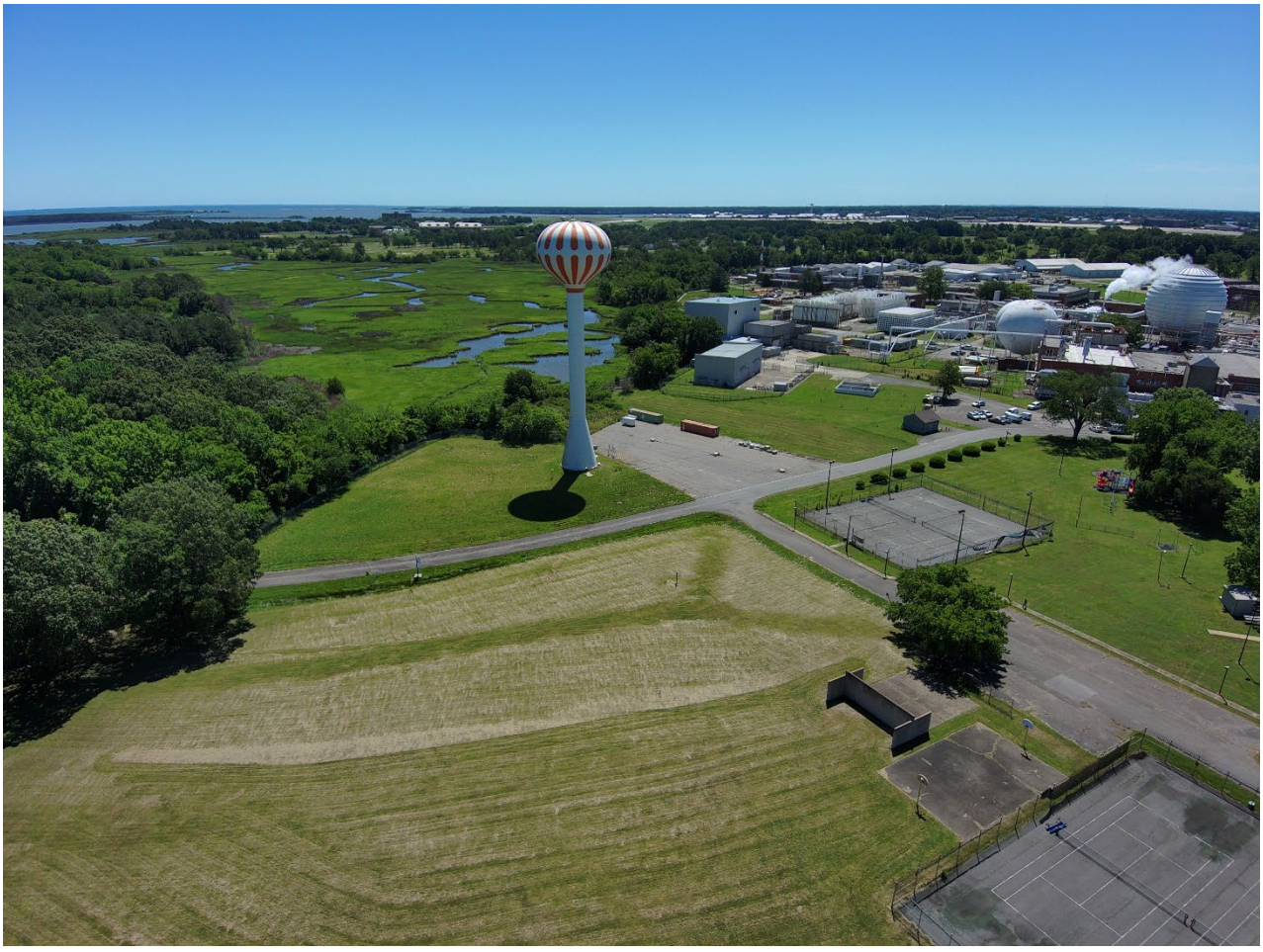
NASA Langley Research Center
Municipal Separate Storm Sewer System (MS4)
Annual Report

Covering the period of July 1, 2024 – June 30, 2025



Submitted to the Virginia Department of Environmental Quality (DEQ) in compliance with Permit No. VAR04009

Table of Contents

Annual Reporting Requirements
Part I D 3

General information:

a. NASA Langley Research Center, VAR040092.

b. The reporting period for this annual report is July 1, 2024, through June 30, 2025.

c. The signed Certification Statement can be found on the last page of this annual report.

d. Each annual reporting item as specified in a Minimum Control Measure (MCM) in Part I E can be found on pages 6 – 15.

e. A program evaluation can be found on pages 4 – 5.

Part I D 3 e - Evaluation of MS4 Program Implementation

The Program Plan guides NASA Langley Research Center (NASA Langley) in successfully implementing the MS4 Permit requirements. The MS4 Annual Report evaluates the effectiveness of the MS4 Program through an internal review conducted by NASA Langley's Environmental Management Office (EMO) and considers any public feedback received. Following an assessment of the Program Plan, adjustments were made to ensure compliance with updated MS4 Permit regulations. A summary of each Minimum Control Measure (MCM) is below:

MCM 1: Public Education and Outreach – EMO selects three high priorities to reflect the most pressing stormwater-related concerns at NASA Langley and updates the public contact information, as applicable. NASA Langley continued the educational outreach campaign for MCM 1 by leveraging multiple tools, the public website, informative articles and flyers, targeted e-mails, in-person events, and training sessions. This effort successfully reached various relevant groups across the Center, informing them of methods to combat stormwater pollution and enhance the water quality of local waterways. The program was found to be effective in this area after evaluation.

MCM 2: Public Involvement and Participation – NASA Langley actively seeks comments and feedback through the interactive platform *Inside Langley*, available to all Center employees, and through the publicly accessible environmental webpage. Reporting of illicit discharges is encouraged continuously during trainings, on the public website, and through outreach articles and flyers that are distributed quarterly. Personnel can contact EMO staff directly or visit the public website for information on NASA Langley's Illicit Discharge Detection and Elimination (IDDE) Program and appropriate reporting processes. The program's mechanisms for reporting illicit discharges are deemed effective.

The EMO promotes an array of internal events and advertises external events to educate the public and reinforce the Center's commitment to inclusivity and community engagement. This MCM was evaluated for effectiveness through public participation interaction and recorded attendance and was deemed effective. No program changes are needed.

MCM 3: Illicit Discharge Detection and Elimination – Illicit discharges are strictly prohibited on Center. NASA Langley addresses illicit discharges via its comprehensive IDDE Handbook, Langley Procedural Requirements (LPR) 8500.1, and the DEQ-approved Standards and Specifications (S&S) for Erosion and Sediment Control (ESC) & Stormwater Management (SWM). Regular trainings are provided to personnel to inform staff and address concerns. Additionally, NASA Langley holds a Virginia Pollutant Discharge Elimination System (VPDES) industrial permit with strict discharge requirements and oversight. EMO conducted an internal evaluation of the IDDE program component and found this measure to be effective with no need for major modification.

MCM 4: Construction Site Stormwater Runoff and Erosion and Sediment Control – NASA Langley implements this component of the program through the S&S, NASA Langley's Environmental Construction Specifications Section 01 35 40.00 99, and NASA Langley Seeding Specifications Section 32 92 19.00 99. These documents outline NASA Langley's stormwater management requirements for construction activities, ensuring full compliance with all relevant regulations, including Part I E 4 a 3 of the MS4 permit.

The S&S is subject to evaluation by DEQ. During this reporting period, the 2024 S&S was approved on July 2, 2024, while the 2025 S&S was submitted on May 8, 2025, and received DEQ approval on August 1, 2025. A thorough assessment of the program's effectiveness, conducted through the EMO internal review

process, determined that updates were primarily needed to reflect the required regulatory changes and program contact and certification information.

MCM 5: Post Construction Stormwater Management – NASA Langley implements this component of the program through the approved S&S. Projects adhere to NASA Langley 's Environmental Construction Specifications Section 01 35 40.00 99 and NASA Environmental Design Standards. EMO reviews design and construction submittals to ensure compliance.

Additionally, NASA Langley maintains a Green Infrastructure Maintenance Handbook to support the long-term operation and maintenance of its SWM facilities. This handbook provides a comprehensive guide for the effective upkeep and performance of these systems. Document updates are made as necessary as a part of the continuous improvement process. NASA Langley also strengthened stormwater facility landscaping maintenance requirements in the performance work statement for the Grounds Maintenance and Pest Control contract.

After thorough review, the program was deemed effective, with no significant changes required to the Program Plan's current structure and guidelines.

MCM 6: Pollution Prevention and Good Housekeeping – NASA Langley employs a range of operational and maintenance best management practices (BMPs) to prevent and mitigate pollutant discharges during Center operations. These control measures and pollution prevention practices are outlined in procedural documents, including the Environmental and Energy Program Manual (LPR 8500.1), the S&S, and the IDDE Handbook. Additionally, the Center maintains a comprehensive training program for personnel engaged in maintenance and construction activities.

EMO evaluated this MCM and found it effective. NASA Langley ensures compliance by on-site personnel and maintenance contractors through standard operating procedures and oversight.

Chesapeake Bay Total Maximum Daily Load (TMDL) Special Conditions – NASA Langley submitted the draft Chesapeake Bay Phase Three Action Plan to DEQ on September 20, 2023. The final plan was submitted on April 17, 2025, and received DEQ approval on April 23, 2025. The EMO will oversee implementation, execution, and maintenance of the action plan to begin fulfillment of the Phase Three requirements. The action plan is available on the public website and upon request from EMO. Currently, the program has been deemed effective, and NASA Langley is on track to meet all required pollutant load reductions.

Back River TMDL Special Conditions – NASA Langley submitted a Back River TMDL Action Plan to the DEQ on April 30, 2025, and is currently awaiting approval. However, EMO continues to maintain and implement the plan. A copy is available on the public website and can also be obtained upon request from EMO. Currently, the program has been deemed effective, and NASA Langley is on track to meet all requirements.

Minimum Control Measure One – Public Education and Outreach

Annual Reporting Requirements – Part I E 1 g

The table below lists the high-priority stormwater issues addressed and the communication strategies used:

Strategy	Metrics and Evaluation	High Priority Issues Addressed
Signage: NASA Langley maintains signage to enhance visibility and understanding of its SWM facilities for both visitors and employees. They include visual "underground" explanations of how several BMPs are designed to manage stormwater quality and quantity, helping to educate passersby about their function.	Signage was evaluated during EMO internal inspections in May 2025 and found to be in adequate condition.	1. IDDE: Construction and Maintenance Best Management Practices (BMPs) 3. Chesapeake Bay and Back River TMDL Education
Media Material - Educational Article: ***Construction and Maintenance Best Management Practices*** The article informs readers about common BMPs used on construction and maintenance projects across the Center, highlighting their importance in effective stormwater management. Additionally, the article identifies potential issues and provides practical tips for preventing or addressing them.	Published 09/24/2024 on the public environmental website and advertised on *Inside Langley*. The *Inside Langley* advertisements received 19 views and the environmental website received 49 hits.	1. IDDE: Construction and Maintenance Best Management Practices (BMPs)
Media Material - Educational Article: ***Protecting Our Waters - Floor Drain Management at NASA Langley*** The article emphasizes the importance of properly managing chemicals and other materials near floor drains, as well as conducting regular visual inspections to prevent illicit discharges. Despite best efforts, accidents can still occur so it also outlines procedures to follow in the event of spills or leaks.	Published on 12/17/2024 to the public environmental website and advertised via *Inside Langley.* The article advertisement received a total of 26 views and the webpage received 448 hits*.	2. IDDE: Floor Drains
Media Material - Educational Article: ***Reducing Urban Wildlife Pollutants: Back River TMDL*** The article explains the concept Total Maximum Daily Loads (TMDLs), focusing on the local Back River and its high levels of	Published on 03/11/2025 to the public environmental website and advertised on *Inside Langley*. The *Inside Langley* advertisements received 149 views and the environmental website received 191 hits.	3. Chesapeake Bay and Back River TMDL Education

fecal coliform. It identifies the key pollution sources and offers guidance for personnel on reducing their individual stormwater impact both at home and in the workplace.		
Media Material - Educational Article: ***The Chesapeake Bay*** This article outlines the Total Maximum Daily Loads (TMDLs) for the Chesapeake Bay, which were established through the Chesapeake Clean Water Blueprint. It provides updates on progress toward meeting pollution limits and offers suggestions for actions individuals can take at home and at work to help achieve the TMDL goals.	Published 06/18/2025 on the public environmental website and advertised on *Inside Langley*. The *Inside Langley* advertisements received 58 views and the environmental website received 24 hits.	3. Chesapeake Bay and Back River TMDL Education
Speaking Engagements: These sessions target personnel who regularly handle chemicals, hazardous materials, oils, and other substances that may pose risks to water quality. In alignment with the needs of this audience, NASA Langley covers topics including stormwater pollution prevention, identifying and reporting illicit discharges, spill response procedures, and the anthropogenic impacts on climate change. A more detailed list of training events conducted in accordance with Part I E 6 d can be found under the MCM 6 section.	Annual Facility Environmental Coordinator (FEC) Training: 07/10/2024, 07/25/2024, 08/14/2024, 09/12/2024, 06/25/2025. Annual Waste Management and Spill Response Training: 07/16/2024, 08/06/2024, 06/02/2025, 06/04/2025. Environmental Training: 03/27/2025, 04/08/2025.	1. IDDE: Construction and Maintenance Best Management Practices (BMPs) 2. IDDE: Floor Drains 3. Chesapeake Bay and Back River TMDL Education

NASA believes the "hits" count is inflated due to spam website interactions. The number of advertisement views was used to evaluate effectiveness for the MS4 Annual Report.

In compliance with Part I E 1 g (4), the public education and outreach initiatives above included content related to climate change to enhance community awareness.

Minimum Control Measure Two – Public Involvement and Participation
Annual Reporting Requirements – Part I E 2 i

(1) NASA Langley recurrently requests public input on the MS4 program via the *Inside Langley* announcement system (accessible to all employees). Additionally, public input is encouraged at any time through the environmental public webpage (which is also routinely promoted). The following is a summary of public input received on the MS4 program:

Public Input Received	Response and Implementation
An advertisement for public input to the upcoming MS4 Program Plan was published on 03/11/2025. Additionally, requests for future educational outreach ideas were solicited on the 09/24/2024 *Inside Langley* announcements page. No comments were received in response to these advertisements.	N/A – No response required. EMO will remain dedicated to advancing its water quality program through various accessible channels, including informative flyers, emails, signage, community announcements, and blog posts. The public webpage is routinely monitored and updated to ensure the latest information is readily available.
EMO hosted an Environmental Management Committee (EMC) meeting on 10/23/2024 where representatives from various stakeholder organizations were given the opportunity to provide feedback and ideas. No feedback was received during the meeting.	N/A – No response required. EMO will continue to engage frequently with various stakeholder organizations and include them in program planning and implementation.
NASA Langley received one response during the public comment period from 04/11/2025 to 04/28/2025 for the Phase II Back River TMDL Action Plan. The comment was as follows: "How does the VDEQ administer the anticipated future use of 'Reclaimed Water' and TMDLs, …..if in the future LaRC, Joint Force AFB, Hampton Regen Plant, Raceway, and HRSD engage in a Water Reclamation Facility in the future? Wastewater Reclamation facilities take the beneficial use of the wastewater and put it to use for a myriad of applications to include irrigation, Cooling Towers, one pass cooling, fire flows, or aesthetic ponds/water features. Are there any examples that DEQ has where Reclaimed Wastewater discharged into the environment in accordance with DEQ regulations are accounted for and included in the TMDL loadings?" Attachments to this comment included: PDF explaining types of water, a map showing	This comment was documented for consideration in future permits and plans, as applicable.

potential reclaimed water piping and plant location, and three relevant Virginia Administrative Codes (VACs): 9VAC25-740-170. Use Area Requirements, 9VAC25-740-150. Management of Pollutants from Significant Industrial Users, and 9VAC25-740-70. Treatment and Standards for Reclaimed Water	

(2) NASA Langley did not receive any pollution complaints during the reporting period.

(3/4) The NASA Langley MS4 program and stormwater website: https://environmental.larc.nasa.gov/water/ms4/.

(5,6,7,8) Public involvement activities implemented during the reporting period are described below. These activities covered a broad spectrum of environmental topics, including climate change as required by Part I E 2 i (6). Each subsection includes defined metrics and an evaluation of the activity benefits. Participation was encouraged among all Center personnel through event promotion, sponsorship, and/or involvement.

Category of Public Involvement Opportunity: Educational Activities

1) NASA Langley Trivia – Hosted by EMO

Activity Description: On May 1, 2025, the EMO hosted an on-Center trivia event to engage personnel and reinforce awareness of NASA Langley's water quality program, along with other general environmental topics. The 20-question session covered areas such as stormwater discharge points, water permits, and the IDDE program.

Metric and Evaluation of Water Quality Benefits: EMO, in coordination with the NASA Langley Trivia Team, promoted the event via the *Inside Langley* announcement page. Center trivia is a reoccurring event that is hosted by various Center departments the first Thursday of each month; therefore, it does have a standing group of participants. A total of 10 employees participated in the EMO event with the winners receiving environmental-related prizes. The event was well received and deemed an effective opportunity for public involvement to support local water quality.

Category of Public Involvement Opportunity: Disposal or Collection Events

1) Household Chemical Collections and Computer Recycling

Activity Description: NASA Langley actively promotes local household chemical collection events that occur throughout the year and serve the communities surrounding NASA Langley. By advocating for these events, NASA Langley limits potential waste seepage into local landfills, waterways, and groundwater, thereby mitigating environmental hazards. Several of these collection events were promoted through the *Inside Langley* announcement page.

Metric and Evaluation of Water Quality Benefits: The advertisement was posted on February 21, 2025 and garnered over 119 views. During NASA Langley's annual Waste Management and Spill Response Training, attendees were surveyed and 137 respondents indicated participation in at least one of the collection events. NASA Langley deems these events to be effective and important for preventing hazardous materials from contaminating the environment.

2) NASA Langley Plastic Bag Recycling – Collection Event #1, October 2024

Activity Description: For October's Energy Awareness Month, NASA Langley partnered with the York/Poquoson Master Gardeners to collect plastic film and packaging for donation toward the production of composite benches for parks, schools, and learning gardens. This initiative promotes material reuse and raises awareness among personnel about preventing plastic waste from entering local waterways.

Metric and Evaluation of Water Quality Benefits: EMO coordinated the setup and promotion of the plastic film donation event by placing collection boxes in high-traffic areas and advertising through the *Inside Langley* events calendar. The event collected 47 pounds of single-use plastic film, contributing to a total of 1,988 pounds recycled since the program began in 2016.

3) NASA Langley Plastic Bag Recycling – Collection Event #2, April 2025

Activity Description: To encourage waste minimization practices, NASA Langley again worked with the York/Poquoson Master Gardeners to collect plastic film and packaging.

Metric and Evaluation of Water Quality Benefits: EMO coordinated the setup and promotion of the plastic film donation event by placing collection boxes in high-traffic areas and advertising through the *Inside Langley* events calendar. The event collected 58 pounds of single-use plastic film, contributing to a total of 2,046 pounds recycled since the program began in 2016.

Minimum Control Measure Three – Illicit Discharge Detection and Elimination
Annual Reporting Requirements – Part I E 3 e

(1) **Confirmation Statement:** NASA Langley's MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30, 2025. NASA Langley will continue to maintain a robust GIS-based MS4 map that includes a storm sewer map and information table.

(2) NASA Langley has 16 MS4 outfalls. All 16 outfalls were inspected quarterly as part of the dry weather screening program, totaling 64 inspections during the reporting period. Additionally, EMO and maintenance personnel proactively routinely inspect several outfalls in NASA Langley's core campus. The EMO stores screening reports.

(3) A total of six (6) illicit discharges were reported and investigated:

Illicit Discharge Investigation #1: Muddy Flow Discharging at Outfall 008

(a) Sediment-laden water was observed at Outfall 008, originating from a nearby regulated construction site. A dewatering bag was located near an inlet; however, the associated inlet protection along Langley Blvd appeared compacted and ineffective. As a result, muddy water was observed bypassing the inlet protection and freely flowing into a downstream inlet along Langley Blvd.

(b,c) An inspector discovered the muddy flow during a routine environmental inspection on July 2, 2024.

(d-f) On-site personnel replaced inadequate inlet protection and reviewed proper dewatering procedures. Additional inlet protection measures were installed at the downstream inlet. Inspection was closed on July 3, 2024.

Illicit Discharge Investigation #2: Piping Leak Check / Diluted Rheostat Solution Discharging to Floor Drain

(a) While conducting a leak check for the rheostat piping system in B1251, potable water with traces of rheostat solution dripped into a nearby floor drain that connects to Outfall 008. A test strip indicated pH range of 9 to10.

(b,c) The maintenance personnel conducting the check reported the discharge to the EMO on November 11, 2024.

(d-f) The leaks were redirected to a containment area until repairs were completed and the remaining wastewater pumped out. There was no evidence of the discharge at the outfall, and the test strip indicated pH 7 at the discharge point. Inspection was closed on November 11, 2024.

Illicit Discharge Investigation #3: Muddy Flow Discharging at Outfall 008

(a) Upstream erosion from an outlet pipe culvert at a regulated construction site was observed to have compromised the existing protection measures, allowing muddy water to flow directly to the stormwater system and Outfall 008.

(b,c) An inspector discovered the muddy flow during a routine environmental inspection on February 6, 2025.

(d-f) When this illicit discharge was observed, the site was already working under a Corrective Action Notice (CAN) that was issued on January 31, 2025 for inadequate inlet and culvert protection. NASA continued to work with the site and enforce erosion and stormwater quality requirements. The site replaced all grate and curb inlet protections in accordance with the SWPPP. Furthermore, additional silt fence installed around the culvert on February 14, 2025, was found to be in adequate condition. Inspection was closed on March 25, 2025 after confirming that all required actions were completed in accordance with the SWPPP.

Illicit Discharge Investigation #4: Dewatering to Outfall 005

(a) Inspectors observed an illicit discharge of sediment-laden water leaving a regulated construction site, entering the stormwater system, and draining to Outfall 005 due to a non-compliant dewatering practice. This dewatering operation was not in accordance with Virginia permit requirements or NASA Langley policy.

(b,c) An inspector discovered the non-compliant dewatering practice during a routine environmental inspection on April 14, 2025.

(d-f) Upon discovery, on-site personnel halted dewatering. A CAN was issued due to this observation, mandating the completion of corrective tasks before the investigation could be formally closed. EMO met with site personnel to review alternate dewatering locations and strategies. As a result, the dewatering activities conducted at the new location remained onsite during the reinspection. In addition, the contractor stated that they had reviewed dewatering processes with their site personnel. Inspection was closed on April 17, 2025, and the CAN was resolved.

Illicit Discharge Investigation #5: Dewatering to Outfall 008

(a) Inspectors observed an illicit discharge of sediment-laden water leaving a regulated construction site, entering the stormwater system, and draining to Outfall 008 due to a non-compliant dewatering practice. This dewatering operation was not in accordance with Virginia permit requirements or NASA Langley policy.

(b,c) An inspector discovered the non-compliant dewatering practice during a routine environmental inspection on May 22, 2025.

(d-f) Upon discovery, on-site personnel halted dewatering to review alternate locations and strategies. A CAN was issued due to this observation, mandating the completion of corrective tasks before the investigation could be formally closed. During reinspection, dewatering

activities were being carried out in accordance with Virginia permit requirements and NASA Langley policies. The site provided an updated dewatering plan and confirmed that the operators reviewed the dewatering location and maintenance requirements with applicable personnel. Inspection was closed on May 29, 2025, and the CAN was resolved.

Illicit Discharge Investigation #6: Muddy Flow Discharging at Outfall 008

(a) Inspectors observed an illicit discharge of sediment-laden water from two regulated construction sites entering the stormwater system and draining to Outfall 008. The discharge resulted from significant rainfall occurring within a short period, which generated runoff exceeding the capacity of the existing erosion and sediment controls. Additionally, some of the installed ESC measures were not adequately maintained to effectively manage and filter the runoff.

(b,c) An inspector discovered the sediment discharge during a routine environmental inspection on June 17, 2025.

(d-f) All projects in the affected area were asked to review their approved ESC Plans and perform maintenance on their erosion and sediment controls. NASA Langley conducted follow-up inspections to ensure existing ESC measures were properly maintained. EMO also continued monitoring the outfall condition with no further issues. Inspection was closed on June 17, 2025.

Minimum Control Measure Four – Construction Site Stormwater Runoff Control
Annual Reporting Requirements – Part I E 4 e

(1) NASA Langley MS4 staff conducted 128 inspections during the reporting year.

(2) Per the approved NASA Langley S&S, contractors may address minor deficiencies that have no environmental impacts without formal enforcement action, provided these are resolved promptly and are not recurring issues. Eight (8) issues required formal enforcement actions through a signed *Corrective Action Notice (CAN)* form. When necessary, formal contractual actions were taken in accordance with Langley's S&S.

(3) NASA Langley implements a construction site stormwater runoff program in accordance with Part I E 4 a (3).

(a) **Confirmation Statement:** Land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved annual standards and specifications for erosion and sediment control and stormwater management.

(b) Not applicable. No land disturbing activities were conducted without approved standards and specifications.

For this permit year, a total number of the following inspections and enforcement actions were performed on land-disturbing activities:

Project No.	NASA Langley MS4 Inspections	VDEQ Inspections	Enforcement Actions
VAR10S002	24	1	0
VAR10Q866	44	2	7 - Formal *Corrective Action Notices* issued to the contractor and project team. Required

			corrective action to be completed within 5 business days. When dates were exceeded, formal contractual actions were taken, as needed and in accordance with the NASA Langley S&S. Issues were corrected and closed.
VAR10T456	45	2	1 - Formal Corrective Action Notice issued to the contractor and project team. Required corrective action to be completed within 5 business days. Issues were corrected and closed.
VAR10V213	3	2	0

Minimum Control Measure Five – Post Construction Stormwater Management
Annual Reporting Requirements – Part I E 5 e

(1) Does not apply to NASA Langley as a non-traditional MS4.

(2) Thirty-two (32) formal inspections were conducted, once for each of the 32 stormwater management facilities owned and operated by NASA Langley. When new SWM facilities are constructed, EMO conducts frequent inspections as part of the Construction General Permit inspection process.

(3) Maintenance performed on the SWM facilities involved routine tasks like sweeping, weeding, mulch applications, and litter removal.

(4) Does not apply to NASA Langley as a non-traditional MS4.

(5) **Confirmation Statement**: NASA Langley electronically reported SWM facilities using the DEQ BMP Warehouse on September 12, 2024. The approved submission was labeled as 20240912.

(6) **Confirmation Statement**: NASA Langley electronically reported SWM facility inspections using the DEQ BMP Warehouse on September 12, 2024. The approved submission was labeled as 20240912.

Minimum Control Measure Six – Pollution Prevention/Good Housekeeping
Annual Reporting Requirements – Part I E 6 y

(1) NASA Langley did not develop any new or significantly modify any existing operational procedures during the reporting period. Existing written procedures are in accordance with Part I E 6 a and are summarized in the MS4 Program Plan.

(2) **Confirmation Statement:** NASA Langley conducted a thorough inspection of its high-priority areas to determine if SWPPP coverage was needed during the reporting period.

(3) No new SWPPPs were developed during the reporting period. One existing SWPPP continued to be implemented.

(4) No new modifications were made to the SWPPP during the reporting period.

(5) No high-priority facilities were delisted during the reporting period.

(6) No new turf and landscape nutrient management plans were developed during the reporting period. NASA Langley has no applicable lands where nutrients are applied to a contiguous area of more than one (1) acre.

(7) The following table is a summary of completed training during the reporting year:

Minimum Control Measure Six – Pollution Prevention/Good Housekeeping **Annual Reporting Requirements – Part I E 6 y**		
Training	**Selected Audience**	**Training Requirement/ Objective**
Annual Facility Environmental Coordinator (FEC) Training – Trainings were held on 07/10/2024, 07/25/2024, 08/16/2024, 09/12/2024, and 06/25/2025 with 7, 11, 6, 10, and 19 attendees, respectively. A total of 53 FECs were trained. FECs were educated on additional ways to monitor the indoor and outdoor areas of their facilities for illicit discharge concerns in their assigned facilities and serve as the primary "eyes and ears" for the EMO. The FEC training courses covered stormwater pollution prevention and response, the importance of NASA Langley's IDDE program, and how to make proper reports to the EMO.	FECs	Part I E 6 d (1) Part I E 6 d (3)
Annual Waste Management and Spill Response Training – Trainings were held on 07/16/2024, 08/07/2024, 06/02/2025, and 06/04/2025 with 37, 38, 282, and 201 attendees, respectively. This annual training is mandatory for all Center employees (including FECs) that use, handle, or request disposal of hazardous materials, oils, or hazardous waste. A total of 558 Center employees were trained. Stormwater pollution prevention is covered in the training, along with appropriate spill response procedures to prevent materials from reaching storm drains.	All personnel who handle waste on Center and FECs	Part I E 6 d (1) Part I E 6 d (3) Part I E 6 d (5)
Maintenance Training – Trainings were conducted on 03/27/2025 and 04/08/2025 to support compliance at NASA Langley. Each session was attended by 12 personnel. The first training session was delivered to Grounds Maintenance personnel and focused on reinforcing SWPPP requirements and BMPs for preventing stormwater contamination and protecting natural resources across the Center. The second session targeted the Maintenance and Operations Branch (MOB) and addressed updated MS4 permit requirements and BMPs relevant to MOB's oversight of projects around the Center. Key topics included cooling tower maintenance, dewatering procedures, HVAC coil and heat exchanger cleaning, pressure washing, outdoor painting, and roof resealing. Grounds Management Training is offered biennially. In alternating years, targeted training is provided to the primary Center contractor responsible for maintenance and operations. Both audiences were targeted during this permit year due to high staff turnover.	Grounds Maintenance Contractor personnel; Maintenance and Operations Branch personnel	Part I E 6 d (1) Part I E 6 d (2) Part I E 6 d (3) Part I E 6 d (4)

Minimum Control Measure Six – Pollution Prevention/Good Housekeeping **Annual Reporting Requirements – Part I E 6 y**		
Training	**Selected Audience**	**Training Requirement/ Objective**
Emergency responders receive comprehensive training in spill release management as a part of broader emergency response preparedness requirements. This training includes personnel from the NASA Langley Fire Department and the City of Hampton, as well as the proficient on-site HAZMAT Response contractor. All personnel maintain required certifications for emergency response.	Emergency Responders, including NASA Langley Fire Dept and HAZMAT responders	Part I E 6 d (5)
Mrs. Ande Remington serves as NASA Langley's Compliance Lead and Water Program Manager, overseeing all compliance programs, including the MS4 program, reviews all ESC and SWM Plans, and supervises the inspection programs. • Dual Combined Administrator, Certification #DCA0291 (Expires 10/29/2025) Mr. Sarat Calamur assists with ESC and SWM programs, as needed. • Dual Combined Administrator, Certification #DCA0487 (Expires 09/22/2026) Ms. Kattie Iwanski provides contract support to NASA Langley's Water Program Manager. Support includes site inspections, conducting multi-media field inspections of construction sites and maintenance tasks, and assists with plan reviews. • Dual Combined Inspector #DIN1956 (Expires 02/06/2027) • Provisionally Certified ESC Plan Reviewer (Expires 07/31/2026)	EMO	Part I E 4 c

Part II TMDL Summaries – Local TMDL

Local TMDL Special Conditions – Back River TMDL

Annual Reporting Requirements – Part II B 11

The following is a summary of planned and completed actions during the reporting year and permit cycle, per NASA Langley's Back River TMDL Action Plan:

Actions for Permit Cycle: November 1, 2023 (Plan Implemented) through June 30, 2028

Action		Schedule/ Frequency	Implementation Status
Finalize/publish NASA Langley's Back River TMDL Action Plan to the public website; advertise via NASA Langley's employee notification system		April 2025	Completed April 10, 2025
Complete the public website update to include information on the Back River TMDL		May 2025	Completed April 10, 2025; maintained throughout permit year.
Publish an educational article to the public website; advertise to NASA Langley personnel via *Inside Langley* employee notification system		At least one article annually	NASA Langley published the following educational article to the public website and advertised to NASA Langley personnel via the *Inside Langley* employee notification system: *Reducing Urban Wildlife Pollutants: Back River TMDL.* Article was published 03/11/2025 and received 149 views. Additionally, the Center's maintenance contractor shared a "Toolbox Topic" flyer to all employees (approx. 500) that discouraged feeding wildlife. The flyer assisted with educating Center personnel on the reasons why not to feed wildlife, including environmental impacts.
Complete training on stormwater and water quality, with added emphasis on pollutants and urban wildlife	NASA Langley FEC Training	At least two in-person classes annually; virtual training available anytime.	NASA Langley held five in-person classes, training a total of 53 FECs. Additionally, several FECs completed the training via a recorded on-demand training option.
	IDDE-specific SWM training for the Center's maintenance contractor personnel and any interested NASA Langley personnel	Annually	NASA Langley conducted training for the MOB on 04/08/2025 with 12 attendees. The training discussed the effects of improperly discharging into local waterways and how to prevent these illicit discharges from occurring.
	NASA Langley Waste Management and Spill Response Training	At least three in person classes annually; virtual training available anytime	NASA Langley held four in person classes, training a total of 558 employees. Additional NASA Langley personnel completed the training via a recorded on-demand training option.
	Grounds Maintenance Contractor SWM BMP Training	Biennially	The training was held on 03/27/2025 with 12 attendees. The next class is planned for 2027.

	Maintenance-Specific SWM Training for personnel performing roadway and recreational area maintenance	Biennially	The most recent training was held on 06/07/2024 with 111 attendees. The next class is planned for 2026.

Signed Certification Statement

"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 assure 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."

KRISTEN POULTNEY Digitally signed by KRISTEN POULTNEY
Date: 2025.09.24 13:21:35 -04'00'

Kristen Poultney, Environmental Management Office Head Date

VAR040092 NASA Langley Research Center
Permit Number MS4 Name