

Appendix H Stormwater Pollution Prevention Plan

Stormwater Pollution Prevention Plan (SWPPP)

For

Taylor Run Infrastructure Stabilization

Plan Number (DSP, DSUP, GRD)

3210 King Street
Alexandria, VA 22302

Prepared for:
City of Alexandria
Department of Project Implementation

Prepared by:
AECOM

Date
May 15, 2026

**Infrastructure Stabilization
*Plan #***

Stormwater Pollution Prevention Plan (SWPPP)

In compliance with:

**Stormwater Construction General Permit No. VAR10
Virginia Stormwater Management Program
(VSMP)**

SWPPP Coordinator:

(Signature)

(Name of Person)

(Title)

(Company)

(Phone #)

(Cell Phone #/pager #)

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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." "I certify that the SWPPP coordinator named above is my duly authorized representative for this Project".

Signature: _____ Date: _____
[Authorized Representative per Section III K 1 of the Permit, Appendix A]

Name: _____

Title: _____

Legal Entity: _____

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I. Introduction

A) Purpose

This Stormwater Pollution Prevention Plan (SWPPP) has been developed as a requirement of the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Construction Activities (Permit), as defined in 9VAC 25-880 et seq. The purpose of this SWPPP is to:

- a) Identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the construction site, and,
- b) To describe and ensure the implementation of practices that will be used to reduce pollutants in stormwater discharges from the construction site and to assure compliance with the conditions of the Permit.

Implementation of the components of this SWPPP is required as a condition of the Permit (Appendix 1). The City of Alexandria, VA has been granted authority to administer the VSMP program and is therefore the regulatory authority overseeing the implementation of the SWPPP.

B) Background

The Permit has an expiration date of June 30, 2029. To obtain a Permit, operators must submit a Registration Statement (Appendix 2) and complete SWPPP to the City of Alexandria for review and approval prior to the commencement of any land disturbing activities.

The Permit authorizes discharge of stormwater until expiration of the permit once coverage is received or until a Notice of Termination (Appendix 5) is approved. The Permit also authorizes the discharge of stormwater from offsite support activities, provided that certain conditions are met as outlined in the Permit (Part I.A). Certain nonstormwater discharges are also authorized by the Permit, provided the conditions contained in the Permit (Part I.E) are met.

Within 30 days of meeting the conditions found in Part I.F, a Notice of Termination must be submitted to the City. Termination of authorizations to discharge shall be effective upon notification from the Virginia Department of Environmental Quality or within 60 days after submittal of a complete and accurate notice of termination, whichever occurs first.

C) Description of Construction Activity

The Taylor Run Stream Stabilization Design Project (Project) is located in the City of Alexandria, Virginia. The goal of the project is to implement a ‘minimal stabilization’

approach to protect at-risk infrastructure and provide stream stabilization along approximately 535 linear feet of non-continuous stream necessary to provide long-term infrastructure protection.

The project has been divided into four distinct areas, each addressing specific infrastructure vulnerabilities:

1. Upstream Stormwater Outfall: Currently in disrepair, surrounding stream banks are actively eroding, and outfall discharges into an undersized plunge pool causing excessive bed scour.
2. Sanitary Sewer Crossing 1 and Stormwater Outfall: Sanitary sewer crossing is at-risk of structural damage, adjacent stormwater outfall in deteriorating, contributing to eroding stream bed and banks.
3. Exposed Sanitary Sewer Manhole: Exposed sanitary sewer manhole is exposed and vulnerable to damage from storm flows or debris.
4. Sanitary Sewer Crossing 2 and Retaining Wall: The roots of a large Red Maple tree are exposed, putting the tree at risk of falling, stream bank and bed erosion has exposed an existing sanitary sewer crossing risking structural damage, and a nearby retaining wall is failing due to insufficient embedment depth. , etc.).

Project Areas 1 and 2 exhibit signs of outfall instability due to erosion. In Project Area 1, the right wingwall of the existing 72-inch reinforced concrete pipe (RCP) outfall will be replaced to match the specifications of the left wingwall, while the headwall and left wingwall will remain in place. In Project Area 2, the existing 36-inch RCP outfall will be replaced with a new cast-in-place endwall constructed in accordance with Virginia Department of Transportation (VDOT) standards. To mitigate future erosion during high-flow events, riprap will be installed around the headwall perimeter. The outfalls will feature a rock façade finish to match the gravity walls and blend with the natural environment.

Gravity walls will be installed throughout the design areas to stabilize channel banks. This solution was selected over other alternatives due to its minimal disturbance footprint, ease of material handling, and expedited construction timeline, which collectively reduce tree clearing and minimize disruption to park activities. Sheet piles will be installed along the toe of the gravity walls to prevent erosion-related undermining from risk of excessive bed scour. These were chosen over deeper wall embedment depths due to the scour potential at the base of the boulder cascades and cost considerations. Specific embedment depths and sheet pile locations will be provided in future submissions. All gravity walls will feature a rock façade finish to blend with the natural environment. A one-foot freeboard above the proposed 100-year water surface elevation has been incorporated, as the walls are not intended to meet FEMA flood wall or load bearing wall accreditation standards, which would require a three-foot freeboard. This

will allow for a shorter wall to be constructed in some areas reducing project costs. Due to the proximity of the high school and frequent community use, vertical gravity walls will be implemented in Project Areas 1, 2, and 4 to discourage climbing or sitting, thereby reducing the risk of injury and improving safety to the community. To further enhance safety, a railing will be constructed along the top of each gravity wall to prevent falls from elevated wall sections. This addition is especially important in areas with high pedestrian activity, such as near the high school, park trails, or sidewalks and bike lanes. In Project Area 1, gravity walls will be constructed on both banks, tying into the existing headwall at elevation 155.0 feet. On the left bank, the wall will reach a maximum height of approximately 7.5 feet over 38 linear feet, then taper down to elevation 149.17 feet over 55 linear feet. On the right bank, the wall will maintain elevation 155.0 feet over 39 linear feet, with wall heights ranging from 7.5 to 10.5 feet. The tallest section, at 10.5 feet, spans 13.5 linear feet, followed by a tapering segment ranging from 3 to 9.05 feet over 52 linear feet, tying into existing grade at elevation 150.5 feet. In Project Area 2, the gravity wall will tie into the proposed headwall upstream at elevation 146.0 feet, with wall heights ranging from 9 to 10.5 feet over 47 linear feet. The wall will then transition to elevation 144.5 feet over 90 linear feet, with a maximum height of 12 feet spanning 69 linear feet.

In Project Area 3, following the removal of large woody debris, the banks will be stabilized using native plantings. Rock packing will be used to reinforce undercut roots and will extend through the critical root zone of the large Red Maple tree in Project Area 4. Additionally, 3'x2'x2' boulders will be placed at the toe of the bank to prevent future erosion beneath the tree.

In Project Area 4, the existing sheet pile wall on the left bank will be replaced with a gravity wall that ties into existing grade at elevation 130.0 feet. Wall heights vary from 3 to 12 feet over 35 linear feet, with the tallest section (12 feet) spanning 6 linear feet. The wall will then taper over 48 linear feet to tie into existing grade at elevation 125.5 feet, with wall heights ranging from 6 to 10.5 feet depending on base elevation.

Channel blockages, consisting mostly of woody and concrete debris, occur throughout the stream and were created from erosion of the City infrastructure and channel banks. Removal of the large debris blockages in Project Areas 2 through 4 will require the realignment of the thalweg towards the center of the channel and performing grading to stabilize the channel.

The plunge pool immediately downstream of the 72-inch outfall in Project Area 1 will be modified to meet Virginia Department of Environmental Quality (VDEQ) standards. The pool will be designed as a Type I plunge pool with dimensions of 36' L x 30' W, 3' H. Immediately downstream of the plunge pool, a boulder cascade (approximately 56 linear feet) will be used to quickly drop the stream down multiple feet (approximately 4 feet) to

tie into the existing stream elevation at 144.35'. Downstream of the 36-inch outfall in Project Area 2, a similar cascade will be implemented over approximately 95 linear feet. The stream elevation will rapidly drop 7.5 feet to tie into the existing stream elevation at 132.5'. A third boulder cascade will be installed in Project Area 4, downstream of the sanitary sewer pipe crossing. The cascade will extend approximately 73 feet and will lower the stream elevation 3.4 feet to tie into existing ground at elevation 120.66'. Boulder cascades will be constructed of strategically placed imbricated rocks, following Regenerative Step Pool Conveyance Design Guidelines, developed for the Anne Arundel County, Maryland Public Works Department.

Portions of sanitary sewer pipes cross Taylor Run in Project 2 and Project 4. Both pipes will be encased in concrete. The boulder cascades, described in Section 0, will provide protection. No cover will be placed on top of the concrete encasements. The gravity walls, described in Section 5.2, will stabilize the banks and protect the sanitary manhole behind the existing sheet pile wall.

A gravity wall will be used to protect the exposed sanitary sewer manhole in Project Area 3. To meet the minimum radius recommended for convex curves (14.5 feet), the wall extends up and downstream of the sanitary sewer manhole. The wall ties into existing bank grade at elevations 133' for approximately 38.5 linear feet, wall heights ranging from 5-9 feet. The maximum height of the wall is 9 feet for approximately 7.7 linear feet. The wall height steps down to tie into existing grade at elevation 130', with wall heights ranging from 1.5-7.5 feet.

II. SWPPP Requirements

A) General Requirements

1) Deadlines

The SWPPP shall be prepared prior to the submittal of the Registration Statement and shall provide for compliance with the terms and schedule of the Permit beginning with the initiation of land disturbance activities.

2) Incorporation of other plans by reference

The SWPPP requirements of the Permit are satisfied by incorporating by reference other plans developed for this construction activity, provided the other plans meet or exceed the requirements of Part II.A of the Permit. The construction plans developed for this project, **PLAN #**, have been approved by the City of Alexandria. The construction plans meet current City of Alexandria requirements regarding erosion and sediment control and stormwater management, and comply with State regulatory requirements as presented in the Virginia Stormwater Management Handbook, Third Edition, 2024. All plans incorporated by reference into the SWPPP are enforceable under the Permit.

3) SWPPP Administration

The SWPPP is certified in accordance with the Permit per the certification statement contained in the beginning of the SWPPP.

Copies of the SWPPP shall be kept on-site and be made available to the City of Alexandria or other regulatory agencies having authority upon request. The SWPPP shall also be available to all operators identified as having responsibilities to carry out provisions contained in the SWPPP. The SWPPP shall be made available to the agencies listed in the Part II.E.2 of the Permit at the time of on-site inspections. The SWPPP shall be maintained on-site when no personnel are present; if no such location exists on-site, notice of the SWPPP's location shall be posted in accordance with Part II.E of the Permit. Additionally, the SWPPP shall be made available to the public either electronically or by hard copy per Part II.E.3.

Upon commencement of land disturbance, the notice of coverage letter shall be posted conspicuously near the main entrance of the construction activity. The operator shall maintain the posted information until termination of general permit coverage as specified in Part I.F.

4) SWPPP Updates and Modifications

The SWPPP shall be amended whenever there is a change in design, construction, operation, or maintenance of the construction site that has a significant effect on the potential for the discharge of pollutants to surface waters that has not been addressed in the normal implementation of the SWPPP. The SWPPP shall also be updated whenever it is found to be ineffective in meeting the requirements of the Permit.

The operator shall update the SWPPP as soon as possible, but no later than seven days following any modification to its implementation.

All modifications or updates to the SWPPP shall be noted and shall include the following items:

- a. A record of dates when:
 - (1) Major grading activities occur;
 - (2) Construction activities temporarily or permanently cease on a portion of the site; and
 - (3) Stabilization measures are initiated;
- b. Documentation of replaced or modified controls where periodic inspections or other information have indicated that the controls have been used inappropriately or incorrectly and were modified;

- c. Areas that have reached final stabilization and where no further SWPPP or inspection requirements apply;
- d. All properties that are no longer under the legal control of the operator and the dates on which the operator no longer had legal control over each property;
- e. The date of any prohibited discharges, the discharge volume released, and what actions were taken to minimize the impact of the release;
- f. Measures taken to prevent the reoccurrence of any prohibited discharge; and
- g. Measures taken to address any evidence identified as a result of an inspection required under Part II G.

Amendments, modifications, or updates to the SWPPP shall be signed in accordance with Part III K.

If approval by the City is necessary for the control measure, revisions to the SWPPP shall be completed no later than seven calendar days following approval. Implementation of these additional or modified control measures shall be accomplished as described in Part II.H.

Modifications to the SWPPP shall be noted within the SWPPP modifications form found in Appendix 7. If modification or amended activities cannot be adequately described on the form, additional documentation shall be included within the SWPPP. Dates of major land disturbance, stabilization and activity shall be noted in the records of land disturbance (Appendix 8).

5) Notice of Termination Procedure

Within 30 days of meeting the conditions found in Part I.F, a Notice of Termination must be submitted to the City. Termination of authorizations to discharge shall be effective upon notification from the Virginia Department of Environmental Quality or within 60 days after submittal of a complete and accurate notice of termination, whichever occurs first.

B) Specific Requirements

1) Site Description

The items required by the Permit regarding the site description (Part II.B) can be found in the project design plans, which are incorporated by reference into this SWPPP. A summary of the required elements is provided in the table below, with a reference to the sheet number in the design plans where the required element can be located.

2) Site Description Elements

The following elements can be found on the approved site plan incorporated by reference. For each of the following, the appropriate site plan page numbers or appendix numbers are referenced:

Element	Narrative Description	Location (Plan page or Appendix)
Flows	Directions of stormwater flow and approximate slopes anticipated after major grading activities	EC-01 through EC-04
LOD	Limits of land disturbance including steep slopes and natural buffers around surface waters that will not be disturbed	PC-01 through PC-04
Controls	Locations of major structural and nonstructural control measures including sediment basins and traps, perimeter dikes, sediment barriers, and other measures intended to filter, settle, or similarly treat sediment that will be installed between disturbed areas and the undisturbed vegetated areas, to increase sediment removal and maximize stormwater infiltration	ESC-01 through ESC-04
Surface waters	Location of surface waters	EC-01 through EC-04
Concentrated Stormwater Discharge	Locations where concentrated stormwater is discharged	EC-01 through EC-04
Support Activities	Locations of support activities, when applicable and when required by the VSMP authority, including but not limited to: (i) areas where equipment and vehicle washing, wheel wash water, and other wash water is to occur; (ii) storage areas for chemicals such as acids, fuels, fertilizers and	ESC-01 through ESC-04

	other lawn care chemicals; (iii) concrete wash out areas; (iv) vehicle fueling and maintenance areas; (v) sanitary waste facilities, including those temporarily placed on the construction site; and (vi) construction waste storage	
Rain gauge	When applicable, the location of the on-site rain gauge, or the methodology established in consultation with the VSMP authority, used to identify measurable storm events for inspection purposes as allowed by Part II.G.2	NA

3) Controls and Measures

The Permit requires the implementation of various types of controls and measures that are implemented to control pollutants in stormwater discharges from the project site. The Permit specifically requires the implementation of erosion and sediment control practices (both structural and non-structural), stormwater management practices, and specific other controls to reduce pollutants. All E&S and SWM/BMP controls employed in this project were selected to meet and/or exceed state and local requirements and are detailed in the Project Design Plan(s).

4) Erosion and Sediment Control (ESC) Plan

The plan has an erosion and sediment control plan approved by the City as authorized under the Erosion and Sediment Control Regulations (9VAC25-875). The design plans for this project, **Plan #**, contain detailed information regarding erosion and sediment controls used in this project. Specifically, erosion and sediment control measures can be found on Sheet(s) ESC-01 through ESC-04. A brief narrative of each of the following with the appropriate site plan page number describes the approved ESC plan.

a) Sequence of Activities –

Project Initiation

1. The Contractor shall obtain all required permits from the County and conduct required pre-construction meetings as outlined in the construction specifications prior to commencing construction.
2. The plan approving authority must be notified one (1) week prior to the pre-construction meeting, one (1) week prior to commencement of land-disturbing activity, and one (1) week prior to final inspection.
3. Prior to the start of any earth disturbance, an on-site pre-construction meeting shall be held to ensure that all affected parties (Design Engineer, Contractor, City of Alexandria staff, Owner, and Project Manager) fully understand the construction sequencing. The

limits of disturbance and grading (LOD) shall be marked with flagging prior to this meeting to allow review prior to establishing perimeter controls.

4. The Contractor shall be responsible for contacting Miss Utility at 1-800-552-7001 for the location of all public and private utility lines, pipes, cables, and associated features prior to any construction work. All utilities shall be clearly identified prior to construction.
5. During the pre-construction meeting, the LOD shall be reviewed on-site with the Contractor, Design Engineer, Owner or Owner's representative(s), and a City Arborist. A determination shall be made at that time regarding which trees will be removed based on the approved grading and stream restoration activities. Adjustments may be made to flagging marking the LOD and tree planking called for to adequately protect trees to be preserved and facilitate the safe removal of trees to be removed. The location for installation of tree protection fencing shall be adjusted in conjunction with any changes to the LOD prior to the establishment of perimeter controls and commencement of any other construction activities.
6. Prior to the start of work, the Contractor shall arrive on-site and set perimeter erosion and sediment controls as directed in Phase I Erosion & Sediment Control Plans. Measures included in other Phase I measures are temporary stone construction entrance, access road deck mats, culvert outlet protection, tree protection/tree planking, culvert inlet protection, safety fence, super silt fence, temporary stream crossings, pump-arounds, and filter bags.
7. Obtain approval from the City for erosion and sediment control measures installed. The Contractor shall provide the inspector 48-hour notification to schedule an on-site pre-construction meeting to inspect the installation of erosion and sediment measures prior to land disturbance.
8. Contractor shall provide seed tags and gain approval for said tags from City staff prior to commencing any work. Seed must be on-site prior to grading activities to allow progressive stabilization.
9. Trees to be removed that are located on the LOD or immediately adjacent to the LOD within the protected area shall be removed using chain saws to minimize root zone disturbance or damage to trees to be preserved. Trees shall be cut flush with the ground and only removed if necessary to accomplish proposed grading.
10. Tree planking shall be installed as needed on any tree to be preserved (outside the LOD), but where risk of damage from construction traffic is foreseeable.
11. Contractor shall supply and maintain an on-site concrete washout structure, which shall be on-site and available during all concrete-related work activities.
12. Temporary soil stabilization will be applied within seven (7) days to denuded areas that may not be at final grade but will remain dormant for longer than fourteen (14) days. Trees can be flush-cut in one mobilization; however, stumps to be removed shall remain until the area is being actively worked.
13. Based on a three-day dry weather forecast, place temporary sandbag diversion at the upstream and downstream ends of the work area, as indicated on the plans. Where indicated, stream flow shall be pumped around the work area, and the pump shall discharge onto a stable velocity dissipator made of riprap or sandbags.
14. Install dewatering pump-around practice for the daily work zone as shown in the Erosion & Sediment Control Plans.

15. Water from the work area shall be pumped to a sediment filtering device, such as a dewatering basin, filter bag, or other approved source. The measure shall be located such that the water drains into the existing channel. Approximate locations for dewatering measures are indicated on the plans, and the Contractor shall be responsible for adjusting the location as needed to ensure the work area is maintained in dry condition.
16. Stake out the proposed alignment as shown on the geometry plan sheets. PC and PT points shall be staked along the centerline and at 25-foot double offsets, identified by corresponding centerline station, on each side of the proposed channel. The center of each curve shall be staked and marked with the corresponding radius of curvature. Vertical control shall be clearly marked at several locations along the proposed channel.
17. Construction shall proceed from upstream to downstream unless an alternative sequence is approved by the City. All in-stream work shall be protected by pump-around diversion. Phases I and II may be completed in conjunction. Phase III shall be completed prior to Phase IV to allow the usage of excess material from Phase III within Phase IV.
18. The Contractor may request approval for a change in the sequence of construction with approval from the City and the Project Engineer.

Phase I

1. Harvest and stockpile suitable fill material as needed from Station 6+50 to 8+00. Temporarily stabilize area. Any temporary site shall be stabilized at a maximum 3H:1V slope.
2. Install the 72-inch stormwater pipe endwall per the plans and detail.
3. Install gravity block retaining walls. It is solely the Contractor's responsibility to determine the erection procedure and sequence to ensure the safety of the wall and its component parts during erection. This includes, but is not limited to, the addition of temporary bracing, sheet piles, guys, tie-ins, or boulder cascade sills which may be necessary.
4. Excavate stream channel to the subgrade.
5. Place riprap as necessary to install the plunge pool. Prior to placing the riprap in the channel, the Contractor shall ensure a well-graded bed material is placed throughout the channel.
6. Continue grading and structure installation until all grading and in-stream structures are installed. Tie-out slopes shall not exceed 2:1. If bedrock conditions are encountered within the work area during construction, consult the Owner and Project Engineer for invert elevation adjustments.
7. Once final grading has been achieved, apply temporary seeding, permanent seeding, and mulch prior to finalizing installation of coir matting by securing with stakes and keying in fabric per manufacturer recommendations and as shown in the plans.

Phase II

1. Install the Virginia Pre-Cast 36-inch stormwater pipe endwall per the plans and detail.
2. Properly encase the sewer in concrete per the utility protection detail.

3. Install gravity block retaining walls. It is solely the Contractor's responsibility to determine the erection procedure and sequence to ensure the safety of the wall and its component parts during erection. This includes, but is not limited to, the addition of temporary bracing, sheet piles, guys, tie-ins, or boulder cascade sills which may be necessary.
4. Excavate stream channel to the subgrade.
5. Place riprap as necessary adjacent to the concrete encasement per the utility protection detail. Prior to placing the riprap in the channel, the Contractor shall ensure a well-graded bed material is placed throughout the channel.
6. Continue grading and structure installation until all grading and in-stream structures are installed. Tie-out slopes shall not exceed 2:1. If bedrock conditions are encountered within the work area during construction, consult the Owner and Project Engineer for invert elevation adjustments.
7. Once final grading has been achieved, apply temporary seeding, permanent seeding, and mulch prior to finalizing installation of coir matting by securing with stakes and keying in fabric per manufacturer recommendations and as shown in the plans.

Phase III

1. Install the Virginia Pre-Cast 36-inch stormwater pipe endwall per the plans and detail.
2. Properly encase the sewer in concrete per the utility protection detail.
3. Install gravity block retaining walls. It is solely the Contractor's responsibility to determine the erection procedure and sequence to ensure the safety of the wall and its component parts during erection. This includes, but is not limited to, the addition of temporary bracing, sheet piles, guys, tie-ins, or boulder cascade sills which may be necessary.
4. Excavate stream channel to the subgrade.
5. Place riprap as necessary adjacent to the concrete encasement per the utility protection detail. Prior to placing the riprap in the channel, the Contractor shall ensure a well-graded bed material is placed throughout the channel.
6. Continue grading and structure installation until all grading and in-stream structures are installed. Tie-out slopes shall not exceed 2:1. If bedrock conditions are encountered within the work area during construction, consult the Owner and Project Engineer for invert elevation adjustments.
7. Once final grading has been achieved, apply temporary seeding, permanent seeding, and mulch prior to finalizing installation of coir matting by securing with stakes and keying in fabric per manufacturer recommendations and as shown in the plans.

Phase IV

1. Demolish existing manhole concrete skirt.
2. Install gravity block retaining walls. It is solely the Contractor's responsibility to determine the erection procedure and sequence to ensure the safety of the wall and its component parts during erection. This includes, but is not limited to, the addition of

temporary bracing, sheet piles, guys, tie-ins, or boulder cascade sills which may be necessary.

3. Excavate stream channel to the subgrade.
4. Place riprap as necessary adjacent to gravity block retaining wall per the XX Detail. Prior to placing the riprap in the channel, the Contractor shall ensure a well-graded bed material is placed throughout the channel.
5. Continue grading until all grading is complete. Tie-out slopes shall not exceed 2:1. If bedrock conditions are encountered within the work area during construction, consult the Owner and Project Engineer for invert elevation adjustments.
6. Once final grading has been achieved, apply temporary seeding, permanent seeding, and mulch prior to finalizing installation of coir matting by securing with stakes and keying in fabric per manufacturer recommendations and as shown in the plans.

Project Closeout

1. As the work for each design area is completed, E&SC measures may be removed with approval from the Project Owner, Engineer, and the Erosion and Sediment Control Inspector.
2. Once construction of the project area has been completed, the Contractor shall proceed with arrangement of composing approved record drawings. Contractor shall field-survey all installed work and forward the electronic survey to the Project Engineer for verification that the project has been constructed in accordance with the plans. The electronic copy of the survey shall be accompanied by a hard copy of record drawings signed and sealed by a Maryland Registered Land Surveyor.
3. Once construction of all project areas at the project site has been completed, maintenance of traffic devices shall be removed.
4. Contractor shall arrange for and obtain any required final site inspections and certifications for project closeout.
 - b) Controls and measures - Erosion and sediment control measures will include pumps and stilling basin, temporary vehicular stream crossings, stabilized construction entrances, silt fence, super silt fence, and sediment traps
 - c) Maintenance of erosion and sediment controls – Erosion and sediment control measures will include pumps and stilling basin, temporary vehicular stream crossings, stabilized construction entrances, silt fence, super silt fence, and sediment traps that will undergo continuous sediment removal from Contractor.
 - d) Soil Stabilization - Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site;
 - e) Nutrient application - Nutrients and/or fertilizers shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;

- f) Inspection Schedule - Inspections shall be conducted at least once every 4 business days or at least once every 5 business days and no later than 24 hours following a measurable storm event.

5) Stormwater Management (SWM) Plan

A Stormwater Management (SWM) Plan has been developed and approved in accordance with Section 13-115 of the Environmental Management Ordinance and Part II.B.3 of the Permit. The design plans for this project, **Plan #**, contain detailed information regarding stormwater management controls used in this project. Specifically, stormwater control measures can be found on Sheet(s) ESC-01 through ESC-04.

6) Pollution Prevention (P2P) Plan

The following Pollution Prevention Plan addresses potential pollution generating activities that may be reasonably be expected to affect the quality of stormwater discharges from construction and related support activities. Specific locations of potential pollutants can be found on the design plans or as referenced on the ESC sheets located in Appendix 12 to be updated in the field. All necessary personnel shall be familiar with practices involved in the prevention, stopping, containing, clean up, and reporting any potential pollutant.

Potential Pollutants -The following have been identified as potential pollutant-generating activities that may reasonably be expected to affect the quality of stormwater discharges from the construction activity, including any support activity:

The contact information for each responsible party can be found in Appendix 11.

Potential Pollutant	Fuels and Oils
Location	Refer to site plan
Responsible Party	Contractor

For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals, the contractor shall comply with the following requirements:

If any chemical container has a storage capacity of less than 55 gallons:

- The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;
- If stored outside, use a spill containment pallet or similar device to capture small leaks or spills; and
- Have a spill kit available on site that is in good working condition (i.e., not damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill.

If any chemical container has a storage capacity of 55 gallons or more:

- The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;
- Store containers a minimum of 50 feet from receiving waters, constructed or natural site drainage features, and storm drain inlets. If infeasible due to site constraints, store containers as far away from these features as the site permits. If site constraints prevent you from storing containers 50 feet away from receiving waters or the other features identified, you must document in your SWPPP the specific reasons why the 50-foot setback is infeasible, and how you will store containers as far away as the site permits;
- Provide either (1) cover (e.g., temporary roofs) to minimize the exposure of these containers to precipitation and to stormwater, or (2) secondary containment (e.g., curbing, spill berms, dikes, spill containment pallets, double-wall, above-ground storage tank); and
- Have a spill kit available on site that is in good working condition (i.e., not 2022 Construction General Permit (CGP) Page 20 damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill. Additional secondary containment measures are listed at 40 CFR § 112.7(c)(1). Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

Potential Pollutant	Soaps, solvents, detergents, and wash water from construction materials, including the clean-up of stucco, paint, form release oils, and curing compounds
Location	Refer to site plan
Responsible Party	Contractor

The Contractor shall:

- Direct wash water into a leak-proof container or leak-proof and lined pit designed so no overflows can occur due to inadequate sizing or precipitation;
- Handle washout or cleanout wastes as follows:
 - For liquid wastes:
 - Do not dump liquid wastes or allow them to enter constructed or natural site drainage features, storm inlets, or receiving waters;
 - Do not allow liquid wastes to be disposed of through infiltration or to otherwise be disposed of on the ground;
 - Comply with applicable State, Tribal, or local requirements for disposal
 - Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3e; and
- Locate any washout or cleanout activities as far away as possible from receiving waters, constructed or natural site drainage features, and storm drain inlets, and, to the extent

feasible, designate areas to be used for these activities and conduct such activities only in these areas.

Potential Pollutant	Sanitary Waste
Location	Refer to site plan
Responsible Party	Contractor

For construction and domestic wastes, including packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, Styrofoam, concrete, demolition debris; and other trash or discarded materials:

The contractor shall conduct the following:

- Provide waste containers (e.g., dumpster, trash receptacle) of sufficient size and number to contain construction and domestic wastes;
- For waste containers with lids, keep waste container lids closed when not in use, and close lids at the end of the business day and during storm events. For waste containers without lids, provide either (1) cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, or (2) a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment);
- On business days, clean up and dispose of waste in designated waste 2022 Construction General Permit (CGP) Page 21 containers; and
- Clean up immediately if containers overflow, and if there is litter elsewhere on the site from escaped trash.
- Waste containers are not required for the waste remnant or unused portions of construction materials or final products that are covered by the exception in Part 2.2.3a provided that: (a) These wastes are stored separately from other construction or domestic wastes addressed by Part 2.3.3e.i (i.e., wastes not covered by the exception in Part 2.3.3a). If the wastes are mixed, they must be stored in waste containers as required in Part 2.3.3e.i; and (b) These wastes are stored in designated areas of the site, the wastes are described in the SWPPP (see Part 7.2.6b.ix), and identified in the site plan (see Part 7.2.4i).
- For sanitary waste, position portable toilets so they are secure and will not be tipped or knocked over, and are located away from receiving waters, storm drain inlets, and constructed or natural site drainage features.

Potential Pollutant	Equipment and vehicle washing
Location	Refer to site plan
Responsible Party	Contractor

Where water is used to wash vehicles (of dust and soil) and where detergents are not used, detention and/or filtering should be provided before allowing discharge from the Site. Proper controls will be utilized to ensure that any soaps, detergents, and/or solvents used will not be discharged through washing water nor stormwater.

Construction Site Dewatering: Turbidity Monitoring

In accordance with Part II B 8., SWPPP requirements for construction dewatering discharges applies to all surface waters within the City, given the entire City is within the Chesapeake Bay Watershed. Operator shall undertake one of the three options required for controlling and documenting construction dewatering discharges as described in Part II B 8 a. through part II B 8 d. (see attached) The operator's P2 Plan must be updated effective July 1, 2024, for the monitoring, testing of the sample(s), and corrective action requirements, if applicable. SWPPP inspections must document the results of the monitoring as applicable, with all turbidity monitoring and any necessary corrective actions recorded in the SWPPP.

Dewatering discharges of uncontaminated stormwater or groundwater from footers or foundations of a single-family detached residential structure, not part of a larger development or sale, are exempt from these requirements, provided that such discharges are not discharged directly to surface waters.

Turbidity Monitoring General Procedures:

Identify location of all construction dewatering discharges in the SWPPP

Select, install, implement, and maintain control measures at each dewatering location that minimize pollutants, including suspended solids, in construction dewatering discharges prior to discharging into a stormwater conveyance system or surface water.

Provide documentation in the SWPPP that satisfies each of the following:

Sample frequency: At least one grab sample be collected from each construction dewatering discharge when the first discharge at that location occurs, daily thereafter until the dewatering discharge stops, and after any installation of new controls or routine maintenance activity of existing controls.

Sample timing: Grab samples of the construction dewatering discharge shall be collected during the first 15 minutes of the construction dewatering discharge and daily thereafter until the dewatering discharge stops. Upstream grab samples of the receiving stream shall be collected within 15 minutes of the corresponding construction dewatering discharge sample.

Sample location: Grab samples shall be collected after the construction dewatering water has been filtered, settled, or similarly treated and prior to its discharge into a stormwater conveyance system or surface water.

Test methods: Grab samples shall be measured using a turbidity meter that reports results in NTUs or FTUs, and a turbidity meter calibration verification shall be conducted prior to each day's use, consistent with manufacturer recommendations.

Visual monitoring: All dewatering discharges shall be visually monitored for changes in the characterization of effluent discharge.

Recordkeeping: Turbidity monitoring information (i.e., location, date, sample collection time, and turbidity measurement) and any necessary corrective actions taken shall be recorded in the SWPPP

Alternative Threshold Procedures:

To request approval of an alternate benchmark, the operator must submit the following to VADEQ:

1. The current turbidity water quality standard that applies to the receiving water; and
2. Information on the natural or background turbidity level to determine the specific standard for the receiving water, including available data that can be used to establish the natural turbidity levels of the receiving water.

VADEQ will notify the operator of its decision on whether to approve the requested alternate benchmark within 30 days. Until the department approves an alternate benchmark, the operator is required to use option 1, option 2, or option 3 turbidity benchmark and take any required corrective actions if an exceedance occurs.

Corrective Actions (Part II H 2):

When any turbidity measurement of the construction dewatering discharge exceeds the selected benchmark option or visual monitoring indicates a change in the characteristics of effluent discharge the operator shall:

1. Immediately cease the construction dewatering discharge at the location that exceeds the turbidity benchmark or where visual monitoring indicates a change in the characterization of effluent discharge.
2. Determine whether the construction dewatering controls are operating effectively or need routine maintenance or if an additional or alternate control measure is necessary.

3. Make any necessary adjustments, additions, repairs, or replacements to the construction dewatering controls.

Once these corrective action steps are completed and any necessary adjustments, additions, repairs, or replacements are made, the operator may resume its construction dewatering discharge and shall sample for turbidity within 15 minutes of the construction dewatering discharge commencing. No additional corrective action items are required beyond recording the results in the SWPPP.

Pollution Prevention and Awareness Training shall be provided by Operator(s)/Subcontractor(s).

7) Spill Prevention and Response

In accordance with Part III.G of the Permit, any operator who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302, or § 62.1-44.34:19 of the Code of Virginia that occurs during a 24-hour period into or upon surface waters or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters, shall notify the Department of Environmental Quality of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department and the VSMP authority within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this general permit.

DEQ Northern Regional Office

Phone: (703) 583-3800

For reports outside normal working hours, leave a message.

Virginia Department of Emergency Management

Emergency Operations Center (EOC)

Phone: 1-(800) 468-8892

All oil or other chemical spills shall be cleaned up immediately upon discovery. Spills large enough to reach the storm sewers shall be reported to the National Response Center at 1-800-424-8802.

In the event of a hazardous spill contact: City
of Alexandria Fire Department
via 911 for all emergencies or (703)746-5200 for a non-emergency

In the event of a non-hazardous spill contact:
The City of Alexandria Transportation & Environmental Services
2900 Business Center Drive Phone:
(703) 746-6499

Equipment and vehicles are two of the most probable sources of pollution. The Contractor shall provide an effective means of eliminating the discharge of spilled or leaked chemicals due to the fueling and maintenance of equipment or vehicles. When necessary, this may include:

- Locating activities away from receiving waters, storm drain inlets and constructed or natural site drainage feature so that stormwater coming into contact with these activities cannot reach the stream or wetland areas.
- Providing secondary containment (e.g., spill berms, dikes, spill containment pallets) and cover where appropriate; and
- Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

The contractor shall ensure adequate supplies are always available to handle spills, leaks, and disposal of used liquids. Drip pans and absorbents under or around leaky vehicles will be used when necessary. The contractor shall dispose of or recycle oil and oily waste in accordance with Federal, State or local requirements. Spills and contaminated surfaces will be cleaned up immediately using dry clean up measures and the source of the spill be eliminated to prevent a discharge or a continuation of an ongoing discharge,

Where water is used to wash vehicles (of dust and soil) and where detergents are not used, detention and/or filtering should be provided before allowing discharge from the Site. Proper controls will be utilized to ensure that any soaps, detergents, and/or solvents used will not be discharged through washing water nor stormwater.

III. TMDL Compliance

This project is located within the Chesapeake Bay, for which a TMDL wasteload allocation has been established. The Chesapeake Bay TMDL is a comprehensive “pollution diet” to restore the health of the Bay and its local streams, creeks and rivers. The Chesapeake Bay TMDL sets limits on the discharge of nitrogen, phosphorus and sediment to meet water quality standards in the Bay and its tidal rivers.

Discharges of stormwater from construction activities to surface waters identified as impaired in the 2012 § 305(b)/303(d) Water Quality Assessment Integrated Report or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for sediment or a sediment-related parameter (i.e., total suspended solids or turbidity) or nutrients (i.e., nitrogen or phosphorus) are not eligible for coverage under the general permit unless the operator develops, implements, and maintains a SWPPP that minimizes the pollutants of concern and, when applicable, is consistent with the assumptions and requirements of the approved TMDL wasteload allocations.

In accordance with Part I.B.4 of the Permit, control measures shall be protective of water quality standards for impaired waters identified as having impairments for pollutants that may be discharged from the construction activity in the 2012 § 305(b)/303(d) Water Quality Assessment Integrated Report.

Stabilization requirements, inspection frequency, and application of nutrients for projects with impaired waters shall follow the guidelines set forth within Part I.B.4. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Nutrients/fertilizers shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events. Inspections must be conducted at least once every 4 business days or at least once every 5 business days and no later than 24 hours following a measurable storm event.

Within the study area, Taylor Run confluent with Cameron Run and eventually discharges into the Potomac River. Both are impaired recreational streams with approved bacterial TMDLs. For tidal portions of the Potomac River, there is an approved TMDL for PCBs.

No exceptional waters identified in 9VAC25-260-30 A 3 c are within the study area.

IV. Inspections and Corrective Actions

Regular inspections of the construction site shall be performed by qualified personnel. The Permit operator is responsible for ensuring that qualified personnel conduct the inspections. Inspections shall include the review of all disturbed areas, structural and non-structural control measures, material storage areas, and vehicular access points. Inspections shall identify any maintenance needs and evaluate the effectiveness of controls in minimizing sediment and pollutant discharge. Receiving waters shall be inspected to ascertain whether control measures are effective in preventing significant impacts. Inspections shall include all the requirements found Part II.G of the permit.

Inspections shall be conducted at a frequency of at least once every four business days or at least once every five business days and no later than 24 hours following a measurable storm event. In the event a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day.

Qualifying Precipitation Events

For a storm event that produces 0.25 inches or more of rain within a 24-hour period on the first day of the storm and continues to produce 0.25 inches or more of rain on subsequent days, or from a snow event producing 3.25 inches or more of snow within a 24-hour period, the operator is required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the last day of the storm that produces 0.25 inches or more of rain. For qualifying snowmelt events, the operator is required to conduct one inspection once the discharge of snowmelt occurs. Additional inspections are only required if, following the discharge from the first snowmelt, there is a discharge from a separate storm event.

Where areas have been temporarily stabilized or land-disturbing activities will be suspended due to continuous frozen ground conditions and stormwater discharges are unlikely, the inspection frequency may be reduced to once per month. If weather conditions (such as above freezing temperatures or rain or snow events) make discharges likely, the operator shall immediately resume the regular inspection frequency.

If adverse weather causes the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. If inspections are delayed due to adverse weather conditions, evidence of the adverse weather conditions shall be included in the SWPPP with the dates of occurrence.

All control measures must be properly maintained in effective operating condition in accordance with good engineering practices and, where applicable, manufacturer specifications. If a site inspection required by Part II.G identifies a control measure that is not operating effectively, corrective action(s) shall be completed as soon as practicable, but no later than seven days after discovery or a longer period as established by the City, to maintain the continued effectiveness of the control measures.

If control measures need to be modified to assure effectiveness or if additional measures are determined to be necessary, implementation shall be completed prior to the next anticipated measurable storm event or as soon as practicable, but no later than seven days after discovery or a longer period as established by the City.

A report summarizing the inspections and the subsequent maintenance activities shall be completed and maintained as part of the SWPPP. The inspection forms are included in Appendix 9. Records of corrective actions are found in Appendix 10. If an inspection does not identify any incidents of non-compliance, the report shall contain a certification that the construction activity is in compliance with the SWPPP and the permit. Corrective actions for construction dewatering activities shall be followed in accordance with Part II H 2 of 9VAC25-880.

The inspection report shall be included into the SWPPP no later than four business days after the inspection is complete. The report shall be signed in accordance with Part III K of the permit.

V. Qualified Personnel

Regular inspections must be performed by “Qualified Personnel”.

"Qualified personnel" means a person knowledgeable in the principles and practices of erosion and sediment and stormwater management controls who possesses the skills to assess conditions at the construction site for the operator that could impact stormwater quality and quantity and to assess the effectiveness of any sediment and erosion control measures or stormwater management facilities selected to control the quality and quantity of stormwater discharges from the construction activity. On or after July 1, 2025, "qualified personnel" shall hold an unexpired Dual Inspector certification issued by the department; an unexpired Inspector for Erosion and Sediment Control [certification] and an unexpired Inspector for Stormwater Management certification, both issued by the department; a Construction General Permit Qualified Personnel Certificate, issued by the department or the Virginia Department of Transportation; or an equivalent certification provided by EPA (currently titled Construction Inspection Training Course).

The name, phone number, and qualifications of the qualified personnel conducting inspections required by this general permit can be found in Contractor Certification Form found in Appendix 4.

VI. Signature Requirements and Delegation of Authority

All reports required by the general permit, including SWPPPs, and other information requested by City shall be signed by a person described in Part III.K.1 of the Permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a) The authorization is made in writing by a person described in Part III.K.1;
- b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- c) The signed and dated written authorization is included in the SWPPP. A copy of the delegation of authority is found in Appendix 6.

If an authorization under Part III.K.2 of the Permit is no longer accurate because a different individual or position has responsibility for the overall operation of the construction activity, a new authorization satisfying the requirements of Part III.K.2 shall be submitted to the City prior to or together with any reports or information to be signed by an authorized representative.

Appendix 1-VPDES Construction General Permit

Appendix 2-Registration Statement

Appendix 3-Coverage Letter

Appendix 4-Contractor Certification Form for Qualified Personnel

Appendix 5- Notice of Termination

Appendix 6- Delegation of Authority

Appendix 7- Records of SWPPP Amendments, Modifications, and Updates

Appendix 8- Records of land disturbance

Appendix 9- Records of Inspections and Inspection Forms

Appendix 10- Records of Inspections and Inspection Forms

Appendix 11- Contractor and Subcontractor List

Appendix 12- ESC Sheets for Field Use