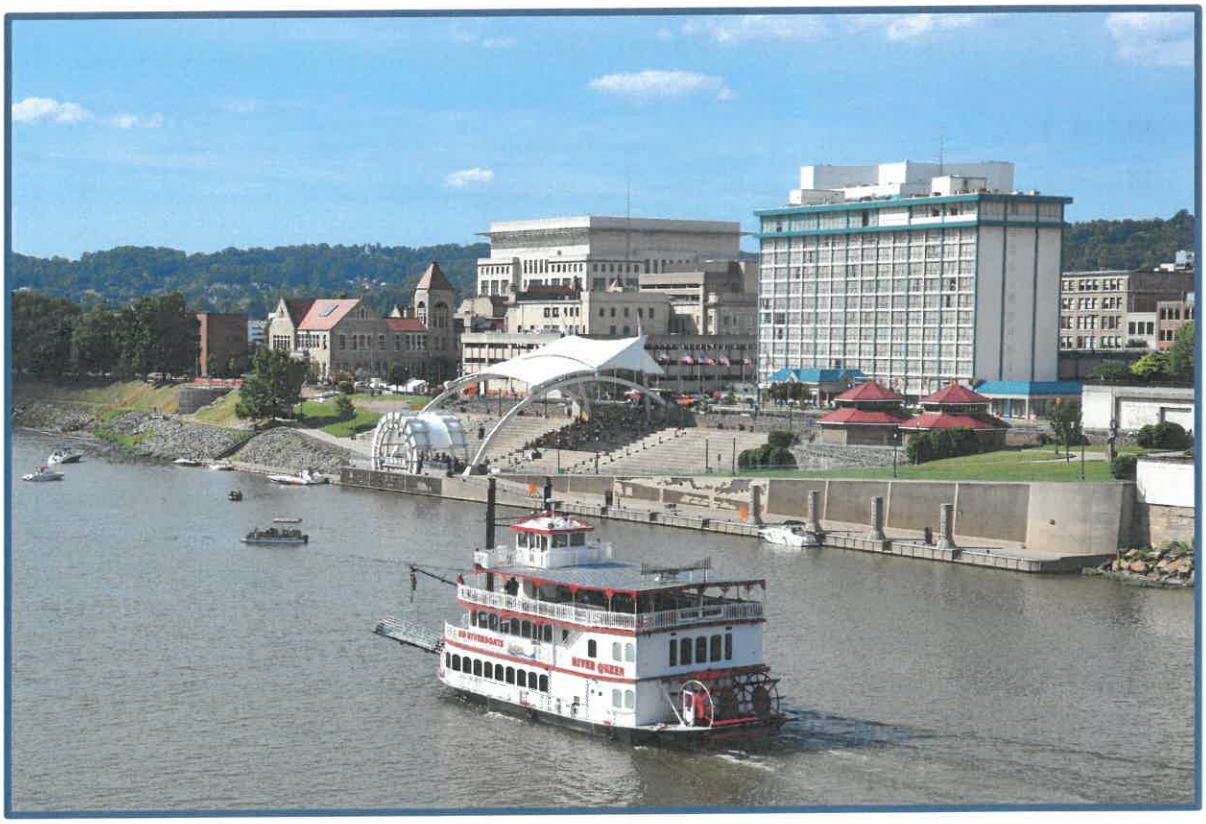
2025 - 2030 NPDES GENERAL PERMIT STORMWATER MANAGEMENT POLUTION PREVENTION PLAN



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Draft 5-20-2026

Please send questions and comments to:
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1. Introduction

Stormwater runoff is a significant courier for pollutants entering urban waterways. As urban areas continue to expand and redevelop, water quality impacts associated with stormwater pollution remain an ongoing environmental concern.

Stormwater can become contaminated from a variety of sources, including land-use activities, construction sites, operation and maintenance practices, and accidental spills. Additionally, the prevalence of impervious surfaces in urban environments increases both the volume and peak flow rates of stormwater runoff.

The City's Municipal Separate Storm Sewer System (MS4), commonly referred to as the storm drain system, collects and carries stormwater runoff from public roads and facilities, as well as from certain private roads and properties. This system discharges stormwater through multiple outfalls into local streams and rivers, all of which ultimately drain into one of Charleston's two primary rivers: the Elk River and the Kanawha River. The Elk River also flows into the Kanawha River. For geographic and watershed reference, the section of the Kanawha River upstream of its confluence with the Elk River is known as the Upper Kanawha, while the section downstream is referred to as the Lower Kanawha.

The National Pollutant Discharge Elimination System (NPDES) permit program, established under the Federal Clean Water Act, is designed to protect and restore Waters of the United States. The U.S. Environmental Protection Agency (EPA) has delegated permitting authority to state environmental agencies, which establish permit conditions in accordance with, and in some cases more stringent than, federal requirements. Our local authority being the West Virginia Department of Environmental Protection (WVDEP).

The West Virginia NPDES General Water Pollution Control Permit provides authorization for small MS4s to discharge stormwater into Waters of the State, provided they comply with the permit's terms and conditions. The City of Charleston submitted a Notice of Intent (NOI) to the WVDEP on December 31, 2025, seeking coverage under the WV/NPDES General Permit, which became effective on September 8, 2025, and expires on October 8, 2030. On March 9th, 2026 the City received its Notice of Intent (NOI) approval and authorization was given to the City to operate under WV/NPDES General Water Pollution Control Permit No. WV0116025 issued September 8, 2025. A copy of the WV/NPDES General Permit and other pertinent documents may be found on the City Of Charleston Stormwater webpage at http://charlestonstormwater.org/.

Under this permit, the City of Charleston is required to develop and implement a Stormwater Management Plan (SWMP). The purpose of this SWMP is to outline the programs and actions the city will undertake to meet permit requirements to the Maximum Extent Practicable (MEP). Public input and participation is welcomed and encouraged throughout the permit term.

Outlined below are the six Minimum Control Measures (MCMs), which collectively represent the majority of the requirements for the SWMP.

1: Public Education and Outreach

2: Public Involvement and Participation

3: Illicit Discharge Detection and Elimination (IDDE)

4: Controlling Runoff from Construction Sites

5: Controlling Runoff from New Development and Redevelopment

6: Pollution Prevention & Good Housekeeping for Municipal Operations

2. General Information

a. MS4 Service Area:

The general permit regulates activities within the City's MS4 Service Area that may affect discharges from the regulated MS4. The MS4 Service Area is the drainage area served by the City Regulated Small MS4 that is within the jurisdiction or control of the City. The City of Charleston's service area is the area within city limits not including areas draining to a combined sewer system. The Charleston Sanitary Board manages the Combined Sanitary and Storm Sewer systems.

b. City Departments and Their Roles:

The City's Engineering / Stormwater Department shall lead the efforts related to the overall permit compliance. The departments listed below will support the implementation of the Stormwater Management Plan in their respective roles.

- Engineering/Stormwater Dept: (NOI, SWMP, and Overall MS4 General Permit Management) 304-348-8106
- City Manager: 304-348-8014 (Overall NOI and SWMP authorized principle executive officer, budgeting) 304-348-8014
- Engineering Department: 304-348-8106 (plan reviews, approvals, and inspections)

- Homeland Security: 304-389-2002 (emergency management and spill response, etc.)
- Communications: 304-348-8121 (public education, and outreach)
- IT (Information Technologies) Department: 304-348-8048(software, media, and GIS support)
- Accounting: 304-348-8028 ("Annual Report" expenditure reports)
- City Attorney: 304-348-8032 (legal advisor and representative)
- Building – Planning Development Services: 304-348-8105 (planning, zoning, plan reviews and approvals, construction inspections and enforcement)
- Charleston Convention Center: 304-345-1500 (facility inspections)
- Fire Department: 304-348-8137 (spill response, facility inspections, and training)
- Human Resources: 304-348-8015 (personnel and new hire training)
- Parking System: 304-348-8438 (facility inspections)
- Parks and Recreation: 304-348-6860 (facility inspections)
- Equipment Maintenance: 304-348-6456 (city vehicle maintenance and repair, facility inspections)
- Public Grounds: 304-348-6458 (city grounds keeping, facility inspections)
- Refuse: 304-348-6831 (trash pickup, public cleanup events)
- Sign Shop: 304-348-8096 (street striping paint storage, facility inspections)
- Street Department / Public Works: 304-348-6850 (inlet and pipe maintenance, street sweeping, construction projects, facility inspections)
- Spring Hill Cemetery: 304-348-8010 (facility inspections)

3. Minimum Control Measures

MCM1: Public Education and Outreach

Receiving waters and impairments list see Appendix "A"

The Engineering / Stormwater Department will lead the City's education and outreach efforts. The Human Resources Department will also support these efforts by incorporating training into existing city employee safety meetings. The Communications Department, along with the IT Department, will assist with public education and outreach via media assistance.

Identification of High-Priority Stormwater Issues

Three stormwater pollutants of high priority in our area include:

1. Fecal Coliform- Fecal Coliform is a high-priority water quality concern for the City of Charleston because it impacts receiving waters in and downstream of the City. Many of these receiving waters are listed as impaired and require pollutant reductions under the Clean Water Act. Elevated bacteria levels are often linked to MS4-related sources, including stormwater runoff, illicit discharges, aging sewer infrastructure, failing septic systems, and combined sewer overflows, particularly during wet weather events. Addressing fecal coliform is therefore critical for protecting public health and ultimately achieving measurable improvements in local water quality.

2. Sediment (Iron)- Sediment is a high-priority water quality issue for the City of Charleston due to its widespread impact on receiving waters. Urban development, construction activities, roadway runoff, streambank erosion, and aging stormwater infrastructure contribute to elevated sediment loads in local streams. Excess sediment degrades aquatic habitat, increases turbidity, transports attached pollutants such as nutrients and metals, and can result in stream impairments listed under Section 303(d) of the Clean Water Act. Reducing sediment loads is therefore essential for protecting aquatic life and improving overall water quality within the City.

3. Litter Control- Litter is a high-priority issue for the City of Charleston because it is a pollutant commonly transported through the MS4 and discharged to local receiving waters, including the Kanawha River and its tributaries. Urban land uses, roadway corridors, commercial areas, and high-traffic public spaces contribute to litter accumulation, which is easily mobilized during storm events.

Litter negatively impacts water quality, aquatic habitat, and aesthetics, and can contribute to localized flooding by obstructing storm drains. Addressing litter supports compliance with MS4 permit requirements to reduce pollutants to the maximum extent practicable. This will be achieved by public education, source control, and good housekeeping practices, while also improving environmental quality and community appearance.

Target Audiences for Public Education and Outreach

The target audiences to receive high-priority stormwater issue messages are the general public (including school-aged children), businesses, homeowners, landscapers, and contractors.

Implementation of Education and Outreach Strategies

As required by General Permit Part III.A.2.b., the City plans to utilize a minimum of two of the communication methods listed below, at least once per year, to inform and engage target audiences on identified high-priority stormwater issues. Communication and outreach methods may include, but are not limited to, the following:

- Traditional written materials, such as informational brochures and fact sheets.
- Alternative outreach materials, such as bumper stickers, refrigerator magnets, pet waste bag dispensers, and drink koozies.
- Educational materials obtained from the EPA or WVDEP, shared resources from other MS4s, and materials provided by environmental organizations.
- Signage, including temporary or permanent signage in public spaces or facilities, as well as storm drain tagging.
- Media-based outreach, such as City web pages, social media platforms (e.g., Facebook), and the City's GIS database.
- Speaking engagements, including presentations at schools, churches, and community events.
- Curriculum-based materials designed for K–12 school-aged children.
- Training materials developed for use in workshops offered to local residents and trade organizations.

- Public education activities, such as informational booths at community events and K–12 school programs.

- Public meetings addressing stormwater management projects and stormwater-related issues within local communities.

Measurable Goals for MCM 1

- Questionnaires answered.

- Social media likes, posts, and comments.

- Quizzes on classroom events.

- Number of brochures distributed from events and kiosks.

Reporting and Evaluation

The annual report submitted to the WVDEP will summarize measurable goals set forth by the general permit for MCM1 activities conducted during the reporting year and will include:

- High-priority stormwater issues the City addressed in public education and outreach programs.

- A summary of activities conducted during the reporting year. This would include numeric tracking where applicable (e.g. the number of people who attended meetings, brochures distributed, or other activities).

- A description of any known changes in high-priority stormwater issues during the report year, any expected changes for the upcoming year, and the rationale for those changes.

MCM2: Public Involvement and Participation

The Engineering/Stormwater Department will lead the City's public involvement and participation efforts. The Refuse Department will support these efforts by assisting in any stream, and neighborhood cleanup type events. The Communications

Department will assist with public event notifications.

MS4 Public Information

The General Permit, the City's Stormwater Management Program (SWMP), Annual Reports submitted to the DEP, and pertinent ordinances will be made available to the public on the City's stormwater website. Information regarding upcoming events will be available on either (or both) the City's stormwater website and Facebook page. These platforms will also provide information on how the public may submit comments or contact the City regarding the SWMP, including reporting illicit discharges and other stormwater-related suggestions or concerns.

- Current City of Charleston Stormwater media sites:
    - http://charlestonstormwater.org
    - https://www.facebook.com/CharlestonStormwater
- The City's designated stormwater contacts are Stephen Birurakis and Adam Simon and can be reached by phone or email at:
    - 304-348-8106
    - swm@cityofcharleston.org

Public Involvement Opportunities

As required by the General Permit Part III.B.2.b., the City will conduct a minimum of three public involvement activities each year, utilizing two or more of the activity types listed below. If additional activity types are identified during the year, they may be implemented and documented in the annual report.

- Stream cleanup events.
- Public trash collections days.
- Educational activities such as booths with activities at public events.
- Stream restoration projects
- Issue public notice for comments on SWMP updates and other MS4 program activities.
- Disposal or collections events of household hazardous chemicals such as paint and vehicle fluids.
- Rain barrel workshops
- Continue to provide pet waste stations in public areas.

- "Drains to River" storm drain tagging events.
- Public opportunity to report illicit discharges, dumping, or sediment runoff.
- Stream sampling projects.

Measurable Goals for MCM2

- Number of comments and/or complaints posted and submitted.
- Participation in workshops or clean up events.

Reporting and Evaluation

The annual report submitted to the WVDEP will summarize measurable goals set forth by the general permit for MCM2 activities conducted during the reporting year and will include:

- A summary of all public comments received under Part III.B.2.c and the City's written response to each comment. This summary will also include any changes made to the SWMP in response to a public comment.

- A summary of any stormwater pollution complaints received from the public, excluding natural flooding complaints. This will also include how the City responded to each complaint.

- A link to the City's stormwater website.

- A description of the public involvement activities implemented during the permit year. This should include an estimate of the number of participants and a summary of the demographic characteristics of the participants.

- An evaluation of whether the public involvement activities implemented during the year were beneficial to improving water quality.

- A description of any changes in the City's public involvement activities for the upcoming year and the rationale for such change.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

The Engineering/Stormwater Department will lead the City's Illicit Discharge Detection and Elimination (IDDE) program, with support from multiple City departments, employees, and the general public. Education and reporting are critical components in reducing illicit discharges.

The City has an IDDE program designed to appropriately map the regulated MS4

and implement measures, including an IDDE ordinance, to effectively identify and eliminate discharges.

MS4 Map

The City will utilize a Geographic Information System (GIS) to map and track information related to illicit discharges, known outfall locations, known connections to the MS4, receiving waters for discharges from the MS4, with labels for any waters listed as impaired or subject to an approved TMDL, structural BMPs owned, operated, or maintained by the Permittee and which discharge to the MS4, and the city limit boundary.

Implementation of an IDDE Program

The City will continue its IDDE program with procedures set forth in the SWMP to investigate, track, and respond to potential illicit discharges. The purpose of the IDDE Program is to detect and eliminate sources of pollution to the MS4, as well as to educate and increase awareness.

Representative Outfall Location

- Near the intersection of Bream Street and Kanawha Blvd. West.
- Outfall Location Coordinates:
  - Latitude: 38° 21' 52.49873"
  - Longitude: -81° 39' 50.44655"

Industrial Facility Owned by the City with Potential Discharge Area to the MS4

The Public Works storage area for salt truck dispersal beds during the off-season is located across the street from the Public Works maintenance garage at the following coordinates:

- Latitude: 38°21'35.66"N
- Longitude: -81°37'52.25"W

IDDE Program

The IDDE program shall consist of the following elements:

1. Unauthorized Discharge Prohibition

    - The City shall prohibit non-stormwater discharges into the MS4 by ordinance or other legal mechanisms to the extent allowable by law. This shall provide enforcement actions against people found in violation. This excludes authorized non-stormwater discharges identified in Part I.F and Appendix C of the General Permit.

    - Examples of illicit discharges include:

        - Direct or indirect sanitary wastewater discharges that connect to the storm sewer or watercourse, such as a shop floor drain connected to a storm drain, unregulated cross connections between the sanitary sewer and storm sewer systems, a damaged sanitary sewer system leaking sewage into the MS4.

        - Materials (e.g., used motor oil) that have been dumped illegally into a storm drain or other stormwater facility.

        - Improper home or business owner activities such as washing paint brushes into a storm drain, washing uncured concrete into storm drains, draining swimming pools that contain high pH and chlorine levels to the storm system, excessive use of fertilizers, or washing cars with chemicals that enter the storm drain system.

        - Construction site fuel, chemical, and sediment runoff.

    - In accordance with NPDES Permit requirements, the City also carries out, or plans to carry out, the following activities:

        - Maintain, review, and update the City's IDDE Ordinance and keeps a copy available on the Charleston Stormwater website at http://charlestonstormwater.org. The IDDE Ordinance will be reviewed annually and revised if necessary.

        - Maintain an active phone number (currently 304-348-8106) for non-emergency discharge reporting, local 911 for emergency or hazardous material type reporting, and the DEP Spill Hotline (800-642-3074).

2. Relevant Legal Authorities

    - In addition to the Engineering/Stormwater Department, the City's

Developmental Services Department will play a significant role in inspections, investigations, and enforcement activities. The City Building Department is authorized to issue Stop Work Orders for construction activities and to enforce Property Maintenance regulations for businesses and residents.

3. Dry Weather Screening of High-Priority Outfalls

- The City shall implement a risk-based screening program to assist in detecting and eliminating illicit discharges and will include conducting dry weather screenings at a minimum of 50 outfalls per year throughout the permit period.
- Outfalls will be selected based on priority areas identified through historical complaints, documented issues, streams on the 303d list with TMDLs, the area above the primary drinking water source (i.e. WVAWC) on the Elk River, and the elapsed time since the area's most recent screening. The locations and associated data for these screenings will be maintained within the City's GIS system.
- Each dry-weather inspection will have a report form completed and at a minimum will document the following:

    - The location and/or unique identifier for the outfall.
    - Time since last runoff-producing precipitation or snowmelt event.
    - Whether the outfall is discharging and, if so, a description of the estimated discharge rate and visual characteristics of the discharge (e.g. odor, color, clarity)
    - Any observed indicators of possible illicit charge, including floatable, deposits, stains, and unusual vegetative conditions (e.g. dying or dead vegetation, excessive vegetation growth).
    - The inspector's opinion as to whether the observed conditions indicate potential for an ongoing or unknown past illicit discharge.

4. Investigation of Suspected Illicit Discharges

- In the case of a reported or observed illicit discharge, a City Compliance Officer will initiate an investigation to determine the nature, source, and appropriate resolution of the discharge. If a reported illicit discharge is determined to pose an immediate hazard to public health, safety, or the environment, the Compliance Officer will immediately notify the DEP Spill Hotline and the Charleston Fire Department.

- If the City is unable to identify the source of an illicit discharge within six months of beginning the investigation, then the City shall document that the source remains unidentified. If the observed discharge is intermittent, the City shall document that attempts to observe the discharge flowing were unsuccessful. A report shall be generated for each investigation, which shall, at a minimum, record the following:

- The date known or suspected illicit discharge was initially observed or reported and the source of the information (dry weather screening report, citizen complaint).

- Results of the investigation, including the source, if identified.

- A resolution of the investigation, including whether any remediation or enforcement actions were taken.

- The date the investigation closed.

5. Public Reports and Complaints

- Contact information can be found on the City of Charleston Stormwater website:

  - http://charlestonstormwater.org/

- Public reports and complaints can be reported via phone:

  - City of Charleston Stormwater Department Non-Emergency: 304-348-8106

  - Charleston Fire Department Non-Emergency: 304-348-8098

  - Charleston Fire Department Emergency: 911

  - DEP Spill Hotline: 1-800-642-3074

- Public reports and complaints can be reported via email at:

  - swm@cityofcharleston.org

- Public reports and complaints can be sent by mail to:

  - Stormwater Department:

    114 Dickenson Street, Charleston, WV 25301

Measurable Goals for MCM3

- Training attendance.

- Mapping for tracing and recording illicit discharges.

- Records of drainage complaints.
- Event attendance.

Reporting and Evaluation

The annual report submitted to the WVDEP will summarize measurable goals set forth by the general permit for MCM3 activities conducted during the reporting year and will include:

- A statement confirming that the MS4 map was updated to reflect relevant changes since the last Annual Report.
- A summary of revisions to the prohibition on illicit discharges or legal authorities during the year.
- The methods maintained by the City for the public to report illicit discharges or other water quality complaints. This includes a summary of any water quality complaints received through those methods from the public and the City's response. This will not include repeated summaries that are included in the section of the Annual Report for MCM 2 (Part III.B.3)
- A summary of the dry weather screening events completed during the reporting year, including the number of outfalls screened and the number that presented evidence of possible illicit discharges.
- A summary of illicit discharge investigations completed during the year. This includes the number of investigations that determined that an illicit discharge is unlikely to have occurred, the number of investigations that were inconclusive, and the number of investigations that were determined likely or confirmed. A summary of how the incident was resolved including remediation or enforcement actions.
- A description of the IDDE program evaluation and a description of any changes for the upcoming year as a result of the evaluation including rationale for any such changes.

MCM 4: Controlling Runoff From Construction Sites

The City's Engineering Department, along with the Developmental Services Department, will lead a program to reduce pollutants in stormwater runoff from all

regulated construction sites within the MS4 area. The program will implement differing requirements for construction sites depending on the size of disturbance and/or increased impervious surfaces.

- 1 acre or greater of disturbance shall require a WV/NDPES permit, a Construction General Permit (CGP) and a SWPPP with the City. This also includes an area less than an acre if part of a larger common plan of development or sale that will result in a land disturbance of one acre or greater.
- 10,000 sq. ft. or greater disturbance and/or increased impervious surfaces shall require a CGP and a SWPPP with the City.
- Disturbance and/or increased impervious surface less than 10,000 sq. ft. may require a CGP and all applicable BMPs (i.e. Erosion and Sediment Controls).

Legal Authority

The City will update its existing Erosion and Sediment (E&S) Control ordinance, Guidance Manual, and inspection forms to comply with the changes made in comparison to the previous General Permit and SWMP. The City plans to complete these updates within one year of the SWMP completion.

- The City has the authority to:
  - Review and approve regulated construction activities.
  - Prohibit regulated construction activities that do not comply with requirements of the program.
  - Inspect regulated construction activities.
  - Issue stop work orders to operators of non-compliant construction activities.
  - Enforce violations.

Stormwater Pollution Prevention Plan Review and Approval

As described in Chapter 2 of the Charleston Stormwater Guidance Manual:

- Permit applications will be reviewed in the order that they are received. The official date of receipt for technical review is the date the application has been administratively completed.

- Technical reviews will consist of reviewing site information, receiving streams with or without TMDLs, the proposed erosion and sediment control plans and permanent stormwater management plans, all supporting design calculations to the proposed site features, the Storm Water Pollution Prevention Plan (SWPPP) and other supporting documentation as applicable. Technical comments will be prepared in writing and sent to the applicant via e-mail or regular mail (per applicant's request).

- Initial technical reviews will be completed within the following timeline:
  - Residential and Commercial: Within ten (10) business days of being deemed administratively complete.
  - Subdivision review times vary depending on the size.

- Applicants will be given 30 days to respond in writing to initial technical comments. If the applicant does not respond within that time, the application will be deemed "not approved" and the application and supporting information will be returned to the applicant. This timeline may be extended based upon mutual agreement between the applicant and City.

- The City will review the comment response within ten (10) business days of receipt and notify the applicant of any outstanding issues. The applicant will have up to 30 days to respond to any follow-up comments. Once the application is deemed technically complete, the land disturbance activity approval will be forwarded to the Building Department.

- Projects with disturbance over one (1) acre will require a WV/NPDES construction stormwater permit, applicants are urged to coordinate and incorporate comment responses from both the WVDEP and the City into a common submittal to avoid the confusion of having multiple versions of plans and permitting documents.

- Projects that discharge construction site runoff into a designated 303d or TMDL stream for iron must have more stringent E&S controls in place to ensure pollutants stay on site.

Inspections

The City will have a program to inspect regulated construction activities for compliance with approved SWPPPs. The inspection procedures will include, at a minimum, the following elements:

- Frequency: Each regulated construction activity will be inspected at least once during the period of land disturbance. High-priority construction activities will be inspected once per month. High priority construction activities include:
  - Projects that have land disturbance over 5 acres.
  - Projects that drain to a waterbody subject to a TMDL.
  - Any other project type or project locations determined by the City to present an elevated risk of impacts on water quality based on local conditions.

- Report Forms: To ensure regulated construction site inspections are conducted in a consistent manner, the City will utilize inspection forms that include, but not limited to, entries for the following items:
  - SWPPP and CGP are maintained onsite.

- BMPs are implemented in accordance with the approved SWPPP.
- BMPs are properly maintained.
- Disturbed soils are stabilized in accordance with the SWPPP.
- Documentation is maintained demonstrating that the operator is conducting self-inspections and maintenance on the frequency required by the SWPPP.
- Documentation that any corrective actions prescribed by the operator's inspector or the City have been completed in a timely manner as required.
- The form will include a space to document any deficiencies discovered during inspection.

- Communication: A copy of each inspection report form will be provided to the owner or operator of the regulated construction site as soon as practicable, but no later than 7 days. Any pollution event must be reported to the operator immediately upon discovery. The communication shall include instructions to complete any necessary maintenance or corrective actions within 24 hours.

Compliance and Enforcements

The City will have standard compliance and enforcement procedures for regulated construction activity operators that fail to comply with any requirements imposed by the City. The procedures will outline the circumstances and measurements to the site/project to bring operators into compliance including:

- Notices to correct SWPPP deficiencies.
- Warning letters.
- Orders, instructions, or other legal mechanisms that require operators to take corrective action to remedy significant or repeated noncompliance.
- Directives to minimize or remediate environmental or property damage resulting from SWPPP noncompliance.

Public Reports and Complaints

The City will accept, track, and respond to complaints from the public related to BMP implementation and stormwater discharges from regulated construction activities to the City's MS4. Tracking will include:

- Summary or copy of the complaint.
- Actions taken to investigate the complaint.
- Whether any compliance, enforcement, or other actions were taken as a result of the investigation.

Recordkeeping:

With respect to regulated construction activities, the City will maintain records of:

- SWPPP approvals.
- SWPPP inspections conducted by the City.
- Enforcement and compliance actions taken by the City.
- Public reports and complaints and the City's responses.

Measurable Goals for MCM4

- Ensure that erosion and sediment controls are designed into applicable construction projects.
- Maintain an inspection schedule of all qualifying sites/projects.
- Implement the enforcement strategy laid out in the E&S Ordinance.
- Any applicable training given.

Reporting and Evaluation:

The annual report submitted to the WVDEP will summarize measurable goals set forth by the general permit for MCM4 activities conducted during the reporting year and will include:

- Any material changes to relevant legal authorities identified in the SWMP.
- Any material changes in the local requirements for SWPPPs.
- The number of SWPPPs submitted to the City for review and the respective number of approvals and denials.
- A summary of compliance and enforcement actions taken by the City including a total number of each type of compliance and enforcement actions implemented.
- An evaluation of the effect of the City's compliance and enforcement actions had on facilitating compliance.
- A copy of the public report and complaint tracker. (i.e. GIS)

MCM 5: Controlling Run-Off from New Development and Redevelopment

The City of Charleston has a Stormwater Management Guidance Manual as a living document for watershed protection elements. The City will implement a post-construction stormwater management program to reduce discharge and pollutants from new development and redevelopment projects in the MS4 Service Area that have a land disturbance area and/or increased impervious surface area of 10,000 sq. ft. or greater. Sites that are an acre or greater of disturbance shall also require a WV/NDPES construction permit. This also includes an area less than an acre if part of a larger common plan of development or sale that will result in a land disturbance of one acre or greater.

Legal Authority

The City will update its existing Guidance Manual, Subdivision Ordinance, Maintenance Agreements, and final as-built inspections to comply with the changes made in comparison to the previous General Permit and SWMP.

- The City has the authority to:
  - Review and approve regulated projects.
  - Prohibit discharges from regulated projects that do not comply with requirements of the program.
  - Inspect stormwater management facilities for regulated projects.
  - Enforce violations.

Post-Construction Stormwater Management Plan Review and Approval

- Permits and Post-Construction Stormwater Management Plans (PCSMP) will be reviewed in the order that they are received. The official date of receipt for technical review is the date the application has been administratively completed.

- Technical review will consist of reviewing site information, drains to TMDL stream, permanent stormwater management plan, all supporting design calculations to the proposed site features, the PCSMP, and other supporting documentation as applicable. Technical comments will be prepared in writing and sent to the applicant via e-mail or regular mail (per applicant's request).

- The initial technical review will be completed within the following timeline:
  - Residential and Commercial: Within ten (10) business days of being deemed administratively complete.
  - Subdivision review times vary depending on the size.

- Applicants will be given 30 days to respond in writing to initial technical comments. If the applicant does not respond within that time, the application will be deemed "not approved" and the application and supporting information will be returned to the applicant. This timeline may be extended based upon mutual agreement between the applicant and City.

- The City will review the comment response within ten (10) business days of receipt and notify the applicant of any outstanding issues. The applicant will have up to 30 days to respond to any follow-up comments. Once the application is deemed technically complete, the land disturbance activity approval will be forwarded to the Building Department.

- For projects over one acre that also require a WV/NPDES construction stormwater permit, applicants are urged to coordinate and incorporate comment responses from both the WVDEP and the City into a common submittal to avoid the confusion of having multiple versions of plans and permitting documents.

- Projects that discharge construction site runoff into a designated 303d or TMDL stream for iron must have more stringent E&S controls in place to ensure pollutants stay on site.

Post-Construction Development Standards Options

The maximum flow rate coming off of the site after development must be designed to be equal to or less than the calculated maximum flow rate coming off the existing site. For sites where it is not feasible to limit the post-development flow rate to the pre-development rate, then the developer must demonstrate that the additional runoff will not have any adverse impact downstream. Infiltration and retention systems for any site less than 1 acre will be given full credit for volume provided and treated.

The City has adopted the following two post-construction development standard options:

- Standard Option 1: Runoff Retention
  - Regulated development projects must be designed to retain a volume of runoff equivalent to 1.0 inch or greater multiplied by the total post-construction impervious surface area on the site.
  - The runoff retention standard will be lowered to 0.8 inch or greater for high-density development (greater than 7 units per acre), transit-oriented development, and projects that have direct or indirect water quality benefits in accordance with criteria identified in the SWMP.
  - The City may reject as incomplete any PCSMP relying on New Development Standard Option 1: Runoff Retention that does not include a completed copy of the most current version of the WVDEP Compliance Spreadsheet found at: https://dep.wv.gov/WWE/Programs/stormwater/MS4/permits/Pages/ToolsandG

uidance.aspx (or alternative documentation designated or approved by the City) demonstrating compliance with this standard.

- Standard Option 2: Extended Infiltration
  - Regulated development projects must be designed to treat stormwater before releasing it to surface waters by extended or engineered infiltration.
  - Extended filtration practices that are designed to capture and manage up to one inch of rainfall may discharge through an underdrain system.
  - The City may reject as incomplete any PCSMP relying on Development Standard Option 2: Extended Filtration that does not include calculations and other support sufficient to demonstrate compliance with this standard.

Post-Construction Redevelopment Standards Options

The maximum flow rate coming off of the site after development must be designed to be equal to or less than the calculated maximum flow rate coming off the existing site. For sites where it is not feasible to limit the post-development flow rate to the pre-development rate, then the developer must demonstrate that the additional runoff will not have any adverse impact downstream. Infiltration and retention systems for any site less than 1 acre will be given full credit for volume provided and treated.

The City has adopted the following three post-construction redevelopment standard options:

- Standard Option 1: Runoff Retention
  - Regulated redevelopment projects must be designed to retain a volume of runoff equivalent to 0.8 inch (or greater) multiplied by the total post-construction impervious surface area on the site.
  - The City may allow the runoff retention standard to be lowered to 0.5 inch (or greater) for high-density development (greater than 7 units per acre), transit-oriented development, brownfield redevelopment, and projects that have direct or indirect water quality benefits in accordance with criteria identified in this SWMP.
  - The City may reject as incomplete any PCSMP relying on Redevelopment Standard Option 1: Runoff Retention that does not include a completed copy of the most current version of the WVDEP Compliance Spreadsheet found at: https://dep.wv.gov/WWE/Programs/stormwater/MS4/permits/Pages/ToolsandGuidance.aspx (or alternative documentation designated or approved by the City) demonstrating compliance with this standard.

- Standard Option 2: Extended Infiltration
  - Regulated redevelopment projects must be designed to treat stormwater before releasing it to surface waters by extended or engineered infiltration.

- Extended filtration practices that are designed to capture and manage up to one inch of rainfall may discharge through an underdrain system.
- The City may reject as incomplete any PCSMP relying on Redevelopment Standard Option 2: Extended Infiltration that does not include calculations and other support sufficient to demonstrate compliance with this standard.

- Standard Option 3: Impervious Area Reduction
  - If the net impervious area is decreased by less than 50%, the post-construction TP load shall be reduced by at least 20% below the redevelopment TP load.
  - The impervious area has decreased by 50% or more.
  - The City may reject as incomplete any PCSMP relying on Redevelopment Standard Option 3: Impervious Area Reduction that does not include calculations and other support sufficient to demonstrate compliance with this standard. Redevelopment Standard 3 may not be applied to a regulated redevelopment project that produces a net increase of impervious area within the limits of disturbance.

- Regulated redevelopment projects that are exclusively limited to maintenance and improvement of existing roadways (including widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems, and repaving projects), sidewalks, and parking lots shall improve existing conditions where feasible but are to be exempted from compliance with the above redevelopment standard options 1 and 2.

Stormwater Management Facility Inspection and Maintenance

For sites 1 acre or greater, the City will keep an inventory of stormwater management facilities subject to maintenance agreements. The City will inspect each stormwater management facility on the inventory at least once every five years. If the inspection identifies any deficiencies, the City will take reasonable action to enforce its rights under the Long-Term Maintenance Agreement or exercise its compliance and enforcement authority to compel the responsible party to complete any necessary maintenance. The City's program shall document and include the following components:

- As-Built Drawings
- Long-Term Maintenance Agreements
- Inspections by the City
- Legacy Stormwater Management Facilities: For any stormwater management facility maintenance agreements or maintenance plans approved under prior versions of General Permit No. WVO116025, the City shall continue to enforce those agreements and plans in accordance with their respective terms and conditions.

- **Compliance and Enforcement:**

The City will have standard compliance and enforcement procedures for regulated project owners that fail to comply with any requirements imposed by the City. The procedures will outline the circumstances and measures to be employed to bring owners into compliance and include:

- Notices to correct deficiencies.
- Warning letters.
- Orders, instructions, or other legal mechanisms, including those in the Long-Term Maintenance Agreement, that require that owners take corrective action to remedy significant or repeated noncompliance.

Public Reports and Complaints:

As part of this SWMP, the City will have a program to accept, track, and respond to substantive complaints from the public related to post-construction stormwater management and stormwater discharges from regulated projects to the City's MS4. The City will log all public reports and complaints into a tracking system that includes:

- Summary or copy of the complaint.
- Actions taken to investigate the complaint.
- Whether any compliance, enforcement, or other actions were taken as a result of the investigation.

Recordkeeping:

The City will maintain records of:

- PCSMP approvals.
- Inventory of stormwater management facilities.
- Long-Term Maintenance Agreements.
- Stormwater management facility inspections conducted by or on behalf of the City.
- Enforcement and compliance actions taken by the City.
- Public reports and complaints.

Measurable Goals for MCM5

- Inspections of post-construction facilities for groundwater recharge and contact responsible parties for correction of potential failures.
- Verify the City of Charleston Stormwater Management Guidance Manual is properly implemented and the guidelines and suggestions are being implemented. This should be made available to the public either by hard copy or posted on the stormwater website.

- Complete tracking system to inventory and document post-construction locations as they are constructed.
- Track maintenance agreements and schedules to ensure compliance.
- Review of ordinance by the end of the permit cycle for adequate maintenance agreement policies and enforcement.

Reporting and Evaluation:

The annual report submitted to the WVDEP will summarize measurable goals set forth by the general permit for MCM5: Controlling Runoff from New Development and Redevelopment activities conducted during the reporting year. It will include:

- Any material changes to relevant legal authorities identified in this SWMP.
- Any material changes in local requirements for PCSMPs.
- The number of PCSMPs submitted to the City for review and number of acceptances and denials.
- A summary of compliance and enforcement actions taken by the City.
- An evaluation of the development and redevelopment standards approved for use. The evaluation should identify:
    - Public Complaints.
    - Known water quality issues.
    - Observed downstream flooding or channel erosion problems attributable to post-construction stormwater discharges.
- The City shall identify the development or redevelopment standard utilized for the project and determine if the issue was likely caused by:
    - An apparent deficiency in the standard.
    - Improper installation and maintenance.
    - Another cause.
- A copy of the public report and complaint tracker. (i.e. GIS)

MCM 6: Pollution Prevention & Good Housekeeping for Municipal Operations

The City of Charleston Engineering/Stormwater Department will lead and continue implementation of the Standard Operation Procedures (SOP) as part of the Stormwater Pollution Prevention Plan (SWPPP) to prevent or reduce polluted runoff. Each facility is provided a binder with SOPs.

Landscape Management Activities

- For facilities that handle landscape management activities including use of fertilizer, herbicides and pesticides, and vegetation disposal, best management practices will be included in the site's SWPPP SOPs.

Management of High-Priority Facilities

- The Public Works Equipment Storage Area including the Salt Truck Storage Beds facility is owned and operated by the City of Charleston. This area drains to the City's regulated MS4 and is considered a High-Priority Facility.

- All City of Charleston facilities will have site inspections performed and documented at a frequency of no less than once per year.

- Municipal industrial sites that are considered potential stormwater pollutant locations will be monitored and practice good housekeeping to reduce pollutants onsite. Samples may be taken as a monitoring activity.

- Maintenance activities, including a log of each unauthorized discharge, release, or spill incident at the facility that caused or reasonably likely to cause discharge of pollutants to the MS4 will be recorded in an incident log. This will include:

    - The date of the incident.
    - What material was discharged.
    - The estimated quantity of discharge.
    - Any remediation actions that were taken.

- All maintenance reports and incident logs shall be kept within the SWPPP. Maintenance requirements will be monitored annually alongside facility inspections.

Construction and Land Disturbance activities

- The City of Charleston will utilize training, inspections, contract terms, and/or

other means to ensure employees and city contractors comply with all applicable erosion and sediment control and stormwater discharge requirements for land-disturbing activities conducted for or on behalf of the municipality.

Employee and Contractor Training

- All employees that have a direct impact on stormwater pollution prevention will be trained within 3 months of their hire date.

- On at least an annual basis, facility staff and contractors active at the high-priority facility and responsible for activities that could affect stormwater shall receive training on the requirements of the SWPPP, with an emphasis on the importance of eliminating unauthorized discharges to the MS4. Refresher training will be for employees and contractors whose duties involve chemical and material storage and use, trash management, and fleet maintenance will be given annually.

Measurable Goals for MCM6

- Employee training attendance.
- New hire trainings.
- Implementation and development of additional SOPs.
- Inspections designed to increase employee stormwater awareness and prevention of illicit discharges.
- Monitoring and sampling at municipal industrial sites to look for pollution trends and identify housekeeping measures that are adequate or need improvement.

Reporting and Evaluation

The annual report submitted to the WVDEP will summarize measurable goals set forth by the general permit for MCM6 conducted during the reporting year and will include:

- A summary of written procedures developed or modified to implement the Pollution Prevention and Good Housekeeping Program.
- A statement confirming the City properly implemented SWPPPs for high-priority facilities, except any deficiencies that are documented in the Annual Report.
- A hardcopy or digital file of the current High-Priority Facility SWPPPs. If a SWPPP has not been revised during the reporting year, then only the inspection reports and other attachments that are updated will be attached to the annual report.
- A statement identifying facilities that have been added or removed from the High-Priority Facility List.

- A summary of inspections or other measures to determine employees and/or contractors complied with applicable erosion and sediment control and stormwater discharge requirements for land-disturbing activities.
- A summary of all employee and contractor training events conducted under the general permit year including the completion date, number of employees, and a summary of the content.

4. MS4 Program Evaluation, Recordkeeping, and Reporting

Recordkeeping

The City shall keep records to verify compliance with the General Permit.

Annual Reports

An annual report will be submitted to the WVDEP no later than October 1st of each year. Each report shall cover the previous year from July 1-June 30.

5. TMDL Special Conditions

Applicability

- *See Appendix "A" for TMDL stream list.*

- The City recognizes the identification of its two primary TMDL pollutants being fecal coliform and sediment (iron).

- The BMPs designed to reduce pollutants include: public education and outreach, employee stormwater training, dry weather screenings, city ordinances, construction site inspections, and post-construction development and redevelopment requirements.

- BMP schedules are listed throughout this SWMP within the MCM sections.

Implementation for MS4s Discharging into TMDL Waters

The City shall implement BMPs in accordance with this SWMP and annually evaluate BMP effectiveness. The Annual Report shall contain the evaluation, along with any newly proposed BMPs to replace ineffective ones.

Bacterial TMDLs

The City of Charleston selected 3 of the strategies listed in Table 3 identified in Part V.C. of the General Permit designed to reduce the load of bacteria in the MS4. The list includes, but is not limited to:

1. Domestic Pets
    - Provide signage to pick up dog waste, providing pet waste bags and disposal containers.
    - Adopt and enforce pet waste ordinances or policies, or leash laws or policies.
    - Place dog parks away from environmentally sensitive areas.
    - Maintain dog parks by removing pet waste bags and cleaning up other sources of bacteria.
    - Urge protection of vegetative riparian buffers along streams to dissuade stream access.
    - Utilize social media to educate on pet waste disposal.
2. Urban Wildlife
    - Educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters and grease traps, residential garbage).
    - Clean out storm drains to remove waste.
    - Enforce urban trash management practices.
    - Removal of animal carcasses from roadways and proper disposal.
3. Illicit Connections or Discharges to the MS4
    - Enhanced dry weather screening and illicit discharge, detection, and elimination program beyond the standard requirements to identify and remove

illicit connections and identify leaking sanitary sewer lines infiltrating to the MS4 and implement repairs.

- Utilize social media to educate the public on reporting sanitary sewer leaks.
- Work with Charleston Sanitary Board on storm and sanitary sewer cross connections.
- Report illicit sanitary sewer discharges to the Charleston Sanitary Board.

Local Sediment, Metals, and Nutrients TMDLs

The City will utilize street sweeping, storm drain cleaning, construction site sediment and erosion control regulations, and development and redevelopment requirements to reduce loads associated with local sediment, metal (iron), and nutrients.

Certification

Authorized signature _____
(Mayor or Principle Executive Officer)

Print name _____

Title _____

Date _____

Appendix A

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Receiving Waters Source Reference Data Notes

The permit states on page 45 B.6.b. pertaining to the NOI and receiving waters to use the 2018 2020 and 2022 Cycle Years Integrated Water Quality Monitoring and Assessment Report for receiving waters and 303d list data at https://dep.wv.gov/wwe/watershed/ir/pages/303d_305b.aspx

(See supplemental tables tab and note in the excel sheet on the bottom there are category tabs with the stream data.)

The NOI Instruction sheet from the WVDEP refers to utilize the stream data from the list on the WVDEP website at https://dep.wv.gov/WWE/Programs/stormwater/MS4/Documents/MS4%20Data/City%20of%20Charleston%20WVR030006/City%20of%20Charleston%20Stream%20Data.pdf

This list is also referred to in the permit on page 30 Part V. TMDL Special Conditions A.6.

The data from these two sources do not match exact.

Notes for City of Charleston's NOI WVDEP 303d List of Receiving Waters Stream Data

- Georges Creek (On DEP list but not a City receiving water body)
- Coonskin Branch (On DEP list but not a City receiving water body)
- Sugarcamp Creek (Integrated Report doesn't show Fecal Coliform)
- Dry Branch (Integrated Report doesn't show Fecal Coliform)
- Long Branch (Integrated Report doesn't show Fecal Coliform)
- Baker Fork (Integrated Report doesn't show Fecal Coliform)

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WVDEP 303d Stream Data

Municipality/ Entity	TMDL Project	Year TMDL approved	SUBID	SWS_Code	Stream Name	NHD Code	Pollutant	WLA	Unit	% Reduction	Area (acres)
Charleston	Upper Kanawha	2015	2011	KU-2015-SWS2011	Mission Hollow (Venable Branch)	KU-3	fecal coliform	1,187,968,071,272.50	counts/yr	69.21	
Charleston	Upper Kanawha	2015	2012	KU-2015-SWS2012	Mission Hollow (Venable Branch)	KU-3	fecal coliform	3,011,256,503,742.50	counts/yr	52.12	
Charleston	Upper Kanawha	2015	2013	KU-2015-SWS2013	Chappel Hollow (Chappel Branch)	KU-3-A	fecal coliform	1,832,234,188,775.40	counts/yr	62.28	
Charleston	Upper Kanawha	2015	2022	KU-2015-SWS2022	Lower Donnally Branch	KU-5	fecal coliform	825,788,221,392.84	counts/yr	51.81	
Charleston	Upper Kanawha	2015	2031	KU-2015-SWS2031	Georges Creek	KU-8	fecal coliform	128,260,863,804.69	counts/yr	50.00	
Charleston	Lower Kanawha	2006	4102	KL-2006-SWS4102	WOODWARD BRANCH	KL-76-A	fecal coliform	126,529,474,455.64	counts/yr	47.37	
Charleston	Lower Kanawha	2006	4103	KL-2006-SWS4103	PFIEFFER BRANCH	KL-76-A-1	fecal coliform	140,667,904,726.90	counts/yr	78.95	
Charleston	Lower Kanawha	2006	4104	KL-2006-SWS4104	WOODWARD BRANCH	KL-76-A	fecal coliform	538,393,741,365.82	counts/yr	66.23	
Charleston	Lower Kanawha	2006	4107	KL-2006-SWS4107	TWOMILE CREEK	KL-76	fecal coliform	2,094,487,465,225.16	counts/yr	53.07	
Charleston	Lower Kanawha	2006	4108	KL-2006-SWS4108	CHANDLER BRANCH	KL-76-B	fecal coliform	1,997,686,884,137.11	counts/yr	83.23	
Charleston	Elk River	2012	20101	KE-2012-SWS20101	Elk River	KE	fecal coliform	14,073,000,000,000.00	counts/yr	0.00	
Charleston	Elk River	2012	20102	KE-2012-SWS20102	Magazine Branch	KE-1	fecal coliform	2,032,000,000,000.00	counts/yr	53.64	
Charleston	Elk River	2012	20103	KE-2012-SWS20103	Elk River	KE	fecal coliform	2,039,000,000,000.00	counts/yr	70.59	
Charleston	Elk River	2012	20104	KE-2012-SWS20104	Elk Twomile Creek	KE-3	fecal coliform	2,444,000,000,000.00	counts/yr	62.11	
Charleston	Elk River	2012	20105	KE-2012-SWS20105	Elk Twomile Creek	KE-3	fecal coliform	186,800,000,000.00	counts/yr	0.00	
Charleston	Elk River	2012	20112	KE-2012-SWS20112	Baker Fork	KE-3-B	fecal coliform	2,558,000,000,000.00	counts/yr	0.00	
Charleston	Elk River	2012	20113	KE-2012-SWS20113	Elk River	KE	fecal coliform	280,600,000,000.00	counts/yr	0.00	
Charleston	Elk River	2012	20116	KE-2012-SWS20116	Coonskin Branch	KE-6	fecal coliform	12,300,000,000.00	counts/yr	0.00	
Charleston	Elk River	2012	20118	KE-2012-SWS20118	Mill Creek (KE-9)	KE-9	fecal coliform	688,000,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30904	KL-2012-SWS30904	Trace Fork (KL-74-C)	KL-74-C	fecal coliform	234,000,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30905	KL-2012-SWS30905	Trace Fork (KL-74-C)	KL-74-C	fecal coliform	410,000,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30906	KL-2012-SWS30906	Trace Fork (KL-74-C)	KL-74-C	fecal coliform	96,420,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30909	KL-2012-SWS30909	Davis Creek	KL-74	fecal coliform	75,236,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30910	KL-2012-SWS30910	Sugarcamp Creek	KL-74-D	fecal coliform	1,675,000,000,000.00	counts/yr	23.62	
Charleston	Lower Kanawha	2012	30911	KL-2012-SWS30911	Davis Creek	KL-74	fecal coliform	43,400,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30912	KL-2012-SWS30912	Dry Branch	KL-74-E	fecal coliform	409,710,000,000.00	counts/yr	24.78	
Charleston	Lower Kanawha	2012	30913	KL-2012-SWS30913	Davis Creek	KL-74	fecal coliform	367,010,000,000.00	counts/yr	24.75	
Charleston	Lower Kanawha	2012	30914	KL-2012-SWS30914	Middle Fork/Davis Creek	KL-74-F	fecal coliform	947,000,000,000.00	counts/yr	21.99	
Charleston	Lower Kanawha	2012	30915	KL-2012-SWS30915	Middle Fork/Davis Creek	KL-74-F	fecal coliform	6,280,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30918	KL-2012-SWS30918	Long Branch (KL-74-F-2)	KL-74-F-2	fecal coliform	371,200,000,000.00	counts/yr	6.40	
Charleston	Lower Kanawha	2012	30919	KL-2012-SWS30919	Davis Creek	KL-74	fecal coliform	874,000,000,000.00	counts/yr	22.31	
Charleston	Lower Kanawha	2012	30920	KL-2012-SWS30920	Rays Branch	KL-74-G	fecal coliform	4,107,000,000,000.00	counts/yr	22.49	
Charleston	Lower Kanawha	2012	30921	KL-2012-SWS30921	Davis Creek	KL-74	fecal coliform	203,780,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30926	KL-2012-SWS30926	Coal Hollow	KL-74-L	fecal coliform	2,417,000,000,000.00	counts/yr	22.18	
Charleston	Lower Kanawha	2012	30927	KL-2012-SWS30927	Davis Creek	KL-74	fecal coliform	3,150,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30951	KL-2012-SWS30951	Joplin Branch	KL-77	fecal coliform	120,430,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30952	KL-2012-SWS30952	Joplin Branch	KL-77	fecal coliform	382,400,000,000.00	counts/yr	0.00	
Charleston	Lower Kanawha	2012	30953	KL-2012-SWS30953	Joplin Branch	KL-77	fecal coliform	3,238,000,000,000.00	counts/yr	24.47	
Charleston	Upper Kanawha	2015	2022	KU-2015-SWS2022	Lower Donnally Branch	KU-5	iron	728.59	lbs/yr	18.36	206
Charleston	Elk River	2012	20101	KE-2012-SWS20101	Elk River	KE	Iron	25305.35	lbs/yr	64.82	821.0
Charleston	Elk River	2012	20102	KE-2012-SWS20102	Magazine Branch	KE-1	Iron	2644.66	lbs/yr	13.28	967.5
Charleston	Elk River	2012	20103	KE-2012-SWS20103	Elk River	KE	Iron	27265.55	lbs/yr	65.81	600.1
Charleston	Elk River	2012	20104	KE-2012-SWS20104	Elk Twomile Creek	KE-3	Iron	1781.23	lbs/yr	25.12	596.3

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WVDEP 303d Stream Data Continued

Charleston	Elk River	2012	20105	KE-2012-SWS20105	Elk Twomile Creek	KE-3	Iron	68.71	lbs/yr	21.55	38.6
Charleston	Elk River	2012	20112	KE-2012-SWS20112	Baker Fork	KE-3-B	Iron	918.37	lbs/yr	18.27	468.4
Charleston	Elk River	2012	20113	KE-2012-SWS20113	Elk River	KE	Iron	2341.68	lbs/yr	66.95	25.5
Charleston	Elk River	2012	20116	KE-2012-SWS20116	Coonskin Branch	KE-6	Iron	7.24	lbs/yr	2.20	8.1
Charleston	Elk River	2012	20118	KE-2012-SWS20118	Mill Creek	KE-9	Iron	233.16	lbs/yr	23.25	128.5
Charleston	Lower Kanawha	2012	30904	KL-2012-SWS30904	Trace Fork	KL-74-C	Iron	63.08	lbs/yr	46.53	35.0
Charleston	Lower Kanawha	2012	30905	KL-2012-SWS30905	Trace Fork	KL-74-C	Iron	151.86	lbs/yr	42.26	78.4
Charleston	Lower Kanawha	2012	30906	KL-2012-SWS30906	Trace Fork	KL-74-C	Iron	59.64	lbs/yr	20.04	47.8
Charleston	Lower Kanawha	2012	30909	KL-2012-SWS30909	Davis Creek	KL-74	Iron	50.80	lbs/yr	72.65	7.4
Charleston	Lower Kanawha	2012	30910	KL-2012-SWS30910	Sugarcamp Creek	KL-74-D	Iron	1290.41	lbs/yr	39.41	297.4
Charleston	Lower Kanawha	2012	30911	KL-2012-SWS30911	Davis Creek	KL-74	Iron	123.96	lbs/yr	80.16	4.4
Charleston	Lower Kanawha	2012	30912	KL-2012-SWS30912	Dry Branch	KL-74-E	Iron	183.06	lbs/yr	40.55	54.1
Charleston	Lower Kanawha	2012	30913	KL-2012-SWS30913	Davis Creek	KL-74	Iron	530.01	lbs/yr	69.14	52.0
Charleston	Lower Kanawha	2012	30914	KL-2012-SWS30914	Middle Fork/Davis Creek	KL-74-F	Iron	455.38	lbs/yr	50.60	199.9
Charleston	Lower Kanawha	2012	30918	KL-2012-SWS30918	Long Branch	KL-74-F-2	Iron	231.46	lbs/yr	26.16	205.7
Charleston	Lower Kanawha	2012	30919	KL-2012-SWS30919	Davis Creek	KL-74	Iron	821.74	lbs/yr	51.51	180.0
Charleston	Lower Kanawha	2012	30920	KL-2012-SWS30920	Rays Branch	KL-74-G	Iron	3345.16	lbs/yr	38.20	819.5
Charleston	Lower Kanawha	2012	30921	KL-2012-SWS30921	Davis Creek	KL-74	Iron	156.19	lbs/yr	44.15	25.7
Charleston	Lower Kanawha	2012	30926	KL-2012-SWS30926	Coal Hollow	KL-74-L	Iron	1000.46	lbs/yr	70.73	514.6
Charleston	Lower Kanawha	2012	30927	KL-2012-SWS30927	Davis Creek	KL-74	Iron	2.53	lbs/yr	52.55	2.1
Charleston	Lower Kanawha	2012	30951	KL-2012-SWS30951	Joplin Branch	KL-77	Iron	48.13	lbs/yr	73.69	13.9
Charleston	Lower Kanawha	2012	30952	KL-2012-SWS30952	Joplin Branch	KL-77	Iron	115.93	lbs/yr	72.75	44.2
Charleston	Lower Kanawha	2012	30953	KL-2012-SWS30953	Joplin Branch	KL-77	Iron	1120.00	lbs/yr	75.09	463.9
Charleston	Lower Kanawha	2006	4102	KL-2006-SWS4102	WOODWARD BRANCH	KL-76-A	sediment	1.50	ton/yr	21.05	
Charleston	Lower Kanawha	2006	4103	KL-2006-SWS4103	PFIEFFER BRANCH	KL-76-A-1	sediment	5.63	ton/yr	46.13	
Charleston	Lower Kanawha	2006	4104	KL-2006-SWS4104	WOODWARD BRANCH	KL-76-A	sediment	10.10	ton/yr	59.92	
Charleston	Lower Kanawha	2006	4107	KL-2006-SWS4107	TWOMILE CREEK	KL-76	sediment	15.23	ton/yr	0.00	
Charleston	Lower Kanawha	2006	4108	KL-2006-SWS4108	CHANDLER BRANCH	KL-76-B	sediment	48.94	ton/yr	73.95	

Grp	Watershed	AUID	Waterbody Name	Waterbody Extent Description	Size	Size Units	Parameter	Parameter Category	First Listed	TMDL Target/ Priority	Comments
B	Lower Kanawha	WV-KL-76-A_01	Woodward Branch	Entire length	1.54	Miles	Fecal Coliform	4A	2004		
B	Lower Kanawha	WV-KL-76-A-2_01	UNT/Woodward Branch RM 0.86	Entire length	0.44	Miles	Fecal Coliform	4A	2004		
B	Lower Kanawha	WV-KL-76-A-1_01	Pfieffer Branch	Entire length	1.13	Miles	Fecal Coliform	4A	2004		Only one outfall shown possible private
B	Lower Kanawha	WV-KL-76_03	Twomile Creek	Mouth to RM 3.3	3.31	Miles	CNA-Biology	4A	2002		
B	Lower Kanawha	WV-KL-76_03	Twomile Creek	Mouth to RM 3.3	3.31	Miles	Iron	4A	2004		
B	Lower Kanawha	WV-KL-76_03	Twomile Creek	Mouth to RM 3.3	3.31	Miles	Fecal Coliform	4A	2004		
B	Lower Kanawha	WV-KL-76-B_01	Chandler Branch	Entire length	0.60	Miles	Fecal Coliform	4A	2004		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-57-AD-2-H_(	Sugar Creek	Entire length	5.70	Miles	Iron	4A	2012		
B	Lower Kanawha	WV-KL-76-C_01	Sugar Creek	Entire length	1.73	Miles	Fecal Coliform	4A	2004		
B	Elk	WV-KE_12	Elk River	Mouth to RM 14.4	14.39	Miles	CNA-Biology	5	2014	High	
B	Elk	WV-KE_12	Elk River	Mouth to RM 14.4	14.39	Miles	Fecal Coliform	2			
B	Elk	WV-KE_12	Elk River	Mouth to RM 14.4	14.39	Miles	Lead	2			
B	Elk	WV-KE_12	Elk River	Mouth to RM 14.4	14.39	Miles	Iron	4A	2010		
B	Elk	WV-KE-1_01	Magazine Branch	Entire length	2.06	Miles	Iron	4A	2010		
B	Elk	WV-KE-1_01	Magazine Branch	Entire length	2.06	Miles	Fecal Coliform	4A	2010		
B	Elk	WV-KE-3_02	Elk Twomile Creek	Mouth to RM 2.8	2.77	Miles	Iron	4A	2012		
B	Elk	WV-KE-3_02	Elk Twomile Creek	Mouth to RM 2.8	2.77	Miles	Fecal Coliform	4A	2010		
B	Elk	WV-KE-3-B_01	Baker Fork	Entire length	1.28	Miles	Iron	4A	2012		
B	Lower Kanawha	WV-KL-74-C_02	Trace Fork	Mouth to RM 5.3	5.25	Miles	CNA-Biology	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-C_02	Trace Fork	Mouth to RM 5.3	5.25	Miles	Iron	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-C_02	Trace Fork	Mouth to RM 5.3	5.25	Miles	Fecal Coliform	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-D_01	Sugarcamp Creek	Entire length	1.53	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-F_02	Middle Fork/Davis Creek	Mouth to RM 2.0	2.00	Miles	CNA-Biology	5	2014	High	Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-F_02	Middle Fork/Davis Creek	Mouth to RM 2.0	2.00	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-F_02	Middle Fork/Davis Creek	Mouth to RM 2.0	2.00	Miles	Fecal Coliform	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-F_02	Middle Fork/Davis Creek	Mouth to RM 2.0	2.00	Miles	pH	3			Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-F_02	Middle Fork/Davis Creek	Mouth to RM 2.0	2.00	Miles	DO	3			Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-57-B-3_01	Coal Hollow	Entire length	1.15	Miles	pH	4A	2004		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-57-B-3_01	Coal Hollow	Entire length	1.15	Miles	Iron	4A	2008		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-57-B-3_01	Coal Hollow	Entire length	1.15	Miles	Aluminum-D	4A	2004		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-L_01	Coal Hollow	Entire length	2.27	Miles	CNA-Biology	4A	2002		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-L_01	Coal Hollow	Entire length	2.27	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-L_01	Coal Hollow	Entire length	2.27	Miles	Fecal Coliform	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-G_01	Rays Branch	Entire length	2.32	Miles	CNA-Biology	4A	2002		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-G_01	Rays Branch	Entire length	2.32	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-G_01	Rays Branch	Entire length	2.32	Miles	Fecal Coliform	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WVK-42_NC	Joplin Branch	Entire length	2.90	Miles	Iron	4A	2012	2012	Currently No Outfalls Shown
B	Lower Kanawha	WVK-42_NC	Joplin Branch	Entire length	2.90	Miles	Fecal Coliform	4A	2008	2012	Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-N_01	Cane Fork	Entire length	3.12	Miles	CNA-Biology	4A	2010		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-N_01	Cane Fork	Entire length	3.12	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-N_01	Cane Fork	Entire length	3.12	Miles	Fecal Coliform	4A	2010		Currently No Outfalls Shown

A	Upper Kanawha	WV-KU-3_01	Mission Hollow (Venable Branch)	Entire length	2.73	Miles	CNA-Biology	5	1998	High	
A	Upper Kanawha	WV-KU-3_01	Mission Hollow (Venable Branch)	Entire length	2.73	Miles	Fecal Coliform	4A	2014		
A	Upper Kanawha	WV-KU-3-A_01	Chappel Hollow (Chappel Branch)	Entire length	2.28	Miles	Fecal Coliform	4A	2014		
A	Upper Kanawha	WV-KU-3-A_01	Chappel Hollow (Chappel Branch)	Entire length	2.28	Miles	CNA-Biology	5	2014	High	
A	Upper Kanawha	WV-KU-5_02	Lower Donnally Branch	Mouth to RM 1.0	1.00	Miles	Iron	5	2016	High	
A	Upper Kanawha	WV-KU-5_02	Lower Donnally Branch	Mouth to RM 1.0	1.00	Miles	Fecal Coliform	5	2014	High	
A	Upper Kanawha	WV-KU-5_02	Lower Donnally Branch	Mouth to RM 1.0	1.00	Miles	CNA-Biology	4A	2008		
B	Lower Kanawha	WV-KL_WF	Kanawha River (Lower)	RM 31.3 to RM 58.2 (Upper Kanawha begins)	26.95	Miles	PCBs in Fish Tissue	5	2006	2025	
B	Lower Kanawha	WV-KL_WF	Kanawha River (Lower)	RM 31.3 to RM 58.2 (Upper Kanawha begins)	26.95	Miles	Fecal Coliform	5	2004	High	
B	Lower Kanawha	WV-KL_WF	Kanawha River (Lower)	RM 31.3 to RM 58.2 (Upper Kanawha begins)	26.95	Miles	Dioxin in Fish Tissue	4A	1996		
B	Lower Kanawha	WV-KL_WF	Kanawha River (Lower)	RM 31.3 to RM 58.2 (Upper Kanawha begins)	26.95	Miles	Dioxin	4A	1996		
B	Elk	WV-KE-3_02	Elk Twomile Creek	Mouth to RM 2.8	2.77	Miles	Iron	4A	2012		
B	Elk	WV-KE-3_02	Elk Twomile Creek	Mouth to RM 2.8	2.77	Miles	Fecal Coliform	4A	2010		
B	Lower Kanawha	WV-KL-74-F-2_01	Long Branch	Entire length	2.16	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-76-E_01	Left Fork/Twomile Creek	Entire length	4.96	Miles	Fecal Coliform	4A	2004		
B	Elk	WV-KE-9_01	Mill Creek	Entire length	8.49	Miles	CNA-Biology	4A	2018		Currently No Outfalls Shown
B	Elk	WV-KE-9_01	Mill Creek	Entire length	8.49	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74_01	Davis Creek	RM 10.0 to Lake at RM 10.3 and above Lake at RM 10.4 to HW	5.25	Miles	Iron	4A	2010		
B	Lower Kanawha	WV-KL-74_01	Davis Creek	RM 10.0 to Lake at RM 10.3 and above Lake at RM 10.4 to HW	5.25	Miles	Fecal Coliform	4A	2010		
B	Lower Kanawha	WV-KL-74_01	Davis Creek	RM 10.0 to Lake at RM 10.3 and above Lake at RM 10.4 to HW	5.25	Miles	pH	2			
B	Lower Kanawha	WV-KL-74_01	Davis Creek	RM 10.0 to Lake at RM 10.3 and above Lake at RM 10.4 to HW	5.25	Miles	DO	2			
B	Lower Kanawha	WV-KL-74_01	Davis Creek	RM 10.0 to Lake at RM 10.3 and above Lake at RM 10.4 to HW	5.25	Miles	CNA-Biology	2			
B	Lower Kanawha	WV-KL-74_03	Davis Creek	RM 3.1 to RM 10.0	6.99	Miles	Iron	4A	2010		
B	Lower Kanawha	WV-KL-74_03	Davis Creek	RM 3.1 to RM 10.0	6.99	Miles	Fecal Coliform	4A	2010		
B	Lower Kanawha	WV-KL-74_03	Davis Creek	RM 3.1 to RM 10.0	6.99	Miles	CNA-Biology	2			
B	Lower Kanawha	WV-KL-74_03	Davis Creek	RM 3.1 to RM 10.0	6.99	Miles	pH	2			
B	Lower Kanawha	WV-KL-74_03	Davis Creek	RM 3.1 to RM 10.0	6.99	Miles	DO	2			
B	Lower Kanawha	WV-KL-74_04	Davis Creek	Mouth to RM 3.1	3.05	Miles	CNA-Biology	4A	2010		
B	Lower Kanawha	WV-KL-74_04	Davis Creek	Mouth to RM 3.1	3.05	Miles	Iron	4A	2010		
B	Lower Kanawha	WV-KL-74_04	Davis Creek	Mouth to RM 3.1	3.05	Miles	Fecal Coliform	4A	2010		
B	Lower Kanawha	WV-KL-74_04	Davis Creek	Mouth to RM 3.1	3.05	Miles	DO	2			
B	Lower Kanawha	WV-KL-74_04	Davis Creek	Mouth to RM 3.1	3.05	Miles	pH	2			
B	Lower Kanawha	WV-KL-74-E_01	Dry Branch	Entire length	1.00	Miles	Iron	4A	2012		Currently No Outfalls Shown
B	Lower Kanawha	WV-KL-74-F-2_01	Long Branch	Entire length	2.16	Miles	Iron	4A	2012		Currently No Outfalls Shown
	Upper Kanawha		No data found - current hold same criteria as Lower kanawha								
	Lower Kanawha	KL-76-D.1 N/A	Branch of Left Fork / Twomile Creek					No Data			
North Side	Upper Kanawha	KU-4_N/A	UNT Possible Wilson Branch	Across from Chapel and along Branch Possible Wertz Ave.				No Data			
North Side	Upper Kanawha	KU-.9 N/A KE-9-A-NA	UNT Mill Creek	east of KU-4 N/A				No Data			Currently No Outfalls Shown