

University of Maryland, College Park  
National Pollutant Discharge Elimination  
System MS4 Phase II  
FY2023 Annual Report  
General Discharge Permit #13-SF-5501

---



## Table of Contents

I. NPDES MS4 PERMIT UMD AUTHORIZATION.....	1
II. NOTICE OF INTENT.....	2
III. UMD MS4 PERMIT ADMINISTRATION.....	2
A. Reporting Period.....	2
B. Contact Information.....	2
C. UMD NPDES MS4 Organizational Structure.....	2
D. Staffing Resources.....	3
IV. CHESAPEAKE BAY RESTORATION AND MEETING TOTAL MAXIMUM DAILY LOADS.....	3
A. Baseline Impervious Area Treatment.....	3
B. Impervious Area Restoration Work Plan.....	9
C. Restoration Activity Schedule.....	12
D. BMP Database Tracking.....	14
V. CONCLUSION.....	14

## List of Tables

Table 1: Baseline Summary.....	4
Table 2: Section I - Impervious Area Restoration Reporting.....	5
Table 3: Restoration Work Plan.....	9
Table 4: MS4 Restoration Activity Schedule.....	13

## List of Attachments

- Attachment A: BMP Inspection Reports
- Attachment B: Baseline Assessment Report
- Attachment C: Restoration Activity Schedule
- Attachment D: BMP Database

## List of Acronyms

AWRP	Anacostia Watershed Restoration Partnership
AWS	Anacostia Watershed Society
BLM	Facilities Management—Department of Building & Landscape Maintenance
BMP	Best Management Practice
BWPFS	Baltimore-Washington Partners for Forest Stewardship
CAD	Computer-Aided Design
CBLP	Chesapeake Bay Landscape Professionals
CBT	Chesapeake Bay Trust
COG	Metropolitan Washington Council of Governments
P&C	Facilities Management—Department of Planning & Construction
DESSR	Department of Environmental Safety, Sustainability & Risk
E&E	Facility Management—Department of Engineering & Energy
E&SC	Erosion & Sediment Control
ESD	Environmental Site Design
FM	Facilities Management
FP	Facilities Management—Department of Facilities Planning
GIS	Geographic Information Systems software
IBBR	Institute for Bioscience and Biotechnology Research
HVAC	Heating, Ventilation, and Air Conditioning
IDDE	Illicit Discharge Detection and Elimination
IPM	Integrated Pest Management
MCM	Minimum Control Measure
MDE	Maryland Department of the Environment
MEP	Maximum Extent Practicable
MES	Maryland Environmental Services
MS4	Municipal Separate Storm Sewer System
NNI	Non-Native Invasive
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OM&U	Facility Management – Operations, Maintenance and Utilities
OS	Office of Sustainability
SOP	Standard Operating Procedure
SPCC Plan	Spill Prevention Control and Countermeasure Plan
SWPPP	Stormwater Pollution Prevention Plan
UMD	University of Maryland, College Park
USG	Universities at Shady Grove

## **I. NPDES MS4 PERMIT UMD AUTHORIZATION**

The University of Maryland-College Park (UMD) owns and operates a municipal separate storm sewer system (MS4) and, therefore, must comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems. Maryland Department of the Environment (MDE) has regulatory authority to implement this program under their General Discharge Permit No. 13-SF-5501, which took effect on October 31, 2018 and expires on October 30, 2023.

The NPDES MS4 permit requires that permit holders implement Best Management Practices (BMPs) for the following Minimum Control Measures (MCMs):

- Personnel Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post Construction Management
- Pollution Prevention and Good Housekeeping

In addition, the permit requires restoration efforts for twenty percent of existing developed lands that have little or no stormwater management by 2025. These efforts may include:

- Developing planning strategies
- Identifying water quality improvement opportunities
- Securing appropriate funding
- Development of an implementation schedule for achieving the 20% restoration requirement
- Implementing water quality improvement projects

This is the fifth annual report for General Discharge Permit 13-SF-5501 and only activities related to the 20% restoration requirement are required to be reported. While the university continues to maintain the MCM programs, progress on each measure will be updated in the next annual report.

## **II. NOTICE OF INTENT**

UMD submitted a Notice of Intent (NOI) in October 2018, which identified all UMD properties in College Park that were eligible for MS4 coverage. An amendment was submitted in October 2019 to include the Institute for Bioscience and Biotechnology Research (IBBR) facility located on the campus of The Universities at Shady Grove, Maryland.

## **III. UMD MS4 PERMIT ADMINISTRATION**

### **A. Reporting Period**

This fifth annual report reflects activities for the Impervious Restoration Program through from July 1, 2022 to June 30, 2023.

### **B. Contact Information**

Agency Name: University of Maryland, College Park

Contact Person and Title: Christopher Ho, Civil Engineer

Mailing Address: 7401 Baltimore Avenue, 4<sup>th</sup> Floor, College Park, MD 20740

Phone Number: (301) 405-9969

Email: [hocyho@umd.edu](mailto:hocyho@umd.edu)

### **C. UMD NPDES MS4 Organizational Structure**

UMD Facilities Management-Facilities Planning (FM-FP) managed and administered the NPDES MS4 permit during the reporting period. Several units/departments helped implement MS4 permit requirements; however, the following units/departments were instrumental in implementing the BMPs within the six MCMs:

- Department of Environmental Safety, Sustainability & Risk (DESSR) – Environmental Affairs
- Facilities Management – Department of Building & Landscape Management (FM-BLM)
- Facilities Management – Department of Planning & Construction (FM-P&C)
- Facilities Management – Department of Engineering & Energy (FM-E&E)
- DESSR – Office of Sustainability (OS)

## **D. Staffing Resources**

Compliance with the NPDES MS4 program requires significant funding, which is provided through both operational and capital budgets. The MS4 requirements are largely implemented by UMD staff that are either fully or partially dedicated to this effort. The following departments dedicate staff to this program as follows:

- DESSR: Four employees share MS4/stormwater responsibilities and spend the amount of time equivalent to 2.5 full-time staff members.
- FM-BLM: One full-time staff inspects and maintains stormwater facilities, and several other staff dedicate time to public outreach and volunteer events, forest/tree management, and landscape maintenance.
- FM-FP: One full-time staff dedicates at least 50 percent of the time to MS4 permit and stormwater regulations. In addition, several other staff members are partially dedicated to supporting stormwater inventory and geographic information system (GIS) efforts.
- FM-E&E: Two full-time staff members dedicate at least 20 percent of the time to engineering and water-related issues

## **IV. CHESAPEAKE BAY RESTORATION AND MEETING TOTAL MAXIMUM DAILY LOADS**

The University of Maryland is committed to contributing towards the nutrient and sediment load reductions as specified by Maryland’s Watershed Implementation Plan to address the Chesapeake Bay TMDL by 2025.

The Baseline Impervious Area Treatment and Restoration Requirements were updated with this report.

### **A. Baseline Impervious Area Treatment**

This section presents the updated Baseline Impervious Area Assessment. All of the UMD properties to be regulated as identified in the NOI were imported into a GIS mapping database. Mapping features delineated included all impervious and pervious areas within the properties, locations of existing Best Management Practices (BMPs), and drainage areas to the BMPs. Previously unidentified BMPs were added and impervious areas were updated to reflect development projects completed during the reporting period

The previous annual report provided identification and inspection of all existing surface BMPs known at the time. Additional progress was made since the last year by identifying additional previously unknown BMPs constructed with legacy projects. Inspection of all green roofs and underground structures were also completed.

A summary of the baseline information is follows. Note all values are in acres.

**Table 1: Baseline Summary**

Reporting Year	2019	2020	2021	2022	2023
Total impervious covered by permit	458.4	459.33	464.16	465.84	465.92
Total impervious treated by BMPs	15.5	26.36	38.30	40.37	56.25
Total impervious acres untreated	442.9	432.97	425.86	425.47	409.67
20% restoration requirement	88.58	86.59	85.17	85.09	81.93

In the 2019 report, UMD identified and inspected 121 BMPs on the College Park Campus that were reported in the stormwater database. Of these facilities, 33 were identified as passing inspection; however, only 13 of these BMPs were assumed to be eligible for baseline or redevelopment credit as they did not have as-built plans or would be surveyed during the permit term.

In 2020, additional facilities were identified by cross checking legacy projects with the MDE permit database and searching UMD archives for records. BMPs constructed for leased projects on university owned properties were also added to the database. The IBBR BMPs were also incorporated in the UMD BMP database. Finally, inspection efforts and further research led to reclassification or separation of a few facilities. Overall, 44 facilities were added to the BMP database for a total of 165 BMPs in the 2020 report.

In 2021, the university reported a total number of 174 BMPs, of which 105 facilities were officially permitted with MDE for site development projects. Inspection records were completed for all of the permitted water quality treatment BMPs.

In 2022, the university reported a total number of 193 BMPs in the database inventory. However, 9 of the facilities associated with the Kim Engineering construction were removed and consolidated to UMCP22BMP0301 for the reconstruction of the plaza. 113 facilities are now officially permitted with MDE for site development projects. 12 as-built verification plans were submitted to the MDE Water & Science Administration, Sediment & Stormwater Plan Review Division for approval.

For 2023, a total of 196 BMPs are reported in the database inventory. UMD completed the dam breach analyses required for as-built verification of legacy embankment facilities. The analyses and as-builts are currently in review at MDE.

See **Attachment A** for the inspections completed by the university and MES.

See **Attachment B** for the full Baseline Impervious Area Assessment Report.

Based on 465.92 acres of existing impervious area and 56.25 ac of treatment, 20% of the remaining 409.67 acres of untreated impervious area requires 81.93 acres of restoration.

**Table 2: Section I - Impervious Area Restoration Reporting**

1. a. Was the impervious area baseline assessment submitted in year 1?

Yes  No

b. If No, describe the status of completing the required information and provide a date at which all information required by MDE will be submitted:

c. Has the baseline been adjusted since the previous reporting year?

Yes  No

2. Complete the information below based on the most recent data:

Total impervious acres of area covered under this permit:

465.92

UMD 461.40 acres + IBBR 4.52 acres

Total impervious acres treated by stormwater water quality best management practices (BMPs):

56.25

UMD 53.91 acres + IBBR 2.34 acres

Total impervious acres treated by BMPs providing partial water quality treatment (multiply acres treated by percent of water quality provided):

11.55

UMD 9.30 acres + IBBR 2.25 acres

Total impervious acres treated by nonstructural practices (i.e., rooftop disconnections, non-rooftop disconnections, or vegetated swales):

0.15

UMD 0.12 acres + IBBR 0.03 acres

Total impervious acres untreated:

409.67

Twenty percent of this total area (this is the restoration requirement):

81.93



Verify that all impervious area draining to BMPs with missing inspection records is not considered treated. Describe how this information was incorporated into the overall analysis:

***All BMPs included in the treatment total have proper verification documentation and inspection records supporting that these facilities will provide water quality treatment in their current condition. Impervious area draining to BMPs without as-built plans or proper verification documentation were included in the untreated impervious acres total. Impervious area draining to BMPs reported as failing were also included in the untreated impervious acres total.***

3. Has an Impervious Area Restoration Work Plan been developed and submitted to MDE in accordance with Part V.B, Table 1 of the permit or other format?  
 Yes  No

Has MDE approved the work plan?  
 Yes  No

If the answer to either question is No, describe the status of submitting (or resubmitting) the work plan to MDE and provide a date at which all outstanding information will be available:

Describe progress made toward restoration planning, design, and construction efforts and describe adaptive management strategies necessary to meet restoration requirements by the end of the permit term:

***In year 5, UMCP submitted 7 as-builts to MDE Plan Review to satisfy as-built requirements outlined in Technical Memo #16. These submissions included 6 ponds for which a dam breach analysis was also completed to meet the requirements for the heritage 378 pond as-built documentation. Credit for these facilities are currently contributing toward UMCP's baseline treatment and restoration goal (credit assigned appropriately as explained in the attached memo).***

***UMCP continued efforts to restore failing facilities across the campus. Following inspection to confirm facility has been restored to design, credit for provided treatment has been incorporated into UMCP's baseline assessment.***

***UMCP received grant funding for the construction of Phase II of the Campus Creek Restoration and retrofit of the Animal Science dry pond. Construction is expected to begin in 2023.***

4. Has a Restoration Schedule been completed and submitted to MDE in accordance with Part V.B, Table 2 of the permit?

Yes  No

In year 5, has a complete restoration schedule been submitted including a complete list of projects and implementation dates for all BMPs needed to meet the twenty percent restoration requirement?

Yes  No

Are the projected implementation years for completion of all BMPs no later than 2025?

Yes  No

Describe actions planned to provide a complete list of projects in order to achieve compliance by the end of the permit term:

***UMCP has provided a full list of completed projects that exceed their restoration goal. UMCP continues to update this list annually as additional restoration projects expected to be completed by 2025 are planned. Furthermore, UMCP will continue to update the RAS with additional planned projects through 2030 as recommended by MDE. Current planned projects meet the recommended additional 10% restoration goal by 2030.***

Describe the progress of restoration efforts (attach examples and photos of proposed or completed projects when available):

***The Campus Creek Stream Restoration was completed in November 2019. Required documentation for the stream restoration was submitted to MDE in year 1. The stream restoration provides a maximum credit of 105.8 acres. One acre of credit has been shared with SHA, reducing the maximum credit to 104.8 acres. This exceeds UMCP restoration requirement of 81.93 acres.***

***Even though UMCP has surpassed their restoration requirement, UMCP has continued efforts to identify additional restoration opportunities across campus. This includes analysis of failing BMPs to develop restoration concepts to restore the BMP to design conditions or retrofit to update the facility to current MDE standards, when applicable. Additionally, in 2023 UMCP received funding for the construction of Phase II of the Campus Creek Restoration and retrofit of the Animal Science dry pond. These projects combined will provide an estimated restoration credit of 54.15 acres.***

5. Has the BMP database been submitted to MDE in Microsoft Excel format in accordance with Appendix B, Tables B.1.a, b, and c?

Yes  No

Is the database complete?

Yes  No

If either answer is No, describe efforts underway to complete all data fields, and a date that MDE will receive the required information:

***UMCP is continuing efforts to update maintenance and inspection dates. UMCP has established a workflow utilizing Survey123 to document inspections and maintenance. UMCP will continue utilizing this workflow to update all inspection or maintenance dates.***

***Additionally, UMCP added new BMPs to the database following recently completed construction. As as-builts are completed and treatment is verified, the database will be updated to include all missing data for the new facilities.***

6. Provide a summary of impervious area restoration activities planned for the next reporting cycle (attach additional information if necessary):

***Perform repairs on existing facilities that are not functional. Continue utilizing Survey123 for inspection and maintenance. Procure contractor for constructing Animal Science retrofit and Campus Creek Phase II restoration. See attached restoration activity schedule.***

7. Describe coordination efforts with other agencies regarding the implementation of impervious area restoration activities:

***Currently in discussions with City of College Park for treatment of off-site City drainage that flows onto UMD campus. Also, in discussions with MTA for credit sharing of SWM facilities being proposed for Purple Line construction.***

8. List the total cost of developing and implementing impervious area restoration program during the permit term:

***Year 1: Consultant cost \$168,232***

***Year 2: Consultant cost \$297,472***

***Year 3: Consultant cost \$141,278***

***Year 4: Consultant cost \$129,231***

***Year 5: Consultant cost \$70,076***

**B. Impervious Area Restoration Work Plan**

The restoration work plan required to be submitted with the MS4 progress report describes the plans and future activities proposed, as well as progress completed, over the course of the permit term towards meeting the restoration requirement.

**Table 3: Restoration Work Plan**

<p><b>Year 1 (FY19)</b></p>	<ul style="list-style-type: none"> <li>• Import entire UMD campus properties into GIS mapping.</li> <li>• Delineate all property lines, impervious areas, pervious area surfaces, BMP locations and drainage areas for baseline assessment.</li> <li>• Inspect the entire UMD inventory of SWM BMP facilities and assess for compliance with the MS4 permit requirements.</li> <li>• Research archives at UMD and MDE. Compile all available design plans, as-built plans, stormwater reports and maintenance records for each BMP.</li> <li>• Rate each facility based on the condition, availability of design plans, as-built plans, and maintenance records.</li> <li>• Establish a priority list of BMP repairs based on the lowest cost and greatest potential treatment areas.</li> <li>• Establish a BMP maintenance tracking program.</li> <li>• Program budgets for Year 2 surveys, designs, and repairs.</li> </ul>
<p><b>Year 2 (FY20)</b></p>	<ul style="list-style-type: none"> <li>• Complete MS4 BMP database.</li> <li>• Incorporate IBBR impervious and BMP inventory into UMD MS4 BMP database.</li> <li>• Update GIS impervious layer to incorporate completed construction projects.</li> <li>• Begin BMP verification survey for facilities without as-built documentation.</li> <li>• Begin developing a remediation plan or restoration concepts for failing BMPs.</li> <li>• Develop priority ranking for non-permitted facilities to determine if facility should be restored/retrofit and permitted.</li> <li>• Update baseline assessment and restoration goal.</li> <li>• Update restoration activity schedule for completed and proposed projects.</li> <li>• Develop program budgets for Year 3 surveys, designs, and repairs.</li> </ul>

<p><b>Year 3 (FY21)</b></p>	<ul style="list-style-type: none"> <li>• Inspect and evaluate treatment for additional BMPs added to the BMP database during the year 2 analysis.</li> <li>• Continue BMP verification survey for facilities without as-built documentation.</li> <li>• Complete inspection for high priority non-permitted facilities to identify repair requirements or retrofit opportunities.</li> <li>• Develop priority ranking for permitted facilities to develop refined restoration schedule.</li> <li>• Begin repairs for BMPs requiring remediation.</li> <li>• Begin implementing projects identified on the restoration activity schedule.</li> <li>• Update GIS impervious layer to incorporate completed construction projects.</li> <li>• Update baseline assessment and restoration goal.</li> <li>• Update and submit Urban BMP database and documented maintenance and inspection status for all BMPs.</li> <li>• Update restoration activity schedule on completed and proposed projects.</li> <li>• Develop program budgets for Year 4 surveys, designs, and repairs.</li> </ul>
<p><b>Year 4 (FY22)</b></p>	<ul style="list-style-type: none"> <li>• Complete BMP verification survey for facilities without as-built documentation.</li> <li>• Begin restoration efforts for high priority non-permitted BMPs.</li> <li>• Continue repair efforts for facilities requiring remediation.</li> <li>• Continue implementing projects identified in the restoration activity schedule.</li> <li>• Update GIS impervious layer to incorporate completed construction projects.</li> <li>• Update baseline assessment and restoration goal.</li> <li>• Update and submit Urban BMP database and documented maintenance and inspection status for all BMPs.</li> <li>• Update restoration activity schedule on completed and proposed projects.</li> <li>• Develop program budgets for Year 5 designs and repairs.</li> </ul>

<b>Year 5 (FY23)</b>	<ul style="list-style-type: none"><li>• Continue repair efforts for facilities requiring remediation.</li><li>• Continue implementing projects identified in the restoration activity schedule.</li><li>• Update GIS impervious layer to incorporate completed construction projects.</li><li>• Update baseline assessment and restoration goal.</li><li>• Update and submit Urban BMP database and documented maintenance and inspection status for all BMPs.</li><li>• Develop program budgets for proposed restoration projects.</li><li>• Update restoration activity schedule for completed and proposed projects. Planning to be extended through 2030 for additional 10% restoration goal</li></ul>
--------------------------	--

### **C. Restoration Activity Schedule**

The Restoration Activity Schedule shows the status of projects that will be implemented to meet the MS4 permit restoration requirements. This table shows the proposed list of projects and identifies if they are in planning, construction or completed. The table is updated every year to show the balance towards achieving the restoration requirement.

For the FY2023 report, the Restoration Activity schedule was updated to include completed and planned restoration projects through 2030.

The complete schedule is shown on Table 4 and an enlarged view can be found in **Attachment C**.

Table 4: MS4 Restoration Activity Schedule

Type of Restoration Project	BMP Code	BMP ID	Cost (\$K)	Imperv Acres Treated	Imperv Acre Target and Balance	Project Status	Year Complete or Projected Implementation Year (by 2025)
					81.93		
IBBR Outfall Stabilization	OUT	USG19BMP00004	10	0.50	81.43	C	2006
University House Southern Micro-Bioretenion	MMBR	UMCP19BMP0040	10	0.03	81.40	C	2011
Denton Courtyard Micro-Bioretenion	MMBR	UMCP19BMP0122	15	0.10	81.30	C	2012
Shuttle Facility Green Roof	AGRE	UMCP19BMP0016	50	0.11	81.19	C	2012
Shuttle Facility Green Roof	AGRE	UMCP19BMP0017	50	0.11	81.08	C	2012
Shuttle Facility Dry Swale	ODSW	UMCP19BMP0026	30	1.71	79.37	C	2012
Heavy Equipment Building Micro-Bioretenion	MMBR	UMCP19BMP0055	15	0.10	79.27	C	2012
Denton Dining Micro-Bioretenion	MMBR	UMCP19BMP0059	30	0.24	79.03	C	2012
Denton Quad Micro-Bioretenion 3	MMBR	UMCP19BMP0070	15	0.07	78.96	C	2012
Physical Science Complex Green Roof	AGRE	UMCP19BMP0078	100	0.21	78.75	C	2013
Computer and Space Sciences Green Roof	AGRE	UMCP19BMP0049	35	0.08	78.67	C	2013
Prince Frederick Hall Micro-Bioretenion Cell 1	MMBR	UMCP19BMP0124	30	0.14	78.53	C	2014
Impervious Surface Removal to Pervious 4100 Metzertott Rd	IMPP	UMCP20BMP0288	37	0.17	78.36	C	2016
West Side of Edward St. John Green Roof	AGRE	UMCP19BMP0157	50	0.06	78.30	C	2017
West Side of Edward St. John Green Roof	AGRE	UMCP19BMP0158	50	0.06	78.24	C	2017
Impervious Surface Removal to Pervious 4109 Metzertott Rd	IMPP	UMCP20BMP0289	7	0.03	78.22	C	2017
Clark Hall Bioretention 1	MMBR	UMCP19BMP0231	60	0.33	77.89	C	2017
Clark Hall Micro-Bioretenion 2	MMBR	UMCP19BMP0232	50	0.29	77.60	C	2017
M Square SGW 1	MSGW	UMCP20BMP0258	90	1.86	75.74	C	2018
M Square SGW 2	MSGW	UMCP20BMP0259	40	0.72	75.02	C	2018
M Square MBR1	MMBR	UMCP20BMP0260	30	0.35	74.67	C	2018
A.V. Williams Micro-Bioretenion	MMBR	UMCP19BMP0152	25	0.27	74.40	C	2018
A.V. Williams Micro-Bioretenion	MMBR	UMCP19BMP0153	15	0.14	74.26	C	2018
A.V. Williams Micro-Bioretenion	MMBR	UMCP19BMP0154	35	0.31	73.95	C	2018
Brendan Iribe Micro-Bioretenion 1	MMBR	UMCP19BMP0241	30	0.27	73.68	C	2019
Brendan Iribe Micro-Bioretenion 2	MMBR	UMCP19BMP0242	40	0.32	73.36	C	2019
Brendan Iribe 4	APRP	UMCP19BMP0244	20	0.15	73.21	C	2019
Brendan Iribe 5	AGRI	UMCP19BMP0245	20	0.14	73.07	C	2019
Campus Creek Stream Restoration Phase 1	STRE	UMCP19BMP0249	1800	104.80	-31.74	C	2019
Regenerative Step Pool Conveyance	SPSC	UMCP19BMP0250	20	0.58	-32.32	C	2019
Regenerative Step Pool Conveyance	SPSC	UMCP20BMP0290	20	0.31	-32.63	C	2019
Stormwater Bar	OUT	UMCP20BMP0291	10	0.13	-32.76	C	2019
Wooded Hillock Impervious Removal 3	IMPP	UMCP21BMP0296	5	0.02	-32.78	C	2020
Wooded Hillock Impervious Removal 2	IMPP	UMCP21BMP0297	37	0.02	-32.79	C	2020
Wooded Hillock Impervious Removal 1	IMPP	UMCP21BMP0298	11	0.05	-32.84	C	2020
Knight Hall	MRWH	UMCP19BMP0082	50	0.39	-33.23	C	2020
Cole Field House Impervious Removal	IMPP	UMCP21BMP0300	500	2.30	-35.53	C	2021
4103 Metzertott Rd Impervious Removal	IMPP	UMCP21BMP0299	15	0.07	-35.60	C	2021
Presidents house Disconnect 1	NDNR	UMCP19BMP0239	10	0.01	-35.61	C	2021
Prince Frederick Hall Bioretention Cell 2	MMBR	UMCP19BMP0125	45.2	0.33	-35.94	C	2022
Brendan Iribe 3	MSWB	UMCP19BMP0243	25	0.19	-36.13	C	2023
School of Public Policy Bioretention 1	MMBR	UMCP22BMP0321	50	0.16	-36.29	C	2023
School of Public Policy Bioretention 2	MMBR	UMCP22BMP0322	55	0.29	-36.58	C	2023
School of Public Policy Non-Rooftop Disconnect 1	NDNR	UMCP22BMP0324	5	0.04	-36.62	C	2023
Cole Field House Green Roof 1	AGRE	UMCP21BMP0292	50	0.32	-36.94	C	2023
Cole Field House Green Roof 2	AGRE	UMCP21BMP0293	20	0.07	-37.01	C	2023
Cole Field House Green Roof 3	AGRE	UMCP21BMP0294	50	0.37	-37.38	C	2023
Cole Field House Green Roof 4	AGRE	UMCP21BMP0295	100	0.86	-38.24	C	2023
Idea Factory Micro-Bioretenion 4	MMBR	UMCP22BMP0301	50	0.08	-38.32	C	2023
Idea Factory Micro-Bioretenion 2	MMBR	UMCP22BMP0302	50	0.06	-38.38	C	2023
Idea Factory Micro-Bioretenion 1	MMBR	UMCP22BMP0303	50	0.07	-38.45	C	2023
Idea Factory Micro-Bioretenion 3	MMBR	UMCP22BMP0304	50	0.04	-38.49	C	2023
Animal Science pond	PWET	UMCP19BMP0021	800	8.95	-47.44	P	2025
Campus Creek Stream Restoration Phase 2	STRE		2100	45.20	-92.64	P	2025
<b>Total Restoration Credit =</b>				<b>174.57</b>			



## D. BMP Database Tracking

The data tables specified in the MS4 permit have been completed for all identified BMPs within the permit area. A GIS system was established with these data tables so that the corresponding information can be recorded, updated, and tracked to be associated with an electronically mapped BMP feature.

UMD also implemented a field inspection app which allows real time updates to the database as inspections are conducted. The database also stores the previous inspection records, as well as maintains a historical account.

See **Attachment D** for the Urban Best Management Practice Database. An electronic version of this information will also be transmitted to MDE.

The application has been further developed to incorporate additional fields as the field inspection tool is used by more contractors and field personnel.

Additional information such as cost data, priority updates and maintenance tracking will be added in future versions to establish a more adaptive management approach for maintaining the BMPs. It will provide better data for managing, planning, budgeting and tracking of the UMD BMP inventory.

## V. CONCLUSION

The FY2023 General Discharge Permit #13-SF-5501 annual report provides updates on the progress the University of Maryland, College Park has achieved with the Chesapeake Bay Restoration requirements.

Overall, the university continues to maintain programs related to education, involvement, IDDE, runoff control, stormwater management and pollution prevention related to the MS4 permit.

Although the university has met the Chesapeake Bay Restoration requirements for this permit term, the university continues to progress with documentation, restoration and maintenance of existing stormwater facilities on campus to further improve its stormwater program and to be prepared for the next permit term. The design of Phase 2 of the Campus Creek restoration and the retrofit of Animal Science Pond, funded in part by the Chesapeake Bay Trust Watershed Assistance Grant Program, will provide an additional estimated combined restoration credit of 53 acres. With the grant award from the DNR Chesapeake & Atlantic Coastal Bays Trust Fund, construction of these projects are expected to start in 2024.

ATTACHMENT A  
BMP INSPECTION REPORTS



# FACILITIES MANAGEMENT

UMCP19BMP0005 / Peace and Friendship Garden  
Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 26, 2023 10:02 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0005	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Sand Filter	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Rutting at spillway is a result of a vehicle moving through the area
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Fair
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** Good vegetation, along with weed growth in pretreatment and sand filter

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Fair

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - Fair

## **Outfall and Downstream Condition**

- **Spillway Outfall** - Good
- **Downstream Condition** - Poor

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP19BMP0005 / Peace and Friendship Garden

Date of Inspection: September 26, 2023 10:02 AM



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Regrade and smooth rutting and reseed

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0011 / CSPAC Shallow Marsh Wetland

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 27, 2023 12:11 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0011	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Shallow Marsh	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## **Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Southern inlets and channel are overgrown. Access around facility is overgrown. Riser not immediately Visakhapatnam

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Good

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** -

## **Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

## **Outlet/Control Structure**

- **Low Flow Orifice** - Good
- **Outlet / Control Structure** - Good
- **Principal Spillway** - N/A

## **Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP19BMP0011 / CSPAC Shallow Marsh Wetland

Date of Inspection: September 27, 2023 12:11 PM



# FACILITIES MANAGEMENT

## Maintenance & Remediation Recommendations

### Additional Photos





# FACILITIES MANAGEMENT

UMCP19BMP0014 / Woods Hall

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 21, 2023 2:53 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0014	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Good plant coverage on slope. No weed pressure
<b>Maintenance Level</b>	No Maintenance Needed		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Good access to facility. Appropriate vegetation, no weed pressure. Overflow is clear

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

None

## **Additional Photos**







# FACILITIES MANAGEMENT

UMCP19BMP0022 / Lot 11b

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 21, 2023 12:22 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0022	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)		

## **Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Access is a bit overgrown. BMP is completely overgrown and taken over by invasive, with some native volunteer plants present

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Poor

**BMP Status** - Fail



# FACILITIES MANAGEMENT

**Maintenance Level** - Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)

## **Maintenance & Remediation Recommendations**

### **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0024 / Terrapin Trail Garage retention pond

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	May 18, 2023 8:08 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0024	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Retention Pond (Wet Pond)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Site is in good condition

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Fair/**Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Fair
- **Principal Spillway** - Good

## **Outfall and Downstream Condition**

- **Spillway Outfall** - Good
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

## **Maintenance & Remediation Recommendations**

UMCP19BMP0024 / Terrapin Trail Garage retention pond

Date of Inspection: May 18, 2023 8:08 AM



# FACILITIES MANAGEMENT

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0027 / Lot PP2 Bioretention  
Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 21, 2023 12:09 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0027	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Fair
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** Some debris at inlet. Full vegetation, but naturalized with native and non native volunteer plants

## Inflow and Forebay

- **Inflow Condition** - Fair
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

### **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0036 / Lot Three (Guilford Park Bioretention)

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 7:10 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0036	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	No Maintenance Needed		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP19BMP0036 / Lot Three (Guilford Park Bioretention)

Date of Inspection: June 6, 2023 7:10 AM



# FACILITIES MANAGEMENT

## **Additional Photos**







# FACILITIES MANAGEMENT

UMCP19BMP0039 / Chem-Nuc BLDG

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 21, 2023 11:32 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0039	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** There is vegetative coverage, but mostly invasive and undesirable weeds. Some curb cuts are partly blocked by weeds and debris. One Boulder has moved and needs to be repositioned.

## **Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP19BMP0039 / Chem-Nuc BLDG  
AM

Date of Inspection: September 21, 2023 11:32



# FACILITIES MANAGEMENT

## Maintenance & Remediation Recommendations

### Additional Photos





# FACILITIES MANAGEMENT

UMCP19BMP0059 / Denton Dining

Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 27, 2023 12:00 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0059	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Needs additional plant material for full vegetative coverage
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Replanting required in each of the three cells. Many bare spots.

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

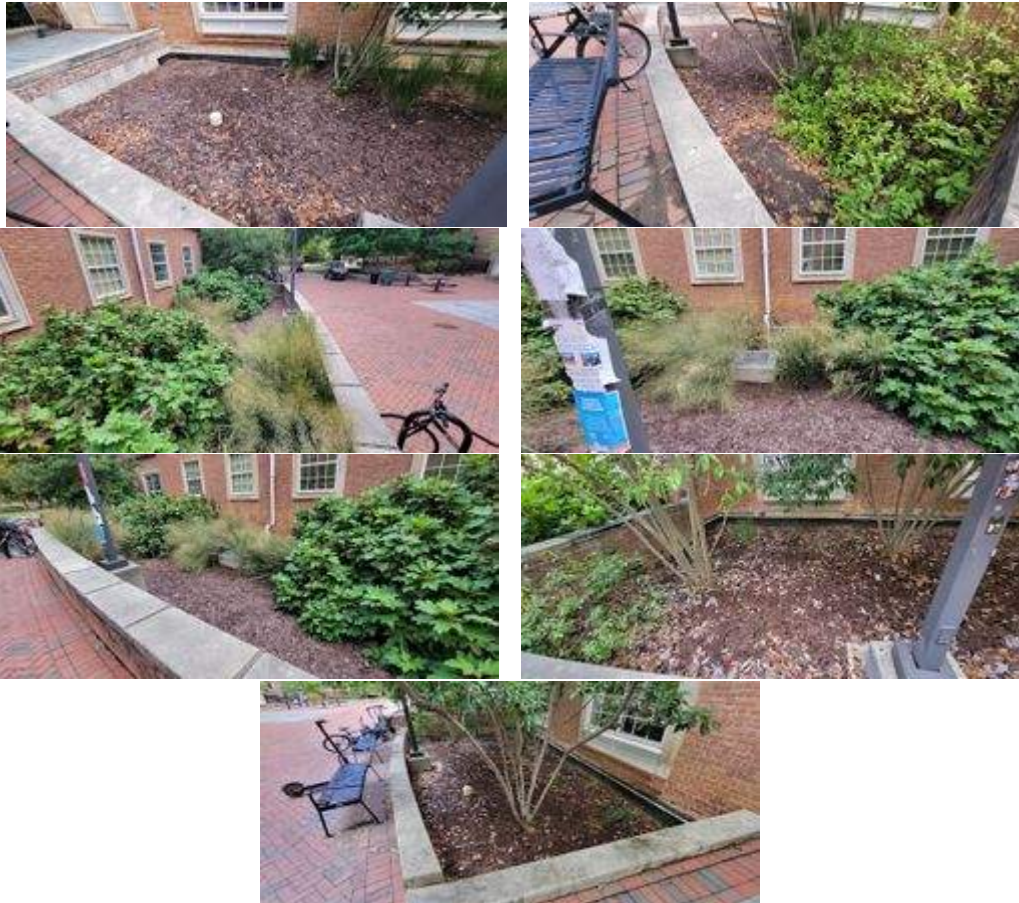


# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Replant per plan

### **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0065 / Greenmeade North Grass Channel B

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 16, 2022 10:17 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0065	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Grass Swale	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection</b>	
<b>Maintenance Level</b>	No Maintenance Needed	<b>Comment:</b>	

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Good

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP19BMP0065 / Greenmeade North Grass Channel B

Date of Inspection: September 16, 2022 10:17 AM



# FACILITIES MANAGEMENT

## **Additional Photos**



# FACILITIES MANAGEMENT

UMCP19BMP0088 / Chem-Nuc BLDG

Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 21, 2023 11:40 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0088	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Sparse desirable plant material. Replanting opportunity
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Better condition than adjacent BMP, but there's a need for new planting in big facilities

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

### **Additional Photos**







# FACILITIES MANAGEMENT

UMCP19BMP0011 / CSPAC Shallow Marsh Wetland  
Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 27, 2023 12:11 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0011	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Shallow Marsh	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## Site Conditions

- **BMP Access** - Fair
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Southern inlets and channel are overgrown. Access around facility is overgrown. Riser not immediately Visakhapatnam

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - Good

## Treatment Area

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** -

## Embankment

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

## Outlet/Control Structure

- **Low Flow Orifice** - Good
- **Outlet / Control Structure** - Good
- **Principal Spillway** - N/A

## Outfall and Downstream Condition

- **Spillway Outfall** - N/A
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)



# FACILITIES MANAGEMENT

## Maintenance & Remediation Recommendations

### Additional Photos



UMCP19BMP0013 / Courtyards retention pond

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 1:13 PM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0013	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Retention Pond (Wet Pond)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overall bmp in good condition, needs minor maintenance at inflows and vegetation control around control structure and at inflows.
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Some overgrowth of vegetation as well unplanned vegetation.

**Inflow and Forebay**

- **Inflow Condition** – Poor
- **Inflow Comments** - NW inlet has woody vegetation growth in front of end wall as well as invasive vegetation in riprap, and water standing at inflow has a sheen. SW inflow has minor vegetation growth, and moderate sedimentation.
  - **Other Repair Items** - Remove vegetation and sedimentation at inflows and refill riprap where needed.
- **Forebay** – Fair
  - **Other Repair Items** - Invasive vegetation growth in NW forebay. Sedimentation in SW forebay. Displaced riprap from inflows into forebays leading to minor conveyance instability in forebays.

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding** - Good/**Water Depth** - 0

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** – Good
- **Emergency Spillway** - Good
- **Embankment Cover** - Minor bare spots on upstream embankment next to building due to construction as well as bare spots on embankment closer to outfall due to shade.
- **Other Repair Items** - Reseed bare spots

**Outlet/Control Structure**

- **Low Flow Orifice** - Good

- **Outlet / Control Structure** – Fair
- **Control Structure Comment** - Woody vegetation growth around the control structure.
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** – Fair
- **Downstream Condition Comment** - Woody vegetation growth in riprap to outflow.

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations**

Remove sedimentation at inflows and vegetation. Identify source of contamination at NW inflow. Remove woody vegetation at control structure and at inflows.

**Additional Photos**

**Overall Photos**





**NW Inflow Condition**



**SW Inflow Condition**



**Overall NW Forebay**





**Contamination at NW Inflow**



**Embankment**



### Control Structure



**SW Forebay conveyance instability**



**Woody vegetation growth in gabion basket of SW forebay**





# FACILITIES MANAGEMENT

UMCP19BMP0014 / Woods Hall

Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 21, 2023 2:53 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0014	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Good plant coverage on slope. No weed pressure
<b>Maintenance Level</b>	No Maintenance Needed		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Good access to facility. Appropriate vegetation, no weed pressure. Overflow is clear

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

None

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0022 / Lot 11b

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 21, 2023 12:22 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0022	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)		

## **Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Access is a bit overgrown. BMP is completely overgrown and taken over by invasive, with some native volunteer plants present

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Poor

**BMP Status** - Fail



# FACILITIES MANAGEMENT

**Maintenance Level** - Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)

## **Maintenance & Remediation Recommendations**

### **Additional Photos**





UMCP19BMP0023 / Neutral Buoyancy Conveyance

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 1:15 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP19BMP0023	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Wet Swale (ESD)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	BMP in fair condition. Excessive sediment near outfall. Erosion around outlet culvert, potential damage.
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Poor
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Excessive sediment near outfall

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Fair/Water Depth** - 1

**Embankment**

- **Embankment Cover** - Fair
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Poor

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Fair
- **Principal Spillway** - Not Rated

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations** – Trim vegetation. Remove excess sediment from outfall. Repair erosion around outlet culvert and repair damage concrete as needed.

**Additional Photos**

Overall Site Condition



### Outflow Condition



Outfall Condition.



Erosion around culvert. Potential damage



### Excessive Sedimentation Near Outfall





# FACILITIES MANAGEMENT

UMCP19BMP0024 / Terrapin Trail Garage retention pond

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	May 18, 2023 8:08 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0024	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Retention Pond (Wet Pond)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Site is in good condition

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Fair/**Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Fair
- **Principal Spillway** - Good

## **Outfall and Downstream Condition**

- **Spillway Outfall** - Good
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

## **Maintenance & Remediation Recommendations**

UMCP19BMP0024 / Terrapin Trail Garage retention pond

Date of Inspection: May 18, 2023 8:08 AM



# FACILITIES MANAGEMENT

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0027 / Lot PP2 Bioretention  
Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 21, 2023 12:09 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0027	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Fair
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** Some debris at inlet. Full vegetation, but naturalized with native and non native volunteer plants

## Inflow and Forebay

- **Inflow Condition** - Fair
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)





# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

### **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0036 / Lot Three (Guilford Park Bioretention)

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 7:10 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0036	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	No Maintenance Needed		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP19BMP0036 / Lot Three (Guilford Park Bioretention)

Date of Inspection: June 6, 2023 7:10 AM



# FACILITIES MANAGEMENT

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0039 / Chem-Nuc BLDG

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 21, 2023 11:32 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0039	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** There is vegetative coverage, but mostly invasive and undesirable weeds. Some curb cuts are partly blocked by weeds and debris. One Boulder has moved and needs to be repositioned.

## **Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP19BMP0039 / Chem-Nuc BLDG  
AM

Date of Inspection: September 21, 2023 11:32



# FACILITIES MANAGEMENT

## Maintenance & Remediation Recommendations

### Additional Photos





# FACILITIES MANAGEMENT

UMCP19BMP0059 / Denton Dining

Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 27, 2023 12:00 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0059	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Needs additional plant material for full vegetative coverage
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Replanting required in each of the three cells. Many bare spots.

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

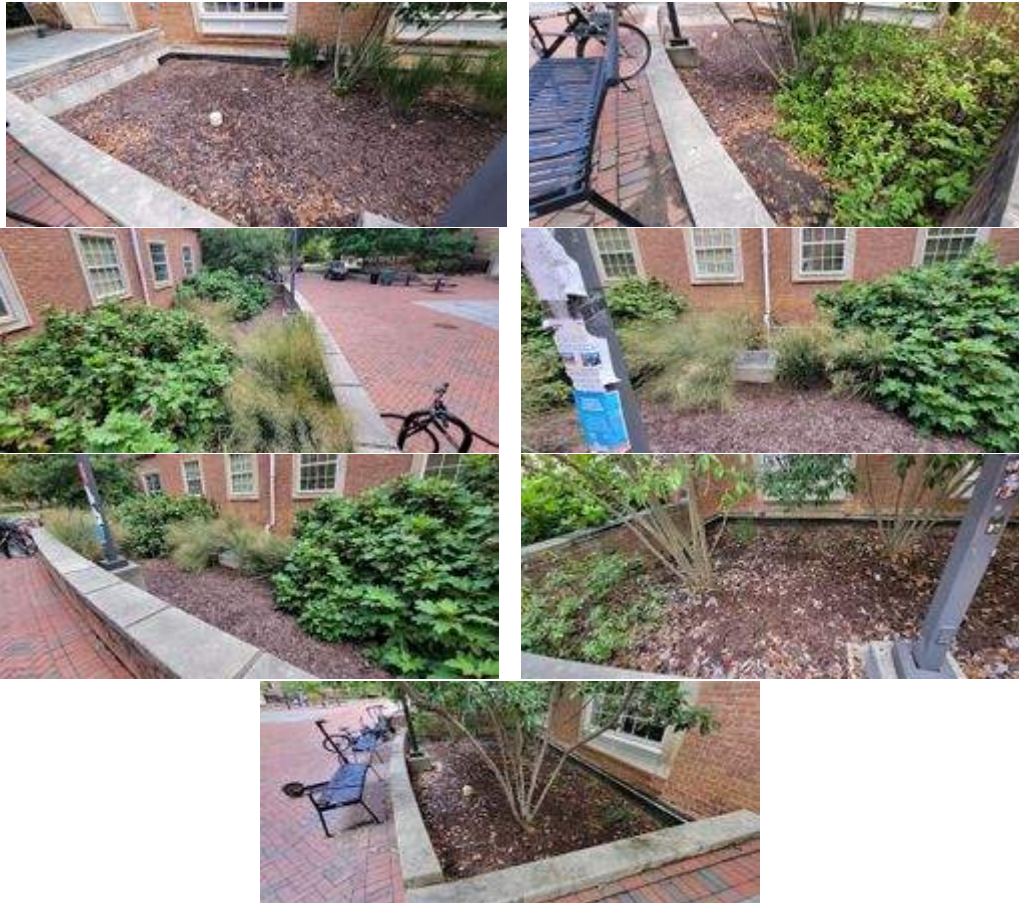


# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Replant per plan

### **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0065 / Greenmeade North Grass Channel B

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 16, 2022 10:17 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0065	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Grass Swale	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection</b>	
<b>Maintenance Level</b>	No Maintenance Needed	<b>Comment:</b>	

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Good

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP19BMP0065 / Greenmeade North Grass Channel B

Date of Inspection: September 16, 2022 10:17 AM





# FACILITIES MANAGEMENT

## **Additional Photos**

UMCP19BMP0068 / Courtyards Northeast Parking

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023, 12:48 PM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0068	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Structure failing, poor conveyance medium and stability, heavy sedimentation
<b>Maintenance Level</b>	Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Good
- **BMP Contamination** - Fair
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Poor
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Poor
- **Ponding - /Water Depth** - N/A

**Embankment**

- **Embankment Cover** - N/A
- **Upstream Embankment** - N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** – Fail

**Maintenance Level** - Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)

**Maintenance & Remediation Recommendations**

Redesign

**Additional Photos**

**Overall Photos:**



**Bare patches of medium and sedimentation:**



**Structure failure:**



UMCP19BMP0069 / Courtyards Northeast Parking

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 12:47 PM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0069	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Storage capacity greatly reduced by sediment accumulation. Bare areas in basin.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Poor
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** BMP's capacity is reduced by buildup of sediment, bare areas with no mulch.

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding - /Water Depth** - N/A

**Embankment**

- **Embankment Cover** - N/A
- **Upstream Embankment** - N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** - Fail

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations**

Remove sediment accumulation, re-mulch, and re-plant where needed.

**Additional Photos**

Overall photo showing sediment buildup and lack of mulch.



Overall photo showing sediment accumulation.



Overall photo showing sediment accumulation and bare areas.







UMCP19BMP0080 / Lot FF2

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 1:43 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP19BMP0080	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Permeable Pavements	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overall BMP in good condition
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Not Rated
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Needs cleaning and debris removal

**Inflow and Forebay**

- **Inflow Condition** - Not Rated
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding - /Water Depth** – N/A

**Embankment**

- **Embankment Cover** - N/A
- **Upstream Embankment** - N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

Continue routine maintenance

Additional Photos

Overall Condition



Routine Cleaning and Maintenance Needed





UMCP19BMP0081 / Denton Hall

Stormwater Management Facility BMP Inspection

**Inspection Data**

Date of Inspection:	May 31, 2023 12:51 PM	Inspector Initials:	BFB/TPR
BMP ID:	UMCP19BMP0081	Inspection Firm:	MES
BMP Type:	Rainwater Harvesting	Underground BMP?	No
BMP Status	Pass	Overall Inspection Comment:	Cleaning and soil removal
Maintenance Level	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Not Rated
- **Vegetation** - Not Rated
- **BMP Contamination** - Not Rated
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding - /Water Depth** - N/A

**Embankment**

- **Embankment Cover** - N/A
- **Upstream Embankment** - N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

Cleaning and soil removal

Additional Photos

Overall Condition



Downspout Condition





Wes Moore GOVERNOR  
Aruna Miller LT. GOVERNOR  
Charles Glass, Ph.D., P.E. EXECUTIVE DIRECTOR

UMCP19BMP0083 / Denton Hall

Stormwater Management Facility BMP Inspection

**Inspection Data**

Date of Inspection:	May 31, 2023 12:47 PM	Inspector Initials:	BFB/TPR
BMP ID:	UMCP19BMP0083	Inspection Firm:	MES
BMP Type:	Rainwater Harvesting	Underground BMP?	No
BMP Status	Pass	Overall Inspection Comment:	Minor cracking on downspout connection
Maintenance Level	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Not Rated
- **Vegetation** - Not Rated
- **BMP Contamination** - Not Rated
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding - /Water Depth** – N/A

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** – N/A
- **Principal Spillway** – N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations**

Repair cracked PVC connection

**Additional Photos**

Overall Condition





Downspout Condition





# FACILITIES MANAGEMENT

UMCP19BMP0088 / Chem-Nuc BLDG

Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 21, 2023 11:40 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0088	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Sparse desirable plant material. Replanting opportunity
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Better condition than adjacent BMP, but there's a need for new planting in big facilities

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

### **Additional Photos**



UMCP19BMP0091 / Regents Drive Bioretention

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 1:58 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP19BMP0091	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Sediment accumulation at inflow and within facility. Significantly overgrown vegetation reducing storage capacity.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Fair
- **Vegetation** - Poor
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Completely overgrown and high sediment build up

**Inflow and Forebay**

- **Inflow Condition** - Not Rated
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding** - Not Rated/**Water Depth** -

**Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Not Rated
- **Principal Spillway** - Not Rated

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Good

**BMP Status** - Fail

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations** – Clear sediment and debris. Remove unplanned and invasive vegetation.

**Additional Photos**

**Overall:**



**Curb cut Inflow**



UMCP19BMP0092 / Lot 9 Bioretention

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 11:32 AM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0092	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Major maintenance, sediment accumulation at inflows, poor conveyance stability causing bare patches, inlets are structurally compromised.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Bmp not in good condition. Several inlets are collapsing, sedimentation and debris in conveyance basin.

**Inflow and Forebay**

- **Inflow Condition** – Poor
- **Inflow Comments** - Inflows are collapsing.
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Poor
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A

- **Downstream Condition** - N/A
- **Downstream Condition Comment** - Bare spots in basin, debris and sedimentation.

**BMP Status** - Fail

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations**

Replace inlets, regrade all basins, remove sediment from all inflows.

**Additional Photos**

**Overall Photos:**





**Storm Drain 1 and 3**



**Storm Drain 2:**



**Inlet structures with sediment accumulation:**



**Bare spots in conveyance basin**



**Broken Cleanout:**



UMCP19BMP0093 / Regents Drive Bioretention  
 Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 1:50 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP19BMP0093	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Significant overgrown vegetation.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Poor
- **Vegetation** - Poor
- **BMP Contamination** - N/A
- **General Site Conditions Comments:** Completely overgrown, cannot identify features, major vegetation and removal required.

**Inflow and Forebay**

- **Inflow Condition** - Poor
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding** - Not Rated/**Water Depth** – Not Rated

**Embankment**

- **Embankment Cover** - Not Rated
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Not Rated

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - Not Rated

**BMP Status** - Fail

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations**

Repair curb. Trim overgrown vegetation.

**Additional Photos**

Overall Photo Showing Overgrown Vegetation



Inflow Condition



### Outlet Structure





Inflow Condition Showing Damaged Curb





UMCP19BMP0094 / Paint Branch Drive Bioretention

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023, 11:55 AM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0094	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	BMP needs major maintenance. Overgrown vegetation, sediment accumulation at inflow and underdrain. Tree growth on embankment.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Poor
- **Vegetation** - Poor
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Overgrown vegetation, reduced storage capacity, sediment at inflow, and underdrain pipe filled with two inches of sediment.

**Inflow and Forebay**

- **Inflow Condition** - Poor
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - Poor
- **Upstream Embankment** - Poor
- **Downstream Embankment** - Poor

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Not Rated
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - Poor

**BMP Status** - Fail

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations**

Remove unplanned and overgrown vegetation in basin and on embankment. Remove sediment from inflow and in underdrain.  
Remove unplanned woody vegetation from embankment.

**Additional Photos**

**Overall Photos:**



**Inflow:**



Outfall:



**Vegetation at Outfall:**



**Overhead View of Outfall:**



**Vegetation in Treatment Area:**



**Cleanout:**



**Downstream condition:**







# FACILITIES MANAGEMENT

UMCP19BMP0106 / Shuttle Bus

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 30, 2022 9:09 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0106	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Retention Pond (Wet Pond)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Repair work brings facility up to standards post fuel spill earlier this year
<b>Maintenance Level</b>	No Maintenance Needed		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** -
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Post maintenance repairs site free of debris and obstruction

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Good

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

## **Outfall and Downstream Condition**

- **Spillway Outfall** - Good
- **Downstream Condition** - Good

**BMP Status** - Pass



# FACILITIES MANAGEMENT

**Maintenance Level** - No Maintenance Needed

**Maintenance & Remediation Recommendations**

None

**Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0122 / Denton Courtyard Bioretention  
Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 27, 2023 12:05 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0122	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	One missing 6" cleanout cap, and a sinkhole about 2' in diameter has formed
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Plants that are present are healthy and vigorous, but bare spots require replanting in shine areas

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP19BMP0122 / Denton Courtyard Bioretention

Date of Inspection: September 27, 2023 12:05 PM



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Replace cleanout cap, and fill in sinkhole. Replant bare areas

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0125 / Prince Frederick Hall Bioretention Cell 2

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	November 22, 2022 9:35 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0125	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Micro-Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection</b>	
<b>Maintenance Level</b>	No Maintenance Needed	<b>Comment:</b>	

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP19BMP0125 / Prince Frederick Hall Bioretention Cell 2

Date of Inspection: November 22, 2022 9:35 AM



# FACILITIES MANAGEMENT

## **Additional Photos**



UMCP19BMP0130 / By fountain in front of Kirwan Hall

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 11:19 AM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0130	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Permeable Pavements	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	No longer permeable. Brick appears to have been grouted. No longer infiltrating.
<b>Maintenance Level</b>	Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - N/A
- **BMP Contamination** - N/A
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** - N/A

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** – N/A
- **Principal Spillway** – N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** - N/A

**BMP Status** - Fail

**Maintenance Level** - Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)

**Maintenance & Remediation Recommendations**

Conduct in-depth infiltration test.

**Additional Photos**

Overall Site Condition





Photo Showing Permeable Pavers Have Been Grouted





UMCP19BMP0143 / Central Animal Resources Facility

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023, 1:33 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP19BMP0143	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Permeable Pavements	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overall BMP in good condition. Minor sediment accumulation.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Not Rated
- **BMP Contamination** - Poor
- **General Site Conditions Comments:** Permanent standing objects building up debris and impeding water flow.

**Inflow and Forebay**

- **Inflow Condition** - Poor
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding - /Water Depth** -

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** – N/A
- **Principal Spillway** – N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

Continue routine maintenance

**Additional Photos**

**Objects blocking pavement:**



**Buildup of debris:**



UMCP19BMP0172 / Courtyards South Parking

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023, 1:33 PM	<b>Inspector Initials:</b>	PP
<b>BMP ID:</b>	UMCP19BMP0172	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overall BMP in good condition. Minor erosion at inflow and bare areas on banks. Unplanned vegetation growth.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Site in moderate condition, needs some minor maintenance. Erosion in the inflow, bare patches on banks and invasive vegetation growing in basin.

**Inflow and Forebay**

- **Inflow Condition** – Poor
- **Inflow Comments** - Erosion at inflow and gullies forming from inflow from road on the side of streetlamp.
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Not Rated/**Water Depth** – 0
- **Treatment Area Comments** - Invasive plant growth in basin is the only vegetation present other than grass.

**Embankment**

- **Embankment Cover** – Fair
- **Embankment Cover Comments** - Bare spots on side next to building.
- **Upstream Embankment** - Fair
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

Fill primary inflow/introduce riprap at inflow to remediate erosion. Remove invasive vegetation and reseed or fill baren spots next to building.

**Additional Photos**

**Overall Photos:**



**Control Structure:**



**Principle spillway:**



Bare patches c





**Moderate Erosion at NE inflow:**



**Mild erosion on S bank**



**Bare area in SW basin**



**Gully forming around food of bridge from sheet flow from sidewalk**





# FACILITIES MANAGEMENT

UMCP19BMP0231 / Clark Hall Bioretention 1  
Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 21, 2023 11:48 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0231	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Vegetation present, but lower growing plant layer is missing and being replaced by grass and weeds

## Inflow and Forebay

- **Inflow Condition** - Good
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - Fair

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Replant following the plant schedule as needed

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0232 / Clark Hall Bioretention 2

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 21, 2023 11:57 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0232	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Micro-Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Perennial shrubs present, but lower growing plants are absent and being replaced with weed. Holes present which appear to be from burrowing animals

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - N/A
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Fair

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP19BMP0232 / Clark Hall Bioretention 2 Date of Inspection: September 21, 2023 11:57 AM



# FACILITIES MANAGEMENT

## Maintenance & Remediation Recommendations

### Additional Photos



UMCP19BMP0235 / Upper Golf Course

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 2, 2023, 11:31 AM	<b>Inspector Initials:</b>	SAL, PP
<b>BMP ID:</b>	UMCP19BMP0235	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Retention Pond (Wet Pond)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Facility control structure has collapsed, major sediment accumulation and cattail growth within facility, erosion and damaged structures at inflows, tree growth and erosion at embankment, erosion and debris in outfall stream.
<b>Maintenance Level</b>	Rebuild/Redesign (Use of engineering design to redesign or completely rebuild the facility)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Poor
- **Vegetation** - Poor
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Cattail growth throughout facility, significant sediment accumulation within facility

**Inflow and Forebay**

- **Inflow Condition** - Poor
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - Poor
- **Upstream Embankment** - Fair
- **Downstream Embankment** - Fair

**Outlet/Control Structure**

- **Low Flow Orifice** - Poor
- **Outlet / Control Structure** - Poor
- **Principal Spillway** - Poor

**Outfall and Downstream Condition**

- **Spillway Outfall** - Poor
- **Downstream Condition** - Poor

**BMP Status** - Fail

**Maintenance Level** - Rebuild / Redesign (Use of engineering design to redesign or completely rebuild the facility)

**Maintenance & Remediation Recommendations**

Dredge facility, rebuild control structure, repair downstream condition, repair inflows.

**Additional Photos**

**Overall Photos:**





**Overall photos:**



Overall Photos:



**Erosion at Inflows :**



**Enbankment:**



**Upstream Embankment:**



**Failing Control Structure:**



**Downstream Condition:**



**West Inflow:**





UMCP19BMP0236 / Courtyards Sheet flow to Conservation 1

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023, 1:02 PM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0236	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Sheet flow to Conservation Areas	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	BMP in good condition. Storage container blocking some inflow.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** – N/A

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** – N/A
- **Principal Spillway** – N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** - Good

**BMP Status** – Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP19BMP0236 / Courtyards Sheet flow to Conservation 1

Date of Inspection: June 6, 2023, 1:02 PM



**Maintenance & Remediation Recommendations**

Move storage container.

**Photos showing the storage container blocking the inflow**



UMCP19BMP0237 / Courtyards Sheet flow to Conservation 2

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023, 1:15 PM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP19BMP0237	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Sheet flow to Conservation Areas	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Minor erosion in middle, downstream portion
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - N/A
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding - /Water Depth** – N/A

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** – N/A
- **Principal Spillway** – N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations**

Regrade/reseed/address minor erosion.

**Overall Photos**





# FACILITIES MANAGEMENT

UMCP19BMP0243 / Brendan Iribe 3

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 16, 2022 10:29 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP19BMP0243	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bio-Swale	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Facility now working as designed post- maintenance
<b>Maintenance Level</b>	No Maintenance Needed		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** - 0

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Not Rated

## **Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** -

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP19BMP0243 / Brendan Iribe 3  
AM

Date of Inspection: September 16, 2022 10:29



# FACILITIES MANAGEMENT

Monitor new planting and add as needed

## **Additional Photos**



# FACILITIES MANAGEMENT

UMCP20BMP0257 / UMCP Student Housing Building B

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 16, 2022 10:48 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP20BMP0257	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Underground Filter	<b>Underground BMP?</b>	Yes
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Parging performed during 2019 repair of facility. Pipe no longer allows flows to bypass chambers
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** good

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Good

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP20BMP0257 / UMCP Student Housing Building B

Date of Inspection: September 16, 2022 10:48 AM



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

### **Additional Photos**



# FACILITIES MANAGEMENT

UMCP20BMP0264 / New Training Facility for MFRI

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 22, 2023 11:03 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP20BMP0264	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection</b>	
<b>Maintenance Level</b>	No Maintenance Needed	<b>Comment:</b>	

## **Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Wetland restrictions don't allow for complete clearing, but flow path of water is unobstructed

## **Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Good

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP20BMP0264 / New Training Facility for MFRI

Date of Inspection: September 22, 2023 11:03 AM





# FACILITIES MANAGEMENT

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP21BMP0292 / Cole Field House Green Roof 1

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 26, 2023 3:24 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP21BMP0292	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Green Roof - Extensive	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Good plant coverage with only minor weed presence
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Good overall turf coverage, with a few small areas of clover here and there along edges

## **Inflow and Forebay**

- **Inflow Condition** - N/A
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP21BMP0292 / Cole Field House Green Roof 1

Date of Inspection: September 26, 2023 3:24 PM



# FACILITIES MANAGEMENT

## Maintenance & Remediation Recommendations

### Additional Photos





# FACILITIES MANAGEMENT

UMCP21BMP0293 / Cole Field House Green Roof 2

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 26, 2023 3:22 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP21BMP0293	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Green Roof - Extensive	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection</b>	
<b>Maintenance Level</b>	No Maintenance Needed	<b>Comment:</b>	

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Vegetation is filling in well. Healthy plant coverage with low weed pressure

## **Inflow and Forebay**

- **Inflow Condition** - N/A
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - No Maintenance Needed

## **Maintenance & Remediation Recommendations**

UMCP21BMP0293 / Cole Field House Green Roof 2

Date of Inspection: September 26, 2023 3:22 PM



# FACILITIES MANAGEMENT

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP21BMP0294 / Cole Field House Green Roof 3

Stormwater Management Facility BMP Inspection

## **Inspection Data**

<b>Date of Inspection:</b>	September 26, 2023 3:17 PM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP21BMP0294	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Green Roof - Extensive	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Heavy weed pressure
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

## **Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Plant material is filling in, but large unplanted areas are filling in with unwanted grasses and weeds

## **Inflow and Forebay**

- **Inflow Condition** - N/A
- **Forebay** - N/A

## **Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## **Embankment**

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## **Outlet/Control Structure**

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## **Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP21BMP0294 / Cole Field House Green Roof 3

Date of Inspection: September 26, 2023 3:17 PM



# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Continue pulling by hand all undesirable plant material

## **Additional Photos**





# FACILITIES MANAGEMENT

UMCP21BMP0295 / Cole Field House Green Roof 4  
Stormwater Management Facility BMP Inspection

## Inspection Data

<b>Date of Inspection:</b>	September 26, 2023 11:02 AM	<b>Inspector Initials:</b>	MMC
<b>BMP ID:</b>	UMCP21BMP0295	<b>Inspection Firm:</b>	UMD
<b>BMP Type:</b>	Green Roof - Extensive	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Heavy weed pressure from grasses
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

## Site Conditions

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Weedy grasses are filling in bare spaces due to oversized plant spacing

## Inflow and Forebay

- **Inflow Condition** - N/A
- **Forebay** - N/A

## Treatment Area

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

## Embankment

- **Embankment Cover** -
- **Upstream Embankment** -
- **Downstream Embankment** -

## Outlet/Control Structure

- **Low Flow Orifice** -
- **Outlet / Control Structure** -
- **Principal Spillway** -

## Outfall and Downstream Condition

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)





# FACILITIES MANAGEMENT

## **Maintenance & Remediation Recommendations**

Continue weeding on each maintenance visit

## **Additional Photos**



UMCP22BMP0301 / Idea Factory Micro-Bioretenction 4

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 10:22 AM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP22BMP0301	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenction	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	BMP in good condition.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - Good
- **Outlet / Control Structure** - Good
- **Principal Spillway** -

**Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP22BMP0301 / Idea Factory Micro-Bioretenction 4

Date of Inspection: June 6, 2023, 10:22 AM

**Maintenance & Remediation Recommendations**

Continue with routine maintenance.

**Additional Photos**

Overall Photos:



Principle Spillway:



Control Structure:



Embankment:



Observation well:



UMCP22BMP0302 / Idea Factory Micro-Bioretenion 2

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 10:42 AM	<b>Inspector Initials:</b>	PP,PW
<b>BMP ID:</b>	UMCP22BMP0302	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	BMP in good condition overall. Some filter media present in riprap at rooftop drain inflow.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** - 0

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** – N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP22BMP0302 / Idea Factory Micro-Bioretenion 2

Date of Inspection: June 6, 2023 10:42 AM

**Maintenance & Remediation Recommendations**

Investigate filter media at inflow, regrade if necessary.

**Additional Photos**

Overall Photos:



Observation Well:



Inflow:







Downstream of Outfall:



Upstream of Outfall:



UMCP22BMP0303 / Idea Factory Micro-Bioretenion 1

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 10:54 AM	<b>Inspector Initials:</b>	PP, MES
<b>BMP ID:</b>	UMCP22BMP0303	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Moderate sedimentation occurring around inflow, could be filter media or roof media. Moderate conveyance instability from inflow halfway through bmp.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Good
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** Heavy sedimentation around Inflow.

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - N/A
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

UMCP22BMP0303 / Idea Factory Micro-Bioretenion 1

Date of Inspection: June 6, 2023 10:54 AM

**BMP Status** - Pass

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations**

Monitor for additional erosion. Identify source of contamination.

**Additional Photos**

Overall Photos:



Inflow:



Sedimentation at inflow:



Sedimentation around inflow:



Observation well:



UMCP22BMP0304 / Idea Factory Micro-Bioretenction 3

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 6, 2023 10:34 AM	<b>Inspector Initials:</b>	PP, PW
<b>BMP ID:</b>	UMCP22BMP0304	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenction	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Bmp in good condition overall, minor bare patch next to inflow.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - N/A
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

**Outlet/Control Structure**

- **Low Flow Orifice** - Good
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP22BMP0304 / Idea Factory Micro-Bioretenction 3

Date of Inspection: June 6, 2023 10:34 AM



**Maintenance & Remediation Recommendations**

Routine maintenance, re-mulch minor bare spot next to inflow.

**Additional Photos**

Overall Photos:



Principle Spillway:



Observation well:



Inflow:



Bare patch next to inflow:



Inflow Overall:





UMCP22BMP0306 / Johnson-Whittle Hall Micro-Bioretenion 7A

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:28 AM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0306	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Fair condition, inflow pipe damage and standing water not draining.
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding** - Fair/**Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** – Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP22BMP0306 / Johnson-Whittle Hall Micro-Bioretenion 7A

Date of Inspection: May 31, 2023 10:28 AM

**Maintenance & Remediation Recommendations**- Fix broken inflow pipe. Investigate and remediate ponding.

**Additional Photos**

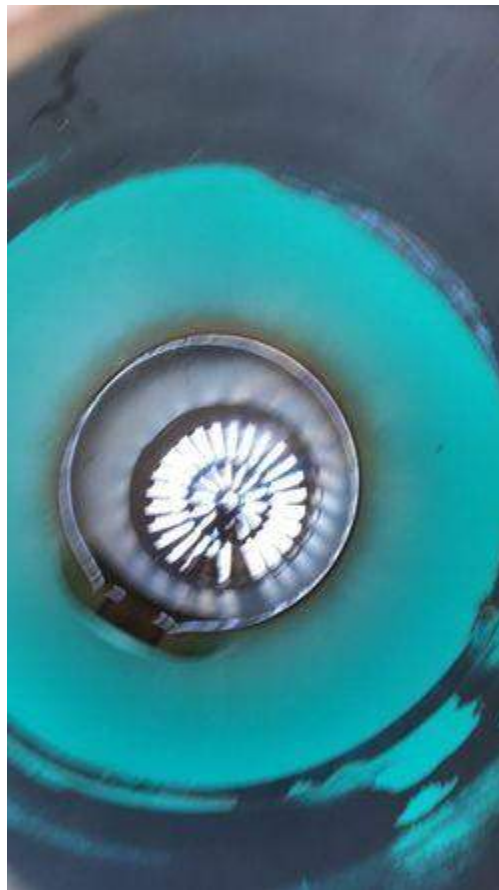
Overall Photo:



Embankment:



Principle Spillway:





Broken Inflow:



Pooling water at inflow:



UMCP22BMP0307 / Johnson-Whittle Hall Micro-Bioretenion 6A

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:49 AM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0307	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Filter fabric needs to be repaired at control structure. Standing water at inflow.
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Some trash, routine maintenance

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** – Good
- **Ponding** - Good/**Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

UMCP22BMP0307 / Johnson-Whittle Hall Micro-Bioretenion 6A

Date of Inspection: May 31, 2023 10:49 AM

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations**- Fix filter fabric at control structure, remediate ponding at inflow.

**Additional Photos**

Overall Photos:



Control Structure:



Inflow:



UMCP22BMP0308 / Johnson-Whittle Hall Micro-Bioretenion 5A

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:44 AM	<b>Inspector Initials:</b>	TPR/BFB
<b>BMP ID:</b>	UMCP22BMP0308	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	BMP in good condition, standing water at inflow
<b>Maintenance Level</b>	Routine Maintenance		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Not Rated

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** -

**Outfall and Downstream Condition**

- **Spillway Outfall** -
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** – Routine Maintenance

**Maintenance & Remediation Recommendations**

UMCP22BMP0308 / Johnson-Whittle Hall Micro-Bioretenion 5A

Date of Inspection: May 31, 2023 10:44 AM

**Additional Photos**

Overall Photos:



Control Structure:



Treatment Area:





Inflow:



UMCP22BMP0309 / Johnson-Whittle Hall Micro-Bioretenion 5

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:44 AM	<b>Inspector Initials:</b>	TPR/BFB
<b>BMP ID:</b>	UMCP22BMP0309	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Facility in good condition.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Fair
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Not Rated
- **Ponding - N/A/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Not Rated

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations** - Continue with Routine Maintenance.

UMCP22BMP0309 / Johnson-Whittle Hall Micro-Bioretenion 5

Date of Inspection: May 31, 2023 10:44 AM

**Additional Photos**

Overall Photos:



Inflow:



Principal Spillway:



Embankment:



UMCP22BMP0310 / Johnson-Whittle Hall Micro-Bioretenion 6

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:52 AM	<b>Inspector Initials:</b>	TPR/BFB
<b>BMP ID:</b>	UMCP22BMP0310	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Minor standing water in treatment area
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding** - Fair/**Water Depth** - 0.2

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

UMCP22BMP0310 / Johnson-Whittle Hall Micro-Bioretenion 6

Date of Inspection: May 31, 2023 10:52 AM

**Maintenance & Remediation Recommendations**

Flush sub drain, replace mulch in wet areas

**Additional Photos**

Overall Photo:

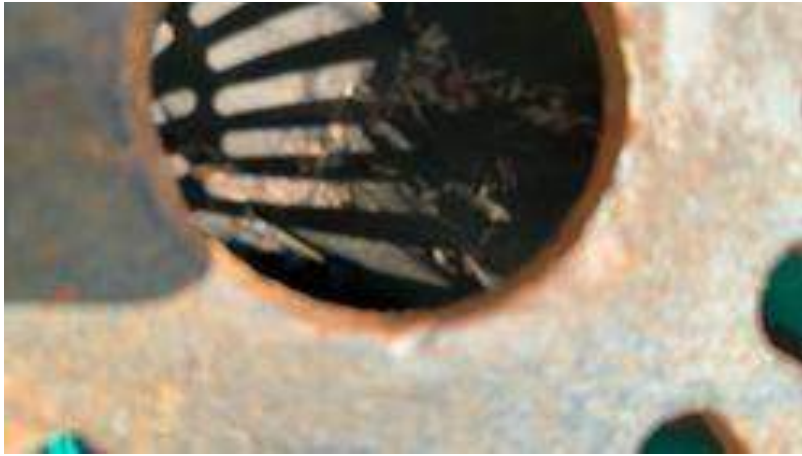


Embankment:





Principle Spillway:



Treatment Area:



Treatment Area:



Inflow:





UMCP22BMP0311 / Johnson-Whittle Hall Micro-Bioretenion 8

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:07 AM	<b>Inspector Initials:</b>	TPR/BFB
<b>BMP ID:</b>	UMCP22BMP0311	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Facility in good condition. Minor sedimentation and trash in treatment area.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Poor
- **Debris & Sediment** - Fair
- **Vegetation** - Good
- **BMP Contamination** - Fair
- **General Site Conditions Comments:** Trash in treatment area

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Not Rated

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Not Rated

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

UMCP22BMP0311 / Johnson-Whittle Hall Micro-Bioretenion 8

Date of Inspection: May 31, 2023 10:07 AM

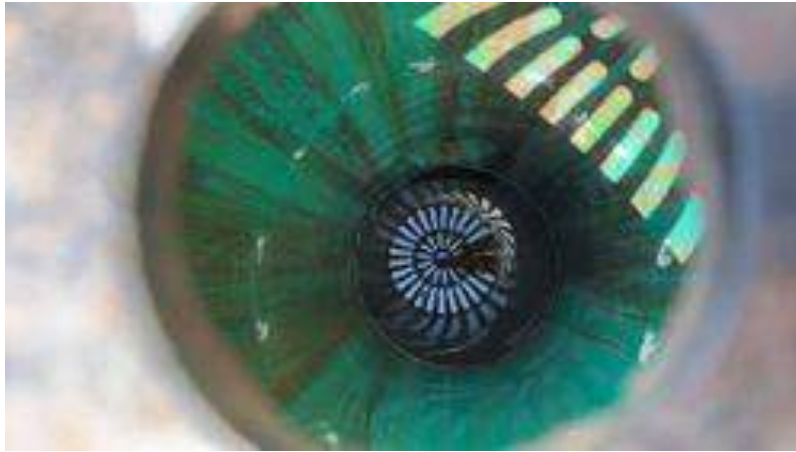
**Maintenance & Remediation Recommendations** - Continue with Routine Maintenance.

**Additional Photos**

Overall Photos:



Principle Spillway:



Treatment Area:



Sediment in Treatment Area:



Inflow:







UMCP22BMP0312 / Johnson-Whittle Hall Micro-Bioretenion 8A

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 9:49 AM	<b>Inspector Initials:</b>	TPR/BFB
<b>BMP ID:</b>	UMCP22BMP0312	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Good overall condition except for minor standing water at inflows
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Fair
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Some trash

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Good/**Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP22BMP0312 / Johnson-Whittle Hall Micro-Bioretenion 8A

Date of Inspection: May 31, 2023 9:49 AM

**Maintenance & Remediation Recommendations** - Flush sub drain

**Additional Photos**

Overall Photo:



Principle Spillway:



Inflow:



UMCP22BMP0313 / Pyon-Chen Hall Micro-Bioretenion 9

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 12:20 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0313	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	Yes
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Bmp in good condition overall.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Vegetation is sparse

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Fair
- **Upstream Embankment** - Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations** – Continue with routine maintenance.

UMCP22BMP0313 / Pyon-Chen Hall Micro-Bioretenion 9

Date of Inspection: May 31, 2023 12:20 PM

**Additional Photos**

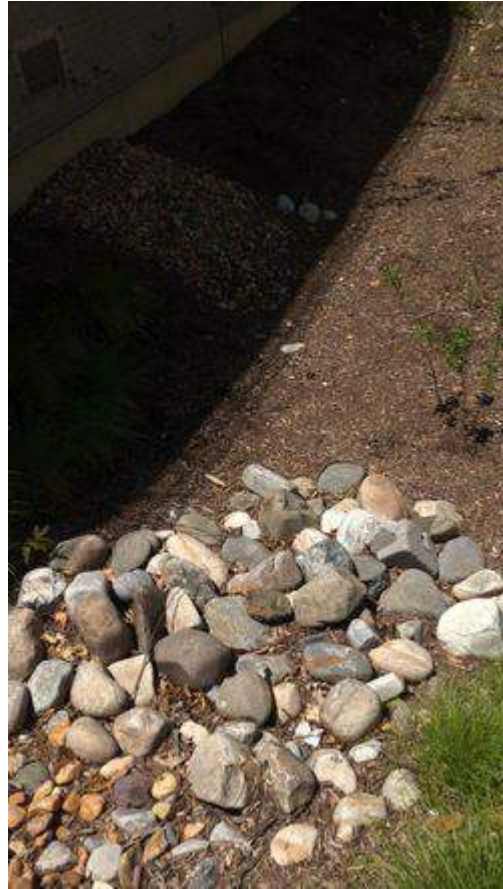
Overall Photos:



Principal Spillway:



Inflow:





UMCP22BMP0314 / Pyon-Chen Hall Micro-Bioretenction 3A

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 11:24 AM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0314	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenction	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overgrown vegetation
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Excessive vegation needs trimming

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Not Rated

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

Trim overgrown vegetation

UMCP22BMP0314 / Pyon-Chen Hall Micro-Bioretenction 3A

Date of Inspection: May 31, 2023 11:24 AM

**Additional Photos**

**Overall Photos**



### Embankment



**Principal Spillway**



**Control Structure**



**Inflow**



**Inflow Condition**



UMCP22BMP0315 / Pyon-Chen Hall Micro-Bioretenction 3

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 11:14 AM	<b>Inspector Initials:</b>	TPR/BFB
<b>BMP ID:</b>	UMCP22BMP0315	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenction	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overgrown vegetation
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Not Rated

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

Trim overgrown vegetation



**Additional Photos**

**Overall Photos**



**Inflow**



### Overgrown Vegetation



**Clean out**



**Principal Spillway**



**Control Structure**



UMCP22BMP0316 / Pyon-Chen Hall Micro-Bioretenction 4

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 12:15 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0316	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenction	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Bmp in good condition.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations:** Continue with routine maintenance.

UMCP22BMP0316 / Pyon-Chen Hall Micro-Bioretenction 4

Date of Inspection: May 31, 2023 12:15 PM

**Additional Photos**

Overall Photo:





Inflow:



Principle Spillway:



UMCP22BMP0317 / Pyon-Chen Hall Micro-Bioretenction 2

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 11:12 AM	<b>Inspector Initials:</b>	BFB/TRP
<b>BMP ID:</b>	UMCP22BMP0317	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenction	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Overgrown vegetation
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - Not Rated

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Not Rated
- **Downstream Embankment** - Not Rated

**Outlet/Control Structure**

- **Low Flow Orifice** - Not Rated
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - Not Rated
- **Downstream Condition** - Not Rated

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**

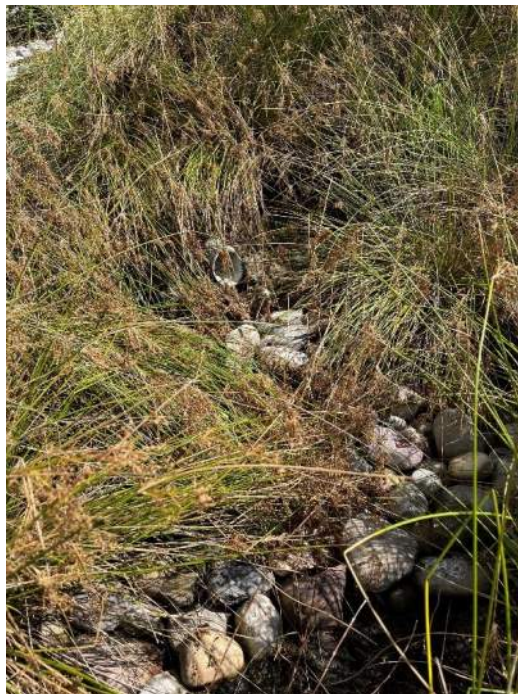
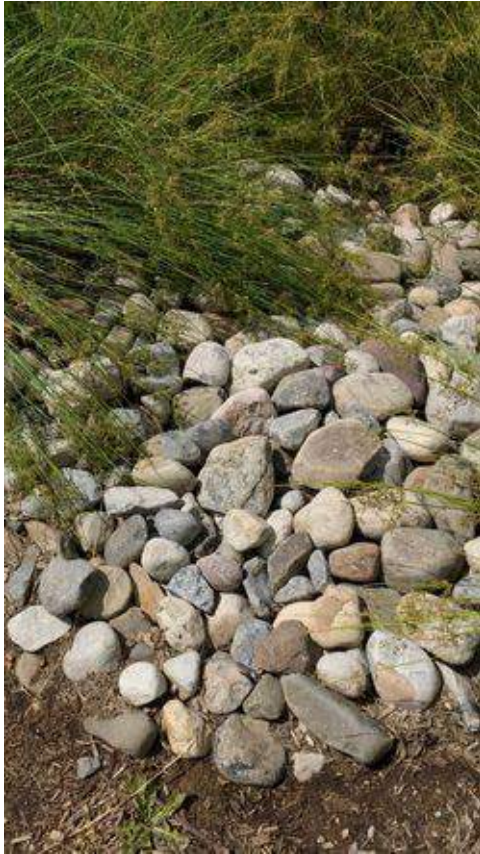
Trim excessive vegetation

**Additional Photos**

**Overall Photos**



**Inflow**



## Vegetation



**Principal Spillway**



### Control Structure







UMCP22BMP0318 / Pyon-Chen Hall Micro-Bioretenion 1

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 11:00 AM	<b>Inspector Initials:</b>	BFB/TRP
<b>BMP ID:</b>	UMCP22BMP0318	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Bmp in good condition overall.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** – Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** – Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** – N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** – Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations**- Continue with routine maintenance.

UMCP22BMP0318 / Pyon-Chen Hall Micro-Bioretenion 1

Date of Inspection: May 31, 2023 11:00 AM

**Additional Photos**

Overall Photos:



Inflow:



Control Structure:



Principal Spillway:



UMCP22BMP0319 / Pyon-Chen Hall Non-Rooftop Disconnect 1

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 12:29 PM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0319	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Disconnection of Non-Rooftop Runoff	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Flow appears to have channelized at the low point, minor erosion concerns.
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Fair
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** – N/A

**Treatment Area**

- **Conveyance Stability** - Fair
- **Ponding - /Water Depth** -

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** - N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** - Pass

UMCP22BMP0319 / Pyon-Chen Hall Non-Rooftop Disconnect 1

Date of Inspection: May 31, 2023 12:29 PM

**Maintenance Level** – Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations** – Reseed areas of erosion/bare spots as needed

**Additional Photos**

Overall Photos:



Bare Spots/Erosion:





UMCP22BMP0320 / Johnson-Whittle Hall Micro-Bioretenion 7

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	May 31, 2023 10:36 AM	<b>Inspector Initials:</b>	BFB/TPR
<b>BMP ID:</b>	UMCP22BMP0320	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Bmp in good condition.
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** -

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** – N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** – N/A
- **Downstream Condition** – N/A

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations** – Continue with Routine Maintenance.

UMCP22BMP0320 / Johnson-Whittle Hall Micro-Bioretenion 7

Date of Inspection: May 31, 2023 10:36 AM



**Additional Photos**

Overall Photo:



Principal Spillway:



Inflow:





UMCP22BMP0321 / Thurgood Marshall School of Public Policy Micro-Bioretenion 1

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 2, 2023 9:16 AM	<b>Inspector Initials:</b>	SAL,PP
<b>BMP ID:</b>	UMCP22BMP0321	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	BMP in good condition
<b>Maintenance Level</b>	Routine Maintenance (Only needs Routine Maintenance)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - Good

**BMP Status** - Pass

**Maintenance Level** - Routine Maintenance (Only needs Routine Maintenance)

**Maintenance & Remediation Recommendations** - Continue routine maintenance

UMCP22BMP0321 / Thurgood Marshall School of Public Policy Micro-Bioretenion 1

Date of Inspection: June 2, 2023 9:16 AM

**Additional Photos**

Overall Photos:



Control Structure:



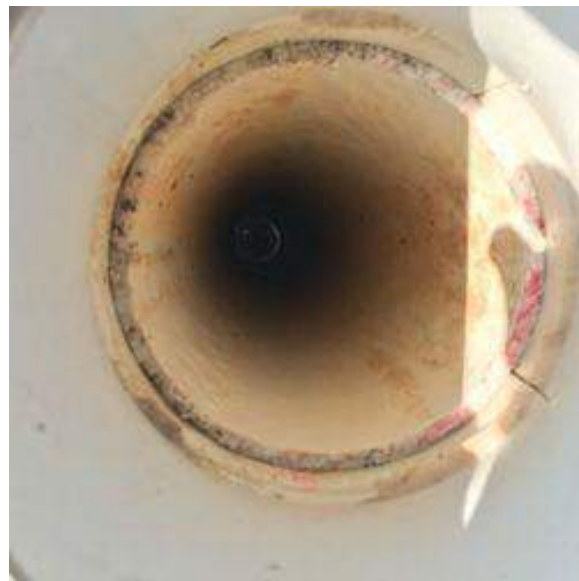
Embankment:



Principle Spillway:



Observation well:



UMCP22BMP0322 / Thurgood Marshall School of Public Policy Micro-Bioretention 3

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 2, 2023 9:22 AM	<b>Inspector Initials:</b>	SAL,PP
<b>BMP ID:</b>	UMCP22BMP0322	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretention	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Minor erosion at inflow, excessive storage capacity from elevated control structure (5" above design)
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** -
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Good/Water Depth** - 0

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP22BMP0307 / Johnson-Whittle Hall Micro-Bioretention 6A

Date of Inspection: May 31, 2023 10:49 AM

**Maintenance & Remediation Recommendations**

Regrade erosion at inflow, regrade or modify control structure to meet storage capacity as designed on plans.

**Additional Photos**

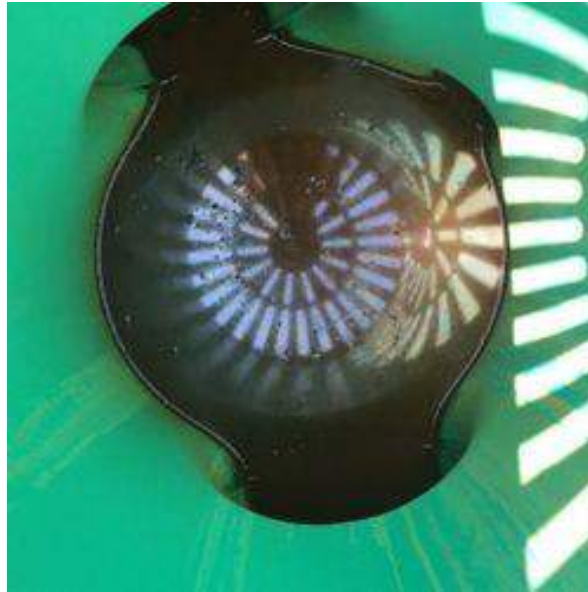
Overall Photos:



Control Structure:



Principal Spillway:



Observation well:



Inflow:





UMCP22BMP0323 / Thurgood Marshall School of Public Policy Micro-Bioretenion 2

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 2, 2023 1:11 PM	<b>Inspector Initials:</b>	SAL,PP
<b>BMP ID:</b>	UMCP22BMP0323	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Micro-Bioretenion	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Fail	<b>Overall Inspection Comment:</b>	Dry weather discharge from building resulting in ponding within BMP and growth of aquatic vegetation, plantings becoming displaced due to water level
<b>Maintenance Level</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** -
- **Vegetation** - Poor
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Constant standing water has resulting in plants become displaced from soil

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding** - Poor/**Water Depth** - 0.5

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Good
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

UMCP22BMP0323 / Thurgood Marshall School of Public Policy Micro-Bioretenion 2

Date of Inspection: June 2, 2023 1:11 PM

**BMP Status** - Fail

**Maintenance Level** - Major Maintenance (Use of Heavy Machinery for Repairs)

**Maintenance & Remediation Recommendations**

Replant and secure plantings within basin, remediate dry weather flow to ensure success of the facility

**Additional Photos**

Overall Photos:



Control Structure:



Principal Spillway:



Upstream Manhole:



Embankment:



Inflow:



Observation Well:



UMCP22BMP0324 / Thurgood Marshall School of Public Policy Non-Rooftop Disconnect 1

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 2, 2023 8:59 AM	<b>Inspector Initials:</b>	SAL,PP
<b>BMP ID:</b>	UMCP22BMP0324	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Disconnection of Non-Rooftop Runoff	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Minor erosion/bare spots at downstream
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Good
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - /Water Depth** -

**Embankment**

- **Embankment Cover** – N/A
- **Upstream Embankment** – N/A
- **Downstream Embankment** - N/A

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - N/A
- **Principal Spillway** - N/A

**Outfall and Downstream Condition**

- **Spillway Outfall** - N/A
- **Downstream Condition** - N/A

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

UMCP22BMP0324 / Thurgood Marshall School of Public Policy Non-Rooftop Disconnect 1

Date of Inspection: June 2, 2023 8:59 AM

**Maintenance & Remediation Recommendations** - Reseed areas of erosion/bare spots as needed

**Additional Photos**

Overall Photos:



Outlet:



Inflow:



Sedimentation in Treatment area:





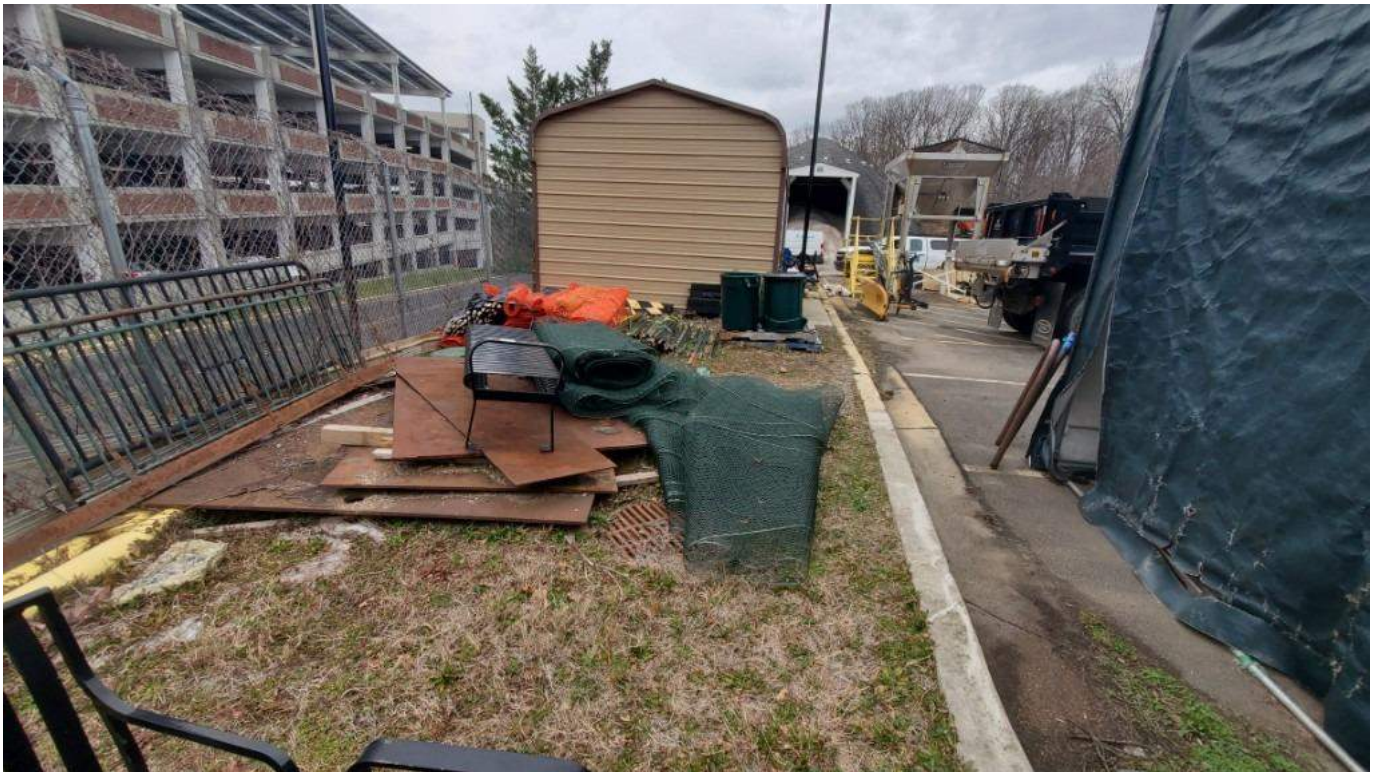
## UMCP23BMP0325 / 11-SF-0139/ Heavy Equipment Dry Well

### Stormwater Management Facility BMP Inspection

#### Inspection Data

<b>Date of Inspection:</b>	Feb 16, 2023	<b>Inspector Initials</b>	JBC, SAL
<b>BMP ID</b>	UMCP23BMP0325	<b>Inspection Firm</b>	MES
<b>BMP Type:</b>	Dry Wells	<b>Underground BMP?</b>	Yes
<b>BMP Status:</b>	Fail	<b>Overall Inspection Comment</b>	Unable to access downstream cleanout due to trash storage, Ponding within facility
<b>Maintenance Level:</b>	Major Maintenance (Use of Heavy Machinery for Repairs)		

#### Overall Photo



### Site Conditions

- **BMP Access** – Fair
- **Access Comment:** Bulk Debris Blocking Part of Structure
- **Debris & Sediment** - Fair
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:** Debris blocking part of structure
- **Inflow Condition** - Fair
- **Forebay** – Good
- **Conveyance Stability** - Good
- **Downstream Condition** – Not Rated
- **Downstream Condition Comments:** Unable to access Downstream Condition

### Ponding, Outlet/Control Structure, Outfall

- **Ponding** - Poor / **Water Depth** - 1
- **Treatment Area Comments:** Ponding within facility reducing overall storage
- **Low Flow Orifice** – Not rated
- **Outlet / Control Structure** – Not rated
- **Control Structure Comments:** Unable to access control structure
- **Principal Spillway** – Not rated
- **Spillway Outfall** - Not rated

**BMP Status** – Fail

**Maintenance Level** – Major Maintenance (Use of Heavy Machinery for Repairs)

### **Maintenance & Remediation Recommendations**

Mitigate ponding, replace damaged cleanout, remove trash above downstream cleanout

Additional Photos



Cleanout 1 – Standing water



Pretreatment interior



Cleanout – Replace top



Pretreatment exterior

USG19BMP00007 / IBBR Pond

Stormwater Management Facility BMP Inspection

**Inspection Data**

<b>Date of Inspection:</b>	June 16, 2023 9:52 AM	<b>Inspector Initials:</b>	SAL,SGC,JBD
<b>BMP ID:</b>	USG19BMP00007	<b>Inspection Firm:</b>	MES
<b>BMP Type:</b>	Retention Pond (Wet Pond)	<b>Underground BMP?</b>	No
<b>BMP Status</b>	Pass	<b>Overall Inspection Comment:</b>	Minor erosion at inflow from roof, minor erosion at embankment toe, minor erosion at control structure and downstream, control structure causing ponding issue
<b>Maintenance Level</b>	Minor Maintenance (Use of Hand Equipment for Repairs)		

**Site Conditions**

- **BMP Access** - Good
- **Debris & Sediment** - Good
- **Vegetation** - Good
- **BMP Contamination** - Good
- **General Site Conditions Comments:**

**Inflow and Forebay**

- **Inflow Condition** - Fair
- **Forebay** - N/A

**Treatment Area**

- **Conveyance Stability** - Good
- **Ponding - Fair/Water Depth** - 0.5

**Embankment**

- **Embankment Cover** - Good
- **Upstream Embankment** - Good
- **Downstream Embankment** - Good

**Outlet/Control Structure**

- **Low Flow Orifice** - N/A
- **Outlet / Control Structure** - Fair
- **Principal Spillway** - Good

**Outfall and Downstream Condition**

- **Spillway Outfall** - Good
- **Downstream Condition** - Fair

**BMP Status** - Pass

**Maintenance Level** - Minor Maintenance (Use of Hand Equipment for Repairs)

**Maintenance & Remediation Recommendations**

Regrade control structure and downstream to reduce ponding, monitor erosion at inflow from roof, repair erosion around toe

**Additional Photos**



ATTACHMENT B  
BASELINE ASSESSMENT REPORT

## Summary

MES reported UMCP is responsible for 465.92 acres of impervious under their MS4 permit, with 461.40 acres located at their main campus and 4.52 acres located at the Universities at Shady Grove (USG). Utilizing the findings provided by Whitney, Bailey, Cox & Magnani, LLP (WBCM) in Year 1, MES's findings over the course of the permit term thus far, and data provided by USG, MES has determined that UMCP has 62 facilities providing 56.25 acres of treatment toward their baseline. This brings UMCP's baseline to 409.67 acres and the 20% restoration goal to 81.93 acres. Additionally, MES determined UMCP has 40 facilities classified as post 2006 restoration or redevelopment providing 11.45 acres of restoration credit. UMCP also has twelve alternative practices, including a large stream restoration project, providing another 108.97 acres of restoration credit. UMCP's restoration credit totals to 120.42 acres, surpassing their 20% restoration requirement. MDE also recommends that UMCP plan to restore 10% of the current baseline area by 2030, which would be met by future projects already planned.

## Methodology

BMP status, type, construction purpose, built date, and inches of runoff treated (Pe) were concurrently used to determine if a BMP is providing treatment and if that treatment should be applied to the baseline or restoration goal. Only facilities in passing condition received treatment credit. Dry facilities do not provide water quality treatment, only quantity control. Therefore, these facilities do not qualify for credit under MDE guidelines and the impervious area draining to these facilities is included in the untreated impervious area total. Additionally, UMCP only considered MDE permitted BMPs on their campus as being eligible for treatment credit. To qualify for treatment credit non-permitted facilities would require additional review, documentation and official approval from MDE's Plan Review Division.

When determining the credit for each eligible facility, if the BMP is classified as new development, the provided treatment was applied to the baseline. New development BMPs can be credited for treatment up to 1" and do not receive credit for additional treatment that may be provided. This same methodology was applied to redevelopment and restoration BMPs built prior to 2006. Redevelopment projects completed after the beginning of 2006 were included in UMCP's restoration credit if additional treatment was provided beyond any new development requirements, which is discussed later in this report. Additionally, restoration projects completed after the beginning of 2006 were included in UMCP's restoration goal.

## Baseline Assessment

Utilizing the findings and methods described above, MES determined UMCP has 58 functioning facilities which should be counted in UMCP's baseline as treating 53.91 acres out of 461.40 acres of impervious. A summary of these 58 functioning BMPs is provided in Table 1.



Table 1. Summary of UMCP BMPs for Baseline Treatment

BMP ID	BMP Name	Purpose	Status	Impervious Area (ac.)	Pe	Baseline Credit (ac.)
UMCP19BMP0005	Peace and Friendship Garden Sand Filter	Redevelopment	Pass	10.33	1	8.33
UMCP19BMP0011	CSPAC retention pond	New Development	Pass	9.94	0.8	7.95
UMCP19BMP0012	Softball complex retention pond	Redevelopment	Pass	6.87	1	6.87
UMCP19BMP0018	BLS Heavy Equipment	New Development	Pass	0.05	1	0.05
UMCP19BMP0019	University House Parking Lot	New Development	Pass	0.29	1	0.29
UMCP19BMP0020	VetMed research pond	New Development	Pass	7.14	1	7.14
UMCP19BMP0024	Terrapin Trail Garage retention pond	New Development	Pass	3.85	1	3.85
UMCP19BMP0033	University House	New Development	Pass	0.14	1	0.14
UMCP19BMP0035	University House	New Development	Pass	0.2	1	0.20
UMCP19BMP0041	University House	New Development	Pass	0.09	1	0.09
UMCP19BMP0042	Wye Oak Building	New Development	Pass	0.27	1	0.27
UMCP19BMP0056	Comcast north retention pond	Redevelopment	Pass	5.96	1	5.96
UMCP19BMP0065	Greenmeade North Grass Channel B	New Development	Pass	0.22	1	0.22
UMCP19BMP0066	Greenmeade North Grass Channel A	New Development	Pass	2.43	1	2.43
UMCP19BMP0107	Taylor stadium bioretention	New Development	Pass	0.42	0.53	0.22
UMCP19BMP0108	Chesapeake Parking Lot East	New Development	Pass	0.56	0.47	0.26
UMCP19BMP0142	Kim Plaza	Redevelopment	Pass	0.1	1	0.10
UMCP19BMP0152	AV Williams (Lot GG)	Redevelopment	Pass	0.37	1.3	0.07
UMCP19BMP0153	AV Williams (Lot GG)	Redevelopment	Pass	0.22	0.8	0.04
UMCP19BMP0154	AV Williams (Lot GG)	Redevelopment	Pass	0.39	1	0.08
UMCP19BMP0155	West of Edward St. John	New Development	Pass	0.05	1	0.05
UMCP19BMP0159	East Side of Edwards St. John	New Development	Pass	0.03	1	0.03
UMCP19BMP0161	Oakland Hall Sand filter	New Development	Pass	0.21	1	0.21
UMCP19BMP0240	Presidents House Disconnect 2-1	New Development	Pass	0.02	1	0.02
UMCP20BMP0256	UMCP Student Housing Building A	Redevelopment	Pass	0.59	0.63	0.37
UMCP20BMP0257	UMCP Student Housing Building B	Redevelopment	Pass	0.72	0.51	0.37
UMCP20BMP0266	University of Maryland Health Center	Redevelopment	Pass	0.12	0.75	0.09
UMCP20BMP0267	College Park Academy Micro-Bioretention 1	New Development	Pass	0.14	1	0.14
UMCP20BMP0268	College Park Academy Micro-Bioretention 2	New Development	Pass	0.27	1	0.27
UMCP20BMP0269	College Park Academy Micro-Bioretention 3	New Development	Pass	0.35	1	0.35
UMCP20BMP0270	College Park Academy Micro-Bioretention 4	New Development	Pass	0.32	1	0.32
UMCP20BMP0271	College Park Academy Micro-Bioretention 5	New Development	Pass	0.42	1	0.42

UMCP20BMP0272	College Park Academy Submerged Gravel Wetland 1	New Development	Pass	1.97	1	1.97
UMCP20BMP0273	NOAA Green Roof 1	New Development	Pass	0.63	1	0.63
UMCP20BMP0275	NOAA Green Roof 2	New Development	Pass	0.33	1	0.33
UMCP20BMP0282	Presidents House Disconnect 2-2	New Development	Pass	0.02	1	0.02
UMCP20BMP0285	Presidents House Disconnect 2-5	New Development	Pass	0.02	1	0.02
UMCP20BMP0286	Presidents House Disconnect 2-3	New Development	Pass	0.02	1	0.02
UMCP20BMP0287	Presidents House Disconnect 2-4	New Development	Pass	0.02	1	0.02
UMCP22BMP0301	Idea Factory Micro-Bioretenion 4	Redevelopment	Pass	0.12	2.47	0.08
UMCP22BMP0302	Idea Factory Micro-Bioretenion 2	Redevelopment	Pass	0.16	1.34	0.11
UMCP22BMP0303	Idea Factory Micro-Bioretenion 1	Redevelopment	Pass	0.13	1.83	0.09
UMCP22BMP0304	Idea Factory Micro-Bioretenion 3	Redevelopment	Pass	0.06	2.31	0.04
UMCP22BMP0306	Johnson-Whittle Hall Micro-Bioretenion 7A	New Development	Pass	0.32	1	0.32
UMCP22BMP0307	Johnson-Whittle Hall Micro-Bioretenion 6A	New Development	Pass	0.37	1	0.37
UMCP22BMP0308	Johnson-Whittle Hall Micro-Bioretenion 5A	New Development	Pass	0.4	1	0.40
UMCP22BMP0309	Johnson-Whittle Hall Micro-Bioretenion 5	New Development	Pass	0.19	1	0.19
UMCP22BMP0310	Johnson-Whittle Hall Micro-Bioretenion 6	New Development	Pass	0.43	1	0.43
UMCP22BMP0311	Johnson-Whittle Hall Micro-Bioretenion 8	New Development	Pass	0.2	1	0.20
UMCP22BMP0312	Johnson-Whittle Hall Micro-Bioretenion 8A	New Development	Pass	0.08	1	0.08
UMCP22BMP0313	Pyon-Chen Hall Micro-Bioretenion 9	New Development	Pass	0.13	1	0.13
UMCP22BMP0314	Pyon-Chen Hall Micro-Bioretenion 3A	New Development	Pass	0.28	1	0.28
UMCP22BMP0315	Pyon-Chen Hall Micro-Bioretenion 3	New Development	Pass	0.13	1	0.13
UMCP22BMP0316	Pyon-Chen Hall Micro-Bioretenion 4	New Development	Pass	0.23	1	0.23
UMCP22BMP0317	Pyon-Chen Hall Micro-Bioretenion 2	New Development	Pass	0.16	1	0.16
UMCP22BMP0318	Pyon-Chen Hall Micro-Bioretenion 1	New Development	Pass	0.18	1	0.18
UMCP22BMP0319	Pyon-Chen Hall Non-Rooftop Disconnect 1	New Development	Pass	0.02	1	0.02
UMCP22BMP0320	Johnson-Whittle Hall Micro-Bioretenion 7	New Development	Pass	0.26	1	0.26
					<b>Total =</b>	<b>53.91</b>

Additionally, UMCP is responsible for treatment of the Institute for Bioscience and Biotechnology Research (IBBR) campus located at the Universities at Shady Grove (USG) campus. IBBR accounts for 4.52 acres of UMCP's total impervious covered under their MS4 permit. Table 2 provides a summary of the status, impervious area and treatment credit for each BMP located at IBBR determined by MES under a separate scope of work and included in UMCP's baseline assessment. A breakdown of the combined baseline calculations is provided in Table 3. USG and UMCP share credits for Gudelsky Pond, with 2.18

acres of credit being applied to UMCP’s baseline assessment. However, since USG is the owner of the pond, it is not included in UMCP’s BMP database.

*Table 2. Summary of IBBR BMPs for Baseline Treatment*

BMP ID	BMP Name	Purpose	Status	Impervious Area (ac.)	Pe	Baseline Credit (ac.)
USG19BMP00003	Infiltration Trench 1 at IBBR	New Development	Pass	0.14	0.5	0.07
USG19BMP00005	Infiltration Trench 2 at IBBR	New Development	Pass	0.06	1	0.06
USG19BMP00026	Gudelsky Pond	New Development	Pass	4.52	0.5	2.18
USG19BMP00042	IBBR Non-Rooftop Disconnect	New Development	Pass	0.03	1	0.03
<b>Total =</b>						<b>2.34</b>

With a baseline treatment credit of 53.91 acres for UMCP’s main campus, and 2.34 acres of treatment credit for the IBBR campus, UMCP’s total untreated impervious results to 409.67 acres. This brings UMCP’s 20% restoration goal to 81.93 acres. A breakdown of the baseline calculations is provided in Table 3 below.

*Table 3. UMCP Baseline Assessment*

Area (ac)		Impervious (ac)		Treated Impervious (ac)		Untreated Impervious (ac)	20% Restoration Goal (ac)
UMCP	IBBR	UMCP	IBBR	UMCP	IBBR	Total	Total
1293.12	12.18	461.40	4.52	53.91	2.34	409.67	81.93

## Restoration

Treatment provided by redevelopment and restoration BMPs built within or after 2006 are eligible to be claimed for restoration credit. Additionally, unlike new development BMPs, these facilities are eligible to be credited over 1” if additional storage is provided. However, for redevelopment projects an analysis of the existing conditions had to be completed to ensure the project was not subject to new development requirements. If the project was determined to include new development, treatment was credited to meeting this requirement prior to awarding restoration credit.

For the redevelopment projects included within this report, AV Williams was determined to have a net increase in impervious area. As-built plans indicated AV Williams had a net increase of 0.19 acres. Utilizing the ESD requirements and the ESD provided indicated in the as-built plans, MES determined this project provides 0.72 acres of restoration credit. This credit was split among the 3 facilities built for AV Williams, resulting in 0.19 acres of credit toward the baseline and 0.72 acres toward UMCP’s restoration goal.

Impervious Treatment credit was also split between the baseline and restoration for the Idea Factory redevelopment project. This project area had 9 existing micro-biorententions treating 0.32 acres of impervious area that were removed as part of construction. Four new bioretentions were constructed treating 0.47 acres of impervious. Several of these facilities provided over management, resulting in a total treatment credit of 0.57 acres. Since the project did not have a net increase in impervious area, there were no new development requirements. However, since there was existing treatment prior to the

redevelopment project, only 0.25 acres were eligible for restoration credit. The remaining 0.32 acres were included in the baseline treatment.

A total of 40 BMPs were identified as qualifying for restoration credit, which are summarized below in Table 4.

*Table 4. Summary UMCP Redevelopment & Restoration BMPs*

BMP ID	BMP Name	Purpose	Status	Impervious Area (ac.)	Pe	Restoration Credit (ac.)
UMCP19BMP0016	Shuttle Facility	Redevelopment	Pass	0.11	1	0.11
UMCP19BMP0017	Shuttle Facility	Redevelopment	Pass	0.11	1	0.11
UMCP19BMP0026	Shuttle Facility dry swale	Redevelopment	Pass	2.23	0.77	1.71
UMCP19BMP0040	University House	Restoration	Pass	0.03	1	0.03
UMCP19BMP0049	Computer and Space Sciences	Redevelopment	Pass	0.08	1.2	0.08
UMCP19BMP0055	Heavy Equipment Building bioretention	Redevelopment	Pass	0.09	1.15	0.10
UMCP19BMP0059	Denton dining bioretention	Redevelopment	Pass	0.18	2.28	0.24
UMCP19BMP0070	Denton bioretention	Redevelopment	Pass	0.09	0.76	0.07
UMCP19BMP0078	Physical Sciences	Redevelopment	Pass	0.2	1.2	0.21
UMCP19BMP0082	Knight Hall	Redevelopment	Pass	0.43	0.91	0.39
UMCP19BMP0122	Denton Courtyard bioretention	Redevelopment	Pass	0.1	1.03	0.10
UMCP19BMP0124	Prince Frederick Hall Bioretention Cell 1	Redevelopment	Pass	0.17	0.8	0.14
UMCP19BMP0125	Prince Frederick Hall Bioretention Cell 2	New Development	Pass	0.3	1.36	0.33
UMCP19BMP0152	AV Williams (Lot GG)	Redevelopment	Pass	0.37	1.3	0.27
UMCP19BMP0153	AV Williams (Lot GG)	Redevelopment	Pass	0.22	0.8	0.14
UMCP19BMP0154	AV Williams (Lot GG)	Redevelopment	Pass	0.39	1	0.31
UMCP19BMP0157	West Side of Edward St. John	Redevelopment	Pass	0.06	1	0.06
UMCP19BMP0158	West Side of Edward St. John	Redevelopment	Pass	0.06	1	0.06
UMCP19BMP0231	Clark Hall Bioretention 1	Redevelopment	Pass	0.27	1.96	0.33
UMCP19BMP0232	Clark Hall Bioretention 2	Redevelopment	Pass	0.21	2.6	0.29
UMCP19BMP0239	Presidents house Disconnect 1	Redevelopment	Pass	0.01	1	0.01
UMCP19BMP0241	Brendan Iribe 1	Redevelopment	Pass	0.19	2.6	0.27
UMCP19BMP0242	Brendan Iribe 2	Redevelopment	Pass	0.23	2.5	0.32
UMCP19BMP0243	Brendan Iribe 3	Redevelopment	Pass	0.19	1	0.19
UMCP19BMP0244	Brendan Iribe 4	Redevelopment	Pass	0.12	2	0.15
UMCP19BMP0245	Brendan Iribe 5	Redevelopment	Pass	0.12	1.7	0.14
UMCP20BMP0258	M Square SGW 1	Redevelopment	Pass	2.33	0.8	1.86
UMCP20BMP0259	M Square SGW 2	Redevelopment	Pass	0.88	0.82	0.72
UMCP20BMP0260	M Square MBR1	Redevelopment	Pass	0.48	0.73	0.35
UMCP21BMP0292	Cole Field House Green Roof 1	Redevelopment	Pass	0.32	1	0.32

UMCP21BMP0293	Cole Field House Green Roof 2	Redevelopment	Pass	0.07	1	0.07
UMCP21BMP0294	Cole Field House Green Roof 3	Redevelopment	Pass	0.37	1	0.37
UMCP21BMP0295	Cole Field House Green Roof 4	Redevelopment	Pass	0.86	1	0.86
UMCP22BMP0301	Idea Factory Micro-Bioretention 4	Redevelopment	Pass	0.12	2.47	0.08
UMCP22BMP0302	Idea Factory Micro-Bioretention 2	Redevelopment	Pass	0.16	1.34	0.06
UMCP22BMP0303	Idea Factory Micro-Bioretention 1	Redevelopment	Pass	0.13	1.83	0.07
UMCP22BMP0304	Idea Factory Micro-Bioretention 3	Redevelopment	Pass	0.06	2.31	0.04
UMCP22BMP0321	School of Public Policy Bioretention 1	Redevelopment	Pass	0.12	2.32	0.16
UMCP22BMP0322	School of Public Policy Bioretention 2	Redevelopment	Pass	0.21	2.6	0.29
UMCP22BMP0324	School of Public Policy Non-Rooftop Disconnect 1	Redevelopment	Pass	0.04	1	0.04
<b>Total =</b>						<b>11.45</b>

In addition to the projects listed in Table 4, alternative practices also qualify for restoration credit. UMCP completed Phase 1 of the Campus Creek restoration in November 2019, which restored 3,039 linear feet of the stream. The project was determined by WBCM to provide 105.8 acres of restoration credit. However, as part of an agreement to allow UMCP to complete restoration in the right of way along MD Route 193, 1 acre of the restoration credit was given to SHA to apply toward their MS4 requirement. Additionally, as part of the Campus Creek restoration two regenerative step pool conveyances were installed along with a stormwater bar (outfall stabilization). These three practices were evaluated to provide an additional 1.02 acres of restoration credit. Furthermore, UMCP has completed a total of 7 impervious surface removal projects. For every acre of impervious surface converted to grass cover, UMCP received a 0.75-acre equivalent treatment credit. To ensure double credit is not claimed, the total impervious for these projects has been included in UMCP's baseline total. The total impervious area removed is 3.53 acres, resulting in a restoration credit of 2.65 acres. Lastly, on the IBBR campus an outfall stabilization was completed in 2006. The project was 50 feet long, and with an equivalent credit of 0.01 acres per linear foot, the project earned a credit of 0.5 acres. Table 5 below presents each alternative practice and their equivalent restoration credit.

*Table 5. Summary UMCP Alternative Practices*

Year	BMP ID	BMP Name	BMP Type	Impervious Credit (ac.)
2019	UMCP19BMP0249	Campus Creek Restoration	Stream Restoration	104.8
2006	USG19BMP00004	IBBR Outfall Stabilization	Outfall Stabilization	0.5
2016	UMCP20BMP0288	Impervious Surface Removal to Pervious 4100 Metzerott Rd	Impervious Surface Removal to Pervious	0.17
2017	UMCP20BMP0289	Impervious Surface Removal to Pervious 4109 Metzerott Rd	Impervious Surface Removal to Pervious	0.03
2019	UMCP19BMP0250	Campus Creek RSPSC 1	Regenerative Step Pool Conveyance	0.58
2019	UMCP20BMP0290	Campus Creek RSPSC 2	Regenerative Step Pool Conveyance	0.31
2019	UMCP20BMP0291	Campus Creek Stormwater Bar	Outfall Stabilization	0.13
2020	UMCP21BMP0296	Wooded Hillock Impervious Removal 3	Impervious Surface Removal to Pervious	0.02

2020	UMCP21BMP0297	Wooded Hillock Impervious Removal 2	Impervious Surface Removal to Pervious	0.017
2020	UMCP21BMP0298	Wooded Hillock Impervious Removal 1	Impervious Surface Removal to Pervious	0.05
2021	UMCP21BMP0299	4103 Metzert Rd Impervious Removal	Impervious Surface Removal to Pervious	0.067
2021	UMCP21BMP0300	Cole Field House Impervious Surface Removal	Impervious Surface Removal to Pervious	2.30
			<b>Total =</b>	<b>108.97</b>

The restoration credit earned from the projects described within this report totals to 120.42 acres. This surpasses UMCP’s restoration requirement of 81.93 acres as demonstrated in Table 6.

*Table 6. UMCP Restoration Credit Computation*

20% Restoration Goal (ac)	Restoration Credit (ac)	Remaining 20% Goal (ac)
81.93	120.42	-38.49

Following the Year 4 submission, MDE provided guidance to all MS4 Phase II Permit holders to extend their Restoration Activity Schedule through 2030 with an additional 10% restoration goal. For UMCP, this goal is equivalent to an additional 40.97 acres of restoration. With current implemented projects, UMCP would have a remaining goal of 2.48 acres with this additional restoration requirement. However, this remaining goal will be met by future projects that UMCP already has planned for their facilities.

## Future Projects

Even though UMCP has surpassed their 20% restoration requirement, the University continues to plan future restoration projects in preparation of future permit requirements. In 2020, UMCP applied for the Chesapeake Bay Trust (CBT) Watershed Assistance Grant Program and was awarded funding for the design to retrofit the Animal Science Pond and restore the remaining section of Campus Creek. The design phase for both projects began in 2021. Animal Science is a dry pond that is no longer functioning and will be converted into a water quality facility. The stream restoration project will restore 2,318 linear feet of Campus Creek. These projects are estimated to provide restoration credits of 8.95 acres and 45.2 acres, respectively, bringing UMCP’s total restoration credit to 174.57 acres. UMCP received grant funding for the construction of these projects, which is anticipated to begin in 2023. Upon project completion, the awarded credit may increase or decrease. Once these projects are complete, UMCP will have met the 2030 recommended 40.97 acre restoration goal.

Additionally, UMCP continues completing maintenance to restore failing BMPs across the campus. As these facilities are repaired, baseline or restoration credit will be awarded as appropriate, further contributing to UMCP’s stormwater treatment requirements.

## **Conclusion**

UCMP is responsible for a total of 465.92 acres of impervious under their MS4 permit. MES determined UCMP is treating 53.91 acres of their main campus's impervious area, and 2.34 acres of the IBBR campus's impervious area. This treatment resulted in a 20% restoration goal of 81.93 acres. Through a combination of redevelopment projects and alternative practices, UMCP has earned 120.42 acres of restoration credit, surpassing their 20% restoration requirement. Although UMCP has exceeded their restoration goal, UMCP continues to plan future restoration projects to ensure they continue to meet future requirements such as the 2030 10% restoration goal under the NPDES MS4 permit.

ATTACHMENT C  
RESTORATION ACTIVITY SCHEDULE



## Phase II MS4 Restoration Activity Schedule

**Total Acreage (1305); Impervious Acre Baseline (465.92); 20% Restoration Target ( 81.93 acres)**

Type of Restoration Project	BMP Code	BMP ID	Cost (\$K)	Imperv Acres Treated	Imperv Acre Target and Balance	Project Status	Year Complete or Projected Implementation Year (by 2025)	MD Grid Coordinates (Northing/Easting)	
					81.93				
IBBR Outfall Stabilization	OUT	USG19BMP00004	10	0.50	81.43	C	2006	158456.27	382786.21
University House Southern Micro-Bioretenion	MMBR	UMCP19BMP0040	10	0.03	81.40	C	2011	146679.14	404093.23
Denton Courtyard Micro-Bioretenion	MMBR	UMCP19BMP0122	15	0.10	81.30	C	2012	147179.85	404313.09
Shuttle Facility Green Roof	AGRE	UMCP19BMP0016	50	0.11	81.19	C	2012	147510.65	405436.50
Shuttle Facility Green Roof	AGRE	UMCP19BMP0017	50	0.11	81.08	C	2012	147512.86	405458.48
Shuttle Facility Dry Swale	ODSW	UMCP19BMP0026	30	1.71	79.37	C	2012	147485.93	405590.45
Heavy Equipment Building Micro-Bioretenion	MMBR	UMCP19BMP0055	15	0.10	79.27	C	2012	147573.67	404943.77
Denton Dining Micro-Bioretenion	MMBR	UMCP19BMP0059	30	0.24	79.03	C	2012	147173.55	404348.39
Denton Quad Micro-Bioretenion 3	MMBR	UMCP19BMP0070	15	0.07	78.96	C	2012	147151.76	404275.04
Physical Science Complex Green Roof	AGRE	UMCP19BMP0078	100	0.21	78.75	C	2013	147002.04	405068.40
Computer and Space Sciences Green Roof	AGRE	UMCP19BMP0049	35	0.08	78.67	C	2013	147031.24	405023.82
Prince Frederick Hall Micro-Bioretenion Cell 1	MMBR	UMCP19BMP0124	30	0.14	78.53	C	2014	146101.64	404687.09
Impervious Surface Removal to Pervious 4100 Metzertott Rd	IMPP	UMCP20BMP0288	37	0.17	78.36	C	2016	148038.42	405387.54
West Side of Edward St. John Green Roof	AGRE	UMCP19BMP0157	50	0.06	78.30	C	2017	146559.97	405023.75
West Side of Edward St. John Green Roof	AGRE	UMCP19BMP0158	50	0.06	78.24	C	2017	146560.89	405040.90
Impervious Surface Removal to Pervious 4109 Metzertott Rd	IMPP	UMCP20BMP0289	7	0.03	78.22	C	2017	147899.26	405369.20
Clark Hall Bioretention 1	MMBR	UMCP19BMP0231	60	0.33	77.89	C	2017	147129.96	405375.41
Clark Hall Micro-Bioretenion 2	MMBR	UMCP19BMP0232	50	0.29	77.60	C	2017	147109.93	405375.62
M Square SGW 1	MSGW	UMCP20BMP0258	90	1.86	75.74	C	2018	144408.70	405905.68
M Square SGW 2	MSGW	UMCP20BMP0259	40	0.72	75.02	C	2018	144567.14	405880.11
M Square MBR1	MMBR	UMCP20BMP0260	30	0.35	74.67	C	2018	144555.93	406065.15
A.V. Williams Micro-Bioretenion	MMBR	UMCP19BMP0152	25	0.27	74.40	C	2018	146930.84	405581.69
A.V. Williams Micro-Bioretenion	MMBR	UMCP19BMP0153	15	0.14	74.26	C	2018	147007.47	405562.48
A.V. Williams Micro-Bioretenion	MMBR	UMCP19BMP0154	35	0.31	73.95	C	2018	146975.71	405568.77
Brendan Iribe Micro-Bioretenion 1	MMBR	UMCP19BMP0241	30	0.27	73.68	C	2019	146906.29	405596.76
Brendan Iribe Micro-Bioretenion 2	MMBR	UMCP19BMP0242	40	0.32	73.36	C	2019	146855.63	405574.14
Brendan Iribe 4	APRP	UMCP19BMP0244	20	0.15	73.21	C	2019	146849.94	405510.90
Brendan Iribe 5	AGRI	UMCP19BMP0245	20	0.14	73.07	C	2019	146819.29	405548.24
Campus Creek Stream Restoration Phase 1	STRE	UMCP19BMP0249	1200	104.80	-31.74	C	2019	147429.67	404606.19
Regenerative Step Pool Conveyance	SPSC	UMCP19BMP0250	20	0.58	-32.32	C	2019	147431.84	404451.93
Regenerative Step Pool Conveyance	SPSC	UMCP20BMP0290	20	0.31	-32.63	C	2019	147441.85	404475.02
Stormwater Bar	OUT	UMCP20BMP0291	10	0.13	-32.76	C	2019	147345.11	404978.06
Wooded Hillock Impervious Removal 3	IMPP	UMCP21BMP0296	5	0.02	-32.78	C	2020	147957.18	404955.17

Type of Restoration Project	BMP Code	BMP ID	Cost (\$K)	Imperv Acres Treated	Imperv Acre Target and Balance	Project Status	Year Complete or Projected Implementation Year (by 2025)	MD Grid Coordinates (Northing/Easting)	
Wooded Hillock Impervious Removal 2	IMPP	UMCP21BMP0297	37	0.02	-32.79	C	2020	147940.09	404868.38
Wooded Hillock Impervious Removal 1	IMPP	UMCP21BMP0298	11	0.05	-32.84	C	2020	147868.97	404758.74
Knights Hall	MRWH	UMCP19BMP0082	50	0.39	-33.23	C	2020	146527.74	404476.54
Cole Field House Impervious Removal	IMPP	UMCP21BMP0300	500	2.30	-35.53	C	2021	146705.18	404486.51
4103 Metzertott Rd Impervious Removal	IMPP	UMCP21BMP0299	15	0.07	-35.60	C	2021	147959.30	405348.54
Presidents house Disconnect 1	NDNR	UMCP19BMP0239	10	0.01	-35.61	C	2021	146721.81	404139.61
Prince Frederick Hall Bioretention Cell 2	MMBR	UMCP19BMP0125	45.2	0.33	-35.94	C	2022	146116.11	404734.63
Brendan Iribe 3	MSWB	UMCP19BMP0243	25	0.19	-36.13	C	2023	146803.50	405608.07
School of Public Policy Bioretention 1	MMBR	UMCP22BMP0321	50	0.16	-36.29	C	2023	146340.64	405239.55
School of Public Policy Bioretention 2	MMBR	UMCP22BMP0322	55	0.29	-36.58	C	2023	146385.29	405356.00
School of Public Policy Non-Rooftop Disconnect 1	NDNR	UMCP22BMP0324	5	0.04	-36.62	C	2023	146304.01	405341.42
Cole Field House Green Roof 1	AGRI	UMCP21BMP0292	50	0.32	-36.94	C	2021	146766.15	404615.60
Cole Field House Green Roof 2	AGRI	UMCP21BMP0293	20	0.07	-37.01	C	2021	146766.74	404556.07
Cole Field House Green Roof 3	AGRI	UMCP21BMP0294	50	0.37	-37.38	C	2021	146672.51	404557.39
Cole Field House Green Roof 4	AGRI	UMCP21BMP0295	100	0.86	-38.24	C	2021	146626.26	404516.83
Idea Factory Micro-Bioretention 4	MMBR	UMCP22BMP0301	50	0.08	-38.32	C	2021	146933.90	405411.70
Idea Factory Micro-Bioretention 2	MMBR	UMCP22BMP0302	50	0.06	-38.38	C	2021	146926.50	405335.62
Idea Factory Micro-Bioretention 1	MMBR	UMCP22BMP0303	50	0.07	-38.45	C	2021	146926.84	405357.94
Idea Factory Micro-Bioretention 3	MMBR	UMCP22BMP0304	50	0.04	-38.49	C	2021	146926.96	405378.99
Animal Science pond	PWET	UMCP19BMP0021	800	8.95	-47.44	P	2025	147226.59	405331.71
Campus Creek Stream Restoration Phase 2	STRE		2100	45.20	-92.64	P	2025	147351.99	404982.82
<b>Total Restoration Credit =</b>				<b>174.57</b>					

ATTACHMENT D  
BMP DATABASE

**Table B.1.a. BMP Reporting Requirements**

This table represents the basic data elements that are required of all structural, ESD and alternative Best Management Practices (BMPs)

BMP_ID	REPORTING_YEAR	MD_NORTH	MD_EAST	PERMIT_NUM	LOCAL_BMP_ID	BMP_NAME	BMP_CLASS	BMP_TYPE	CON_PURPOSE	LAST_INSP_DATE	BMP_STATUS	MAIN_DATE	REINSR_DATE	REINSR_STATUS	GEN_COMMENTS
UMCP198MP0002	2023	147378.67	404651.41	13-SF_5501	94-SF-0311	Lot 2 retention pond	S	PWET	NEWUD	7/2/2021	P	8/27/2021			Empty parking lot pond. With riprap overflow into vegetated swale.
UMCP198MP0005	2023	146534.80	404139.47	13-SF_5501	02-SF-0247	Peace and Friendship Garden	S	FSND	REDE	9/26/2023	P	4/26/2023			Basis of UMD SWM Bank. Restoration completed 11/2021.
UMCP198MP0010	2023	148438.32	404925.45	13-SF_5501	91-SF-0059	Laboratory for Physical Science	S	PWED	NEWUD	3/23/2021	P	8/16/2021			heavy sedimentation. heavy cattail growth. nice wooded edge condition favorable wildlife habitat
UMCP198MP0011	2023	147097.10	404208.05	13-SF_5501	03-SF-0282	CSPAC Shallow Marsh Wetland	S	WSHW	NEWUD	1/20/2022	P	11/2/2020			recommend annual perennial cut back. High habitat value. Many species of birds observed.
UMCP198MP0012	2023	147658.28	405172.72	13-SF_5501	00-SF-0275	Softball Complex retention pond	S	PWET	REDE	6/7/2021	P	8/18/2021			Heavy vegetation around edge of facility. Annual reduction of cattails recommended.
UMCP198MP0013	2023	148196.94	405115.88	13-SF_5501		Courtyards retention pond	S	PWET	NEWUD	6/6/2023	P	6/6/2023			sediments and trash at swale/inlet into pond
UMCP198MP0014	2023	146352.34	405004.26	13-SF_5501		Woods Hall	S	FBIO	REDE	9/21/2023	P	8/27/2021			Garden Area funde by AWS and DNR
UMCP198MP0016	2023	147510.65	405436.50	13-SF_5501	11-SF-0002	Shuttle Facility	E	AGRE	REDE	5/3/2022	P	4/19/2022			sedum green roof. in bloom many observed pollinator bees. interviewed facility staff. no problems experienced so far.
UMCP198MP0017	2023	147512.86	405458.48	13-SF_5501	11-SF-0002	Shuttle Facility	E	AGRE	REDE	5/3/2022	P	4/19/2022			75% plant cover, room to fill in same as lower roof
UMCP198MP0018	2023	147569.38	404959.19	13-SF_5501	11-SF-0139	BLS Heavy Equipment	E	AGRE	NEWUD	5/3/2022	P	4/19/2022			Green roof appears to be functional. Sedums in bloom. Some volunteer "weeds" should be removed.
UMCP198MP0019	2023	146672.76	404025.06	13-SF_5501	13-SF-0237	University House Parking Lot	E	MMBR	NEWUD	9/21/2021	P	9/21/2021			Facility outfall presents an issue with eroding the hillside.
UMCP198MP0020	2023	148418.20	405181.87	13-SF_5501		VetMed research pond	S	PWET	NEWUD	7/16/2020	P	8/4/2020			
UMCP198MP0021	2023	147226.59	405331.71	13-SF_5501	98-SF-0319	Animal Science pond	S	XBIO	NEWUD	1/20/2022	F	12/15/2016			Renewal Design in progress
UMCP198MP0022	2023	147243.08	405582.00	13-SF_5501		Lot 11b	S	FBIO	REST	9/21/2023	F	5/16/2017			Dr. Davis bioretention
UMCP198MP0023	2023	147158.61	405364.43	13-SF_5501		Neutral Buoyancy Conveyance	E	OWSW	REDE	5/31/2023	P	5/31/2023			Excessive sediment near outfall. Minor erosion no observed safety bench at pond edge. algae bloom mid june. retrofit catadit?
UMCP198MP0024	2023	147410.58	404873.61	13-SF_5501	01-SF-0005	Terrapin Trail Garage retention pond	S	PWET	NEWUD	5/18/2023	P	5/18/2023			
UMCP198MP0026	2023	147529.74	405584.51	13-SF_5501	11-SF-0002	Shuttle Facility	S	ODSW	REDE	3/9/2020	P	2/7/2020			SHA built for CSX grade separation PG1825147
UMCP198MP0027	2023	147267.42	405147.05	13-SF_5501		Lot PP2 Bioretention	S	FBIO	REST	9/21/2023	P	8/27/2021			Dr. Davis bioretention. Built w/ EPA/PG 5 (\$250K for 4 facilities)
UMCP198MP0033	2023	146807.37	404129.62	13-SF_5501	11-SF-0184	University House	E	MMBR	NEWUD	9/21/2021	P	9/21/2021			Bioretention North
UMCP198MP0034	2023	146818.84	404118.76	13-SF_5501	11-SF-0184	University House	E	MMBR	NEWUD	10/20/2021	F	10/20/2021			Bioretention North
UMCP198MP0035	2023	146832.82	404103.80	13-SF_5501	11-SF-0184	University House	E	MMBR	NEWUD	10/20/2021	F	10/20/2021			Bioretention North
UMCP198MP0036	2023	146322.54	404288.16	13-SF_5501		Lot Three (Guilford Park Bioretention)	S	FBIO	REST	6/6/2023	P	5/18/2023			Middle Guilford Bioretention.
UMCP198MP0039	2023	146978.37	405216.60	13-SF_5501		Chem-Nuc BLDG	S	FBIO	REST	9/21/2023	P	9/21/2023			North Cell
UMCP198MP0040	2023	146679.14	404093.23	13-SF_5501	11-SF-0184	University House	E	MMBR	REST	9/21/2021	P	9/21/2021			Bioretention South
UMCP198MP0041	2023	146731.82	404095.08	13-SF_5501	11-SF-0184	University House	E	MMBR	NEWUD	9/21/2021	P	9/21/2021			Bioretention South
UMCP198MP0042	2023	147527.84	404852.38	13-SF_5501	13-SF-0233	Wye Oak Building	E	MMBR	NEWUD	6/1/2021	P	4/1/2015			
UMCP198MP0043	2023	147241.07	405591.22	13-SF_5501		Lot 11b bioretention	S	FBIO	REST	4/2/2019	F	5/16/2017			Dr. Davis bioretention
UMCP198MP0046	2023	146571.57	405168.75	13-SF_5501		Symons Hall Rain Garden North	E	MNRG	REST	4/2/2019	P	4/2/2019			
UMCP198MP0047	2023	146570.96	405168.72	13-SF_5501		Symons Hall Rain Garden South	E	MNRG	REST	4/2/2019	P	4/2/2019			
UMCP198MP0048	2023	146574.81	405168.57	13-SF_5501		Symons Hall Pervious Pavement	E	APRP	REST	4/2/2019	F				Purple construction will restore
UMCP198MP0049	2023	147031.24	405023.82	13-SF_5501	10-SF-0085	Computer and Space Sciences Green Roof	E	AGRE	REDE	5/3/2022	P	4/16/2022			
UMCP198MP0050	2023	147147.67	404856.25	13-SF_5501		Cumberland Green Roof	E	AGRE	REST	5/3/2022	P	4/6/2022			south cell. same condition as others.
UMCP198MP0055	2023	147573.60	404936.27	13-SF_5501	11-SF-0139	Heavy Equipment Building	E	MMBR	REDE	3/9/2020	P	3/9/2020			BLS Bioretention. no observed plants. room for enhanced planting.
UMCP198MP0056	2023	147750.78	405055.88	13-SF_5501	01-SF-0167	Comcast north retention pond	S	PWET	REDE	9/16/2021	P	8/17/2021			Comcast/Chesapeake Pond. Reported problems with overflow during large rains events. Geese infestation.
UMCP198MP0059	2023	147173.55	404348.39	13-SF_5501	12-SF-0215	Denton Dining	E	MMBR	REDE	9/27/2023	P	3/26/2020			
UMCP198MP0065	2023	148724.97	405016.86	13-SF_5501	04-SF-0066	Greenmeade North Grass Channel B	S	MSWG	NEWUD	9/16/2022	P	4/1/2022			Plans identify BMP as a Grass Swale, originally identified as dry pond
UMCP198MP0066	2023	148721.15	405017.68	13-SF_5501	04-SF-0066	Greenmeade North Grass Channel A	S	MSWG	NEWUD	4/26/2022	P	4/26/2022			
UMCP198MP0068	2023	148324.92	405076.19	13-SF_5501		Courtyards Northeast Parking	S	FBIO	NEWUD	6/6/2023	F				sheet flow to bioretention curb at north edge collapsed
UMCP198MP0069	2023	148316.39	405094.46	13-SF_5501		Courtyards Northeast Parking	S	FBIO	NEWUD	6/6/2023	F				sheet flow to bioretention
UMCP198MP0070	2023	147151.76	404275.04	13-SF_5501	12-SF-0215	Denton Quad MB 3	E	MMBR	REDE	3/26/2020	P	12/2/2016			
UMCP198MP0073	2023	146673.19	404758.47	13-SF_5501		Stamp Green Roof West	E	AGRE	REST	5/3/2022	P	9/30/2021			Good condition. Some volunteer weeds should be removed verify LEED status
UMCP198MP0074	2023	146671.05	404793.63	13-SF_5501		Stamp Green Roof East	E	AGRE	REST	5/3/2022	P	9/30/2021			same as other stamp green roof verify LEED status
UMCP198MP0075	2023	147163.19	404277.92	13-SF_5501		Denton	E	APRP	NEWUD	6/4/2019	F				Service parking permeable paving.
UMCP198MP0076	2023	147256.74	404824.99	13-SF_5501		Public Health Garden	S	FBIO	REST	6/1/2021	P	2/7/2020			Water enters facility too rapidly, causing scouring and channeling of swale bays. BMP not permitted by MDE.
UMCP198MP0077	2023	147272.45	404825.22	13-SF_5501		Public Health Garden	E	MRWH	REST	6/4/2019	P	2/6/2020			BMP not permitted by MDE.
UMCP198MP0078	2023	147002.04	405068.40	13-SF_5501	10-SF-0085	Physical Science Complex Green Roof	E	AGRE	REDE	5/3/2022	P	4/6/2022			
UMCP198MP0079	2023	146754.86	405303.38	13-SF_5501		Glenn L Martin Hall	E	APRP	NEWUD	1/20/2022	P	1/20/2022			Engineering permeable paving
UMCP198MP0080	2023	147250.06	405278.89	13-SF_5501		Lot FF2	E	APRP	REST	5/31/2023	P	5/31/2023			Dr. Davis permeable paving research with treatment vault for nitrogen reduction.
UMCP198MP0081	2023	147230.34	404409.42	13-SF_5501		Denton Hall	E	MRWH	NEWUD	5/31/2023	P	5/31/2023			
UMCP198MP0082	2023	146527.74	404476.54	13-SF_5501	08-SF-0085	Knight Hall	E	MRWH	REDE	7/15/2021	P	7/15/2021			
UMCP198MP0083	2023	147257.84	404359.90	13-SF_5501		Denton Hall	E	MRWH	NEWUD	5/31/2023	P	5/31/2023			
UMCP198MP0085	2023	146052.57	405080.49	13-SF_5501		Washington Quad	E	MRWH	REST		F				Washington Quad. Listed as falling until inspection/PE 1
UMCP198MP0086	2023	146952.04	404182.71	13-SF_5501		CSPAC	E	APRP	NEWUD	4/4/2019	F	8/24/2018			CSPAC landscape service building permeable paving. Some weeds/sediment buildup in joints.
UMCP198MP0088	2023	146958.99	405215.94	13-SF_5501		Chem-Nuc BLDG	S	FBIO	REST	9/21/2023	P	9/21/2023			South Cell
UMCP198MP0089	2023	147350.63	404155.05	13-SF_5501		Golf Course Pond (lower)	S	PWET	NEWUD	11/6/2020	F				Dam failed years ago. No funding identified for fix. Undetermined condition presents safety hazard. Confirm status w/ course manager - In-Stream Pond Campus Creek
UMCP198MP0090	2023	147315.44	405100.67	13-SF_5501	00-SF-0275	Lot UU Bioretention	S	FBIO	REDE	6/16/2022	P	8/27/2021			Treats part of Xfinity Roof
UMCP198MP0091	2023	147294.93	405324.85	13-SF_5501		Regents Drive Bioretention	S	FBIO	REST	5/31/2023	F	5/16/2018			Dr. Davis bioretention. Built w/ EPA/PG 5 (\$250K for 4 facilities)
UMCP198MP0092	2023	147374.45	405327.15	13-SF_5501		Lot 9 Bioretention	S	FBIO	REST	6/6/2023	F				Dr. Davis bioretention. Built w/ EPA/PG 5 (\$250K for 4 facilities)
UMCP198MP0093	2023	147291.94	405246.25	13-SF_5501		Regents Drive Bioretention	S	FBIO	REST	5/31/2023	F	5/16/2018			Dr. Davis bioretention. Built w/ EPA/PG 5 (\$250K for 4 facilities)
UMCP198MP0094	2023	147238.55	405446.42	13-SF_5501		Paint Branch Drive Bioretention	S	FBIO	REDE	6/6/2023	F	5/16/2017			Dr. Davis bioretention. Built w/ EPA/PG 5 (\$250K for 4 facilities)

BMP_ID*	REPORTING_YEAR	MD_NORTH*	MD_EAST	PERMIT_NUM	LOCAL_BMP_ID	BMP_NAME	BMP_CLASS	BMP_TYPE	CON_PURPOSE	LAST_INSP_DATE	BMP_STATUS	MAIN_DATE	REINSR_DATE	REINSR_STATUS	GEN_COMMENTS
UMCP198MP0098	2023	147513.97	405342.47	13-SF_5501	05-SF-0032	Artificial Turf Field	S	PWET	NEWD	1/20/2022	P	8/28/2021			Not intended for SWM. Drainage only.
UMCP198MP0106	2023	147494.20	405574.94	13-SF_5501	11-SF-0002	Shuttle Bus	S	PWET	REDE	9/30/2022	P	5/9/2022			
UMCP198MP0107	2023	147573.07	405296.44	13-SF_5501	01-SF-0255	Taylor Stadium	S	FBIO	NEWD	11/3/2020	P	8/16/2021			
UMCP198MP0108	2023	147903.37	405030.76	13-SF_5501	00-SF-0275	Chesapeake Parking Lot East	S	FUND	NEWD	6/17/2021	P	6/19/2018			
UMCP198MP0109	2023	148134.97	404878.53	13-SF_5501		Metzerott Rd. and Greenmead Dr.	S	PWET	NEWD	9/8/2021	P	9/8/2021			
UMCP198MP0112	2023	146967.82	404041.11	13-SF_5501	98-SF-0218	Golf Course Parking Lot	E	MMBR	REDE	4/8/2020	F	10/30/2018			Bioretention discovered during inspection of Golf Course Rd drainage swale-December 2014
UMCP198MP0122	2023	147179.85	404313.09	13-SF_5501	12-SF-0215	Denton Courtyard Bioretention	E	MMBR	REDE	9/27/2023	P	3/26/2020			
UMCP198MP0124	2023	146101.64	404687.09	13-SF_5501	12-SF-0232	Prince Frederick Hall Bioretention Cell 1	E	MMBR	REDE	9/21/2021	P	9/21/2021			
UMCP198MP0125	2023	146116.11	404734.63	13-SF_5501	12-SF-0232	Prince Frederick Hall Bioretention Cell 2	E	MMBR	REDE	11/22/2022	P	11/15/2022			Sewer or potable pipe tied in to East inflow, flushing noise observed in field
UMCP198MP0127	2023	146180.60	405944.12	13-SF_5501		Paint Branch Dr & Rossborough Ln	S	FBIO	REST	5/1/2019	F	4/1/2017			To be removed and replaced by Leonardtown development.
UMCP198MP0128	2023	146168.89	405972.95	13-SF_5501		Paint Branch Dr & Rossborough Ln	S	FBIO	REST	5/1/2019	F	4/1/2017			City of College Park constructed and maintained. Not university.
UMCP198MP0129	2023	146479.88	405249.72	13-SF_5501		North side of Reckord Armory	E	MRNG	REST	1/18/2022	F	1/18/2022			Built as part of sustainability fund student project
UMCP198MP0130	2023	146601.80	405287.54	13-SF_5501		Kirwan Hall Pavers	E	APRP	NEWD	6/6/2023	F	6/5/2019			Observed to be pervious in field. No drawings found to date
UMCP198MP0142	2023	146981.56	405407.42	13-SF_5501	02-SF-0279	Kim Plaza	E	MMBR	REDE	6/1/2021	P	6/1/2021			
UMCP198MP0143	2023	147092.53	405326.54	13-SF_5501		Central Animal Resources Facility & ENST	E	APRP	NEWD	5/31/2023	P	5/31/2023			
UMCP198MP0144	2023	146956.32	404032.55	13-SF_5501		North East corner of Golf Course parking Lot	E	MRNG	REST	9/25/2021	P	9/25/2021			Built as part of CBT grant; built in-house by BLM; drawings consist of profile and plan view- no detail drawings were created; construction cost include all 3 facilities combined.
UMCP198MP0146	2023	146970.08	403914.01	13-SF_5501		Northwest corner of Golf Course parking lot	E	MRNG	REST	9/25/2021	P	9/25/2021			Built as part of CBT grant; built in-house by BLM; drawings consist of profile and plan view- no detail drawings were created; construction cost include all 3 facilities combined. RG2. Built as part of CBT grant; built in-house by BLM; drawings consist of profile and plan view- no detail drawings were created; construction cost include all 3 facilities combined. 6" inflow pipe from swale is below grade.
UMCP198MP0147	2023	146905.41	403933.00	13-SF_5501		Southwest corner of Golf Course parking lot	E	MRNG	REST	5/1/2019	F	10/30/2018			Quantity management only
UMCP198MP0149	2023	146859.36	404863.09	13-SF_5501	11-SF-0366	Bob Turtle Smith Stadium at Shipley Field Underg	S	XDPD	REDE	2/16/2023	F	2/16/2023			Quantity management only
UMCP198MP0150	2023	146851.05	405108.91	13-SF_5501	14-SF-0181	Edward St. John Learning and Teaching Center U	S	XDPD	REDE	2/16/2023	F	2/16/2023			Quantity management only
UMCP198MP0151	2023	146926.77	404572.99	13-SF_5501	11-SF-0366	Maryland Stadium Underground Detention Facili	S	NDPR	REDE	6/16/2022	P	6/16/2022			
UMCP198MP0152	2023	146820.94	405581.69	13-SF_5501	16-SF-0054	Behind A.V. Williams	E	MMBR	REDE	6/16/2022	P	6/16/2022			
UMCP198MP0153	2023	147007.47	405562.48	13-SF_5501	16-SF-0064	Behind A.V. Williams	E	MMBR	REDE	6/16/2022	P	6/16/2022			
UMCP198MP0154	2023	146975.71	405568.77	13-SF_5501	16-SF-0064	Behind A.V. Williams	E	MMBR	REDE	6/16/2022	P	6/16/2022			
UMCP198MP0155	2023	146600.58	404987.86	13-SF_5501	14-SF-0182	West of Edward St. John	E	AGRE	NEWD	3/26/2020	P	4/27/2020			
UMCP198MP0157	2023	146559.97	405023.75	13-SF_5501	14-SF-0182	West Side of Edward St. John	E	AGRE	REDE	5/3/2022	P	4/19/2022			
UMCP198MP0158	2023	146560.89	405040.90	13-SF_5501	14-SF-0182	West Side of Edward St. John	E	AGRE	REDE	5/3/2022	P	4/19/2022			
UMCP198MP0159	2023	146543.52	405082.70	13-SF_5501	14-SF-0182	East Side of Edwards St. John	E	AGRE	NEWD	5/3/2022	P	4/19/2022			
UMCP198MP0161	2023	147279.19	404391.62	13-SF_5501	09-SF-0390	Oakland Hall Sandfilter	S	FUND	NEWD	7/8/2020	P	7/8/2020			
UMCP198MP0162	2023	147481.23	404827.56	13-SF_5501	01-SF-0005	Terrain Trail Garage Baysaver unit	S	COGS	NEWD	6/19/2018	P	6/19/2018			Pretreatment for UMCP198MP0024
UMCP198MP0163	2023	147735.71	406800.88	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0164	2023	147712.03	406666.15	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0165	2023	147737.54	406731.88	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0166	2023	147754.36	406779.12	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0167	2023	147706.10	406826.42	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0168	2023	147645.38	406810.81	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0169	2023	147592.40	406616.94	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0170	2023	147521.09	406637.05	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0171	2023	147461.79	406760.11	13-SF_5501		Severn Stormceptor	S	COGS	REDE	6/19/2019	P	6/19/2018			
UMCP198MP0172	2023	148164.15	405013.40	13-SF_5501		Courtyards South Parking	S	FBIO	REDE	6/6/2023	P	6/6/2023			Structure identified from imagery. Field confirmation required. Check with the Courtyards for existing plan set.
UMCP198MP0201	2023	147129.96	405375.41	13-SF_5501	14-SF-0265	Clark Hall Bioretention 1	E	MMBR	REDE	9/21/2023	P	6/4/2019			West side of Clark Hall
UMCP198MP0232	2023	147109.93	405375.62	13-SF_5501	14-SF-0265	Clark Hall Bioretention 2	E	MMBR	REDE	9/21/2023	P	3/23/2022			
UMCP198MP0235	2023	147510.82	403943.30	13-SF_5501		Upper Golf Course	S	PWET	NEWD	6/2/2023	F				Dam observed failed during field inspection. In-Stream Pond Campus Creek
UMCP198MP0236	2023	148330.53	405108.59	13-SF_5501		Courtyards Sheelrow to Conservation 1	E	NSCA	NEWD	6/6/2023	P	6/6/2023			
UMCP198MP0237	2023	148240.53	405124.25	13-SF_5501		Courtyards Sheelrow to Conservation 2	E	NSCA	NEWD	6/6/2023	P	6/6/2023			
UMCP198MP0238	2023	147246.59	405086.26	13-SF_5501		Wellness Way Bioretention	E	MSWB	REST	8/4/2021	P	8/4/2021			BMP field identified by MES, listed as bioswale constructed by MDE. DA still needs to be confirmed, no plans - Retrofit conducted 11/13/2019 to expand storage capacity
UMCP198MP0239	2023	146721.81	404139.61	13-SF_5501	11-SF-0184	Presidents House Disconnect 1	E	NDNR	NEWD	9/21/2021	P	9/10/2021			
UMCP198MP0240	2023	146803.85	404051.79	13-SF_5501	11-SF-0184	Presidents House Disconnect 2-1	E	NDNR	NEWD	4/8/2020	P	4/8/2020			
UMCP198MP0241	2023	146906.29	405596.76	13-SF_5501	16-SF-0064	Brendan Irbe 1	E	MMBR	REDE	3/18/2022	P	3/18/2022			
UMCP198MP0242	2023	146855.63	405574.14	13-SF_5501	16-SF-0064	Brendan Irbe 2	E	MMBR	REDE	6/16/2022	P	3/18/2022			
UMCP198MP0243	2023	146803.50	405608.07	13-SF_5501	16-SF-0064	Brendan Irbe 3	E	MSWB	REDE	9/16/2022	P	9/16/2022			
UMCP198MP0244	2023	146809.94	405510.90	13-SF_5501	16-SF-0064	Brendan Irbe 4	E	AGRI	REDE	7/26/2021	P	7/26/2021			
UMCP198MP0245	2023	146819.29	405548.24	13-SF_5501	16-SF-0064	Brendan Irbe 5	E	AGRI	REDE	7/15/2021	P	7/15/2021			
UMCP198MP0248	2023	146488.56	405597.71	13-SF_5501		Service Building Bioretention	S	FBIO	REDE		F				Listed as failing until inspection
UMCP198MP0249	2023	147429.67	404606.19	13-SF_5501	18-SF-0204	Campus Creek Restoration	A	SPRC	REST	7/1/2022	P	6/8/2020			
UMCP198MP0250	2023	147431.84	404451.93	13-SF_5501	18-SF-0204	Campus Creek Regenerative Step Pool Conveyan	A	STRE	REST	7/1/2022	P	6/8/2020			
UMCP208MP0251	2023	146831.11	405741.86	13-SF_5501	92-SF-0055	Fire Station Infiltration Trench	S	ITRN	NEWD	12/15/2021	F				Very overgrown, only observation well located.
UMCP208MP0252	2023	146873.75	405748.03	13-SF_5501	92-SF-0055	Fire Station WQ Inlet 1	S	Other	NEWD	7/8/2020	P	7/9/2020			Pretreatment
UMCP208MP0253	2023	146874.87	405733.03	13-SF_5501	92-SF-0055	Fire Station WQ Inlet 2	S	Other	NEWD	7/8/2020	P	7/9/2020			Pretreatment
UMCP208MP0255	2023	146730.13	405123.97	13-SF_5501	92-SF-0217	Plant Sciences WQ Inlet	S	Other	REDE	7/8/2020	F	7/9/2020			Pretreatment
UMCP208MP0256	2023	145923.34	405209.35	13-SF_5501	01-SF-0245	UMCP Student Housing Building A	S	FUND	REDE	7/8/2020	P	7/8/2020			
UMCP208MP0257	2023	145927.60	405022.54	13-SF_5501	01-SF-0245	UMCP Student Housing Building B	S	FUND	REDE	9/16/2022	P	9/16/2022			
UMCP208MP0258	2023	144408.70	405905.68	13-SF_5501	17-SF-0092	M Square SGW 1	E	MSGW	REDE	4/8/2020	P	4/8/2020			
UMCP208MP0259	2023	144567.14	405880.11	13-SF_5501	17-SF-0092	M Square SGW 2	E	MSGW	REDE	4/8/2020	P	4/8/2020			
UMCP208MP0260	2023	144555.92	406065.15	13-SF_5501	17-SF-0092	M Square MBR1	E	MMBR	REDE	4/8/2020	P	4/8/2020			
UMCP208MP0261	2023	148671.78	405055.69	13-SF_5501	07-SF-0155	Mosquito Control MBR	E	MMBR	NEWD	4/2/2020	F				
UMCP208MP0264	2023	146139.76	406328.29	13-SF_5501	01-SF-0340	MFR1 Pond	S	PWET	REDE	9/22/2023	F	9/22/2023			
UMCP208MP0266	2023	146598.63	404829.37	13-SF_5501	01-SF-0378	University of Maryland Health Center	S	FUND	REDE	7/9/2020	P	7/8/2020			
UMCP208MP															

BMP_ID <sup>1</sup>	REPORTING_YEAR	MD_NORTH <sup>2</sup>	MD_EAST	PERMIT_NUM	LOCAL_BMP_ID	BMP_NAME	BMP_CLASS	BMP_TYPE	CON_PURPOSE	LAST_INSP_DATE	BMP_STATUS	MAIN_DATE	REINSR_DATE	REINSR_STATUS	GEN_COMMENTS
UMCP208MP0271	2023	144514.55	406272.90	13-SF-5501	16-SF-0261	College Park Academy Micro-Bioretenion 5	E	MMBR	NEW	6/1/2021	P	6/1/2021			
UMCP208MP0272	2023	144421.94	406353.65	13-SF-5501	16-SF-0261	College Park Academy Submerged Gravel Wetland	E	MSGW	NEW	6/1/2021	P	6/1/2021			
UMCP208MP0273	2023	144926.11	406544.69	13-SF-5501		NOAA Green Roof 1	E	AGRE	NEW	7/15/2021	P	7/15/2021			
UMCP208MP0274	2023	144886.19	406587.24	13-SF-5501		NOAA Bioretention	S	FBIO	NEW	4/30/2021	F				
UMCP208MP0275	2023	144912.28	406586.39	13-SF-5501		NOAA Green Roof 2	E	AGRE	NEW	7/15/2021	P	7/15/2021			
UMCP208MP0276	2023	144870.74	406556.58	13-SF-5501		NOAA WQ Manhole 1	S	COGS	NEW	4/30/2021	P	4/30/2021			Pretreatment for BMP UMCP208MP0277
UMCP208MP0277	2023	144818.31	406568.70	13-SF-5501		NOAA Underground Cistern	E	MRWH	NEW	6/17/2021	P	6/17/2021			
UMCP208MP0278	2023	144877.80	406600.31	13-SF-5501		NOAA WQ Manhole 2	S	COGS	NEW	4/30/2021	P	4/30/2021			Pretreatment
UMCP208MP0279	2023	144761.27	406630.26	13-SF-5501		NOAA WQ Manhole 3	S	COGS	NEW	4/30/2021	P	4/30/2021			Pretreatment
UMCP208MP0280	2023	147734.94	406718.21	13-SF-5501		Severn Building Micro-Bioretenion Area	E	MMBR	REDE	6/1/2021	F				
UMCP208MP0281	2023	148600.46	404970.95	13-SF-5501	04-SF-0066	Greenmeade North Stormceptor	S	COGS	NEW	4/26/2022	P	4/26/2022			Pretreatment for UMCP198MP0066, Listed as failing until inspection
UMCP208MP0282	2023	146792.93	404038.04	13-SF-5501	11-SF-0184	Presidents House Disconnect 2-2	E	NDNR	NEW	4/8/2020	P	4/8/2020			
UMCP208MP0285	2023	146777.23	404002.00	13-SF-5501	11-SF-0184	Presidents House Disconnect 2-5	E	NDNR	NEW	4/8/2020	P	4/8/2020			
UMCP208MP0286	2023	146767.31	404060.33	13-SF-5501	11-SF-0184	Presidents House Disconnect 2-3	E	NDNR	NEW	4/8/2020	P	4/8/2020			
UMCP208MP0287	2023	146776.13	404048.53	13-SF-5501	11-SF-0184	Presidents House Disconnect 2-4	E	NDNR	NEW	4/8/2020	P	4/8/2020			
UMCP208MP0288	2023	148038.42	405387.54	13-SF-5501		4100 Metzert Rd Impervious Removal	A	IMPP	REST		P				
UMCP208MP0289	2023	147899.26	405369.20	13-SF-5501		4109 Metzert Rd Impervious Removal	A	IMPP	REST		F				
UMCP208MP0290	2023	147441.85	404475.02	13-SF-5501	18-SF-0204	Campus Creek Regenerative Step Pool Conveyance	A	SPSC	REST	7/1/2022	P	6/8/2020			
UMCP208MP0291	2023	147345.11	404978.06	13-SF-5501	18-SF-0204	Campus Creek Stormwater Bar	A	AUT	REST	7/1/2022	P	6/8/2020			
UMCP218MP0292	2023	146766.15	404615.60	13-SF-5501	16-SF-0061	Cole Field House Green Roof 1	E	AGRI	REDE	10/1/2021	P	10/1/2021			
UMCP218MP0293	2023	146766.74	404556.07	13-SF-5501	16-SF-0061	Cole Field House Green Roof 2	E	AGRI	REDE	9/26/2023	P	4/26/2022			
UMCP218MP0294	2023	146672.41	404557.39	13-SF-5501	16-SF-0061	Cole Field House Green Roof 3	E	AGRI	REDE	9/26/2023	P	9/26/2023			
UMCP218MP0295	2023	146626.26	404518.83	13-SF-5501	16-SF-0061	Cole Field House Green Roof 4	E	AGRI	REDE	5/3/2022	P	4/26/2022			
UMCP218MP0296	2023	147957.18	404955.17	13-SF-5501		Wooded Hillcock Impervious Removal 3	A	IMPP	REST		P				
UMCP218MP0297	2023	147940.09	404868.38	13-SF-5501		Wooded Hillcock Impervious Removal 2	A	IMPP	REST		P				
UMCP218MP0298	2023	147868.97	404758.74	13-SF-5501		Wooded Hillcock Impervious Removal 1	A	IMPP	REST		P				
UMCP218MP0299	2023	147959.30	405348.54	13-SF-5501		4103 Metzert Rd Impervious Removal	A	IMPP	REST		P				
UMCP218MP0300	2023	146705.18	404488.51	13-SF-5501	16-SF-0061	Cole Field House Impervious Surface Removal	A	IMPP	REST		P				
UMCP228MP0301	2023	146933.90	405411.70	13-SF-5501	19-SF-0162	Idea Factory Micro-Bioretenion 4	E	MMBR	REDE	6/6/2023	P	6/6/2023			
UMCP228MP0302	2023	146926.50	405335.62	13-SF-5501	19-SF-0162	Idea Factory Micro-Bioretenion 2	E	MMBR	REDE	6/6/2023	P	6/6/2023			
UMCP228MP0303	2023	146926.84	405357.94	13-SF-5501	19-SF-0162	Idea Factory Micro-Bioretenion 1	E	MMBR	REDE	6/6/2023	P	6/6/2023			
UMCP228MP0304	2023	146926.96	405378.99	13-SF-5501	19-SF-0162	Idea Factory Micro-Bioretenion 3	E	MMBR	REDE	6/6/2023	P	6/6/2023			
UMCP228MP0306	2023	147032.46	404673.48	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 7A	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0307	2023	147034.31	404708.23	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 6A	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0308	2023	147048.00	404708.00	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 5A	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0309	2023	147059.96	404708.57	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 5	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0310	2023	147023.03	404713.64	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 6	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0311	2023	146994.15	404714.90	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 8	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0312	2023	146994.04	404735.27	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 8A	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0313	2023	147121.00	404821.44	13-SF-5501	19-SF-0094	Pyon-Chen Hall Micro-Bioretenion 9	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0314	2023	147092.91	404788.29	13-SF-5501	19-SF-0094	Pyon-Chen Hall Micro-Bioretenion 3A	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0315	2023	147099.65	404778.46	13-SF-5501	19-SF-0094	Pyon-Chen Hall Micro-Bioretenion 3	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0316	2023	147076.90	404820.30	13-SF-5501	19-SF-0094	Pyon-Chen Hall Micro-Bioretenion 4	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0317	2023	147092.91	404749.25	13-SF-5501	19-SF-0094	Pyon-Chen Hall Micro-Bioretenion 2	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0318	2023	147091.79	404719.75	13-SF-5501	19-SF-0094	Pyon-Chen Hall Micro-Bioretenion 1	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0319	2023	147127.18	404793.63	13-SF-5501	19-SF-0094	Pyon-Chen Hall Non-Rooftop Disconnect 1	E	NDNR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0320	2023	147034.19	404662.09	13-SF-5501	19-SF-0094	Johnson-Whittle Hall Micro-Bioretenion 7	E	MMBR	NEW	5/31/2023	P	5/31/2023			
UMCP228MP0321	2023	146340.64	405239.55	13-SF-5501	19-SF-0062	Thurgood Marshall School of Public Policy Micro-Bioretenion 1	E	MMBR	REDE	6/2/2023	P	6/2/2023			
UMCP228MP0322	2023	146385.29	405356.00	13-SF-5501	19-SF-0062	Thurgood Marshall School of Public Policy Micro-Bioretenion 2	E	MMBR	REDE	6/2/2023	P	6/2/2023			
UMCP228MP0323	2023	146347.72	405349.05	13-SF-5501	19-SF-0062	Thurgood Marshall School of Public Policy Micro-Bioretenion 3	E	MMBR	REDE	6/2/2023	F	6/2/2023			
UMCP228MP0324	2023	146330.59	405364.37	13-SF-5501	19-SF-0062	Thurgood Marshall School of Public Policy Non-Rooftop Disconnect 1	E	NDNR	REDE	6/2/2023	F	6/2/2023			
UMCP238MP0325	2023	147494.22	404899.39	13-SF-5501	11-SF-0139	Heavy Equipment Dry Well	E	MDWB	REDE	2/16/2023	F				
UMCP238MP0326	2023	146581.24	404216.11	13-SF-5501	17-SF-0191	Throwing Event Relocation Bio-Swale	E	MSWB	NEW		F				
UMCP238MP0327	2023	146591.71	404280.48	13-SF-5501	17-SF-0191	Throwing Event Relocation Non-Rooftop Disconnect 1	E	NDNR	NEW		F				Listed as failing until final construction & inspection
UMCP238MP0328	2023	147395.18	405446.70	13-SF-5501	22-SF-0016	UMCP Field Hockey & Lacrosse Complex	E	MMBR	REDE		F				Listed as failing until final construction & inspection
UMCP238MP0329	2023	146865.77	405274.92	13-SF-5501	20-SF-0184	Chemistry Wing 1 Micro-bioretenion	E	MMBR	REDE		F				Listed as failing until final construction & inspection
UMCP238MP0330	2023	146905.39	405288.65	13-SF-5501	20-SF-0184	Chemistry Wing 1 Non-rooftop Disconnection 1A	E	NDNR	REDE		F				Listed as failing until final construction & inspection
UMCP238MP0331	2023	146888.61	405305.04	13-SF-5501	20-SF-0184	Chemistry Wing 1 Non-rooftop Disconnection 1B	E	NDNR	REDE		F				Listed as failing until final construction & inspection
USG198MP0003	2023	158508.02	382721.74	13-SF-5501	02-SF-0033	Infiltration Trench 1 at IBBR	S	ITRN	NEW	6/21/2022	P	11/1/2020			
USG198MP0004	2023	158453.82	382793.55	13-SF-5501	02-SF-0033	IBBR Outfall Stabilization	A	OUT	NEW	6/17/2022	P	6/17/2022			
USG198MP0005	2023	158419.50	382716.02	13-SF-5501	02-SF-0033	Infiltration Trench 2 at IBBR	S	ITRN	NEW	6/21/2022	P	11/1/2020			
USG198MP0006	2023	158380.25	382711.80	13-SF-5501	02-SF-0033	Infiltration Trench 3 at IBBR	S	ITRN	NEW	6/21/2022	F	11/1/2020			
USG198MP0007	2023	158381.60	382749.67	13-SF-5501	22-SF-0016	IBBR Pond	S	PWET	NEW	6/16/2023	P	6/16/2023			
USG198MP0042	2023	158281.34	382830.74	13-SF-5501	16-SF-0044	IBBR Non-Rooftop Disconnect	E	NDNR	NEW	6/21/2022	P	6/21/2022			

Note: The following template is based on recent MD Phase II NPDES data reporting requirements. Definitions of each column and data elements can be found in the three descriptions sheets.

Note: Several Example BMPs have been incorporated to help display the new structure.

<sup>1</sup> Every BMP identified in this table should match BMP\_ID data entered in either "Table B1.b. ESD-STRUCTURAL" sheet or "Table B1.c. Alternative" sheet

<sup>2</sup> Northing and Easting are geographic points used to locate BMPs, Maryland requires using State Plane NAD 83 meters for geographic location. You can use Geographic Information Systems (GIS) or other computer programs to provide these coordinates.

Questions on Maryland specific stormwater design? Follow the link below.

[Link to Maryland's Stormwater Design Manual](#)

**Table B.1.b. Reporting Requirements for ESD and Structural Practices**

More specific data related to ESD and structural BMPs is populated in this table.

BMP_ID <sup>1</sup>	NUM_BMPs <sup>2</sup>	ON_OFF_SITE	CONVERTED_FROM	BMP_STATUS	BMP_DRAIN_AREA	IMP_ACRES <sup>3</sup>	PE_ADR	APPR_DATE	BUILT_DATE	GEN_COMMENTS
UMCP19BMP0002	1	On Site		Active	6.95	3.52	0	8/10/1995	3/26/1998	Lot 2 retention pond
UMCP19BMP0005	1	On Site		Active	23.88	10.91	1	6/16/2003	5/9/2005	Peace Garden Sand Filter; 0.58 ac nested IA; 2 ac allocated to UMGc
UMCP19BMP0010	1	On Site		Active	8.7	2.7	0	2/15/1991	4/1/1994	Laboratory for Physical Science wet pond
UMCP19BMP0011	1	On Site		Active	28.16	9.94	0.8	5/30/2003	12/24/2005	CSPAC Shallow Marsh Wetland. Retrofit conducted in 2003.
UMCP19BMP0012	1	On Site		Active	9.2	6.87	1	12/14/2000	12/11/2002	Softball complex retention pond
UMCP19BMP0013	1	On Site		Active	8.6	4.87	0.5	12/30/1899	9/11/2001	Courtyards retention pond
UMCP19BMP0014	1	On Site		Active	0.23	0.07	1	11/17/2011	10/12/2012	Woods Hall Bioretention
UMCP19BMP0016	1	On Site		Active	0.11	0.11	1	10/28/2010	10/14/2012	Shuttle Facility
UMCP19BMP0017	1	On Site		Active	0.11	0.11	0.29	10/28/2010	10/14/2012	Shuttle Facility
UMCP19BMP0018	1	On Site		Active	0.05	0.05	1	2/18/2011	10/12/2012	BLS Heavy Equipment
UMCP19BMP0019	1	On Site		Active	0.63	0.29	1	5/29/2013	8/28/2014	University House Parking Lot
UMCP19BMP0020	1	On Site		Active	18.64	7.14	1	1/23/1987	4/4/1988	VetMed research pond
UMCP19BMP0021	1	On Site		Active	11.8	7.23	0	4/1/1988	4/1/1994	Animal science retention pond/PE 0
UMCP19BMP0022	1	On Site		Active	0.86	0.82	0	12/30/1899	12/11/2002	Lot 11b bioretention/PE 1
UMCP19BMP0023	1	On Site		Active	1.42	0.72	0	12/30/1899	10/26/2017	SWF 23/PE 0
UMCP19BMP0024	1	On Site		Active	9.58	3.85	1	10/4/2000	9/11/2001	Terrapin Trail Garage retention pond
UMCP19BMP0026	1	On Site		Active	2.82	2.23	0.77	9/29/2010	10/12/2012	Shuttle Facility dry swale
UMCP19BMP0027	1	On Site		Active	0.32	0.32	0	7/1/2003	5/9/2005	Lot PP2 bioretention/PE 1
UMCP19BMP0033	1	On Site		Active	0.47	0.14	1	9/2/2011	8/16/2012	University House
UMCP19BMP0034	1	On Site		Active	0.21	0.1	0	9/1/2011	8/15/2012	University House/PE 1
UMCP19BMP0035	1	On Site		Active	0.41	0.2	1	9/1/2011	8/15/2012	University House
UMCP19BMP0036	1	On Site		Active	2.11	1.59	1	12/30/1899	3/29/2011	Lot Three - Guilford Park Bioretention
UMCP19BMP0039	1	On Site		Active	0.24	0.19	0	12/30/1899	12/6/2012	Chem-Nuc Bldg bioretention/PE 1
UMCP19BMP0040	1	On Site		Active	0.28	0.03	1	9/2/2011	8/16/2012	University House
UMCP19BMP0041	1	On Site		Active	0.38	0.09	1	9/2/2011	8/16/2012	University House
UMCP19BMP0042	1	On Site		Active	0.35	0.27	1	3/18/2013	2/24/2014	Wye Oak Building bioretention
UMCP19BMP0043	1	On Site		Active	0.57	0.54	0	12/30/1899	12/11/2002	Lot 11b bioretention/PE 1
UMCP19BMP0046	1	On Site		Active	0.01	0.003	1	12/30/1899	2/26/2009	Symons Hall
UMCP19BMP0047	1	On Site		Active	0.01	0.003	1	12/30/1899	2/26/2009	Symons Hall
UMCP19BMP0048	1	On Site		Active	0.04	0.04	0	12/30/1899	2/26/2009	Symons Hall/PE 1
UMCP19BMP0049	1	On Site		Active	0.08	0.08	1.2	4/3/2009	12/1/2013	Computer and Space Sciences
UMCP19BMP0050	1	On Site		Active	0.15	0.15	1	7/11/2008	9/30/2008	Cumberland
UMCP19BMP0055	1	On Site		Active	0.17	0.09	1.15	2/18/2011	10/12/2012	Heavy Equipment Building bioretention
UMCP19BMP0056	1	On Site		Active	14.16	5.96	1	12/14/2000	10/1/2002	Comcast north retention pond
UMCP19BMP0059	1	On Site		Active	0.28	0.18	2.28	3/20/2012	10/12/2012	Denton dining bioretention
UMCP19BMP0065	1	On Site		Active	0.5	0.22	1	10/17/2004	6/7/2005	Greenmeade North
UMCP19BMP0066	1	On Site		Active	4.75	2.43	1	10/17/2004	6/7/2005	conveyance to SWF65
UMCP19BMP0068	1	On Site		Active	0.5	0.46	0	12/30/1899	9/11/2001	Courtyards Northeast parking/PE 1
UMCP19BMP0069	1	On Site		Active	0.54	0.5	0	12/30/1899	9/11/2001	Courtyards Northeast parking/PE 1
UMCP19BMP0070	1	On Site		Active	0.13	0.09	0.76	3/20/2012	11/30/2012	Denton bioretention
UMCP19BMP0073	1	On Site		Active	0.04	0.04	1	12/30/1899	4/1/2010	Stamp Green Roof West
UMCP19BMP0074	1	On Site		Active	0.02	0.02	1	12/30/1899	4/1/2010	Stamp Green Roof East
UMCP19BMP0075	1	On Site		Active	0.02	0.01	0	3/20/2012	11/30/2012	Denton permeable pavements/PE 1
UMCP19BMP0076	1	On Site		Active	1.1	0.62	0.12	10/24/2012	5/8/2013	Public Health Garden bioretention
UMCP19BMP0077	1	On Site		Active	4.82	2.03	0	10/24/2012	5/8/2013	Public Health Garden rainwater harvesting /Pe 1
UMCP19BMP0078	1	On Site		Active	0.2	0.2	1.2	4/3/2009	12/1/2013	Physical Science
UMCP19BMP0079	1	On Site		Active	0.01	0.01	1	12/30/1899	3/9/2009	Glenn L Martin Hall permeable pavements
UMCP19BMP0080	1	On Site		Active	0.04	0.04	0	1/18/2011	12/13/2012	Lot FF2 permeable pavements/PE 1
UMCP19BMP0081	1	On Site		Active	0.02	0.02	0	12/30/1899	11/30/2012	Denton Hall rainwater harvesting/PE 0
UMCP19BMP0082	1	On Site		Active	0.45	0.43	0.91	1/22/2008	3/27/2010	Knight Hall
UMCP19BMP0083	1	On Site		Active	0.05	0.05	0	12/30/1899	11/30/2012	Denton Hall rainwater harvesting/PE 0
UMCP19BMP0085	1	On Site		Active	0.37	0.36	0	8/27/2007	9/30/2009	Washington Quad/PE 1
UMCP19BMP0086	1	On Site		Active	0.1	0.1	0	12/30/1899	5/29/2009	CSPAC permeable pavements/PE 1
UMCP19BMP0088	1	On Site		Active	0.09	0.07	0	12/30/1899	12/6/2012	Chem-Nuc Bldg bioretention/PE 1
UMCP19BMP0089	1	On Site		Active	32.84	1.07	0	10/10/1972	1/1/1979	Golf course lower wet pond/PE 0
UMCP19BMP0090	1	On Site		Active	7.58	3.37	0	12/30/1899	12/2/2002	Lot PP2 rain garden. Verify treatment
UMCP19BMP0091	1	On Site		Active	0.86	0.79	0	7/1/2003	5/9/2005	Regents Drive bioretention/PE 1
UMCP19BMP0092	1	On Site		Active	2.99	2.67	0	7/1/2003	5/9/2005	Lot 9 bioretention/PE 1
UMCP19BMP0093	1	On Site		Active	0.45	0.34	0	7/1/2003	5/9/2005	Regents Drive bioretention/PE 1
UMCP19BMP0094	1	On Site		Active	0.27	0.17	0	7/1/2003	5/9/2005	Paint Branch Drive bioretention/PE 1
UMCP19BMP0098	1	On Site		Active	3.91	3.59	0	7/20/1994	12/1/2013	Artificial Turf Field swale
UMCP19BMP0106	1	On Site		Active	1.32	1.17	0.6	10/29/2010	10/15/2012	Shuttle Bus wet pond
UMCP19BMP0107	1	On Site		Active	0.69	0.42	0.53	3/21/2001	3/31/2002	Taylor stadium bioretention
UMCP19BMP0108	1	On Site		Active	3.9	0.56	0.47	1/1/2001	3/31/2002	Chesapeake Parking Lot East
UMCP19BMP0109	1	On Site		Active	7.49	1.32	0.5	12/30/1899	4/4/1988	Metzerott Rd and Greenmead Dr wet pond
UMCP19BMP0112	1	On Site		Active	1.48	1.2	0	4/13/1998	3/14/2000	Golf Course Parking Lot rain garden/PE 0
UMCP19BMP0122	1	On Site		Active	0.25	0.1	1.03	3/20/2012	11/20/2012	Denton Courtyard bioretention
UMCP19BMP0124	1	On Site		Active	0.23	0.17	0.8	10/5/2012	7/28/2014	Prince Frederick Hall Bioretention Cell 1
UMCP19BMP0125	1	On Site		Active	0.46	0.3	1.36	10/5/2012	7/28/2014	Prince Frederick Hall Bioretention Cell 2
UMCP19BMP0127	1	On Site		Active	0.41	0.14	0	12/30/1899	3/14/2000	Paint Branch Dr & Rossborough Ln/PE 1
UMCP19BMP0128	1	On Site		Active	3.14	0.84	0	12/30/1899	12/1/2013	Paint Branch Dr & Rossborough Ln bioretention/PE 0
UMCP19BMP0129	1	On Site		Active	0.06	0.04	0	12/30/1899	12/30/1899	Reckord Armory/PE 1
UMCP19BMP0130	1	On Site		Active	0.04	0.04	0	12/30/1899	12/30/1899	Kirwan Hall fountain permeable pavements/ PE 1
UMCP19BMP0133	1	On Site		Removed	0.06	0.02	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0134	1	On Site		Removed	0.07	0.05	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0135	1	On Site		Removed	0.06	0.02	0	3/3/2004	5/9/2005	Kim Plaza/PE 0

BMP_ID <sup>1</sup>	NUM_BMPS <sup>2</sup>	ON_OFF_SITE	CONVERTED_FROM	BMP_STATUS	BMP_DRAIN_AREA	IMP_ACRES <sup>3</sup>	PE_ADR	APPR_DATE	BUILT_DATE	GEN_COMMENTS
UMCP19BMP0136	1	On Site		Removed	0.05	0.04	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0137	1	On Site		Removed	0.04	0.03	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0138	1	On Site		Removed	0.04	0.03	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0139	1	On Site		Removed	0.14	0.13	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0140	1	On Site		Removed	0.05	0.04	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0141	1	On Site		Removed	0.04	0.02	0	3/3/2004	5/9/2005	Kim Plaza/PE 0
UMCP19BMP0142	1	On Site		Active	0.17	0.1	1	3/3/2004	5/9/2005	Kim Plaza
UMCP19BMP0143	1	On Site		Active	0.04	0.04	1	12/30/1899	5/29/2009	Central Animal Resources Facility & ENST
UMCP19BMP0144	1	On Site		Active	1.25	1.14	0	12/30/1899	12/19/2016	North East corner of golf course parking lot rain gardens
UMCP19BMP0146	1	On Site		Active	0.47	0.37	1	12/30/1899	12/19/2016	North west corner of golf course parking lot rain garden
UMCP19BMP0147	1	On Site		Active	0.37	0.22	0	12/30/1899	12/19/2016	South west corner of golf course parking lot rain garden/PE 1
UMCP19BMP0149	1	On Site		Active	8.11	5.56	0	7/20/2015	1/11/2016	PE 0
UMCP19BMP0150	1	On Site		Active	0.16	0.16	0	9/26/2014	10/26/2017	PE 0
UMCP19BMP0151	1	On Site		Active	2.17	2.11	0	8/22/2011	12/6/2012	PE 0
UMCP19BMP0152	1	On Site		Active	0.68	0.37	1.3	5/22/2017	1/10/2018	A.V. Williams
UMCP19BMP0153	1	On Site		Active	0.62	0.22	0.8	5/22/2017	1/10/2018	A.V. Williams
UMCP19BMP0154	1	On Site		Active	0.35	0.39	1	5/22/2017	1/10/2018	A.V. Williams
UMCP19BMP0155	1	On Site		Active	0.05	0.05	1	9/26/2014	10/26/2017	West of Edward St. John
UMCP19BMP0157	1	On Site		Active	0.06	0.06	1	9/26/2014	10/26/2017	West Side of Edwards St. John
UMCP19BMP0158	1	On Site		Active	0.06	0.06	1	9/26/2014	10/26/2017	West Side of Edwards St. John
UMCP19BMP0159	1	On Site		Active	0.03	0.03	1	9/26/2014	10/26/2017	East Side of Edwards St. John
UMCP19BMP0161	1	On Site		Active	0.4	0.21	1	6/18/2009	6/3/2011	Oakland Hall Sandfilter
UMCP19BMP0162	1	On Site		Active	0	0	0	10/4/2000	9/11/2001	Terrapin Trail Garage Bay/Saver/PE 0
UMCP19BMP0163	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0164	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0165	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0166	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0167	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0168	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0169	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0170	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0171	1	On Site		Active	0	0	0	4/29/1996	1/1/1998	Severn Stormceptor
UMCP19BMP0172	1	On Site		Active	0.98	0.72	1	12/30/1899	9/11/2001	Courtyards South Parking
UMCP19BMP0231	1	On Site		Active	0.33	0.27	1.96	9/18/2015	10/26/2017	A. James Clark Hall
UMCP19BMP0232	1	On Site		Active	0.3	0.21	2.6	9/18/2015	10/26/2017	A. James Clark Hall
UMCP19BMP0235	1	On Site		Active	208.28	7.25	0	10/10/1972	1/1/1979	Upper golf course wet pond/PE 0
UMCP19BMP0236	1	On Site		Active	0.28	0.27	0	12/30/1899	9/11/2001	SWFSCA1/PE 0
UMCP19BMP0237	1	On Site		Active	0.06	0.06	0	12/30/1899	9/11/2001	SWFSCA2/PE 0
UMCP19BMP0238	1	On Site		Active	1.28	0.87	1	12/30/1899	1/1/2017	Wellness Way bio-swale
UMCP19BMP0239	1	On Site		Active	0.56	0.01	0	10/19/2011	10/19/2011	SWFNR1
UMCP19BMP0240	1	On Site		Active	0.02	0.02	1	10/19/2011	8/16/2012	SWFNR2
UMCP19BMP0241	1	On Site		Active	0.44	0.23	2.5	5/10/2016	6/7/2019	Brendan Iribe 1
UMCP19BMP0242	1	On Site		Active	0.45	0.19	2.6	5/10/2016	6/7/2019	Brendan Iribe 2
UMCP19BMP0243	1	On Site		Active	0.76	0.19	1	5/10/2016	6/7/2019	Brendan Iribe 3
UMCP19BMP0244	1	On Site		Active	0.14	0.12	2	5/10/2016	6/7/2019	Brendan Iribe 4
UMCP19BMP0245	1	On Site		Active	0.12	0.12	1.7	5/10/2016	6/7/2019	Brendan Iribe 5
UMCP19BMP0248	1	On Site		Active	0.15	0.15	0	6/3/2015	1/10/2018	Service Building Bioretention/PE 1
UMCP20BMP0251	1	On Site		Active	0	0	0	3/12/1992	4/1/1994	Cannot locate
UMCP20BMP0252	1	On Site		Active	0.22	0.21	0	3/12/1992	4/1/1994	
UMCP20BMP0253	1	On Site		Active	0.26	0.25	0	3/12/1992	4/1/1994	
UMCP20BMP0255	1	On Site		Active	0.24	0.15	0	3/5/1993	1/1/1996	PE 0
UMCP20BMP0256	1	On Site		Active	0.76	0.59	0.63	4/9/2003	1/1/2005	UMCP Student Housing Building A
UMCP20BMP0257	1	On Site		Active	0.96	0.72	0.51	4/9/2003	1/1/2005	UMCP Student Housing Building B
UMCP20BMP0258	1	On Site		Active	3.32	2.33	0.8	3/10/2017	12/26/2018	M Square SGW 1
UMCP20BMP0259	1	On Site		Active	1.45	0.88	0.82	3/10/2017	12/26/2018	M Square SGW 2
UMCP20BMP0260	1	On Site		Active	0.64	0.48	0.73	3/10/2017	12/26/2018	M Square MBR1
UMCP20BMP0261	1	On Site		Active	0.54	0.27	0	11/10/2006	3/10/2008	PE 1
UMCP20BMP0264	1	On Site		Active	1.99	1.06	0	3/5/2001	3/31/2002	PE 0.58
UMCP20BMP0266	1	On Site		Active	0.12	0.12	0.75	8/29/2002	12/31/2004	
UMCP20BMP0267	1	On Site		Active	0.32	0.14	1	8/15/2016	2/1/2018	
UMCP20BMP0268	1	On Site		Active	0.36	0.27	1	8/15/2016	2/1/2018	
UMCP20BMP0269	1	On Site		Active	0.44	0.35	1	8/15/2016	2/1/2018	
UMCP20BMP0270	1	On Site		Active	0.41	0.32	1	8/15/2016	2/1/2018	
UMCP20BMP0271	1	On Site		Active	0.55	0.42	1	8/15/2016	2/1/2018	
UMCP20BMP0272	1	On Site		Active	5.5	1.97	1	8/15/2016	2/1/2018	
UMCP20BMP0273	1	On Site		Active	0.63	0.63	1	10/18/2006	1/1/2012	
UMCP20BMP0274	1	On Site		Active	1.62	1.35	0	10/18/2006	1/1/2012	PE 0.92
UMCP20BMP0275	1	On Site		Active	0.33	0.33	1	10/18/2006	1/1/2012	
UMCP20BMP0276	1	On Site		Active	1.04	0.41	0	10/18/2006	1/1/2012	
UMCP20BMP0277	1	On Site		Active	1.04	0.41	0	10/18/2006	1/1/2012	
UMCP20BMP0278	1	On Site		Active	0.98	0.96	0	10/18/2006	1/1/2012	
UMCP20BMP0279	1	On Site		Active	1.69	0.98	0	10/18/2006	1/1/2012	
UMCP20BMP0280	1	On Site		Active	0.79	0.59	0	4/29/1996	1/1/1998	BMP identified from plan/PE 0.02
UMCP20BMP0281	1	On Site		Active	3.4	1.7	0	10/17/2004	6/7/2005	Pretreatment for UMCP20BMP0065
UMCP20BMP0282	1	On Site		Active	0.02	0.02	1	10/19/2011	8/16/2012	
UMCP20BMP0285	1	On Site		Active	0.02	0.02	1	10/19/2011	8/16/2012	
UMCP20BMP0286	1	On Site		Active	0.02	0.02	1	10/19/2011	8/16/2012	
UMCP20BMP0287	1	On Site		Active	0.02	0.02	1	10/19/2011	8/16/2012	
UMCP21BMP0292	1	On Site		Active	0.32	0.32	1	7/21/2017	5/1/2021	
UMCP21BMP0293	1	On Site		Active	0.07	0.07	1	7/21/2017	5/1/2021	
UMCP21BMP0294	1	On Site		Active	0.37	0.37	1	7/21/2017	5/1/2021	
UMCP21BMP0295	1	On Site		Active	0.86	0.86	1	7/21/2017	5/1/2021	
UMCP22BMP0301	1	On Site		Active	0.3	0.12	2.47	4/30/2021	9/14/2021	
UMCP22BMP0302	1	On Site		Active	0.18	0.16	1.34	4/30/2021	9/14/2021	
UMCP22BMP0303	1	On Site		Active	0.14	0.13	1.83	4/30/2021	9/14/2021	
UMCP22BMP0304	1	On Site		Active	0.07	0.06	2.31	4/30/2021	9/14/2021	
UMCP22BMP0306	1	On Site		Active	0.39	0.25	1	3/19/2021	3/15/2022	
UMCP22BMP0307	1	On Site		Active	0.56	0.37	1	3/19/2021	3/15/2022	
UMCP22BMP0308	1	On Site		Active	0.49	0.4	1	3/19/2021	3/15/2022	
UMCP22BMP0309	1	On Site		Active	0.39	0.19	1	3/19/2021	3/15/2022	
UMCP22BMP0310	1	On Site		Active	0.52	0.43	1	3/19/2021	3/15/2022	
UMCP22BMP0311	1	On Site		Active	0.28	0.19	1	3/19/2021	3/15/2022	
UMCP22BMP0312	1	On Site		Active	0.21	0.16	1	3/19/2021	3/15/2022	



BMP_ID <sup>2</sup>	NUM_BMPS <sup>2</sup>	ON_OFF_SITE	CONVERTED_FROM	BMP_STATUS	BMP_DRAIN_AREA	IMP_ACRES <sup>3</sup>	PE_ADR	APPR_DATE	BUILT_DATE	GEN_COMMENTS
UMCP22BMP0313	1	On Site		Active	0.21	0.12	1	3/19/2021	3/15/2022	
UMCP22BMP0314	1	On Site		Active	0.42	0.28	1	3/19/2021	3/15/2022	
UMCP22BMP0315	1	On Site		Active	0.2	0.11	1	3/19/2021	3/15/2022	
UMCP22BMP0316	1	On Site		Active	0.39	0.25	1	3/19/2021	3/15/2022	
UMCP22BMP0317	1	On Site		Active	0.27	0.14	1	3/19/2021	3/15/2022	
UMCP22BMP0318	1	On Site		Active	0.38	0.2	1	3/19/2021	3/15/2022	
UMCP22BMP0319	1	On Site		Active	0.02	0.02	1	3/19/2021	3/15/2022	
UMCP22BMP0320	1	On Site		Active	0.44	0.26	1	3/19/2021	3/15/2022	
UMCP22BMP0321	1	On Site		Active	0.33	0.12	2.32	4/2/2019	5/22/2023	
UMCP22BMP0322	1	On Site		Active	0.39	0.21	2.6	4/2/2019	5/22/2023	
UMCP22BMP0323	1	On Site		Active	0.47	0.39	0	4/2/2019	5/22/2023	Pe = 2.6"
UMCP22BMP0324	1	On Site		Active	0.04	0.04	1	4/2/2019	5/22/2023	
UMCP23BMP0325	1	On Site		Active	0.04	0.04	0	2/18/2011	10/12/2012	Pe = 1"
UMCP23BMP0326	1	On Site		Active	0.41	0.05	1	5/30/2018		
UMCP23BMP0327	1	On Site		Active	0.03	0.03	1	5/30/2018		
UMCP23BMP0328	1	On Site		Active	0.36	0.29	1.5	1/23/2023		0.4 ac NEWD; 0.25 ac REDE
UMCP23BMP0329	1	On Site		Active	0.41	0.37	1.15	1/26/2021		
UMCP23BMP0330	1	On Site		Active	0.02	0.02	1	1/26/2021		
UMCP23BMP0331	1	On Site		Active	0.02	0.02	1	1/26/2021		
USG19BMP00003	1	On Site		Active	0.28	0.14	0.5	12/4/2002	8/1/2006	
USG19BMP00005	1	On Site		Active	0.08	0.06	1	12/4/2002	8/1/2006	
USG19BMP00006	1	On Site		Active	0.59	0.48	0	12/4/2002	8/1/2006	PE 0.78
USG19BMP00007	1	On Site		Active	2.84	1.11	0	1/1/1980	1/1/1980	
USG19BMP00042	1	On Site		Active	0.03	0.03	1	4/1/2017	4/13/2018	

**Table B.1.c Reporting Requirements for Alternative BMPs**

More specific data related to alternative BMPs is populated in this table.

BMP_ID	PROJECT_DESC	PROJECT_LENGTH	ACRES_SWEEP	TIMES_SWEEP	ACRES_PLANTED	IMP_ACR_ELIM	EQU_IMP_ACR	INSTALL_DATE	IMPL_COMP_YR	GEN_COMMENTS
UMCP19BMP0249	Campus Creek Restoration	3039					105.8	10/10/2019		
UMCP19BMP0250	Campus Creek Regenerative Step Pool Conveyance 1						0.58	10/10/2019		
UMCP20BMP0288	Impervious Surface Removal to Pervious 4100 Metzertott Rd					0.222	0.167		2016	
UMCP20BMP0289	Impervious Surface Removal to Pervious 4109 Metzertott Rd					0.0375	0.028		2017	
UMCP20BMP0290	Campus Creek Regenerative Step Pool Conveyance 2						0.31	10/10/2019		
UMCP20BMP0291	Campus Creek Stormwater Bar						0.13	10/10/2019		
UMCP21BMP0296	Impervious Surface Removal to Pervious at Wooded Hillock					0.027	0.02		2020	
UMCP21BMP0297	Impervious Surface Removal to Pervious at Wooded Hillock					0.022	0.017		2020	
UMCP21BMP0298	Impervious Surface Removal to Pervious at Wooded Hillock					0.066	0.05		2020	
UMCP21BMP0299	Impervious Surface Removal to Pervious at 4103 Metzertott Rd					0.089	0.067		2021	
UMCP21BMP0300	Cole Field House Impervious Surface Removal	0	0	0	0	3.07	2.3		2021	
USG19BMP00004	Outfall Stabilization	50					0.5	8/1/2006		