
CENTRAL STATE HOSPITAL

Dinwiddie, Virginia

Municipal Separate Storm Sewer System
Annual Report

For

General Permit No. VAR040006

Permit Year

July 1, 2023 through June 30, 2024

This annual report is submitted in accordance with 9VAC25-890-40 as part of the requirement for permit coverage to discharge stormwater to surface waters of the Commonwealth of Virginia consistent with the VAR04 General Permit effective per letter dated November 1, 2023.

Submitted: September 30, 2024

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ACRONYMS

BMP	Best Management Practices
DEQ	Virginia Department of Environmental Quality
IDDE	Illicit Discharge Detection and Elimination
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
POC	Pollutants of Concern
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
VPDES	Virginia Pollution Discharge Elimination System
WLA	Wasteload Allocation

1.0 GENERAL ANNUAL REPORTING REQUIREMENTS

1.1. General Information (Part I.D.3.a)

Permittee Name: Central State Hospital

System Name: Department of Behavioral Health and Developmental Services

Permit Number: VAR040006

1.2. Reporting Period (Part I.D.3.b)

The reporting period for which the annual report is being submitted.

July 1, 2023 through June 30, 2024

1.3. Signed Certification (Part I.D.3.c)


A signed certification as per Part IV K.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

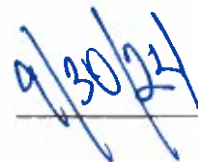
Printed Name: Andrew Conti

Title: Director of Physical Plant Services

Signature:



Date:



1.4. Reporting for MCMs #1 - #6 (Part I.D.3.d)

Include information for each annual reporting item specified in Part I.E.

Reporting information for each Minimum Control Measure is provided in Section 2.0.

1.5. Evaluation of the MS4 Program Implementation (Part I.D.3.e)

An evaluation of the MS4 program implementation, including a review of each MCM to determine the MS4 program's effectiveness and whether changes to the MS4 Program Plan are necessary.

An evaluation for each Minimum Control Measure is provided in Section 2.0. Changes that are necessary to be made to the MS4 Program Plan are summarized in Table 1.

Table 1: Summary of MS4 Program Plan Changes

No changes required.

2.0 MINIMUM CONTROL MEASURES

2.1. MCM #1: Public Education and Outreach

2.1.1. High Priority Stormwater Issues (Part I.E.1.g(1))

A list of high-priority stormwater issues addressed in the public education and outreach program.

A list of high-priority stormwater issues addressed in public education and outreach program is provided in Table 2.

2.1.2. High Priority Stormwater Issue Communication Strategies (Part I.E. 1.g(2))

A summary of the public education and outreach activities conducted for the report year, including the strategies used to communicate the identified high-priority issues.

A summary of the public education and outreach activities conducted for the report year, including the strategies used to communicate the identified high-priority issues is provided in Table 2. Appendix A includes documentation of the communication efforts described in Table 2.

Table 2: High Priority Stormwater Issues						
#	Stormwater Issue	Strategy	Communication	Metric	Beneficial	Included Climate Change Education
1	Public education on stormwater runoff	Traditional written materials	Brochure distributed via email 03/05/2024	Approx. 855 employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2	TMDLs and Local Impaired Waters	Media materials	Presentation to employees via SurveyMonkey March 2024*	9 participants	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3	Motor oil from vehicles in parking lot	Traditional written materials	Flyer distributed via email 03/05/2024	Approx. 855 employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

* Note: Presentation solely on TMDLs was not given. Alternatively, the MS4 training which included information on local TMDLs was provided. MS4 training was not required during this reporting year.

2.1.3. Description of Changes in High Priority Stormwater Issues (Part I.E. 1.g(3))

A description of any changes in high-priority stormwater issues, including strategies used to communicate high-priority stormwater issues or target audiences for the public education and outreach plan. The permittee shall provide a rationale for any of these changes.

A description of any changes in high-priority stormwater issues and rationale for any of these changes are provided in Table 3. The changes to the strategies used to communicate high-priority stormwater issues or target audiences for the public education and outreach plan are provided in Table 2.

Table 3: Description of Changes in High Priority Stormwater Issues			
#	Stormwater Issue	Description of Any Changes	Rationale for Changes
1	Public education on stormwater runoff	Changed strategy to more accurately represented by actual strategy to Traditional written materials	The strategy provided didn't accurately depict the actual strategy used.
2	TMDLs and Local Impaired Waters	Changed strategy to more accurately represented by actual strategy to Traditional written materials	The strategy provided didn't accurately depict the actual strategy used.
3	Good Housekeeping and Pollution Prevention	Changed strategy to more accurately represented by actual strategy to Traditional written materials	The strategy provided didn't accurately depict the actual strategy used.

2.1.4. Description of Activities Regarding Climate Change (Part I.E. 1.g(4))

A description of public education and outreach activities conducted that included education regarding climate change.

A description of public education and outreach activities conducted that included education regarding climate change is provided in Table 2.

2.1.5. MCM #1 Evaluation (Part I.D.3.e)

Review the MCM to determine the MS4 Program’s effectiveness and whether or not changes to the MS4 Program Plan are necessary.

Were all MCM #1 measurable goals completed in accordance with the MS4 Program Plan?

Yes No ()

Are the MS4 Program measurable goals effective?

Yes (Effective) No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.2. MCM #2: Public Involvement and Participation

2.2.1. Public Input Summary (Part I.E.2.i(1))

A summary of any public comments on the MS4 program received and the responses.

Were any public comments on the MS4 Program received?

Yes, responses are provided in Table 4. No

Table 4: Responses to Public Comments on the MS4 Program Plan		
#	Comments	Responses
1		
2		

2.2.2. Summary of Stormwater Pollution Complaints (Part I.E.2.i(2))

A summary of stormwater pollution complaints received under the procedures established in Part I.E.2.a(1), excluding natural flooding complaints, and how the permittee responded.

Were any stormwater pollution complaints received under the procedures established in Part I.E.2.a(1), excluding natural flooding complaints?

Yes, responses are provided in Table 5. No

Table 5: Responses to Stormwater Pollution Complaints		
#	Comments	Responses
1		
2		

2.2.3. MS4 Program and Stormwater Webpage (Part I.E.2.i(3))

A webpage address to the MS4 program and stormwater website.

The webpage address is <https://dbhds.virginia.gov/facilities/csh/stormwater-plan/>

2.2.4. Internal MS4 Program Webpage (Part I.E.2.i(4))

Federal and state nontraditional permittees with security policies preventing the MS4 program and stormwater pollution prevention webpage from being publicly accessible utilizing an internal staff accessible website, such as intranet, shall provide evidence of the current internal MS4 program and stormwater pollution prevention webpage.

Is there an internal MS4 program and stormwater pollution prevention webpage?

Yes, No

2.2.5. Public Involvement Activities Implemented (Part I.E.2.i(5))

A description of the public involvement activities implemented including any efforts to reach out and engage all economic and ethnic groups.

A description of the implemented public involvement activities are provided in Table 6.

2.2.6. Public Education and Outreach Regarding Climate Change (Part I.E.2.i(6))

A description of the public education and outreach activities conducted that also included education regarding climate change.

A description of the public education and outreach activities conducted that also included education regarding climate change is provided in Table 6.

2.2.7. Public Involvement Activity Metric and Evaluation (Part I.E.2.i(7))

A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality.

A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality is provided in Table 6. Appendix B includes documentation of the public involvement activities.

Table 6: Public Involvement Activities Implemented						
#	Activity Description /Date	Category	Metric	Collabo- ration	Included Climate Change Education	Beneficial to Improving Water Quality
1	Watershed Clean-up Event 04/17/2024	Restoration	4 Participants	No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2	Watershed Clean-up Event 04/24/2024	Restoration	6 Participants	No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Watershed Walk 04/05/2024	Educational	4 Participants	No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	Pollution Prevention Presentation 03/24/2024	Educational	10 Participants	No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

2.2.8. MS4 Collaboration (Part I.E.2.i(8))

The name of other MS4 permittees collaborated with in the public involvement opportunities.

If applicable, the name of other MS4 permittees collaborated with for any of the public involvement opportunities are provided in Table 6.

2.2.9. MCM #2 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary.

Were all MCM #2 measurable goals completed in accordance with the MS4 Program Plan?

Yes No ()

Are the MS4 Program measurable goals effective?

Yes (Effective) No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.3. MCM #3: Illicit Discharge Detection and Elimination

2.3.1. MS4 Map and Information Table (Part I.E.3.e(1))

A confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year.

Were the MS4 map and outfall information table updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year? Yes No ()

2.3.2. Dry Weather Screening (Part I.E.3.e(2))

The total number of outfalls and observation points screened during the reporting period as part of the dry weather screening program.

The number of outfalls and observation points screened during the reporting year as part of the dry weather screening program is 30.

2.3.3. Illicit Discharges (Part I.E.3.e(3))

A list of illicit discharges to the MS4 including spills reaching the MS4.

Were there any illicit discharges to the MS4 including spills reaching the MS4?

Yes (Refer to Table 7) No

Table 7: Illicit Discharges

Illicit Discharge N/A

Part I.E.3.e(3)(a) Location and Source: N/A

Part I.E.3.e(3)(b) Date Observed & Date Reported: N/A

Part I.E.3.e(3)(c) Detected during Screening, Reported by Public or Other (Describe): N/A

Part I.E.3.e(3)(d) Investigation Resolution: N/A

Part I.E.3.e(3)(e) Description of Follow-up Activities: N/A

Part I.E.3.e(3)(f) Date Investigation Closed: N/A

2.3.4. MCM #3 Evaluation (Part I.D.2.e)

Review the MCM to determine the MS4 Program's effectiveness and whether or not changes to the MS4 Program Plan are necessary.

Were all MCM #3 measurable goals completed in accordance with the MS4 Program Plan?

Yes No ()

Are the MS4 Program measurable goals effective?

Yes (Effective) No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.4. MCM #4: Construction Site Stormwater Runoff and Erosion and Sediment Control

2.4.1. Land Disturbing Activities Inspections (Part I.E.4.a(4))

The nontraditional MS4 without DEQ approved Standards and Specifications inspects all land disturbing activities as defined in § 62.1-44.15.51 of the Code of Virginia that result in the disturbance of 10,000 square feet or greater, or 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, as follows:

- (a) During or immediately following initial installation of erosion and sediment controls;
- (b) At least once per every two-week period;
- (c) Within 48 hours following any runoff producing storm event; and
- (d) At the completion of the project prior to the release of any performance bond.

2.4.1.1. Site Stormwater Runoff Inspections (Part I.E.4.e(1))

Total number of erosion and sediment control inspections conducted.

The total number of erosion and sediment control inspections conducted are provided in Table 8.

2.4.1.2. Enforcement Actions (Part I.E.4.e(2))

The total number and each type of compliance actions and enforcement implemented.

The total number of compliance actions implemented which include Notices of Violations and Stop Work Orders are provided in Table 8.

Table 8: Construction Project(s) Inspections and Compliance Actions and Enforcement		
Total Number of Inspections	Total Number of Notices of Violation Issued	Total Number of Stop Work Orders Issued
102	8	0

2.4.1.3. Land Disturbance w/o Standards & Specifications (Part I.E.4.e(3)(b))

If any land disturbing projects were conducted without the department standards and specifications, a list of all land disturbing projects that occurred during the reporting period with erosion and sediment control plan approval dates for each project.

A list of all land disturbing projects conducted without department approved annual standards and specifications, that occurred during the reporting period with erosion and sediment control plan approval dates for each project is provided in Table 9.

Table 9: Project(s) without Approved Standards and Specifications	
Project Name	Erosion and Sediment Control Plan Approval Date(s)
N/A. CSH is an non-traditional MS4 with no Annual Standards and Specifications and where DEQ is the VESMP Authority. Therefore, plan approval was obtained through DEQ.	

2.4.2. MCM #4 Evaluation (Part I.D.3.e)

Review the MCM to determine the MS4 Program’s effectiveness and whether or not changes to the MS4 Program Plan are necessary.

Were all MCM #4 measurable goals completed in accordance with the MS4 Program Plan?

Yes No ()

Are the MS4 Program measurable goals effective?

Yes (Effective) No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.5. MCM #5: Post-Construction Stormwater Management

2.5.1. Implementation of Standards and Specifications (Part I.E.5.a(5))

The nontraditional MS4 has not developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870), the MS4 implements a post-construction stormwater runoff control program through compliance with 9VAC25-870 and with the implementation of a maintenance and inspection program consistent with Part I E 5 b.

2.5.2. Stormwater Management Facility Inspections (Part I.E.5.e(2))

Total number of inspections conducted on stormwater management facilities owned or operated by the permittee.

The total number of inspections conducted on stormwater management facilities are 1.

2.5.3. Stormwater Management Facility Maintenance (Part I.E.5.e(3))

A description of significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection.

Were any significant maintenance, repairs, or retrofit activities performed on any stormwater management facilities during the reporting year?

Yes No () Not Applicable (No significant maintenance required)

If yes, a description of significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the MS4 to ensure it continues to perform as designed is provided in Table 10.

Table 10: Maintenance Activities Performed on Stormwater Management Facilities	
Stormwater Management Facility	Significant Maintenance Activity

2.5.4. BMP Warehouse Reporting New BMPs (Part I.E.5.e(5))

A confirmation statement that the permittee electronically reported stormwater management facilities using the BMP Warehouse in accordance with Part III B 1 and 2.

Did the MS4 electronically report using the DEQ BMP Warehouse any stormwater management facilities installed that disturbed less than one acre and for which a General VPDES Permit for Discharges of Stormwater Construction Activities was not required and BMPs implemented as part of a TMDL action plan to achieve nitrogen, phosphorous, and total suspended solids reductions?

Yes No () Not Applicable (No new SMFs)

2.5.5. DEQ BMP Warehouse Existing BMP Inspections (Part I.E.5.e(6))

A confirmation statement that the permittee electronically reported stormwater management facilities inspected using the DEQ BMP Warehouse in accordance with Part III B 5.

Did the MS4 electronically report using the DEQ BMP Warehouse stormwater management facilities inspections information?

Yes No ()

2.5.6. MCM #5 Evaluation (Part I.D.3.e)

Review the MCM to determine the MS4 program's effectiveness and whether or not changes to the MS4 Program Plan are necessary.

Were all MCM #5 measurable goals completed in accordance with the MS4 Program Plan?

Yes No ()

Are the MS4 Program measurable goals effective?

Yes (Effective) No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

2.6. MCM #6: Pollution Prevention and Good Housekeeping

2.6.1. Operational Procedures (Part I.E.6.y(1))

A summary of any written procedures developed or modified in accordance with Part I E 6 a and b during the reporting period.

Were any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period?

Yes (Refer to Table 11) No (No modifications required.)

Table 11: Good Housekeeping Operational Procedures Developed or Modified

Procedures were modified in accordance with the 2023 - 2028 MS4 General Permit.

2.6.2. High Priority Facilities Review (Part I.E.6.y(2))

A confirmation statement that all high-priority facilities were reviewed to determine if SWPPP coverage is needed during the reporting period.

Were all high-priority facilities reviewed to determine if SWPPP coverage is needed during the reporting period?

Yes No ()

2.6.3. Newly Developed SWPPPs (Part I.E.6.y(3))

A list of any new SWPPPs developed in accordance Part I E 6 i during the reporting period.

Were any new SWPPPs developed in accordance Part I E 6 i during the reporting period?

Yes (Refer to Table 12) No () Not Applicable (No new high priority facilities)

Table 12: New SWPPPs Developed

SWPPP Name	SWPPP Address
Not Applicable	

2.6.4. Modified SWPPPs (Part I.E.6.y(4))

A summary of any SWPPPs modified in accordance with Part I E 6 j, 6 l, or 6 m.

Were any SWPPPs modified after an unauthorized discharge, release or spill reported?

Yes (Refer to Table 13) No () Not Applicable (No modifications required)

Table 13: Modified SWPPPs	
SWPPP Name	SWPPP Address
Not Applicable	

2.6.5. Delisted SWPPPs (Part I.E.6.y(5))

The rationale of any high priority facilities delisted in accordance with Part I E 6 l or m during the reporting period.

Were any high priority facilities delisted in accordance with Part I.E.6 l or m during the reporting period?

Yes (Refer to Table 14) No

Table 14: Delisted SWPPPs	
Delisted SWPPPs	Rationale for Delisting
Not Applicable	Not Applicable

2.6.6. Nutrient Management Plans status (Part I.E.6.y(6))

The status of each nutrient management plan as of June 30 of the reporting year (e.g., approved, submitted and pending approval, and expired).

Refer to Table 15 for the status of each nutrient management plan as of June 30 of the reporting year.

Table 15: Turf and Landscape Nutrient Management Plans	
Nutrient Management Plan	Status
Not Applicable	

2.6.7. Training Events (Part I.E.6.y(7))

A list of the training activities conducted in accordance with Part I.E.6.d, including the following information: (a) The completion date for the training activity; (b) The number of employees who completed the training activity; and (c) The objectives and good housekeeping procedures covered by the training activity.

Was training conducted?

Yes (See Table 16) No () Not Applicable (Not required this report year)

Table 16: Training Activities		
Dates	# of Employees	Training Objectives and Good Housekeeping Procedures Covered

2.6.8. MCM #6 Evaluation (Part I.D.3.e)

Review the MCM to determine the MS4 Program’s effectiveness and whether or not changes to the MS4 Program Plan are necessary.

Were all MCM #6 measurable goals completed in accordance with the MS4 Program Plan?

Yes No ()

Are the MS4 Program measurable goals effective?

Yes (Effective) No (Ineffective, necessary changes to the MS4 Program are included in Section 1.5.)

3.0 LOCAL TMDL ACTION PLANS

No Local TMDL Action Plans.

Appendix A: Documentation of Public Education and Outreach Activities

High Priority Stormwater Issue #1

From: [Conti, Andrew \(DBHDS\)](#)
To: [Anna Salzberg](#)
Cc: [Chris Schrinel](#); [Hall, Tracey \(DBHDS\)](#)
Subject: Re: Action Required - Email flyer/brochure
Date: Tuesday, March 5, 2024 12:36:04 PM

Hi Anna,

This email went out to 885 employees today.

Andrew Conti
Director of Physical Plant Services and Transportation
Central State Hospital
26317 W. Washington St.
Petersburg, VA 23803
(804) 524-4723

From: Anna Salzberg <ASalzberg@wetlands.com>
Sent: Tuesday, March 5, 2024 9:39 AM
To: Conti, Andrew (DBHDS) <andrew.conti@dbhds.virginia.gov>
Cc: Chris Schrinel <CSchrinel@wetlands.com>; Hall, Tracey (DBHDS) <tracey.hall@dbhds.virginia.gov>
Subject: Action Required - Email flyer/brochure

Hello Andrew,

Please find attached the information that needs to be disseminated to everyone via email to meet the Public Education & Outreach requirements of your MS4 Permit Program Plan. **Please let us know how many people you emailed.**

Thank you,

Anna

Anna C. Salzberg, PhD, ENV SP
Senior Associate Environmental Scientist

Wetland Studies and Solutions, Inc., a Davey company
1620 Brook Road
Richmond, VA 23220
O: 804.442.3330 **D:** 804.442.3330 x4221 **M:** 703.408.6786
Email: asalzberg@wetlands.com

There's no one better in the field! wetlands.com

Stormwater Issues?

Flooding: Stormwater runoff from intense rainfall can at times exceed the carrying capacity of the stormwater pipe system, creating a backup in the system which can lead to the flooding of roads, yards, and structures.

Pollution: When rain falls, stormwater flows across grass and impervious surfaces such as sidewalks, driveways, parking lots, rooftops, and roads. It mobilizes contaminants such as animal waste, chemicals, pesticides, trash and sediment. These contaminants are then transported downstream to streams, rivers, and ultimately the ocean.

Water quality: Stormwater runoff is a leading cause of nutrient contamination, predominately responsible for algae blooms and low oxygen levels, which can result in fish kills and elimination of native vegetation.

Soil erosion: Uncontrolled stormwater rapidly increases the amount of water flowing into a stream, which can wash away stream banks and over time, cut streambeds down deeper to bedrock.



CSH's Stormwater Program

The U.S. Environmental Protection Agency (EPA) and the Virginia Department of Environmental Quality (DEQ) regulate stormwater and require most localities to implement and maintain a comprehensive stormwater management program. Central State Hospital (CSH) has a Municipal Separate Storm Sewer System (MS4) permit, which further obligates the hospital to manage their stormwater runoff and achieve an allocation of pollutant reductions. CSH is required to meet specific pollutant TMDL (total maximum daily load) reductions for nitrogen, phosphorus, and sediment. CSH is working to implement measures that improve water quality in its waterways. Some of these measures include:

- Street sweeping to help prevent debris and sediment from being washed into the storm system and waterways
- Storm drain inspections to screen for illicit discharges
- Employee and public education on pollutants in stormwater runoff to help determine pollutant sources and increase public awareness.

Please visit CSH's stormwater website at <http://www.csh.dbhds.virginia.gov/DEQRreports.html> for more detailed information or contact the Director of Physical Plant Services.

Stormwater Runoff Impacts



For additional information regarding stormwater or to report an illicit discharge, please contact the Director of Physical Plant Services.

What Is Stormwater Runoff?

Stormwater runoff is precipitation such as rain or snow that does not soak into the ground. Impervious surfaces such as driveways, parking lots, roofs, sidewalks, and roads prevent stormwater runoff from naturally soaking into the ground. Stormwater runoff flows over vegetated areas and impervious surfaces into the storm sewer system and ultimately a natural waterway.



Why is Stormwater Important?

As stormwater runoff flows over vegetated areas and impervious surfaces, it picks up pollutants such as pesticides, pet waste, oil, and debris along the way. These pollutants are then carried through the storm sewer system and discharged to natural waterways. Urban stormwater runoff is the number one source of surface water pollution in the United States, causing public safety hazards, health risks, and environmental threats.



What is an Illicit Discharge?

Any substance other than stormwater that enters the storm sewer system or receiving waters is considered an illicit discharge. Many illicit discharge sources originate from maintenance facilities or construction sites, such as vehicle maintenance areas or equipment washout bays. Daily activities at these sites, specific spill incidents, or illegal dumping can result in illicit discharges. Examples of source pollutants include automotive fluids, paints, solvents, pesticides and herbicides, sediment, and trash.

Exceptions are made for non-stormwater discharges that do not significantly contribute pollutants to the storm sewer system, including fire-fighting activities, water line flushing, and landscape or lawn irrigation. These discharges may flow into the storm sewer or waterway without consequence.

Illicit discharges are significant due to the threat stormwater pollution poses to public safety, public health, and the environment. Due to the importance of reducing and preventing stormwater pollution, illicit discharges, potential sources for illicit discharges, and illegal dumping should be reported immediately so that appropriate corrective actions can be taken.

How Can I Report an Illicit Discharge?

If you see an illicit discharge, a potential source for an illicit discharge, or witness illegal dumping, you should contact the Director of Physical Plant Services.

How Can I Help Reduce Stormwater Pollution?

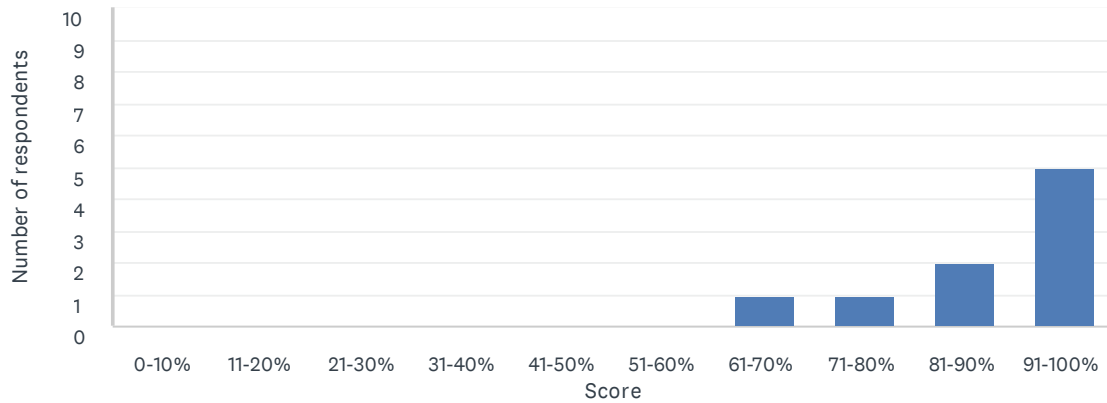
- Pick up and properly dispose of pet waste
- Appropriately clean up vehicle fluid leaks and spills
- Properly dispose of hazardous substances such as automotive oil, cooking oil, paint, cleaners, etc.
- Exercise caution when using pesticides, herbicides, and fertilizers
- Report illicit discharges, potential illicit discharge sources, and any illegal dumping



High Priority Stormwater Issue #2

Quiz Summary

AVERAGE SCORE
92% • 9.2/10 PTS



STATISTICS		
Lowest Score	Median	Highest Score
70%	100%	100%
Mean: 92%		
Standard Deviation: 11%		

Question Ranking

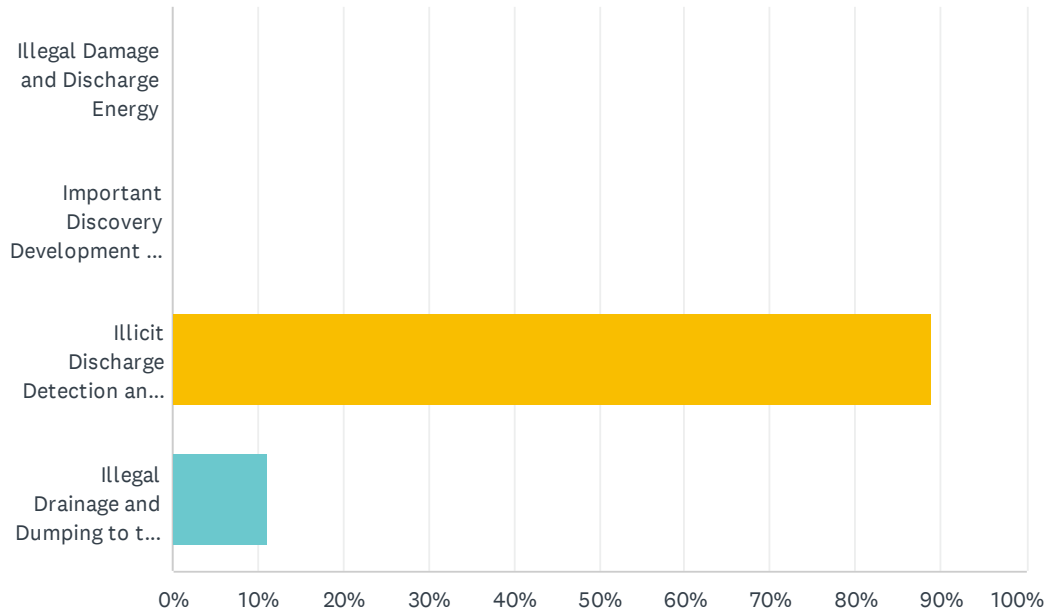
QUESTIONS (10)	DIFFICULTY	AVERAGE SCORE
Q7 True or False: Landscape waste is never considered to be a source of illicit discharges.	1	67%
Q2 IDDE stands for:	2	89%
Q3 In reference to a SWPPP / IDDE / BMP Map, a generating site is:	2	89%
Q5 What is not a possible source of an illicit discharge?	2	89%
Q8 Which of these sources is an illicit discharge:	2	89%
Q4 An example of a generating pollutant site includes all of the following except:	6	100%
Q6 In the event of an illicit discharge, you should:	6	100%
Q9 Spilled fuel should be cleaned up in the following manner:	6	100%
Q10 Which of the following are common pollutants of Virginia's waterways:	6	100%
Q11 Which of the following is not a possible source of sediment:	6	100%

Q1 Please click on the following link to watch the DBHDS Central State Hospital MS4 Training and when you are finished use the space below to provide your first name and last name and take the Knowledge Check Quiz below to show that you have completed the MS4 Training Presentation.

Answered: 8 Skipped: 1

Q2 IDDE stands for:

Answered: 9 Skipped: 0



QUIZ STATISTICS

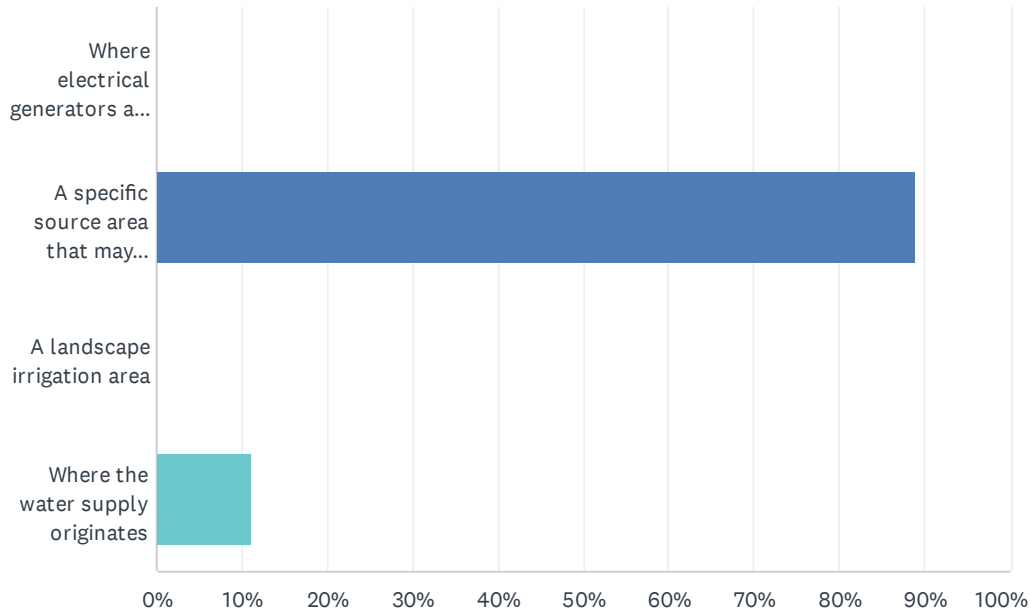
Percent Correct 89%	Average Score 0.9/1.0 (89%)	Standard Deviation 0.33	Difficulty 2/10
------------------------	--------------------------------	----------------------------	--------------------

ANSWER CHOICES

ANSWER CHOICES	SCORE	RESPONSES
Illegal Damage and Discharge Energy	0/1	0.00% 0
Important Discovery Development and Experiment	0/1	0.00% 0
✓ Illicit Discharge Detection and Elimination	1/1	88.89% 8
Illegal Drainage and Dumping to the Environment	0/1	11.11% 1
TOTAL		9

Q3 In reference to a SWPPP / IDDE / BMP Map, a generating site is:

Answered: 9 Skipped: 0



QUIZ STATISTICS

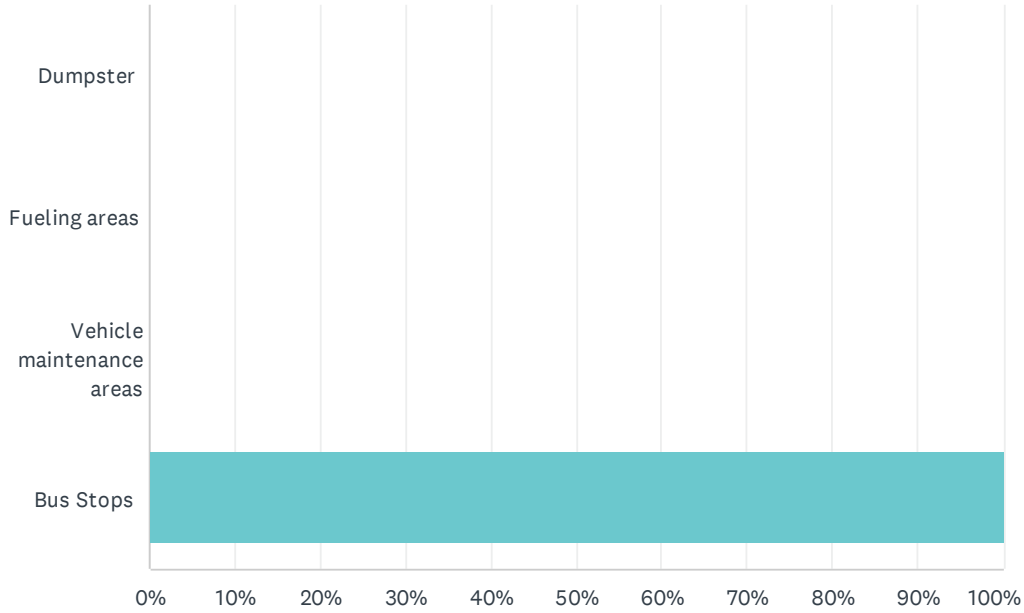
Percent Correct 89%	Average Score 0.9/1.0 (89%)	Standard Deviation 0.33	Difficulty 2/10
------------------------	--------------------------------	----------------------------	--------------------

ANSWER CHOICES

ANSWER CHOICES	SCORE	RESPONSES	
Where electrical generators are stored	0/1	0.00%	0
✓ A specific source area that may produce pollutants	1/1	88.89%	8
A landscape irrigation area	0/1	0.00%	0
Where the water supply originates	0/1	11.11%	1
TOTAL			9

Q4 An example of a generating pollutant site includes all of the following except:

Answered: 9 Skipped: 0



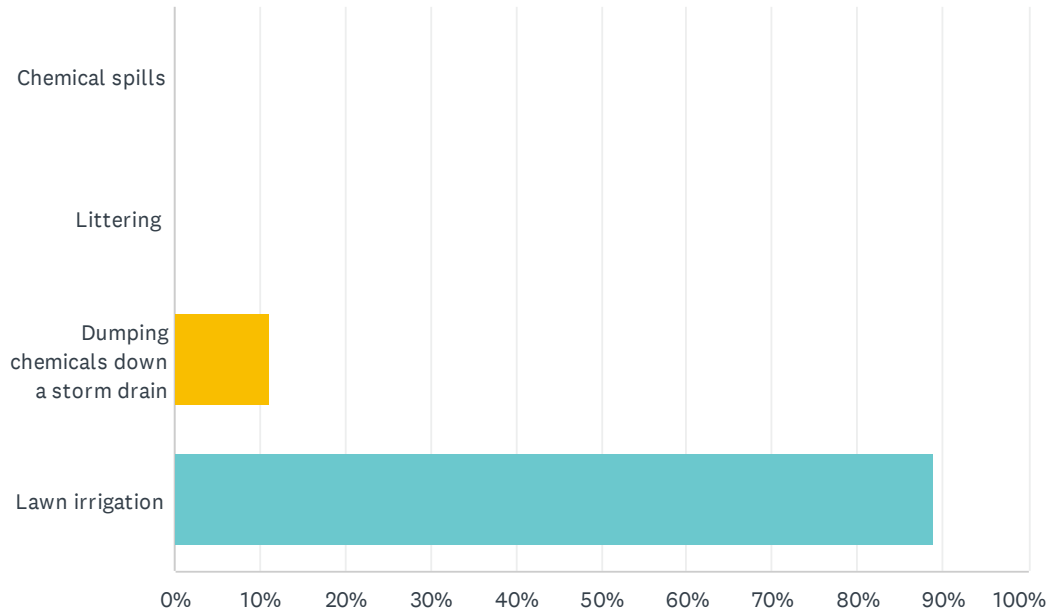
QUIZ STATISTICS

Percent Correct 100%	Average Score 1.0/1.0 (100%)	Standard Deviation 0.00	Difficulty 6/10
-------------------------	---------------------------------	----------------------------	--------------------

ANSWER CHOICES	SCORE	RESPONSES	
Dumpster	0/1	0.00%	0
Fueling areas	0/1	0.00%	0
Vehicle maintenance areas	0/1	0.00%	0
✓ Bus Stops	1/1	100.00%	9
TOTAL			9

Q5 What is not a possible source of an illicit discharge?

Answered: 9 Skipped: 0



QUIZ STATISTICS

Percent Correct 89%	Average Score 0.9/1.0 (89%)	Standard Deviation 0.33	Difficulty 2/10
------------------------	--------------------------------	----------------------------	--------------------

ANSWER CHOICES

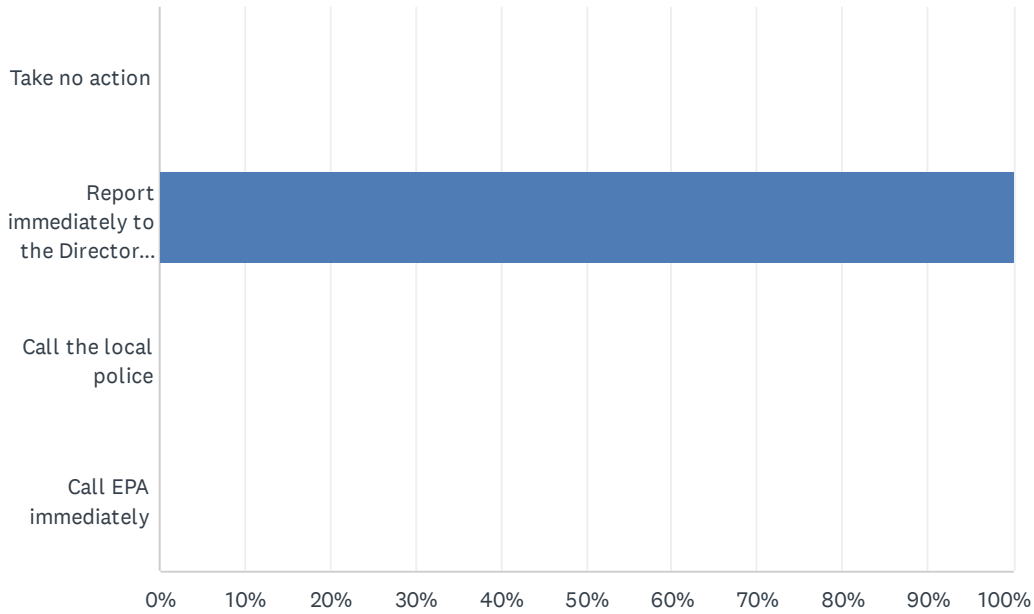
ANSWER CHOICES	SCORE	RESPONSES	
Chemical spills	0/1	0.00%	0
Littering	0/1	0.00%	0
Dumping chemicals down a storm drain	0/1	11.11%	1
✓ Lawn irrigation	1/1	88.89%	8

TOTAL

9

Q6 In the event of an illicit discharge, you should:

Answered: 9 Skipped: 0



QUIZ STATISTICS

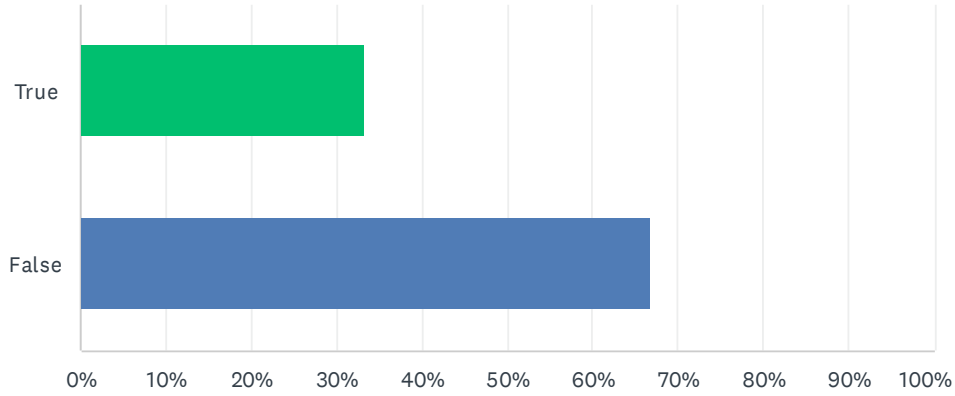
Percent Correct 100%	Average Score 1.0/1.0 (100%)	Standard Deviation 0.00	Difficulty 6/10
-------------------------	---------------------------------	----------------------------	--------------------

ANSWER CHOICES

ANSWER CHOICES	SCORE	RESPONSES
Take no action	0/1	0.00% 0
✓ Report immediately to the Director of Physical Plant Services	1/1	100.00% 9
Call the local police	0/1	0.00% 0
Call EPA immediately	0/1	0.00% 0
TOTAL		9

Q7 True or False: Landscape waste is never considered to be a source of illicit discharges.

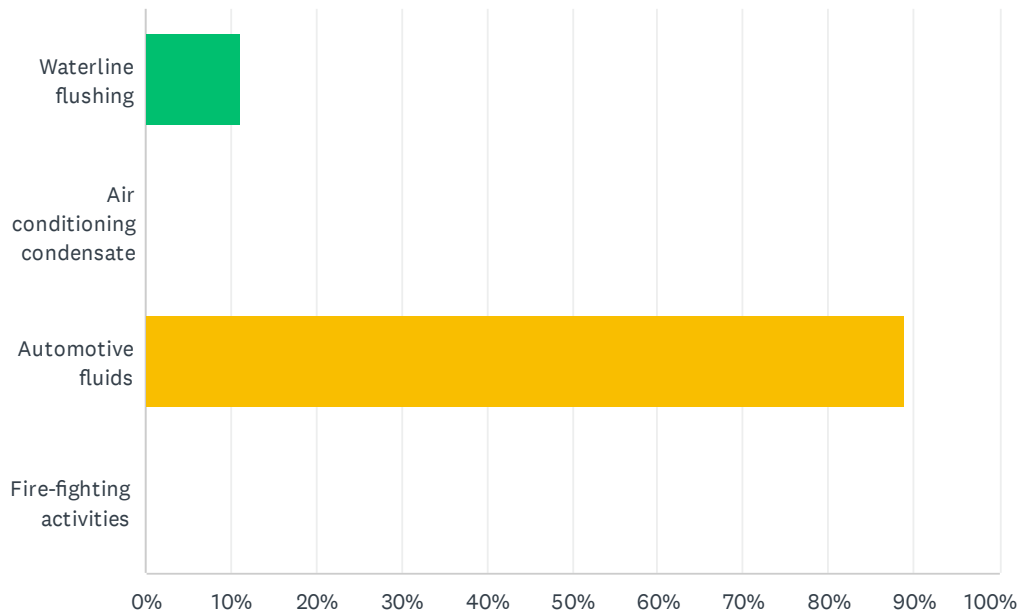
Answered: 9 Skipped: 0



QUIZ STATISTICS			
Percent Correct 67%	Average Score 0.7/1.0 (67%)	Standard Deviation 0.50	Difficulty 1/10
ANSWER CHOICES	SCORE	RESPONSES	
True	0/1	33.33%	3
✓ False	1/1	66.67%	6
TOTAL			9

Q8 Which of these sources is an illicit discharge:

Answered: 9 Skipped: 0



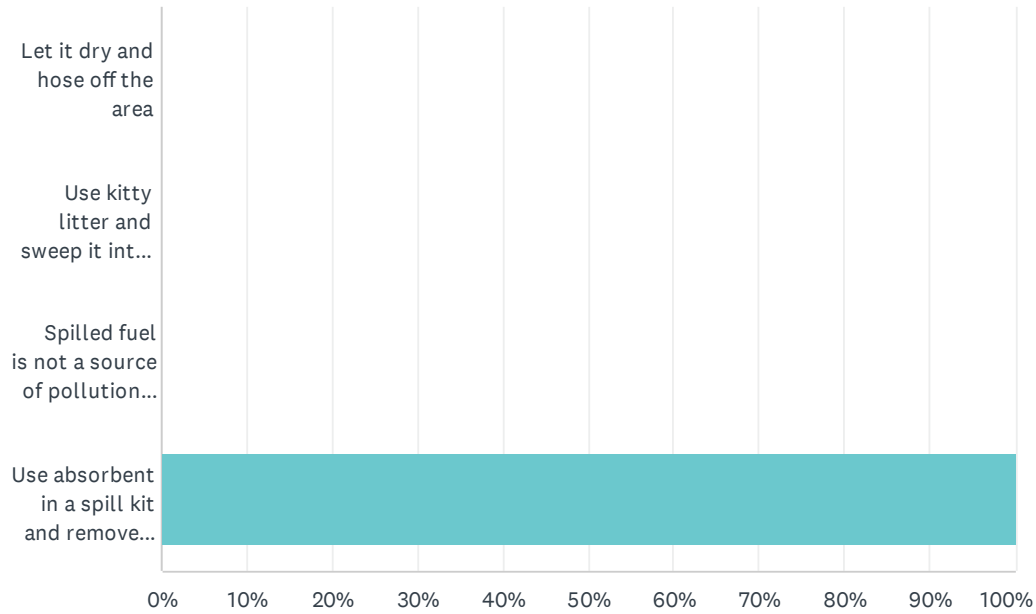
QUIZ STATISTICS

Percent Correct 89%	Average Score 0.9/1.0 (89%)	Standard Deviation 0.33	Difficulty 2/10
------------------------	--------------------------------	----------------------------	--------------------

ANSWER CHOICES	SCORE	RESPONSES	
Waterline flushing	0/1	11.11%	1
Air conditioning condensate	0/1	0.00%	0
✓ Automotive fluids	1/1	88.89%	8
Fire-fighting activities	0/1	0.00%	0
TOTAL			9

Q9 Spilled fuel should be cleaned up in the following manner:

Answered: 9 Skipped: 0



QUIZ STATISTICS

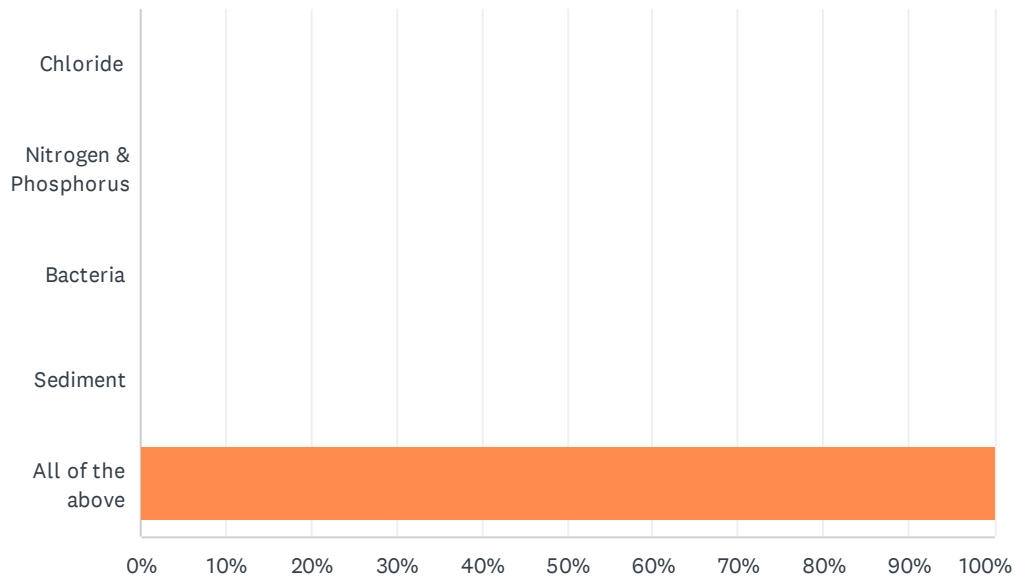
Percent Correct 100%	Average Score 1.0/1.0 (100%)	Standard Deviation 0.00	Difficulty 6/10
-------------------------	---------------------------------	----------------------------	--------------------

ANSWER CHOICES

ANSWER CHOICES	SCORE	RESPONSES
Let it dry and hose off the area	0/1	0.00% 0
Use kitty litter and sweep it into the drain	0/1	0.00% 0
Spilled fuel is not a source of pollution, and no action is needed	0/1	0.00% 0
✓ Use absorbent in a spill kit and remove absorbent prior to rainfall	1/1	100.00% 9
TOTAL		9

Q10 Which of the following are common pollutants of Virginia's waterways:

Answered: 9 Skipped: 0



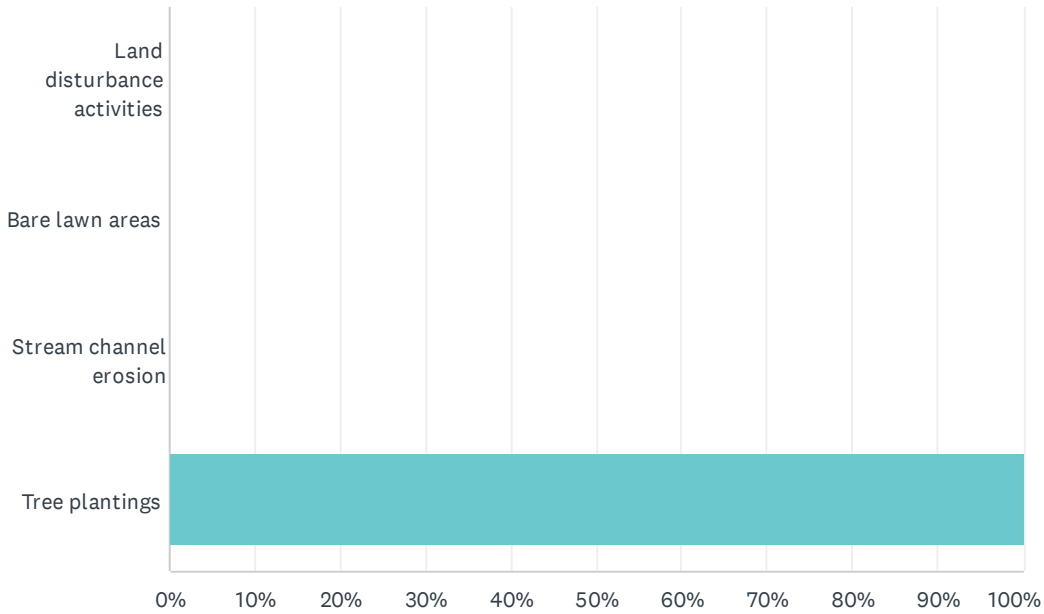
QUIZ STATISTICS

Percent Correct 100%	Average Score 1.0/1.0 (100%)	Standard Deviation 0.00	Difficulty 6/10
-------------------------	---------------------------------	----------------------------	--------------------

ANSWER CHOICES	SCORE	RESPONSES	
Chloride	0/1	0.00%	0
Nitrogen & Phosphorus	0/1	0.00%	0
Bacteria	0/1	0.00%	0
Sediment	0/1	0.00%	0
✓ All of the above	1/1	100.00%	9
TOTAL			9

Q11 Which of the following is not a possible source of sediment:

Answered: 9 Skipped: 0



QUIZ STATISTICS

Percent Correct 100%	Average Score 1.0/1.0 (100%)	Standard Deviation 0.00	Difficulty 6/10
-------------------------	---------------------------------	----------------------------	--------------------

ANSWER CHOICES	SCORE	RESPONSES	
Land disturbance activities	0/1	0.00%	0
Bare lawn areas	0/1	0.00%	0
Stream channel erosion	0/1	0.00%	0
✓ Tree plantings	1/1	100.00%	9
TOTAL			9

High Priority Stormwater Issue #3

From: [Conti, Andrew \(DBHDS\)](#)
To: [Anna Salzberg](#)
Cc: [Chris Schrinel](#); [Hall, Tracey \(DBHDS\)](#)
Subject: Re: Action Required - Email flyer/brochure
Date: Tuesday, March 5, 2024 12:36:04 PM

Hi Anna,

This email went out to 885 employees today.

Andrew Conti
Director of Physical Plant Services and Transportation
Central State Hospital
26317 W. Washington St.
Petersburg, VA 23803
(804) 524-4723

From: Anna Salzberg <ASalzberg@wetlands.com>
Sent: Tuesday, March 5, 2024 9:39 AM
To: Conti, Andrew (DBHDS) <andrew.conti@dbhds.virginia.gov>
Cc: Chris Schrinel <CSchrinel@wetlands.com>; Hall, Tracey (DBHDS) <tracey.hall@dbhds.virginia.gov>
Subject: Action Required - Email flyer/brochure

Hello Andrew,

Please find attached the information that needs to be disseminated to everyone via email to meet the Public Education & Outreach requirements of your MS4 Permit Program Plan. **Please let us know how many people you emailed.**

Thank you,

Anna

Anna C. Salzberg, PhD, ENV SP
Senior Associate Environmental Scientist

Wetland Studies and Solutions, Inc., a Davey company
1620 Brook Road
Richmond, VA 23220
O: 804.442.3330 **D:** 804.442.3330 x4221 **M:** 703.408.6786
Email: asalzberg@wetlands.com

There's no one better in the field! wetlands.com

Parking Lot Pollutants

WHEN YOU LEAVE A PARKING SPACE...

Do you leave
Trash or Fluids behind?



These
Pollutants



end up in storm drains
and sewers...



Polluted storm water often flows directly to a River causing disease and harm to wildlife and the environment.

Help Improve Stormwater Run Off!

- ✓ Place *litter and cigarette butts* in trash receptacles.
- ✓ Promptly *repair vehicle leaks*.
- ✓ Take your car to the *car wash* instead of washing it in a driveway or parking lot.

To report a potential illicit discharge or improper disposal...

Contact Physical Plant
804.524.4723
Andrew.Conti@dbhds.virginia.gov

Central State Hospital

Appendix B: Documentation of Public Involvement Activities

From: [Conti, Andrew \(DBHDS\)](#)
To: [Anna Salzberg](#)
Cc: [Chris Schrinel](#); [Hall, Tracey \(DBHDS\)](#)
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Senior Associate Environmental Scientist

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O: 804.442.3330 **D:** 804.442.3330 x4221 **M:** 703.408.6786
Email: asalzberg@wetlands.com

There's no one better in the field! wetlands.com

What is Stormwater Runoff Pollution?

When it rains, the water runs across the ground, pavement areas, and parking lots, and picks up contaminants such as gas, oils, chemicals, animal waste, and litter. It gets carried down into the stormwater drains and ultimately into our local streams and rivers contaminating our waters.

How does stormwater affect the Chesapeake Bay?

These pollutants get carried down the stormwater drain and into the bay. This can result in contaminated water that can be harmful to both humans and wildlife. It can affect the water we drink.

Water Quality

Nitrogen and phosphorus pollution are the most serious problems facing the Bay. Too much nitrogen and phosphorus because algae blooms that block sunlight to underwater grasses. When the blooms decompose, they create "dead zones," where dissolved oxygen levels are too low to sustain fish and shellfish. Excess sediment also degrades water quality. Poor water quality results in the loss of habitat for aquatic species throughout the Bay and its tidal and free flowing rivers.



What can you do to help?

For Chesapeake Bay restoration to be a success, we all must do our part. Our everyday actions can have a big impact on the Bay. By making simple changes in our daily lives, each one of us can take part in restoring the Bay and its rivers for future generations to enjoy.

To lessen the impacts of stormwater runoff on the Bay, consider doing the following:

- Do not litter.
- Do not dump any waste, oils, or other contaminants down the stormwater drain.
- Keep fertilizer on the lawn and off of driveways and sidewalks.
- Pick up after your pup.
- Wash your car at a carwash that properly drains chemicals.
- Research. Get involved. Volunteer.



Public Involvement Activity #1

Stream Clean-Up Event

4/17/24

Name

Julie Webb

David Barker

Pete Lehman

Date & Time: Wed, Apr 17, 2024, 10:26:57 EDT

Position: +037.213467° / -077.451513° (±19.6ft)

Altitude: 103ft (±43.9ft)

Datum: WGS-84

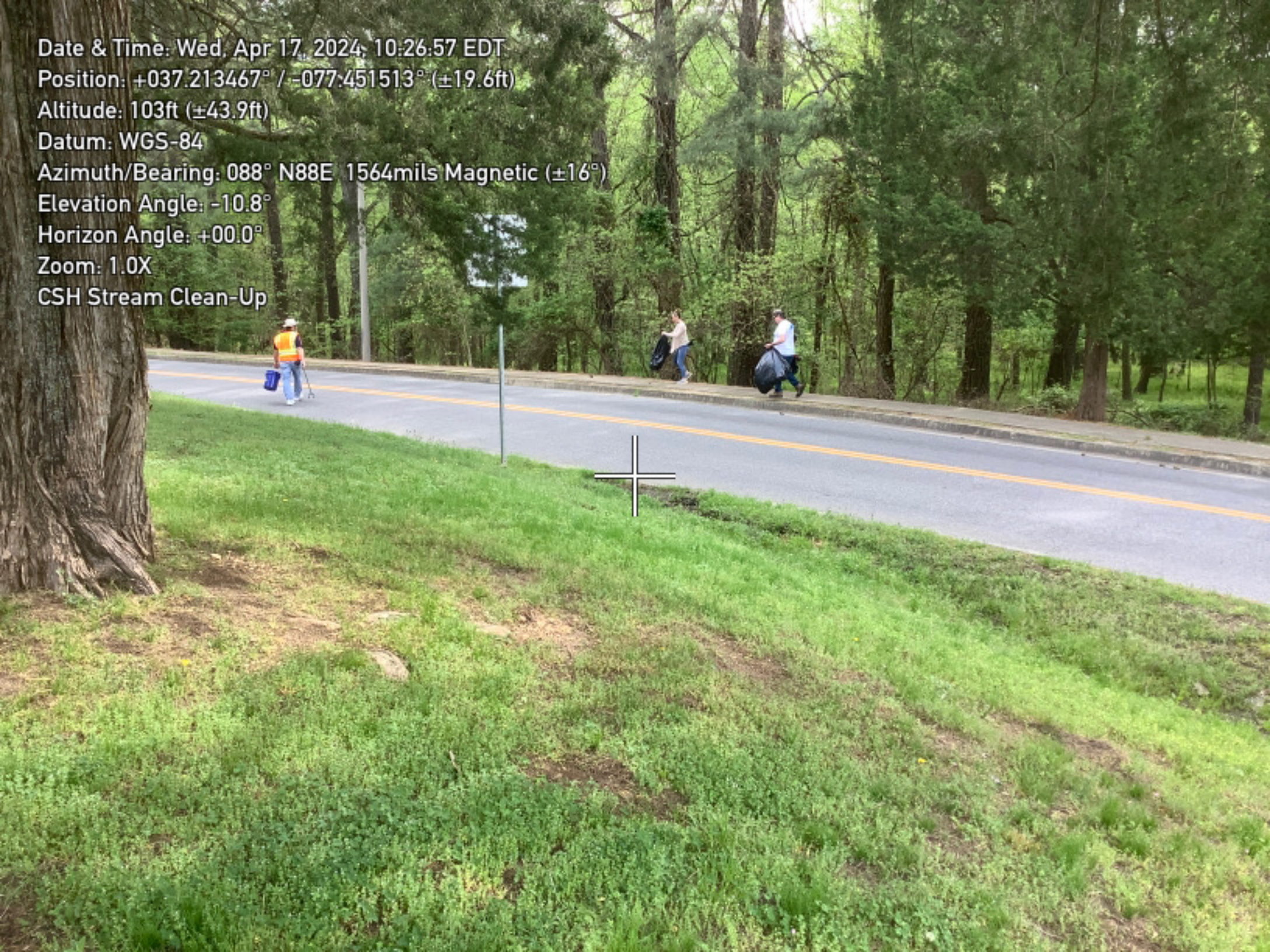
Azimuth/Bearing: 088° N88E 1564mils Magnetic (±16°)

Elevation Angle: -10.8°

Horizon Angle: +00.0°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:29:04 EDT

Position: +037.214242° / -077.450783° (±20.1ft)

Altitude: 117ft (±43.8ft)

Datum: WGS-84

Azimuth/Bearing: 071° N71E 1262mils Magnetic (±14°)

Elevation Angle: -08.8°

Horizon Angle: -01.7°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:39:09 EDT

Position: +037.214504° // -077.449495° (±19.8ft)

Altitude: 113ft (±41.1ft)

Datum: WGS-84

Azimuth/Bearing: 335° N25W 5956mils Magnetic (±14°)

Elevation Angle: -01.5°

Horizon Angle: +01.4°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:40:13 EDT

Position: +037.214598° / -077.449685° (± 22.5 ft)

Altitude: 115ft (± 42.6 ft)

Datum: WGS-84

Azimuth/Bearing: 280° N80W 4978mils Magnetic ($\pm 14^\circ$)

Elevation Angle: -83.9°

Horizon Angle: $+31.8^\circ$

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:44:07 EDT

Position: +037.215433° / -077.449077° (±21.4ft)

Altitude: 127ft (±41.6ft)

Datum: WGS-84

Azimuth/Bearing: 353° N07W 6276mils Magnetic (±14°)

Elevation Angle: -01.1°

Horizon Angle: +00.2°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:48:05 EDT

Position: +037.215443° / -077.451308° (±17.9ft)

Altitude: 143ft (±36.1ft)

Datum: WGS-84

Azimuth/Bearing: 268° S88W 4764mils Magnetic (±14°)

Elevation Angle: -04.5°

Horizon Angle: +01.4°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:48:56 EDT

Position: +037.215324° N -077.451769° W (±18.8ft)

Altitude: 145ft (±37.6ft)

Datum: WGS-84

Azimuth/Bearing: 258° S78W 4587mils Magnetic (±14°)

Elevation Angle: -09.9°

Horizon Angle: +00.4°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:49:42 EDT

Position: +037.215281° / -077.452105° (± 18.1 ft)

Altitude: 140ft (± 39.8 ft)

Datum: WGS-84

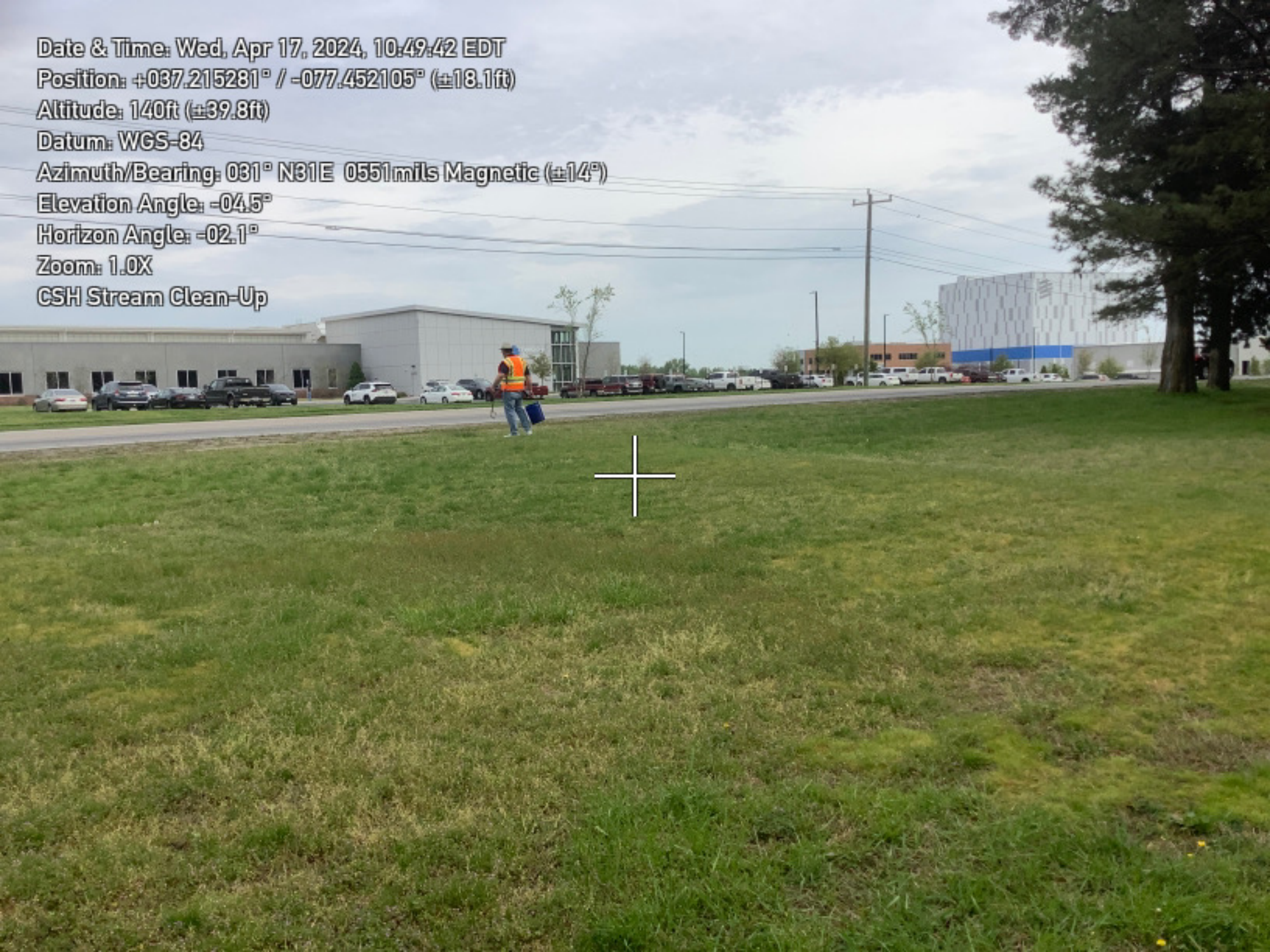
Azimuth/Bearing: 031° N31E 0551mils Magnetic ($\pm 14^\circ$)

Elevation Angle: -04.5°

Horizon Angle: -02.1°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 10:51:53 EDT

Position: +037.214965° / -077.452707° (±19.3ft)

Altitude: 143ft (±41.1ft)

Datum: WGS-84

Azimuth/Bearing: 244° S64W 4338mils Magnetic (±14°)

Elevation Angle: -15.5°

Horizon Angle: +03.1°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 11:20:16 EDT

Position: +037.213451° / -077.452679° (±87.6ft)

Altitude: 118ft (±55.3ft)

Datum: WGS-84

Azimuth/Bearing: 067° N67E 1191mils Magnetic (±43°)

Elevation Angle: -19.8°

Horizon Angle: -00.0°

Zoom: 1.0X

CSH Stream Clean-Up



Date & Time: Wed, Apr 17, 2024, 11:20:24 EDT

Position: +037.213406° / -077.452494° (+24.6ft)

Altitude: 114ft (±51.7ft)

Datum: WGS-84

Azimuth/Bearing: 240° S60W 4267mils Magnetic (±14°)

Elevation Angle: -18.8°

Horizon Angle: +02.6°

Zoom: 1.0X

CSH Stream Clean-Up



Public Involvement Activity #2

Stream Clean Up Event

04/24/24

Name

David Barker

Ronald BOWNER

George Garris

~~Mr~~ Steve N. Tuck, Jr.

Walter Johnson

Date & Time: Wed, Apr 24, 2024, 10:18:18 EDT

Position: +037.214880° / -077.453136° (±19.4ft)

Altitude: 136ft (±41.0ft)

Datum: WGS-84

Azimuth/Bearing: 288° N72W 5120mils Magnetic (±13°)

Elevation Angle: -09.1°

Horizon Angle: +03.3°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:18:30 EDT

Position: +087.214855° / -077.453258° (± 19.7 ft)

Altitude: 135ft (± 41.5 ft)

Datum: WGS-84

O'Reilly AUTO PARTS

Azimuth/Bearing: 323° N37W - 5742mils Magnetic ($\pm 13^\circ$)

Elevation Angle: -11.6°

Horizon Angle: $+05.0^\circ$

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:18:33 EDT

Position: +087.214860° / -077.453246° (±20.4ft)

Altitude: 136ft (±43.9ft)

Datum: WGS-84

Azimuth/Bearing: 326° N34W - 5796mils Magnetic (±13°)

Elevation Angle: -09.2°

Horizon Angle: +04.0°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:18:57 EDT

Position: +037.214630° / -077.453219° (±21.6ft)

Altitude: 136ft (±40.9ft)

Datum: WGS-84

Azimuth/Bearing: 252° S72W 4480mils Magnetic (±13°)

Elevation Angle: -13.0°

Horizon Angle: +01.5°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:21:23 EDT

Position: +037.214844° / -077.453244° (±21.2ft)

Altitude: 139ft (±41.9ft)

Datum: WGS-84

Azimuth/Bearing: 346° N14W 6151mils Magnetic (±13°)

Elevation Angle: -07.4°

Horizon Angle: -01.0°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:23:21 EDT

Position: +037.214665° / -077.453205° (±18.2ft)

Altitude: 137ft (±37.7ft)

Datum: WGS-84

Azimuth/Bearing: 243° S63W 4320mils Magnetic (±13°)

Elevation Angle: -08.0°

Horizon Angle: +01.7°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:31:58 EDT

Position: +037.214492° / -077.453336° (±19.0ft)

Altitude: 136ft (±38.0ft)

Datum: WGS-84

Azimuth/Bearing: 211° S31W 3751mils Magnetic (±17°)

Elevation Angle: -11.4°

Horizon Angle: +02.1°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:32:43 EDT

Position: +037.214403° / -077.453494° (±18.4ft)

Altitude: 136ft (±37.3ft)

Datum: WGS-84

Azimuth/Bearing: 188° S08W 3342mils Magnetic (±17°)

Elevation Angle: -09.0°

Horizon Angle: -02.4°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:38:35 EDT

Position: +037.214996° / -077.452566° (±22.1ft)

Altitude: 140ft (±43.6ft)

Datum: WGS-84

Azimuth/Bearing: 097° S83E 1724mils Magnetic (±17°)

Elevation Angle: -15.3°

Horizon Angle: -02.7°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:51:11 EDT

Position: +037.214874° / -077.453257° (±20.4ft)

Altitude: 136ft (±39.8ft)

Datum: WGS-84

Azimuth/Bearing: 216° S36W 3840mils Magnetic (±17°)

Elevation Angle: -20.4°

Horizon Angle: -03.2°

Zoom: 1.0X

CSH Stream Cleanup (2)



Date & Time: Wed, Apr 24, 2024, 10:53:32 EDT

Position: +037.215112° // -077.453025° (+22.9ft)

Altitude: 134ft (±41.3ft)

Datum: WGS-84

Azimuth/Bearing: -288° N77W 5031mils Magnetic (±17°)

Elevation Angle: -18.6°

Horizon Angle: +02.8°

Zoom: 1.0X

CSH Stream Cleanup-(2)



Date & Time: Wed, Apr 24, 2024, 10:56:00 EDT

Position: +037.215102° / -077.453022° (±21.3ft)

Altitude: 136ft (±39.1ft)

Datum: WGS-84

Azimuth/Bearing: 277° N83W 4924mils Magnetic (±18°)

Elevation Angle: -14.0°

Horizon Angle: +01.9°

Zoom: 1.0X

CSH Stream Cleanup (2)



Public Involvement Activity #3

Central State Hospital watershed walk

Sign up sheet

date: 4/5/24

David Barker

Steve Tuck, Jr.

Charlie Jones training staff dev.

Linda Whitted

Public Involvement Activity #4

View



Merle ...

Sign in

Participants (11)



Find a participant

- HS** Holden Samuels (Me)
- O** olj49312
- RR** Raymond Reilly
- 18045247694
- PL** Peter Lehman
- TS** Terese Shands
- DB** David Barker
- MP** Marcia Parham-Shelton
- MZ** Maria Zenilda S Merle Varquez
- R** rcc32715
- JS** Jill Stiles

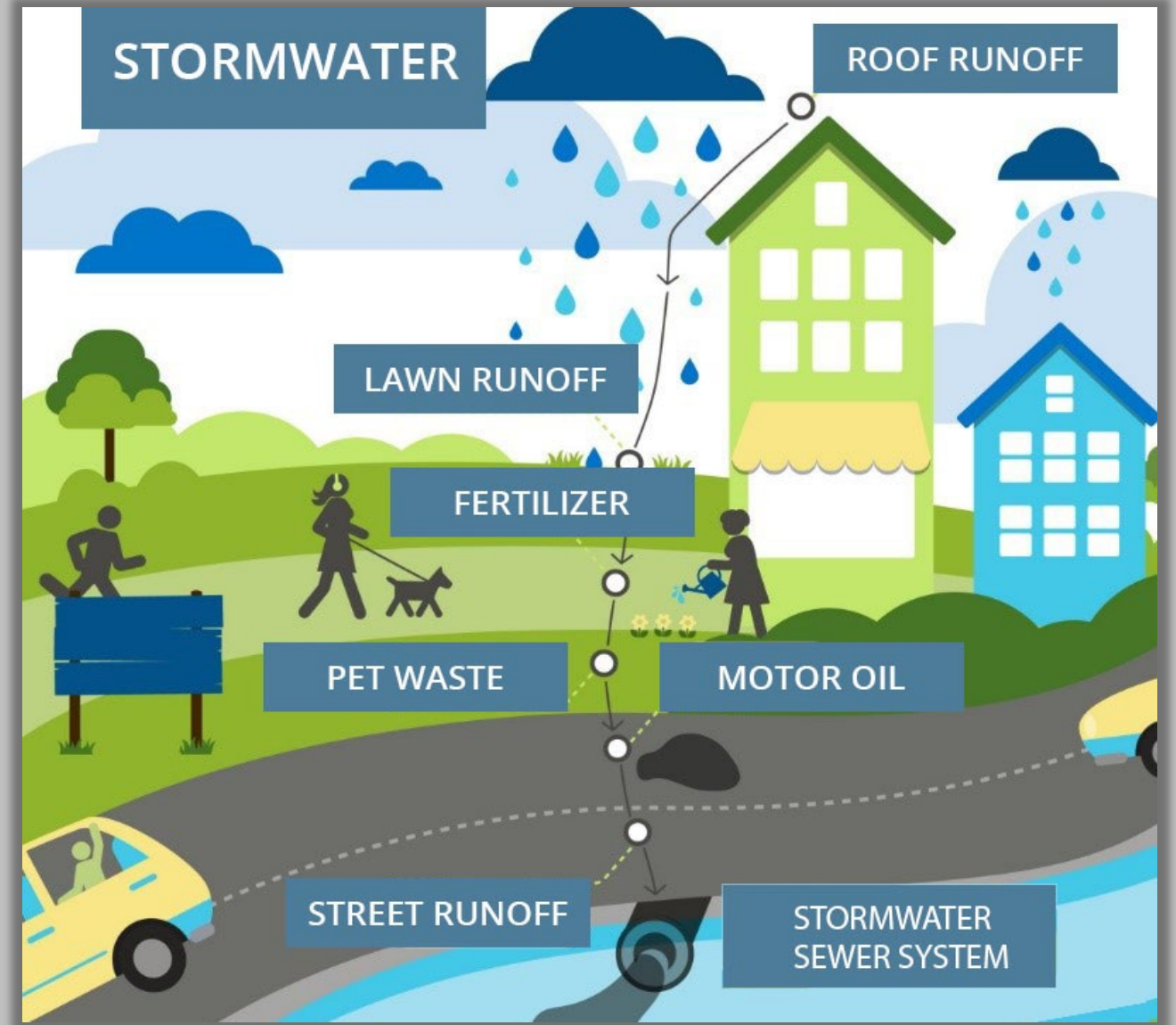


CENTRAL STATE HOSPITAL
**MS4 Public Involvement
and Participation
Presentation**



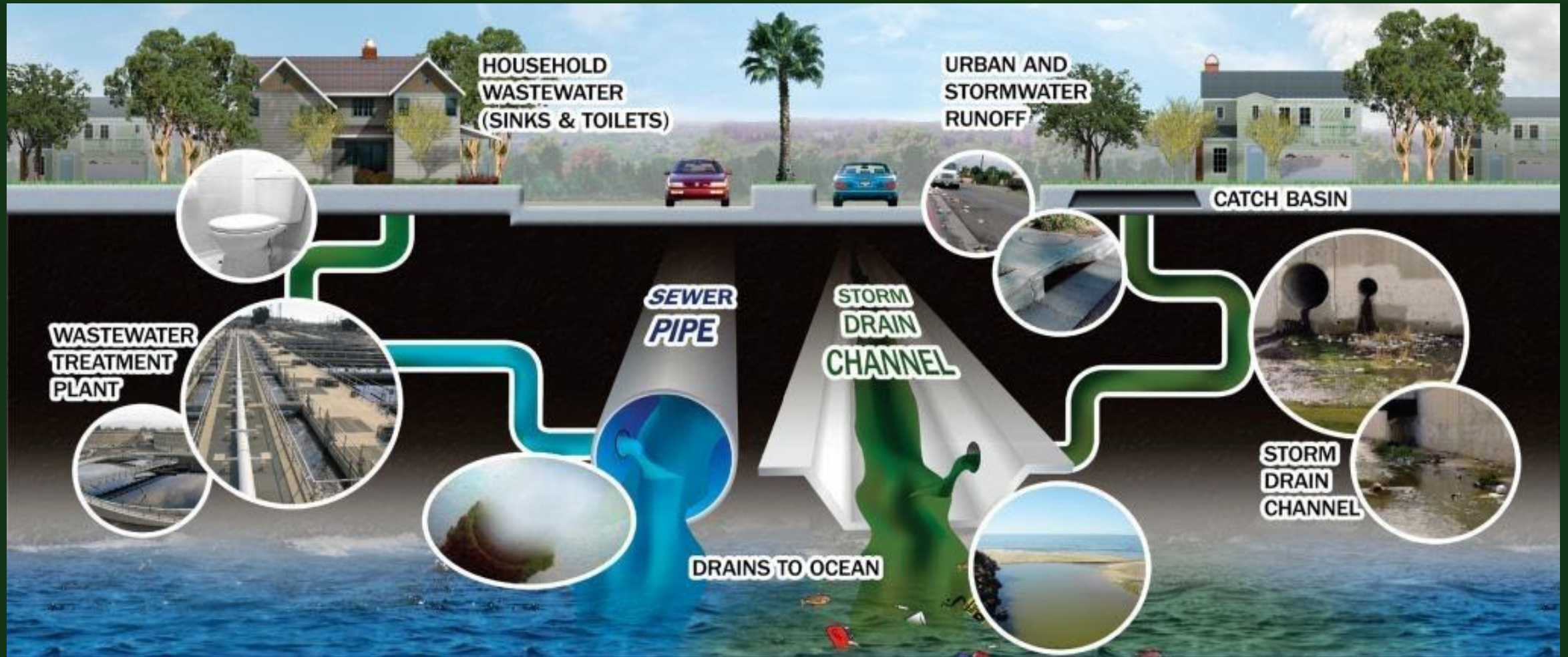
Agenda

- Stormwater Basics
- Pollution Sources
- Ways to Reduce Stormwater Pollution
- Public Involvement Activities



<https://www.youtube.com/watch?v=7crGd6E0Fsk>

Storm Sewer vs. Sanitary Sewer



Common Pollution Sources

- Chemicals & cleaners
- Fast food wrappers, napkins, bags, straws, cups, plastic utensils, & styrofoam containers
- Plastic soda & water bottles
- Cigarette butts
- Sewage overflow
- Bacteria from pet, livestock & wildlife waste
- Automobile gas, oil, fluids & grease
- Kitchen waste oil & grease
- Paint
- Fertilizers
- Construction debris
- Sediment



A Few Facts

- EPA estimates that American households improperly dump about 193 million gallons of used oil every year, roughly the equivalent of 17 Exxon Valdez oil spills.
- 1 oz of household bleach needs to be diluted in 2,430 gallons of water to be safe for fish
- Even biodegradable soaps can pose problems for aquatic life — in order for 1 oz of biodegradable detergent to be safe for fish, it needs to be diluted by almost 150 gallons of water



Automobile Oil/Fluids Tips

- Be sure to use drip pans under vehicles when changing the oil
- Dispose of used oil and other fluids at a recycling center or convenience center

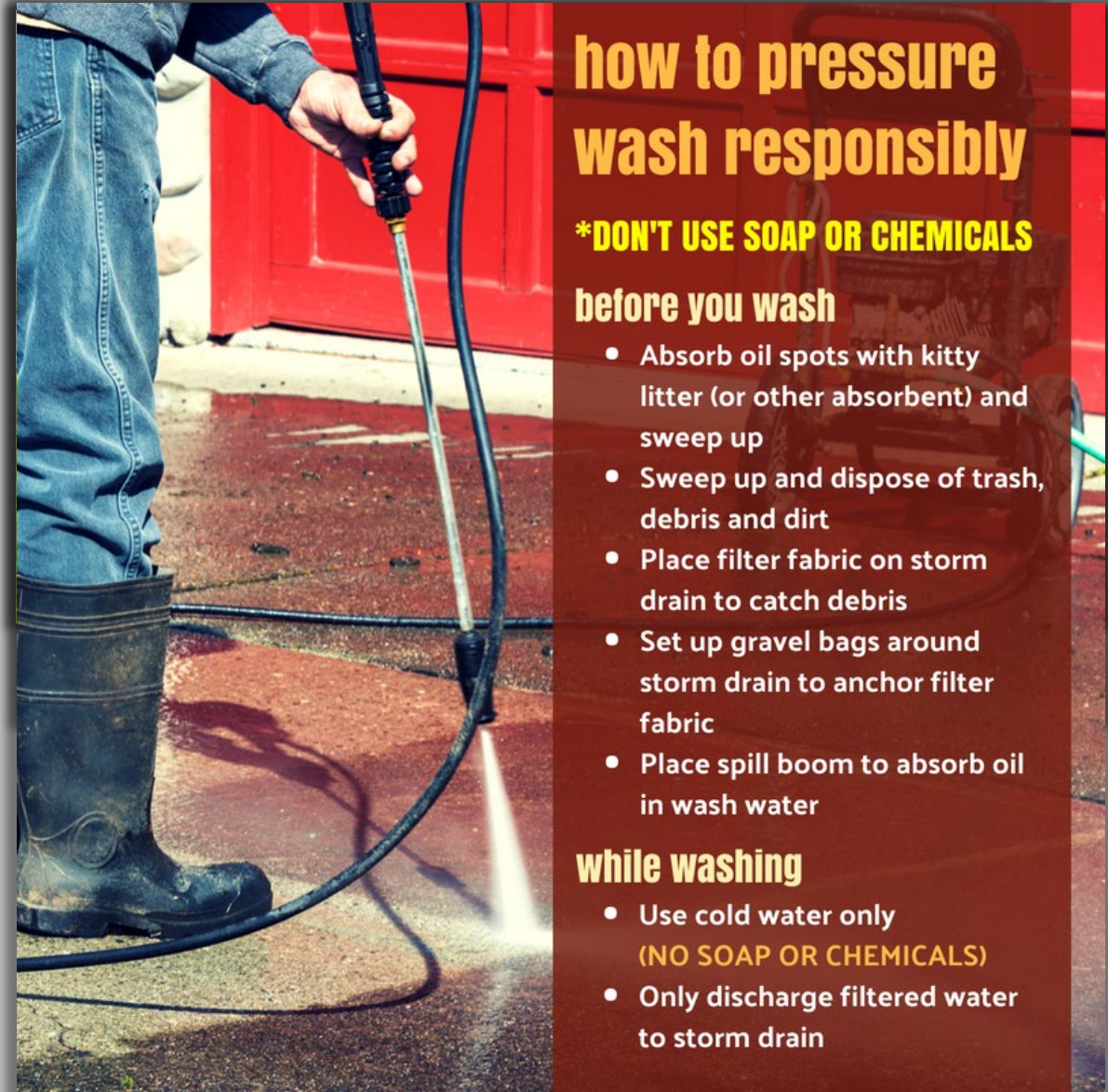


- Fix oil/fluid leaks promptly
- Place absorbent pads or drip pan under leaking vehicles until repaired
- Clean up oil/fluid leaks, grease and spills using absorbent materials like cat litter. Sweep up and dispose of properly
- NEVER hose down oil/fluid leaks into storm drains



Washing Tips

- Wash vehicles at a car wash
- Wash vehicles only in the grass to allow the water to seep into the ground
- Do NOT use soaps, cleaners, or bleach
- Do not pressure wash the engine and other oil/grease laden components unless at car wash
- Use water only when pressure washing sidewalks, decks, porches, and siding
- For businesses, many municipalities have requirements to capture the wash water using a vacuum or a designated washing area that discharges to the sanitary sewer system



how to pressure wash responsibly

***DON'T USE SOAP OR CHEMICALS**

before you wash

- Absorb oil spots with kitty litter (or other absorbent) and sweep up
- Sweep up and dispose of trash, debris and dirt
- Place filter fabric on storm drain to catch debris
- Set up gravel bags around storm drain to anchor filter fabric
- Place spill boom to absorb oil in wash water

while washing

- Use cold water only
(NO SOAP OR CHEMICALS)
- Only discharge filtered water to storm drain

Fertilizer Impacts to Waterbodies



Algae create toxins and cause waterbodies to be unsafe for swimming and unhealthy for human and wildlife consumption.

Algal blooms block out sunlight, reduce oxygen in the water and clog fish gills.

Sediment as a Pollutant

Many Virginia waterbodies are designated as impaired for sediment.



Pollutant sources of sediment are land disturbance activities, bare lawn areas and stream channel erosion.

Sediment Impacts to Waterbodies

- Clog fish gills causing death
- Create a muddy bottom unsuitable for spawning beds
- Reduce visibility for fish to locate prey
- Decrease water depth resulting in an increase of temperature causing fish to relocate
- Stunt plant growth due to reduced light penetration
- Interfere with navigation and flood control
- Negatively impact recreation and fishing industries



Additional Tips

- ✓ Use herbicides/pesticides and fertilizers cautiously and use only recommended amounts
- ✓ Plant native, low maintenance plants and lawn grasses
- ✓ Compost yard waste and sweep grass clippings out of street gutters after mowing
- ✓ Don't litter! Pick up trash on the ground
- ✓ Pick up after your pet on sidewalks and trails
- ✓ Never dump anything down storm drains or in road ditches
- ✓ Vegetate bare spots in lawns
- ✓ Do not drain your pool, spa, or fountain into a storm drain
- ✓ Keep your septic system well-maintained to prevent leaks.



Public Involvement Events



- Participate in CSH's stream clean-up day event Wednesday March 16th and Thursday March 17th from 9 am to 11 am

- Look for and participate in events in your community.

Chesapeake Bay
Foundation Clean the Bay
Day on Monday May 30th
to Saturday June 4th

<https://www.cbf.org/events/clean-the-bay-day/>



- Participate in CSH's storm drain marking event on Wednesday March 23rd from 9am -11am



YOUR STORM DRAIN

IS JUST FOR RAIN!