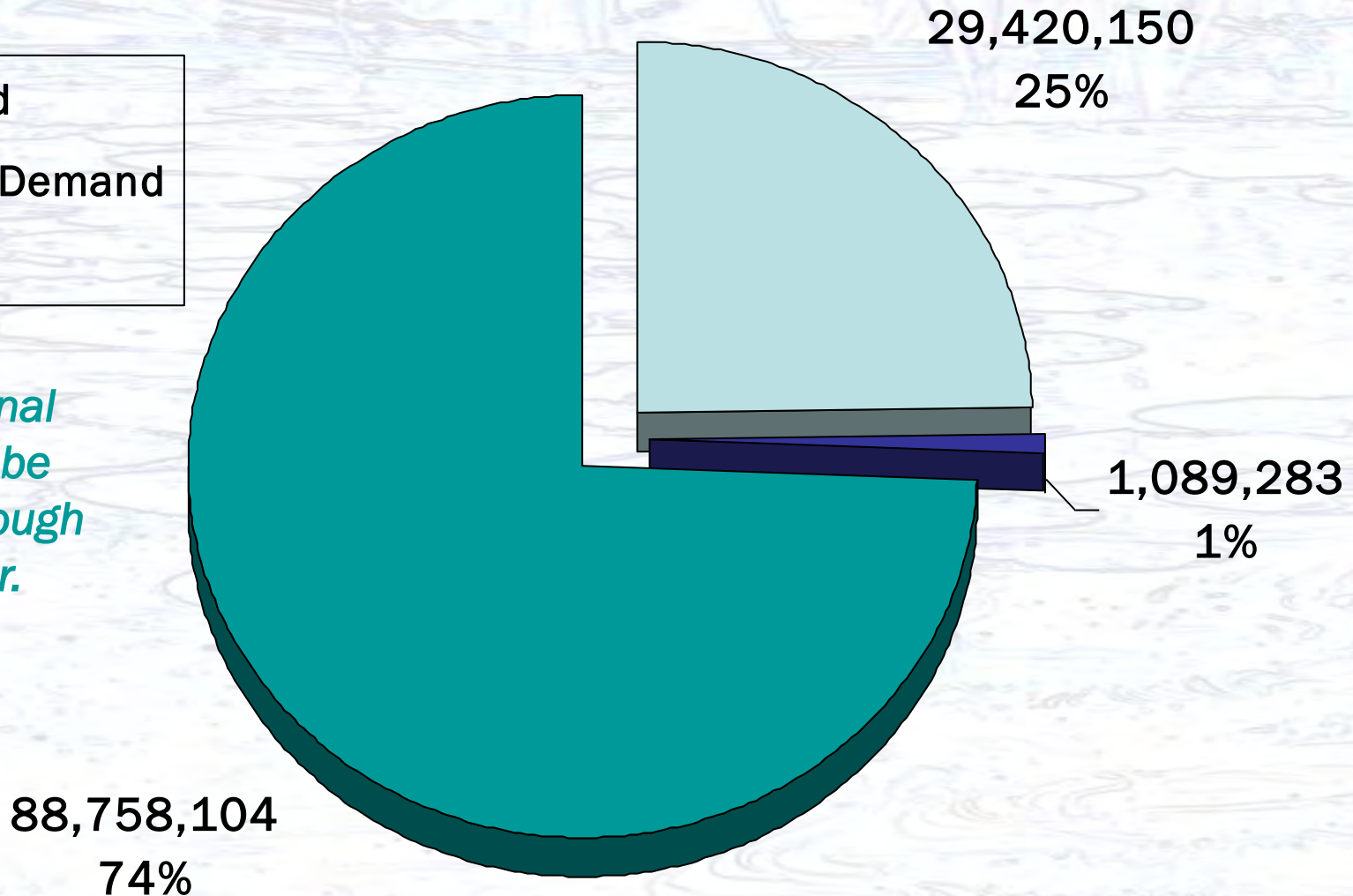
■ Capacity Needed: NPS

Note: Data is based on 2007 conditions. Several systems have added capacity or taken steps to reduce projected demand since that time.

Countywide Groundwater Demand & Availability (Water Balance)



Note: Additional supply could be available through surface water.



What does this mean?

- Countywide, ~88,758,104 gallons of groundwater available after buildout (per 2007 plans)
- Groundwater resources alone appear ample to accommodate future development – more so when surface water included
- Water supply limitations =
 - obtaining appropriation from MDE
 - providing associated infrastructure

Approach for 2024 WRE

- CMP worksheets (demand & capacity) – same but current info
- Water balance – results reviewed & updated
- Adjusted for climate change impacts
- Implications of emerging contaminants

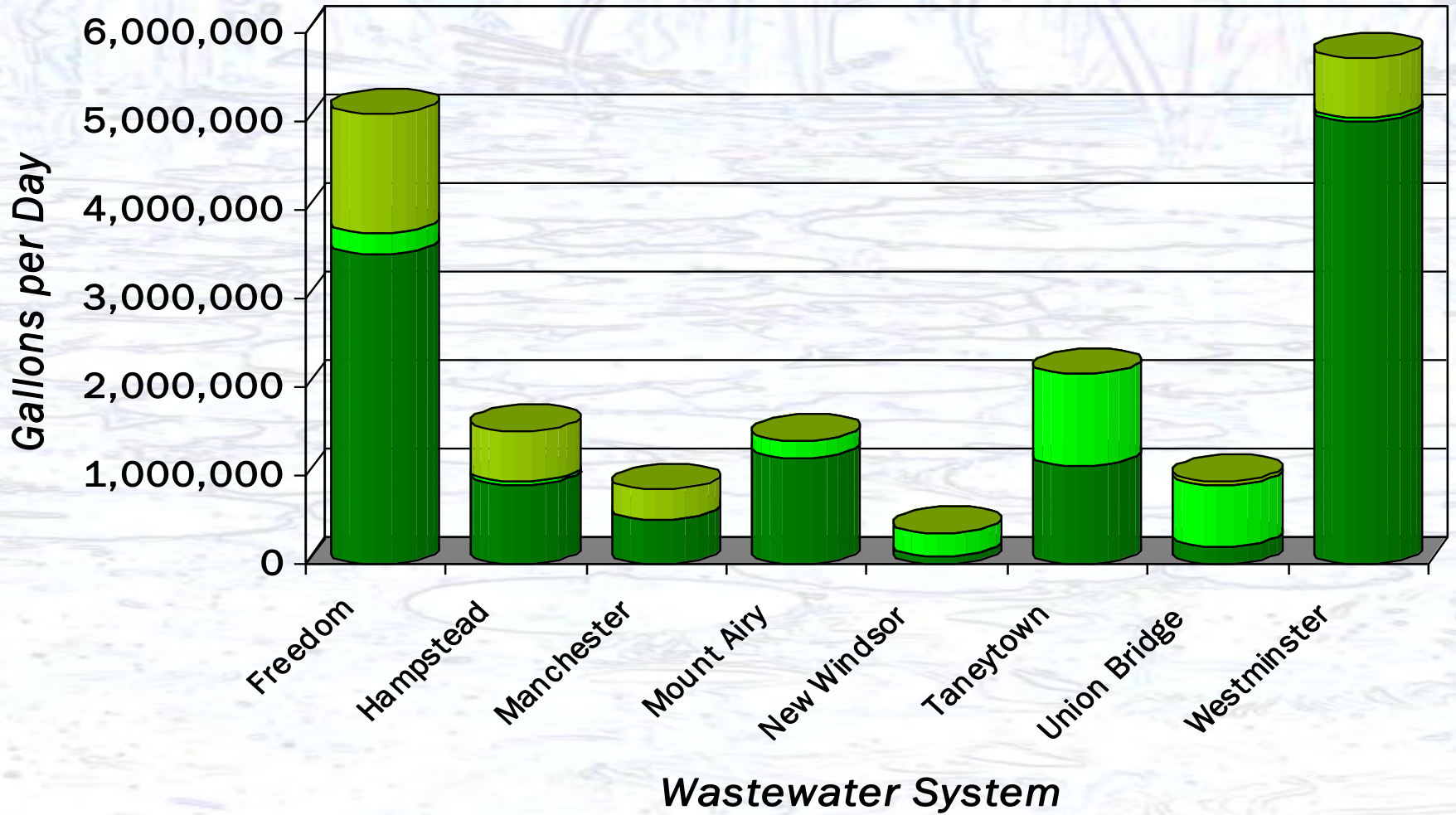
The background features a stylized illustration of a pond. In the upper portion, there are several tall, thin reeds or grasses with long, narrow leaves, rendered in a light blue and green color palette. The lower portion of the image is dominated by a dense pattern of concentric, irregular ripples in shades of light blue and green, suggesting the surface of water. The overall style is that of a hand-drawn or watercolor illustration.

Wastewater

Assessments

- Future additional wastewater demand
- Current capacity + existing wastewater limitations
 - Buildable Land Inventory
 - Capacity management plan worksheets
- Private septic systems

Wastewater Demand & Capacity

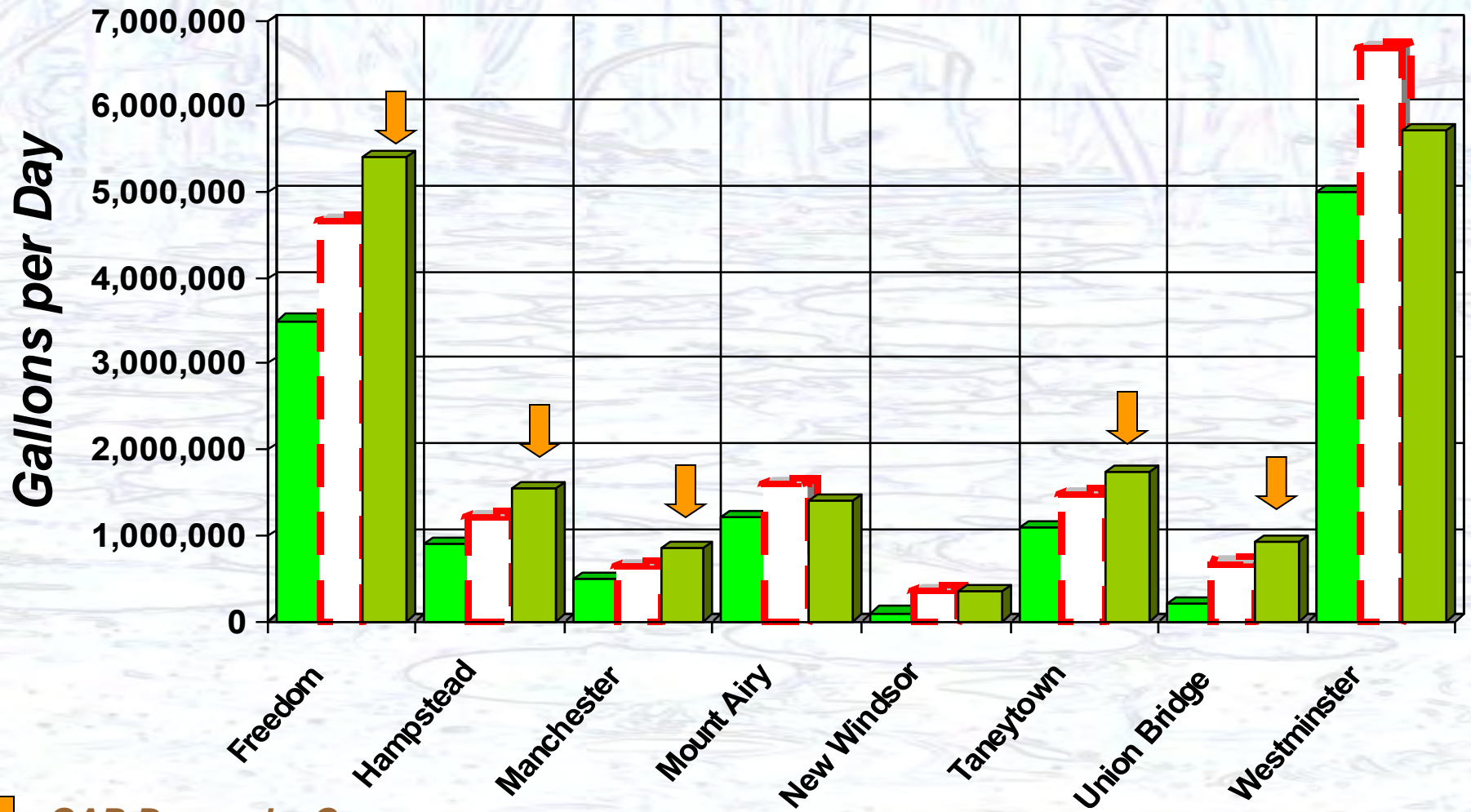


■ Current Permitted

■ Capacity Needed: SSA

■ Capacity Needed: NPS

Wastewater Limitations



↓ = GAB Demand > Cap

Municipal Wastewater System



What does this mean?

- Westminster's GAB buildout demand is under the cap; remaining capacity needed will be accommodated by planned expansion
- New Windsor and Mount Airy may be limited by design capacity
- GAB buildout demand is higher than the nutrient cap for 5 of the 8 systems: Freedom, Hampstead, Manchester, Taneytown, and Union Bridge
 - Reduce demand below cap
 - Land application
 - Trading, offsets, etc.

Approach for 2024 WRE

- CMP worksheets (demand & capacity) – same but current info
- Limitations reviewed (data) & updated
- Adjusted for climate change impacts
- Implications of emerging contaminants



Nonpoint Source

"Stormwater"

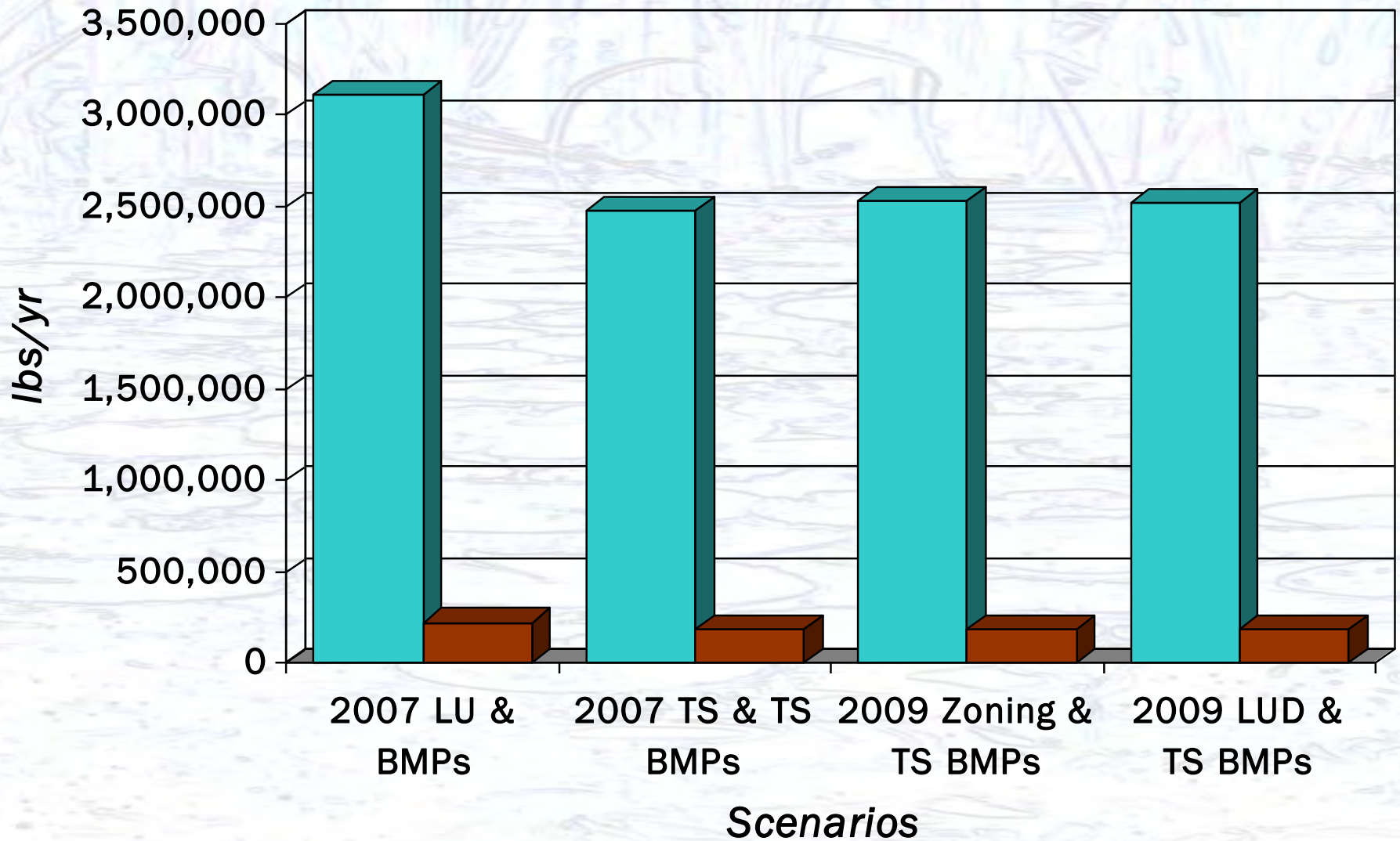
Nonpoint Source (NPS)

Stormwater runoff from

- urban/suburban development
- agricultural runoff
- septic system loading via subsurface flow

Regional and by watershed

Projected Change in Nitrogen & Phosphorus Loads



■ Total NPS Nitrogen Load ■ Total NPS Phosphorus Load

LU=Use of Land; BMP=Best Management Practice; TS=Tributary Strategy; LUD=Land Use Designation

What does this mean?

- Changes in N and P loads negligible at buildout
- Decreases needed to reduce loads

Significant Changes Since 2010

- WIPs
- TMDLs established
- NPDES MS4 permit requirements; TMDLs incorporated



Previous NPS section basically null & void

Options & Strategies

Water Supply Options: County Projects to Support Adopted Land Use Plans

Short-Term

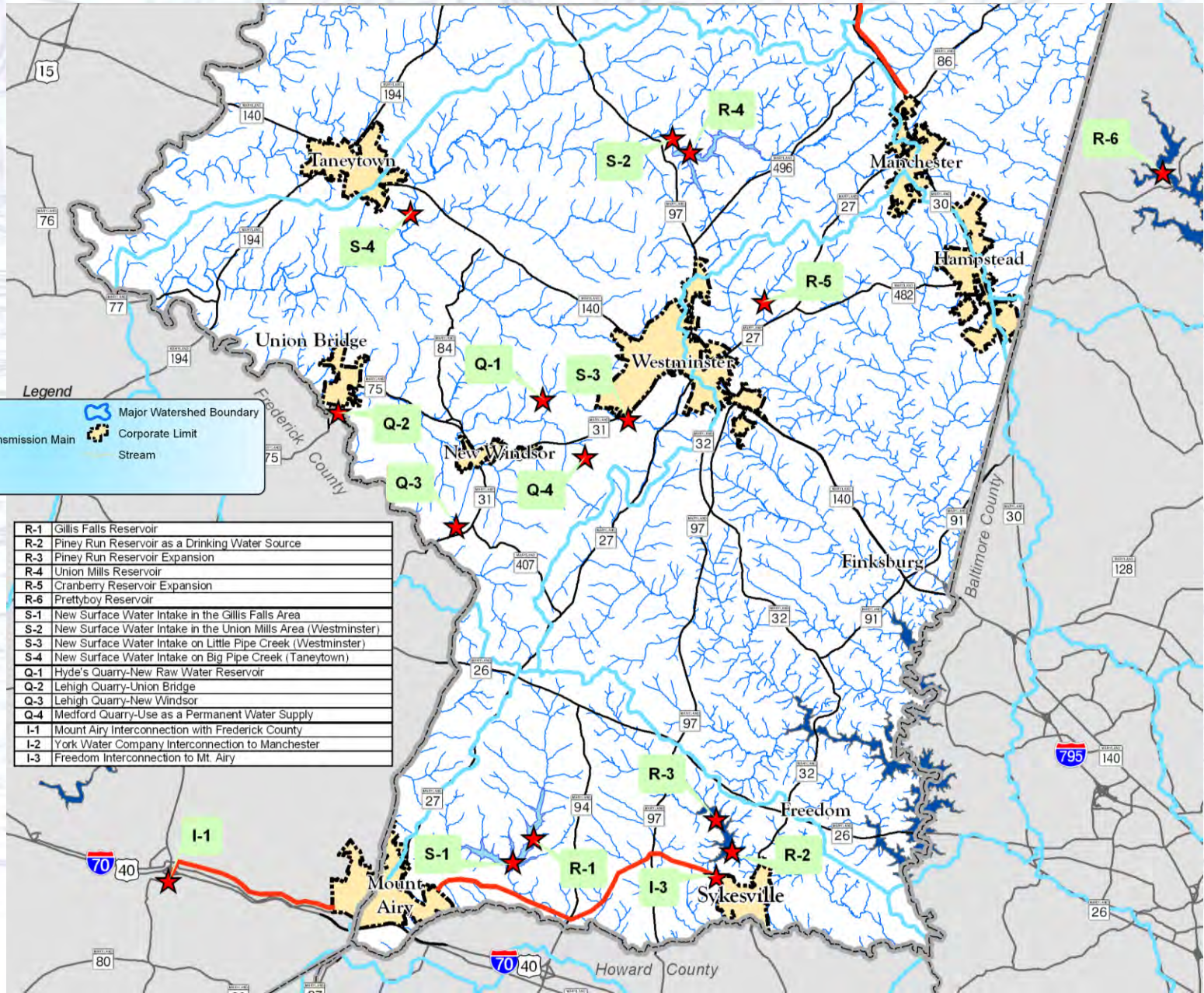
- Groundwater Development @ Union Mills

Long-Term

- Piney Run Reservoir
- Piney Run Expansion
- Surface Water Intake @ Union Mills
- Union Mills Reservoir
- Gillis Falls Reservoir
- Prettyboy Reservoir

Note: No short-term projects are necessary to serve the Freedom area. Current capacity through recent improvements is adequate to serve this area for the short term.

Water Supply Options



Legend

- ★ Water Supply Alternative
- Potential Interconnection Transmission Main
- ◊ Existing Reservoir
- ◊ Proposed Reservoir
- Corporate Limit
- Stream
- Major Watershed Boundary

R-1	Gillis Falls Reservoir
R-2	Piney Run Reservoir as a Drinking Water Source
R-3	Piney Run Reservoir Expansion
R-4	Union Mills Reservoir
R-5	Cranberry Reservoir Expansion
R-6	Prettyboy Reservoir
S-1	New Surface Water Intake in the Gillis Falls Area
S-2	New Surface Water Intake in the Union Mills Area (Westminster)
S-3	New Surface Water Intake on Little Pipe Creek (Westminster)
S-4	New Surface Water Intake on Big Pipe Creek (Taneytown)
Q-1	Hyde's Quarry-New Raw Water Reservoir
Q-2	Lehigh Quarry-Union Bridge
Q-3	Lehigh Quarry-New Windsor
Q-4	Medford Quarry-Use as a Permanent Water Supply
I-1	Mount Airy Interconnection with Frederick County
I-2	York Water Company Interconnection to Manchester
I-3	Freedom Interconnection to Mt. Airy

Wastewater Options: Countywide

- Infiltration and Inflow (I&I) Reduction
- Effluent Recycle/Reuse
- Bubble Permits
- Point Source Nutrient Credit Trading
- Onsite Disposal System (OSDS) Hookup Credits
- Nonpoint Source Nutrient Credits

Wastewater Options: Carroll County

- Septic System Improvements
- Land Application of Wastewater Effluent
- Funding Sources for Water Quality Implementation

Strategies

- Countywide
- Individual Systems
 - Water supply & wastewater demand & capacity
 - Limitations
 - System-specific strategies

MUNICIPAL STORMWATER PROJECT STATUS

April 26, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits. The County has begun sending out RFPs under the new term contract. We are expecting to send this one out within the next few months.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. We have put this project out to bid for design. Proposals are due back April 28.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI is currently working on a concept plan of a triple facility design. The concept was reviewed by Stormwater, Soil Conservation, Utilities and the Town, and sent back to CLSI with comment. New Dam Safety requirements have gone into effect. These requirements include additional modeling, which may affect the current concept design.

Hampstead Valley 4 (Hampstead) – New surface sand filter and stream restoration proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A partial preliminary submittal was made to stormwater.

New Windsor Wetland (New Windsor)- Survey data on the sewer force main was obtained to design around for the wetland facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. Wallace Montgomery & Associates (WMA) re-submitted the concept on March 6. We are wrapping up the review and will be sending comments back to WMA.

Carroll County Health Department (Westminster) – CLSI was working on the hydrologic modeling for the storm drain design to the Langdon facility; however, new Dam Safety requirements will make this design direction unfeasible. We plan to change direction to renovating the existing facilities.

FINAL DESIGN:

CONSTRUCTION:

North Carroll Library (Hampstead) – The construction task has been awarded to White Pine. Construction began on April 5. The control structure has been set, and White Pine is working with CLSI on the pipe placements.

Locust Street (Citizens Energy) (Union Bridge) – The stormwater management facility and storm drains are complete. The engineer is working to complete the as-built plans and report.

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). We are currently awaiting final QAPP approval. CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.






WRCC Legislative Update



2023 General Assembly Proposed Water-Resource Related Legislation

Status: As of April 25, 2023




Note: If a bill is crossfiled, the text should be identical in the House and Senate versions.




Bill + Description	Status + Position
<p>HB 198 WASTEWATER TREATMENT PLANTS – WATER QUALITY TESTING AND SEWAGE OVERFLOW AND PIPELINE BREAKAGE NOTIFICATION (ENVIRONMENTAL ACCOUNTABILITY ACT OF 2023) Requiring an independent third party to oversee all water quality testing conducted at a wastewater treatment plant that falsifies or does not accurately report water quality test results to the Department of the Environment or is experiencing a catastrophic or continuing mechanical failure of operational equipment; requiring the Department to select the independent third party; specifying the duties of the independent third party; and establishing certain notification requirements. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0198F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ HB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Not tracked ◆ LRM Position: N/A 
<p>SB 225/HB 499 ENVIRONMENT - PUBLICLY OWNED TREATMENT WORKS - PFAS MONITORING Requiring the owner or operator of a publicly owned treatment works to monitor and report the levels of certain per- and polyfluoroalkyl substances (PFAS) in effluent, influent, and biosolids. Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0225F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0499F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed ◆ HB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Oppose ◆ MACO: Not tracked ◆ LRM Position: Oppose 
<p>SB 294 COMPREHENSIVE PLAN - IMPLEMENTATION AND REVIEW IN PRIORITY FUNDING AREAS Altering the implementation and review of a comprehensive plan within a priority funding area. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0306F.pdf From MACo: <i>This bill would upend a carefully crafted policy regarding housing development in county-designated priority funding areas, all at a critical juncture of the State's battle to ensure widespread access to affordable housing. Current law sets clear parameters that serve to funnel money to those projects in the priority funding areas where it is most needed. SB 0294 overburdens this process by introducing new standards and considerations that could very well divert funds that would otherwise be put toward development projects in designated "smart growth" corridors</i></p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Oppose ◆ LRM Position: N/A 





DID NOT PASS 




PASSED 

N/A = Not applicable to LRM LRM: No Position = Not enough impact

Bill + Description	Status + Position
<p>SB 380/HB 538 INCOME TAX - SUBTRACTION MODIFICATION - WATER AFFORDABILITY ASSISTANCE Allowing a subtraction modification under the Maryland income tax for certain water affordability assistance, including water bill arrearage forgiveness, received by an individual during the taxable year and provided by the federal government, the State, or a local government; and requiring a unit of State government or a local government that administers a water affordability assistance program to provide to the Comptroller, within 30 days of a request, certain information about water affordability assistance programs.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0380F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0538F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed ◆ HB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Oppose ◆ LRM Position: N/A 
<p>SB 392 WASTEWATER FACILITY SUPPLEMENTAL OPERATIONS AND MAINTENANCE GRANT PROGRAM - ESTABLISHMENT Establishing the Wastewater Facility Supplemental Operations and Maintenance Grant Program for the purpose of providing competitive grants for publicly owned wastewater facilities facing operations and maintenance challenges that threaten the proper functioning of a facility's enhanced nutrient removal technology; requiring the Governor, for fiscal year 2025 and each fiscal year thereafter, to include in the annual budget bill an appropriation of \$10,000,000 for the Program; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0392F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Support ◆ LRM Position: N/A 
<p>SB 407 → Chapter 123/HB 848 → Chapter 122 DRINKING WATER - INNOVATIVE POTABLE REUSE PILOT PROGRAM - ESTABLISHMENT Establishing the Innovative Potable Reuse Pilot Program in the Department of the Environment for the purpose of authorizing the regulated use of reclaimed water as a source for drinking water treatment facilities; providing for the issuance of potable reuse permits under the Pilot Program; applying certain public participation requirements to potable reuse permits; requiring the Department to submit a report on the status of the Pilot Program to the Governor and General Assembly on or before December 31, 2024; etc.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0407F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0848F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Approved by Governor ◆ HB: Approved by Governor <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Support ◆ MACO: Not tracked ◆ LRM Position: No position <p>➤ Note: Sponsored by Senator Ready & Delegate Rose</p> 

Bill + Description	Status + Position
<p>SB 471/HB 607 WATER POLLUTION CONTROL - DISCHARGE PERMITS - STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY Prohibiting the Department of the Environment from authorizing the discharge of stormwater associated with construction activity under a general discharge permit and requiring the Department to instead require an individual discharge permit under certain circumstances; prohibiting a certain permit holder from causing, allowing, or failing to control the runoff of soil or other pollutants from a construction site or causing erosion into certain waters of the State; etc. Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0471F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0607F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Passed Enrolled ◆ HB: not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Support ◆ MACO: <u>Support</u> ◆ LRM Position: No position 
<p>SB 512 DRINKING WATER - LEGIONELLA PNEUMOPHILA BACTERIUM - MINIMIZING GROWTH AND TRANSMISSION Requiring an owner or operator of a public water system to maintain a detectable residual disinfectant level of at least 0.5 milligrams per liter of chlorine, not to exceed the maximum residual disinfectant level set by the U.S. Environmental Protection Agency in the water distribution system and to conduct certain sampling and analysis at frequent and regular intervals; requiring an owner or operator of a public water system to provide certain notice of certain water distribution system disruptions; etc. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0512F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Oppose ◆ MACO: Oppose ◆ LRM Position: N/A 
<p>SB 513 ENVIRONMENT – COLLECTION AND REPORTING OF DRINKING WATER AND WASTEWATER DATA AND INFORMATION – REQUIREMENTS Requiring a water utility operating in the State to provide certain data and information to the Department of the Environment and comply with certain reporting requirements; requiring the Department to develop a certain protocol and form to provide and report certain drinking water and wastewater data and information; requiring the Department to create, operate, and maintain a statewide Open Water Data Reporting Platform that includes certain data and information for each water utility operating in the State; etc. Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0513F.pdf</p>	<p>➤ Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed <p>➤ Positions:</p> <ul style="list-style-type: none"> ◆ MML: Oppose ◆ MACO: Oppose ◆ LRM Position: N/A 

Bill + Description	Status + Position
<p>SB 526/HB 723 NATURAL RESOURCES - FOREST PRESERVATION AND RETENTION Altering the definition of "qualified conservation" for purposes of provisions of law related to forest mitigation banks; establishing and authorizing certain alternative methods of calculating forest afforestation, reforestation, and preservation requirements; adding certain tree plantings and practices as methods that certain municipal corporations may use to meet afforestation or reforestation requirements; etc.</p> <p>Bills: SB: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0526F.pdf HB: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0723F.pdf</p>	<p>► Status:</p> <ul style="list-style-type: none"> ♦ SB: Returned Passed ♦ HB: Returned Passed <p>► Positions:</p> <ul style="list-style-type: none"> ♦ MML: Opposed ♦ MACO: Support w Amendments ♦ LRM Position: Support w Amendments 
<p>SB 531 PUBLIC WATER SYSTEMS - SUPPLIER REQUIREMENTS (WATER SAFETY AND CYBERSECURITY ACT OF 2023) Requiring a supplier of water to inspect certain valves in a public water system in a certain manner, repair or replace certain valves, inspect certain fire hydrants, formulate and implement a certain plan, identify the locations of certain valves, and record certain characteristics and identifiers of certain valves; requiring a supplier of water to develop a certain cybersecurity program by February 1, 2024; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0531F.pdf</p>	<p>► Status:</p> <ul style="list-style-type: none"> ♦ SB: Not passed <p>► Positions:</p> <ul style="list-style-type: none"> ♦ MML: Oppose ♦ MACO: <u>Oppose</u> ♦ LRM Position: N/A 
<p>HB 624 ENVIRONMENT - SUPPLIERS OF WATER - NOTIFICATION REQUIREMENTS Altering the means by which a supplier of water must give notice to the Department of the Environment and certain individuals and entities under certain circumstances; requiring that a supplier of water use at least three means to give the notice; requiring a supplier of water to give notice to the Department of the Environment and the Maryland Department of Emergency Management if there is a positive test for E. coli in the system; etc.</p> <p>Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0624F.pdf</p>	<p>► Status:</p> <ul style="list-style-type: none"> ♦ HB: Not passed <p>► Positions:</p> <ul style="list-style-type: none"> ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: N/A 
<p>SB 743/HB 840 CLIMATE, LABOR, AND ENVIRONMENTAL EQUITY ACT OF 2023 Requiring the Department of the Environment to conduct a certain evaluation regarding the impact of issuing an approval for certain environmental permits; requiring the Department to provide opportunities for certain communication with certain residents in a certain manner; and altering certain reporting requirements for certain State agencies.</p> <p>Bill Link: https://mgaleg.maryland.gov/2023RS/bills/sb/sb0743F.pdf</p>	<p>► Status:</p> <ul style="list-style-type: none"> ♦ SB: Not passed ♦ HB: Not passed <p>► Positions:</p> <ul style="list-style-type: none"> ♦ MML: Not tracked ♦ MACO: Not tracked ♦ LRM Position: No position 

Bill + Description	Status + Position
<p>SB 883/HB 893 ENVIRONMENT - WATER UTILITIES - SHUTOFF PROTECTIONS (WATER ACCESS FOR ALL PROTECTION ACT) Authorizing a certain water utility to temporarily shut off service for reasons of health or safety or in a State or national emergency, notwithstanding certain provisions of law; prohibiting a water utility from shutting off service for certain reasons; prohibiting a water utility from shutting off service on receipt of certain information; and prohibiting the sale of property solely to enforce a lien imposed for unpaid water, sewer, or sanitary system charges, fees, or assessments except in certain circumstances. Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0893F.pdf</p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ SB: Not passed ◆ HB: Not passed <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Oppose ◆ MACO: Support w Amendments ◆ LRM Position: N/A 
<p>HB 924 SEWAGE TREATMENT PLANTS - EFFLUENT DISCHARGES, DISCHARGE PERMITS, AND PROPERTY TAX CREDIT FOR IMPACTED DWELLINGS Requiring the Department of the Environment to monitor effluent discharged from sewage treatment plants permitted to process at least 50,000,000 gallons of effluent per day, evaluate whether the effluent impacts area midge populations, and place an inspector at certain sewage treatment plants; requiring the Department to post on its website certain status updates and steps taken to address certain deficiencies; and authorizing a certain property tax credit against the property tax imposed on a certain dwelling. <i>Bill imposes a local government mandate, which is a directive in a bill requiring a local government unit to perform a task or assume a responsibility that has a discernible fiscal impact on the local government unit</i> Bill: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0924F.pdf</p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ HB: Not passed <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Not tracked ◆ LRM Position: N/A <p>> Note: Same bill introduced last year but didn't pass</p> 
<p>HB 942 WETLANDS AND WATERWAYS PROGRAM - AUTHORIZATIONS FOR STREAM RESTORATION PROJECTS Requiring the Department of the Environment to revise certain criteria, standards, and requirements for wetlands and waterways authorizations for certain stream restoration projects on or before October 1, 2024; and requiring the Department to provide public notice and hold a certain public information meeting before issuing a wetlands and waterways authorization for a stream restoration project under certain circumstances. Bill Link: https://mgaleg.maryland.gov/2023RS/bills/hb/hb0942F.pdf</p>	<p>> Status:</p> <ul style="list-style-type: none"> ◆ HB: Not passed <p>> Positions:</p> <ul style="list-style-type: none"> ◆ MML: Not tracked ◆ MACO: Pending ◆ LRM Position: No position 

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary June 28, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair
- Jim Wieprecht, Vice Chair
- John Dick
- Gary Dye
- Delbert Greene
- Mayor Perry Jones
- Rodney Kuhns
- Alex Perricone
- Kevin Rubenstein
- Kevin Smeak
- Dick Swanson

CC Land & Resource Management (LRM):

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Mary Lane
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Ed Singer
- Pat Varga

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Lydia Rogers, CC M&B
- Bryan Bokey, CC DPW

Guest Speakers:

- Michael Hyde, MDE Water Supply Program

Others:

-

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:30 PM. He thanked Land & Resource Management staff for organizing the May stormwater tour. He also mentioned that Maryland Department of the Environment released the [Maryland DRAFT Priority Project List for FFY23/SFY25 for Drinking Water Projects](#). He suggested each municipality check to see if any of their projects are listed. Mr. Hann also noted that several members are missing due to the Maryland Municipal League conference this week.

Vice Chair – Jim Wieprecht

None.

LRM Director, Chris Heyn

Mr. Heyn had to leave early due to a scheduling conflict. He shared that Lynda Eisenburg, former Planning Director, left Carroll County to take a position in Howard County. Mr. Heyn has been appointed Acting Director of Planning. A member of the Planning staff will now be attending the WRCC meetings regularly.

2. Approval of Meeting Summary – April 26, 2023

Approval of the April meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Dick Swanson and seconded by Chris Heyn to approve the April 26, 2023, meeting summary as written. Motion carried.

3. Lead and Copper Rule Requirements – Michael Hyde, MDE

- Mr. Hyde presented an overview of MDE's Lead and Copper Rule requirements. Highlights include:
 - The initial inventory is due October 16, 2024. This phase only requires a records review.
 - MDE is working to modify a sample spreadsheet sent out by the UP EPA for recording the inventory and other information. Mr. Hyde noted that anyone who hasn't started filling out the spreadsheet yet should use the MDE version of the spreadsheet.
 - Where a jurisdiction does not have record of the material of pipes, the material, diameter, and installation year can be useful to help identify the material. If a service line is greater than 3 inches, you can determine that it is not lead. If the pipes were installed after May 17, 1972, lead pipes were not allowed after that date.
 - The Maryland Rural Water Association is working with small water systems at the moment. They have already been trained on the spreadsheet. They are willing and able to help with inventory and investigation assistance.
 - Additional information can be found in the attached PowerPoint, or by contacting MDE at reporting.leadcopperrule@maryland.gov or 410-537-3702.

Reference/Attachment:

- PowerPoint: *Lead Service Lines Inventory Presentation, Maryland LCRR Implementation*

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Task 1 – Buildable Land Inventory (BLI) Process: The final technical memo was received. A change order was approved to complete the optional Task 1.2 to automate portions of the BLI. Completion is expected in September.
- Task 2 – Groundwater Allocability: A draft technical memo was reviewed by technical team members, and comments were provided to Hazen. The final technical memo is expected July 31. However, additional internal work will be needed before considering pursuit of an alternative approach.
- Task 3 – Emerging Contaminants: A draft technical memo was reviewed by the technical team, and comments were provided to Hazen. At the July 26 WRCC meeting, Hazen will present potential impacts of PFAS requirements on future development and planned growth in the municipalities/growth areas. They will also share potential, general costs that might be expected for treatment.
- Task 4 – TIPP Evaluation: Hazen was asked to evaluate and compare the MapShed model, which was used for our initial TMDL implementation plans, with MDE's TIPP spreadsheet using the South Branch Patapsco watershed. There has been some technical difficulty running the previous model.
- Capacity Management Plan (CMP) Worksheets: The CMP worksheets will need to be completed in early August to provide to Hazen for work on Task 6. Ms. Dinne indicated that the demand data has been added to all the worksheets. She will be contacting each municipality to review the CMP worksheet before providing it to Hazen to ensure nothing is missing, and there are no unexpected results.

Reference/Attachment:

- N/A

5. Public Outreach and Litter Clean-Up – Claire Hirt

- Ms. Hirt shared figures related to tracking of litter in this NPDES permit year. She asked that those who separate loose litter from the count add that weigh to the total for their municipality.

- Ms. Hirt asked for feedback on the tracking sheet developed and sent out last year. The spreadsheet seems to be working for all. If anyone has suggestions for improvements, they can contact her.

Reference/Attachment:

- Handout: N/A

6. Municipal Stormwater Projects Update – Janet O’Meara

- Ed Singer provided an update on the municipal stormwater restoration projects.
- The pace for several of the projects has been slowed due to changes in the dam safety requirements that may have impacted design.

Reference/Attachment:

- Handout: *Municipal Project Status*

7. Other

- Planning Commission Secretary: Ms. Dinne noted that Chris Heyn is also now the Secretary to the County Planning & Zoning Commission.
- Water & Sewer Master Plan Triennial Update: Ms. Dinne will request that Price Wagoner, water and sewer planner, provide an update at the July 26 meeting.
- Climate Pollution Reduction Grant (CPRG): Ms. Dinne reported that the Baltimore Metropolitan Council (BMC) coordinated an effort to prepare and submit a regional grant application to EPA for development of climate action plans to reduce pollution that contributes to climate change. The majority of action items would likely relate to DPW activities, rather than water quality, but there could be a plan(s) developed in the future. EPA will award the grants in the fall 2023.
- August 23 WRCC Meeting: Ms. Dinne requested Ms. Singleton from BMC to return to speak. (This is not confirmed.) She was asked to share information about the follow up work completed subsequent to the Climate Change Resource Guide, which she presented to the WRCC in November 2023.
- Organizing of Inspections Schedule Related to Permit: Ms. Hirt shared that in the future the various inspections will be coordinated to occur around the same timeframe. This will allow the municipalities to plan what needs to be done comprehensively, rather than being identified piecemeal.
- 12SW Renewal: Mr. Edwards reported than the deadline to get the applications done is getting near. Each municipality that needs to do this should at least get the NOI submitted by the deadline.
- Water Levels: Mr. Neal indicated that there is still a 3-inch deficit over the last 30 days. Streams are still below or well below normal. Some of the municipalities may be at levels that would trigger drought contingency plans or voluntary conservation measures.

Reference/Attachment:

- Handout: N/A

8. Adjournment

The meeting adjourned at 4:01 PM. The next monthly meeting is scheduled for Wednesday, July 26, 2023, at 2:30 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Rodney Kuhns to adjourn the June 28 meeting. Motion carried.

Upcoming Meetings:

- Regular Monthly Meeting – Wednesday, July 26, 2023*



Lead Service Lines Inventory Presentation

Maryland LCRR Implementation

Carroll County Water Resource Coordination Council
(WRCC)

June 28, 2023

What is required?

- Federal Lead and Copper Rule Revisions (LCRR)
 - Effective December 16, 2021
 - All community and non-transient non-community water systems must develop an inventory to identify the material(s) of service lines connected to the public water distribution system
 - All service lines connected to the public water distribution system regardless of ownership status (e.g., where service line ownership is shared, the inventory would include both the portion of the service line owned by the water system and the portion owned by the water customer) or Activity Status of the Service Line.
- Initial inventory due by October 16, 2024
 - Water systems must submit the inventory to the primacy agency (MDE) in accordance with 40 CFR § 141.90(e)

MDE's Service Line Inventory Spreadsheet

- MDE has developed an electronic form (spreadsheet) to provide to water systems – it is available online at MDE's website:
https://mde.maryland.gov/programs/water/water_supply/Documents/MDE_LCRR_SL_Inventory_Spreadsheet_5000_rows.xlsm
- The Service Line Inventory spreadsheet consists of several tabs requesting information regarding:
 - The water system itself
 - The overall service line and building information
 - First portion of the service line information
 - Second portion of the service line information
- The Service Line Inventory spreadsheet is color-coded to indicate required and optional information

MDE's Service Line Inventory Spreadsheet: Requested Information

- The spreadsheet has built-in formulas using the data input by PWSs to automatically generate the service line classifications for the first portion of the service line, second portion of the service line, and overall service line. Classifications are as follows:
 - Lead
 - Galvanized Requiring Replacement (GRR)
 - Non-Lead
 - Unknown

MDE's Service Line Inventory Spreadsheet: Requested Information (continued)

- Data input by water systems include:
 - Material(s) of the first and second portions of the service line
 - Diameters of the first and second portions of the service line
 - Installation years of the first and second portions of the service line
 - Activity status of the first and second portions of the service line
 - Ownership of the first and second portions of the service line (System vs Customer)

MDE's Service Line Inventory Spreadsheet

Lead Service Line Inventory (Page 1 of 4): Water System Information

PROVIDE INFORMATION BELOW AND TO THE RIGHT - PLEASE SCROLL TO THE BOTTOM OF THE PAGE

INVENTORY TYPE		INFORMATION RELATED TO SERVICE LINE RECORDS			
DATE SUBMITTED/REPORTED (MM/DD/YYYY)		Records Review (See Appendix C) required to be completed when water systems submit their Initial Inventory (due October 16, 2024)			Date of most recent update to the Required Records Review (MM/DD/YYYY)
INVENTORY TYPE (DROP DOWN →)		Type of Record	Describe the Records Reviewed for Your Water System's Inventory	Level of Confidence in the Accuracy of this Type of Record (DROP-DOWN)	
IF INVENTORY TYPE is indicated as "Inventory Update (with NO updates/changes)", the water system must certify that there have been no updates/changes made to the inventory since the previous submission. <i>Otherwise, leave blank.</i> (DROP DOWN →)		1. Previous Materials Evaluation (40 CFR §141.84(a)(3)) <i>[Applicable to Community Water Systems Only]</i> Example: A materials survey of the water distribution system required under 40 CFR §141.42(d) and LCR that shows Tier 1 sampling consistency records and running codes (40 CFR §141.84(a)(3)(i)). Examples: Local ordinance adopting an international plumbing code. Permits for water distribution lines.			
NAME OF PERSON CERTIFYING THE STATEMENT ABOVE <i>(Leave blank if no certification is required)</i>		3. Water System Records (40 CFR §141.84(a)(3)(ii)) Examples: Capital improvement plans. Standard operating procedures. Engineering standards.			
TITLE AND ORGANIZATION OF PERSON CERTIFYING THE STATEMENT ABOVE <i>(Leave blank if no certification is required)</i>		4. Distribution System Inspections and Records (40 CFR §141.84(a)(3)(iii)) Examples: Distribution system maps. Tap/Tie/Drill/Service cards. Service line repair/replacement records. Inspection records. Meter installation records.			
PHONE NUMBER OF PERSON CERTIFYING THE STATEMENT ABOVE <i>(Leave blank if no certification is required)</i>		5. Other Records			
EMAIL ADDRESS OF PERSON CERTIFYING THE STATEMENT ABOVE <i>(Leave blank if no certification is required)</i>					
WATER SYSTEM INFORMATION		INFORMATION RELATED TO SERVICE LINE IDENTIFICATION DURING NORMAL OPERATIONS			
PUBLIC WATER SYSTEM ID (PWSID) NUMBER		Identifying Service Line Material During Normal Operations			

Introduction | Pg 1 - Water System Info | Pg 2 - Overall SL & Bldg Info | Pg 3 - 1st Portion of SL Info | Pg 4 - 2nd Portion of SL Info | SL Classification - AutoGen | Appx / ...

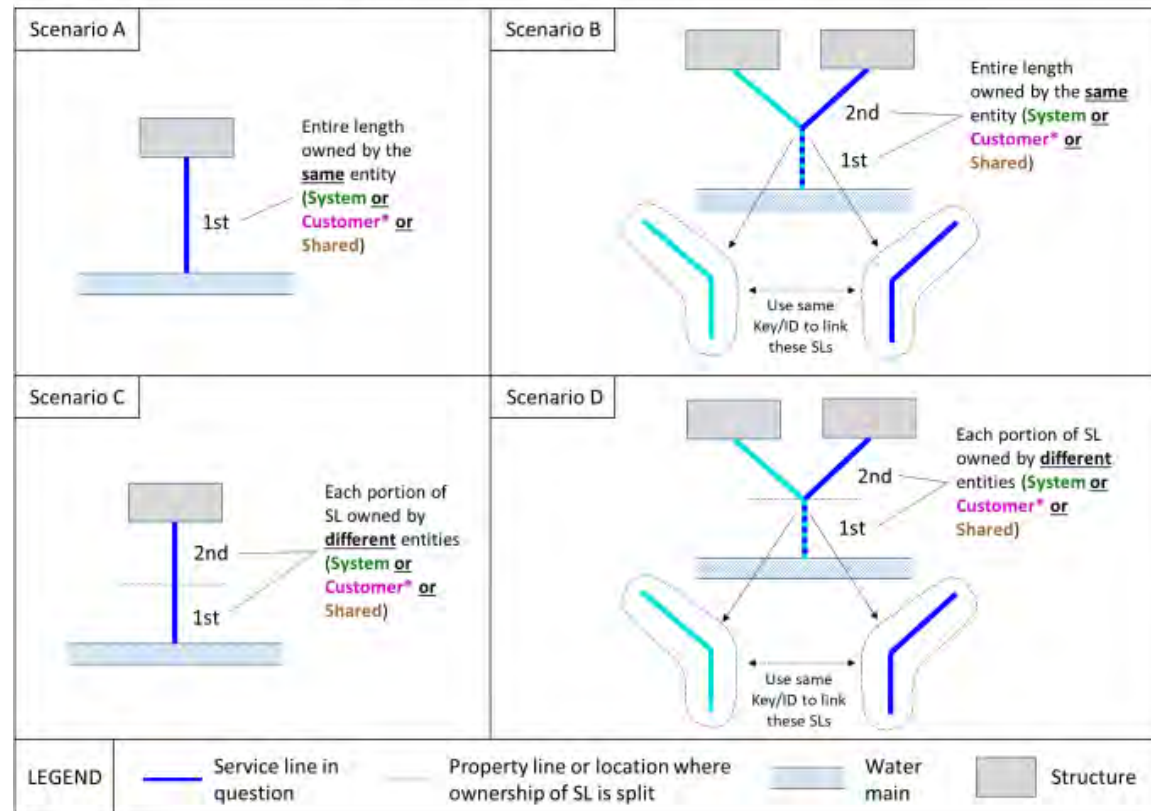


MDE's Service Line Inventory Spreadsheet

Service Line Inventory (Page 2 of 4): Overall/Entire Service Line from Water Main to Building and Building Information										
		<i>Hover over cell below to see note</i>	<i>Hover over cell below to see note</i>	<i>Hover over cell below to see note</i>						<i>Hover over cell below to see note</i>
		THIS DATA IS CARRIED OVER TO PAGES 3 & 4	THIS DATA IS CARRIED OVER TO PAGES 3 & 4				THIS DATA IS CARRIED OVER TO PAGES 3 & 4			
		[DELETE CELL CONTENTS IN COLUMNS P THROUGH S BEFORE SUBMITTING THE SPREADSHEET TO MDE]								
FIELD NAME	DATE_OF_MOST_RECENT_UPDATE_PG_2	ENTIRE_SL_ID	SL_LOCATION_INFO_DESC	SL_REF_POINT_LAT_LONG	SL_LAT	SL_LONG	SL_CONNECTION_TYPE	SL_IDENTIFIER_TYPE	SL_ZIP_CODE	ENTIRE_SL_SCENARIO
FIELD DESCRIPTION -->	Date of most recent update of data related to service line on this page (MM/DD/YYYY)	PWS-assigned UNIQUE identification number for each service line (from water main to structure)	Location Information/Description [OPTIONAL] <i>[DELETE CELL CONTENTS BEFORE SUBMISSION]</i>	Reference point of latitude and longitude (e.g., corporation stop valve, curb stop valve, building inlet, etc.) [OPTIONAL, BUT REQUIRED IF LATITUDE AND LONGITUDE ARE PROVIDED] <i>[DELETE CELL CONTENTS BEFORE SUBMISSION]</i>	Latitude of reference point [OPTIONAL] <i>[DELETE CELL CONTENTS BEFORE SUBMISSION]</i>	Longitude of reference point [OPTIONAL] <i>[DELETE CELL CONTENTS BEFORE SUBMISSION]</i>	Structure/Building/Connection Type [DROP-DOWN]	Identifier Type (Corresponds to the Location Information/Description in Column D) [DROP-DOWN]	ZIP Code (5-DIGIT)	Which scenario (see Appendix A) best represents from water main to structure? [DROP-DOWN]
EXAMPLE ROW OF DATA ---->	10/16/2024	EXAMPLE-1	123 Main Street	Corporation Stop Valve	39.275162	-76.645871	Residential (Single-Family)	Street Address	12345	Scenario C: 2 portions - Entire line from water main to building by different entities and the 1st portion of this service line feeds into multiple 2nd portions (i.e., down lines)

Appendix A: Service Line Scenarios

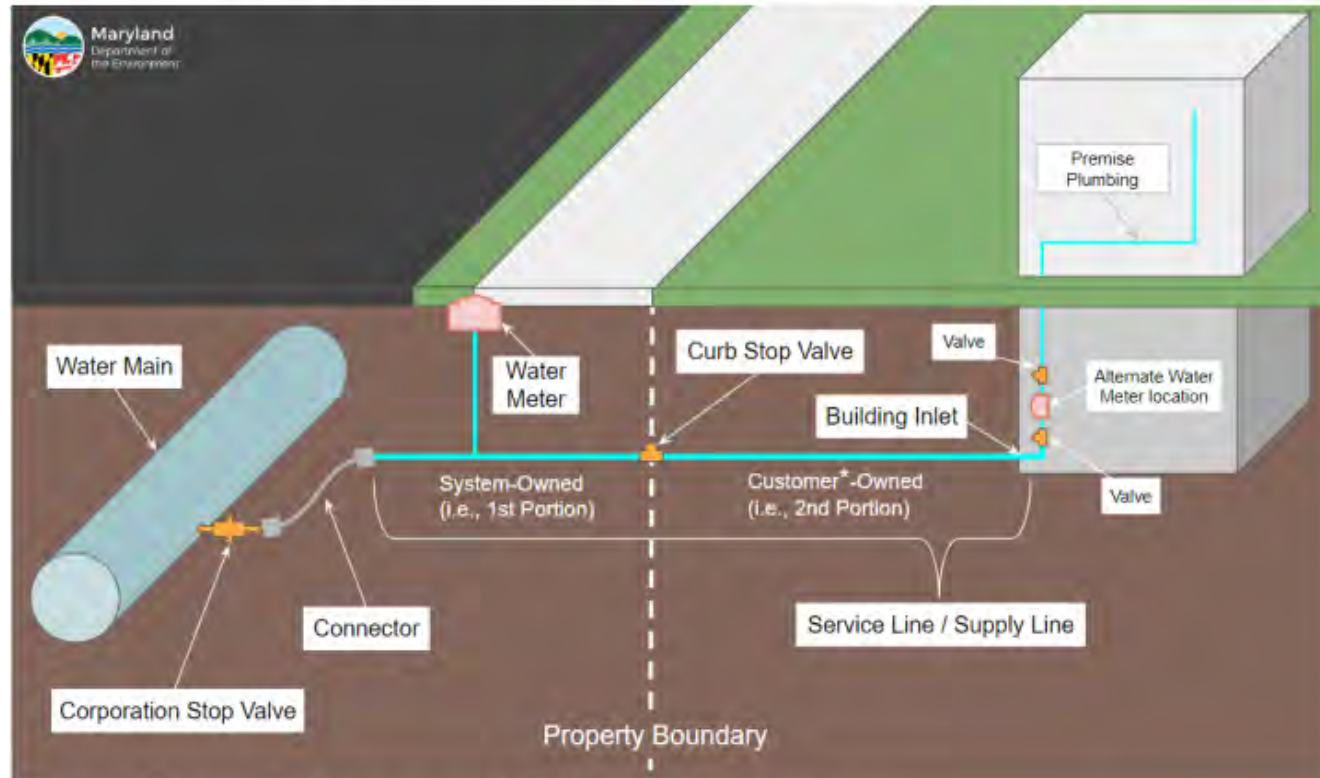
Appendix A: Service Line Scenarios





Appendix B: Example of a Service Line from a Water Main to a Building

Appendix B: An Example of a Service Line from a Water Main to a Building



*The term "Customer" refers to any entity that is not the water system.



Maryland

Department of
the Environment

MDE's Service Line Inventory Spreadsheet: Investigation Methods

Table D1. MDE-Approved investigation methods for the three characteristics (i.e., Material, Diameter, and Installation Year) of a service line, listed in hierarchical order according to accuracy as viewed by MDE

Investigation Method - Material	Investigation Method - Diameter	Investigation Method – Installation Year
<ol style="list-style-type: none">1. Field Investigation – Visual Inspection of Exposed Service Line Pipe (with or without Excavation)2. Field Investigation – Non-Exposed Service Line Pipe Inspection3. Records Review4. Analytics/Predictive Methods	<ol style="list-style-type: none">1. Field Investigation – Visual Inspection of Exposed Service Line Pipe (with or without Excavation)2. Field Investigation – Non-Exposed Service Line Pipe Inspection3. Records Review	<ol style="list-style-type: none">1. Records Review

MDE's Service Line Inventory Spreadsheet: Types of Records

- Plumbing Permits
- Local Plumbing and Building Codes, Local Ordinances and Public Works Standard
- Federal/State Plumbing Codes
- Construction Contracts
- Property Records on File with County
- Distribution System Maps and Drawings
- Capital Improvement Plans and/or Master Water and Sewer Plans
- Tap/Tie/Drill Cards



MDE's Service Line Inventory Spreadsheet: Types of Records (continued)

- Records of Maintenance/Inspection Performed by Water System Personnel or Contractors
- Meter Installation/Maintenance/Inspection and/or Reading Records Performed by Water System Personnel or Contractors
- Utility Standard Operating Procedures (SOPs)
- Statements from Water System Senior Personnel and Retirees
- Interviews with Plumbers, Building Inspectors, Pipe Suppliers, Local Contractors and/or Developers who have specific knowledge of the site/area
- Community Survey
- Other Records

Basis of Determination – Material

1. Pipe material obtained directly from records AND Field Investigation via Visual Inspection of Exposed Service Line Pipe (with or without Excavation) -- Applicable only if material from both records and field investigation matches
2. Pipe material obtained directly from ONLY Field Investigation via Visual Inspection of Exposed Service Line Pipe (with or without Excavation)
3. Pipe material obtained directly from records AND Field Investigation via Non-Exposed Service line Pipe Inspection -- Applicable only if material from both records and field investigation matches
4. Pipe material obtained directly from ONLY Field Investigation via Non-Exposed Service line Pipe Inspection
5. Pipe material obtained directly from records ONLY
6. Pipe material obtained directly from records ONLY (but Analytics/Predictive Method also performed to obtain a prediction)

Basis of Determination – Material (continued)

7. Pipe material determined to be Non-Lead based on pipe diameter greater than 3 inches
8. Pipe material determined to be Non-Lead based on pipe installation date on or after May 17, 1972* (Maryland's regulations pertaining to acceptable service line materials)
9. Pipe material determined to be Non-Lead or Non-Lead Non-Galvanized based on pipe installation date on or after local ordinance that was in effect prior to May 17, 1972*
10. Prediction of material from Analytics/Predictive Method ONLY (i.e., no records or field investigations)
11. Other Basis of Material Determination pre-approved by MDE

**Date subject to change; date under review by MDE's Office of the Attorney General*

Basis of Determination - Diameter

1. Pipe diameter obtained directly from records AND Field Investigation via Visual Inspection of Exposed Service Line Pipe (with or without Excavation) -- Applicable only if diameter from both records and field investigation matches
2. Pipe diameter obtained directly from ONLY Field Investigation via Visual Inspection of Exposed Service Line Pipe (with or without Excavation)
3. Pipe diameter obtained directly from records AND Field Investigation via Non-Exposed Service line Pipe Inspection -- Applicable only if diameter from both records and field investigation matches
4. Pipe diameter obtained directly from ONLY Field Investigation via Non-Exposed Service line Pipe Inspection
5. Pipe diameter obtained directly from records ONLY
6. Other Basis of Diameter Determination pre-approved by MDE

Basis of Determination - Installation Year

1. Installation year obtained directly from records
2. Installation year based on year the water system was built --
Applicable only if (a) the water system was built on or after May 17, 1972*, AND (b) if structure was built prior to May 17, 1972*; and there was no reuse of existing pipe from well to structure
3. Installation year based on year the structure was built -- Applicable only if the structure was built on or after May 17, 1972*
4. Other Basis of Installation Year Determination pre-approved by MDE

**Date subject to change; date under review by MDE's Office of the Attorney General*

Resources for Assistance for PWSs

- MRWA - Maryland Rural Water Association
 - <https://www.md-rwa.org/>
 - Available to assist small water systems - MRWA focuses its resources exclusively on water and wastewater systems with less than 10,000 population. Approximately 500 systems are identified in this category in Maryland. MRWA services are provided at no charge.
- University of Maryland, EFC - Environmental Finance Center
- MDE training - forthcoming

Lead and Copper Rule Improvements (LCRI)

- LCRI will expand upon LCRR, including sampling requirements, lead service line replacement plans, and notification requirements.
- Per EPA, LCRI is expected to be proposed by the end of September 2023, followed by a 60-day comment period.



Bipartisan Infrastructure Law (BIL) - Funding

- <https://www.epa.gov/infrastructure>
- Also referred to as Infrastructure Investment and Jobs Act (IIJA)
- Covers Transportation, Climate, Energy, and the Environment
- Water - \$55 billion
 - Lead Service Lines (LSL) - \$15 billion nationwide
 - Each State will use the existing State Revolving Funds (SRF) program to facilitate this money
 - Eligible projects include LSL inventories and LSL replacements
 - Maryland has ~\$50 million for the next 2 fiscal years to allocate



Bipartisan Infrastructure Law (BIL) – Funding (cont'd)

- Water systems of any size can apply for funding through MDE's Water Infrastructure Financing Administration (WIFA)
 - <https://mde.maryland.gov/programs/water/WQFA/Pages/index.aspx>
- \$\$ is in the form of low interest loans and grants
- WIFA website has application information
 - Announcement of applications begins in December annually and is not limited to LSL projects
 - Applications due typically the end of January
 - Visit their website for full details on all project types



For More Information

Resources are available on MDE's website:

https://mde.maryland.gov/programs/water/water_supply/Pages/Pb_and_Cu_Rule.aspx

Contact Information:

Reporting.LeadCopperRule@maryland.gov

(410) 537-3702

MUNICIPAL STORMWATER PROJECT STATUS

June 28, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits. The County has begun sending out RFPs under the new term contract. We are expecting to send this one out within the next few months.

Hampstead Valley 2/3 (Hampstead) – Hampstead Valley facilities 2 and 3 will be retrofit as a stream restoration project to decommission Sycamore Drive as a roadway embankment. The design will include a stream restoration beginning immediately downstream of the proposed Hampstead Valley 1 facility and continue to Sycamore Drive.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI is currently working on resubmitting a concept plan of a triple facility design. New Dam Safety requirements have gone into effect. These requirements include additional modeling, which may affect the current concept design.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. We have awarded this project to CLSI. They are getting started with a design for a new surface sand filter and potential for drainage improvement at the upstream end of the stormdrain network.

New Windsor Wetland (New Windsor)- A new wetland facility is proposed adjacent to the Maryland Midland Railroad tracks and Dickenson Run. The proposed improvements include removing the existing inlet adjacent to the intersection of Water St and Church St, replacing it

with a diversion structure that will route the 1-year storm discharges to the proposed wetland facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main.

Public Safety Training Center (Westminster Well)- A retrofit for the Public Safety Training Center pond is in progress for the facility design and PFAS remediation. WRA is finalizing the concept plan for the surface sand filter this week. Tetra Tech will provide guidance for the PFAS remediation.

PRELIMINARY DESIGN:

Hampstead Valley 4 (Hampstead) – A new surface sand filter and stream restoration project is proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A preliminary submittal was reviewed by stormwater and sent back with comment.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. The recent concept submittal was approved with comments from the Town and Stormwater Management. Wallace Montgomery & Associates (WMA) is beginning the preliminary phase of design.

FINAL DESIGN:

CONSTRUCTION:

North Carroll Library (Hampstead) – Construction is complete. CLSI is working on the as-built plans.

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally. CWP and County staff will be going out together for an assessment of Little Pipe this week.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary July 26, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- John Dick, Westminster
- Gary Dye, New Windsor
- Delbert Green, Manchester
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Alex Perricone, Manchester
- Jim Roark, Hampstead
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Dick Swanson, Mount Airy

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Mary Lane
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Ed Singer
- Price Wagoner

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Lydia Rogers, CC M&B
- Bryan Bokey, CC DPW

Guest Speakers:

- Phoebe Aron, Hazen
- Jeremy Hise, Hazen

Others:

- Joan White, City of Baltimore
- Paul Sayan, City of Baltimore
- Bill Felter, City of Baltimore

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:30 PM. He introduced Jim Roark, Acting Town Manager for Hampstead. All attendees introduced themselves.

Vice Chair – Jim Wieprecht

None.

2. Approval of Meeting Summary – June 28, 2023

Approval of the June meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Alex Perricone and seconded by Dick Swanson to approve the June 28, 2023, meeting summary as written. Motion carried.

3. PFAS Implications for Municipalities – Phoebe Aron and Jeremy Hise, Hazen

- Phoebe Aron and Jeremy Hise with Hazen, the firm working on the Water Resources Element, presented an overview of the implications of PFAS (per-and polyfluoroalkyl substances) for the municipalities.
- EPA's proposed rule will set the maximum contaminant levels for PFOA and PFOS, the most common PFAS compounds, at 4 parts per trillion. The rule is expected to be final in early 2024.

- Since most of the water systems in the county tend to regularly rely on a high percentage of available capacity, taking any sources offline will impact available capacity.
- Hazen identified potential PFAS sources, which could include fire training facilities, fire stations, airports, landfills, and others. If a buffer were placed around these sources, some municipal wells would be considered at higher risk for PFAS contamination.
- PFAS treatment options in drinking water are limited, but there are opportunities for optimized implementation. Mitigation alternatives include well management, treatment at water treatment plants, and treatment at the source. Hazen discussed approaches for evaluating management and treatment options. The primary options include granular activated carbon (GAC), ion exchange, and reverse osmosis (RO)/nanofiltration. Hazen suggested benchmarking treatment conditions.
- Hazen also discussed how to determine cost of compliance with EPA's new rule and the associated timeline. Choice of treatment approach and costs vary depending on the option and the individual system. Hazen shared information on Peoples Water in Florida as a case study.

Reference/Attachment: PFAS Workshop

- *Carroll County WRCC: PFAS Implications for Municipalities*

4. Water Resources Element (WRE 2024) Update – Chris Heyn

- Task 1.2: Automation of Portions of Buildable Land Inventory model: Completion is anticipated for early September.
- Task 2: Groundwater Allocability: Hazen is working on technical memo and will provide a revise document soon.
- Task 3: Emerging Contaminants: Hazen will take any feedback provided at WRCC meeting regarding PFAS topic and incorporate to technical memo. The technical memo is expected in early August.
- Task 4: MDE TIPP Spreadsheet Comparison: Hazen is comparing the results of the MapShed model used previously for the TMDL implementation plans with the results of one of the watersheds using MDE's TMDL Implementation Progress and Planning tool. A technical memo will be provided in August.
- Task 5: Climate Change Impacts: Hazen is working on evaluating climate change impacts as they relate to water resources. A draft technical memo is due in August.
- Task 6: Update 2010 WRE Supporting Documents: Hazen will update the supporting documents used to prepare the 2010 WRE. This includes the capacity and demand information used to identify needs, challenges, and recommendations regarding shorter-term and long-term water supply and wastewater. Brenda Dinne is meeting with each municipality/system to review the completed workbooks, which now include demand information, prior to providing them to Hazen. The name of the workbooks has been changed to "Capacity & Demand" rather than "Capacity Management Plan" to help avoid confusion regarding the purpose of these workbooks. They are for planning purposes only and not intended to be submitted to MDE.

Reference/Attachment:

- *N/A*

5. Municipal Stormwater Projects Update – Janet O'Meara

Janet O'Meara provided an update on the municipal stormwater restoration projects.

Reference/Attachment:

- *Municipal Project Status*

6. Other

- Water Conservation: Mr. Swanson shared that the Mayor of Mt. Airy is now posting videos on Facebook about water conservation.
- 20SW Facilities: Ms. Hirt reminded those who need to apply for a 20SW permit that the Notice of Intent (NOI) is due at the end of the month. If the Stormwater Pollution Prevention Plan (SWPPP) is not completed, it can be submitted separately.
- 2022 NPDES Annual Report: Ms. O'Meara stated that MDE's comments on the 2022 annual report were positive.
- 2023 NPDES Annual Report: Ms. Hirt indicated emails will go out next week or two for updating information.

7. Adjournment

The meeting adjourned at 3:56 PM. The next monthly meeting is scheduled for Wednesday, August 23, 2023, at 2:30 PM.

MEETING ADJOURNMENT: Motion was made by Mayor Perry Jones and seconded by Alex Perricone to adjourn the July 26, 2023, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, August 23, 2023*

MUNICIPAL STORMWATER PROJECT STATUS

July 26, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

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PRELIMINARY DESIGN:

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FINAL DESIGN:

CONSTRUCTION:

North Carroll Library (Hampstead) – As-built has been approved.

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally. CWP and County staff went out together for an assessment of Little Pipe watershed in late June.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.

Hazen



Carroll County WRCC: PFAS Implications for Municipalities

July 26, 2023

Agenda

- Introductions
- PFAS Regulatory Overview
- Potential PFAS Implications
- PFAS Mitigation and Treatment
- Determining Cost of Compliance and Case Study
- Q&A

Regulatory Review

Proposed PFAS Rule

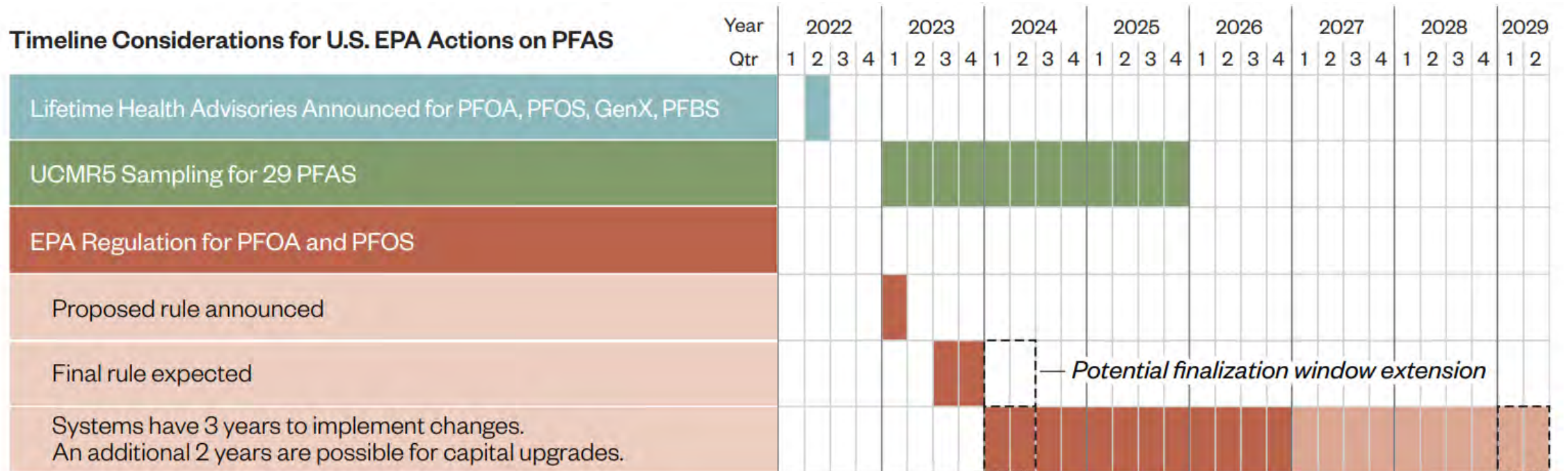
The proposed rule set MCLGs and MCLs for PFOA and PFOS, and took a risk-based approach to regulating 4 additional PFAS compounds:

- PFNA
- PFHxS
- PFBS
- GenX

Compound	Proposed MCLG	Proposed MCL (enforceable levels)
PFOA	Zero	4.0 parts per trillion (also expressed as ng/L)
PFOS	Zero	4.0 ppt
PFNA	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index
PFHxS		
PFBS		
HFPO-DA (GenX Chemicals)		

$$PFAS\ Hazard\ Index\ MCL = \left[\frac{HFPO-DA_{water}}{10 \frac{ng}{L}} \right] + \left[\frac{PFBS_{water}}{2,000 \frac{ng}{L}} \right] + \left[\frac{PFNA_{water}}{10 \frac{ng}{L}} \right] + \left[\frac{PFHxS_{water}}{9 \frac{ng}{L}} \right]$$

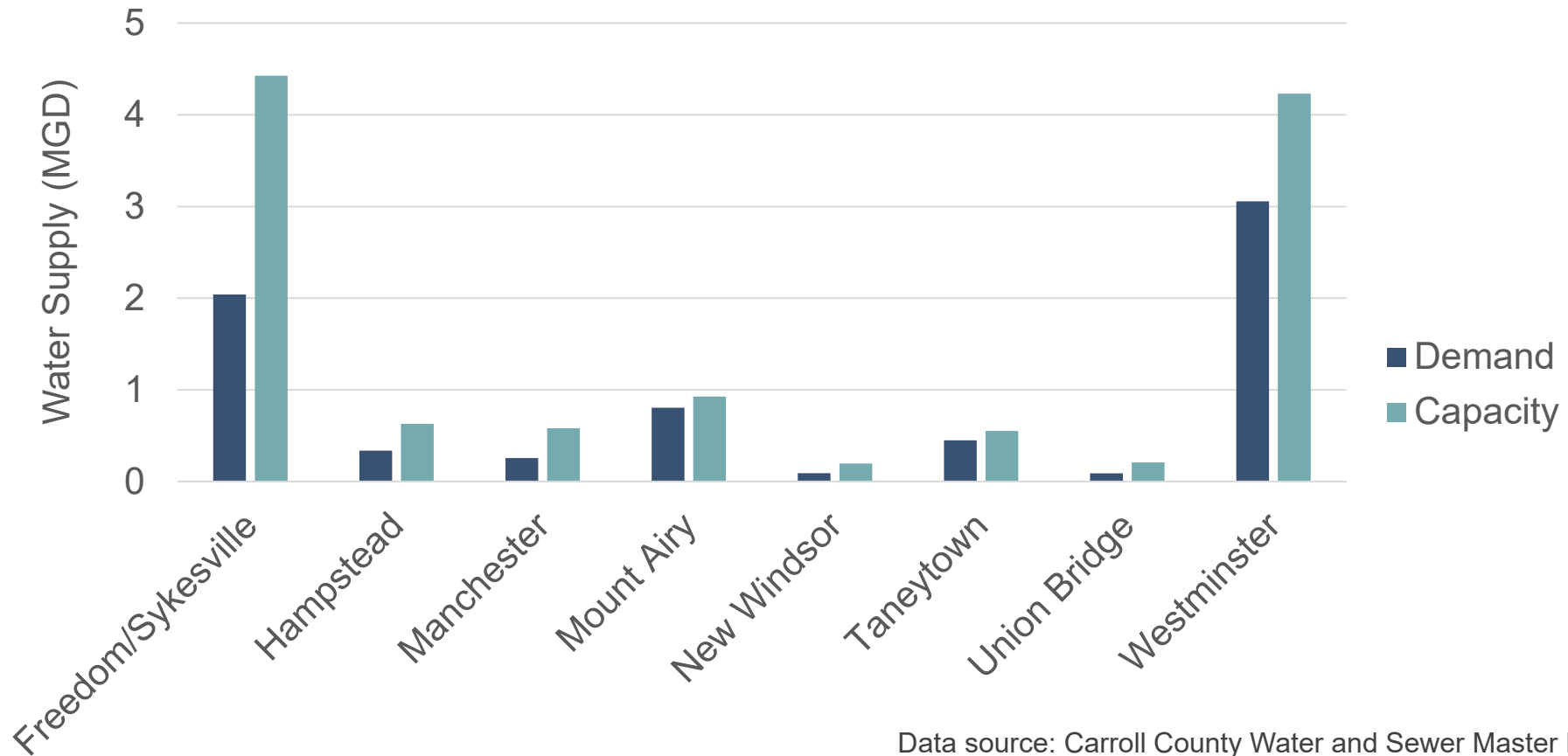
What is the Regulation Timeline?



Implications for Municipalities

Water Demand and Capacity

- Water supply capacity exceeds average daily demand for all County municipalities, but some regularly rely on all or nearly all the available capacity.

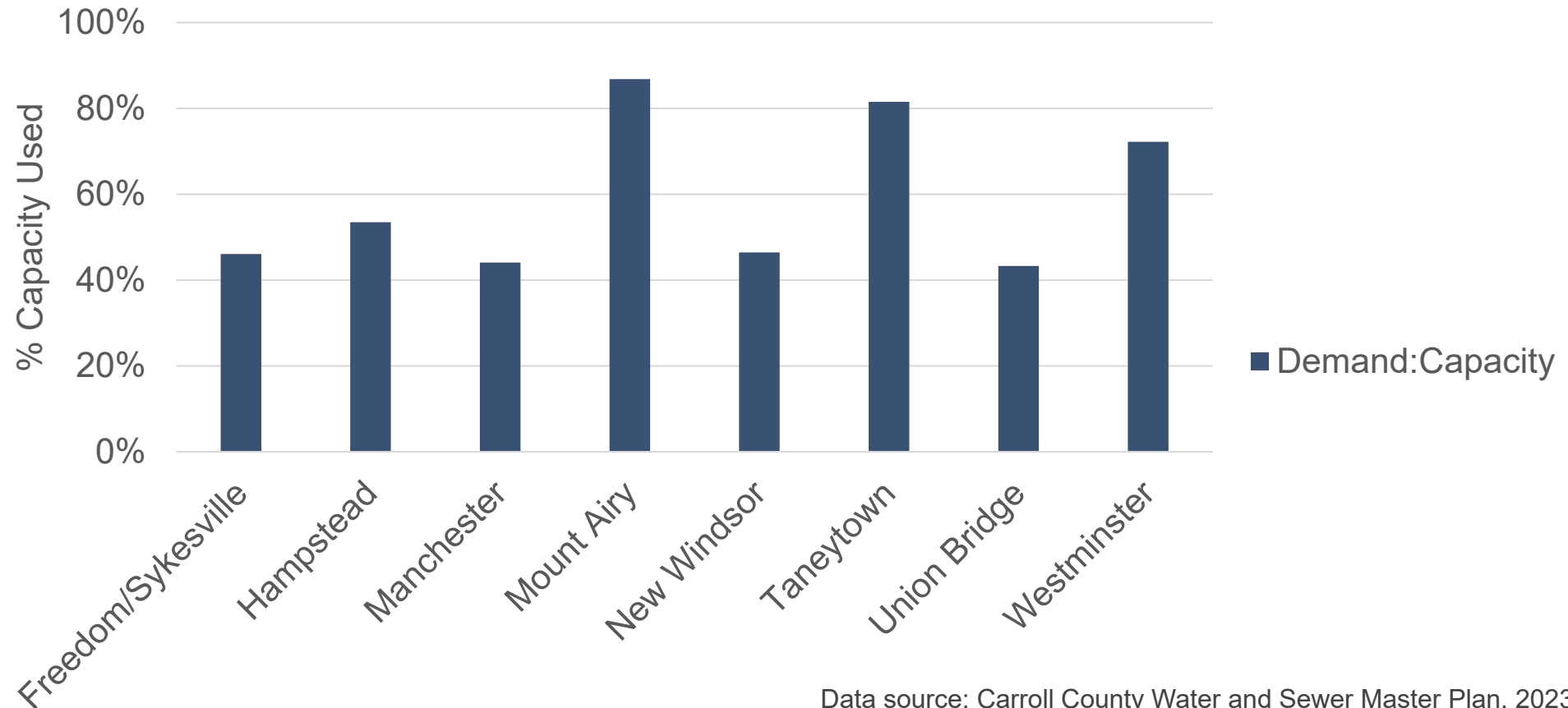


Data source: Carroll County Water and Sewer Master Plan, 2023 Triennial Update

Water Demand and Capacity

Percentage of Capacity Used

- Water supply capacity exceeds average daily demand for all County municipalities, but some regularly rely on all or nearly all the available capacity.

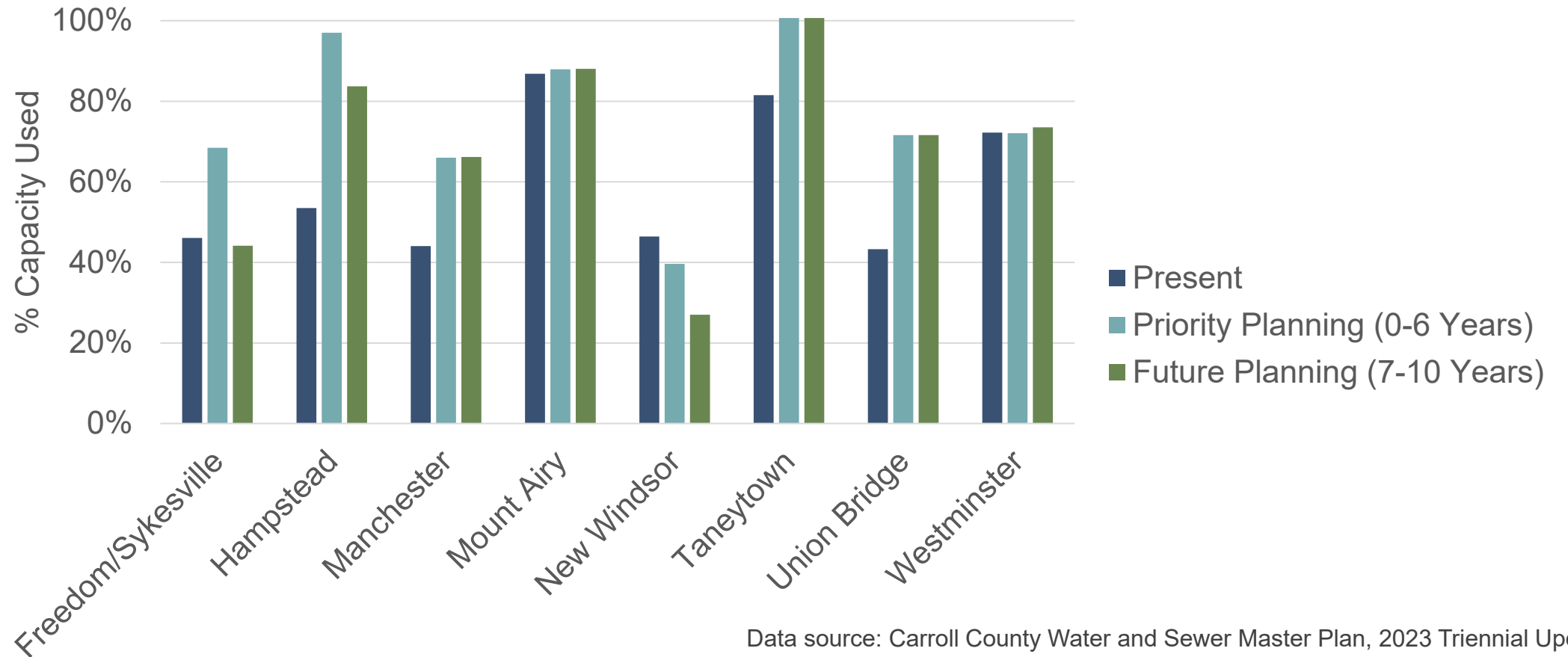


Data source: Carroll County Water and Sewer Master Plan, 2023 Triennial Update

Water Demand and Capacity

Projected Percentage of Capacity Used

- The percentage of water capacity used is expected to increase for most County municipalities over the next decade.

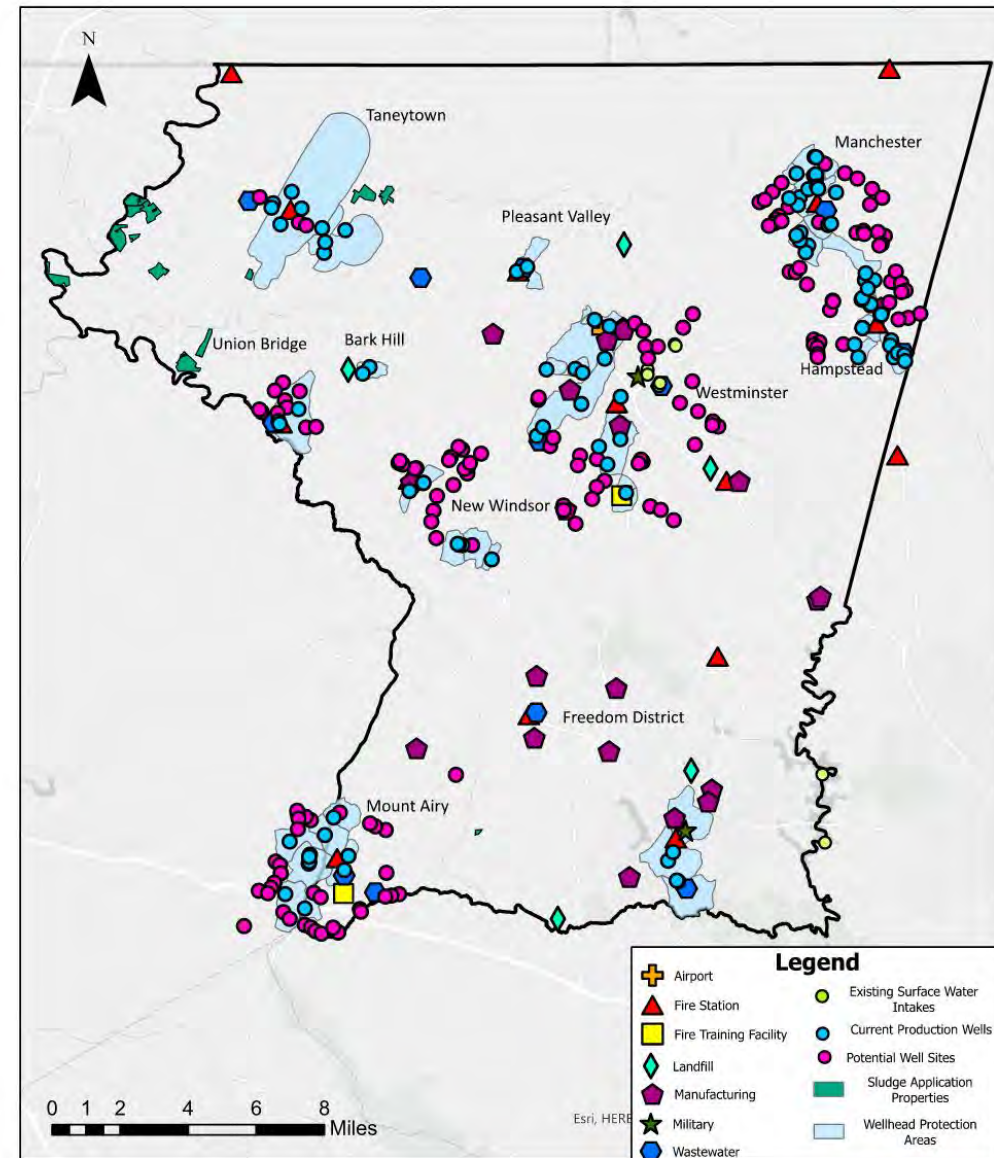
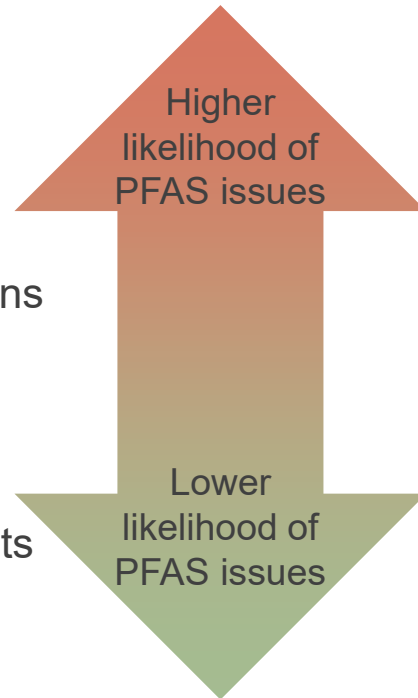


Data source: Carroll County Water and Sewer Master Plan, 2023 Triennial Update

Potential PFAS Sources

Potential PFAS sources in the County include:

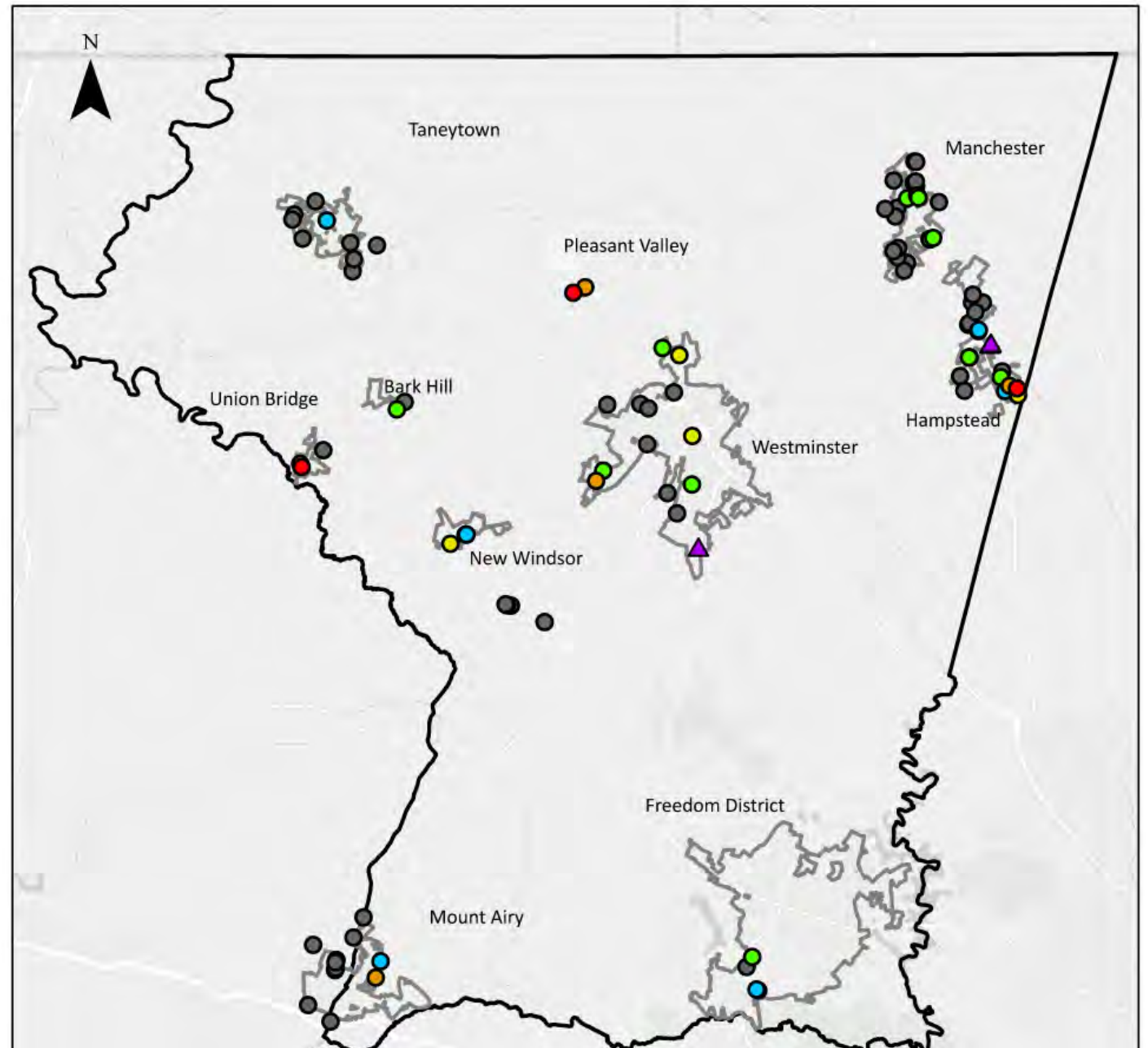
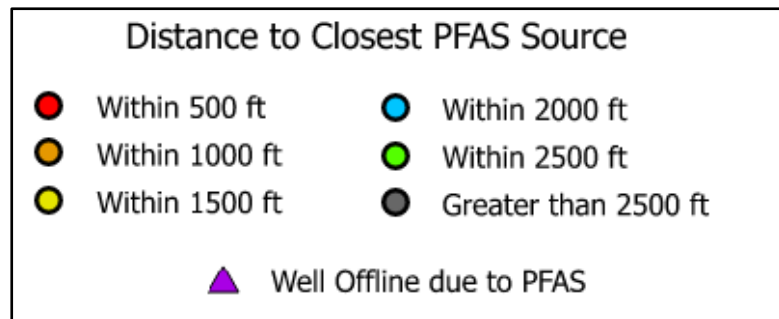
- Fire training facilities
- Fire stations
- Airports
- Military sites and installations
- Landfills
- Manufacturing facilities
- Wastewater treatment plants



Likelihood of PFAS Issues

Proximity of Potential PFAS Sources to Production Wells

- Spatial buffer analysis to identify production wells that are more likely than others to have PFAS issues
- Buffers increase from 500 feet radius to more than 2,500 feet radius
- Results can help prioritize monitoring and identify wells and municipalities that may be affected by PFAS contamination

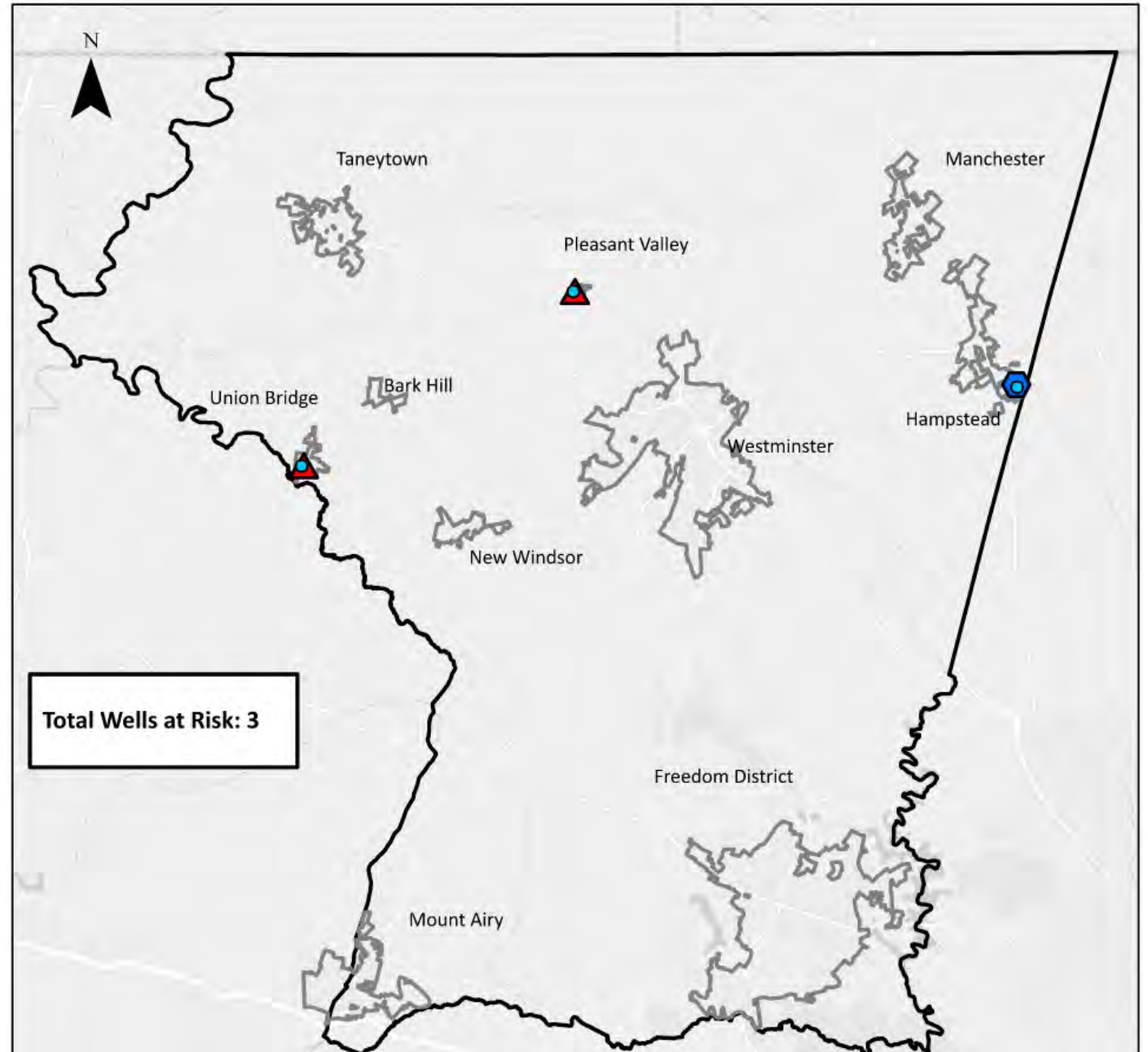


Likelihood of PFAS Issues

500 ft radius

Municipality	Well Name	PFAS Source Type
Pleasant Valley	Fire Station	Fire Station
Hampstead	PW-26	Wastewater
Union Bridge	PW-3	Fire Station

Production Wells	PFAS Source
● Well Online	▲ Fire Station
	● Wastewater

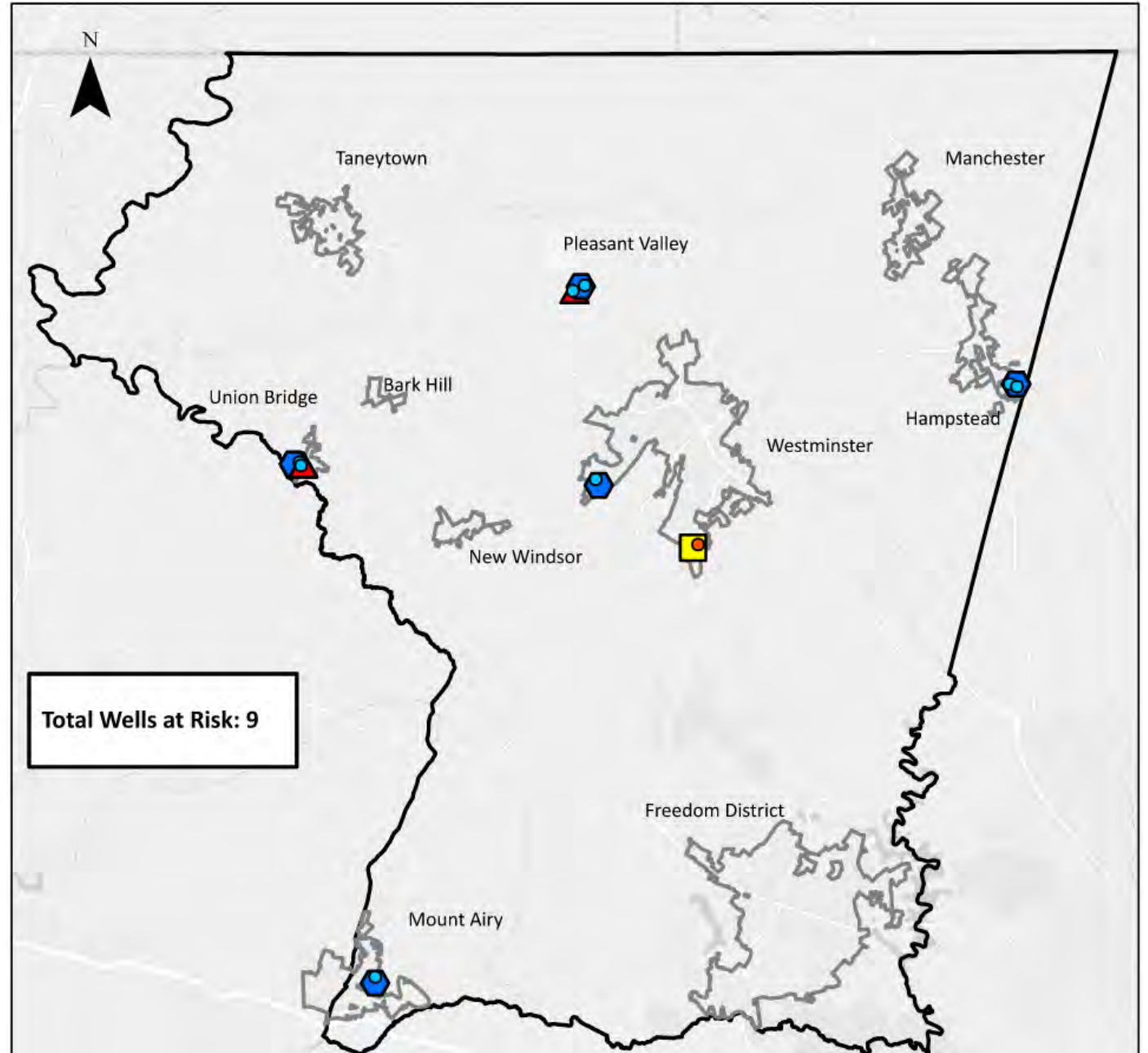


Likelihood of PFAS Issues

1,000 ft radius

Municipality	Well Name	PFAS Source Type
Union Bridge	PW-1	Fire Station, Wastewater
Pleasant Valley	PW-1A	Wastewater
Hampstead	PW-23	Wastewater
Union Bridge	PW-3	Wastewater
Mount Airy	PW-6	Wastewater
Westminster	PW-8 (Vo-Tech)	Fire Training Facility

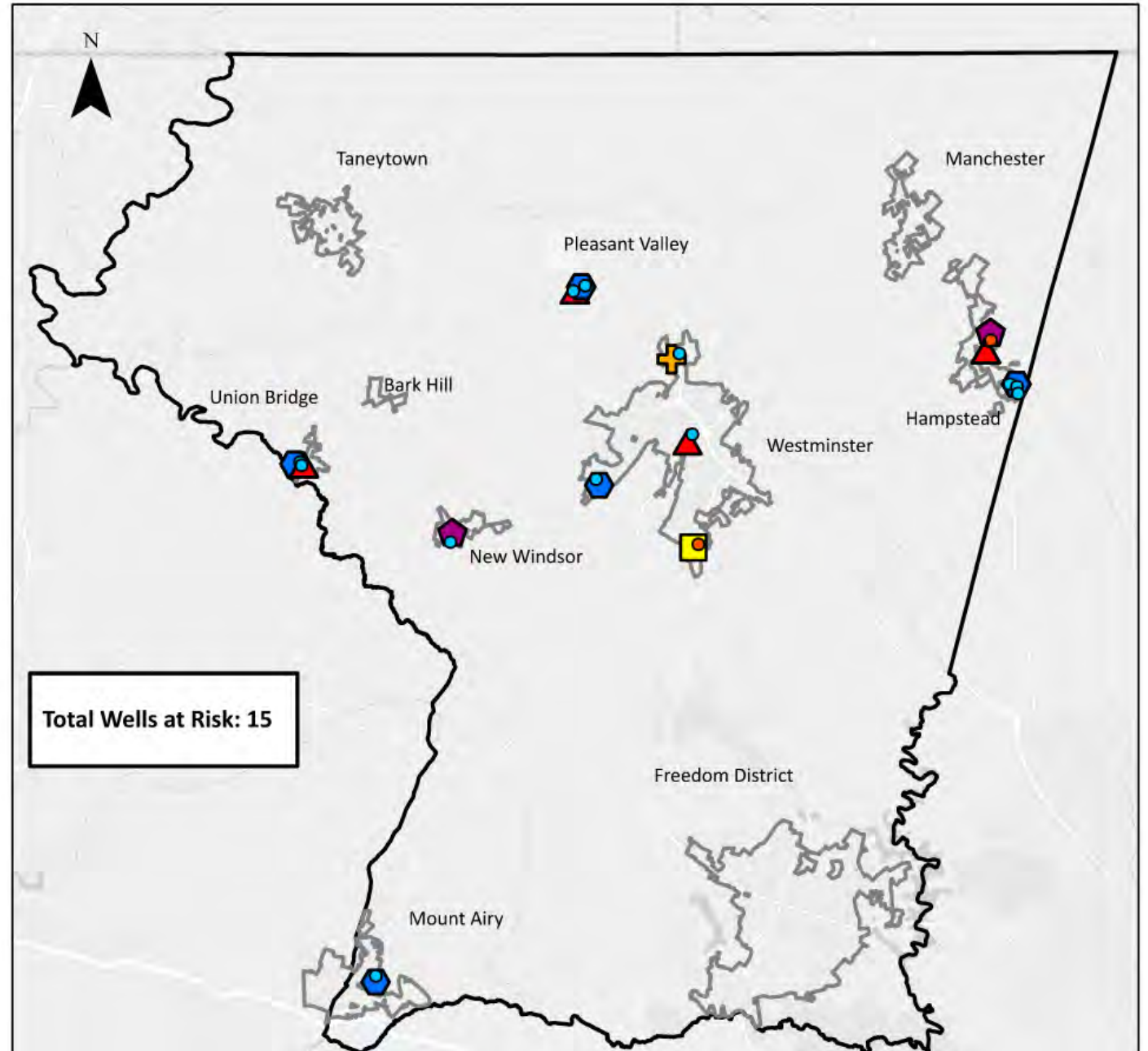
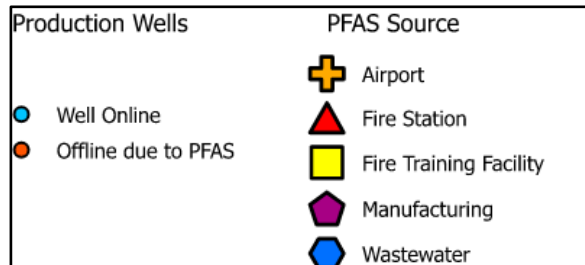
Production Wells	PFAS Source
Well Online	Fire Station
Offline due to PFAS	Fire Training Facility
	Wastewater



Likelihood of PFAS Issues

1,500 ft radius

Municipality	Well Name	PFAS Source Type
Westminster	Koontz Creamery	Fire Station
Hampstead	PW-24	Fire Station, Manufacturing
Hampstead	PW-25	Fire Station, Manufacturing
Hampstead	PW-27	Wastewater
Westminster	PW-4 (Air Bus. Cent.)	Airport
New Windsor	Roops Meadow Spring	Manufacturing



Potential PFAS Implications on Growth and Development

Known PFAS Contamination

- Three wells currently offline due to PFAS are close to fire stations or fire training facilities

Municipality	Well Name	Potential PFAS Source	Buffer Distance (ft)
Hampstead	PW-24	Fire Station	1,500
Hampstead	PW-25	Fire Station	1,500
Westminster	PW-8 (Vo-Tech)	Fire Training Facility	1,000

Potential PFAS Implications on Growth and Development

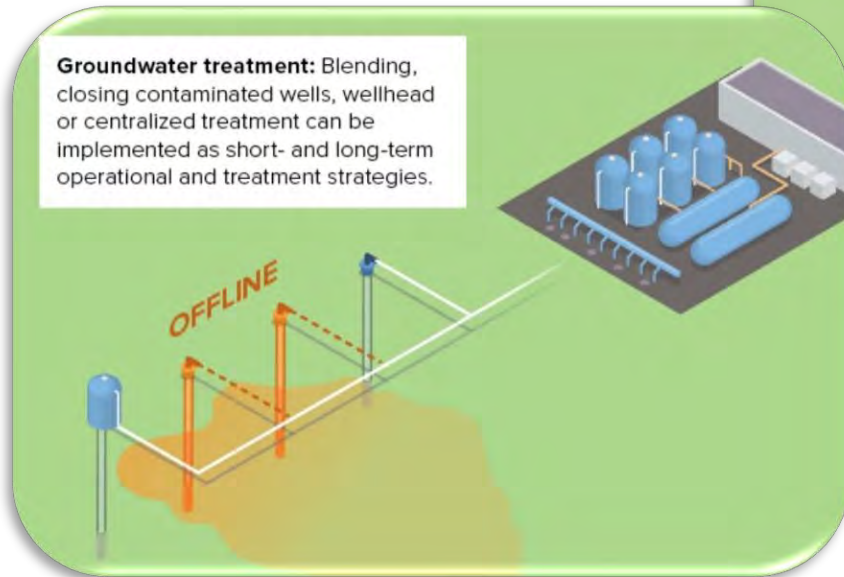
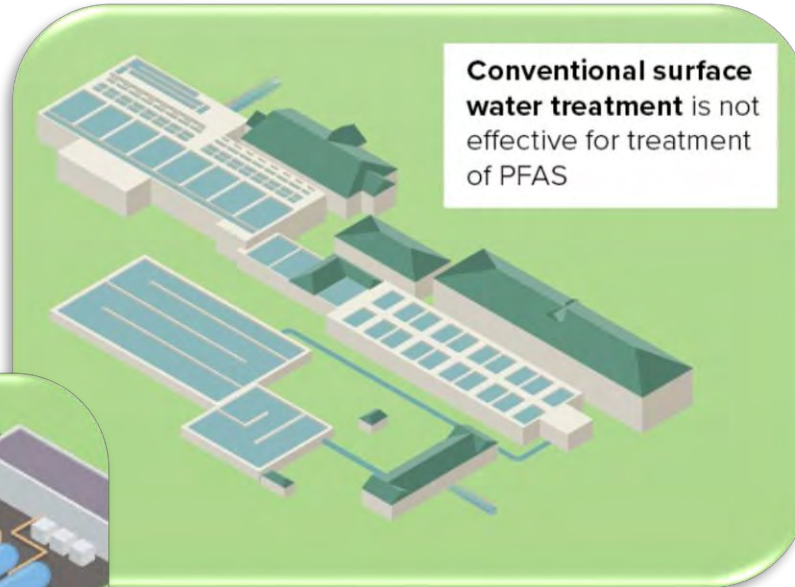
Potential PFAS Contamination from Fire Stations

Municipality	Well Name	Buffer Distance (ft)	% of Average Daily Use	Notes
Hampstead	PW-28, PW-29	2,500	45%	Determined from permitted daily use
Manchester	Holland Dr. Well	2,500	5%	
	Walnut St. Spring	2,500	15%	Determined from Walnut St. spring storage capacity
	Walnut St. Well	2,500	2%	
Mount Airy	PW-5	2,000	19%	Well Field 5 & 6
New Windsor	Roops Meadow Spring	2,000	80%	Dennings Well, Main Spring, Roops Meadow Spring
Pleasant Valley	Fire Station	500	-	Pumping data unavailable
Taneytown	PW-8	2,000	8%	
Union Bridge	PW-1	1,000	24%	
	PW-3	500	18%	Not in use
Westminster	Koontz Creamery (stream augmentation)	1,500	-	Stream augmentation

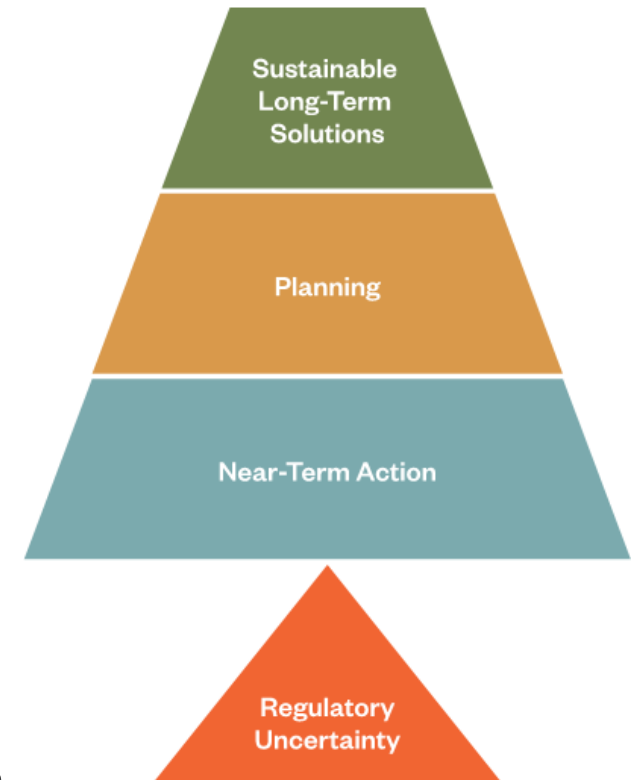
Mitigation Options

PFAS Treatment Options in Drinking Water

Limited effective technologies...



But opportunities for optimized implementation



Mitigation alternatives

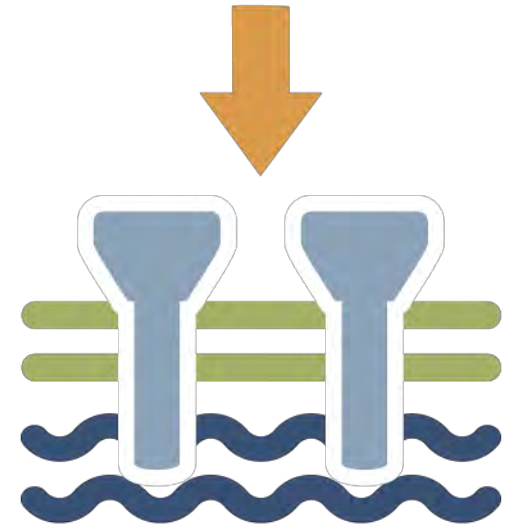
Well Management



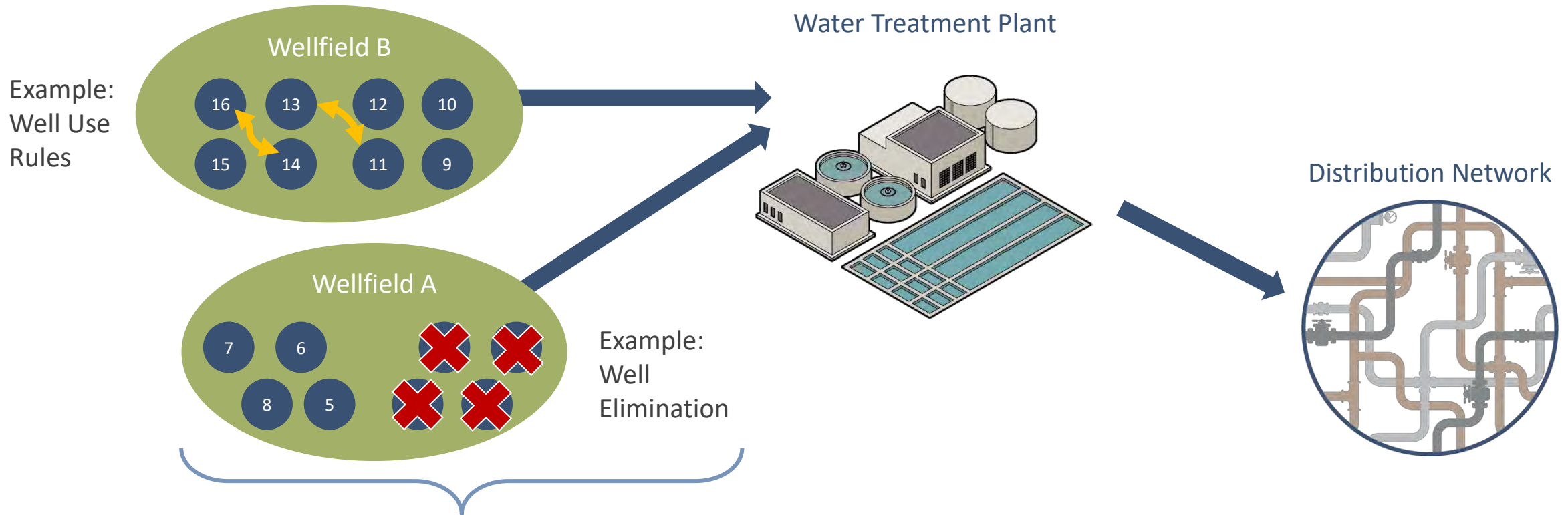
Treatment at WTPs



Treatment at the Source



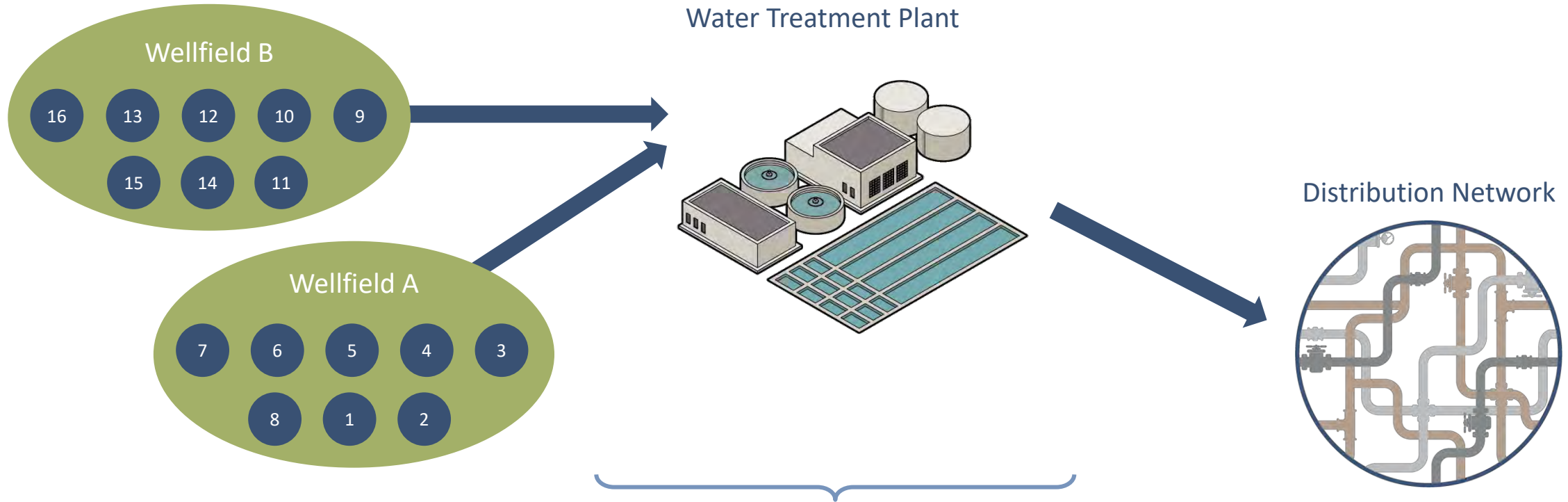
Approach For Evaluating Management and Treatment Options



Step 1: Can WELL MANAGEMENT achieve PFAS Targets

- Use Mass Balance Model of the Well Supply System to define impacts of well operations on observed concentrations at the WTPs
- Study effect of shutting down wells, minimizing use of wells, paired well operation, etc.

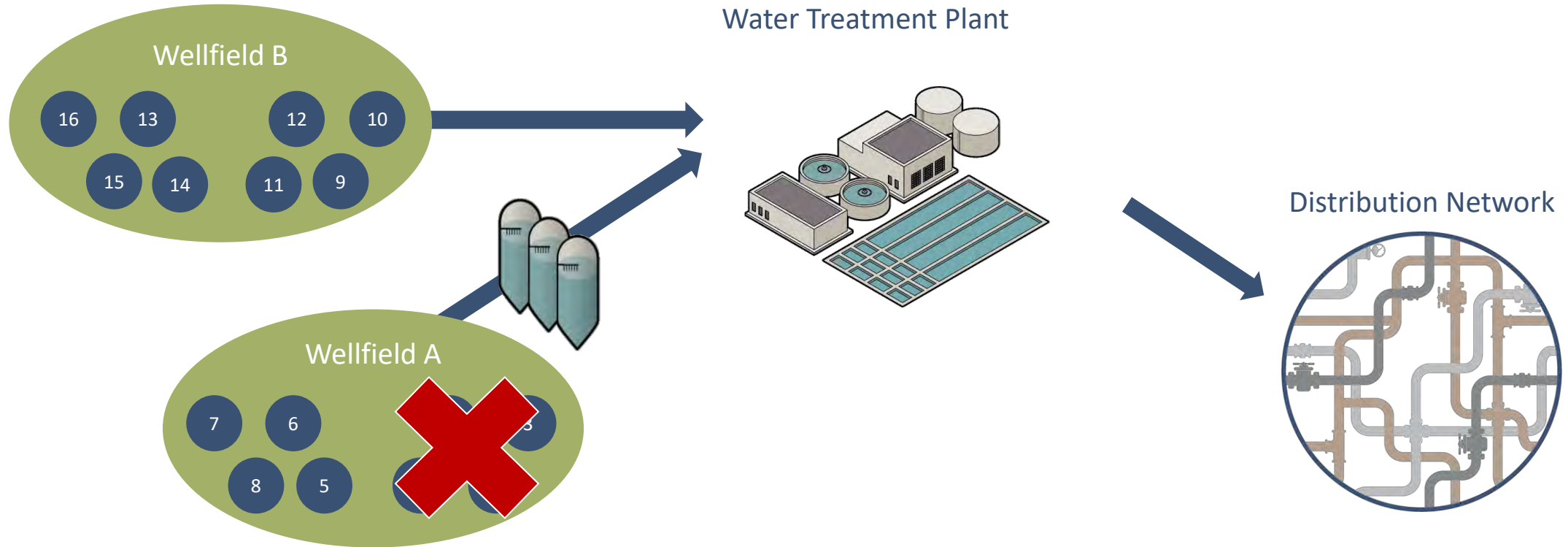
Approach For Evaluating Management and Treatment Options



Step 2: Understand impacts of WTP treatment on concentrations at WTP

- Is treatment at the WTPs capable of meeting PFAS targets?
 - PFOA, PFOS < 4 ppt (Draft MCL)
 - HI < 1

Approach For Evaluating Management and Treatment Options



Step 3: Understand impacts of wellfield treatment on concentrations at WTP

- Is treatment at individual wells/wellfields capable of meeting PFAS targets?


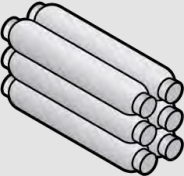

Currently Available Treatment Solutions to Address PFAS in Drinking Water

Even “Advanced” technologies comes up short sometimes



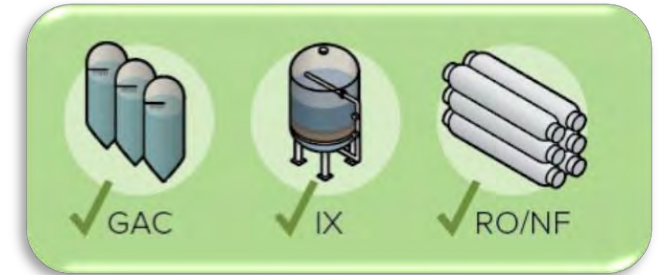
Technology	Benefits	Drawbacks
GAC	<ul style="list-style-type: none"> • Proven PFOA/PFAS removal • Removal of other chemicals (e.g., VOCs, EDCs, PPCPs) • DBP precursor reduction • Can be reactivated/reused 	<ul style="list-style-type: none"> • Carbon replacement costs can be costly especially for short chains • Need to consider breakthrough time and regeneration cycles • Spent Material Disposal concerns (RCRA)
Ion Exchange	<ul style="list-style-type: none"> • Proven PFOA/PFAS removal • May be more effective for removal of some short chain PFASs 	<ul style="list-style-type: none"> • Single use of resin cannot be regenerated • Competing ions may affect performance or require pre-treatment (TOC, Fe/Mn) • Limited removal of other contaminants • Spent Material Disposal concerns (RCRA)
Reverse Osmosis / Nanofiltration	<ul style="list-style-type: none"> • Removal of most PFAS • Removal of additional contaminants • DBP precursor reduction • Softening 	<ul style="list-style-type: none"> • Brine management • Costly compared to other options

PFAS Treatment Approaches

		Pros	Cons	
	Adsorption	Ease of Implementation, Cost Effectiveness	Treatment Effectiveness Varies with WQ and PFAS	} PFAS Separation
	High Pressure Membranes	Removal of Legacy & Next Generation PFAS	Cost and Concentrate Disposal	
	PFAS Destruction	Complete Mineralization of PFAS	Cost and Maturity	

Summary of PFAS removals for various treatment processes

		Removal <10%	Removal 10-90%	Removal > 90%						
	M.W. (g/mol)	AER	COAG/ DAF	COAG/ FLOC/ SED/ G-or M-FIL	AIX	GAC	NF	RO	MnO4, O3, ClO2, Cl2, CLM, UV, UV-AOP	
PFBA	214	Assumed	Assumed							
PFPeA	264									
PFHxA	314									
PFHpA	364									
PFOA	414									
PFNA	464		Unknown		Assumed	Assumed				
PFDA	514		Unknown		Assumed	Assumed				
PFBS	300									
PFHxS	400									
PFOS	500									
FOSA	499	Unknown	Unknown		Unknown	Assumed	Unknown	Assumed	Unknown	
N-MeFOSAA	571	Assumed	Unknown		Assumed	Assumed	Assumed		Unknown	
N-EtFOSAA	585		Unknown		Assumed	Assumed	Assumed		Unknown	



Removal of PFAS from source waters depends on target, concentration, raw water quality and other variables (WaterRF 4322)

Benchmarking Treatment Conditions

Adsorption Systems

Adsorbent	Adsorber Configuration	EBCT (Total, min)	Flow Rate (MGD)	Spent Media Disposal	Interest Rate	Lifespan
GAC	Lead/Lag	20	1.5, 10	Off-Site Regeneration	5%	30 years
IX Resin	Lead/Lag	4	1.5, 10	Throwaway, Non-Hazardous		

Membrane Systems

Membrane	Flow Rate (MGD)	Background Water Quality	Flux (gfd)	Concentrate Disposal	Interest Rate	Lifespan
NF	1.5, 10	High/Low	19 _{High} / 17 _{Low}	Ocean Outfall/POTW	5%	30 years
RO	1.5, 10	High/Low	19 _{High} / 17 _{Low}	Ocean Outfall/POTW		
Constant flux operation contingent on background water quality selection						

Determining Cost of Compliance

How to determine Cost of Compliance?



1. Understand the potential impacts of regulatory action (which compounds, which technologies, residuals?)
2. Understand feasibility and viability of treatment technologies (ie., IX resin is not suitable for gravity contactors)
3. Cost of compliance is a function of capital and operating and maintenance costs
 - Capital costs are escalating rapidly
 - O&M is critically important to cost of compliance
 - Media and residuals disposal costs are in flux
4. How to pay for the upgrades?

Cost Modeling Strategy

Today



Class V Cost Curves available

Class IV Estimates take a little longer, and may immediately be obsolete

Tomorrow



O&M is a function of:

- Media replacement (IX, GAC)
- Pumping Costs
- Brine / media disposal

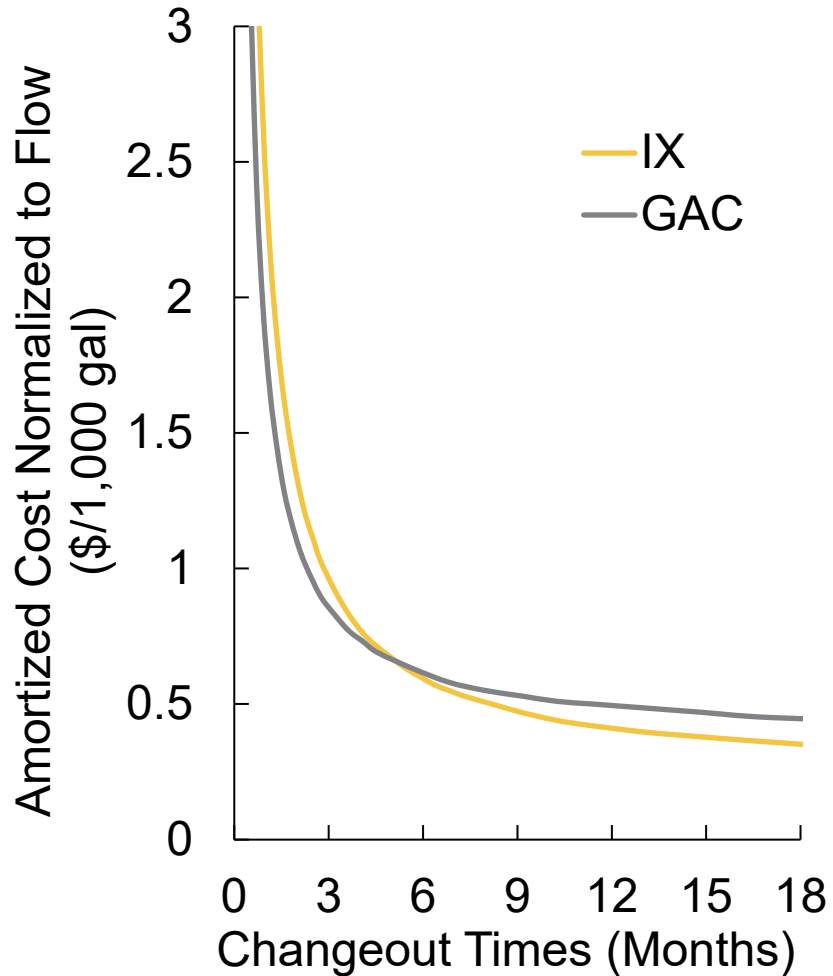
The Future



The future can be impacted by:

- Short-chain PFAS regulations
- Cost Uncertainty
- Supply-chain issues
- Disposal of Media or Residuals

Cost of Adsorptive Treatment



- IX and GAC cost curves look very similar.
- At changeout times exceeding 6 months, IX resin may become more cost effective.
- Cost curves can be adapted for a variety of operation conditions, adjustments of appropriate spent media disposal costs remains ongoing.

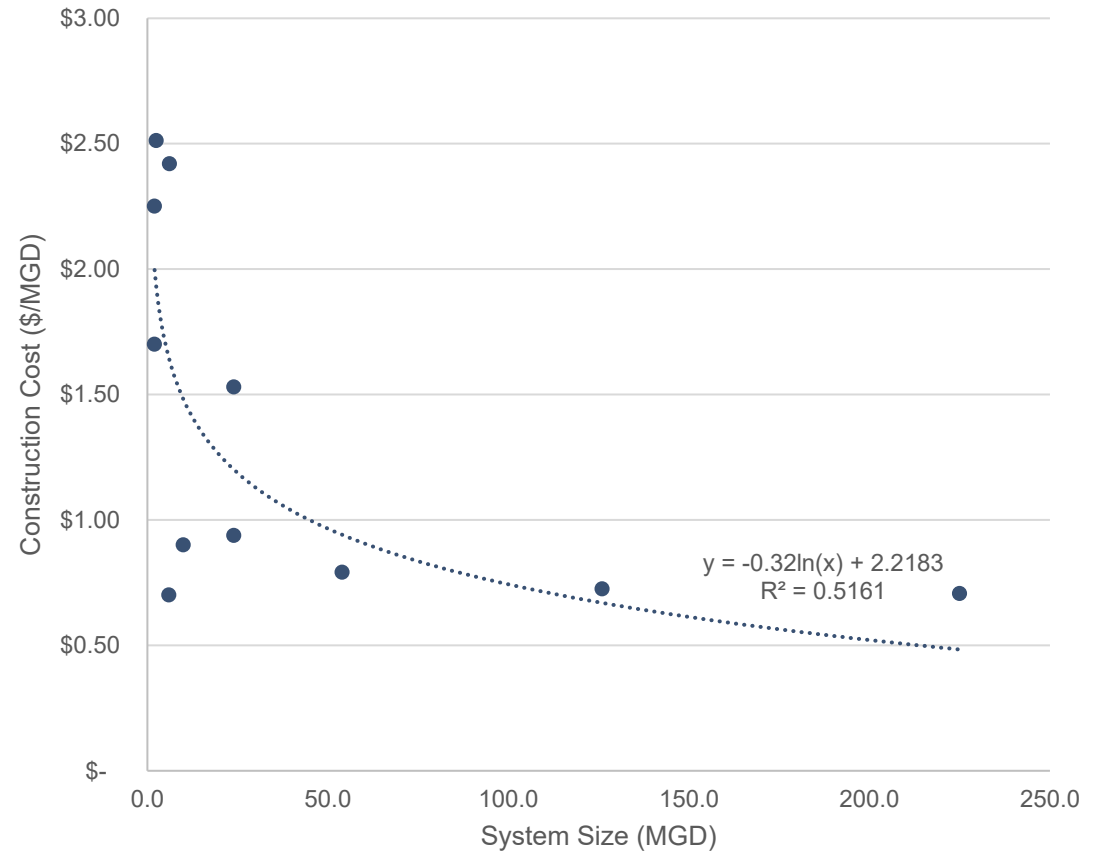
Adsorbent	Adsorber Configuration	EBCT (Total, min)	Flow Rate (MGD)	Spent Media Disposal
GAC	Lead/Lag	20	1.5	Off-Site Regeneration
IX resin	Lead/Lag	4	1.5	Throwaway, Non-Hazardous

Capital Cost Estimates Developed from Projects Around the Country

Today's Options



GAC Cost Curve for PFAS projects



Additional Cost Modeling Tools to Expand capabilities

Working towards tomorrow's

Water Research Foundation Project 4913: Investigation of Treatment Alternatives for Short-chain PFAS



THE Water Research FOUNDATION

Hazen

NC STATE UNIVERSITY

AMERICAN WATER



CDM Smith
listen. think. deliver.



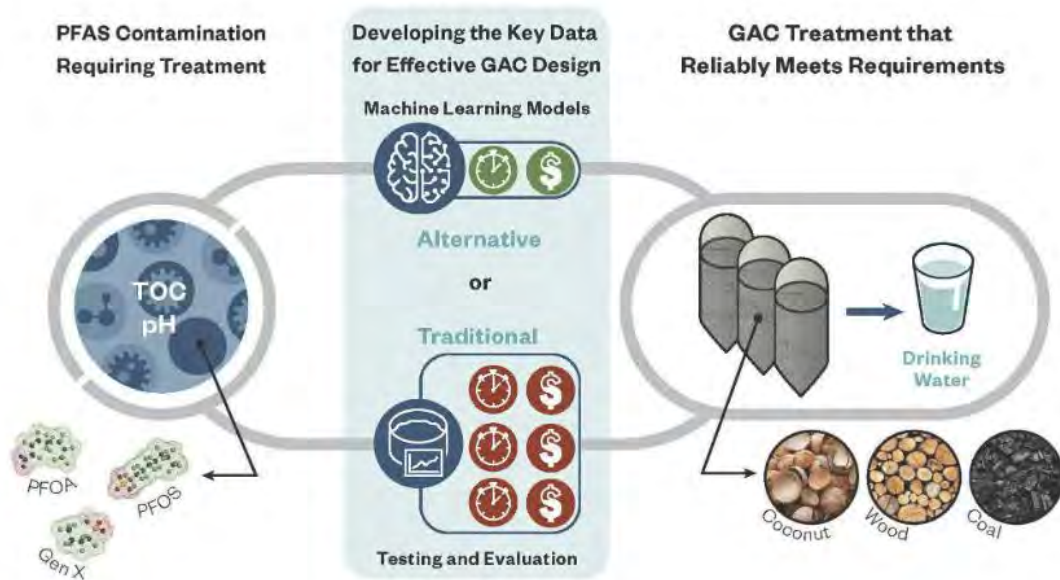
Work Breakdown Structure (WBS) Models Previously Developed by EPA

STEP 5		Generate Results	Resulting Costs (in year 2020 dollars, see OUTPUT sheet for details)
Results are ready (no need to click button)			Direct Capital Cost: \$4,431,280 Total Capital Cost: \$6,716,378 Annualized Capital Cost: \$368,444 per year (over 30 years at 4%) Annual O&M Cost: \$557,512 per year Total Annualized Cost: \$346,356 per year (4% capital, 53% O&M)
MANUAL INPUTS <i>Cells in gold are required; cells in blue are optional</i>			
Design Flow (including bypass)	10,000 MGD	Select units	
Average Flow (including bypass)	10,000 MGD		
	For information: Treatment system design flow: 10,000 MGD Bypass design flow: 0,000 MGD		
		System size inputs OK	Current bypass percentage is 0%. Go to Critical Design Assumptions (link below) to change this value. Adjust bypass percentage
Select carbon life input type	carbon life value- bed volumes	<- pick one	Guidance: Carbon life is best determined by pilot or RSSCT tests. Use theoretical calculation methods (e.g., Freundlich isotherms) only in the absence of such data for initial assessment of carbon life and suitability of GAC for treatment. See Freundlich isotherm reference data See PFAS breakthrough reference data
Carbon life	300000	bed volumes	Important: carbon life calculation assumes bed volumes are based on EBCT per vessel Carbon life reflects time between change outs of the lead vessel
	no additional input required	not required	
	no additional input required	not required	
	For information: Carbon Life: 69.5 months at average flow	Carbon input OK	
Contaminant removal input type	EBCT	<- pick one	Guidance: EBCT is best determined by pilot tests, but may be calculated for radon if a steady state rate constant (Ks) is available. Use the theoretical calculation method for radon only in the absence of pilot data for initial assessment of EBCT and suitability of GAC for treatment. Consider multiple vessels in series for long EBCTs (> 10 minutes)
Total Theoretical Empty Bed Contact Time (EBCT)	20	minutes	
	no additional input required	not required	
Minimum number of contactors in series (i.e., parallel or series operation)	2	<- enter 1 for parallel, 2 or more for series	
	For information: EBCT: 20.0 minutes at design flow EBCT per contactor: 10.0 minutes at design flow	Contaminant removal inputs OK	
Pressure Vessels	The next four inputs may be entered manually, or calculated with AutoSize button. All other gold inputs must be complete before AutoSizing.		
Auto Size Pressure Vessels	Bed depth	7 feet	Guidance: Typical pressure GAC bed depths are 2 to 8.5 ft.
	Vessel geometry	upright	Guidance: Typically upright, although larger systems (e.g., greater than 2,000 gpm) might use horizontal vessels
	Height (straight)	11 feet	Guidance: Typically up to 14 feet for upright vessels, 20 to 40 feet for horizontal vessels
	Diameter	13 feet	Guidance: Typically 1.5 to 14 feet for upright vessels, 10 to 14 feet for horizontal vessels
	For information: Number of treatment trains: 10 trains Number of operating vessels: 20 units Total vessels (incl. redundancy, below): 23 units		

O&M Costs are crucial to understanding viability of treatment technology

Today's cost estimates

- IX models produce accurate cost estimates. GAC estimates were lacking.



Instructions: Please provide as much information as possible in the table below.
 Blue background data is critical for PFAS rating
 Green background data will be assumed ND for PFAS rating
 Do not Modify the Sheet as it will create errors when processing

rev17Sep2021FB

Information Requested for PFAS Treatment					Non-PFAS treatment goals	Ratings for BV based on resin volume in lead vessel with PFAS break as indicated below	
Customer:		Date rated:				PFAS Break measured ex LEAD Vessel at:	PFAS Break measured ex LAG Vessel at:
Project:		Sample:					
Description	Units	Influent Water					
		Min	Avg	Max			
Operational Flow Rate	gpm						
Operational Schedule	hour/day						
Daily Volume (average)	Gallons						
Sulfate	mg/L (ppm)						
Nitrate (as N)	mg/L as N						
Nitrate (as NO3)	mg/L as NO3						
Alkalinity (as CaCO3)	mg/L as CaCO3						
Chloride	mg/L (ppm)						
Fluoride	mg/L (ppm)						
Perchlorate	µg/L (ppb)				(e.g. < 4 ppb)		
Arsenate (As (V))	µg/L (ppb)						
Hexavalent chromium (chromate) Cr(VI)	µg/L (ppb)						
Uranium	µg/L (ppb)						
Calcium (as CaCO3)	mg/L as CaCO3						
Magnesium (as CaCO3)	mg/L as CaCO3						
Sodium	mg/L (ppm)						
Potassium	mg/L (ppm)						
Iron	mg/L (ppm)						
Manganese	mg/L (ppm)						

PFAS Spent Adsorbent Disposal

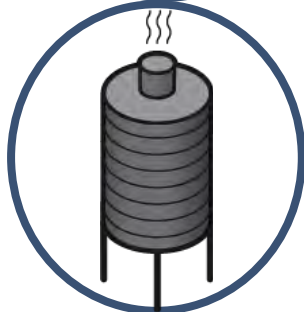
Costs and Availability Changing Rapidly



Landfilling:

Subtitle D \$50-\$100 per ton

Subtitle C \$300-\$500 per ton



Incineration:

MSW Incinerator \$200-\$300 per ton

HW Incinerator \$1,200+ per ton



Electrochemical Oxidation, Super Critical Water Oxidation, Plasma, Hydrothermal Liquefaction, Others
Costs not well developed

Case Study – Peoples Water in Florida - ~1.5 MGD Well

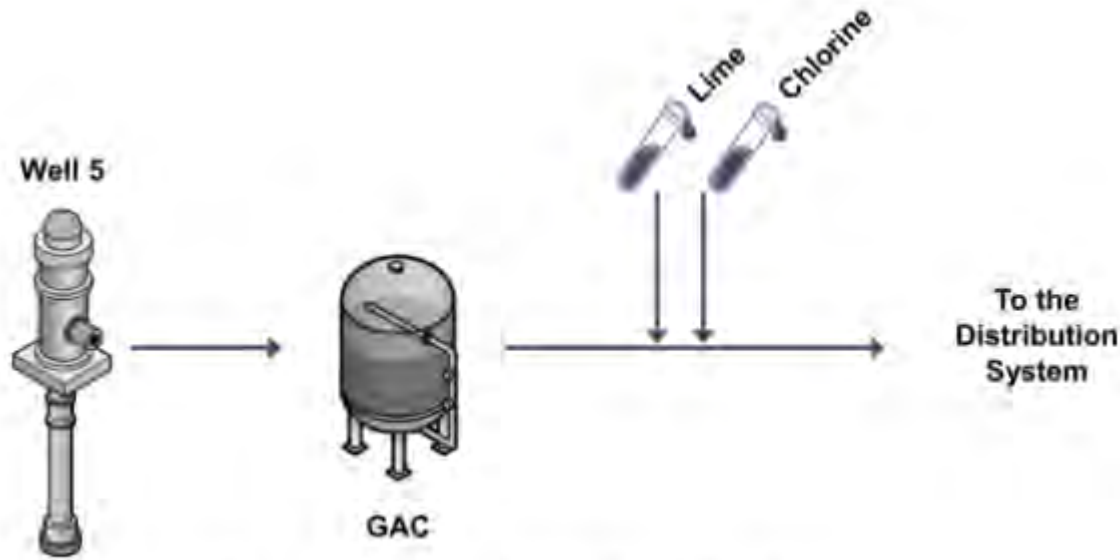


Figure 5-1: Proposed Well 5 GAC Process Flow Diagram

Table 5-2: Hazen and Calgon Projected GAC Replacement

Goal	Bed Volume to PFAS Breakthrough	GAC Changeout Frequency*
Calgon carbon Corporation Model	105,000	1.9 years
Hazen GAC Model	83,000	1.5 years

*: Changeout frequency is assumed to be based on continuous operation of Well 5 at 1,000 gpm.

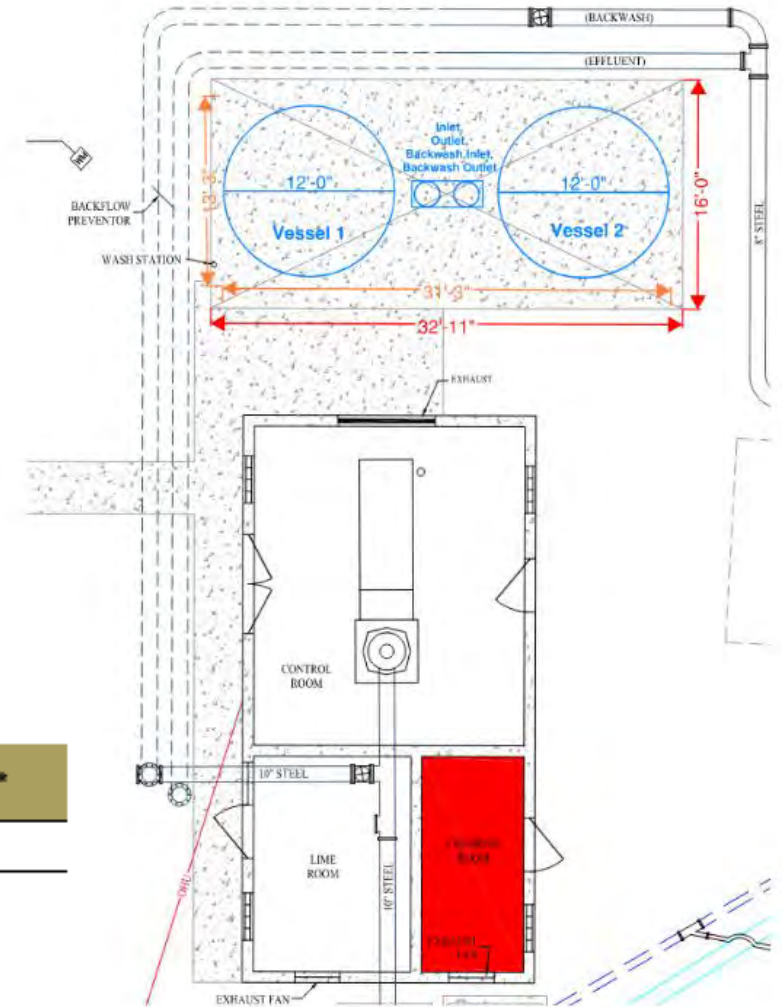


Figure 5-2: Well 5 Estimated Site Layout for GAC

Case Study – Peoples Water in Florida - ~1.5 MGD Well

Table 5-3: GAC Capital Cost Estimate

Description	Cost
General Conditions	\$126,000
Civil/Site Work	\$150,000
Mechanical*	\$750,000
GAC Vessels	\$600,000
GAC Media	\$150,000
Structural	\$150,000
Architectural	NA
HVAC/Plumbing	NA
Electrical	\$105,000
Instrumentation & Controls	\$105,000
Subtotal	\$1,386,000
Design Contingency (30%)	\$416,000
Contractor Overhead, Profit & Fee (25%)	\$347,000
Escalation (at 3%-5% Annually)	\$69,000
Bond and Insurance (3%)	\$42,000
TOTAL	\$2,260,000

*: Summation of GAC Vessels and GAC Media

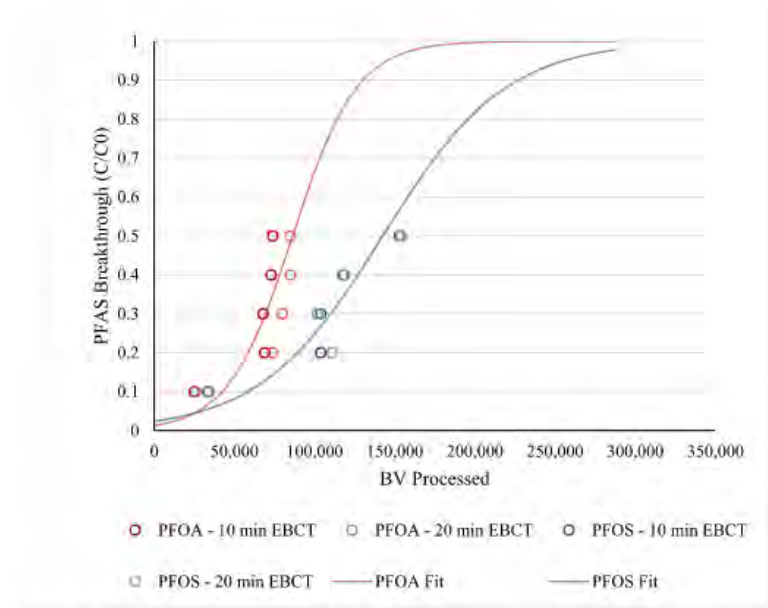


Figure 5-3: Hazen Predicted PWSC Well 5 GAC PFAS Breakthrough Versus Bed Volumes Processed.

Table 5-6: Calgon GAC Cost Comparison with Purolite AdEdge IX System

Cost Metric	GAC (Section 5.1)		IX (Section 5.2)	
	Low Estimate	High Estimate	Low Estimate	High Estimate
Capital Cost	\$2,260,000		\$2,281,200	
Annual O&M	\$8,784.84	\$109,836.49	\$15,523.12	\$153,419.61
Cost Per Gallon(per 1,000 gallons)	\$0.21		\$0.29	
Net Present Value *	\$2,390,696.19	\$3,894,089.63	\$2,512,144.88	\$4,563,696.38

*: 3% escalation, annualized over 20 years

Q&A



WRCC Meeting Summary August 23, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- John Dick, Westminster
- Gary Dye, New Windsor
- Delbert Green, Manchester
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Alex Perricone, Manchester
- Jim Roark, Hampstead
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Dick Swanson, Mount Airy

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Mary Lane
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Ed Singer

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Bryan Bokey, CC DPW
- Jason Green, CC DPW
- Lydia Rogers, CC M&B

Guest Speakers:

- Eileen Singleton, BMC

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:30 PM.

Vice Chair – Jim Wieprecht

None.

2. Approval of Meeting Summary – July 26, 2023

Approval of the July meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Jim Wieprecht and seconded by Alex Perricone to approve the July 26, 2023, meeting summary as written. Motion carried.

3. BMC Climate Change Resource Tool for Local Jurisdictions Follow-Up – Eileen Singleton, BMC

- Eileen Singleton presented follow-up documents to the [Climate Change Resource Guide](#), on which she provided an overview to the WRCC in November 2022. The follow-up documents that accompany the Guide focus on strategies for local governments to identify and implement resilience measures. The first document, [Climate Resilience Guidance for Local Jurisdictions](#), was developed to further assist departments of transportation and public works to incorporate climate resilience projects. The second document, [Recommendations for Interjurisdictional Coordination on Climate Resilience](#), provided interjurisdictional coordination recommendations.

- Ms. Singleton also shared information regarding the cooperative effort of Baltimore region jurisdictions to take the next step toward the Baltimore toward developing the Baltimore Regional Roadmap to Resilience, or “Baltimore R3.” An application for a Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (“PROTECT”) planning grant, if awarded, will be used to develop a Transportation Resilience Improvement Plan (“TRIP”) for the region and perform revenue mapping to support fiscal sustainability and implementation capacity.

Reference/Attachment:

- PowerPoint: *Enhancing Climate Resilience and interjurisdictional Collaboration (BMC)*
- PowerPoint: *PROTECT Program Application: Baltimore Regional Roadmap to Resilience*

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Task 1.2: Automation of Portions of Buildable Land Inventory model: Completion is anticipated for early September.
- Task 2: Groundwater Allocability: Comments on a revised technical memo addressing general options for improving groundwater allocability will be provided to Hazen this week.
- Task 3: Emerging Contaminants: Additional data was provided to Hazen. The remaining, outstanding information is clarification of percentage of average daily use figures for wells that are within a certain buffer area from volunteer fire departments. A review, and revision, if needed, was requested from the municipalities by August 18.
- Task 4: MDE TIPP Spreadsheet Comparison: The draft technical memo is anticipated by the end of August.
- Task 5: Climate Change Impacts: Additional GIS data was provided to Hazen, including flood data. The evaluation and draft technical memo are in progress.
- Task 6: Update 2010 WRE Supporting Documents: All capacity and demand (C&D) workbooks were provided to Hazen except for Mount Airy and Westminster. Demand revisions will be made to the Mount Airy workbook before providing to Hazen, and additional data is needed for the Westminster C&D workbook.

Reference/Attachment:

- *N/A*

5. Municipal Stormwater Projects Update – Janet O’Meara

- Janet O’Meara provided an update on the municipal stormwater restoration projects.
- Ms. O’Meara also shared that Ed Singer is leaving to take a position with Citizen Services. Elizabeth Caron is also leaving.

Reference/Attachment:

- *Municipal Project Status, August 23, 2023*

6. Other

- A-StoRM: Mr. Heyn shared that MDE requested feedback from the Stakeholder Consultation Group on proposed revisions to the State’s stormwater regulations. He sent a comment letter to MDE. A copy will be emailed to the municipalities. Some of the proposed revisions would result in significantly more cost to property developers and local jurisdictions, without necessarily providing a logical benefit. Implementation of any proposed revisions is still several years away, as MDE is planning to propose State legislation to authorize these changes in the 2023 legislative session. Additional time after passage would be provided for local jurisdictions to make the subsequent changes to local codes.
- Lead & Copper Rule: As a follow-up to the June presentation by Mr. Hyde from MDE, Ms. Dinne will send out links to MDE’s Lead & Copper webpage, guide, and Association of State Drinking Water Administrators (ASDWA) webinars. Ms. Hirt indicated that GIS-based solutions

are available to help manage this data, and many other counties seem to be using this tool. She will look for a demo video to share.

- NPDES MS4: Ms. Hirt reminded everyone that JotForms are due Friday, August 25. Mr. Edwards shared that a save-the-date email was sent out for the annual NPDES training. The new MS4 and 20SW permits include many changes. The training will take place on November 3 at the Fire Training Center.
- Frank Schaeffer Memorial Run/Fun Run: Mr. Hann noted that the annual memorial event will be held on October 21.

7. Adjournment

The meeting adjourned at 3:27 PM.

MEETING ADJOURNMENT: Motion was made by Alex Perricone and seconded by Dick Swanson to adjourn the August 23, 2023, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, September 27, 2023*



**BALTIMORE
METROPOLITAN
COUNCIL**



Enhancing Climate Resilience and Interjurisdictional Collaboration

August 23, 2023



Overview

- **Recap: Climate Change Resource Guide**
- **Climate Resilience Guidance for Local Jurisdictions**
- **Recommendations for Interjurisdictional Coordination on Climate Resilience**
- **Regional application to FHWA PROTECT Program**

Resilience Planning Activities:

After development of the Climate Change Resource Guide, the region undertook the next step to develop more detailed guidance and develop recommendations to institutionalize ongoing inter-jurisdictional coordination on climate resilience. The following documents were developed in February 2022:

CLIMATE RESILIENCE GUIDANCE FOR LOCAL JURISDICTIONS

RECOMMENDATIONS FOR INTERJURISDICTIONAL COORDINATION ON CLIMATE RESILIENCE

In October 2021, the **Climate Change Resource Guide** was completed to provide a resource to local jurisdictions on adaptation options to consider as they plan, design, operate, and maintain their local infrastructure. The Guide includes an overview of projected changes to the climate, documentation of how the changing climate has already impacted them, adaptation options, and a **Toolkit** that makes the content of each chapter actionable for users. The project also included a summary **presentation** that can be used by any agency to inform them about the Guide.

CLIMATE CHANGE ADAPTATION TOOLKIT

CLIMATE CHANGE RESOURCE GUIDE

FINAL PRESENTATION FOR CLIMATE CHANGE RESOURCE GUIDE



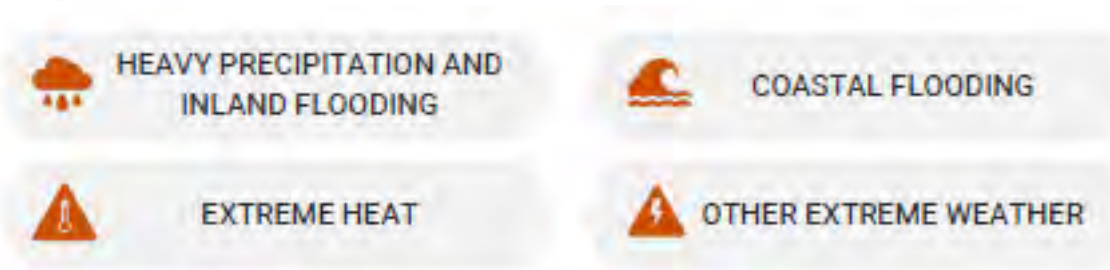
<https://baltometro.org/environment/planning-areas/climate-change-resilience>

Recap: Climate Change Resource Guide

- Climate Change Resource Guide and Toolkit support efforts of local DPWs and DOTs to prepare for climate change
- Covers 6 infrastructure service areas:



- Climate impacts:



KEY TERMS







There are two ways to take action on climate change:






- **Adaptation:** Measures to proactively adjust to a changing environment.
Examples include ensuring sufficient building cooling systems given rising temperatures or siting assets outside future flood zones.
- **Mitigation:** Measures to reduce greenhouse gas emissions to slow or stop the impacts of climate change.
Examples include transition to clean energy sources or electrification of building heating systems.

This Resource Guide and Toolkit focus on adaptation.

Toolkit Overview

- The Toolkit, within the Resource Guide, is a worksheet that makes the content from each chapter actionable for users, by including questions to consider
- Completed Toolkit example is included in Appendix C

Toolkit Questions	Enter Your Responses
Climate science: Chapter 2 and Appendix A	
<p>1. What climate hazards are relevant to your work or project? Use the information about current and future climate change in Chapter 2 (regional summary) and Appendix A (jurisdictional data) to determine relevant climate hazards.</p> <p> For each climate hazard, certain variables may be highly relevant to your service area or project (e.g., number of days above 90°F for worker safety; heating/cooling degree days for facilities; freeze/thaw days for transportation). Review the list of climate variables in Appendix A to identify variables particularly relevant to your work.</p>	<p>Climate hazards</p> <p><input type="checkbox"/>  Temperature</p> <p><input type="checkbox"/>  Precipitation</p> <p><input type="checkbox"/>  Sea level rise and storm surge</p> <p><input type="checkbox"/>  Other extreme weather</p> <p>Climate variables</p>
<p>2. For each of the climate hazards: What are the historical climate conditions? How are the climate conditions changing in your jurisdiction? Use the information about current and future climate change in Chapter 2 (regional summary) and Appendix A (jurisdictional data) to evaluate how the climate hazards are changing.</p> <p> Consider your planning timeframe or asset's useful life when reviewing the projected climate conditions. For example, decisions about maintenance or replacement of facility mechanical components should consider medium-term projections (centered around 2050), while decisions about construction of new long-lived infrastructure should consider long-term projections (end of century and beyond).</p>	<p>Historical climate conditions Projected climate conditions</p>

Toolkit Questions	Enter Your Responses
Climate impacts: Chapter 3	
<p>3. Given changing climate conditions, what are anticipated impacts to your service area or project? Consider impacts that your service area or project has recently <u>experienced, and</u> use the climate projections from Question 2 along with the information and examples from Chapter 3 to determine projected climate impacts.</p> <p> Which anticipated impacts are priorities to address? Consider prioritizing impacts based on potential damage, disruption of public services, and cost of repair.</p> <p>4. Have climate impacts to your service area or project disproportionately affected vulnerable populations? Review the a) BMC Vulnerable Populations Index, b) Maryland Commission on Climate Change Adaptation and Resiliency Work Group's Justice, Equity, Diversity, and Inclusion Strategic Framework, and c) information on climate impacts from Chapter 3 to consider the uneven impacts to vulnerable populations who may face elevated climate risks.</p> <p> Are there areas where infrastructure investments could both reduce climate impacts and enhance social equity?</p>	<p>Projected climate impacts</p>
Policies: Chapter 4	
<p>5. Are there state and local policies on climate impacts that affect your work or project? Use the information from Chapter 4 to determine relevant climate policies.</p> <p> Are there policies that would help facilitate climate adaptation measures if approached from a climate perspective? For example, environmental justice policies may help show progress or build support when addressing climate. On the flipside, are there policy or planning barriers that limit your ability to address climate impacts?</p>	
Adaptation options: Chapter 5	
<p>6. Given the projected climate impacts, what are potential adaptation strategies within your service area or for your project, across relevant functions (e.g., design, maintenance)? Use the information and examples from Chapter 5 to begin to identify potential adaptation strategies.</p> <p> What adaptation options are no-regrets (i.e., generate benefits regardless of future climate) and/or could be implemented in the near-term? What adaptation options are no or low cost?</p>	
Funding and financing: Chapter 6	
<p>7. What funding and financing sources are available to help implement the adaptation options? Use the information and examples from Chapter 6 to begin to identify potential funding and financing strategies for adaptation.</p>	
Next steps	
<p>8. What are your next steps to address these climate impacts and plan for these adaptation options?</p> <p> For the selected adaptation strategies, would there be implications to other service areas? Are there other agencies or departments (inside or outside your jurisdiction) your DPW or DOT should coordinate with?</p>	

Resource Guide Overview

- Ch 1: Introduction and Toolkit
- Ch 2: The Changing Climate
- Ch 3: Climate Change Impacts
- Ch 4: Policies
- Ch 5: Adaptation Options
- Ch 6: Funding and Financing
- Appendix A: Jurisdictional Climate Data
- Appendix B: Climate Science Data and Methods
- Appendix C: Toolkit Example



Planning, Designing, Operating, and Maintaining Local Infrastructure in a Changing Climate

A Resource Guide for Departments of Public Works and Departments of Transportation in the Baltimore Region



City of Baltimore | City of Annapolis | Anne Arundel County | Baltimore County
Carroll County | Harford County | Howard County | Queen Anne's County

Resilience Planning Activities:

After development of the Climate Change Resource Guide, the region undertook the next step to develop more detailed guidance and develop recommendations to institutionalize ongoing inter-jurisdictional coordination on climate resilience. The following documents were developed in February 2022:



CLIMATE RESILIENCE GUIDANCE FOR LOCAL JURISDICTIONS

RECOMMENDATIONS FOR INTERJURISDICTIONAL COORDINATION ON CLIMATE RESILIENCE

In October 2021, the **Climate Change Resource Guide** was completed to provide a resource to local jurisdictions on adaptation options to consider as they plan, design, operate, and maintain their local infrastructure. The Guide includes an overview of projected changes to the climate, documentation of how the changing climate has already impacted them, adaptation options, and a **Toolkit** that makes the content of each chapter actionable for users. The project also included a summary **presentation** that can be used by any agency to inform them about the Guide.

CLIMATE CHANGE ADAPTATION TOOLKIT

CLIMATE CHANGE RESOURCE GUIDE

FINAL PRESENTATION FOR CLIMATE CHANGE RESOURCE GUIDE

Climate Resilience Guidance For Local Jurisdictions

- Document developed to further assist DOTs/DPWs to incorporate climate resilience strategies
 - Follow up to *Climate Change Resource Guide*
- Focuses on these service areas:

Icon	Service Area
	Transportation
	Stormwater
	Water

Climate Resilience Guidance For Local Jurisdictions

- Focuses on implementation of resilience strategies, from the Climate Change Resource Guide, prioritized by the project Steering Committee and other transportation, water, and stormwater practitioners across the region.
- Processes are different across jurisdictions, but are comparable at a high level.
- **Strategies**
 1. Develop and adopt climate change resilience design standards and codes, updating existing or creating new standards and codes as needed
 2. Screen new and existing capital projects for climate change risk and opportunities
 3. Identify and obtain dedicated funding and financing for resilience infrastructure and activities
 4. Monitor, maintain, harden, and retrofit assets to promote resilience and prevent damage

Each strategy includes a description of **what it is**, **why it is relevant**, **how it could be implemented**, **resources** to help with implementation, **timeline** for implementing, and relevant **stakeholders**.

Strategy 1: Develop and adopt climate change resilience design standards and codes, updating existing or creating new standards and codes as needed

- Recommended Action #1: Review example climate resilience design standards.
- Recommended Action #2: Identify which design standards and codes can and should be updated, and if new standards and codes need to be developed and adopted to help ensure new infrastructure is designed to be resilient to climate change.
- Recommended Action #3: Identify relevant design inputs for your jurisdiction.

Relevant Resources

[US EPA Climate Resilience Evaluation and Awareness Tool \(CREAT\) Risk Assessment](#)

[Application for Water Utilities](#): An interactive tool created by the EPA to assist utilities in understanding and planning for climate risk, including cost-benefit analyses

Example climate resilience design guidelines (Recommended Action #1)

[Philadelphia Water Department Climate-Resilient Planning and Design Guidance](#)

MDOT SHA's forthcoming **Highway Drainage Manual** update

Relevant industry research includes

Stormwater: [Maryland Stormwater Design Manual](#) and research from UMD's [Stormwater Infrastructure Resilience and Justice \(SIRJ\) Lab](#) can serve as a foundation and space for innovation on stormwater infrastructure design

Water: The Water Research Foundation's ongoing project to create a [Practical Framework for Water Infrastructure Resilience](#)

Strategy #2: Screen new and existing capital projects for climate change risk and opportunities

- Recommended Action #1: Incorporate climate considerations into the project development and selection process.
- Recommended Action #2: Improve documentation of internal discussions and knowledge of risks.
- Recommended Action #3: Identify climate resilience projects outside the traditional CIP development process based on vulnerability of infrastructure and communities as well as available funding.

Relevant Resources

Identifying climate risks (Recommended Action #3)

[MD EJScreen Mapper](#) to identify environmental justice concerns across the state

Sources for resilience measures (Recommended Action #3)

Maryland Department of Planning [Best Practices for Integrating Climate Change, Identifying Suitable Receiving Waters](#) to inform Local Comprehensive Plans

[US EPA Resilient Strategies Guide for Water Utilities](#) presents a combination of best practices/potential projects, as well as funding opportunities that are state-specific

UMD Environmental Finance Center and MD Department of Natural Resources [Ready for Resilience: Embedding Climate Action into Local Government Operations](#) provides guidance to facilitate implementation of resilience, including for hazard and vulnerability assessments, policies and codes, and infrastructure and asset management

Strategy #3: Identify and obtain dedicated funding and financing for resilience infrastructure and activities

- Recommended Action #1: Identify relevant opportunities to fund and finance resilience.
- Recommended Action #2: Develop strategies to overcome barriers of technical and staffing capacity in seeking resilience financing and funding.
- Recommended Action #3: Evaluate and communicate lifecycle costs and benefits of resilience to help with financing.

Relevant Resources

Funding and financing opportunities (Recommended Action #1)

[MD Resiliency Partnership](#) has multiple resources, including guidance on grants **Federal funds**, including the 2021 Infrastructure Investment and Jobs Act (IIJA) and 2022 Inflation Reduction Act (IRA)
[FEMA Recovery and Resilience Resource Library](#), an extensive database of FEMA recovery and resilience programs, including funding opportunities
Inspiration and research on innovative climate financing mechanisms can be found at the [Center for Climate and Energy Solutions](#)
NOAA's [Funding and Financing Options and Considerations for Coastal Resilience Projects](#)

Identifying costs of resilience (Recommended Action #3)

CNT [Green Infrastructure Benefits](#) section on Transportation Benefits which help quantify and value the transportation benefits of green stormwater infrastructure

Boosting local climate literacy (Recommended Action #3)

[Maryland Climate Leadership Academy](#) supports the continued climate-related education and training of staff in state and local governments

Strategy #4: Monitor, maintain, harden, and retrofit assets to promote resilience and prevent damage

- Recommended Action #1: Include climate change in maintenance prioritization frameworks.
- Recommended Action #2: Increase frequency of monitoring of infrastructure for potential damage.
- Recommended Action #3: Prioritize retrofits, repairs, and hardening based on level of risk and criticality.

Relevant Resources

UMD Environmental Finance Center and MD Department of Natural Resources [Ready for Resilience: Embedding Climate Action into Local Government Operations](#) provides guidance to facilitate implementation of resilience, including for infrastructure and asset management

Examples of effective monitoring systems and protocols that consider climate change (Recommended Action #2)


Baltimore County's Asset Management System incorporates climate change into its preventative maintenance decision making framework

MDOT SHA has started tracking frequently flooded structures to build out a [Climate Change Vulnerability viewer](#). They are also developing an emergency relief data tool to capture real time emergency events, impacts, costs, and areas of concerns to better inform preventative maintenance and retrofits

Resilience Planning Activities:

After development of the Climate Change Resource Guide, the region undertook the next step to develop more detailed guidance and develop recommendations to institutionalize ongoing inter-jurisdictional coordination on climate resilience. The following documents were developed in February 2022:

CLIMATE RESILIENCE GUIDANCE FOR LOCAL JURISDICTIONS



RECOMMENDATIONS FOR INTERJURISDICTIONAL COORDINATION ON CLIMATE RESILIENCE

In October 2021, the **Climate Change Resource Guide** was completed to provide a resource to local jurisdictions on adaptation options to consider as they plan, design, operate, and maintain their local infrastructure. The Guide includes an overview of projected changes to the climate, documentation of how the changing climate has already impacted them, adaptation options, and a **Toolkit** that makes the content of each chapter actionable for users. The project also included a summary **presentation** that can be used by any agency to inform them about the Guide.

CLIMATE CHANGE ADAPTATION TOOLKIT

CLIMATE CHANGE RESOURCE GUIDE

FINAL PRESENTATION FOR CLIMATE CHANGE RESOURCE GUIDE

Recommendations for Interjurisdictional Coordination on Climate Resilience

- Developed to enhance interjurisdictional resilience coordination

Recommendations for Interjurisdictional Coordination on Climate Resilience

Climate impacts are not constrained by jurisdictional boundaries, and so resilience measures are sometimes most effective at mitigating those impacts when implemented collaboratively across the region. In addition, one jurisdiction's decisions to enhance resilience could have cascading effects on other priorities or decisions made in the region. **As the climate continues to change and the local and regional climate resilience initiatives in the Baltimore region continue building momentum, it will be important to put in place strategies for ongoing interjurisdictional coordination.**

Recommendations for Interjurisdictional Coordination on Climate Resilience

Institutionalize regional coordination for ongoing consideration and support of resilience solutions

1. Develop a resilience strategy to be implemented collaboratively
2. Consider opportunities to build on ongoing efforts of interjurisdictional collaboration
3. Create a new and cohesive group specific to climate efforts, such as an internal technical group or regional compact
4. Create information-sharing databases on climate impacts and resilience efforts at the state, regional, and local levels

Funding

1. Identify opportunities for sharing state/Federal grants and funding

Role for the State and BMC

Navigating Regional Resilience Resources

- Three resources developed to support regional resilience efforts:
 1. Climate Change Resource Guide
 2. Climate Resilience Guidance for Local Jurisdictions
 3. Recommendations for Interjurisdictional Coordination.
- Checklist is a high-level guide to navigate these resources
 - Provides steps for how these resources can be used to understand and create an approach to increase resilience within and across jurisdictions.
 - Each checklist item addresses different aspects of this process.
 - Jurisdictions are encouraged to refer back to the checklist regularly to track progress and identify next steps.

Step	Who?
✓ Get the Big Picture	
Read the Climate Change Resource Guide (or read this presentation providing an overview)	Staff involved in DPW/DOT planning and design
Answer the Toolkit questions	Point person(s) coordinating across DPW/DOT planners and designers
✓ Take Action	
Read this document, Climate Guidance for Local Jurisdictions	Staff involved in DPW/DOT planning, design, project management, and maintenance
Create an approach to documenting climate risk and identifying recommended projects, policies, and procedures that will increase resilience across DPW/DOT infrastructure <ul style="list-style-type: none"> • Your local Climate Action Plan, Hazard Mitigation Plan, capital improvement plan, stormwater management plan, etc. can provide insight on climate risks and ideas for projects or policies 	Point person(s) coordinating across DPW/DOT planning, design, project management, and maintenance staff
Identify one or more strategies from this Climate Guidance for Local Jurisdictions to pursue	Leadership and staff teams (planning, project management, maintenance)
Identify relevant stakeholders for each selected strategy and associated recommendations (more details in strategies below)	Planning teams
Create a timeline for implementation	Project teams
Identify resources necessary for implementation	Leadership and staff teams
Meet with decision-makers/department heads/elected officials to make the case for needed changes	Leadership and staff teams
✓ Coordinate Regionally	
Read the Recommendations for Interjurisdictional Coordination document	Staff involved in DPW/DOT climate-related efforts
Identify the most relevant actions for implementation	Staff involved in DPW/DOT climate-related efforts
Participate in regional coordination discussions	Point person(s) for DPW/DOT staff involved in climate-related efforts
Maintain regular communication with other jurisdictions to share information and lessons learned, and build regional resilience	Point person(s) for DPW/DOT staff involved in climate-related efforts
Work with others to create regional dashboard and achievable, meaningful performance measures to track progress on climate initiatives	Point person(s) for DPW/DOT staff involved in climate-related efforts

Next Steps

- **Should the region develop a proposal to the PROTECT Program for a Regional Resilience Improvement Plan?**
 - Submitted August 17, 2023: Baltimore Regional Roadmap to Resilience
- **How can the region coordinate with/support state resilience efforts, such as A-StoRM?**
- **In evaluating existing committees, where should this discussion continue?**
 - Is a new group needed?
 - How should regional coordination be integrated with state coordination (currently MDEM, DNR, MDOT, MDP, and MDE are discussing collaboration)?

For More Information

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**BALTIMORE
METROPOLITAN
COUNCIL**



PROTECT Program Application: Baltimore Regional Roadmap to Resilience

Presentation to Carroll County Water Resource Coordination Council
August 23, 2023



Agenda

- Overview of PROTECT Program
- Overview of Baltimore Regional Roadmap to Resilience Application

Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program

“The vision of the PROTECT Discretionary Grant Program is to fund projects that address the climate crisis by improving the resilience of the surface transportation system, including highways, public transportation, ports, and intercity passenger rail.”

PROTECT Program highlights need to focus on disadvantaged/overlooked communities

Category	Approximate Funding Available this Round (Discretionary Funds)
Planning Grants	Up to \$ 45 million
Resilience Improvements	Up to \$ 638 million
Community Resilience and Evacuation Route Grants	Up to \$ 45 million
At-Risk Coastal Infrastructure Grants	Up to \$ 120 million

Identified Interest and Need in the Region

- **Builds on local, state and regional work, including the regional documents:**
 - [Climate Change Resource Guide](#)
 - [Climate Resilience Guidance for Local Jurisdictions](#)
 - [Recommendations for Interjurisdictional Coordination on Climate Resilience](#)
- **Interjurisdictional coordination recommendations included:**
 - Develop a resilience strategy to be implemented collaboratively.
 - Consider opportunities to build on ongoing efforts of interjurisdictional collaboration.
 - Identify opportunities for sharing state/Federal grants and funding.

Overview: Baltimore Regional Roadmap to Resilience (R3)

- Includes entire Baltimore region
- Application submitted by the Resilience Authority of Annapolis and Anne Arundel County
- Application development support from all jurisdictions, Resilience Authority, MDOT, MDE, MDEM, and South Baltimore Gateway Partnership
- Letters of support: BMC, BRTB, MDEM, South Baltimore Gateway Partnership
- Request: \$1,302,650

Baltimore R3 Proposed Scope of Work

- **Preliminary Task: Develop and Implement a Stakeholder Engagement Plan**
 - Develop and implement a deep and meaningful stakeholder engagement effort that identifies the full breadth of program stakeholders, generates program awareness, fosters collaboration, builds trust, identifies opportunities, and creates equitable and mutually beneficial outcomes.
- **Phase 1: Develop the Baltimore Region Transportation Resilience Improvement Plan (TRIP)**
 - The Baltimore Region Transportation Resilience Improvement Plan (TRIP) will be developed using a systemic and collaborative approach to planning for system resilience and will include three parts:
 - Regional Infrastructure Vulnerability Assessment: to provide a regional understanding of transportation system vulnerability to natural disasters;
 - Regional Infrastructure User Vulnerability Assessment: to provide a regional understanding of transportation system user vulnerability to natural disasters; and
 - Regional Transportation Resilience Action Plan: to prioritize strategies to build system resilience and enhance safety for all system users.
- **Phase 2: Revenue Mapping**
 - Develop a portfolio based on the anticipated timing of impacts and the corresponding need for investment. The resulting sustainable revenue plan will address short-, mid- and long-term implementation needs and time horizons to ensure regional transportation resilience for infrastructure and all users in the long-term.

Requirements for a Resilience Improvement Plan

Resilience Improvement Plan: The application provides detailed information about how the planning project will:

- Identify short- and long-range planning activities and investments with respect to the multimodal resilience of surface transportation;
- Include input from Tribes or Federal Land managers as well as local governments; and
- Include a systemic approach to transportation system resilience and critical needs including a risk-based assessment of vulnerabilities of transportation assets and systems to current and future weather events and natural disasters.

Source: PROTECT Program Notice of Funding Opportunity

Benefits of a Resilience Improvement Plan

- **Match requirement can be reduced for other resilience projects**
 - by 7% if a Resilience Improvement Plan is in place and the proposed project is prioritized in the RIP.
 - by 3% if the Resilience Improvement Plan has been incorporated into the metropolitan transportation plan or long-range statewide transportation plan.

Reduction of Non-Federal Share for Resilience Grants			
Project is Prioritized in a Resilience Improvement Plan (23 U.S.C. § 176(e)(1)(B)(i))		Resilience Improvement Plan is Incorporated in Other Planning (23 U.S.C. § 176(e)(1)(B)(ii))	
7% Reduction		3% Reduction	
Eligible Entity (Applicant)	Requirements	Eligible Entity (Applicant)	Requirements
State or MPO	1. Developed a Resilience Improvement Plan in accordance with 23 U.S.C. § 176(e)(2); and	State or MPO	The Resilience Improvement Plan developed in accordance with 23 U.S.C. § 176(e)(2) has been incorporated into the

Source: PROTECT Program Notice of Funding Opportunity

Proposed Baltimore R3 Partners

- **Local jurisdictions**
 - Transportation, Public Works, Planning, Emergency Management, Sustainability, and Equity
- **State agencies**
 - Transportation, the Environment, and Emergency Management. Other state agencies that will be invited to participate in the project include but not limited to: Departments of Planning and Disabilities.
- **Other community organizations**
 - South Baltimore Gateway Partnership Sustainable Transportation Work Group of the Baltimore City Sustainability Subcabinet, Central Maryland Transportation Alliance, Chesapeake Bay Foundation, Interfaith Partners for the Chesapeake, Maryland Silver Jackets Team, and Baltimore Urban Waters Partnership

Proposed Schedule

SCHEDULE	Year 1				Year 2		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
ADMINISTRATION AND CONTRACT MANAGEMENT							
Resilience Authority of Annapolis and Anne Arundel County/Contract Management							
Baltimore Metropolitan Council							
STAKEHOLDER ENGAGEMENT PLANNING AND OUTREACH							
Develop Stakeholder Engagement Plan							
Implement Stakeholder Engagement Plan							
PHASE 1 DEVELOP THE BALTIMORE REGION TRIP							
Conduct Regional Infrastructure Vulnerability Assessment							
Conduct Regional Infrastructure User Vulnerability Assessment							
Prepare Regional Transportation Resilience Action Plan							
Compile Regional Transportation Resilience Improvement Plan							
PHASE 2 REVENUE MAPPING							
Perform Revenue Mapping							

For More Information

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MUNICIPAL STORMWATER PROJECT STATUS

August 23, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits.

Hampstead Valley 2/3 (Hampstead) – Hampstead Valley facilities 2 and 3 will be retrofit as a stream restoration project to decommission Sycamore Drive as a roadway embankment. The design will include a stream restoration beginning immediately downstream of the proposed Hampstead Valley 1 facility and continue to Sycamore Drive.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI recently completed the ultimate condition modeling. We anticipate refining the design and a resubmittal in early September.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. Engineering was awarded to CLSI. Several sketches were submitted for review but unfortunately none met the required dewatering time given the Use class III stream. We anticipate a concept submittal in September.

New Windsor Wetland (New Windsor)- A new wetland facility is proposed adjacent to the Maryland Midland Railroad tracks and Dickenson Run. The proposed improvements include removing the existing inlet adjacent to the intersection of Water St and Church St, replacing it with a diversion structure that will route the 1-year storm discharges to the proposed wetland

facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main. A concept plan was submitted July 12th for review.

Public Safety Training Center (Westminster Well)- A retrofit for the Public Safety Training Center pond is in progress for the facility design and PFAS remediation. WRA is finalizing the concept plan for the surface sand filter this week. Tetra Tech will provide guidance for the PFAS remediation. The concept plan submitted July 13th was reviewed, and comments have been returned to the engineer. An RFP for soil borings was sent out and proposals were received on August 11th. They are currently being reviewed.

PRELIMINARY DESIGN:

Hampstead Valley 4 (Hampstead) – A new surface sand filter and stream restoration project is proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A preliminary submittal was reviewed by stormwater and sent back with comment. We anticipate a resubmittal in September.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. The recent concept submittal was approved with comments from the Town and Stormwater Management. Wallace Montgomery & Associates (WMA) is beginning the preliminary phase of design this will include removal of the retaining wall and grading of an area that could be utilized as a pocket park.

FINAL DESIGN:

CONSTRUCTION:

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally. CWP and County staff went out together for an assessment of Little Pipe watershed in late June.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary September 27, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- John Dick, Westminster
- Gary Dye, New Windsor
- Delbert Green, Manchester
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Alex Perricone, Manchester
- Jim Roark, Hampstead
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Dick Swanson, Mount Airy

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Pat Varga
- Hannah Weber

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Bryan Bokey, CC DPW
- Jason Green, CC DPW
- Lydia Rogers, CC M&B

Guest Speakers:

- Price Wagner,
Comprehensive Planning

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:30 PM.

Vice Chair – Jim Wieprecht

None.

2. Approval of Meeting Summary – August 23, 2023

Approval of the August meeting summary was discussed. Changes were made in the heading and header to update the year. Duplicate text was eliminated under the first sentence in the second bullet under the third agenda item.

APPROVAL OF MINUTES: Motion was made by Dick Swanson and seconded by Mayor Perry Jones to approve the August 23, 2023, meeting summary as amended. Motion carried.

3. Water & Sewer Master Plan Triennial Update – Price Wagoner

- Maryland Department of the Environment's (MDE) comments on the draft were addressed, and the final Triennial Update was sent to MDE on August 5, 2023. The updated version will not be in effect until MDE approves it. In the meantime, the maps and prior document should be used. There will not be a fall amendment cycle, but there will be a couple amendments for the spring cycle.

Reference/Attachment:

- Webpage: [Water & Sewer Master Plan: 2023 Triennial Update](#)

4. PFAS Status and Coordination – Discussion

- Each municipality status of PFAS-related well testing and any plans for addressing it. Mr. Hann suggested each municipality have a plan already prepared to identify how PFAS will be addressed before EPA and MDE set limits and adopt regulations. This may help with obtaining funding if ready to move forward.
- Final decisions on funding from MDE/EPA have not yet been made.
- MDE currently has three proposed new sites for sludge application in Carroll County. Mr. Heyn expressed concern to MDE about the potential for PFAS contamination in the sludge. MDE has continued to process the applications but is holding off on approving a permit until further investigation can be done regarding how to address or mitigate this issue. MDE will be holding a public meeting on another proposed site, which is near Taneytown. The meeting information will be emailed to the WRCC members as soon as it is confirmed.
- Currently, there is no standard approach to looking at the PFAS data and determining a course forward. There are many complexities, and the data can fluctuate significantly when you're addressing parts per trillion.
- The municipalities shared public outreach initiatives related to PFAS. Once the EPA officially adopts the maximum contaminant levels (MCLs) for PFAS, the WRCC may discuss a cooperative effort for developing a public outreach document.
- This topic will be revisited at least quarterly on the WRCC agenda going forward.

Reference/Attachment:

- N/A

5. Drought Warning in Carroll County – Discussion

- While 2 to 3 inches of rain fell across the county last week, it is not expected to solve the drought problem. A full winter with normal precipitation is needed to create a better situation going into spring and summer next year.
- Mr. Heyn shared that staff are reviewing files to identify practices and public outreach for the 2002 drought.
- The municipalities shared the measures they have taken thus far to address the drought warning. Most still have voluntary restrictions in place.
- This topic will be revisited periodically on the WRCC agenda going forward.

Reference/Attachment:

- N/A

6. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Task 1.2: Automation of Portions of Buildable Land Inventory Model: GIS staff is testing process improvements and will work with Hazen to troubleshoot.
- Task 2: Groundwater Allocability: Task completed.
- Task 3: Emerging Contaminants: Task completed.
- Task 4: MDE TIPP Spreadsheet Comparison: Hazen is populating the MDE TIPP (TMDL Implementation Progress and Planning tool) spreadsheets for the six watersheds in Carroll County. The results will replace the use of the spreadsheets from the prior model. The results will be used for the 2023 NPDES MS4 Annual Report.
- Task 5: Climate Change Impacts: Comments were provided on the draft technical memo.
- Task 6: Update 2010 WRE Supporting Documents: All capacity and demand workbooks have been provided to Hazen. Work on Task 6 is in progress.

Reference/Attachment:

- N/A

7. Municipal Stormwater Projects Update – Janet O’Meara

- Janet O’Meara shared that Gianni Assi will be filling Elizabeth Caron’s position, effective September 28. Interviews are in progress for his former Stormwater Reviewer position, as well as for the Watershed Management Coordinator position.
- Ms. O’Meara provided an update on the municipal stormwater restoration projects.

Reference/Attachment:

- *Municipal Project Status, September 27, 2023*

8. Other

- Department Changes: The Board of County Commissioners voted on September 14, 2023, to merge the Department of Planning back into the Department of Land & Resource Management. The name of the department was changed to Planning & Land Management. A Deputy Director position will be created under Chris Heyn to oversee the new Bureau of Comprehensive Planning and assist Mr. Heyn with other activities/areas. Hannah Weber will be the Comprehensive Planning representative regularly attending the WRCC meetings.
- Website Link Change: As a result of the change to the Department name, the web address has changed as well. Ms. Hirt requested that the municipalities update the link to the [Protecting Carroll County Waters](#) (NPDES) website on their own websites.
- 2023 Environmental Stewardship Booklets: The Environmental Advisory Council completed the biennial update of the [Environmental Stewardship in Carroll County](#) booklet. As in the past, copies of the booklet and the quick reference guide were provided to the municipalities as reference for staff and to make a couple copies available to the public.
- Upcoming Outreach Events: Resource Management staff will be at the Fall Harvest Festival in Taneytown on September 30 and New Windsor’s Music on Main on October 7. If anyone has events coming up for which they need handouts, contact Claire Hirt or Glenn Edwards.
- 20 SW Facilities/Permits: All our SW 20 facilities have made the required submittals. Some have already been issued new permits.
- Annual Stormwater Pollution Prevention Training Workshop: The annual stormwater pollution prevention workshop for the NPDES MS4 co-permittees and partners will be held on November 3, 2023. The State Highway Administration will be one of the speakers. The City of Westminster will talk about salt management and touch on other alternative practices, such as street sweeping and inlet cleaning.
- 2023 Environmental Symposium: The second annual Environmental Symposium will be held on Saturday, October 28, from 9:00 AM to 12:00 PM in the Alesia and Medford buildings at the Carroll County Ag Center. It will once again feature a recycled art contest for high school students. This year the Environmental Action Awards will also be presented. Ms. O’Meara provided each municipality with flyers to share.
- Recycling Manager: Bryan Bokey indicated that Maria Myers retired in August. Although the position will retain the recycling responsibilities, it will be expanded to include sustainability issues. It will be advertised shortly.
- Water Resources Section Intern: Garrett Tucker will be helping with bacteria monitoring.
- October Guest Speaker: Eric Dutrow with Maryland Rural Water Association will be the guest speaker at the October 25 WRCC meeting. He will share the types of assistance that the Association may be able to provide in completed the Lead & Copper Rule inventory.

9. Adjournment

The meeting adjourned at 3:50 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Mayor Perry Jones to adjourn the September 27, 2023, meeting. Motion carried.

Upcoming Meetings:

☐ *Regular Monthly Meeting – Wednesday, October 25, 2023*

MUNICIPAL STORMWATER PROJECT STATUS

September 27, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits.

Hampstead Valley 2/3 (Hampstead) – Hampstead Valley facilities 2 and 3 will be retrofit as a stream restoration project to decommission Sycamore Drive as a roadway embankment. The design will include a stream restoration beginning immediately downstream of the proposed Hampstead Valley 1 facility and continue to Sycamore Drive.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI recently completed the ultimate condition modeling. We anticipate refining the design and a resubmittal in late September.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. Engineering was awarded to CLSI. Several sketches were submitted for review but unfortunately none met the required dewatering time given the Use class III stream. We anticipate a concept submittal in September.

New Windsor Wetland (New Windsor) - A new wetland facility is proposed adjacent to the Maryland Midland Railroad tracks and Dickenson Run. The proposed improvements include removing the existing inlet adjacent to the intersection of Water St and Church St, replacing it with a diversion structure that will route the 1-year storm discharges to the proposed wetland facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main. Comments have been provided on August 22, and we expect a resubmittal in late September.

Public Safety Training Center (Westminster Well)- A retrofit for the Public Safety Training Center pond is in progress for the facility design and PFAS remediation. WRA is finalizing the concept plan for the surface sand filter this week. Tetra Tech will provide guidance for the PFAS remediation. The concept plan submitted July 13th was reviewed, and comments have been returned to the engineer. Soil borings for the retrofit design have been started by KCI.

PRELIMINARY DESIGN:

Hampstead Valley 4 (Hampstead) – A new surface sand filter and stream restoration project is proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A preliminary submittal was reviewed by stormwater and sent back with comment. We anticipate a resubmittal in late September.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. The recent concept submittal was approved with comments from the Town and Stormwater Management. Wallace Montgomery & Associates (WMA) is beginning the preliminary phase of design this will include removal of the retaining wall and grading of an area that could be utilized as a pocket park.

FINAL DESIGN:

CONSTRUCTION:

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally. CWP and County staff are currently working on prioritizing projects.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary

October 25, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- John Dick, Westminster
- Gary Dye, New Windsor
- Delbert Green, Manchester
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Alex Perricone, Manchester
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Dick Swanson, Mount Airy
- Christina Swisher, Hampstead

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Pat Varga
- Hannah Weber

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Bryan Bokey, CC DPW
- Jason Green, CC DPW
- Lydia Rogers, CC M&B

Guest Speakers:

- Eric Dutrow, Maryland Rural Water Association (MRWA)
- Scott Delude, MRWA
- Rodney Marvin, MRWA

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:30 PM.

Mr. Hann introduced Christina Swisher, the Town staff member assisting with the Lead Service Line inventory.

He reminded everyone to come out to the Environmental Symposium on Saturday, October 28, 2023.

Vice Chair – Jim Wieprecht

None.

2. Approval of Meeting Summary – September 27, 2023

Approval of the September meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Dick Swanson and seconded by Alex Perricone to approve the September 27, 2023, meeting summary. Motion carried.

3. Lead & Copper Rule Inventory Assistance – Eric Dutrow, Maryland Rural Water Association

- Eric Dutrow of Maryland Rural Water Association (MRWA) provided information about MRWA and the assistance that MRWA can provide in completing the Lead Service Line Inventory required by EPA/MDE. He was accompanied by co-workers, Scott Delude and Rodney Marvin.
- Mr. Dutrow gave an overview of MRWA's services and staff.
- MRWA can help with the MDE inventory spreadsheet, identifying service line installation dates, and methods for identifying service line materials on the system and homeowner sides of the service line.
- He shared some information about the spreadsheets themselves. Currently, MDE has rescinded the original spreadsheets to make revisions. It is expected to be available again in November 2023.
- Some municipalities/systems are providing incentives to homeowners to cooperate with the staff to complete the inventory.
- He reviewed some potential sources of data.
- Some funding may be available to assist with this funding. Once the information to apply for this funding is available, MRWA will send the information to its members.

Reference/Attachment:

- *Presentation: Lead Service Lines Inventory, Carroll County, MD*

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Task 1.2: Automation of Portions of Buildable Land Inventory Model: GIS staff will be meeting with Hazen on November 9 for a revised demonstration.
- Task 2: Groundwater Allocability: Task completed.
- Task 3: Emerging Contaminants: Task completed.
- Task 4: MDE TIPP Spreadsheet Comparison: Hazen is populating the MDE TIPP (TMDL Implementation Progress and Planning tool) spreadsheets for the six watersheds in Carroll County. Some errors in the spreadsheets were found and brought to Maryland Department of the Environment's (MDE) attention. They were fixed and sent back to Hazen. The results will be used for the 2023 NPDES MS4 Annual Report.
- Task 5: Climate Change Impacts: Awaiting the final technical memo.
- Task 6: Update 2010 WRE Supporting Documents: Work on Task 6 is in progress. Hazen will be updating the data in the actual 2009 Malcolm Pirnie reports. The update will include incorporating changes to regulations that have occurred since 2010 and impacts of climate change and emerging contaminants. Each municipality/system confirmed a contact person for Hazen as they update the information in Appendix A of the 2009 Carroll County Alternatives Evaluation report.

Reference/Attachment:

- *N/A*

5. Municipal Stormwater Projects Update – Janet O'Meara

- Janet O'Meara shared that Gianni Assi will be filling Elizabeth Caron's position, effective September 28. Interviews are in progress for his former Stormwater Reviewer position, as well as for the Watershed Management Coordinator position.
- Ms. O'Meara provided an update on the municipal stormwater restoration projects.

Reference/Attachment:

- *Municipal Project Status, October 2023*

6. Other

- November WRCC Meeting: The next meeting will be held on November 15 will be held a week earlier than usual due to the Thanksgiving holiday.
- November Guest Speaker: The Center for Watershed Protection will share an update on recent projects.
- 2024 Meeting Dates: Brenda Dinne provided 2024 meeting dates, as well as a tentative calendar of agenda topics through May 2024.
- 2023 NPDES Annual Report: Ms. Dinne is updating the Public Education section of the annual report. She will be emailing the municipalities with a few questions/clarifications.
- FEMA Flood Risk Review Meeting: The Federal Emergency Management Agency (FEMA) will be holding a virtual meeting on November 17, 2023, regarding FEMA maps changes. Frederick and Howard Counties have completed mapping that provides more accurate information for the Monocacy and South Branch Patapsco Rivers. FEMA will update the Carroll County maps to reflect the updated information for those shared floodplains.
- Stormwater Pollution Prevention Training Workshop: The annual stormwater pollution prevention workshop for the NPDES MS4 co-permittees and partners will be held on November 3, 2023, at the Public Safety Training Center. The training is geared towards managers, supervisors, and town/city managers.
- Maintenance Center Open House: An open house will be held at the Carroll County Maintenance Center on November 8, 2023. Staff will be offering salt truck calibrations. Glenn Edwards encouraged the municipalities to take advantage of this service.
- Watershed Restoration Supervisor: Ms. O'Meara shared the Claire Hirt will be moving into this position, effective October 26, 2023. Her former position will be advertised. A representative from the WRCC will be asked to sit in on the interviews to fill that position.
- Equine Meadows Project in Manchester: Alex Perricone indicated that Chesapeake Bay Trust may be providing funding to Trout Unlimited for a project at Equine Meadows. Ms. O'Meara indicated that Maryland Department of Natural Resources has already reached out to Chris Heyn.
- Water & Sewer Master Plan Triennial Update: Hannah Weber indicated that MDE has officially approved the triennial update. All updated maps are online. If needed, municipalities may request hardcopies from Comprehensive Planning.
- Water Levels: Zach Neal reported that stream levels are still hurting. They are down ~1 to 6 percent.

Reference/Attachment:

- *2024 WRCC Meeting Dates*

7. Adjournment

The meeting adjourned at 3:43 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Alex Perricone to adjourn the October 25, 2023, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, November 15, 2023*



MARYLAND
RURAL WATER ASSOCIATION

WELCOME!

**Lead Service Lines
Inventory
Carroll County, MD**



MARYLAND
RURAL WATER ASSOCIATION

**Who are we, what is our
mission, and how can
we help?**

Our Mission

We are here to help!

We provide a variety of services, training, and on-site assistance for rural areas throughout the State of Maryland to ensure these communities have access to safe, clean, affordable drinking water.



Our Areas of Expertise



Water



Wastewater



Sourcewater



Water

- Treatment Plant Issues
- Leak Detection / Line Location
- Correlation
- Hydrant Flushing & Other Maintenance
- Water Audits
- Funding Sources & Applications Assistance
- Operations Problems Correction
- Security / Cybersecurity
- Compliance w/ Regulations
- Onsite Training / Teaching



Eric Dutrow,
USDA Circuit
Rider

Mark Davis,
USDA Circuit
Rider



Water

- Treatment Plant Issues
- Leak Detection / Line Location
- Correlation
- Hydrant Flushing & Other Maintenance
- Water Audits
- Funding Sources & Applications Assistance
- Operations Problems Correction
- Security / Cybersecurity
- Compliance w/ Regulations
- Onsite Training / Teaching



Scott Delude,
State Circuit
Rider

Rodney Marvin,
State Circuit
Rider



Wastewater

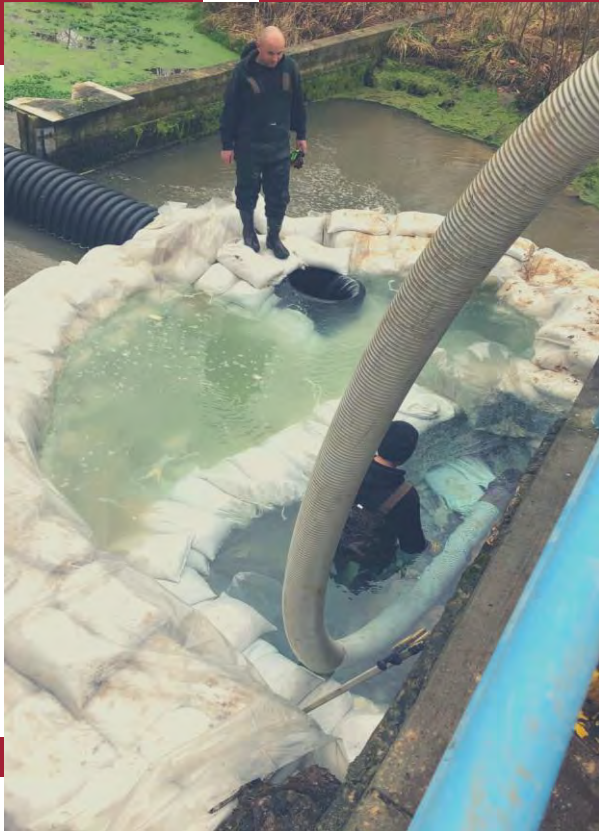


- Treatment Plant Problem Solving I & I (Inflow & Infiltration)
- Sewer Camera Analysis
- Smoke Testing
- Solid Waste Disposal Compliance w/Regulations Security
- ENR (Enhanced Nutrient Removal)

Austen McCarter,
Wastewater Technician



Source Water Protection



- Source Water Delineation of Watershed
- Source Water Assessment Study & Report
- Existing and Potential Contaminant Sources
- Threat Assessment
- Establish Watershed Protection Committee
- Public Awareness Program, Signage
- Contaminant Monitoring
- Emergency Response & Contingency Plans
- Source Water Protection Plans
- GIS Wellhead/Watershed Mapping

Sarah Frymark,
Source Water Specialist



Training

MRWA's Training and Technical Assistance program, featuring both in-person and online classes, is funded through the U.S. Environmental Protection Agency and the Maryland Dept. of the Environment. MRWA's courses are approved by MDE for certification of Training Review & Education (TRE) hours to be credited to operators' state license requirements.

- MDE Water Sampler Certification (additional cost/class)
- Certification training for members who need State water, wastewater, collections, or distribution licenses.
- Continuing Education for Certified Operators



New Program: Energy Efficiency

MRWA now offers free energy use assessments to water and wastewater facilities. Our Energy Efficiency Advisor meets with onsite personnel to review system energy usage, then generates a report that includes recommendations for potential energy savings by changes in operational procedures.

The Advisor provides an efficiency assessment of the major energy consuming equipment used including motors, pumps, blowers, compressors, HVAC, lighting and building improvements. The assessment outlines potential savings resulting from replacing existing older, less-efficient equipment with new, energy-efficient equipment, as well as the estimated projected payback period from these energy savings.

Dennis Bartholomew,
Energy Efficiency Advisor



New Program: Apprenticeship

Water and Wastewater Operations Specialists are imperative to our community for access to clean drinking water and to ensure wastewater effluent is returned to the environment properly. But with close to 50% retiring in the next five years, communities will fail to prosper or eventually even exist if replacements aren't put in place AND properly trained.

Our nationally registered Apprenticeship Program has been developed in response to the industry's need to train the next generation of skilled workers and standardize training across the state of Maryland. This 2-year program is designed to train operators through both coursework and on-the-job, experience-based learning and will culminate in MDE certification.

Patty Shreves, Apprenticeship
Development Coordinator



Membership Benefits

MRWA is able to provide most of our services and training to small and rural water and wastewater systems for FREE. We are an association built of small towns, Maryland counties, industry vendors and private individuals who all believe that everyone everywhere deserves access to clean, safe and affordable drinking water and the assurance of safe wastewater effluent.

MRWA members receive a range of discounts on services, free publications, reduced rates at our conferences, special prices for training, and much more ... they know that through their sustaining membership, they help to ensure MRWA remains in place to assist small and rural systems in their critical roles of maintaining public health and safety.





MARYLAND
RURAL WATER ASSOCIATION

Lead Service Lines Inventory

Strategies for Compliance

- Engineering Services
- Private Specialty Companies
- In House



Private Companies

- 120Water (www.120water.com)*
- Trinnex (www.trinnex.io)
- Blue Conduit (www.blueconduit.com)

*MRWA members receive discounted rates on 120Water products



Private Companies



PROS:

- Knowledge of Subject



CONS:

- Cost
- Won't really help with data collection



In House



PROS:

- Current knowledge of System
- May gain more knowledge of system
- Lower Cost to System



CONS:

- Large demand on time!
- Staffing requirements



How MRWA Can Help



- Help with the MDE Inventory Spreadsheet
- Help identifying service line installation date
- Help with methods for identifying material on the system side of service line
- Help with identifying material on the homeowner side of service line



MDE Service Line Inventory Spreadsheet



- Training coming soon for water systems (per MDE, maybe November 2023?)
- Per MDE, there will be a simple form for systems built after May 17, 1972
- Per MDE, current spreadsheet will be replaced by an updated spreadsheet in October 2023
- Although the spreadsheet is very complex, many cells are optional and do not need to be filled in!



Special Requirements for “New” Water Systems

For “new” water systems, there will be a simple form to complete (in lieu of completing the service line inventory spreadsheet) that will indicate the entire distribution system was constructed after Maryland’s law excluding lead pipes as an allowable material to be used for water service pipes (COMAR 09.20.11.10A) became effective.

This “new” water system inventory form will be made available on MDE’s website. For the purpose of the LCRR service line inventory, a “new” water system is defined as a water system with the distribution service line pipes, connecting water mains to buildings, installed on or after May 17, 1972.



SL Inventory Information Color-coding

Color-Coded* Legend for Columns (i.e., Field Names) on Pages 1 through 4 and the "SL Classification - AutoGen" Worksheet		
	=	Sensitive information (will not be shared with public) must be provided to MDE by October 16, 2024 unless indicated as optional
	=	Must be provided (i.e., cell not left blank, unless indicated otherwise) to MDE by October 16, 2024
	=	Optional but <u>highly recommended</u> - Information might be needed for validation/verification purposes, BIL funding eligibility, future LCR requirements (e.g., sampling plan under LCRI)
	=	Optional - information might be useful for future LCR requirements (e.g., sampling plan under LCRI)
	=	Information auto-generated by MDE
<p><i>*EXCEL has settings for color blind individuals. Contact MDE if you need assistance.</i></p>		



Entering Data in Spreadsheet



- Please review Appendix F in MDE Service Line Inventory Spreadsheet
- Try to use an existing database to copy and paste data into spreadsheet
- For unique identification number, use something that makes sense to the system:
Existing account number or address
- Small systems may find it easier to manually enter every tap as a line in the spreadsheet



Appendix F

Appendix F: Instructions on How to Copy-Paste Data as “Values” Only (i.e., Without Any Formatting) in Microsoft Excel Spreadsheet

1. Select the cell(s) with the content you want to copy.
2. To copy data from these cells:
 - If using keyboard, press Ctrl + C (or Command + C, for Mac).
 - If using a mouse, left-click on the “Copy” icon under the “Home” ribbon



Or right-click on the selected cells and choose “Copy”.

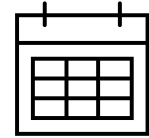


3. Select the cell(s) into which you want to paste the data (i.e., destination cells).
4. To paste data as “Values” only (i.e., without any formatting):

NOTE: Pasting using keyboard shortcut (i.e., Ctrl + V or Command + V, for Mac) cannot be used to paste as “Value” only; therefore, data must be pasted using the steps below.



Identifying Service Line Installation Dates



- Use existing data from previous SDWA requirements such as 1991 Lead & Copper Rule
- Use distribution maps for dates of water line installation, including replacements to older sections of water system
- Use Carroll County GIS Interactive map site. Note: This will give date structure was built, but on infill lots main side material may be older
- Review Appendix C in MDE Service Line Inventory Spreadsheet
- Statistical or Machine Learning Modeling
- Use the best data that you have and let MDE figure it out!

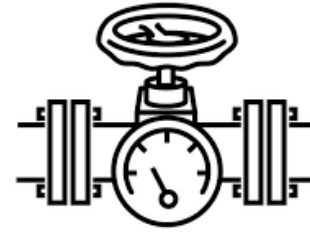


Service Line Materials

Entire Service Line Material Classification	Definition
Lead SL	Any portion of the service line is known to be made of lead.
Galvanized Requiring Replacement SL	The service line is not made of lead, but a portion is galvanized, and the system is unable to demonstrate that the galvanized line was never downstream of a lead service line.
Non-Lead SL	All portions of the service line are known NOT to be lead or GRR through an evidence-based record, method, or technique.
Lead Status Unknown SL	The service line material is not known to be lead or GRR. For the entire service line or a portion of it (in cases of split ownership), there is not enough evidence to support material classification.



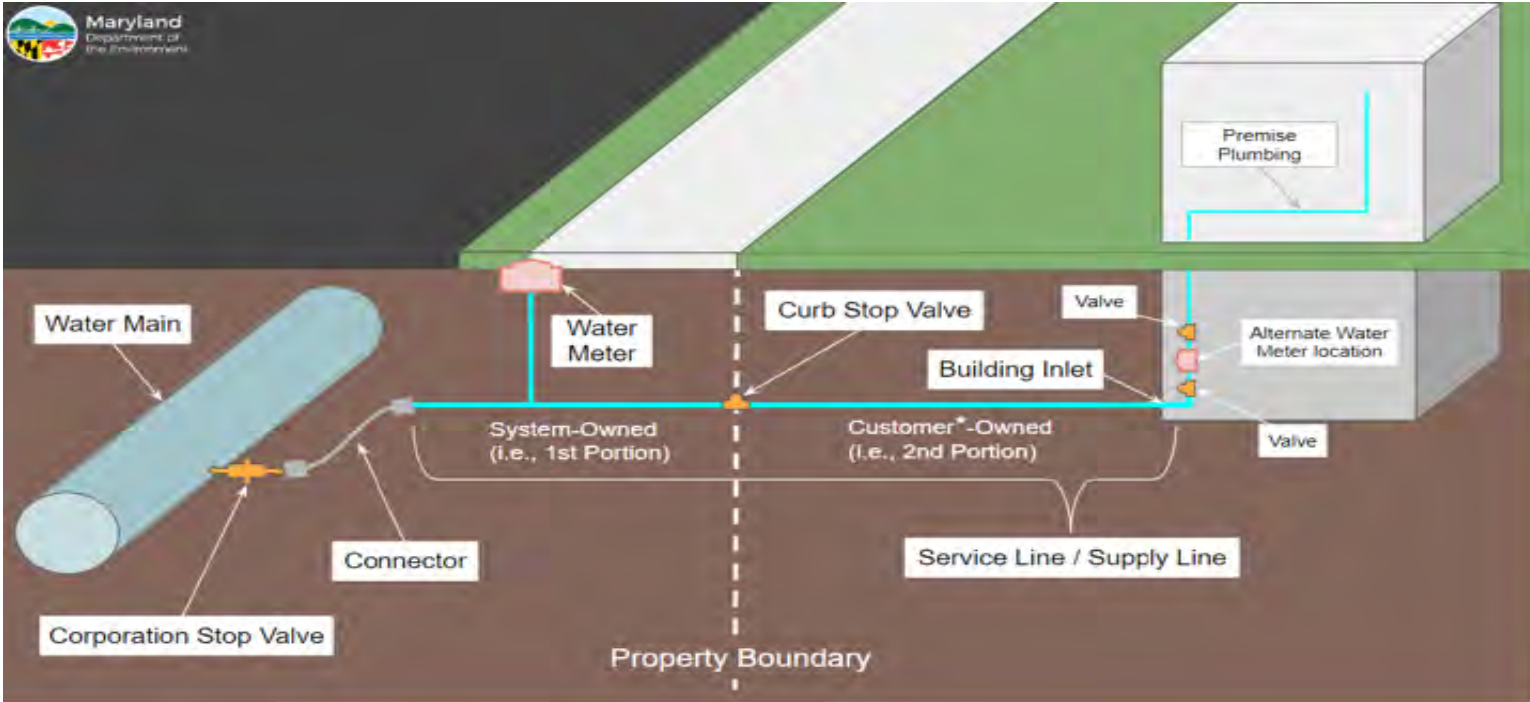
1st Portion of Service Line



- Anything built or upgraded after May 17, 1972 is considered non-lead
- Any systems that have meter vaults, the material on the main side of the vault equals portion 1 material. **Need confirmation from MDE**
- If you use curb stops and can see into the bottom of the box, the material on the main side of the box equals portion 1 material. **Need confirmation from MDE (?)**



Appendix B



2nd Portion of Service Line



- Under most circumstances this will be the homeowner portion of the line
- You will need to have a media, customer outreach plan to gain the homeowners' "buy-in" on this
- You may have to offer incentives to your customers to return surveys
- Make this an opportunity to show your customers how concerned you are about their water



How to check your water service line material

The City's water mains are not made of lead. However, the water service line running from the water main to your home may be made of lead or steel.

Lead can also be found in older brass fixtures and valves and in old solder or epoxy, where pipes are joined.



You can test the water service line where it connects to the water meter in the basement.



Water Service Line
May be made of lead, copper, galvanized steel or plastic.

⚠ For any questions about lead in your water:

Call us at (215) 685.6300.
Our staff will provide information on water testing, safety tips and replacement options.

Possible Pipe Materials



Follow these steps:

You will need:

- Key or a coin
- Strong refrigerator magnet

1. Find the water meter in your basement.
Look at the pipe that comes through the outside wall of your home and connects to your meter.
2. Carefully scratch the pipe (like you would a lottery ticket) with a key or a coin. Do not use a knife or other sharp tool. Take care not to make a hole in the pipe. If the scratch turns a shiny silver color, it could be lead or steel.
NOTE: If pipe is painted, use sandpaper to expose the metal first.
3. Place the magnet on the pipe.
If a magnet sticks, it is a steel pipe.



Other ways you can check for lead:

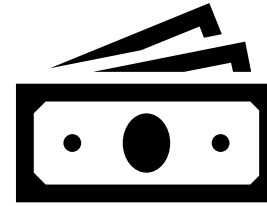
- **Purchase a lead test kit at a hardware or home improvement store.** These kits test what the pipe is made from—not the water inside. Look for an EPA recognized kit.
- **A licensed and insured plumber can inspect your pipes and other plumbing for lead or steel.** Replacing an older brass faucet or valve might reduce the lead in water.

Betterton example

<https://www.md-rwa.org/resources/lead-service-lines-survey/>



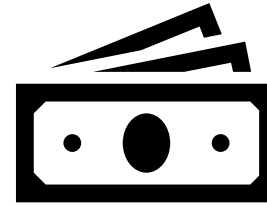
Funding Opportunities



- If you have a good Grant Writer, you may be able to take advantage of grants to help you accomplish the Lead Service Line Inventory
- If you don't have a Grant Writer, MRWA Circuit Riders will help you write a grant request
- Remember the deadline for submitting loan/grant requests to the MDE will be between January 1-31, 2024



Funding Opportunities

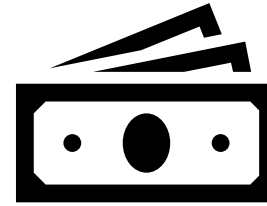


For CWS and non-profit NTNCWS that have lead or GRR service lines, funding for the replacement of service lines and mains is available through the Drinking Water State Revolving Loan Fund (DWSRF) and Bipartisan Infrastructure Law (BIL).

For additional information, please visit MDE's Water Infrastructure Financing Administration webpage.



Funding Opportunities



Additionally, the University of Maryland Environmental Finance Center is providing direct support to municipalities and water utilities in Maryland to help them access federal and state funding to address water infrastructure needs across drinking water, wastewater, stormwater, and source water.

This assistance will be delivered over the next five years (from April 2023 through March 2028) at no cost to recipients through an award from the EPA. Available services include: assistance identifying water challenges; developing plans; building technical, financial, and managerial capacity; and completing funding application materials.

Assistance is available on a need basis, with priority given to historically underserved and disadvantaged communities. To request assistance, contact Michelle Kokolis at mkokolis@umd.edu .



Random Thoughts



- Remember “Lead Status Unknown SL” is a choice. It would be best to have a definitive answer for each service line before October 24 , 2024
- There are rumors that the Service Line Inventory date may be extended – “hope is not a plan,” be ready
- This is an on-going and dynamic process. The inventory will change as repairs or replacements are made
- The Lead Service Line Inventory is only a part of the Revised Lead & Copper Rule. There will be new and additional testing requirements coming soon



Questions?





MARYLAND
RURAL WATER ASSOCIATION

THANK YOU!
Lead Service Lines
Inventory
Carroll County, MD

MUNICIPAL STORMWATER PROJECT STATUS

October 25, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits.

Hampstead Valley 2/3 (Hampstead) – Hampstead Valley facilities 2 and 3 will be retrofit as a stream restoration project to decommission Sycamore Drive as a roadway embankment. The design will include a stream restoration beginning immediately downstream of the proposed Hampstead Valley 1 facility and continue to Sycamore Drive.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleystown Road near a production well. CLSI recently completed the ultimate condition modeling. We anticipate refining the design and a resubmittal in late October.

Manchester East (Manchester) – We are looking into opportunities for a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. Engineering was awarded to CLSI. Several sketches were submitted for review but unfortunately none met the required dewatering time given the Use class III stream. We anticipate a concept submittal in late October.

New Windsor Wetland (New Windsor) - A new wetland facility is proposed adjacent to the Maryland Midland Railroad tracks and Dickenson Run. The proposed improvements include removing the existing inlet adjacent to the intersection of Water St and Church St, replacing it with a diversion structure that will route the 1-year storm discharges to the proposed wetland facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main. Comments have been provided on August 22, and we expect a resubmittal in late October.

Public Safety Training Center (Westminster Well)- A retrofit for the Public Safety Training Center pond is in progress for the facility design and PFAS remediation. WRA is finalizing the concept plan for the surface sand filter this week. Tetra Tech will provide guidance for the PFAS remediation. The concept plan submitted July 13th was reviewed, and comments have been returned to the engineer. Soil borings for the retrofit design have been completed by KCI. We expect a resubmission in late October.

PRELIMINARY DESIGN:

Hampstead Valley 4 (Hampstead) – A new surface sand filter and stream restoration project is proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. A preliminary submittal was reviewed by stormwater and sent back with comment. We anticipate a resubmittal in late October.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. The recent concept submittal was approved with comments from the Town and Stormwater Management. Wallace Montgomery & Associates (WMA) is beginning the preliminary phase of design this will include removal of the retaining wall and grading of an area that could be utilized as a pocket park.

FINAL DESIGN:

CONSTRUCTION:

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has executed the grant agreement with the National Fish and Wildlife Foundation (NFWF). CWP has developed an outline for identifying priority restoration areas, this is currently being reviewed internally. CWP and County staff are currently working on prioritizing projects.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

Kevin Hann, Town of Hampstead, Chair
Jim Wieprecht, City of Taneytown, Vice Chair

Brenda Dinne, Staff Liaison
Bdinne@CarrollCountyMD.gov ♦ 410-386-2140

<https://www.carrollcountymd.gov/government/boards-commissions/water-resource-coordination-council/>

- Meetings are scheduled for the 4th Wednesday of every month, except November and December or years when a stormwater projects tour is scheduled in May.
- All meetings will be held at 2:30 p.m.
- Visitors are required to sign in at the lobby reception desk using photo ID.

WRCC MEETING DATES - 2024

- ♦ January 24
- ♦ February 28
- ♦ March 27
- ♦ April 24
- ♦ May TBD (week of May 13-17)*
- ♦ June 26
- ♦ July 24
- ♦ August 28
- ♦ September 25
- ♦ October 23
- ♦ November 20
- ♦ December 18

**Tentative stormwater tour w/ MDE; dates subject to availability*

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary November 15, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- John Dick, Westminster
- Gary Dye, New Windsor
- Delbert Green, Manchester
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Alex Perricone, Manchester
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Dick Swanson, Mount Airy

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Pat Varga
- Hannah Weber

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Bryan Bokey, CC DPW
- Jason Green, CC DPW
- Lydia Rogers, CC M&B

Guest Speakers:

- Karen Titus, CWP
- Amanda Pollack, CWP

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:31 PM. He shared that the Environmental Symposium on October 28, 2023, was very good and well attended.

Vice Chair – Jim Wieprecht

Mr. Wieprecht agreed that the Symposium was a nice event.

2. Approval of Meeting Summary – October 25, 2023

Approval of the October meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Dick Swanson and seconded by Mayor Perry Jones to approve the October 25, 2023, meeting summary. Motion carried.

3. Center for Watershed Protection Overview – Karen Titus and Amanda Pollack

- Karen Titus shared background on the Center for Watershed Protection (CWP), including information about membership and the 2024 webcast series. Carroll County is currently a member.
- She briefly reviewed some of the services that CWP offers. While CPW is often known for its training and research, consulting services are also offered. Services offered by CWP include MS4 assistance, with work completed for Baltimore County shared as an example.
- Amanda Pollack provide additional examples of technical assistance CWP has provided.

- Ms. Titus concluded with information about training programs and the annual conference. The 2024 CWP National Watershed and Stormwater Conference, to be held April 8-11 in Kansas City, Missouri.

Reference/Attachment:

- *Presentation: Center for Watershed Protection - Carroll County Water Resource Coordination Council*

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Task 1.2: Automation of Portions of Buildable Land Inventory Model: Task completed. Possible add-on of details in technical memo.
- Task 2: Groundwater Allocability: Task completed.
- Task 3: Emerging Contaminants: Task completed.
- Task 4: MDE TIPP Spreadsheet Comparison: TIPP spreadsheets and technical memo received October 27. Will be reviewed to determine if the results can be used for the 2023 NPDES Annual Report.
- Task 5: Climate Change Impacts: Final technical memo received November 16. Task completed.
- Task 6: Update 2010 WRE Supporting Documents: Work on Task 6 is in progress. Hazen will be contacting each municipality shortly to update the information in Appendix A of the 2009 Carroll County Alternatives Evaluation report.

Reference/Attachment:

- N/A

5. Municipal Stormwater Projects Update – Janet O’Meara

- Given the shorter amount of time between WRCC meetings this month, there were no additional updates.
- Ms. O’Meara indicated that Kelly Martin is working on a grant application for the Robert’s Field wet pond and will be requesting a letter of support from the Town of Hampstead.

Reference/Attachment:

- N/A

6. Other

- December WRCC Meeting: The next meeting will be held on December 20. Pat Varga will give an overview of FEMA’s National Flood Insurance Program (NFIP) and the Community Rating System (CRS).
- Calendar of Tentative Agenda Topics: Ms. Dinne shared the tentative guest speakers/topics that have already been arranged for the WRCC meetings through May 2024. The topics are subject to change.
- Water Levels: Ms. Dinne noted that Zach Neal would be sending out an email with the hydrologic update since he could not attend the meeting today. Mayor Jones mentioned that the fire departments are starting to have trouble finding water sources to fill their trucks.
- 2023 NPDES Annual Report: Ms. Hirt indicated that the staff team is still crunching through assembly of the Annual Report. An initial draft for staff review is expected before Thanksgiving. It will then be circulated to the municipalities. Per the permit, the TMDL status will be in a separate document moving forward.
- NPDES Compliance Specialist: Ms. O’Meara thanked Mr. Hann for agreeing to sit on the interview panel for the open NPDES Compliance Specialist position.
- Outfall Screenings: Glenn Edwards is currently working on outfall screenings per the permit. Mr. Edwards will be contacting the municipalities to participate in the screenings with municipal limits.

- Annual NPDES Training: Ms. Hirt thanked everyone who attended the annual training in November.
- Maryland Municipal Stormwater Association (MAMSA): Based on information shared at the November 2 MAMSA meeting, Mr. Heyn noted some of Maryland Department of the Environment's (MDE) top priorities for 2024.
 - ◆ Environmental Justice (EJ) will impact many grant opportunities as it becomes a higher priority for grant awards.
 - ◆ MDE is incorporating climate change across the board, as demonstrated through the A-StoRM initiative. Climate change impacts have been incorporated to the revised stormwater regulations that MDE is drafting. MDE will submit the draft to the Stakeholder Consultation Workgroup, on which Mr. Heyn sits. Mr. Heyn will share the draft with the municipalities at that time. MDE intends to have a final draft out for public comment in June.
 - ◆ MDE will be stepping up enforcement following complaints from environmental groups. This effort includes a review of MDE's fees for services and likely increases to ensure MDE is recouping costs. Enforcement will be focused primarily on repeat offenders with industrial stormwater permits and those who knowingly don't follow the rules.
 - ◆ MDE wants to increase its customer service. Mr. Hann noted that the Town's experience with MDE and grant funding for PFAS work has been very positive. MDE has responded quickly.
 - ◆ Maryland anticipates falling short of reaching its 2025 TMDL goals for the Chesapeake Bay. As a result, there will likely be additional changes and requirements to the next generation permits.
- Lead & Copper Rule Training: Mr. Hann shared dates for upcoming virtual training to be held on December 11 and 14, 2023, from 9 AM to 1 PM.
- Upcoming Legislative Session: Mr. Heyn said over 3,000 bills have been pre-filed for the Maryland General Assembly's upcoming legislative session, ten of which are MDE's. Housing, the overall review process, and solar are expected to be hot topics.

Reference/Attachment:

- [Calendar of Tentative Agenda Topics](#)

7. Adjournment

The meeting adjourned at 3:19 PM.

MEETING ADJOURNMENT: Motion was made by Jim Wieprecht and seconded by Dick Swanson to adjourn the November 15, 2023, meeting. Motion carried.

Upcoming Meetings:

- ☐ *Regular Monthly Meeting – Wednesday, December 20, 2023*



CENTER FOR
**WATERSHED
PROTECTION**

Carroll County Water
Resource Coordination
Council

Karen Titus
Director of Membership & Training

Amanda H. Pollack, P.E.
Water Resources Engineer

About CWP

National non-profit founded in 1992

Mission to advance clean water resources and healthy ecosystems through responsible land and water management

Programs include research, training, membership and watershed and stormwater services

22 staff, headquartered in MD with offices in VA, PA, , NJ, NY, SC, and MI

www.cwp.org

Join our Network!

Join a network of professionals dedicated to advancing watershed and stormwater management



TOTAL CWP MEMBERS

2,200 and growing

Membership benefits include:

- Free or discounted CWP webcasts
- Free Lunch & Learns
- Discounted rates on conferences & training
- Access to 2,000+ resources in our Online Watershed Library (OWL)
- Professional networking opportunities
- Social media promotion and more!

2024 Webcast Series

Jan 24 – Illicit Discharge Detection and Elimination (IDDE)

Feb 21 – Stormwater Funding

Mar 20 – New Tools for Stormwater Management

May 15 – Design with Maintenance in Mind

Jun 19 – Biochar: Applications and Research

Jul 24 – MS4 Permit Basics

Sep 18 – Behavior Change

Oct 23 – Agriculture and Watershed Management

Nov 20 – Green Infrastructure

CENTER FOR
**WATERSHED
PROTECTION**
Webcasts

**For more
information,
contact:**

**Karen Titus
kmt@cwpr.org
(410) 696-3973**

Watershed & Stormwater Consulting Services

Direct technical assistance to state and local governments, watershed organizations, environmental consultants and other clients.

- ❖ Watershed assessments and plan development
- ❖ Green infrastructure and stormwater retrofit design
- ❖ Stormwater design manual development
- ❖ Local code and ordinance review and updates
- ❖ GIS Services



MS4 Assistance



Preparing Annual Progress Report



Developing and performing training –
IDDE, Pollution Prevention



PCB Source Assessment analysis



Outfall screening prioritization

Baltimore County Outfall Screening Risk Factor Analysis

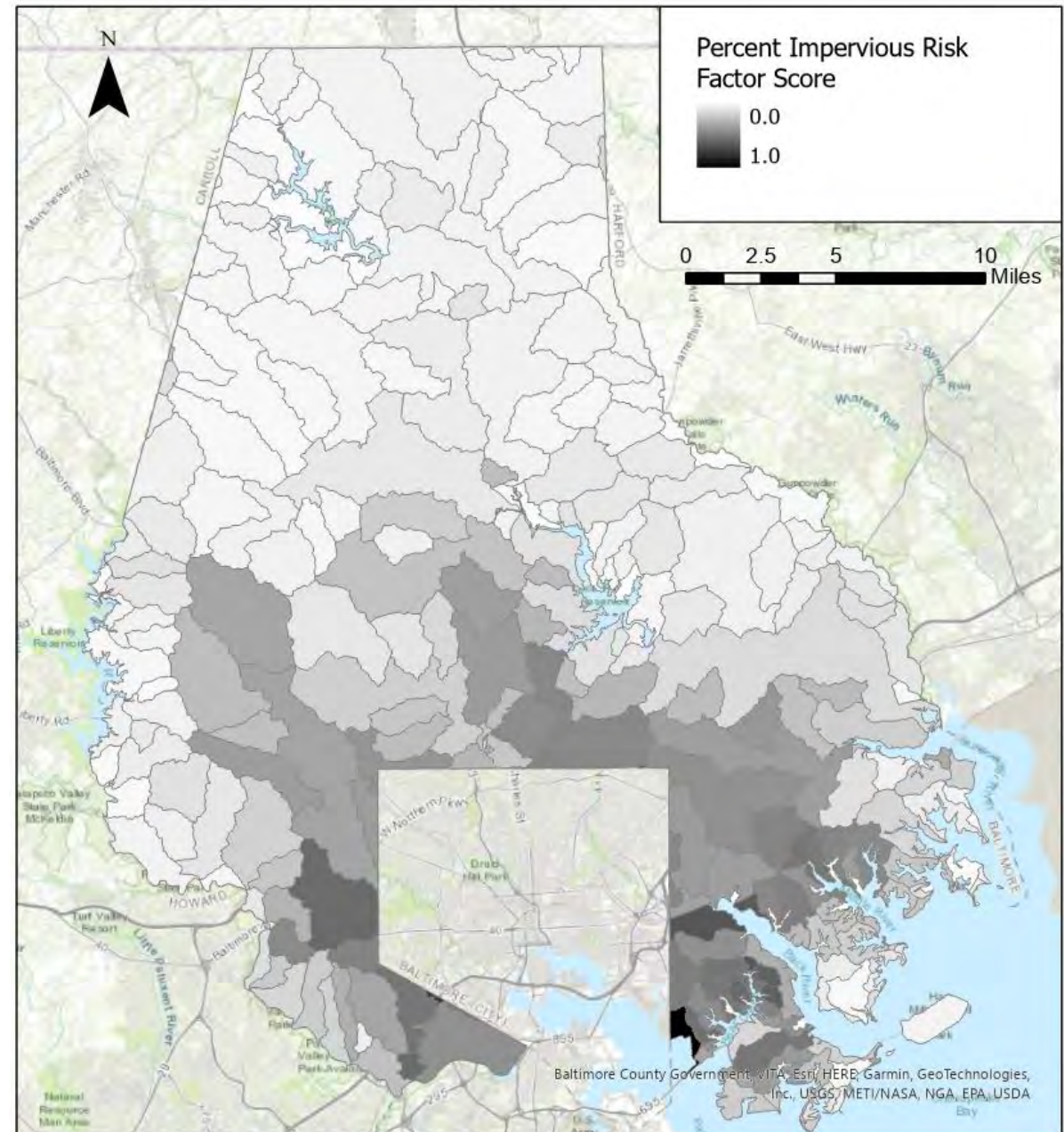
- 12,201 outfalls
 - 2,064 Major (>36" diameter)
 - 9,651 Minor (<36" diameter)
 - 486 unknown
- Used GIS to evaluate risk factors at the scale of subwatersheds
 - Baltimore County has 269 subwatersheds
 - Subwatershed sizes range from 1.13 acres to 12,925.60 acres
- Identified risk factors that may indicate the potential for illicit discharges and evaluated 12 risk factors
- Developed outfall screening prioritization tool

MS4 Permit requirements:

- screening at least 150 outfalls per year
- ensuring screening efforts reflect priorities based on outfall-specific pollution potential
- adaptively managing the prioritization of outfalls based on completed screenings/investigations or changed conditions

Percent Impervious

- ❑ Higher percentages of impervious cover are typically more urbanized areas
- ❑ Urbanized land uses are generally associated with more point sources of pollution
- ❑ More impervious closer to City of Baltimore
- ❑ Percent Impervious per subwatershed ranged between 0% and 68.1%



Illicit Discharge Potential (IDP) Scores

Individual Risk Factor	Weight in IDP Calculation
Percent Impervious	3
Population Density	3
Land Use	3
Infrastructure Access Point Density	2
TMDLs	2
SSO Density	2
Septic System Density	1
Sanitary Sewer Age	1
Storm Sewer Development Age	1
Hot Spot Density	0.5

- IDP scores: weighted average of the ten (10) individual risk factor scores
- Higher risk factor weights based on the increased probability for illicit discharges
 - Weight of 1 used due to dataset incompleteness or unreliability
 - Hot Spot Density was assigned a weight of 0.5 as many hot spot points in the County’s dataset were identified based on presence of trash, which is not a reliable indicator of illicit discharges

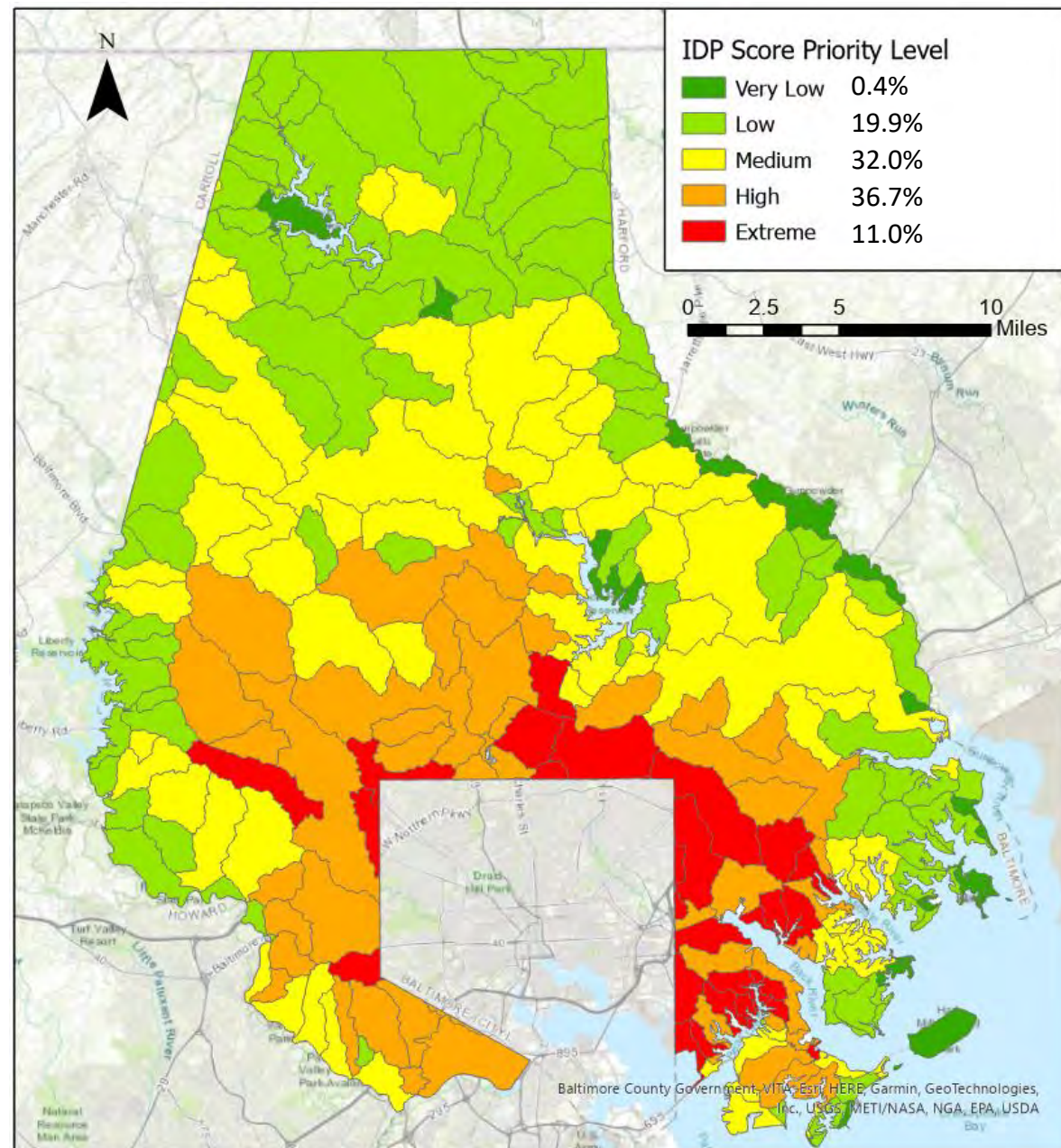
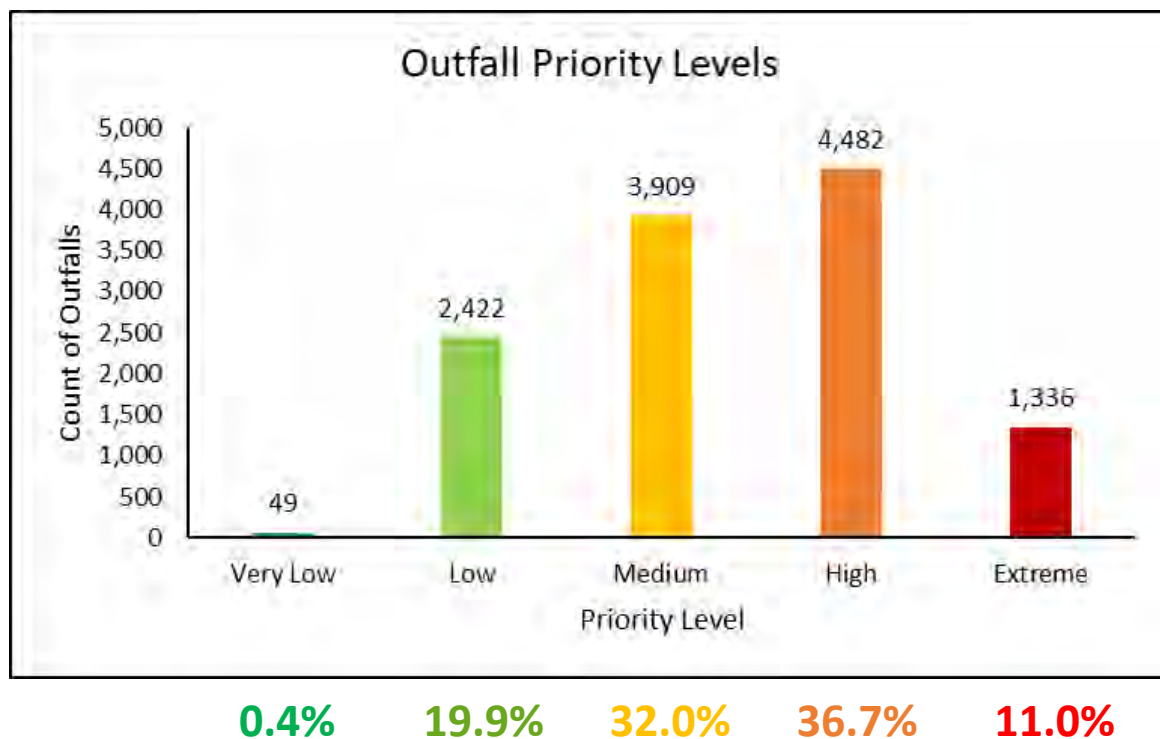
$$\text{Subwatershed IDP Score} = \frac{\sum(\text{Risk Factor Score} \times \text{Risk Factor Weight})}{\sum(\text{Risk Factor Weight})}$$

Outfall Prioritization	Risk Factor Score (0 - 1)										Average Illicit Discharge Potential (IDP) Score
	Weight	3	3	3	0.5	2	1	2	2	1	
Subwatershed Name <i>(Subsheds in italics have no outfalls)</i>	Percent Impervious	Population Density	Land Use	Hot Spot Density	Sanitary Sewer Overflow (SSO) Density	Storm Sewer Development Age	Infrastructure Access Point (IAP) Density	Total Maximum Daily Loads (TMDLs)	Septic System Density	Sanitary Sewer Age	
	0.11	0.01	0.64	0.18	0.00	0.33	0.01	0.50	0.31	0.00	0.22
	0.32	0.04	0.58	0.31	0.09	0.17	0.09	1.00	0.00	0.43	0.32
	0.38	0.35	0.75	0.00	0.00	0.17	0.21	1.00	0.00	0.81	0.42
	0.07	0.01	0.37	0.00	0.00	0.28	0.00	1.00	0.03	0.35	0.22
	0.18	0.02	0.44	0.03	0.01	0.23	0.07	1.00	0.02	0.40	0.26
	0.27	0.25	0.60	0.00	0.07	0.22	0.29	1.00	0.00	0.57	0.37
	0.64	0.25	0.82	0.65	0.10	0.35	0.53	1.00	0.00	0.77	0.53
	0.66	0.26	0.54	0.27	0.09	0.36	0.23	1.00	0.00	0.65	0.44
	0.06	0.06	0.55	0.00	0.00	0.28	0.02	0.50	0.44	0.00	0.20
	1.00	0.23	0.50	0.00	0.02	0.41	0.08	0.83	0.00	0.78	0.45
	0.26	0.17	0.66	0.03	0.01	0.15	0.78	0.17	0.00	0.30	0.31
	0.41	0.26	0.64	0.00	0.00	0.00	0.00	0.83	0.00	0.58	0.33

Outfall Priority Levels

Outfall priority assigned based on the subwatershed priority.

As expected, the subwatersheds closest to the City of Baltimore are of higher risk for illicit discharges



Outfall Screening Scenario Tool

Assumptions for Staff Needs in Scenarios

Cells with light blue fill are for data entry.

Cells with white fill are formulas that should not be overwritten.

Total Hours per Year per FTE	Percent Available for Outfalls	Available Hours per Year
2,080	60%	1,248

Screening Category	Assumption	Outfall Type	Hours
First Screening	# Hours per Screening	All	0.5
	# Hours per Investigation	Major	2
	# Hours per Investigation	Minor	1
	# Hours per Investigation	Unknown	1
Previously Screened	# Hours per Screening	All	0.5
	# Hours per Investigation	Major	2
	# Hours per Investigation	Minor	1
	# Hours per Investigation	Unknown	1

Investigation Assumption	Priority Level	Value
Percent of Screenings that require an Investigation	Extreme	40%
	High	30%
	Medium	10%
	Low	5%
	Very Low	5%

- Excel Tool to assist with staffing and tracking
- Counts of major and minor outfalls in each Priority Level
- Scenarios based on user-entered assumptions
 1. How many FTE would we need to screen and investigate each Priority category of outfalls annually?
 2. How many years would it take to screen all unscreened outfalls of each priority at the rate of 150 screening/year?
 3. Using a pre-determined number of FTE staff, how many outfalls can be screened and investigated annually based on the screening frequencies and assumptions?

Technical Assistance



Identifying water quality improvement projects



Grant applications and grant administration



“Circuit Rider” to provide stormwater staff support

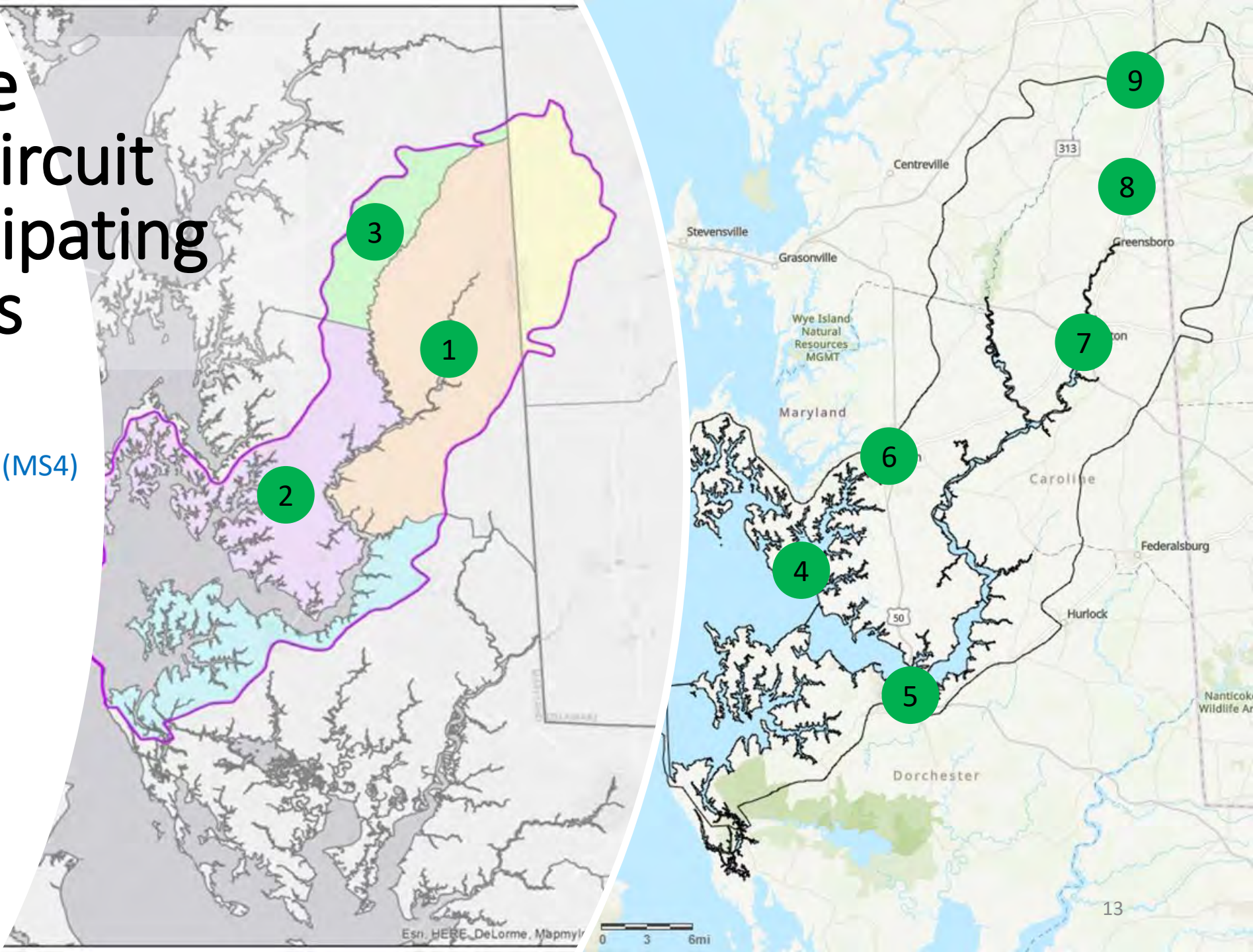


Project Management during design and construction

Envision the Choptank Circuit Rider Participating Jurisdictions

1. Caroline County
2. Talbot County
3. Queen Anne's County (MS4)
4. Town of Oxford
5. City of Cambridge
6. Town of Easton (MS4)
7. Town of Denton
8. Town of Goldsboro
9. Town of Templeville

ENVISION_{THE}CHOPTANK



Envision the Choptank Technical Assistance Circuit Rider Scope of Work

TASK 1: Identify and assess potential projects

Meet with each jurisdiction

Review previous studies and projects

Evaluate new project ideas

Coordinate goals and priorities

TASK 2: Carry out prep work

Site visits and desktop analysis to assess project feasibility

Meet with property owners and stakeholders

Develop project scope of work

TASK 3: Fundraise for project design and implementation

Distribute monthly funding opportunities handout

Prepare funding applications

Grant application debriefs

TASK 4: Supply project and grant management

Administer grants, write progress reports

Write RFP's and bid documents, attend pre-bid meetings, review bids

Work with consultants and contractors

TASK 5: Enhance project implementation efficiency

Evaluate regional project opportunities

Share project and grant lessons learned

Assist with Comprehensive Plan updates

Catalog BMPs and track maintenance and inspections

TASK 6: Engage with workgroups

Envision Steering Committee

Working with Local Governments

Disenfranchised Communities

Advancing Large Scale Restoration

Education Strategy

Presentations to elected officials

Envision the Choptank Funding



❖ Regional Capacity Building Initiative Grant

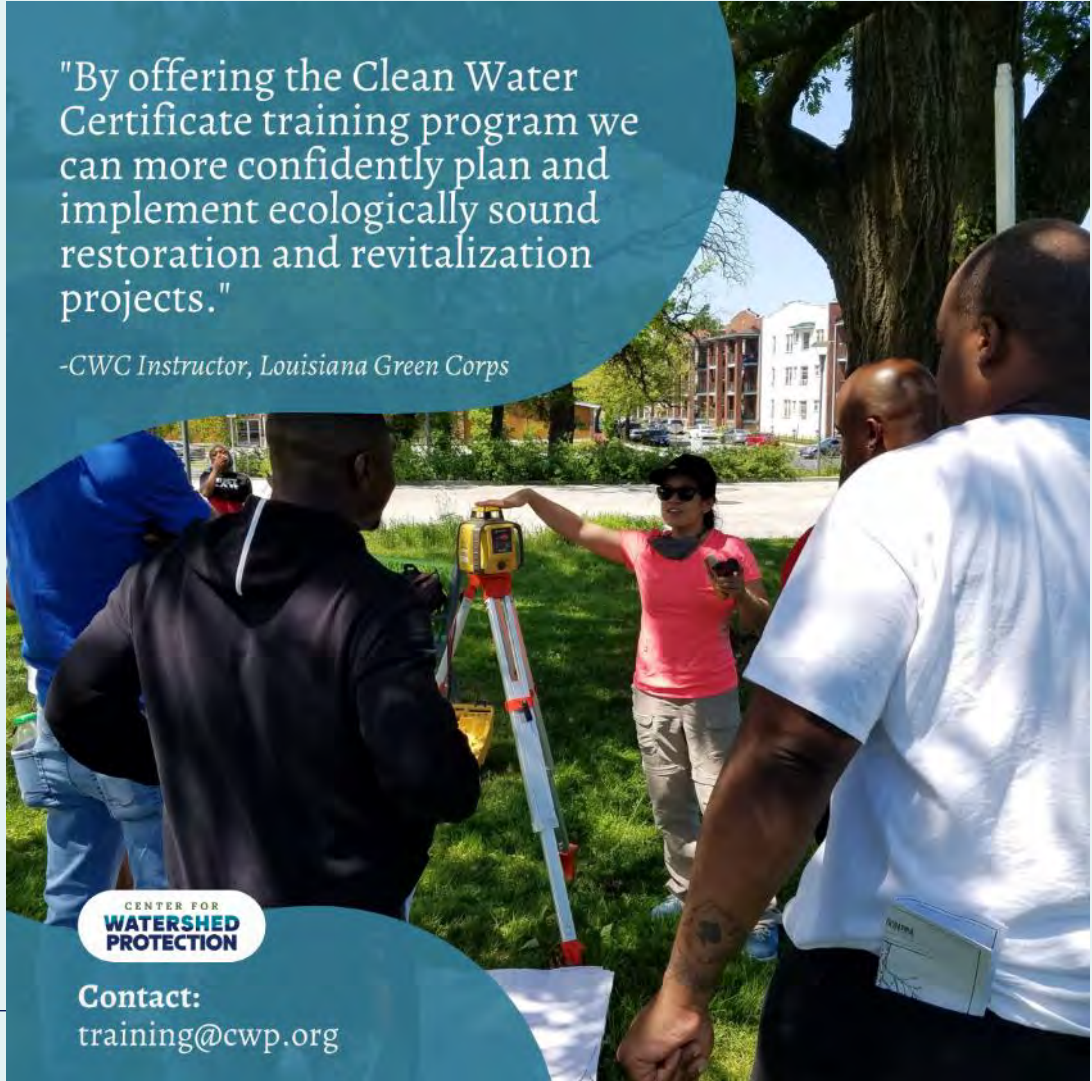
- 5-year capacity building program, which includes training and technical assistance to build a sustainable partnership
- Funds the Common Agenda update (5-year workplan)
- Includes funding for a Partnership Coordinator, Agricultural Landowner Assistance Coordinator, and Technical Assistance Circuit Rider
- Eligible for additional years of funding by providing collaborative scopes of work on annual basis

❖ Maryland 319 Grant (Nonpoint Source Management Program) to fully fund the Technical Assistance Circuit Rider for 5-years

❖ Apply for grants to implement projects

Clean Water Certificate (CWC) Training Program

- Entry-level Green Infrastructure Construction & Maintenance Training
- Nationally-accredited program
- Goals:
 - ✓ Provide the stormwater industry access to an “on the job ready” workforce,
 - ✓ Expand the skilled stormwater industry workforce to help meet the demand for stormwater installation and maintenance, and
 - ✓ Increased opportunity for individuals in low-income communities, under or unemployed individuals to secure a living wage job leading to financial stability



"By offering the Clean Water Certificate training program we can more confidently plan and implement ecologically sound restoration and revitalization projects."

-CWC Instructor, Louisiana Green Corps

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Contact:
training@cwpg.org



CENTER FOR
**WATERSHED
PROTECTION**

2024 National Watershed & Stormwater Conference

APRIL 8-11, 2024 • KANSAS CITY, MISSOURI

Now accepting abstracts!
Deadline: December 22, 2023

NATIONAL WATERSHED AND
STORMWATER CONFERENCE | **2024**

APRIL 8 – 11, 2024

The InterContinental Kansas City at the Plaza
Kansas City, Missouri

THANK YOU

Karen Titus

Director of Membership & Training

kmt@cwpp.org

410.696.3973

Amanda H. Pollack, P.E.

Water Resources Engineer

ahp@cwpp.org

410.696.3945





Calendar of Tentative Agenda Topics
October 2023 – May 2024
(Subject to Change)

October 25

- Lead & Copper Rule Inventory Assistance – Eric Dutrow, Maryland Rural Water Association

November 15

- Center for Watershed Protection Overview & Projects – Karen Titus
- PFAS Status & Coordination – Discussion

December 20

- National Flood Insurance Program & Carroll County Community Rating System Status – Pat Varga

January 24

- Trout Conservation – Scott Lowe, Trout Unlimited
- PFAS Status & Coordination – Discussion

February 28

- Stream Temperature Data Evaluation – Byron Madigan
- Drought - Discussion

March 27

- Guest: TBD

April 24

- Guest: TBD

May TBD

- Tentative MDE tour of sand filter facilities. Date subject to MDE availability.

Note: WRE Update Status AND Municipal Stormwater Projects Update will be on the agenda each month

Carroll County Water Resource Coordination Council

Hampstead * Manchester * Mt. Airy * New Windsor
Carroll County Health Department



* Sykesville * Taneytown * Union Bridge * Westminster
Carroll County Government

WRCC Meeting Summary December 20, 2023

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- John Dick, Westminster
- Gary Dye, New Windsor
- Delbert Green, Manchester
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Alex Perricone, Manchester
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Dick Swanson, Mount Airy

CC LRM:

- Brenda Dinne
- Glenn Edwards
- Chris Heyn, Director
- Claire Hirt
- Byron Madigan
- Kelly Martin
- Denise Mathias
- Zach Neal
- Janet O'Meara
- Pat Varga
- Hannah Weber

Health Department:

- Richard Brace

CCG Others:

- Andy Watcher, CC DPW
- Bryan Bokey, CC DPW
- Lydia Rogers, CC M&B

Guest Speakers:

-

1. Opening Statement

Chair – Kevin Hann

Mr. Hann opened the meeting at 2:32 PM. He wished everyone a happy holiday.

Vice Chair – Jim Wieprecht

Nothing additional.

2. Approval of Meeting Summary – November 15, 2023

Approval of the November meeting summary was discussed. No changes were made.

APPROVAL OF MINUTES: Motion was made by Alex Perricone and seconded by Jim Wieprecht to approve the November 15, 2023, meeting summary. Motion carried.

3. National Flood Insurance Program & Community Rating System – Pat Varga

- Mr. Varga was out of the office. The presentation will be rescheduled.

Reference/Attachment:

- n/a

4. Water Resources Element (WRE 2024) Update – Brenda Dinne

- Task 1.2: Automation of Portions of Buildable Land Inventory Model: Hazen is moving forward with an add-on of details in technical memo.
- Task 2: Groundwater Allocability: Task completed.
- Task 3: Emerging Contaminants: Task completed.

- Task 4: MDE TIPP Spreadsheet Comparison: There were issues with the TIPP spreadsheets, and they were not used for the 2023 NPDES Annual Report. Staff will follow up with Hazen.
- Task 5: Climate Change Impacts: Task completed.
- Task 6: Update 2010 WRE Supporting Documents: Three of the five updated supporting documents were received December 19, with the additional two expected by December 22. The Technical Team is reviewing the documents. If any municipalities would like to review them, Ms. Dinne will share the documents.
- Contract Extension: A no-cost contract extension was completed to extend Hazen's contract from December 31, 2023, to June 30, 2024. We have extended the timeframe to complete some of the work.

Reference/Attachment:

- N/A

5. Municipal Stormwater Projects Update – Janet O'Meara

- Ms. O'Meara provided an update on the municipal stormwater restoration projects.
- Ms. O'Meara will share the concept plan for Manchester East with the Town once it's received.

Reference/Attachment:

- *Municipal Project Status, December 2023*

6. PFAS Discussion

- PFAS will be added to the agenda as a discussion topic at least quarterly. Each municipality shared the current status of PFAS test results and/or any resulting action.
- Hampstead is in the final stage of picking term contractors for design and engineering work for treatment. The first round of UCMR-5 testing results were posted online and included in the Town newsletter. Results of the second UCMR-5 testing have not yet been received. Town staff continues to meet with Maryland Department of the Environment (MDE) frequently. The Town will be receiving \$19.5 million in grants for treatment but will still need to come up with another \$8 million of local funds. Operational costs for the Town will increase significantly, and water rates will need to increase to cover costs.
- Mount Airy is addressing five water stations. In the interest of transparency, the Mayor is posting outreach information on the Town website and will be sending out additional letters. The Town submitted an application for a Brinkley Bill exception to increase the appropriation for well #9.
- Taneytown expects to see funds from the PFAS settlement associated with a class action lawsuit in which the City participated, although the timing is uncertain.
- Manchester does not expect to have to add treatment for PFAS, as the levels are below the proposed limit. The Patricia Court well was taken offline as a cautionary measure. The Town is more concerned with the amount of water currently lost to leaks. Non-potable water reuse could be an option for certain water uses if MDE is open to it.
- Results of testing at the Public Safety Training Center (PTSC) were received. Site plan modifications will occur, and construction activities will address the issue.
- The Hampstead Fire Department site is the hot spot for PFAS in the Town. Mr. Hann will send Mr. Heyn a copy of the letter the fire department received from MDE.
- Baltimore City is investigating PFAS sources in the Liberty Reservoir watershed. MDE already did some testing. PFAS downstream from the PTSC decreased steadily closer to the reservoir.
- Wells at a mobile home park abutting the Mount Airy town limits but outside of the growth area tested high for PFAS. They previously turned down an offer to hookup to the Town's public sewer system after the site had a septic system failure. Residents may pursue trying to get assistance from the Town or the County.
- A carbon filter on a home water system, such as on a refrigerator, will remove PFAS.

Reference/Attachment:

- N/A

7. Drought Condition Discussion

- Recent rain has been helpful but has not gotten us out of the woods. If we don't receive enough snow and rain over the winter, it will lead to greater issues. The State drought status is current at Level 3 out of four, with Level 4 being an emergency status that takes effect through Executive Order by the Governor.
- Manchester recently raised their drought level status. The Town has a drought management plan. Once the threshold was reached, the next level of restrictions was imposed. Those using water for restricted uses will be fined.
- Some places, such as Lancaster, have had issues with people stealing water from hydrants. The municipalities do not necessarily address this issue in their codes.
- By February, we should have a better idea how precipitation has impacted water levels and drought conditions. This will be a discussion topic on the February WRCC meeting agenda. Additional restrictions and public outreach may be necessary.

Reference/Attachment:

- N/A

8. Other

- January WRCC Meeting: The next meeting will be held on January 24. Trout Unlimited will be the guest speaker.
- 2023 NPDES Annual Report: Ms. Hirt thanked everyone who provided comments on the draft Annual Report. She anticipates sending the Annual Report to MDE before Christmas. She gave an overview on the countywide TMDL Implementation Plan required by the permit and explained the content included. Once it's submitted to MDE, she will send a copy to the municipalities.
- Statewide Bay TMDL Goals: Mr. Heyn noted that MDE shared in a recent presentation that the State is falling short of its 2025 Bay TMDL restoration goals. This will likely lead to additional requirements in our next permit. The State Highway Administration (SHA) permit to be released soon could be an indication of additional requirements.
- NPDES Compliance Specialist: Ms. O'Meara thanked Mr. Hann for agreeing to sit on the interview panel for the open NPDES Compliance Specialist position. Several candidates were interviewed, but the panel decided to look into additional candidates. Interviews will be held after the new year.
- New Planning & Land Management Deputy Director: Daphne Daly has been hired as the Deputy Director. She previously worked for Carroll County, but most recently worked for Baltimore County.
- Upcoming Legislative Session: Mr. Heyn indicated that solar and housing will be hot topics in the upcoming Maryland General Assembly legislative session. There are currently discussions about legislation that could lead to preempting local zoning on these issues.
- Manchester Town Manager Anniversary: Mr. Perricone noted that, as of last week, he has been in the Town Manager position for one year. He thanked everyone for all the assistance they've provided.

Reference/Attachment:

- N/A

9. Adjournment

The meeting adjourned at 3:44 PM.

MEETING ADJOURNMENT: Motion was made by Alex Perricone and seconded by Dick Swanson to adjourn the December 20, 2023, meeting. Motion carried.

Upcoming Meetings:

☐ *Regular Monthly Meeting – Wednesday, January 24, 2023*

MUNICIPAL STORMWATER PROJECT STATUS

December 20, 2023

FUTURE PROJECTS:

Michael's Property (Hampstead) – Project is on hold until Town has obtained approval from property owners to move forward.

Meadow Ridge Basin 2 (Westminster) – Retrofit of existing facility to provide water quality through a surface sand filter. This site is adjacent to the pump station at the edge of the City limits.

Hampstead Valley 2/3 (Hampstead) – Hampstead Valley facilities 2 and 3 will be retrofit as a stream restoration project to decommission Sycamore Drive as a roadway embankment. The design will include a stream restoration beginning immediately downstream of the proposed Hampstead Valley 1 facility and continue to Sycamore Drive.

CONCEPT DESIGN:

Hampstead Valley 1 (Hampstead) – Retrofit of existing detention basin to a surface sand filter. Site is located just south of Lower Beckleysville Road near a production well. CLSI submitted a revised concept plan for review on December 7th. A copy was shared with the Town.

Manchester East (Manchester) – CLSI is working on the concept design of a new stormwater facility north of Manchester Valley High School, adjacent to the pump station. Surveying of the property was performed this month. We anticipate a concept plan being submitted in late January.

New Windsor Wetland (New Windsor) - A new wetland facility is proposed adjacent to the Maryland Midland Railroad tracks and Dickenson Run. The proposed improvements include removing the existing inlet adjacent to the intersection of Water St and Church St, replacing it with a diversion structure that will route the 1-year storm discharges to the proposed wetland facility. We are working through the design with the engineer for a structure to balance the facility on both sides of the sewer main. Comments have been provided to the engineer.

Public Safety Training Center (Westminster Well)- A retrofit for the Public Safety Training Center pond is in progress for the facility design and PFAS remediation. WRA is finalizing the concept

plan for the surface sand filter this week. Tetra Tech will provide guidance for the PFAS remediation. Soil borings have been completed. We continue to work with Building Construction to coordinate design efforts for erosion and sediment control.

PRELIMINARY DESIGN:

Hampstead Valley 4 (Hampstead) – A new surface sand filter and stream restoration project is proposed between Century Street and Downhill Trail. Culverts at Downhill Trail require realignment into the HOA parcel for dam breach approval. RFP for geotechnical borings is drafted, and will be going to the County geotechnical term contractors to get these completed. We are just waiting on an exhibit from CLSI for the locations.

Roberts Field Wet Facility (Hampstead) – Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. The recent concept submittal was approved with comments from the Town and Stormwater Management. Wallace Montgomery & Associates (WMA) is working on the preliminary plans. A revised grading plan was provided this month to be submitted with the grant application to DNR Grants Gateway. We anticipate resubmission of the preliminary plan in January. An RFP for geotechnical borings is drafted, we anticipate sending out the term contractors to get pricing for the borings in the near future.

FINAL DESIGN:

CONSTRUCTION:

PLANNING PROJECTS:

Little Pipe Creek Restoration Opportunities – The County has been working with CWP on this task over the last year. CWP has developed a spreadsheet to prioritize projects and has identified five potential projects and are looking to submit final reports by the end of the year.

TREE PLANTING PROJECTS:

All the municipal plantings have completed their maintenance period and are now the responsibility of the municipalities. Please make sure that these areas are being mowed at least three (3) times per season.