

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 11, 2025

Attendees:

Municipalities:

- ☒ Kevin Hann, Chair, Hampstead
- ☒ Jim Wieprecht, Vice Chair, Taneytown
- ☒ Zac Amoss, Westminster
- ☐ Gary Dye, New Windsor
- ☐ Delbert Green, Manchester
- ☒ Greg Howell, Westminster
- ☐ Mayor Perry Jones, Union Bridge
- ☒ Rodney Kuhns, Manchester
- ☒ Matt Leister, Manchester
- ☒ Jim Roark, Hampstead
- ☐ Kevin Rubenstein, Sykesville
- ☒ Kevin Smeak, Taneytown
- ☐ Vance Summerhill, Westminster
- ☒ Dick Swanson, Mount Airy
- ☒ Derek Shreves, Sykesville
- ☒ Dawn Metcalf, Union Bridge
- ☒ Mike Reynolds, Union Bridge + New Windsor
- ☒ Anthony Bowman, Union Bridge

CC PLM:

- ☒ Brenda Dinne
- ☐ Glenn Edwards
- ☒ Andrew Gray
- ☒ Chris Heyn, PLM Director
- ☒ Claire Hirt
- ☐ Byron Madigan
- ☒ 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
- ☐ Lexi Biondo, CC M&B
- ☐ Ashlee Treece, CC DPW
- ☐ Jim Cook, CC Roads
- ☐ Cathy Virtz, CC Roads

Guest Speakers:

- ☐ n/a

1. Opening Statement

Chair

Mr. Hann opened the meeting at 2:34 pm.

Vice Chair

N/A

2. Approval of Meeting Summary – April 23, 2025

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

APPROVAL OF MINUTES: Motion was made by Dick Swanson and seconded by Jim Roark to approve the April 23, 2024, meeting summary. Motion carried.

3. Salt Management Plans – Mitch Masser

- Mr. Masser reviewed the status of development of the salt management plans required by the NPDES MS4 permit. Mr. Masser and Mr. Edwards will follow up with each individual municipality over the summer to ensure all components of the salt management plans are complete and ready to submit to MDE.
- Mr. Masser gave an overview of the comments received from MDE on the 2024 NPDES MS4 Annual Report. The comments indicated compliance with the permit.
- Available methods of measuring salt usage were discussed. Ms. Masser offered to map fixed routes for those that want to use that method.
- There was discussion about event tracking and which approach would be easiest for the municipalities. Mr. Masser and Mr. Edwards compile the data for reporting. They will create tables and complete the text for the Annual Report.
- Time was given during the meeting to fill out a survey handed out by Mr. Masser.

Reference/Attachment:

- *PowerPoint: Salt Management Plans – Meeting MS4 Compliance for Carroll County*
- *Handout: Path to Salt Management Plan Compliance*

4. NPDES MS4 Permit Progress Overview – Claire Hirt

- Ms. Hirt provided a brief overview of the progress toward meeting the restoration requirements in the permit.
- From FY 2020 to 2025, treatment of 1,094 impervious acres was completed; 123 impervious acres remain to be treated in this permit term.
- The Annual Report includes tables that list all the projects completed and planned.
- Ms. Hirt noted that the cost per acre for these projects has increased slightly, but it is still significantly lower than many other Maryland counties.

Reference/Attachment:

- *PowerPoint: MS4 Progress*

5. Water Resource Element (WRE 2024) Update – Brenda Dinne

- Ms. Dinne provided the municipalities with copies of a draft summary of the WRE to share with their planning commissions. Each WRCC member/municipal system will receive a link to the PowerPoint for presenting an overview to each of their planning commissions, as well as a link to the summary and the draft plan document for Planning Commission review.
- The municipalities will work toward reviewing and discussing the draft WRE with their planning commissions over the summer. The goal is to have each planning commission give approval by the end of August to send the draft out for 60-day review. At that point, it will go to the County Planning Commission to review and give its approval to send for 60-day review.

Reference/Attachment:

- <https://www.carrollcountymd.gov/government/directory/planning-land-management/comprehensive-planning/land-use-functional-plans/functional-plans-and-reports/water-resources-element/>

6. Municipal Stormwater Projects Update – Claire Hirt

- Ms. Hirt reviewed the status of municipal stormwater projects in progress.

Reference/Attachment:

- *Municipal Project Status, June 2025*

7. PFAS Discussion

- The Town of Hampstead received funding approval from Maryland Board of Public Works in May for a portion of the Town's PFAS projects costs.

Reference/Attachment:

- n/a

8. Other

- 2025 Environmental Action Awards: The Environmental Advisory Council is accepting nominations for the 2025 awards process. Ms. Dinne provided copies to each municipality to put out at their office reception areas. She also asked that each share a link to the awards info on their websites and share a graphic on their social media.
- State Stormwater Regulations: Mr. Heyn indicated that Maryland Department of the Environment (MDE) intends to push out a draft of the revised stormwater regulations for public review and comment in July.
- Dam Safety Fees: Legislation was passed this year authorizing MDE to charge review fees and registration fees for dams. The review fee will be 3% of construction costs. The registration fee will be based on the MDE's classification of the dam - \$200 for low-hazard, \$500 for significant-hazard dams, and \$1000 for high-hazard dams. Currently, the fees will apply only to those dams that are on MDE's inventory, which can be found on MDE's Dam Safety website. All jurisdictions are advised to include in their upcoming budgets funds to cover these fees.
- Water & Sewer Master Plan, Spring 2025 Amendments: The spring amendments will go to the Board of County Commissioners on June 17.

Reference/Attachment:

- Environmental Action Awards Webpage: <https://www.carrollcountymd.gov/government/boards-commissions/environmental-advisory-council/environmental-action-awards/>
- Maryland Dam Inventory Webpage: https://mde.maryland.gov/programs/water/DamSafety/Pages/maryland_dam_inventory.aspx
- Water & Sewer Master Plan Amendments Webpage: <https://www.carrollcountymd.gov/government/directory/planning-land-management/comprehensive-planning/land-use-functional-plans/functional-plans-and-reports/water-sewer-master-plan/water-and-sewer-amendments/>

9. Adjournment

The meeting adjourned at 3:54 PM.

MEETING ADJOURNMENT: Motion was made by Dick Swanson and seconded by Jim Roark to adjourn the June 11, 2025, meeting. Motion carried.

Upcoming Meetings:

- ☐ Regular Monthly Meeting – July 23, 2025

Salt Management Plans

Meeting MS4 Permit Compliance in Carroll County



Schedule On-Site Meetings

- 1) review salting operations
- 2) map salting routes
- 3) collect equipment capacity data.

SUMMER '25

Gather Equipment Inventory + Upgrade Info

Co-permittees provide BRM staff with Equip Inventory and anticipated Upgrade information for inclusion in SMPs.



Final SMP Review

BRM Staff will review SMPs and communicate any feedback.



Salt Training Resource

Glenn will provide a training resource for co-permittees to use, and BRM staff will include this resource as an appendix in SMP documents.

Gather Salt Tracking Sheets

For co-permittees who utilize their own salt tracking sheets, provide them to Glenn/Mitch for inclusion in SMPs.



Salt Tracking Template

Mitch will finalize & provide an excel spreadsheet with truck sheets for salt data tracking to co-permittees that need it.

FALL '25



Salt Management Plans

Meeting MS4 Permit Compliance in Carroll County



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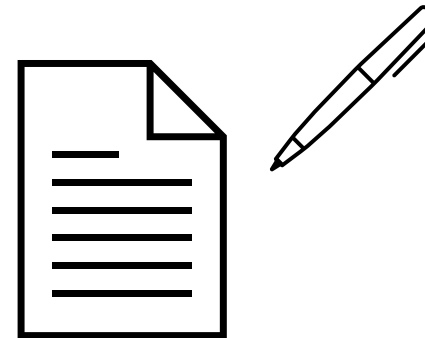
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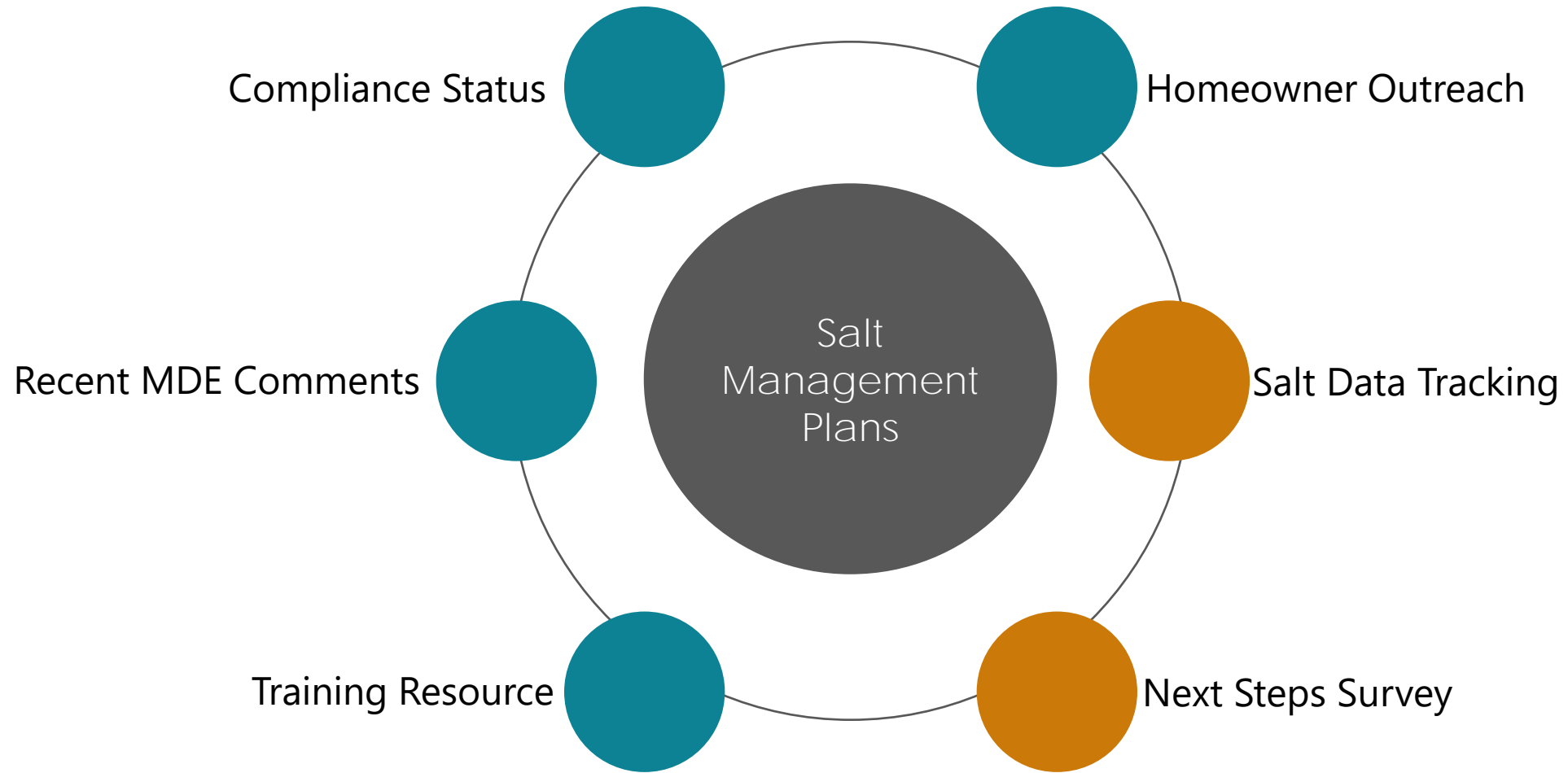


FALL '25

Please write questions & comments on the back of this sheet for discussion at the end.



Things to Cover



• Status of Compliance •

Written SMP Complete	Tracking at Lbs/LaneMile/Inch	Conducting Homeowner Outreach
8 / 9	4 / 9	4 / 9
<i>*as of June 2025</i>	<i>*per Fall 2024 JotForm responses</i>	<i>*per Fall 2024 JotForm responses</i>



Maryland

Department of the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary
Adam Ortiz, Deputy Secretary

April 9, 2025

Christopher Heyn, PE
Director
Department of Land and Resource Management
Carroll County Government
225 North Center Street
Westminster, MD 21157

Dear Mr. Heyn:

The Maryland Department of the Environment (Department) has reviewed Carroll County's 2024 Annual Report for National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit (22-DP-3319, MD0068331). The submittal meets permit reporting requirements for the period July 1, 2023 - June 30, 2024 (fiscal year or "FY" 2024). This is the second-year report for the County's current permit, issued on December 30, 2022. Full review details are provided in the attachments noted below. The Department wishes to bring the following to the County's attention:

- The County has restored 1,081 acres, or 89% of the 1,217 impervious acres required in the permit, exceeding the 40% (or 487 acre) Year 2 benchmark. An additional 106 acres of restoration is planned for Year 3. The Department commends the County for this continued progress.
- Please update the illicit discharge standard operating procedures (SOPs) and incorporate the County's prioritization process for identifying screening locations based on pollution potential. Specific comments are provided in the annual report review.
- Good Housekeeping Plans and the Salt Management Plan are due in the next Annual Report. Further recommendations are provided in the attached annual report review.
- The County is commended for transitioning to the updated September 2024 MS4 Geodatabase format.
- The County is commended for the progress in keeping up with triennial inspections and ensuring all stormwater best management practices (BMPs) are properly maintained. Please continue these efforts and report on progress in the next annual report.
- The Countywide Stormwater Total Maximum Daily Load (TMDL) Implementation Plan meets the requirements of PART IV.F.3 of the permit. Please reference the comments in the attached Memorandum: *Carroll County Countywide Stormwater Total Maximum Daily Load (TMDL) Implementation Plan*.





MS4 FY2024 Annual Report Review

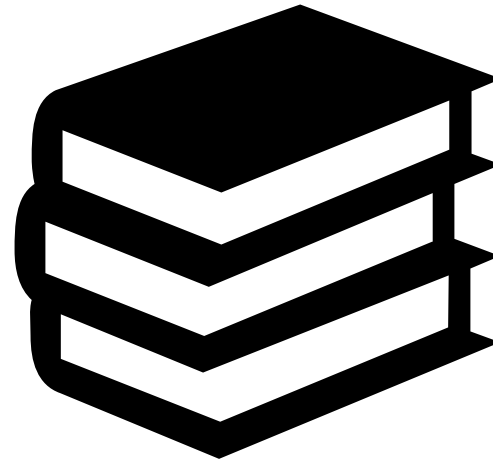
Carroll County

- The County removed 15 tons of roadside litter in FY2024 through various litter reduction programs such as Adopt-A-Road, litter clean-up events, and storm drain cleaning.
- The County removed 18 tons of material as part of ongoing inlet and catch basin cleaning efforts in FY2024 and maintained an average removal of 35 tons/year from FY2017-2024, exceeding the 11 tons/year requirement in Part IV.D.4.e of the permit. The County indicated this average will be maintained in FY2025.
- The County continued to implement best practices to reduce the use of pesticides, herbicides, fertilizers, and other pollutants associated with vegetation management.
- The County is developing a Good Housekeeping plan; as a reminder, this plan is due with the next Annual Report. The County is also required to submit a Salt Management Plan (SMP) with the next Annual Report. Plans should be based on the guidance and best management practices provided in the Maryland Department of Transportation State Highway Administration (MDOT SHA) SMPs. The permit requires "a plan for evaluation of new equipment and methods, and other strategies for continual improvement". To meet this objective, the Department recommends outlining specific goals and timeframes in the SMP, including the following:
 - A baseline description of current processes, procedures, equipment, staff training, and tracking methods.
 - Strategies for continual program improvement based on MDOT SHA best practices. This includes a process for identifying and replacing old equipment with updated technology, specifying timeframes and budgetary projections for achieving this, and a plan for improved tracking of salt applications on roads during storm events over time.
 - A list of short-term and longer-term goals (in timeframes of 5 to 10 years or more) to reflect objectives and progress beyond 2025. Long-term goals that can be incorporated to demonstrate continual improvements include:
 - Identify strategies and best practices to broaden the plan's scope beyond best practices for roadways. For example, consideration toward installing practices and strategies to protect public infrastructure, including County-owned properties such as schools, libraries, sidewalks, and parking lots.
 - Incorporate best practices for limiting material waste, such as street sweeping to collect leftover salt applied and reusing gray water collected from wash areas.
 - Provide enhanced education opportunities with the private sector and contractors.
 - Plans for future updates that identify the status of progress and adaptive management strategies for ongoing improvements to the County's salt management program.
 - Plans for staff training and an example of training materials. Additionally, the County's public education and outreach efforts should incorporate salt management strategies and communication with partners, private applicators, residents, and HOAs.

The County has met the requirements of PART IV.D.4.

MDE Comments – April 2025

 MDE Comment	 CC Response / Plan
Baseline SMPs <ul style="list-style-type: none">• Current Procedures• Equipment• Staff Training• Tracking Methods	Completion of Co-Permittee SMPs <ul style="list-style-type: none">• Final review/doublecheck by BRM (Glenn)• Supporting and Standardizing Salt Tracking Methods



***Be sure to document salt trainings:**

- **Date**
- **Agenda of Topics**
- **Attendees**

MDE Comments – April 2025



MDE Comment



CC Response / Plan

Continual Improvement

- Process for identifying & replacing old equipment with updated technology
(Specifying timeframes & budgetary projections)

Tentative Equipment Replacement info in SMPs

- Table with inventory list of equip + anticipated replacement schedule
or
- Document within captions of pictured equipment

Winter Operations Equipment	Inventory	Anticipated Replacement Schedule
Dump Truck (large; 11 ton)	2	10 years
Dump Truck (mid; 6 ton)	2	10 years
Ford pick-up (salt box inserts; 2 ton)	2	250,000 miles
John Deere 3720 Tractor	1	4000 hours



Ford Dump Truck with electronic salt spinner; 10-year anticipated replacement, or as-needed.

MDE Comments – April 2025



MDE Comment

Short-term (5yr) & Long-term (10yr) Goals

- A list of objectives and progress beyond 2025
Examples: Street Sweeping to recover salt, enhance private sector education/training opportunities.





CC Response Plan

No action is planned for this comment.

- It is a request that we feel is beyond the scope of current MS4 permit requirements.

MDE Comments – April 2025

 MDE Comment	 CC Response Plan
Staff Training & Outreach <ul style="list-style-type: none">Plans for staff training and <i>an example</i> of training materials.Salt BMP outreach communication with partners, private applicators, residents, and HOAs.	Training Resource for MS4 Co-Permittees <ul style="list-style-type: none">Glenn is developing a customizable presentation that co-permittees may use to meet the salt training requirement of the MS4 Permit. <p>*Will include this training resource as an appendix to the end of all SMP documents.</p>

- [Smart Salting: Enhanced Winter Maintenance Training Series](#)



Homeowner Outreach Requirement



“Developing and distributing best salt management practices outreach for educating homeowners within the County”

~ MS4 Permit

MARYLAND'S SALT REDUCTION
Strategies

Winter salt, primarily composed of sodium chloride, is applied to paved surfaces to prevent snow and ice from sticking to roads, parking lots, and sidewalks. Just like when you add oil to a frying pan to keep your egg from sticking. Winter salt is typically applied as rock salt or as a salt brine. Runoff from surfaces treated with winter salt tends to have very high chloride concentrations causing disruptions to aquatic life, contaminating drinking water, damaging roads, and household pipes.

- 1 State law requiring Salt Management Plan implementation for the State Highway Administration
- 2 Require Salt Management Plans and implementation for areas covered under stormwater permits [Municipal Separate Storm Sewer System (MS4)]
- 3 Voluntary applicator training and certification
- 4 Education through MDE's winter salt web pages and local government outreach efforts required in their MS4 permits
- 5 Permit requirements for other potential point sources

Maryland
Department of the Environment

<https://bit.ly/MDEsaltsmart>

Homeowner Outreach Requirement



“Developing and distributing best salt management practices outreach for educating homeowners within the County”

~ MS4 Permit



WINTER SALT: The Do's and Don'ts

Maryland Department of the Environment

There are many misconceptions among winter salt users that lead them to incorrectly apply this de-icer, causing unnecessary harm to humans, pets, infrastructure and local waters.

DO Salt smart!

- Shovel before ice has the chance to form
- Salt after snow is removed, while pavement is wet
- Salt only where needed
 - Shady, ice-prone areas
- Use the right amount (12 ounces = 10 sidewalk squares)
- Spread salt evenly (1-2 inches apart)



DON'T

Over-salt

Using excessive amounts prevents the salt from melting ice, creates skidding hazards, corrodes infrastructure and harms human and environmental health.



Salt unevenly

Salt must have an even spread to melt ice effectively. No clumps/piles!



Sprinkle salt on top of snow, or on dry pavement before a storm

Salt will not be able to melt the snow, and could even cause refreezing.



Leave behind spills

Salt spills are pollution. Sweep them up before they wash away.



For more resources on winter safety and effective road salt use, visit us at <https://bit.ly/MDEsaltsmart> or scan the QR code



ARE YOU A salt-savvy NEIGHBOR?


As temperatures drop and winter weather moves in, neighbors rely on each other to keep their public walkways clear from ice and snow. Sometimes, road salt is necessary to prevent icy pavement. Are you a salt-savvy neighbor? Take the quiz below...

☐ I clear the snow from my walk as soon as possible

☐ I wait until after all the snow is removed to apply road salt

Did you know?

12 ounces of salt is the perfect amount for 10 sidewalk squares or a 20 foot driveway. Any more than that is ineffective, and unnecessarily harmful to humans, pets, plants, wildlife, and infrastructure.



☐ I only use salt when absolutely necessary

☐ I use only the amount of salt that is needed

☐ I spread salt evenly so that the granules are 1-2 inches apart

IF YOU CHECKED EVERY BOX, THEN YOU'RE A WINTER PRO

Maryland Department of the Environment

For more information and resources, visit us at <https://bit.ly/MDEsaltsmart> or scan the QR code




COMMON SALTING MISTAKES

There are many misconceptions among winter salt users that lead them to incorrectly apply this de-icer, causing unnecessary harm to humans, pets, infrastructure and local waters.

Have you seen any of these common salt use mistakes in your community?

TOO MUCH SALT

One 12 ounce coffee mug of salt, spread evenly, is the right amount for 10 sidewalk squares or a 20 foot one-lane driveway. Over-salting prevents salt from melting ice effectively and creates a skidding hazard.



SALT OVER SNOW

Snow must be removed before-hand or the salt cannot melt ice.



SALT SPILLS

Salt must be spread evenly (1-2 inches apart). Clean up spills.



Maryland Department of the Environment

For more resources on winter safety and effective road salt use, visit us at <https://bit.ly/MDEsaltsmart> or scan the QR code



Salt Outreach Handouts are available from MDE's “411 on Road Salt” webpage

MDE Comments – April 2025



MDE Comment



CC Response / Plan

Continual Improvement

- A plan for improved tracking of salt application for storm events over time

Salt Tracking Methods documented in SMPs

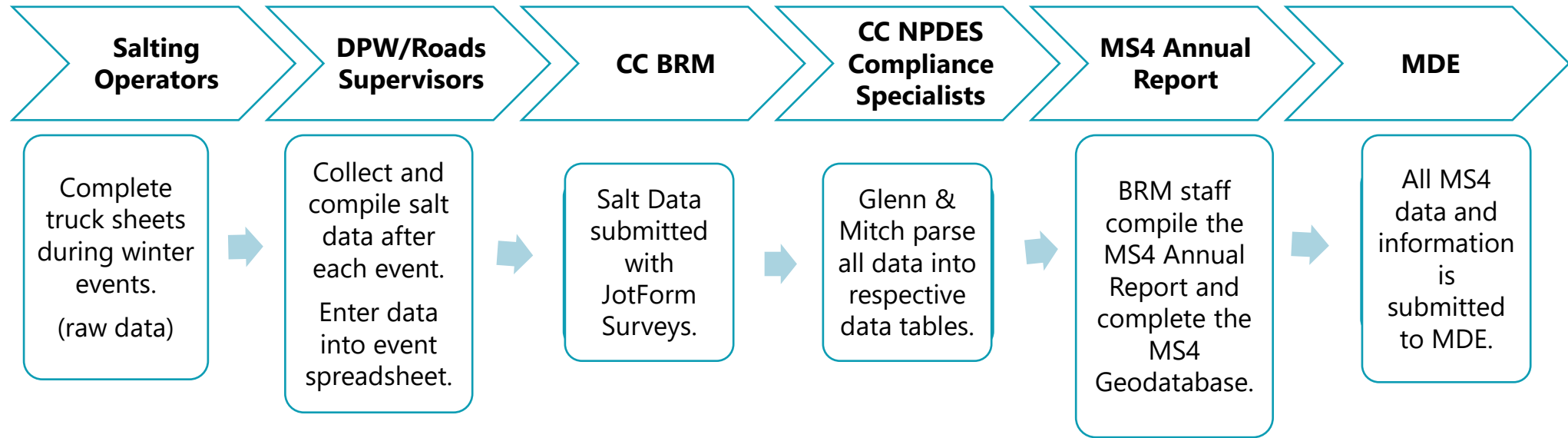
- Glenn and Mitch will add a section to SMPs detailing tracking method used and example of field sheets.
- If applicable, include plans for upgrading salt tracking equipment in SMP.

"The Town of Mount Airy has considered installing electronically controlled salt spreading equipment. This equipment can be used to lock-in specific application rates that will prevent operators from using more salt than necessary."

What must we Track and Report?

- **Per Event**
 - Salt- Total Amount Used
 - Salt- Lbs/LaneMile/Inch
 - Snow- Inches of Event
- **Monthly**
 - Lbs/LaneMile/Inch
- **Annually**
 - Lbs/LaneMile/Inch

From Road to Report: *The Journey of Salt Data*



This salt data passes through many hands and is used in a variety of ways. It would be advantageous to standardize it's formatting and the way in which it is collected, if possible.

Salt Tracking Methods

What must we Track and Report?

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- **Annually**
 - Lbs/LaneMile/Inch

Ways to Achieve this:

1. Electronic Salting Equipment (tracks mileage + salt applied)
2. Document Odometer Readings + Amount of Salt Applied
3. Document Routes Salted + Amount of Salt Applied

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What must we Track and Report?

- **Per Event**
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Ways to Achieve this:

1. Electronic Salting Equipment (tracks mileage + salt applied)
2. Document Odometer Readings + Amount of Salt Applied
3. **Document Routes Salted + Amount of Salt Applied**
**This sort of method is used by CC Roads & Westminster*

Salt Tracking – Fixed Route

Atlee Ridge

Route ID: **A**
Distance: 2.22 miles

**distance is in single-lane mileage, equivalent to approximate odometer distance*



Snader's Summit

Route ID: **B**
Distance: 1.30 miles

**distance is in single-lane mileage, equivalent to approximate odometer distance*

Equipment	Full Capacity tons
Chevy2500	0.5
F350	1

Salt Tracking – Fixed Route Truck Sheet

TruckID	Run #	Bed Amount LOADED <i>Circle One</i>	Bed Amount UNLOADED <i>Circle One</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>
<i>Chevy2500</i>	#	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1	1	1	1/2	-
	1	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	2	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	3	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	4	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	5	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	6	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	7	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	8	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	9	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	10	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				

Salt Tracking – Fixed Route



Equipment	Full Capacity <i>tons</i>
Chevy2500	0.5
F350	1

TruckID	Run #	Bed Amount LOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Bed Amount UNLOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>	Lbs Salt Applied	Total Distance Salted	Lbs/LaneMile
Chevy2500	1	1	0	1	1			1000	3.52	284.09

Run #1: Chevy2500 gets loaded all the way up and salts Rt A & Rt B.

- Returns to salt barn empty.

Salt Tracking – Fixed Route



Equipment	Full Capacity <i>tons</i>
Chevy2500	0.5
F350	1

TruckID	Run #	Bed Amount LOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Bed Amount UNLOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>	Lbs Salt Applied	Total Distance Salted	Lbs/LaneMile
Chevy2500	1	1	0	1	1			1000	3.52	284.09
Chevy2500	2	1	0.25	0.25	0.5			750	1.21	622.41

- Run #2:** Chevy2500 gets loaded all the way up again.
- Salts trouble spots: apprx **0.25** of Rt A & apprx **0.5** of route Rt B.
 - The driver notes a **quarter** truck bed of salt is returned to salt barn un-used.

Salt Tracking – Fixed Route



Equipment	Full Capacity <i>tons</i>
Chevy2500	0.5
F350	1

RouteID	Distance (mile)
Rt A	2.22
Rt B	1.30
Rt C	1.80

TruckID	Run #	Bed Amount LOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Bed Amount UNLOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>	Lbs Salt Applied	Total Distance Salted	Lbs/LaneMile
Chevy2500	1	1	0	1	1			1000	3.52	284.09
Chevy2500	2	1	0.25	0.25	0.5			750	1.21	622.41
F350	1	1	0	1		1	0.25	2000	4.27	468.38

Run #3: A different truck, F350, gets loaded all the way up and salts Rt A & Rt C.

- Salts a parking lot on way back to salt barn (driver estimates a quarter mile).

Salt Tracking – Fixed Route



Equipment	Full Capacity <i>tons</i>
Chevy2500	0.5
F350	1

RouteID	Distance (mile)
Rt A	2.22
Rt B	1.30
Rt C	1.80

TruckID	Run #	Bed Amount LOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Bed Amount UNLOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>	Lbs Salt Applied	Total Distance Salted	Lbs/LaneMile
Chevy2500	1	1	0	1	1			1000	3.52	284.09
Chevy2500	2	1	0.25	0.25	0.5			750	1.21	622.41
F350	1	1	0	1		1	0.25	2000	4.27	468.38
F350	2	0.5	0			1		1000	1.80	555.56

Run #4: The F350 loads up only ***halfway*** and salts Rt C (*not pictured*)

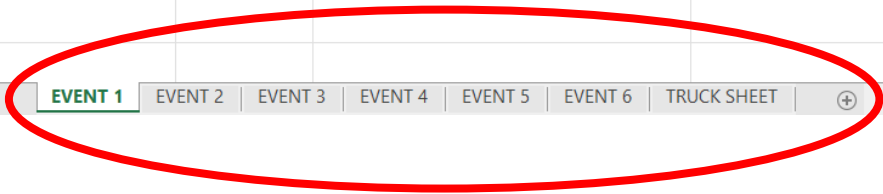
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Chevy2500	0.5
F350	1

TruckID	Run #	Bed Amount LOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Bed Amount UNLOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>	Lbs Salt Applied	Total Distance Salted	Lbs/LaneMile
Chevy2500	1	1	0	1	1			1000	3.52	284.09
Chevy2500	2	1	0.25	0.25	0.5			750	1.21	622.41
F350	1	1	0	1		1	0.25	2000	4.27	468.38
F350	2	0.5	0			1		1000	1.80	555.56

RouteID	Distance (mile)
Rt A	2.22
Rt B	1.30
Rt C	1.80
Rt D	2.10

	A	B	C	G	I	J	K	L	M	N	O
	TruckID	Run #	Bed Amount LOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Bed Amount UNLOADED <i>0, 0.25, 0.5, 0.75, 1</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>	Lbs Salt Applied	Total Distance Salted	Lbs/LaneMile
1											
2	Chevy2500	1	1	0	1	1			1000	3.52	284.09
3	Chevy2500	2	1	0.25	0.25	0.5			750	1.21	622.41
4	F350	1	1	0	1		1	0.25	2000	4.27	468.38
5	F350	2	0.5	0			1		1000	1.80	555.56
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											



Pre-created event tabs that supervisors can fill out after each winter/salting event.

Salt Tracking – Fixed Route Truck Sheet

TruckID	Run #	Bed Amount LOADED <i>Circle One</i>	Bed Amount UNLOADED <i>Circle One</i>	Rt A	Rt B	Rt C	Additional Distance Salted <i>est. miles</i>
<i>Chevy2500</i>	#	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1	1	1	1/2	-
	1	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	2	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	3	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	4	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	5	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	6	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	7	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	8	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	9	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				
	10	0 1/4 1/2 3/4 1	0 1/4 1/2 3/4 1				

Next Steps

SMP Tasks – Summer 2025

1	Schedule On-Site Meetings	Schedule individual on-site meetings to: 1) review salting operations 2) map salting routes* 3) collect equipment capacity data
2	Final SMP Review	Mitch & Glenn finish reviewing SMPs and provide feedback, if needed.
3	Co-Permittees provide Equipment Inventory + Upgrade info	Co-permittees provide Mitch & Glenn with Equipment Inventory + Upgrade info for inclusion in SMPs.
4	Salt Training Resource	Glenn will provide a training resource for co-permittees to use. BRM Staff will include as an appendix in SMPs.
5	Gather Salt Tracking Sheets	Co-permittees who utilize their own salt tracking sheets, provide them to Glenn/Mitch for inclusion in their SMPs.
6	Salt Tracking Template Provided (spreadsheet + truck sheets)	Data tracking resource finalized with co-permittee information and provided to those who will be using it to track salt data during Winter 25-26.
7	1st Event Check-In	Review how salt data tracking is going after the first winter event of 25-26 season.

Salt Management Plans

Meeting MS4 Permit Compliance in Carroll County



Schedule On-Site Meetings

- 1) review salting operations
- 2) map salting routes
- 3) collect equipment capacity data.

SUMMER '25

Gather Equipment Inventory + Upgrade Info

Co-permittees provide BRM staff with Equip Inventory and anticipated Upgrade information for inclusion in SMPs.



Final SMP Review

BRM Staff will review SMPs and communicate any feedback.



Salt Training Resource

Glenn will provide a training resource for co-permittees to use, and BRM staff will include this resource as an appendix in SMP documents.



Gather Salt Tracking Sheets

For co-permittees who utilize their own salt tracking sheets, provide them to Glenn/Mitch for inclusion in SMPs.



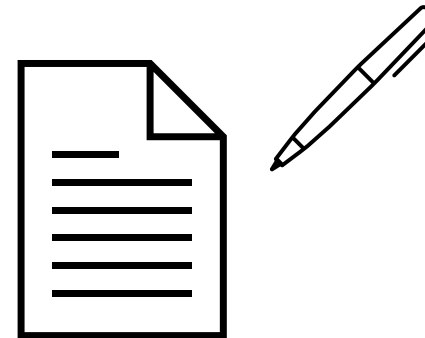
Salt Tracking Template

Mitch will finalize & provide an excel spreadsheet with truck sheets for salt data tracking to co-permittees that need it.



FALL '25

Please Complete your Questionnaire Sheet.

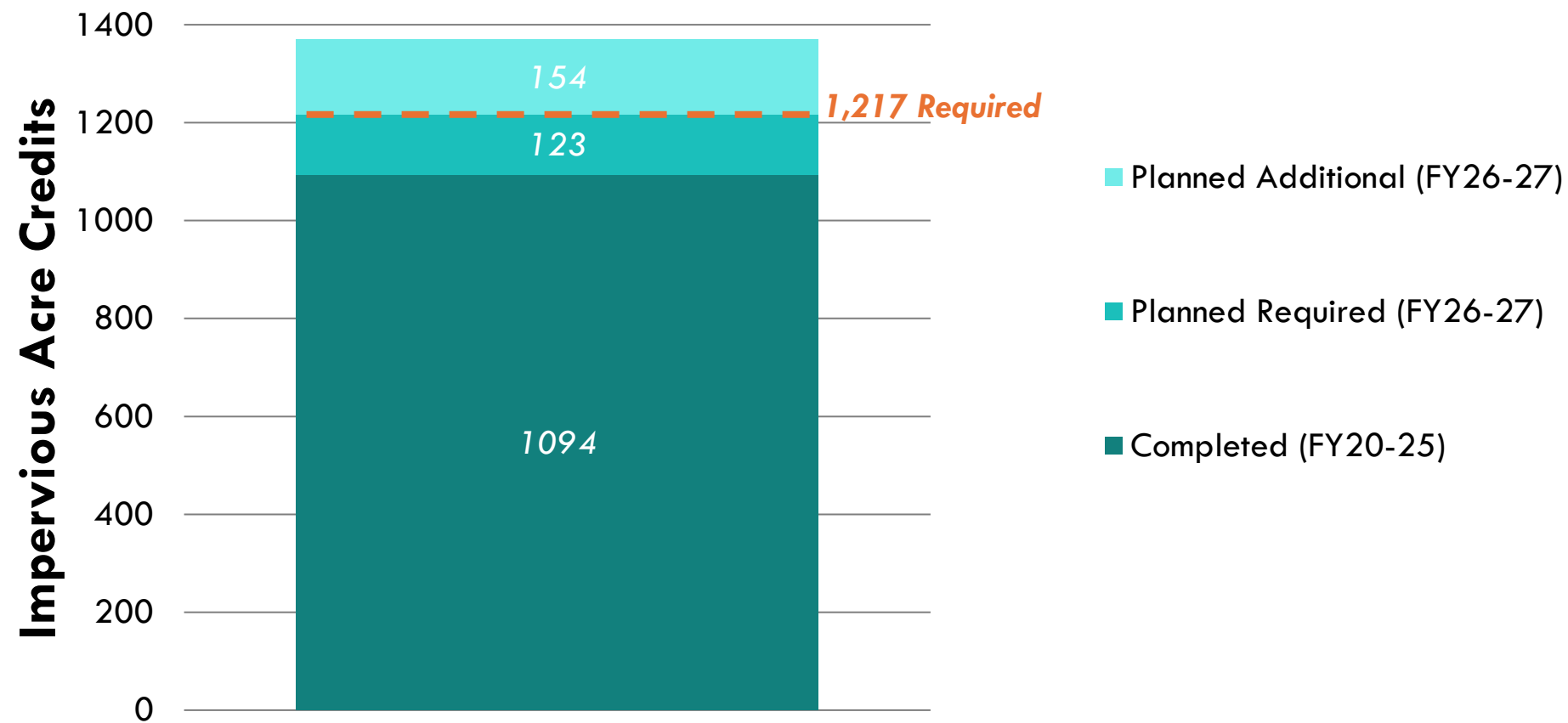


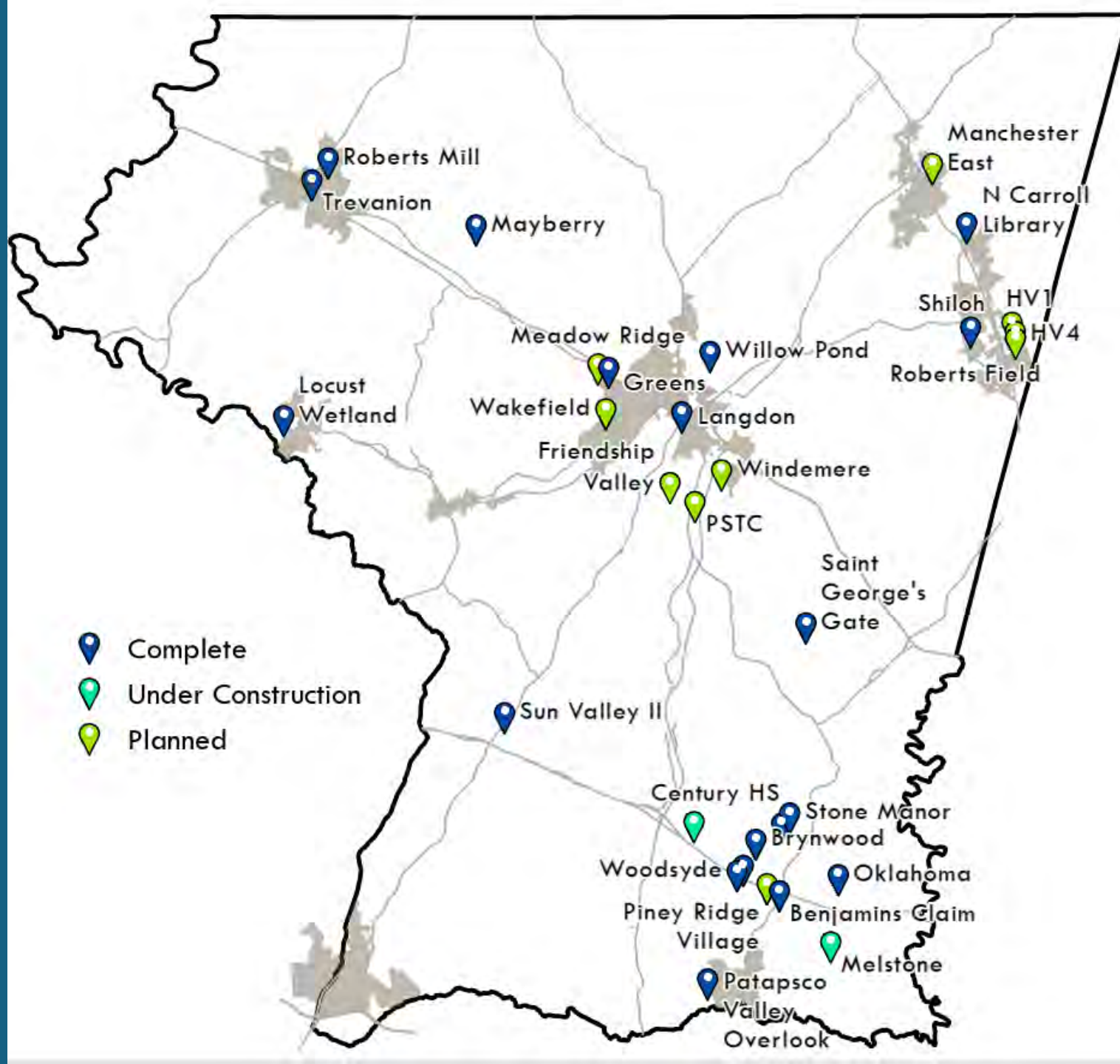


Thank You

MS4 Restoration Progress

Restoration Credit Progress





Watershed	Listing of Watershed Restoration Efforts January 1, 2020 to July 1, 2025					
	Year	Project Name	Project Type	Project Status	Impervious Area Credit	MDE Watershed
		Offset Previous Permit Annual Practices			-17	
	2020	Benjamins Claim - Jacobs	Retrofit	Complete	2.05	S Branch Patapsco River
	2020	Manchester Impervious Removal	Impervious Removal	Complete	0.22	Double Pipe Creek
	2020	Roberts Mill	Retrofit	Complete	91.80	Upper Monocacy River
	2020	Shiloh Middle	Retrofit	Complete	19.61	Liberty Reservoir
	2021	Greens of Westminster	Retrofit	Complete	22.15	Double Pipe Creek
	2021	Langdon (Jantz)	New Construction	Complete	93.64	Double Pipe Creek
	2021	Willow Pond Retrofit	Retrofit	Complete	106.09	Liberty Reservoir
	2021	Willow Pond SR	Stream Restoration	Complete	28.20	Liberty Reservoir
	2022	Mayberry SR	Stream Restoration	Complete	279.31	Double Pipe Creek
	2022	Trevanion Terrace Retrofit	Retrofit	Complete	47.78	Upper Monocacy River
	2022	Woodsyde One Retrofit	Retrofit	Complete	28.39	S Branch Patapsco River
	2022	Woodsyde SR	Stream Restoration	Complete	59.57	S Branch Patapsco River
	2022	Woodsyde Two Retrofit	Retrofit	Complete	1.58	S Branch Patapsco River
	2023	Locust Wetland	New Construction	Complete	17.42	Double Pipe Creek
	2023	North Carroll Library	New Construction	Complete	0.19	Prettyboy Reservoir
	2023	Patapsco Valley Overlook	Retrofit	Complete	5.58	S Branch Patapsco River
	2023	Stone Manor Retrofit	Retrofit	Complete	11.40	Liberty Reservoir
	2024	Brynwood SR	Stream Restoration	Complete	65.54	Liberty Reservoir
2024	Stone Manor Pump Station	Stream Restoration	Complete	4.20	Liberty Reservoir	
2024	Sun Valley II Retrofit	Retrofit	Complete	7.99	Double Pipe Creek	
2025	Oklahoma Sediment	Outfall Stabilization	Complete	2.64	Liberty Reservoir	
2025	St George's Gate Retrofit	Retrofit	Complete	10.13	Liberty Reservoir	
2020-2024	Tree Plantings	Tree Plantings	Complete	120.42		
2020-2024	Forest Conservation	Protections	Complete	32.28		
2020-2024	Riparian Conservation Landscaping	Protections	Complete	12.27		
2020-2024	Non-Riparian Conservation Landscaping	Protections	Complete	12.50		
2020-2024	Septic Upgrades	Retrofit	Complete	10.24		
2021-2024	Inlet Cleaning (Increase over last permit)	Inlet Cleaning	Complete	5.27		
2021-2024	Street Sweeping (Increase over last permit)	Street Sweeping	Complete	12.30		
Completed toward next permit				1093.75		

Carroll County Projects in Planning					
Year	Project Name	Project Type	Project Status	Impervious Area Credit	MDE Watershed
2026	Century High School Retrofit	Retrofit	Under Construction	30.41	Liberty Reservoir
2026	Melstone Valley Retrofit	Retrofit	Under Construction	3.11	S Branch Patapsco River
2026	Roberts Field Wet Pond Retrofit	Retrofit	Design	43.01	Loch Raven Reservoir
2026	Windemere	Retrofit	Design	12.43	Liberty Reservoir
2026	Meadow Ridge (2)	Retrofit	Design	7.22	Double Pipe Creek
2026	Hampstead Valley 4	New Construction	Design	28.03	Loch Raven Reservoir
2026	Friendship Valley Elementary	Retrofit	Design	11.61	Liberty Reservoir
2026	Hampstead Valley 1 Retrofit	Retrofit	Design	17.09	Loch Raven Reservoir
2026	Public Safety Training Center	Retrofit	Design	19.27	Liberty Reservoir
2026	Tree Plantings 2026	Tree Planting	Planned	12.50	
2027	Hampstead Valley 2 & 3 SR	Stream Restoration	Design	13.50	Loch Raven Reservoir
2027	Manchester East	New Construction	Design	49.41	Prettyboy Reservoir
2027	Piney Ridge Village	Retrofit	Planned	11.21	S Branch Patapsco River
2027	Tree Plantings 2027	Tree Planting	Planned	12.50	
2027	Wakefield Valley Park	New Construction	Planned	5.54	Double Pipe Creek
Planned				276.83	

MUNICIPAL STORMWATER PROJECT STATUS

June 11, 2025

FUTURE PROJECTS:

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

Winters Street (Westminster)- An RFP is being developed.

CONCEPT DESIGN:

Hampstead Valley 2/3 (Hampstead) –. CLSI was awarded the task of exploring the possibility of a low hazard facility at this location.

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. Minor comments were provided to Century to address. We anticipate a resubmittal by the end of June.

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. An onsite meeting was held with the Town and their engineer on March 12th to discuss improvements to their public works facility and the proposed stormwater facility. *The County is looking to secure a new design contractor for this project.*

PRELIMINARY 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. Preliminary design but is waiting to see the outcome of Hampstead 2/3 concept.

Manchester East (Manchester) – CLSI is working on the design of a new stormwater facility north of Manchester Valley High School, adjacent to the WWTP. We continue to work on property

acquisition for the land needed to construct the facility. We anticipate a revised Appraisal very soon. CLSI continues to work on the design.

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 working to address comments and make a preliminary submission.

FINAL DESIGN:

Hampstead Valley 4 (Hampstead) – A new surface sand filter and stream restoration project is proposed between Century Street and Downhill Trail. Gianni is working with CLSI to gather information to submit to Dam Safety. The county has emailed Army Corps of Engineers a response to all of their comments. *This project was submitted to DNR Grants Gateway for construction funding, we anticipate hearing if it was selected in June.*

Roberts Field Wet Facility (Hampstead) (DNR Grant Award- \$1,000,000)– Retrofit of wet pond to new hybrid wet pond/submerged gravel wetland. Wallace Montgomery & Associates (WMA) is working on the final plans. A response to comments received by MDE Dam Safety were emailed early April, we are still awaiting a response. The Army Corps of Engineers has issued their permit for this project. Wetlands and Waterways permitting is awaiting Dam Safety review. We anticipate a submittal by the end of the month.

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.