

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 23, 2024

Attendees:

Municipalities:

- Kevin Hann, Chair, Hampstead
- Jim Wieprecht, Vice Chair, Taneytown
- Zac Amoss, Westminster
- Gary Dye, New Windsor
- Andrea Gerhard, Westminster
- Delbert Green, Manchester
- Greg Howell, Westminster
- Mayor Perry Jones, Union Bridge
- Rodney Kuhns, Manchester
- Mark Mellendick, Westminster
- Dylon Miller, Westminster
- Steve Miller, Manchester
- Mike Rawlings, Westminster
- Jim Roark, Hampstead
- Kevin Rubenstein, Sykesville
- Kevin Smeak, Taneytown
- Vance Summerhill, Westminster
- Dick Swanson, Mount Airy

CC PLM:

- Brenda Dinne
- Glenn Edwards
- Catarina Erbe
- Andrew Gray
- Chris Heyn, Director
- Claire Hirt
- Mitch Masser
- Denise Mathias
- Zach Neal
- Janet O'Meara

Health Department:

- Richard Brace
- Nicole Bowman

CCG Others:

- Andy Watcher, CC DPW
- Bryan Bokey, CC DPW
- Hanley Allen, CC M&B

Guest Speakers:

- n/a

1. Opening Statement

Chair – Kevin Hann

Mr. Hann was unavailable. Vice Chair Wieprecht acted as Chair in his place.

Vice Chair – Jim Wieprecht

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

Mr. Wieprecht requested everyone to introduce themselves since there were some new faces.

2. Approval of Meeting Summary – September 25, 2024

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

APPROVAL OF MINUTES: Motion was made by Dick Swanson and seconded by Steve Miller to approve the September 25, 2024, meeting summary. Motion carried.

3. Municipal Stormwater Projects Update – Janet O’Meara

- Janet O’Meara provided an update on changes to the status of the municipal stormwater restoration projects.
- Ms. O’Meara will send a copy of the Manchester East concept plan to the Town of Manchester.

Reference/Attachment:

- *Municipal Project Status, October 2024*

4. PFAS Discussion

- Taneytown requested MDE allow the City to suspend pumping on one well with PFAS in exchange for pumping more on another well that doesn’t have PFAS. The City is waiting on a response. The City also is still waiting on official word regarding grant funding.
- Manchester received a loan forgiveness grant of \$6.6 million. The Town is working on a grant for the wastewater treatment plant.

Reference/Attachment:

- *N/A*

5. Other

- Environmental Symposium: The third annual Environmental Symposium will be held on Saturday, October 26, 2024. Mr. Heyn encouraged all the municipalities to attend. The event has been growing each year. Some of the features this year are a bug zoo, demonstrations, storytelling by Carroll County Public Library, a rain barrel & compost bin giveaway, and a recycled art contest for high school students.
- Stewart Comstock: Mr. Heyn shared that Stewart Comstock, with whom many from the County and municipalities have worked with at Maryland Department of the Environment (MDE), passed away suddenly last week.
- NPDES Annual Report: Mr. Masser thanked everyone who has submitted the completed Jotforms for the Annual Report.
- Water & Sewer Master Plan, Fall Amendments: Mr. Gray has been meeting with all the municipalities to finalize new procedures. This is temporarily on hold while he processes the fall Water & Sewer Master Plan amendments for Freedom, Hampstead, and Manchester.
- Upcoming Meetings: The next meeting will be held on November 20, 2024, which is a week earlier than usual due to the Thanksgiving holiday. Carroll County Comprehensive Planning will discuss the upcoming Carroll County Master Plan update process and municipal coordination.
- A-StoRM Stormwater Regulations Update: Comments on MDE’s proposed stormwater regulations were sent to MDE on October 14. Ms. Dinne will send a copy of the letter to the municipalities.

Reference/Attachment:

- *Carroll County Comment Letter re Proposed Stormwater Regulations (dated October 14, 2024)*

6. Water Resources Element (WRE) Countywide Strategies – Work Session

- A work session was held on the initial rough draft of the WRE Countywide Strategies. Discussion was guided by a PowerPoint that focused on new or revised strategies and action items.
- The group completed review of the water supply and wastewater strategies. Ms. Dinne asked the group to review the stormwater strategies and send her comments. Any follow-up discussion will occur at the November 20 WRCC meeting.

Reference/Attachment:

- *PowerPoint: Discussion outline for discussing rough draft of WRE countywide strategies*

7. Adjournment

The meeting adjourned at 4:04 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Gary Dye to adjourn the October 23, 2024, meeting. Motion carried.

Upcoming Meetings:

📅 *Regular Monthly Meeting – Wednesday, November 20, 2024*

MUNICIPAL STORMWATER PROJECT STATUS

October 23, 2024

FUTURE PROJECTS:

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

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. Comments were returned to CLSI, the County is currently looking into how this project would impact a project at Hampstead Valley 2/3.

Manchester East (Manchester) – CLSI is working on the concept design of a new stormwater facility north of Manchester Valley High School, adjacent to the WWTP. CLSI resubmitted plans September 25th. Bitzel & Associates is working to have an appraisal done of the parcels that will need to be acquired. A copy of the plan was sent to the property owner for review.

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. Century is currently working on a conceptual design. The geotechnical evaluation was completed and the report has been sent to the engineer. We anticipate a concept submittal in early November.

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. A concept plan was submitted and review comments were sent back to BAI.

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. We anticipate a plan submittal later this month.

PRELIMINARY DESIGN:

FINAL 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. Final plans should be submitted later this month.

Roberts Field Wet Facility (Hampstead) (DNR Grant Award- \$1,000,000)– 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. The Joint Permit Application has been submitted to MDE, we've received comments and have addressed them. The project was placed on public notice through Army Corps of Engineers, we are awaiting feedback. Final plans were reviewed, and comments were returned to Wallace Montgomery.

CONSTRUCTION:

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.

Christopher Heyn, P.E., Director
410-386-2949
Toll-free 1-888-302-8978
MD Relay service 7-1-1/1-800-735-2258



Department of
Planning and Land Management
Carroll County Government
225 North Center Street
Westminster, Maryland 21157

October 14, 2024

Mr. Raymond Bahr
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

**RE: Carroll County A-StoRM Stakeholder Comments
Draft Stormwater Regulations – Version 3**

Dear Mr. Bahr:

Thank you for reaching out to the A-StoRM stakeholders group regarding MDE's current proposed regulation changes sent on September 20, 2024. In reviewing the proposed changes, I offer the following comments.

There are two general comments related to the overall proposed changes.

1. Water Quality Treatment versus Flood Management – The primary focus of SB 227 was to direct MDE to update regulations related to new precipitation data in an effort to address climate change and flooding. This was acknowledged in the *Advancing Stormwater Resiliency in Maryland (A-StoRM) Maryland's Stormwater Management Climate Change Action Plan* document prepared for the Maryland General Assembly for FY2021. In that document it was stated:

“The state's Stormwater Management Law, Environment Article 4-201.1, now requires the Maryland Department of the Environment (MDE) to report on the most recent precipitation data available, investigate flooding events since 2000, and update Maryland's stormwater quantity management standards for flood control.”

It is concerning however, that MDE is proposing changes to water quality treatment requirements at this same time and the compounding effect that this will have on implementation. If there is empirical data that shows that treating 1 inch of rainfall has been ineffective in meeting the stormwater component of water quality standards, it would be appreciated if it could be shared. Published charts from MDE indicate that an increase of treatment from 1 inch to 1.5 inches as proposed would provide a minimal increase in pollutant removal efficiency compared to the significant cost for implementation.

It is understood that MDE is taking guidance on this change from *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the*

Energy Independence and Security Act. This guidance document focuses on using appropriate stormwater practices to manage this volume of runoff on site, including the use of infiltration practices to mimic the infiltration realized in undeveloped conditions. The requirements of this document can be met with other aspects of MDE's proposed changes related to channel protection volume without redefining Maryland's Water Quality Volume.

Carroll County strongly advocates that MDE approach the new design regulations from the perspective of providing tools to be used and allowing local jurisdictions to meet the stormwater management requirements by utilizing those tools as appropriate for site conditions. Carroll County recommends:

- Water quality volume be treated by ESD features for 1 inch of rainfall depth. These ESD features may be both volume-based and runoff-based practices, essentially any Chapter 5 practices.
- Channel protection be addressed for the adjusted one-year, 24-hour storm, or 3 inches of rainfall with any volume-based practices that provide water quality treatment. This includes ESD, infiltration, or Chapter 3 practices. The point is that a stormwater system suitably engineered for capture, conveyance, storage, attenuation, and treatment addresses this criterion and provides greater treatment than the EPA guidance.

2. Volume Management – From documentation and discussion, there is a general direction being taken to separate Water Quality treatment, Channel Protection, and Peak Management. Specifically, this relates to (ESD) practices. Functionally, these practices can be separated into those that reduce runoff, such as pervious pavement and sheet flow to buffer, and those that temporarily store a volume of water and then treat it. It needs to be recognized that the volume-based designs contribute to addressing channel protection and flooding.

Carroll County strongly advocates that MDE approach the new design regulations from the perspective of providing tools to be used and allowing local jurisdictions to meet the stormwater management requirements by utilizing those tools as appropriate for site conditions. It is understood that the impetus for these regulation changes is to address climate change and flood management. We support requirements to adequately address Channel Protection and Peak Management. However, this can be accomplished using site specific Best Management Practices (BMPs) that are properly engineered and maintained.

Should MDE perpetuate the change in required water quality volume, Carroll County recommends the following.

- Water quality volume be treated by ESD features to the new level of 1.5 inches of rainfall depth. These ESD features may be both volume-based and runoff-based practices, essentially any Chapter 5 practices.
- Channel protection and Peak Management be addressed with any volume-based practices. This includes ESD, infiltration, or Chapter 3 practices. The point is that a stormwater system suitably engineered for capture, conveyance, storage, and attenuation address these criteria.

The following are more detailed comments regarding specifics in the Draft Regulations and revised Chapter 2 provided for review.

Regulation Changes

01-1 Incorporated by Reference

B. With removal of MD-378, is the intent that MD-378 will no longer be a requirement and MDE will be covering MD-378 requirements in future MDE Dam Safety Guidelines and Policies?

.02 Definitions

B.(11) – The definition of “Develop land” as written does not include subdivision of property. Compare to .05 on page 9. “A person may not develop land without an approved final stormwater management plan.” As currently defined, this would allow paper subdivision of lots and strips for roads, etc., without going through the process of providing a stormwater management design. Once the lots and streets are recorded it may not be possible to provide adequate stormwater management.

B.(12) – Reconsider definition of development project. Simply stating that it must comply with this chapter does not define what it is.

B.(13) – Development Site – Provide clarity. The definition indicates that it must “include” the Limits of Disturbance (LOD). This does not mean “only” LOD. If the intent is that management only be provided for the LOD, then explicitly state this. If the intent is that the development site may be larger, then define what it must include. Is this drainage area? If Drainage area, can some areas not being developed then be excluded from treatment?

Note that the guidance that MDE is referencing, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*, refers to the project “footprint” which is clearly intended to indicate the LOD. To remain consistent with the EPA guidance, this definition should be specific to the LOD.

Finally, if the intent is only the LOD, recommend clarifying that there be no exclusions or interior polygons allowed. No “doughnut holes.”

B.(16) – When runoff leaves an area of interest as unconcentrated flow, the drainage area is often to a line of interest or line of investigation, not a point. Consider clarifying the definition of drainage area.

B.(24) – Overbank flood protection volume – Assume this is referencing Q10. If so, please specify as well as add “ Q_p ” to define the symbol. Note that ESD practices that provide volume management contribute to overbank flood protection. Therefore, the definition should be clarified to not limit management to only structural practices.

B.(28) – Include “ Re_v ” to define the symbol.

B.(34) – Stormwater conveyance is too broad a definition. As defined, this is every area exposed to rainfall. This is critical as this term is included in the definition “Stormwater management system” which then perpetuates through other criteria such as inspection requirements. As written, a BMP inspection would include an entire drainage area and infrastructure from downspouts to closed storm drain systems. This is onerous.

B.(35) – Add “ Q_p ” to define the symbol.

B.(37) – Stormwater management system – As indicated for stormwater conveyance, the scope of this definition needs to be clarified and reduced in scope. As stated, a stormwater management system includes all features exposed to rainfall and runoff.

B.(38) – Add “ WQ_v ” to define the symbol.

B.(38) – Ensure that this definition is consistent with the Chapter 2.1 change. WQ_v is being proposed to be changed from 1 inch to 1.5 inches. Unless climate change has changed the distribution significantly, this would be a change from 90% to 95% respectively. Ensure definitions are correct and consistent.

.03 General Provisions

A.(d) – As written, this still allows for different rules to be established for State and Federal projects. Federal, State, and Local development projects are all similar in scope and have the same effect on the natural environment. Consistency of regulations would be equitable and eliminate confusion of applicability. If the impetus for this is the linear nature and limited rights-of-way related to Maryland State Highway Administration projects, then this design scenario should be addressed, not provide different rules for MSHA to follow. These same issues occur with local roadways and they should be afforded the same rights.

E. Adoption time frames. Under A.(1), MDE commits to producing a model ordinance. Local submission of proposed ordinances should follow not only adoption of these regulations, but also publishing of the model ordinance. This issue was illustrated with the recent Forest Conservation Act changes in which local codes were required to be changed by a set date, but the Department of Natural Resources was unable to provide guidance or the model ordinance in advance of that date. MDE should avoid the same mistake and simply acknowledge that local codes are to be updated following MDE providing the required documentation.

Additionally, adoption of local ordinances must be tied to the approval of the ordinance by MDE, not the date of adoption of the regulations. Local municipalities have no control over the time frame in which MDE will review and approve the submitted draft ordinance.

Also note typo, “...development projects to implement the policies...”

.05 When Stormwater Management is Required

B.(2) – Recommend inserting the word “cumulative” into this requirement. Without this clarification, a property owner could piecemeal improvements and not trigger requirements even

if cumulative effects exceed the limits of 04.B.(1)(C). We have had developers ask how long they need to wait between projects so that multiple 4999 ft² disturbances would be exempt.

C.(3)(b)(i) – Require that “adequate” stormwater conveyance exists. Older developments often have stormwater conveyance, but it was designed to lesser standards and inadequately sized storm drain systems.

C.(3)(b)(ii) – Expressly state that quantity management must be provided for all new impervious if that is the intent.

D(1)(a), (b), (c) – Revise to eliminate the term “site”, “off-site”, and “on-site.” The definition of “site” has been removed.

.08 Stormwater Management Practices

B.(1)(g) – Add “except as necessary to meet stormwater management obligations.” It is common to mass grade sites to make development sites qualify for non-structural management practices.

.08 Stormwater Management Plans

E.(2)(e) – Please add CPv and Rev to be consistent.

F. – All reference to existing standard plans on Page 16 have been removed. Please clarify if new plans must be developed, who is responsible for developing them, etc. What is MDE’s intent with this change?

.10 Construction Inspection and Enforcement

A.(3) – Should include that ESD practices can be certified by professional land surveyor to be consistent with 7(F).

G. There is a process in place regarding MD 378 structures and reporting those to Soil Conservation District. However, we are not aware of a process for all BMPs. Currently, BMPs are reported in the annual NPDES report. Is this code redundant given other reporting mechanisms? We recognize that this is existing code; however, if this is not being performed, should the opportunity be taken to revise?

Note, there is no differentiator here between ESD practices and structural practices. Some projects have significant number of practices. If a subdivision has 100 ESD practices constructed over a 2-year period, does MDE truly wish to have continues reporting of individual ESD practices over that duration? This is a significant administrative burden to both local jurisdictions and MDE, and unnecessary as it is duplicative to NPDES reporting.

0.11 Maintenance – The inclusion of the newly defined “stormwater management system” in the requirement for triennial inspections is onerous due to the unreasonably expansive definition of stormwater management system.

Chapter 2

Page 2.1 – First paragraph – Expand redevelopment section to include criteria for providing stormwater management for redevelopment projects that includes the net new impervious treated to new development standards.

Page 2.2 – WQv is the volume needed to capture the runoff from 90% of the average annual rainfall. If P is increased from 1 inch to 1.5 inches, is this still 90% of the average annual rainfall or is it 95%?

Page 2.4. – Please add a statement that if a site contains paved and unpaved areas the weighted runoff approach must be used even if Table 2.1 is used for the direct runoff amounts. The temptation will be to use a single composite RCN for the entire site. For sites with low amounts of impervious, this will produce little or no runoff. The weighted runoff approach will at least include the runoff generated by the impervious surfaces.

Page 2.6 – Last bullet – Recharge can be addressed with structural practices if designed appropriately as part of a stormwater management system. This bullet should not limit designs to only ESD practices.

Page 2.7 – Sixth bullet – We disagree with eliminating any method that recognizes volume provided by ESD facilities.

Page 2.7 – Last bullet – Please emphasize that the SCS Type II rainfall distribution is not appropriate for the required NOAA Atlas 14 rainfall depths. The Type C distribution or other approved distribution must be used. This is important as we have engineers who are arguing that they can continue to use SCS Type II distributions with the NOAA Atlas 14 rainfall depths.

Table 2.2 – Adjusted Rainfall Depths for the 1-year – 24-hour storm are not consistently increased by 13% as per the footnote. See Wicomico County with a 50% increase. Carroll County is increased by 18%. Please explain.

Page 2.10 – Last paragraphs. Requiring two different methods for determining that CP management has been achieved based on site scenarios is overly complex. Simply requiring analysis of the TR-20 output to validate that the center of mass shift has been achieved is simple and meets the design intent.

Page 2.12 – Fourth bullet - Please emphasize that the SCS Type II rainfall distribution is not appropriate for the required NOAA Atlas 14 rainfall depths. The Type C distribution or other approved distribution must be used.

Page 2.13 – First and third bullets – This is a significant issue. ESD practices that provide volumetric management effectively contribute to the management of Qp. Consider a single residential building lot that currently could address stormwater management requirements with drywells. Appropriately sized drywells can effectively address Qp requirements. As proposed, a supplemental structural practice would be required for a single residential building lot to address the now required Qp. This is cost prohibitive, entirely unnecessary, and in direct conflict with

State goals of increasing availability of affordable housing.

Page 2.14. – If the same hydrologic and hydraulic methodologies used for over bank flood control shall be used to analyze Qf, is the intention to base predevelopment and post development on different rainfall amounts (8.06” and 9.56” in Carroll)? Please be explicit.

Pages 2.15-2.17 – Page headings are “Stormwater Hotspots.” Please correct.

Page 2.15 – Second Bullet – It would be helpful to provide a list of practices that can incorporate a Rev component. This would help address the concern that more than just ESD practices can provide Rev. Consider the Carroll County surface sand filter design that effectively provides recharge.

Page 2.15 – Fourth bullet – This is inconsistent with page 2.10. CPv in a structural practice is achieved if the center of mass has been shifted appropriately. Describing in this section that it is achieved by a release over 36 hours will create confusion. Additionally, this is not entirely correct. 36 hours is correct for Use Class I & II watersheds. 24 hours is required for Use Class III & IV watersheds.

Page 2.17 – Item 4 – Please clarify this statement. Does “...and all remaining areas of the development site” imply that a development site can be both redevelopment and new development?

Again, thank you for the opportunity to review and comment on these documents. We appreciate the ongoing collaboration with MDE to address these important issues.

Sincerely,



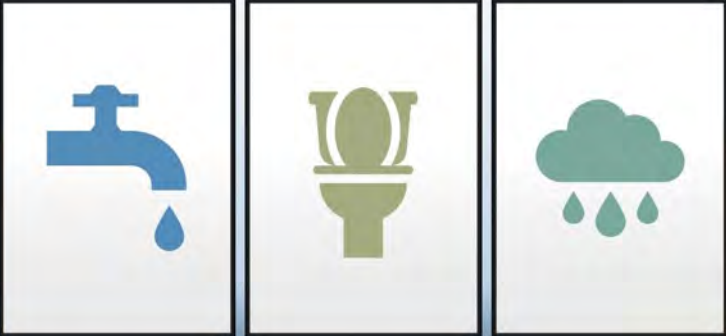
Christopher Heyn, PE

Director

Carroll County Department of Planning and Land Management

Cc: Daphne Daly, Deputy Director, Carroll County Department of Planning and Land Management
Janet O’Meara, Chief, Carroll County Bureau of Resource Management
Pat Varga, Carroll County Environmental Review Supervisor
Martin Covington, Carroll County Stormwater Engineer
Chad Wasileski, Carroll County Stormwater Engineer
Myron Frock, Stormwater Management Review Assistant
Sarah Kowalski, Stormwater Reviewer
Brenda Dinne, Carroll County Department of Planning and Land Management Special Projects Coordinator


WRCC Countywide Strategies Work Session
23 Oct 2024



Carroll County WRE 2024

Project Manager: Brenda Dinne
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Quick Overview

- Element of Comp Plan
- Update every 10 years
 - Originally adopted 2010
 - Many reg & policy changes since 2010
 - State guidance released 2022
- Hazen → updated Malcolm Pirnie supporting docs from Jan 2023 to May 2024
- Muni & County demand & capacity data collected 2022-2023 (fixed point in time)

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3 Broad Topics Addressed

- Water supply
- Wastewater
- Stormwater

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New Items from State Guidance

- Ensure receiving waters protected as local land use plan is developed & implemented, reflecting changes to MDE water resources programs since 2010
- Integrate climate change considerations, particularly flooding risks, into drinking water, WW, and SW assessments of WRE

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3 Main Sections of Plan Doc

- Background/Supporting Data
 - Water Supply
 - Wastewater
 - Stormwater
- **Countywide Strategies/Action Items**
- System-Specific Info & Strategies/Action Items
 - *Meetings & Updates in Progress*

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Since 2010: Current & Upcoming

- Bay & local TMDLs
- NPDES Permit Requirements
- Tier II Waters
- Temperature TMDLs
- PFAS & other emerging contaminants (lithium, salt, etc.)
- Climate Change priority
- A-StoRM
- Revised SW regs
- Flood/watershed management plans

** We need strategies & action items to address these issues.*

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Countywide Options: Water Supply

- Diversification
- Conservation & Demand Management
- Reservoirs
- Surface Water Intake
- Quarries
- Groundwater
- Interconnection
- Reuse

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Countywide Options: Wastewater Supply

- Water Reuse
- Effluent Recycle / Reuse
- I&I Reduction / Funding
- ~~Bubble Permits~~
- Septic Hookup Credits & Improvements
- Nonpoint Source Nutrient Credit Trading?
- TMDL Tracking
- Watershed / Flood Management

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Specific Strategies & Action Items: Structure

- **Strategies** → what we're trying to achieve in a broad sense
 - **Specific Action Items** → more specific (but not detailed) actions that can be taken to achieve the strategy
 - Already in Place**
 - Ongoing**
 - "To Do"**
 - Short-Term**
 - Long-Term**

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Rough Draft

- Already reflects 2021 Status Report changes
- Includes remaining strategies/action items from 2010 WRE
- Moved up some items already in place or ongoing since 2021 Status Report
- Added some known new items in place, ongoing, To Do
- Replaced reference to NPSS with TMDL/WQ + shifted action items around
- **Focus On Adding Strategies & Action Items to:**
 - Address climate change
 - Address emerging contaminants &/or PFAS
 - Reflect current or needed activities based on changes in policies & regs since 2010

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Water Strategies

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Water Strategies

- 1.106 Protect and sustain **existing water supplies** serving existing development
- 1.107 Identify and develop, as needed, **new water supplies** adequate to support planned future growth without over-allocating available sources
- 1.108 Promote water **conservation** measures and **manage demand** for potable water to ensure adequate supplies are available for planned development
- 1.109 Develop **emergency supply** plans and measures
- 1.110 Evaluate opportunities to pursue **potable water reuse** as a drinking water source
- 1.111 **PFAS?** ? Just PFAS or emerging contaminants as a whole ?

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Wastewater Strategies

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Wastewater Strategies

- 1.112 Sustain **existing** wastewater treatment capacity
- 1.113 Develop **new** public wastewater treatment and disposal capacity

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Stormwater Strategies

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Stormwater/Water Quality Strategies Consolidated

- 1.114 **Protect or restore water quality**, keep waters off MD's list of impaired waters, and make **progress toward any applicable TMDLs**
- 1.115 Enhance **stormwater management programs**
- 1.116 **Reduce nutrient loading** to improve water quality and minimize treatment needs and costs
- 1.117 **Reduce the amount of impervious surface that could result from development**
- 1.118 Identify **changes to planned land use patterns** and land development requirements to help achieve the needed **reduction in pollutant loads**
- 1.119 Reduce nitrogen load impacts from **private septic systems**
- 1.120 Establish additional measures to protect Carroll County's and Baltimore City's **reservoir watersheds**
- 1.121 Investigate the use of **reclaimed water** in appropriate areas to **supplement water supply capacity** and **address water quality issues**
- 1.122 Protect, improve, and maintain streams designated by the State as **Tier II High-Quality Waters**
- 1.123 **Reduce flood event impacts** to water quality
- 1.124 Identify measures to address/mitigate expected water-related **climate change** impact beyond flooding

Moved actions items to 1.114, 1.115, or 1.118

Moved actions items to 1.118 land use patterns

Moved actions items to 1.118 land use patterns

Move actions items to 1.124 climate change?

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Action Items

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Specific Strategies & Action Items: Structure

- Strategies → what we're trying to achieve in a broad sense
- Specific Action Items → more specific (but not detailed) actions that can be taken to achieve the strategy
 - Already in Place
 - Ongoing
 - "To Do"
 - Short-Term
 - Long-Term

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Rough Draft

- Already in Place AND Ongoing:
 - 2010 WRE action items in place
 - Action items moved up from Ongoing or To Do "[since 2010]"
- To Do:
 - Remaining from 2010
 - Added from Hazen info
 - Added based on current regs/policies we have to address
- Focus On Adding Action Items to:
 - *Reflect current or needed activities based on changes in policies & regs since 2010*

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Water Action Items

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Protect and sustain existing water supplies serving existing development

- **In Place:**
 - Feasibility of re-using water pumped from area quarries: NW
- **Ongoing:**
 - Track long-term trends in well levels
 - Lead & Copper Rule inventory
 - Identify wells w PFAS amount >MCL & remediate
- **Short-Term:**
 - Lead & Copper Rule
 - Water Resource Management Ordinance
- **Long-Term:**
 - Feasibility of re-using water pumped from area quarries
- **Other?**

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Identify and develop, as needed, new water supplies adequate to support planned future growth without over-allocating available sources

- **In Place:**
 - Evaluated Brinkley Bill method/process
- **Ongoing:**
 - Continue to support reservoirs for potential future option
- **Short-Term:**
 - Add short-term WRE projects to W&S plan
 - Coord w MDE to update W&S plan regs
- **Long-Term:**
 - Groundwater model to ID source of contamination & track WQ issues; improve exploratory well drilling; improve GW info consistency across munis
 - Use GIS to overlay zones of elevated groundwater concentrations
 - Additional lithium monitoring
 - Additional protection for existing/proposed reservoirs
- **Other?**

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Promote water conservation measures and manage demand for potable water to ensure adequate supplies are available for planned development

- **In Place:**
 - Incentives to retrofit fixtures
 - Public education & outreach
- **Ongoing:**
 - Coord via WRCC
 - Public education & outreach
- **Short-Term:**
 - Drought management plans: **Manchester, Westminster**
 - Water demand tracking methods
 - Smart meter technology
 - Water conservation plans: **Hampstead**
 - Incentives development projects to reduce water usage beyond required
 - Incentives existing development retrofit to high-efficiency fixtures & appliances
- **Long-Term:**
 - ??
- **Other?**

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Develop emergency supply plans and measures

- **Short-Term:**
 - Risk & Resilience Assessments & Emer Resp Plans
 - Lead & Copper Rule
- **Long-Term:**
 - Emergency supply plans & implement measures
- **Other?**

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Evaluate opportunities to pursue indirect potable water reuse as a drinking water source

- In Place:
 - PUREWater Westminster
- Short-Term:
 - Outreach materials: public + elected officials
 - Require reuse for ind process/cooling; onsite nonpotable reuse
 - Encourage MDE to adopt resid graywater regs
- Long-Term:
 - Evaluate feasibility; funding sources
 - Investigate reuse for GW storage & recharge
- Other?

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PFAS?

How to address...

- Add strategy specifically for PFAS? **OR**
- Add strategy for water supply contaminants in general and address PFAS under it? **AND**
- Address under W, WW, *and* SW (Protect & Sustain Existing Water Supply **AND** Protect & Sustain Existing WW Capacity **AND** Protect & Restore Water Quality/TMDL strategies) **OR** just water supply?

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PFAS or (Emerging?) Contaminants

- In Place:
 - Monitoring; sampled sources for PFAS; documented and notified per MDE/EPA
- Ongoing:
 - Evaluate actions required to mitigate PFAS
 - Secure funding to mitigate PFAS
 - Strategies/plans to bring into compliance
- Short-Term:
 - PFS Mitigation Plan; allocate resources to implement; coord w MDE
- Long-Term:
 - Establish funding/resources for future operational needs
- Other?

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Wastewater Action Items

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Sustain existing wastewater treatment capacity

- In Place:
 - ENR upgrades for majors; NW in progress
- Ongoing:
 - I&I improvements; funding
- Short-Term:
 - I&I studies; budget annually for I&I improvements
 - Spray irrigation to expand WWTP capacity as alternative to stream discharge
- Long-Term:
 - ENR treatment @ Union Bridge WWTP
 - Water reuse
 - Spray irrigation @ landfill to reduce leachate to be hauled
- Other?

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Develop new public wastewater treatment and disposal capacity

- In Place:
 - Identify WWTPs w/o sufficient raw water allocation to operate @ higher capacities
- Short-Term:
 - Identify WWTPs that could be limited by potential PFAS regs
- Long-Term:
 - Increase capacity where not exceed nutrient caps
 - Spray irrigation where PFAS not concern - industrial and/or WWTP expansion
 - Coord w MDE to update W&S plan regs
- Other?

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Stormwater / Water Quality Action Items

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Protect or restore water quality, keep waters off Maryland's list of impaired waters, and make progress toward any applicable TMDLs

- In Place:
 - ENR upgrades for majors; NW in progress
 - PUREWater Westminster (in progress)
 - Countywide TMDL SW Implementation Plan
- Ongoing:
 - WQ monitoring
 - MS4 Permit activities: **SW retrofits**/restoration requirements, Stream Buffer Initiative, storm drain clean outs, update & progress re Countywide TMDL SW Implementation Plan
- Short-Term:
 - Increase urban tree canopy
 - Impending temp TMDL(s) → small pond decommissioning
- Long-Term:
 - ENR upgrades for minor WWTPs
 - Zero discharge/water reuse treatment plants in impaired waters
 - Land application where PFAS not a concern
- Other?

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Enhance stormwater management programs

- **In Place:**
 - Watershed Restoration & Protection Program (WPRP) + Fund
- **Ongoing:**
 - Annual WPRP update
 - Biennial FAP
 - SW facility maintenance program and funding
 - Ag Pres
- **Short-Term:**
 - Adopt MDE's updated SW regs per A-StoRM initiative
- **Long-Term:**
 - ??
- **Other?**

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Reduce nutrient loading to improve water quality and minimize treatment needs and costs

Eliminated & combined into...

Protect or restore water quality, keep waters off Maryland's list of impaired waters, and make progress toward any applicable TMDLs

OR


Enhance stormwater management programs

OR

Identify changes to planned land use patterns and land development/use requirements to help achieve reduction in pollutant load

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Reduce the amount of impervious surface that could result from development

Eliminated & combined into...

Identify changes to planned land use patterns and land development requirements to help achieve the needed reduction in pollutant loads

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Identify changes to planned land use patterns and land development/use requirements to help achieve reduction in pollutant load

- **In Place:**
 - Developed MapShed watershed/TMDL model
 - Populated MDE's TIPP spreadsheets for TMDL progress tracking/reporting
 - Conservation Conservancy CBP model land cover update
- **Ongoing:**
 - SW retrofits in existing older subdivisions
 - BLI update
 - TIPP spreadsheets
- **Short-Term:**
 - **Decrease allowable densities outside DGAs**
 - Evaluate land use designations in sensitive areas
 - **Policies to reduce IA permitted in development**
- **Long-Term:**
 - ??
- **Other?**

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Reduce nitrogen load impacts from private septic systems

Eliminated & combined into...

Identify changes to planned land use patterns and land development requirements to help achieve the needed reduction in pollutant loads

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Establish additional measures to protect Carroll County's and Baltimore City's reservoir watersheds

- **In Place:**
 - ??
- **Ongoing:**
 - Support reservoir agreement
 - Continue to participate with RTG
- **Short-Term:**
 - ??
- **Long-Term:**
 - ??
- **Other?**

Keep or consolidate?
Action items to be moved if this is consolidated w/ another strategy

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Investigate the use of reclaimed water in appropriate areas to address water quality issues

- **In Place:**
 - PUREWater Westminster pilot project
- **Ongoing:**
 - Work w/ MDE to develop water reuse regs: Westminster
 - I&I improvements
- **Short-Term:**
 - Local measures to implement MDE resid graywater regs
- **Long-Term:**
 - Water reuse to address capacity limitations
 - Spray irrigation where PFAS not a concern
 - Maximize recycled water for outdoor use
- **Other?**

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Protect, improve, and maintain streams designated by the State as Tier II High-Quality Waters

- **In Place:**
 - Provide developers w MDE's Tier II review process
 - MDE presented Tier II process to WRCC
- **Ongoing:**
 - Education of staff and local developers
- **Short-Term:**
 - ??
- **Long-Term:**
 - ??
- **Other?**

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Reduce flood event impacts to water quality

- **In Place:**
 - Identified areas of frequent flooding & developed database
- **Ongoing:**
 - Participate in the Stakeholder Advisory Group, the Stormwater Regulation Technical Advisory Group (TAG), the Watershed Studies TAG, and the GIS TAG
- **Short-Term:**
 - Define “flooding event” w MDE
 - Update local SW regs per MDE regs
 - Develop watershed-specific flood management plans as needed
 - CFMGP funding to support watershed studies & related modeling
 - Identify critical infrastructure located in floodplains + adaption strategies
- **Long-Term:**
 - Watershed plans/model to inform comp plan land use decisions & development
- **Other?**

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Identify measures to address or mitigate expected water-related climate change impacts beyond flooding to the extent practicable

- **In Place:**
 -
- **Ongoing:**
 - CC DPW participates in BMC Climate Action Plan
- **Short-Term:**
 - Investigate grant opportunities within MD database
 - Identify WQ BMPs that also benefit GHG, energy use, wildlife, flood risks, baseflow protection, etc.
- **Long-Term:**
 - ??
- **Other?**

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Next Steps

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Next Steps: Draft Plan Doc

- Countywide Strategies → Revise per work session
- System-Specific Sections →
 - Meet w/ remaining munis: Mt. Airy, Sykesville
 - Revise each per meeting
 - Send each back to muni/Andy for review
 - Revise per any additional comments
 - Update Carroll County section
- Background → Revise per Tech Team review
- Initial complete first draft → Shooting for end of Dec

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Next Steps: Beyond Draft

- Review w/ planning commissions
- 60-Day Review
- Planning commissions public hearing
- Review by elected officials
- Elected officials public hearing
- Adoption

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