

City of Charleston 2022



NPDES Phase !!
MS4 General Permit
Annual Report



STATE OF WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION DIVISION OF
WATER AND WASTE MANAGEMENT

MS4 ANNUAL REPORT FORM

For Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)

Please see instructions before completing this form. If you need more space than allowed, please attach a document.

Abbreviations

BMP = Best Management Practice

IDDE = Illicit Discharge Detection and Elimination

MCM = Minimum Control Measure

SWMP = Storm Water Management Program

TMDL = Total Maximum Daily Load

WV = West Virginia

I. Small MS4 Operator Information

1. Annual report reporting period: April 2021 - April 2022		
2. Name of MS4: City of Charleston	3. Registration number: WVR030006	
4. Primary contact: Stephen Birurakis	5. Title: MS4 General Permit Manager	
6. Mailing address: 114 Dickinson Street		
7. City: Charleston	8. Zip code: 25301	9. County: Kanawha
10. Telephone number: 304-348-8106 Ext 331		
11. Email: stephen.birurakis@cityofcharleston.org		

II. Impaired Waters Information

12. Does the MS4 discharge into impaired water bodies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
13. Please provide a description of specific BMPs that were implemented to reduce pollutants of concern in impaired receiving waters and waters in which a TMDL has been developed. (WV MS4 2014 General Permit-p. 46, #12)		
<ul style="list-style-type: none"> - Dry weather outfall inspections - Drain to River Markers on Inlets - Construction site inspections - Ongoing GIS Mapping - Street Sweepers (street cleaning) - Vactor Trucks (inlet trash and debris removal) - Municipal Training 		
14. Has a TMDL been developed since your plan was approved?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

III. Fiscal Reporting

15. Include or attach a fiscal analysis of capital and operating expenditures to implement the MCMs. The fiscal analysis shall include only those expenditures by the locality seeking coverage under the WV MS4 2014 General Permit and not those for MCMs implemented by other entities. (WV MS4 2014 General Permit, p. 46, #13)	
16. Please provide total capital expenditures for this reporting period.	\$949.00
17. Please provide total operating expenditures for this reporting period.	\$410731.50

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)

- Keeping in general contact with other MS4s.
- Work directly with WVDEP inspectors on tracking and eliminating Illicit discharges.
- Worked with Capitol Market to display several informational booklets and brochures available for general public to take and consume.
- Coordination with the Charleston Sanitary Board is ongoing for illicit discharges and the corrective measures taken to resolve the issues.
- In a year limited by Covid 19, the Stormwater department partnered with WVDEP to provide watershed and water conservation by hosting 3 rain barrel workshops.

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.

MCM 1 - 6- Greg Robinson, 304.348.8106, greg.robinson@cityofcharleston.org

MCM 1 - 6- Overall Program Management, Stephen Birurakis, 304.348.8106, stephen.birurakis@cityofcharleston.org

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

No

21. Do you anticipate any planned activities, BMPs, or goals as outlined in your SWMP to change in the upcoming reporting period?

Yes

No

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)

23. Is additional documentation attached?

Yes

No

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 checked="" type="checkbox"/>	No <input type="checkbox"/>
25. Contact: Stephen Birurakis, Greg Robinson	26. Phone: 304-348-8106	

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)

Brochures – 2252 brochures were distributed; in City Service Center by elevators, Capitol Market information board, Building Department, Rain Barrel workshops and Contractor training, High traffic area: River Proud application, Cigarette Butts, Clean Water, Commercial Stormwater Brochure, Construction of Small Building Sites, Homeowners Guide to Clean Water, How to Build & Install a Rain Barrel, How to Paint a Rain Barrel, Pet Waste Brochure. (Ongoing)

Stormwater Marking & Stenciling Program – Marking storm drains with 'No Dumping Drains to River' discs. Created a new storm drain marker that is designed to fit directly on Drain Inlet, and placed in places where the round disc will not work. 197 Drain Inlets were tagged. (Ongoing)

IDDE Reporting – Boxes placed in various locations around the city for anonymous reporting. (Ongoing) Phone number posted on Facebook to report illicit discharges, new hire training covers what is an illicit discharge, and how you report it. (Ongoing)

Public Exhibits:
 Conducted Contractor Training joint with the MOECD asbestos training class. 14 contractors participated in the training.
 Bag Monsters! - Exhibit in Charleston's Engineering office: (Ongoing)
 Construction Site BMPs – On the wall of the Building Permit Department is a large exhibit banner of construction site BMPs for contractors, developers, and residents. Addresses proper installation of silt fencing, drain protection, construction entrances, etc.
 The Clean Water Act – The Clean Water Act, How Charleston became an MS4 timeline continued to be an exhibit in the City Service Center. It outlines the history of water legislation from 1920 to present day, including how Charleston became an MS4, what that means, and what has been accomplished in our city.

Social Media:
 Facebook – (<http://www.facebook.com/charlestonstormwaterprogram>) Post information regarding programs available through the stormwater department. (Ongoing)
 Website - (www.charlestonstormwater.org) Platform to inform the public of Stormwater programs, our permit information, the Stormwater Guidance Manual, Annual Reports, Brochures, etc. (Ongoing)

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)

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)

- 1) Brochures – The number of brochures taken from kiosk locations. Record of replacement numbers and dates.
- 2) Social Media -Website: (www.charlestonstormwater.org) Using giveaways and voting, commenting, we direct citizens to our website
- 3) Stormwater marking and stenciling program. Measure effectiveness by number of IDDE calls we get.
- 4) Public/Municipal comments/IDDE reporting boxes are evaluated by participation, number of comments that are left. This seems to be getting lower, as other forms of communication become more mainstream such as facebook, website, and e-mail. We do not feel it is as effective as it was in the past
- 5) IDDE reporting – We document calls on IDDE, we also post the Stormwater Hotline, and keep track of all reports.
- 6) Community Events

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.

Performance Measure 1c: Documentation and tracking of public education and outreach efforts			
	Yes X	Partially	No
35. Did you track and keep records of your outreach activities?			
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 checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
39. Please describe any additional or alternative documentation and tracking of public education and outreach activities you are implementing.			

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"/>
41. Contact: Stephen Birurakis, Greg Robinson	42. Phone: 304-348-8106	

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"/>
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 type="checkbox"/>	No <input checked="" type="checkbox"/>

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)

Advertised the citizen recognition portion of the River Proud Program.

Did not have any individuals or any business participate.

Stormwater department sent out email evaluation to 438 past participants of the Rain Barrel workshops and stormwater education and received 85 (19.4% response rate). Several answers indicated that they have more than one conservation item at their home. We intend to target these for our River Proud Program.

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)

Social Media - Opportunities for comments & suggestions, which we receive from time to time.

Website - Charleston Stormwater Program website was updated with a revised layout. We welcome comments on there and even promote using the website for voting purposes and give aways.

Facebook - posts: Rain Barrel Workshop schedule, events the Stormwater Dept. is participating in, the residential River Proud Program. All are advertised on social media and commenting is turned on 24/7 for the public.

Public Events

Rain Barrel Workshops - These were a Stormwater management opportunity for the public, at a reduced cost which made it very easy for people of all socio-economic levels to participate.

Each participant of the workshop received a rain barrel, diverter kit, and information on the benefits of disconnecting down spouts from the sewer system and harvesting water. Also, the importance of managing stormwater so that runoff is reduced, and therefore polluted runoff is reduced. (This was the seventh year of our Rain Barrel Workshops.)

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)

1) Social Media: The city has used comments received on the website, Facebook comment sections, number of IDDE complaints received and general phone calls to evaluate the effectiveness of the city's efforts.

Website - The number of document downloads & amount of answers to specific questions or voting opportunities.

Facebook - The number reached, which appears on every post. Some posts receive a higher number of reaches than others.

2) Rain Barrel Workshops - The number of citizens that register for/ participate in workshops is used to evaluate the effectiveness. Also a survey is completed by participants at the end of each workshop. This number has grown to the point where we have waiting lists. We also have calls from citizens looking for rain barrels and receive referrals to our department for information on rain barrels and their usage. We now have a local business carrying rain barrel kits for public purchase due to demand. There is now a WV dealer of barrels, so we are no longer having to go out of state

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)

1) Rain Barrel Workshops - Workshops have been very successful, this year completed 8th year of RBWs. As long as there is continued interest, and the DEP continues to be a part, this workshop partnership will continue.

3) In General - We keep relationships with civic, public and municipal organizations in good standing so we can be involved in participation opportunities.

4) Employee/Citizen comment boxes were installed permanently and are maintained on a regular basis.

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)

- 1) Social Media serves as a way to see, communicate, share ideas, and accomplishments or events presented by organizations locally and nationally.
- 2) Our Rain Barrel Workshops Program is an annual program and brings a lot of attention to rain water harvesting. Organizations around the area contact us or the DEP to learn about the benefits of rain barrels and how to use one. In addition to outside groups contacting us on a regular basis, communications between the WV Basin Coordinator, Tomi Bergstrom, and the City of Charleston is constant via e-mail, phone & cell phones. We work closely with the WV DEP Basin Coordinator and continue to keep a positive relationship.
- 3) The MS4 Collaborative operates as a small e-mail forum on which we can share ideas, find answers, ask questions and communicate with other state MS4s. We plan on having semi-annual meetings on a regular basis (canceled due to covid).
- 4) The Charleston Sanitary Board (CSB) and the Charleston Stormwater Department are sharing GIS data as well as assisting in education during our outdoor classrooms.
- 5) We participate in events hosted by local organizations such as, Rain Barrel Workshops (WV DEP).

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)

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.

www.charlestonstormwater.org

Engineering/Stormwater Department,
114 Dickinson Street,
Charleston, WV 25301

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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>
56. Contact: Steve Birurakis, Greg Robinson	57. Phone: 304-348-8106	

Performance Measure 3a: MS4 map

58. Were your proposed activities for creating and annually updating your MS4 map for the reporting period implemented?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
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59. List and briefly describe the activities undertaken to either develop or update your MS4 map. (WV MS4 2014 General Permit, p. 46, #1)

- 1) Mapping of Storm sewers- June 2011– ongoing.
- 2) Utilized Iphones, Ipads and office PC's to input surface and subsurface network data in the field that is continuously updated to the GIS database.
- 4) Mapped 161 stormwater pipes into GIS Database.
- 5) Utilize high accuracy GPS hardware and software for mapping.
- 6) MS4 partial mapping hard copies on file.
- 7) MS4 partial digital copies available upon request.
- 8) Labeled 183 Drain Inlets with "No Dumping Drains to River" discs.
- 9) Labeled 14 Drain Inlets with "No Dumping Drains to River" rectangles.

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)		

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.		
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?	6	
66. How many illicit discharges were identified during the reporting period?	4	
67. How would you characterize the type of illicit discharges found (sewer cross connections, spills, illegal dumping, unaware residents, etc.)? Note: The number listed on question 65 does not count any dry weather screenings. We intend to do another boat run on the Kanawha and Elk for dry weather screening this summer (2022). The City had various types of illicit discharges from petroleum leaks, spills, cooking oil overflows and illegal dumping. The CSB reports illicit discharges solely to the DEP hot-line when they detect a spill or cross connection from their sanitary sewer system.		
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. Oil Concrete Silt Chloride / Salt		
69. How many corrective actions were taken to remove illicit discharges?	4	
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 <input checked="" type="checkbox"/>	Partially <input type="checkbox"/> No <input type="checkbox"/>
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)		
<p>1) Brochures were distributed covering IDDE, oil recycling, composting, etc. (Ongoing)</p> <p>2) Social Media - Website: updated downloads of brochures, posts of current stormwater events, and documents. (www.charlestonstormwater.org) posted stormwater hotline, videos, links to stormwater related information (Ongoing)</p> <p>3) Stormwater marking program. Labeled 197 Drain Inlets with "No Dumping Drains to River". (Ongoing)</p> <p>4) Construction Site BMP exhibit: Educating contractors, etc. and general public on responsible construction practices..</p> <p>5) Contractor Training joint with MOECD asbestos training 15</p> <p>6) IDDE discussions at rain barrel workshops.</p>		
74. Were any of these activities included in the public education and outreach efforts described in MCM 1?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
75. How did you evaluate the effectiveness of the activities described in the list above? (WV MS4 2014 General Permit, p. 46, #2)		
<p>1) Brochures were distributed covering IDDE, oil recycling, composting, etc. 2252 brochures were distributed at Capitol Market, CSC, Building Department, Rain barrel workshops and other training opportunities. Number of brochures taken were used to evaluate effectiveness. (Ongoing)</p> <p>2) Social Media - Website: updated downloads of brochures, post of stormwater related events and documents. (www.charlestonstormwater.org) and Facebook: current events.</p> <p>3) Stormwater marking program: Does dumping continue to be apparent or has it stopped after marking?</p>		
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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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)		

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 <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input type="checkbox"/>
79. Did you conduct any municipal employee training during this reporting period?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
80. List and briefly describe the training activities conducted during the reporting period. (WV MS4 2014 General Permit, p. 46, #1) <ul style="list-style-type: none"> - Brochures distributed to specific city employees and new hires that may come in contact with IDDE situations. 12 new hires trained on IDDE. - Protecting storm drains during municipal activities on good housekeeping while city crews are performing street repairs, beautification projects etc. 			
81. How did you evaluate the effectiveness of the training activities? (WV MS4 2014 General Permit, p. 46, #2) <ul style="list-style-type: none"> - Calls, and e-mails received from Vactor Truck drivers were measures of effectiveness. - Public Works and Fire Departments are recognizing and reporting illicit discharges to Stormwater department. - Public Works is now an active participant in the Engineering Department Drainage Complaint and IDDE review and progress meetings. 			
82. How many municipal employees were trained to identify and report illicit discharges? (WV MS4 2014 General Permit, p. 46, #2) 102			
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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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)			

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: Steve Birurakis, Greg Robinson	87. Phone: 304-348-8106	

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 <u>has not</u> 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)			
91. Has your construction site ordinance been reviewed and/or updated to include any new criteria during the reporting period?	Yes <input checked="" type="checkbox"/>	Partially <input type="checkbox"/>	No <input 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.	see notes in 98		
94. Please indicate the number of construction site inspections during the reporting period.	see notes in 98		
95. Please indicate the number of enforcement actions during the reporting period (can attach document).	8		
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)			
8 Commercial job sites - 21 job site inspections 7 New Residential plans approved - 15 stormwater inspections.			
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)			

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 type="checkbox"/>	No <input checked="" type="checkbox"/>
102. Contact: Steve Birurakis, Greg Robinson	103. Phone: 304-348-8106	

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.7e.8, 11(a))	Yes <input type="checkbox"/>	Partially <input checked="" 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)

After previous in depth review, the Subdivision Ordinance covers residential sites pretty thorough but not commercial sites quite as well.
The Subdivision Ordinance does reference the Stormwater Guidance Manual that covers commercial sites but we may need to make a separate Ordinance to encompass Commercial Sites a little more clearly.

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 checked="" type="checkbox"/>	No <input 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?	see notes in 110
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110. What types of projects were reviewed (residential, commercial, industrial, etc.)? (WV MS4 2014 General Permit, p. 32, (u)(ii))

Projects reviewed:

8 - Commercial
7 - Residential

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))

Bio-retention with underdrains
Structural BMP's
Sand Filter
Underground Storage

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.

No projects qualified for incentives during this report period.

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.

No projects were permitted any offsite mitigation or payment in lieu.

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

(See notes section 116)

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))

Notes about Maintenance Agreements: The original building permit granted by the Building Department counts as a maintenance agreement in conjunction with the original design plans. The Building Department has the authority to enforce this to be repaired and or maintained for functionality. This can still be difficult pertaining to old subdivisions unless they have a Home Owners Association that would be responsible. If one does not exist the city may end up repairing the system if no other solution can be found.

3 additional LID systems have been located in the City of Charleston and mapped in GIS this period.
The GIS data includes geographic positions of LID's, owner and address, type of LID, photos of LID.
42 Inspections were performed on LID's.
No enforcement actions have been required.

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)

Ongoing mapping and tracking of LID's using GIS.
Have not found a mitigation program that will seem to work for our situations. Thus just holding sites to the 1" capture.

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"/>
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.	Topic addressed in Stormwater Management Guide Section 3.4.3 Reduction in Impervious Cover/Impervious Cover Management		
122. Preserve, protect, create, and restore ecologically sensitive areas.	Topic addressed in Stormwater Management Guidance Manual section 3.4.1 Conservation of Natural Features and Resources and WVDEP Stormwater Management and Design Guidance Manual.		
123. Implement practices that prevent or reduce thermal impacts to streams.	Topic addressed in the Stormwater Management Guidance Manual section 3.4.3 Reduction in Impervious Cover/Impervious Cover Management		
124. Seek to avoid or prevent hydromodification of water bodies caused by development.	Topic addressed in the Stormwater Management Guidance Manual section 3.4.3 Low Impact Site Design Techniques		
125. Minimize impacts to existing vegetation (especially trees).	Topic addressed in the Stormwater Management Guidance Manual section 3.4.1 Conservation of Natural Features and Resources		
126. Minimize impacts to native undisturbed soils.	Topic addressed in the Stormwater Management Guidance Manual section 3.4.1 Utilization of Natural Features for Stormwater Management		
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)			

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 checked="" type="checkbox"/>	No <input type="checkbox"/>
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)		

Reference:

Stormwater Guidance Manual, Chapter 3, "Site Planning and Low Impact Development".

www.charlestonstormwater.org

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: Steve Birurakis, Greg Robinson	132. Phone: 304.348.8106	

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. The City currently receives monthly tonnage reports from the Charleston Landfill from street sweeper and Vector truck operations.
2. The City has pro-actively cleaned inlets to combat maintenance issues.
3. The City currently uses a professional disposal service for proper disposal of automotive fluids such as oils, transmission fluids, used gasoline, antifreeze, and other hazardous materials.
4. The City currently uses a database system that uses work orders, tracks materials used, manpower, and costs associated with public works.
5. SWPPPs and SOPs have been completed and placed in city facilities.

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 checked="" type="checkbox"/>	No <input 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 checked="" type="checkbox"/>	No <input 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).

139. How many inspections were conducted at each municipal facility during the reporting period?	139
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140. List the top three problems that you have found while conducting inspections at municipal facilities.

- 1) Job-site silt runoff (cleaned up after inspection)
- 2) Oil and fluid leaks in parking areas (cleaned up immediately)
- 3) Organic debris (leaf blowing and yard waste clogging drains)

141. Were these problems corrected? (WV MS4 2014 General Permit, p. 46, 4.a)1)?	Yes <input checked="" type="checkbox"/>	No <input 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)		

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)?	102 (see notes section 149)		
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"/>	
<p>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)</p> <p>The stormwater department has implemented new hire stormwater training and it is handled during new hire orientation. This has ensured that all new hire who work outside or in maintenance get a general overview of stormwater pollution.</p> <p>Pertaining to existing employees, we have in the past partnered up with the City safety training meetings and that gave us better results of number of employees trained vs this past year. The safety meetings were reduced and hence it affected our ability to gather departments together all at once. We will need to remedy this in some way to reach the numbers as we have in the past.</p>			
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)			