



Marshall University

MS4 Annual Report 2019

Permit WV R030043

Brandi Jacobs-Jones

Brandi Jacobs-Jones
Sr. VP of Operations
One John Marshall Drive
Huntington, WV 25755

12/13/19

Date



Marshall University

Monitoring Results

Date	Permit Requirements	Analyses	Results (mg/L)	Method	Reporting Results (mg/L)
4/14/19	Total Nitrogen	nitrate	.11	E300.0	.11
		nitrite	ND	E300.0	
		TKN	ND	E351.2	
4/14/19	Total Phosphorous	Phosphorous	.02	SM4500-P	.02

Date	Permit Requirements	Analyses	Results (mg/L)	Method	Reporting Results (mg/L)
10/30/19	Total Nitrogen	nitrate	.161	E300.0	28.16
		nitrite	ND	E300.0	
		TKN	28.0	SM4500Norg(B+C)-11 +SM4500NH3-C-11	
10/30/19	Total Phosphorous	Phosphorous	2.60	LACHAT 10-115-01-F	2.60

Marshall University

2018-2019 Recycling vs Waste Comparison

Marshall University Sustainability Department

Productivity Report for 2018-2019

This report provides a general outline of the progress and accomplishments of the MU Sustainability Department during the 2018-2019 fiscal year.

2018/2019	Tons/mixed recyclables
Mixed recyclables	33.08 tons
Shredded Paper	8.03 tons
Scrap Metal	4.317 tons
Compost	2.09 tons

Other efforts through MU's EH&S Office for 2018/2019...

732 lbs. glass

8,000 lbs. "estimated weight" of CFL/fluorescent tube recycling

IV. Coordination Efforts and Organization

18. Please provide a description of the coordination efforts with other MS4s, county governments, transportation agencies, colleges, universities, correctional facilities, prisons, and any other entities regarding the implementation of the MCMs, including the status of any memoranda of understanding or other agreements executed between the permittee(s) and any other entity. (WV MS4 2014 General Permit, p. 46, #9)

During the 2018-2019 program year Marshall University worked with multiple entities in the area on a variety of stormwater related efforts. Activities included: Several on-campus outreach events on campus to the local school districts, MU students and the general public. Partners included the Huntington Sanitary Board, Fourpole Creek Watershed Association, the Cabell County Solid Waste Authority, the Cabell County Health Department and the MU Sustainability Department.

19. Please provide name and contact information for individual with overall program management and implementation responsibility, and if different, name and contact information of individuals responsible for each minimum control measure. Please attach a table of organization.

Mark Buchanan
Environmental Specialist
Marshall University Safety Office
Sorrell Building
Huntington WV 25570-5320
(304) 696-3461

V. Changes to SWMP

20. Did any of your activities, BMPs, or measurable goals as outlined in your SWMP change during the reporting period?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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21. Do you anticipate any planned activities, BMPs, or goals as outlined in your SWMP to change in the upcoming reporting period?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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22. If anything has changed, please indicate the MCM and performance measure and provide a brief description below, and attach detailed documentation of the changes, schedule of implementation, measurable goals, and overall effect on your program. (WV MS4 2014 General Permit, p. 24, #6 and #7)

N/A

23. Is additional documentation attached?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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VI. MCM 1: Public Education and Outreach (WV MS4 2014 General Permit,)

24. Did you complete all the proposed activities and performance measures for this MCM for this reporting period?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
25. Contact: Mark Buchanan	26. Phone: 304-696-3461	

Performance Measure 1a: Program implementation

27. Were the proposed activities for developing a public education and outreach program implemented?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
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28. List and briefly describe each of the public education and outreach program development activities undertaken during this reporting period. (WV MS4 2014 General Permit, p. 46, #1)

1. Stormwater webpage - MU maintains a stormwater web page providing information to students, faculty, staff and the general public regarding stormwater impacts.
2. Student Organizations - MU ES works with multiple committees (Earth Day Committee, Tree Committee, Green Trail Committee, Environmental Collaboration Committee) to bring awareness to stormwater issues. Non-campus Organization Meetings - and local MS4 Collaboration.
3. Public Awareness - MU will encourage and support articles in the student newspaper regarding stormwater, water quality and general sustainability.
4. Illicit discharges - MU has made available the physical plant telephone numbers for use by students and staff to report illicit discharges or other pollution concerns.
5. Contractor outreach/education - Make contractors aware by placing an educational stormwater page in the contracting documents.
6. Website/Social Media - In addition to the Stormwater webpage on the Environmental Health and Safety site, the MU Sustainability Department maintains a robust presence on social media sharing information about environmental/sustainable activities including activities on MU Campuses. The ES submits posts regarding stormwater outreach/education, as well as current and upcoming projects.

29. Did you achieve all the goals that you identified in your SWMP related to developing the education and outreach program for this reporting period? (WV MS4 2014 General Permit, p. 46, #3)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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30. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 2014 General Permit, p. 46, #4)

N/A

Performance Measure 1b: Evaluation of effectiveness of public education and outreach efforts

31. Did you evaluate the effectiveness of the public education and outreach program? Yes Partially No

32. How did you evaluate the effectiveness of the public education and outreach program in this reporting period?
(WV MS4 2014 General Permit, p. 46, #2)

MU evaluates the effectiveness of the program with:

- 1. Visits to the website: 866
- 2. Social Media engagement: 8700
- 3. Meetings Attended: 9
- 4. Illicit discharges reported: 0
- 5. Total number of interactions: 9390
- 6. Website feedback: 0

33. Regardless of your answer to the previous question, have you identified new or better ways to evaluate the public's understanding of your program and water quality issues? Yes No

34. If yes, please describe any changes you would like to consider to improve your evaluation of effectiveness of outreach.

N/A

Performance Measure 1c: Documentation and tracking of public education and outreach efforts

35. Did you track and keep records of your outreach activities?	Yes	Partially	No
36. For print, radio, and television media activities, did you keep records that include i) a description of the content or theme; ii) the date of completion of the materials; iii) the date of release or distribution, and iv) the duration of air time or publication? (WV MS4 2014 General Permit, p. 46, #1)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
37. Are your records available upon request?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
38. For pamphlets, brochures, and other finite printed products, did you keep records that include: i) a description of the content or theme; ii) the date of completion of the materials; iii) the date of release or distribution; iv) the location or placement of the materials; and v) date of follow up visits to replenish or transition to the next outreach product? (WV MS4 2014 General Permit, p. 46, #1)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
39. Please describe any additional or alternative documentation and tracking of public education and outreach activities you are implementing. N/A			

VII. MCM 2: Public Involvement and Participation (WV MS4 2014 General Permit)

40. Did you complete all the proposed activities and performance measures for this MCM for this reporting period?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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41. Contact: Mark Buchanan	42. Phone: 304-696-3461
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Performance Measure 2a: Opportunities for ongoing public involvement and participation in the SWMP

43. Did you create, or are you in the process of creating, ongoing opportunities for the public to participate in the development, implementation, and updating of your SWMP?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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44. Did you achieve all the goals that you identified in your SWMP related to creating and maintaining ongoing opportunities for public involvement and participation for this reporting period? (WV MS4 2014 General Permit, p. 46, #3)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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45. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 2014 General Permit, p. 46, #4)

N/A

46. List and briefly describe each of the activities undertaken during the reporting period to create ongoing opportunities for the public to participate in your SWMP. (WV MS4 2014 General Permit, p. 46, #1)

1. The SWMP is posted to the webpage. Feedback is received through a survey link.
 2. Students are used to help execute basic tasks with the plan when the opportunity allows.
 MU in the community:
 Website/Social Media - MU's Sustainability Department maintains a robust presence on social media sharing information about all environmental/sustainable activities undertaken on Marshall's Campus including stormwater outreach and projects. (Approximately 8,700 contacts regarding stormwater related posts)
 Outreach Events:
 Earth Day Celebration at Marshall University - Vendors, program information and green roof tours for students, staff and the general public to celebrate Earth Day. (36) contacts
 Water Festival at Marshall University - Eight Elementary Schools rotate through 12 different workstations each with a lesson regarding water quality taught by a variety of volunteers from Marshall University, Army Corps of Engineers, WV DNR and WV DEP. (300 contacts)
 Sky-fest at Marshall University - Twelve elementary schools rotate through eighteen different workstations covering a variety of science themed topics. Sessions are lead by MU staff, and volunteers from a variety of state and federal agencies. (300 contacts)
 Rain-barrel Workshop with Fourpole Creek Watershed Association - Public Outreach for campus and beyond engaging participants in a general discussion of water quality and stormwater's impacts on local water resources. Attendees were also treated to a demo on building a rainbarrel and received all components to build one. (30 contacts)

47. Describe how you evaluated the effectiveness of your public participation efforts (citizen attendance at public hearings, requests for information on your SWMP, hotline activity, etc.). (WV MS4 2014 General Permit, p. 46, #2)

Effectiveness is measured by total number of contacts made through each activity.

1. Total visits to the website in 2018/2019 program year was 866.
2. The Sustainability Department maintains a strong social media presence throughout the year. The Marshall University ES shares articles and posts regarding stormwater topics. Likes and post engagements are calculated for posts related to stormwater with the Page Insight data. Posts reached a total of approximately 8724 people.
3. Events/Activities at MU engaged 9390 contacts.
4. ES posted Stormwater/Water Pollution Quiz on social media (20 participants)

48. Describe the steps taken to ensure that public participation opportunities are ongoing and, if necessary, additional program maintenance activities in future reporting periods to ensure continued participation opportunities. (WV MS4 2014 General Permit, p. 46, #4)

The website is updated periodically. MU Environmental Specialist and staff will continue to promote and support a number of activities that ensure continued participation opportunities including: website and social media contacts, Earth Day Celebration, the Fall Water Festival and guest lecturing on the topic of stormwater management/general water quality.

Performance Measure 2b: Communications with community, watershed, and environmental organizations

49. Did you establish a program for routine communications with community based watershed groups or other organizations? Yes Partially No

50. Describe the steps taken to ensure that your programs for routine communications with community-based watershed groups or other organizations are ongoing, or any additional program activities that you believe may be required to ensure continued communications. (WV MS4 2014 General Permit, p. 46, #4)
MU Environmental Specialist supports the efforts of a local watershed association (Fourpole Creek WSA) by offering technical assistance when requested. Efforts during the past program year include attending the WSA's monthly meetings, conducting a stormwater education/rainwater harvesting presentation, and conducting some field work in support of a watershed plan.

51. Did you achieve all the goals that you identified in your SWMP related to creating and maintaining ongoing communications with community based watershed groups or other organizations for this reporting period? (WV MS4 2014 General Permit, p. 46, #3) Yes Partially No

52. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 2014 General Permit, p. 46, #4)
N/A

Performance Measure 2c: Public availability of SWMP and annual report

53. Did you make your SWMP and annual report available to the public? Yes No

54. If yes, please indicate the web address, or if a physical location, please indicate where it is and the process, if any, required for the public to access it.
<http://www.marshall.edu/stormwater/>

VIII. MCM 3: Illicit Discharge Detection and Elimination (WV MS4 2014 General Permit)

55. Did you complete all the proposed activities and performance measures for this MCM for this reporting period? Yes No

56. Contact: Mark Buchanan

57. Phone: 304-696-3461

Performance Measure 3a: MS4 map

58. Were your proposed activities for creating and annually updating your MS4 map for the reporting period implemented? Yes Partially No

59. List and briefly describe the activities undertaken to either develop or update your MS4 map. (WV MS4 2014 General Permit, p. 46, #1)

Mapping of the existing system is mostly complete. We continue to working to mark/highlight priority inspection areas as well as siting potential areas for stormwater/green projects that will aid in creation of a green project priority list.

Performance Measure 3b: Illicit Discharge Detection and Elimination (IDDE) ordinance development		
60. Has your municipality adopted an IDDE ordinance in accordance with the requirements of the WV MS4 2014 General Permit (Part II Section C.7.c.10 &11)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
61. If not, please describe the activities or progress made in adopting or updating an existing ordinance and provide an estimated date for adoption. (WV MS4 2014 General Permit, p. 46, #1) N/A		

Performance Measures 3c and 3e: IDDE program implementation and assessment, and program tracking		
62. Is your IDDE program fully implemented, including visual inspections based on a system of prioritizing outfalls and procedures for characterizing discharges?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
63. If no, please describe obstacles, if any, to implementation, and an estimate of when your program will be fully implemented. N/A		
64. Were all your measurable goals met for implementing and evaluating an IDDE program during this reporting period? (WV MS4 2014 General Permit, p. 46, #3)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
65. How many field assessments were conducted during the reporting period?	5	
66. How many illicit discharges were identified during the reporting period?	0	
67. How would you characterize the type of illicit discharges found (sewer cross connections, spills, illegal dumping, unaware residents, etc.)? N/A		
68. How would you characterize the type of pollutants discovered in illicit discharges (oil and grease, fecal coliform, chlorine, paints, etc.)? Name the top five pollutants discovered or uncovered by your IDDE program. N/A		
69. How many corrective actions were taken to remove illicit discharges?	0	
70. How many enforcement actions were initiated to eliminate illicit discharges into the storm sewer system?	0	
71. Have you attached additional documentation to better identify the nature and extent of the program activities and accomplishments?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Performance Measure 3d: Public education on hazards of illegal discharges and improper disposal of waste

72. Did you conduct any activities for educating the public on hazards of illegal discharges for this reporting period? (WV MS4 2014 General Permit, p. 46, #3) Yes Partially No

73. List and briefly describe each of the education and outreach activities undertaken during this reporting period. (WV MS4 2014 General Permit, p. 46, #1)

1. Marshall University Environmental Health and Safety Department (MU EHSD) conducts annual staff training to ensure that everyone is familiar with reporting procedures for illicit discharges.
2. MU Environmental Specialist conducts annual chemical/biosafety training to all research staff/students. A portion of the training highlights proper disposal practices utilized on MU's Campus.
3. MU EHSD attends regularly scheduled meeting on campus and in Huntington regarding stormwater issues.
4. The MU EHSD samples semi-annually for nitrogen and phosphorous and posts the results in the annual report on the website.
5. MU EHSD routinely updates the website with information regarding stormwater issues on campus as well as the surrounding Huntington community.
6. An online quiz was offered on our social media page that tested participant's knowledge of stormwater management and general water quality.

74. Were any of these activities included in the public education and outreach efforts described in MCM 1? Yes No

75. How did you evaluate the effectiveness of the activities described in the list above? (WV MS4 2014 General Permit, p. 46, #2)

Sign in sheets were offered for annual staff training efforts. The success of the effort is measured by the number of contacts the office receives from staff regarding spills and potential environmental hazards. These numbers are recorded throughout the reporting period. During the 2018/2019 program year, 3 notifications were made to the EH&S office:

1. Three separate issues regarding sinkholes developing in various locations around campus potentially caused by the City of Huntington's failing infrastructure.

A quiz is given at the end of the chemical/biological training and results reported to professors of students attendees or the managers of staff members.

We also count the number of visitors to the website as well as social media parameters.

Results from the online quiz offered through our social media page are logged as well.

76. Did you achieve all the goals that you identified in your SWMP related to educating the public on hazards of illegal discharges for this reporting period? (WV MS4 2014 General Permit, p. 46, #3) Yes No

77. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 2014 General Permit, p. 46, #4)

N/A

Performance Measure 3f: Training for municipal staff on identification, reporting, and elimination of illicit discharges

78. Have you developed a program to train municipal employees on illicit discharges? Yes Partially No

79. Did you conduct any municipal employee training during this reporting period? Yes No

80. List and briefly describe the training activities conducted during the reporting period.
 (WV MS4 2014 General Permit, p. 46, #1)
 MU EHSD conducts an annual training on multiple environmental health and safety topics for all campus staff. Stormwater was recently added as part of the presentation. The MU environmental specialist presented multiple discussions/trainings during the annual training period. Topics included: MS4 Basics, TMDLs, Illicit discharges, and green infrastructure.
 MU Environmental Specialist conducts annual chemical/biosafety training to all research staff/students. A portion of the training highlights proper disposal practices utilized on MU's Campus. A quiz is given at the end of the chemical/biological training and results reported to professors of students attendees or the managers of staff members. We also count the number of visitors to the website as well as social media parameters.

81. How did you evaluate the effectiveness of the training activities? (WV MS4 2014 General Permit, p. 46, #2)
 Sign in sheets were created for annual staff training efforts. The success of the effort is measured by the number of contacts the office receives from staff regarding spills and potential environmental hazards. These numbers are recorded throughout the reporting period.

82. How many municipal employees were trained to identify and report illicit discharges?
 (WV MS4 2014 General Permit, p. 46, #2)
 55

83. Did you achieve all the goals that you identified in your SWMP related to training municipal employees on IDDE procedures for this reporting period?
 (WV MS4 2014 General Permit, p. 46, #3) Yes No

84. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above.
 (WV MS4 2014 General Permit, p. 46 #4)
 N/A

IX. MCM 4: Construction Site Runoff Control (WV MS4 2014 General Permit , p. 19-22)

85. Did you complete all proposed activities and performance measures for this MCM for this reporting period?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
86. Contact: Mark Buchanan	87. Phone: 304-696-3461	

Performance Measures 4a and 4b: Develop and implement an ordinance to address stormwater runoff from construction sites one acre or greater			
88. Has your municipality adopted a construction site runoff control ordinance in accordance with the requirements of the WV MS4 2014 General Permit (Part II Section C.7.d.2 and 4)	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
89. If a program ordinance has not been adopted, have the proposed activities for developing and implementing an ordinance to address stormwater runoff from construction sites been implemented?	Yes <input type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
90. Please indicate the anticipated ordinance adoption schedule. (WV MS4 2014 General Permit, p. 46, 4.a)1)			
N/A			
91. Has your construction site ordinance been reviewed and/or updated to include any new criteria during the reporting period?	Yes <input type="checkbox"/>	Partially <input type="checkbox"/>	No <input checked="" type="checkbox"/>
92. Is your construction site program being fully implemented to include provisions for: i) plan review, ii) routine site inspections, iii) enforcement, and iv) record keeping and reporting?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
93. Please indicate the number of plan approvals during the reporting period.			1
94. Please indicate the number of construction site inspections during the reporting period.			16
95. Please indicate the number of enforcement actions during the reporting period (can attach document).			2
96. Are enforcement records maintained and available upon request?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
97. Is there adequate funding to fulfill the program implementation requirements required by the WV MS4 2014 General Permit?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
98. Briefly list and describe any activities outlined in your SWMP completed during the past permit year related to construction site operator and/or permittee site inspector training. (WV MS4 2014 General Permit, p. 46, 4.a)1)			
<p>During the 2018/2019 program year, Marshall University was wrapping up construction on a new pharmacy school and adjacent dorm facilities. The MU Environmental Specialist conducted 16 routine inspections of S/E controls at both sites.</p> <p>In June of 2019, the MU Environmental Specialist reviewed drainage plans for the new baseball stadium that will be located along 5th Avenue and continues to work with engineers from the engineering firm to address stormwater management on a challenging parcel of property.</p>			
99. Did you achieve all the goals that you identified in your SWMP related to developing or implementation and assessment of a construction site runoff control program for this reporting period? (WV MS4 2014 General Permit, p. 46, #3)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
100. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 2014 General Permit, p. 46, #4)			
N/A			

X. MCM 5: Controlling Runoff from New Development and Redevelopment (WV MS4 2014 General Permit, p. 22-33)

101. Did you complete all proposed activities and performance measures for this MCM for this reporting period?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
102. Contact: Mark Buchanan	103. Phone: 304-696-3461	

Performance Measure 5a: Develop, implement, and enforce a program to protect water resources by addressing stormwater discharges from regulated new and redevelopment projects

104. Has your municipality adopted a stormwater management ordinance in accordance with WV MS4 2014 General Permit (Part II Section C.7.e.8, 11(a))	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
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105. If your ordinance has not been adopted, please describe the progress made towards final ordinance adoption during this reporting period, and expected date of final adoption. (WV MS4 2014 General Permit, p. 46, 4.a)1

N/A

106. Does your (proposed) ordinance include language incorporating the development incentives described in the WV MS4 2014 General Permit (Part II Section C.7.e.13)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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107. Does your (proposed) ordinance include language incorporating the off-site mitigation or fee-in lieu alternatives to on-site BMP implementation as described in the WV MS4 2014 General Permit (Part II Section C.7.e.16)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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108. Have you developed a process for reviewing and updating your ordinance and program implementation to address the adequacy of provisions for: i) requiring runoff volume reduction on new and redevelopment sites, ii) plan review, iii) BMP construction and maintenance inspections, iv) enforcement, v) inventory and tracking, and vi) record keeping and reporting?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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109. How many projects were reviewed during the reporting period?	1
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110. What types of projects were reviewed (residential, commercial, industrial, etc.)?
(WV MS4 2014 General Permit, p. 32, (u)(ii))

MU Baseball Stadium

111. Provide a summary of the number and types of stormwater BMPs approved in new and redevelopment projects during the reporting period. Please list the BMPs according to the BMP specification number from the WV Stormwater Management Manual (2012). (WV MS4 2014 General Permit, p. 32, (u)(iii))

Redevelopment:

4.2.3.B1 - (Completed) Stormwater planter project for the rear of Old Main, the most recognizable building on campus. The planter is a demonstration/experimental project that will help capture the first inch of precipitation from the rear corner of Old Main's roof.

New Development

4.2.3.B1 - (Completed) Underground retention structure at the new Marshall University Pharmacy School.
4.2.3.B - (Completed) A large raingarden at the new Marshall University Pharmacy Dorm.

112. Provide a summary of the number and type of projects that qualified for each of the development incentives described in the WV MS4 2014 General Permit (Part II Section C.7.e.16.(u)(iii)) during the reporting period. Please indicate if you have attached additional documentation.

N/A

113. Provide a summary of the number of projects that qualified for any offsite mitigation or payment in lieu options described in the WV MS4 2014 General Permit (Part II, Section C.7.e.16(u)(iii)) during the reporting period. Please indicate if you attach additional documentation.

N/A

114. How many maintenance agreements were approved during the reporting period?
(WV MS4 2014 General Permit, p. 32, (u)(iv))

none

115. Were any maintenance agreements recorded at the county courthouse?

Yes No

116. Provide a summary of the number and type of stormwater BMP inspections conducted by MS4 personnel or contracted agents (construction as-built, ongoing operation and maintenance audits, complaint driven, etc.). Include (or attach) a summary of: i) the type and number of BMPs requiring maintenance or repair, ii) the number brought into compliance, and iii) the number of enforcement actions taken.
(WV MS4 2014 General Permit, p. 32, (u)(v))

The new raingarden at the pharmacy dorm was inspected upon completion of construction.

The following parameters were examined:

- Evidence of erosion from concentrated flows from impervious surfaces (Minor concern noted)
- Siltation/sedimentation (from construction activities) (no concerns noted)
- Plant health and stress (no concerns noted)
- Inspected the under-drain connections and gate valve operation (no concerns noted)

Quarterly inspections will follow.

117. Did you achieve all the goals that you identified in your SWMP related to developing and/or implementing and assessing a stormwater management program for this reporting period?
(WV MS4 2014 General Permit, p. 46, #3)

Yes No

118. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above.
(WV MS4 2014 General Permit, p. 46, #4)

N/A

Performance Measure 5b: Long-term watershed protection elements

119. Does a local ordinance or equivalent document incorporate the watershed protection elements described in WV MS4 2014 General Permit (Part II Section C.7.e.8))	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
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120. If yes, please describe how the permittee's legal authority addresses the following watershed protection elements: (WV MS4 2014 General Permit, p. 32,(u)(i))

121. Minimize impervious cover.	All contractors are informed that the project will not progress until all elements of the watershed protection elements program are satisfied.
122. Preserve, protect, create, and restore ecologically sensitive areas.	All contractors are informed that the project will not progress until all elements of the watershed protection elements program are satisfied.
123. Implement practices that prevent or reduce thermal impacts to streams.	All contractors are informed that the project will not progress until all elements of the watershed protection elements program are satisfied.
124. Seek to avoid or prevent hydromodification of water bodies caused by development.	All contractors are informed that the project will not progress until all elements of the watershed protection elements program are satisfied.
125. Minimize impacts to existing vegetation (especially trees).	All contractors are informed that the project will not progress until all elements of the watershed protection elements program are satisfied.
126. Minimize impacts to native undisturbed soils.	All contractors are informed that the project will not progress until all elements of the watershed protection elements program are satisfied.

127. If the watershed protection elements have not yet been incorporated into a planning document or ordinance, please describe the actions to be taken to incorporate these elements. (WV MS4 2014 General Permit, p. 23, # 10)

MU has little legal authority for enforcement of the watershed protection elements. However, MU has the ability to require contractors to comply with program guidelines or be removed from the project.

Performance Measure 5c: Street and parking design assessments

128. Were the proposed activities for assessing the current street design guidelines and parking requirements implemented (WV MS4 2014 General Permit, page 33 (v))?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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129. If this is your third-year report, please attach your report assessing the current street and parking design requirements, and recommendations and proposed schedules for incorporating policies and standards to maximize vegetation and minimize impervious cover where possible. (WV MS4 2014 General Permit, p. 46, #8)

XI. MCM 6: Pollution Prevention & Good Housekeeping for Municipal Operations (WV MS4 2014 General Permit, p. 33-38)

130. Did you complete all the required performance measures for this MCM for this reporting period?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
131. Contact: Mark Buchanan	132. Phone: 304-696-3461	

Performance Measures 6a and 6b: Develop and implement an operation and maintenance program for all municipal facilities that includes prevents or reduces the discharge of polluted runoff

133. Were the proposed activities for developing a pollution prevention and good housekeeping program for municipal operations implemented?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
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134. List and briefly describe the activities outlined in your SWMP for the development of a pollution prevention and good housekeeping program for municipal operations undertaken during this reporting period.

1. Review current activities performed by maintenance crews and the materials and methods utilized to identify operations on campus with the potential to cause pollution of water resources.
2. Review existing policies and guidelines needed to ensure compliance.
3. Educate and train employees on policies.
4. Prioritize or find new guidelines where needed, update guidelines and procedures as necessary.
5. Currently annual environmental management training is provided to all trade supervisors and employees.
6. All lab personnel and medical students are given training to address proper disposal methods and management of chemicals.

135. Do you have a pollution prevention plan for each of your municipal facilities as required by the WV MS4 2014 General Permit (Part II Section C.7.f)1)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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136. Do you have an inspection schedule for conducting inspections at your municipal facilities as required by the WV MS4 2014 General Permit (Part II Section C.7.f)5)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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137. Are you tracking and maintaining records of inspection and maintenance activities for each municipal facility as required by the WV MS4 2014 General Permit (Part II Section C.7.f)6)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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138. If you answered no to any of the previous three questions, please indicate your proposed schedule for implementing the requirements of the WV MS4 2014 General Permit (page 46, 4.a)1).
 It has been determined by the WV DEP that we do not have any municipal facilities.

139. How many inspections were conducted at each municipal facility during the reporting period?	0
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140. List the top three problems that you have found while conducting inspections at municipal facilities.
 No inspections were conducted.

141. Were these problems corrected? (WV MS4 2014 General Permit, p. 46, 4.a)1)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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142. Did you achieve all the goals that you identified in your SWMP related to developing a pollution prevention and good housekeeping program for municipal operations for this reporting period? (WV MS4 2014 General Permit, p. 46, 4.a)3)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
143. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 2014 General Permit, p. 46, 4.a)4) N/A		

Performance Measure 6c: Municipal employee good housekeeping training			
144. Were the proposed activities for developing a pollution prevention and good housekeeping training program for municipal employees implemented as described in the WV MS4 2014 General Permit (Part II, Section C.7.f.8)10)?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
145. Were the proposed activities for implementing a pollution prevention and good housekeeping training program for municipal employees implemented as described in the WV MS4 2014 General Permit (Part II, Section C.7.f.8)9)10)?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
146. Did municipal employees receive training in accordance with the guidelines described in the WV MS4 2014 General Permit (Part II, Section C.7.f)8)?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
147. How many employees received training during the reporting period? (WV MS4 2014 General Permit, p. 46, 4.a)1)?			
148. Are you maintaining records of all municipal training activities (including training agendas, learning objectives, instructor qualifications, sign in sheets, etc.)?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
149. Explain how the effectiveness of the training activities was evaluated (number of employees trained and/or certified in specific good housekeeping skills, measurable improvements in cost or performance of facility maintenance activities, or as outlined in your SWMP). (WV MS4 2014 General Permit, p. 46, 4.a)4) Marshall University Environmental Health and Safety Office provided training to the various trade shops in the physical plant. Effectiveness is measured by the number of staff engaged in the presentation; participating with questions and comments. Effectiveness is also measured by counting the number of contacts made to the EH&S Office regarding environmental matters on campus. MUEH&S also tracks the total yearly weight of Hazardous waste diverted and properly disposed of. During the 2018/2019 program year MU properly disposed of 1055.54 pounds of unwanted chemical and hazardous waste through Clean Harbors.			
150. Did you achieve all the goals that you identified in your SWMP related to training municipal employees on pollution prevention and good housekeeping for this reporting period? (WV MS4 2014 General Permit, p. 46, 4.a)3)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
151. If not, please describe the progress you did make towards achieving your goal(s), and any obstacles and possible solutions such as revised implementation schedules or revised measurable goals. If you are proposing any changes to your SWMP goals or schedule, please include them in Section V above. (WV MS4 20149 General Permit, p. 46, 4.a)4) N/A			

