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*Occupational Safety & Health ♦ Environmental Health ♦
Laboratory Safety ♦ Industrial Hygiene ♦ Radiation Safety ♦
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October 20, 2020

Re: MS4 General Permit Annual Report
Old Dominion University
General Permit Registration Number VAR 040078

A. Background Information

1. Old Dominion University, General Permit Registration Number VAR 040078
2. Permit Year 2020
3. Annual Standards and Specifications were revised and submitted
4. No new MS4 outfalls were added during the permit year
5. Signed certification attached (Attachment F)

B. MCM 1 - Public Education and Outreach

ODU's Public Education and Outreach efforts related to the high-priority water quality issues take the following forms: Adopt-A-Stream clean-ups; Environmental Awareness Training; Storm Drain Marking; and Public Service Announcements. The following describes ODU's ability to educate affected community members with regard to the stated High-Priority Water Quality Issues:

- Nutrient Management - nutrient management affects two departments on campus: University Grounds and Athletic Grounds. There are eight individuals who are qualified as Certified Fertilizer Applicators to apply fertilizers to University and Athletic grounds who follow guidelines set forth in our current Nutrient Management Plan, revised 2018. Each member of Grounds attends an annual spill prevention control and countermeasure training offered by the Environmental Health and Safety Office. The last training was provided in June of 2019. ODU will continue to deliver the training in accordance with the permit.
- Petroleum Releases - the potential for petroleum releases within the confines of the MS4 permitted areas is great due to the amount of automobile traffic that the campus sees each year from faculty, staff and students. ODU uses several methods for informing the affected population of this potential and the importance

of reporting any illicit discharges. In previous years Transportation and Parking Services distributed informational fliers with each mailing for Parking Pass Applications and hand delivered them to those who purchase the passes in person. This year Transportation and Parking Services switched to an online parking pass purchasing structure that did not allow for our fliers to be distributed. As a result, ODU has decided to distribute hard copies for in-person purchases and add a link to the online purchase site sent to faculty, staff and students that directs them to our Stormwater Management web site. The Department of Human Resources also puts informational pamphlets in each New Employee Packet given to new hires. This year ODU hired 350 new employees during the 2019/2020 reporting year. All pamphlets have information regarding what constitutes an illicit discharge and how to notify the Environmental Health and Safety Office in the event that they witness a release. The Environmental Health and Safety Office also places markers at each storm drain inlet that state "Only Rain Down the Storm Drain". Environmental Health and Safety staff placed markers on all new storm drain inlets and replaced damaged or missing markers within the MS4 permit area. ODU also displays public service announcements over the information screens of Webb Student Center that are visible by the public in several locations within the facility. The pamphlet and community education contacts provide information on how to identify and report illicit discharges.

- Litter and Debris – litter and debris control is an ongoing high priority issue for the campus from a pollution prevention standpoint. ODU utilizes the same efforts mentioned above in the Petroleum Releases section for informing the community about how to identify and report releases of this kind. Fliers, pamphlets, and public service announcements identify various types of illicit discharges that should be reported to the Environmental Health and Safety Office.
- Sediment Deposition – erosion and sediment control is maintained by contractors who perform work involving regulated land disturbing activities. Inspections of permitted sites were performed, as noted in our Annual Standards and Specification, by DEQ Certified third party contractors. ODU's Department of Design and Construction has 2 full time employees who conduct site inspections as part of their daily responsibilities. Reports of erosion and sediment control inspections are forwarded to the Environmental Health and Safety Office for review and record keeping. The Project Managers for each site respond to any recurring problems noted in the reports of erosion and sediment control activities. This was not necessary with any land disturbing activities during this permit year.

In the coming year, ODU will use the same outreach efforts, including the link to our Stormwater Page for Parking Pass Purchases and explore the use of social media to reach a broader audience. We are confident that these outreach and education efforts within the campus community will provide a broader audience than in previous years. Given the challenges presented by the COVID pandemic and overall lower on-campus population our efforts will be directed toward increasing the percentage of people who are reached each year. Additionally, ODU's MS4 Program Plan is available to the public at <https://www.odu.edu/life/sustainable/stormwater-management>. There were no comments received from the public concerning the program plan. However, we did receive four reports of spills that were cleaned up prior to them resulting in an illicit discharge to the storm sewer system. Details of each spill are noted in a table under MCM 3.

C. MCM 2 - Public Involvement

- Stormwater Pollution Prevention Plan (SWPPP) – a copy of the plan is maintained on the Environmental Health and Safety Office website at <http://www.odu.edu/life/sustainable/stormwater-management>
- MS4 Program Plan – a copy of the Program Plan is maintained on the Environmental Health and Safety Office website at <http://www.odu.edu/life/sustainable/stormwater-management>
- Annual Reports – copies of the previous three annual reports are maintained on the Environmental Health and Safety Office website at <http://www.odu.edu/life/sustainable/stormwater-management>
- Public Participation – this metric is met by several different means. ODU usually holds a minimum of four Adopt-A-Stream events annually. This year ODU was unable to hold the scheduled events due to restrictions placed on all state entities to combat the Coronavirus pandemic. ODU plans to continue to hold these events in the future as restrictions are eased.

D. MCM 3 - Illicit Discharge Detection and Elimination

Attached (Attachment A) is a table of our three outfalls that includes the HUC Code, a description of the outfall, the receiving waters, predominant land use of the areas drained, Latitude and Longitude, and associated TMDLs. There were no changes to the map of coverage area or outfalls. Below the table is a map of the MS4 coverage area. Also attached (Attachment B) is a map of the stormwater management facilities owned by ODU.

ODU notified the City of Norfolk Environmental Programs coordinator in 2015 acknowledging that ODU's storm sewer system is interconnected with the city's storm sewer system. Attached (Attachment C) is a copy of the letter. ODU also maintains regular contact with the City of Norfolk to exchange pertinent information related to respective MS4 service areas and any potential illicit discharges.

The Environmental Health and Safety Office performed an annual screening of three outfalls and five nodes during dry weather conditions. The parameters used to screen each of the outfalls and nodes were, wet/dry, odor present, sheen present, debris present, and general condition comments. There were no significant findings. Attached (Attachment D) is a copy of the Dry Weather Inspection.

ODU did not perform any sampling or monitoring beyond the Dry Weather Inspection of outfalls and nodes. ODU's lack of potential for harmful/illicit discharges due to limiting bulk storage of materials that have a potential for releases as well as the monitoring that occurs with relation to fuel storage and dispensing has rendered sampling of outfalls unwarranted. This will remain open to modification should any of ODU's processes change such that sampling of outfalls becomes necessary.

ODU did receive four reports of spills, but we did not experience suspected illicit discharge during this reporting period. The following table notes all reported spills and actions taken to resolve.

Incident Log						
Date	Type of Incident	Name of Caller	Location & Phone	Description of Complaint/Incident	Staff Initials	Action Close-out & Date
8/8/2019	Gas/Oil Spill	Sean Freeman	Parking garage 43rd and Elkhorn 3rd floor	Student working on personal vehicle drained oil	SS	Assisted parking services with clean up. Completed 8/8/19
8/16/2019	Gas/Oil Spill	Ross Cuthuya - Electrical Supervisor	Perry Library parking lot	Leaking diesel fuel from heavy equipment	FD	Heavy equipment leak mostly water with a small amount of fuel. Equipment could not be shut down. Contractor given absorbent and will clean up the area prior to departing the site. Follow up revealed no remaining fuel on site. Completed 8/16/19
8/29/2019	Gas/Oil Spill	Chad Peevy - Grounds	Lawn directly outside of Motorsports Lab at ESB	Black and green stain on lawn appears to be used oil and paint.	FD/JF	Spoke with motorsports lab student who said a used container was cleaned out on lawn. Student said they would clean the area to remove stain. Laboratory supervisor (Sebastian Bowab) was alerted and EHS was assured this would not happen again. Completed 8/29/19
11/15/2019	Chemical Spill	ROTC	Naval ROTC Parking lot	"Oil/Gas" spill in parking lot, from Army ROTC to sidewalk on Bluestone. Rainbow sheen,	DA/SS/FD	EHS used "petroleum only" pads to absorb the oily product from lot. Completed 11/15/19

E. MCM 4 - Construction Site Stormwater Runoff Control

ODU's Department of Design and Construction hires a design team including civil engineers who develop the site plan, Stormwater Plan, and Erosion and Sediment (E&S) Control Plan. Both the Stormwater Plan and E&S Control Plan are submitted for review and approval. All land disturbing activities greater than 2,500 square feet are required to follow the instructions listed in ODU's Annual Standards and Specifications and be approved by a DEQ Certified third party. Land disturbances greater than one acre require a DEQ issued General Virginia Pollution Discharge Elimination Systems Permit. During this permit year ODU had two regulated land-disturbing activities take place on the campus. The following includes metrics related to the regulated land disturbances including total acreage and total number of inspections conducted by DEQ Certified third party contractors.

- Hugo Owens Residence Hall
 - 3.13 Acres
 - 51 erosion and sediment control inspections
- New Chemistry
 - 3.46 Acres

- 48 erosion and sediment control inspections

The Environmental Health and Safety Office receives copies of all inspection records for review. While there were some minor infractions noted in various inspections, corrections were promptly made in each case and no enforcement actions were required. Each report is reviewed and recurring issues are reported to the Project Managers to be promptly corrected.

F. MCM 5 - Post-construction Stormwater Management

1. No new stormwater management facilities were added to the MS4 during the permit year. However, one facility was added to the DEQ BMP Warehouse on 4/20/20, information below. There were no offset credits purchased during the permit year.

Name	Type	TP Removal (lbs/yr)	TN Removal (lbs/yr)	TSS Removal (lbs/yr)
Child Studies	Bioretention Dry	0.36	1.87	151.52

ODU performed a visual inspection of physical BMPs on 4/23/20 after a 0.5” rain event that occurred on 4/21/20. The parameters that are checked include,

- Inlet/Outlet clearance
- Sign of erosion/stability of turf
- General debris
- Comments/Other observations

Attached (Attachment E) is a copy of ODU’s visual inspection report.

2. Summary of Offsets Provided by Existing BMPs

Name/Description	Reduction Means/Methods	TP Removal Required (lb/yr)	TSS Removal Efficiency	TP	TN	TSS
Lot 23	Dry Detention Basin	0.67	0.1	0.17	0.04	5.77
Computational Sciences Building	Bioretention Basin	0.21	0.55	0.05	0.14	9.82
Lot 42	Hydrodynamic Separator	0.68	0.1	0.18	0.04	5.90
43rd Street Parking Garage	Hydrodynamic Separator	0.56	0.1	0.14	0.03	4.81
Oceanography and Physical Sciences Building	Wet Pond	6.08	0.6	1.57	1.30	315.07
Wrestling Addition	Infiltration Basin	0.00	0.95	0.00	0.00	0.00
Tennis Center	Bioretention Basin	1.76	0.55	0.46	1.20	83.81
Physical Sciences Building	Filtterra System	0.19	0.8	0.05	0.13	13.18
Student Recreation	Bioretention Basin	0.64	0.55	0.17	0.44	30.58

Center						
Student Recreation Center	Filtterra System	0.25	0.8	0.07	0.17	17.57
Student Recreation Center	Hydrodynamic Separator	0.31	0.1	0.08	0.02	2.68
Quad Student Housing	Cistern	0.00	0	0.00	0.00	0.00
Gornto Teletechnet Building	Wet Pond	1.24	0.6	0.32	0.26	64.25
Constant Hall	Hydrodynamic Separator	0.30	0.1	0.08	0.02	2.61
Garage E	Cistern	0.00	0	0.00	0.00	0.00
Student Success Center	Bioretention Basin	0.25	0.55	0.07	0.17	12.08
Dragas Hall	Bioretention Basin	0.68	0.55	0.18	0.47	32.47
Diehn Fine and Performing Arts	Bioretention Planter	0.50	0.55	0.13	0.34	23.78
New Art Building	Filtterra System	0.11	0.8	0.03	0.08	7.69
Systems Research and Academics Building	Bioretention Basin	0.86	0.55	0.22	0.59	40.77
New Art Studio Building	Filtterra System	0.17	0.8	0.05	0.12	12.08
College of Education	Bioretention Basin	1.07	0.55	0.27	0.73	50.59
College of Education	Pervious Pavers	0.30	0.59	0.08	0.19	15.39
Football Stadium	Pervious Pavers	2.43	0.55	0.76	5.46	368.44
	SUM	17.26	11.39	5.13	11.94	1119.34
	Permit Cycle POC Required Reduction			1.59	5.85	735.38
	Surplus POC Reduction			3.54	6.09	383.96

3. There are two projects slated to be completed during the upcoming reporting year and associated management facilities will be added to the inventory as each comes online.

Name/Description	Reduction Means/Methods	TP Removal Achieved (lb/yr)	TN Removal Efficiency	TSS Removal Efficiency
New Chemistry	Pervious Pavers	1.28	0.59	0.59
Hugo Owens Residence	Bioretention	0.13	0.64	0.55

G. MCM 6 - Pollution Prevention/Good Housekeeping

Stormwater Pollution Prevention Plans (SWPPP)

After reviewing the campus activities and storage areas for potential major releases ODU did not note any particular areas that might be considered a "High Risk" for release

to the storm sewer system. As a result of this assessment it was decided that a Stormwater Pollution Prevention Plan (SWPPP) that addressed the campus as a whole, with specific attention to ODU's High-Priority Water Quality Issues, would be the most comprehensive tactic. ODU has taken the approach of considering the campus as one High Risk area and have developed a SWPPP for the entire campus focusing on vehicular pollutants, nutrient pollutants, litter and debris, and sediment deposition. The SWPPP was completed in August of 2016 and can be found at <http://www.odu.edu/life/sustainable/stormwater-management>. Annual review of Daily Activities is performed to ensure specific departmental activities are still proceeding. This year we added an inspection process for our Facilities Management building and surrounding equipment storage areas to identify any areas of concern for potential releases of petroleum products and litter/debris. There were no significant findings.

The Daily Activities noted by ODU that require operational summaries are as follows:

- **Lawn Maintenance**
Lawn maintenance (cutting/trimming) activities are controlled by the Grounds Divisions of Facilities Management. All clippings and trimmings are collected and stored for composting. All materials gathered are put in a designated dumpster and the dumpster is taken by a contractor to be composted.
- **Nutrient Application**
Nutrient Management (fertilizing) is dictated by ODU's Nutrient Management Plan. A link to the Plan (revised 2018) can be found at <http://www.odu.edu/content/dam/odu/offices/environmental-health-safety/docs/nutrient-management-plan.pdf>. Activities that contribute to the prevention of illicit discharges are the covering of any grated storm drain inlets in the fertilizing areas and blowing any residual fertilizer off of impervious surfaces back on to the intended target lawn or bed.
 - Old Dominion University is required to have a Nutrient Management Plan in place to cover all 173.5 acres, of which approximately 19.65 acres are managed with nutrients.
 - All personnel who apply nutrients have passed the Virginia Certified Fertilizer Applicator Exam.
 - Nutrient Application Locations:

Location	Latitude	Longitude
Soccer Field	36.883975	-76.310912
Soccer Practice Field	36.883603	-76.311987
Whitehurst Field	36.885539	-76.315139
Baseball Field	36.883919	-76.308999
Kaufman Mall	36.886539	-76.304909
Williamsburg Lawn	36.88992	-76.303745
Runte Quad	36.886007	-76.310011
VMASC	36.869353	-76.418136
Tri-Cities	36.869109	-76.417063

- **Fleet Maintenance**
University vehicles are maintained twice annually by the Motor Pool Department and they are checked for any leaking fluids. ODU has a work order system in place so that operators or individual departments can request service if any leaks

develop in the interim. Any spills of automobile fluids are reported to the Environmental Health and Safety Office and cleaned up immediately. During this reporting year, there were four reports of spilled hydrocarbon products (documented in MCM3 of this report) from contractor vehicles, each reported spill was contained and cleaned up without reaching any storm drain inlet.

- Motor Pool personnel have attended Spill Prevention Control and Countermeasure training as well as Storage Tank Operator training.
- Car Washing
Washing of most university vehicles is done in a closed wash bay that has a drain connected to the sanitary sewer. No vehicles are washed on impervious surfaces that may lead to the ODU storm sewer system.
- Litter Control
Litter control is an ongoing, daily battle. The Grounds Division and Housing and Resident Life collect waste from all campus areas on a daily basis. Grounds has four full-time dedicated employees who collect debris from all areas around campus and Housing Housekeeping personnel focus on areas surrounding the dormitories daily.
- Parking Lot Maintenance/Street Sweeping
Street and lot sweeping is done on a weekly basis and after significantly attended campus events such as football games. Refuse collected is sent to the landfill unless it is leaves, which are added to the green waste recycling program as compostable material.
- Bulk Storage
Bulk storage of materials such as salt, pesticides and fertilizers is done at indoor or covered facilities to prevent the potential for runoff. Materials such as topsoil, sand, or mulch are only ordered on an as-needed basis and covered with tarps to prevent runoff during storage.
- Training
Stormwater Pollution and Prevention (SPP) training has been incorporated in with the training that the Environmental Health and Safety Office provide to all Facilities Management employees who receive Hazard Communication Training. These employees are reasonably expected to work with or come in contact with hazardous materials through the course of their work assignments. The SPP training consists of topics related to the regulatory history of stormwater laws, point source and non-point source pollution, current Virginia regulations on stormwater pollution prevention, pollution prevention control measures, structural and non-structural best management practices that ODU employs, litter control, spill control techniques, and who to notify if they are involved in or witness an illicit discharge. Sessions were held in June 2019 where 77 affected employees attended. Training sessions are now available online through the Safe Colleges online training platform for affected personnel as well as those with general interest in pollution prevention. The overall objective of the training is to impress the importance of preventing illicit discharges to the storm sewer system and to promote reporting of any noted discharges. The training is held at a minimum of every two years.
- Illicit Discharge Detection and Elimination (IDDE)
ODU developed an IDDE as a requirement of the National Pollutant Discharge Elimination System (NPDES) the most recent revision of the IDDE was performed in August of 2016 to reflect changes in our infrastructure that have occurred. This year, ODU contracted for services to revise the IDDE Plan which will provide an

updated Campus Base File, in AutoCAD and PDF format, for projects that have been completed since 2016 (date of the previous campus base file update). The update will show new buildings and structures, above ground improvements, and below ground utilities. The purpose of this program is to implement a campus wide strategy to find, fix, and prevent illicit discharges.

All affected department managers were briefed on their responsibilities with regard to pollution prevention activities and signed off on respective activities with the plan.

H. MS4 Program Plan

ODU will continue to undertake the same activities stated above for MCM 1 through MCM 6 during the next reporting cycle within parameters allowed by the Governors orders related to the Coronavirus pandemic, while exploring other activities that may make our outreach and public education activities more effective. Changes that have occurred to our program over the past year was the acceptance of renewed Annual Standards and Specifications, and the continued revision and implementation of our Stormwater Pollution Prevention Plan.

I. BMP Assessment

Old Dominion University has assessed the appropriateness of efforts related to each of the minimum control measures listed in the General Permit. Reports of spills and potential illicit discharges from faculty, staff and city officials supports that ODU’s efforts detailed in MCMs 1 through 6 are suitable and effective means of identifying and preventing illicit discharges to the storm sewer system.

J. Program Plan Modifications

Old Dominion University’s program plan has been modified by the revision of our Annual Standards and Specifications which are currently awaiting approval. ODU also developed and implemented a Stormwater Pollution Prevention Plan to target the prevention of illicit discharges from the four identified high priority water quality issues. Each plan can be found for review at a <http://www.odu.edu/life/sustainable/stormwater-management>.

K. Expected Control Measures

Building	BMP
Hugo Owens	Dry retention basin Filterra
New Chemistry	Permeable Pavers

L. Chesapeake Bay TMDL Action Plan Implementation

There are currently no local TMDL action plan requirements for ODU beyond the requirements of the Chesapeake Bay TMDL Action Plan. The updated ODU TMDL Action Plan was developed by Vanasse Hangen Brustlin, Inc. in October of 2019. The Pollutants of Concern reductions were met for the first permit cycle. The University is actively working toward meeting the

reduction requirements for the current permit cycle ending in 2023.

Attachments enclosed:

- A. – Map of Coverage Area and Outfalls
- B – Stormwater BMP Map
- C – Storm Sewer Interconnectivity Letter
- D – Dry Weather Inspection
- E – Physical BMP Inspection
- F – Certification Statement