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west virginia department of environmental protection

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WEST VIRGINIA/NPDES GENERAL WATER POLLUTION CONTROL PERMIT  
STORMWATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER  
SYSTEMS

FACT SHEET AND RATIONALE

1. NAME AND ADDRESS OF APPLICANT

An applicant is a public entity that owns or operates a separate storm sewer system with stormwater discharges, located in West Virginia, and who agrees to be regulated under the terms and conditions of this general permit.

2. General WV NPDES Permit No. WV0116025

3. County: Any WV County

4. Receiving stream: Any WV stream

5. Public Comment Period: From April 4, 2014 to May 3, 2014

6. Background:

Stormwater is the surface runoff that results from rain and snowmelt. Urban development alters natural infiltration capabilities of the land and generates a host of pollutants associated with urban activities that increase runoff volumes and pollutant loadings discharged to receiving waterbodies. Urban development increases impervious surfaces in a watershed when farmland, forests, and meadowlands with natural infiltration qualities are converted to parking lots, buildings, streets, and driveways that have little or no absorption characteristics.

Small municipal separate storm sewer systems (MS4s) found in West Virginia discharge polluted stormwater to local rivers and streams. This general permit is proposed to minimize the volume and pollutant loadings of these discharges. Federal regulations require West Virginia to permit stormwater discharges from small MS4s and to require permittees to implement best management practices (BMP) through an iterative process focused on six minimum control measures.

By implementing and executing the BMPs to the Maximum Extent Practicable (MEP) specified in the permittee's stormwater management program, the requirements for anti-degradation, up to and including, Tier 2 protection are met.

7. General Permits

By concentrating on the control measures, permittees can operate discharge systems under the authority of this general permit as allowed by Legislative Rule 47CSR10-13.6. General permits regulate same or substantially similar types of operations, those that discharge the same types of waste, require the same effluent limits or operating conditions, require the same or similar monitoring, and in the opinion of the Director are more appropriately controlled under a general permit than under individual permits.

This general permit authorizes stormwater discharges in accordance with the National Pollutant Discharge Elimination System (NPDES). In 1982, West Virginia was granted primacy over the NPDES program from the United States Environmental Protection Agency.

8. Types of Discharges Covered

This permit covers stormwater discharges from small MS4s.

SECTION BY SECTION RATIONALE

PART I

A. This General Permit covers all areas in the State of West Virginia.

B. According to 40 CFR 122.26(b)(8), "*municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law)...including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States.
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a combined sewer; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

The Stormwater Phase II Final Rule requires nationwide coverage of all operators of small MS4s that are located within the boundaries of a Bureau of the Census-defined "urbanized area" (UA) based on the latest decennial Census. Once a small MS4 is designated into the program based on the UA boundaries, it cannot be waived from the

program if in a subsequent UA calculation the small MS4 is no longer within the UA boundaries.

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- C. Waiver options are available to operators of automatically designated small MS4s if discharges do not cause, or have the potential to cause, water quality impairment. Waiver Criteria was added to the permit.
- D. According to 40 CFR § 122.44(l), to avoid backsliding, the standards and conditions in reissued permits must be at least as stringent as the standards and conditions in the previous permit. All currently permitted MS4s with approved stormwater programs have schedules for implementing permit components. Permittees who have not developed and implemented stormwater management programs in accordance with approved schedules will be in violation of the new permit once it becomes effective.

The MS4 general permit has been modified in the following manner:

The permit has been re-formatted and a table of contents has been added.

**Part I**

Limitations on coverage: On January 9, 2014, approximately 300,000 West Virginians learned of a chemical spill into their source of drinking water. An unprecedented “Do Not Use” advisory was issued and the affected water company and health officials called for water line flushing to clear the chemical and provide a clean delivery system to homes and businesses.

Certain lessons learned by the Division of Water and Waste Management in regard to the chemical release relate to this general permit: item a) of the current permit authorizes non-stormwater discharges “provided they have been determined not to be substantial contributors of pollutants to a particular small MS4” and allows uncontaminated water line flushing.

The January 9<sup>th</sup> event revealed that very little was known about the health or environmental issues that might be caused by the leaked chemical. The potential risk was so massive that the importance of providing clean and safe drinking water to a large population of citizens overrode the likelihood permittees could prohibit flushed waters from entering and passing through storm sewer systems to waters of the state. There is no question that permittees would have been unable to unequivocally state that flushed water was “uncontaminated”. That subject is still being debated today, at the time this draft permit is being released for public review. Considering that the intent of the MS4 program is to prevent pollution to the Maximum Extent Practicable on the part of the permittee, this general permit is modified to reflect the now understood fact that permittees may not have the ability to recognize all contaminated discharges, and as in the January 9<sup>th</sup> emergency, may not own the water treatment/delivery systems and also that the source water protection areas and treatment plants may not be located within the geographical jurisdiction of permittees.

The permit is modified in light of the January 9, 2014 chemical release: This permit authorizes non-stormwater discharges provided they have been determined not to be

substantial contributors to a particular small MS4 applying for coverage under this permit: Uncontaminated water line flushing unless documented health or safety emergencies occur.

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**Maximum Extent Practicable (MEP)** – In light of the chemical spill, more emphasis has been placed on MEP in this reissued permit. MEP is presented in Part I for highlight.

Designated MS4 communities in West Virginia are all considered “small” as each has a population less than 100,000. Federal and state requirements call for these small towns to develop, implement, and enforce pollution prevention programs and the permit was drafted considering the capabilities and limitations of the State’s permittees. The purpose of the standard is to capitalize on the permittees’ abilities and means to benefit water quality to the greatest degree possible. Considering the chemical spill’s impact on our small MS4s the drafting of this permit considered the limited resources a small population has to apply to a regulatory program while also taking into account the value of the program in terms of cleaner, safer streams and rivers.

## **Part II**

### **Public Education and Outreach**

This permit is modified to clarify that permittees may demonstrate improvements to the public’s understanding of stormwater outreach efforts by reporting behavioral changes. For example, if anti-litter campaigns result in less littering, as evidenced by less trash picked up at streamside cleanup events, or if stream bank erosion messages result in erosion-resistant plantings by a watershed group, the permittee may report educational messages have been successful. Permittees may demonstrate the public’s understanding of outreach messages by summarizing feedback such as the comments received during a public meeting.

Once the MS4 offers or organizes events or meetings and the public attends or participates, the MS4 may assert success with this minimum control measure. The goal is to modify behavior. Participation in an activity that was not available until offered by the MS4 demonstrates a behavioral change.

### **Illicit Discharge Detection and Elimination**

Currently, the permittee is required to prohibit discharges from water line flushing, pipeline hydrostatic testing, and from potable and non-potable water sources unless the water has been de-chlorinated to 0.1 parts per million (ppm).

After the current permit was issued and specifically on March 10, 2012, CSR 64-5-2(a) was passed. The rule states that for all public water systems, at least 0.2 milligram per liter of total chlorine residual shall be maintained throughout the distribution system at all times.

The MS4 permit and the health rule are in direct contradiction. The MS4 permittee who is also the operator of a drinking water treatment plant would be unable to comply with both state requirements therefore the permit is modified to require the permittee to comply with the 0.1 ppm standard when able to do so. For example, when regulating swimming pool discharges, the permittee would allow a discharge of 0.1ppm chlorine. This requirement shall not infringe upon the drinking water health rule.

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The above discussed drinking water emergency occurred after chemical was leaked from an above ground storage tank. The permit is modified to require permittees to report the location of such tanks that are not covered by a NPDES permit. Permittees may do so by checking a list of tanks posted to the Department's website. Permittees are asked to report the location, number of tanks, and tank content for those facilities that the permittee finds are not on the Department's list.

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The permit is modified to require the permittee to focus Illicit Discharge Detection and Elimination training on staff members who are likely to come into contact with illicit discharges. The goal is to equip those individuals with the knowledge needed to identify and report such discharges to the group responsible for follow-up.

**Controlling Runoff from Construction Sites**

For new permittees, the current permit allows 24 months to implement a program to regulate construction site stormwater runoff. The permit has been revised to offer new permittees 12 months instead of 24. The DWWM has learned that many municipalities have sediment and erosion control programs already in place and that 12 months is adequate for upgrading those programs. For new permittees that do not have existing programs, the DWWM is available to assist with reviews and recommendations that will assist in program development and implementation.

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The permit is modified to correct an oversight in the previous permit. Construction site applications are to include a listing of all water bodies into which the construction site will discharge and whether or not those water bodies are on the 303(d) list for impaired waters.

The reissued permit states:

The application shall include a listing of all water bodies into which the construction site will discharge and whether or not those water bodies are on the 303(d) list for impaired waters *or have established TMDLs*.

**Controlling Runoff from New Development and Redevelopment**

Post-construction stormwater management is a component requirement that places permit review and approval, inspection, maintenance, and enforcement responsibility on the permittee. Simply put, regulated municipalities must see to it that storm water controls built after the SWMP approval implementation date are put in place and maintained. The current permit does not provide an option for permittees to take a legal action against operators who fail to maintain stormwater controls. The reissuance provides a pathway for permittees to proceed directly to a court with jurisdiction over these matters.

Currently, permittees may take administrative enforcement actions against a recalcitrant party or may choose to do repairs on stormwater structures and try to recoup expenses. The permit does not provide for permittees to take violators to court. The revised permit affords municipalities the authority they need to present a case of failure to maintain stormwater structures in a court of jurisdiction. There are several towns without code enforcement officers that could utilize a system for cases to be heard by the town judge.

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The current permit says that the first inch of rainfall after 48 hours without rain must be kept and managed onsite, however extended filtration is an allowable control. Where the permit allows the volume in excess of the first inch to be discharged through an under drain system, the DWWM issued a Memorandum of Understanding, titled Extended Filtration Memo that acknowledges that some of the first one inch of rainfall may be discharged – though it is released after filtration.

The permit has been revised to clarify structures for capturing/managing the first 1” of rainfall are to be designed for the *average* 24-hour storm event.

In light of the fact that this understanding came after the permit was issued, this reissuance allows the permittee to submit an alternative approach to managing the first inch of rainfall as long as that approach is as protective of water quality as the methods spelled out in the permit. The DWWM has determined that there are many variables that could affect a permittee’s decision to require a particular storm water control at a development site. Clayey soils, buried utilities, steep slopes, and limited space are all examples of conditions that might affect the best management practice that is most appropriate for controlling the volume and pollutant loading of stormwater discharges.

Certain sites are unaccepting of stormwater controls and the permit acknowledges these sites by offering mitigation or payment-in-lieu options. This reissuance goes a step further by allowing permittees to seek approval of additional options rather than face the very real possibility of losing a development project to a location outside town limits where post-construction rules do not apply. The rationalization here is to prevent urban sprawl as the State of West Virginia has no post-construction stormwater management rules outside this MS4 permit.

The DWWM will review applications from permittees who are interested in presenting alternative approaches to the retention, off-site mitigation, and payment in-lieu options spelled out in the permit. The review will determine whether those approaches are equally protective of water quality. Included in possible alternative approaches are mitigation or payment in-lieu options for new development projects that may be applied at a 1:1 ratio when it is technically infeasible to manage a portion or all of the subject 1” rainfall onsite.

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The permit is modified to require a publicly accessible *inventory* of approved payment in-lieu projects rather than a *database* should a permittee opt to implement a payment in-lieu program. Certain permittees wish to put limited operating funds to other uses when

dealing with short lists of such projects. Maintaining a publicly accessible inventory is consistent with the MEP standard.

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The permit is modified to reflect the fact that runoff reduction practice retrofits may not be possible at all redevelopment projects for existing streets and parking lots that are greater than 5000 square feet in size. The reissued permit calls for reduction practices but allows permittees to justify why a project of this type does not include retrofits. For example only, buried utilities such as natural gas distribution lines might be compromised. Narrowing of an alleyway to install a stormwater control might eliminate the access way needed by emergency vehicles. The permittee is expected to retrofit or submit justification otherwise.

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The permit is modified for projects that are potential “hot spots”. The current permit gave an example that treatment practices will be provided for hydrocarbons at a vehicle fueling facility. The modification reduces the example to show that treatment might be required to reduce hydrocarbons at a vehicle fueling island. The intent is to illustrate that permittees should focus directly on the source of contamination.

### **Pollution Prevention & Good Housekeeping for Municipal Operations**

The current permit requires the permittee to develop a stormwater monitoring and reporting protocol that is now outdated. The DWWM has developed an electronic reporting system and the permit is modified to require permittees to submit reports via the eDMR system. This change absorbs Modification A into the permit.

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The current permit contains certain cut-off concentrations but does not explain exceedances. The reissuance explains those cut-offs by adopting bench-mark monitoring language. Exceeding the benchmark triggers a review of best management practices and permittees are expected to search for the most effective practices for curbing pollution.

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The reissuance is expanded to include sampling parameters suitable to facilities that store less than 50,000 tons of de-icing salts. This is due to DWWM’s finding that some municipalities store road de-icing salts in locations where salts are exposed to the elements. This change also brings consistency with the Multi-Sector permit.

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The current language for sampling stormwater industrial discharges once/six months is modified to reflect federal requirements. The USEPA maintains a database that accepts discharge monitoring report data. The permit now calls for sampling frequencies and reporting formats that are consistent with USEPA reporting criteria. This change is also being applied to representative stormwater sampling.

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For consistency, at industrial facilities or activities under the control of the permittee, the permit has adopted the low concentration waiver and no exposure components of the Multi-Sector industrial permit.

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For consistency with the Multi-Sector permit, this permit is modified to require the permittee to collect stormwater samples from storm events that are greater than 0.1 inch in magnitude that occur at least 72 hours after the previous storm. This change reflects the Multi-Sector requirement to sample during the first 30 minutes of discharge and if that is impractical (such as during a lightning storm) to collect during the first hour and submit a description why the sample was not collected earlier. This change is also being applied to representative stormwater sampling.

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The reissuance explains to the permittee how to go about calculating Total Nitrogen for reporting purposes.

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The permit allows collection of stormwater samples during routine business hours and on routine work days of the permittee’s staff responsible for collection. This change is made to allow sampling in a manner that provides the safest possible scenario for the sampler: during time periods when co-workers are available and during daylight hours.

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Most of the weblinks listed in the current permit expired after the permit was issued. The reissuance guides readers to the source of referenced information but stops short of citing weblinks for this specific reason.

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The certification found on the Notice of Intent has been revised to be consistent with NPDES requirements.

9. Chesapeake Bay Total Maximum Daily Load and WV Watershed Improvement Plan

West Virginia Counties Jefferson, Berkeley, Morgan, Hampshire, Mineral, Grant, Hardy, and Pendleton drain to the Chesapeake Bay and must address the Chesapeake Bay TMDL via the WV WIP. The existing permittees covered under this general permit are not expected to have a reduction in loadings affecting the TMDL. Significant growth is not expected in the municipalities in these counties but new stormwater loadings associated with municipal stormwater discharges will be included in the State’s 2015 urban stormwater assessment. This assessment will evaluate the success or failure of the WIP strategy to not increase

delivered loading from Potomac watershed urban stormwater sources beyond 2010NA levels.

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The TMDL Implementation section has been revised, along with the minimum control measures to describe how permittees may demonstrate compliance with TMDL requirements.

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The State of West Virginia, Departmental of Environmental Protection, Division of Water and Waste Management has made a tentative decision for a State NPDES Permit as listed on this Fact Sheet. In order to provide public participation on the proposed issuance of the required permit, the following is being supplied in accordance with Title 47, Series 10, Section 11.3.e.2 and 3 of the West Virginia Legislative Rules.

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing. A request for public hearing shall be made in writing and addressed to:

**Director, Division of Water and Waste Management**  
**Departmental of Environmental Protection**  
**601 57<sup>th</sup> Street SE**  
**Charleston, WV 25304**  
**Attn: Sharon Mullins**  
**Phone: 304.926.0499 ext. 1132**  
**Fax: 304.926.0446**  
**e-mail: Sharon.A.Mullins@wv.gov**

The request shall state the nature of the issues proposed to be raised in the hearing and must be received within the comment period. The Director shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest on issues relevant to the draft permit. Any person may submit written or oral statements and data concerning the draft permit; however, reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. A tape recording or written transcript of the hearing shall be made available to the public upon request,

If information received during the comment period appears to raise substantial new questions, the Director may reopen the public comment period.

All applicable information concerning any permit application and the tentative decisions is on file and may be inspected by appointment, or copies obtained at a nominal cost, at the offices of the Division of Water and Waste Management, 601 57<sup>th</sup> Street SE, Charleston, WV 25304, Monday through Friday (except State holidays) between 8:00 a.m. and 4:00 p.m.

Hearing impaired individuals having access to a Telecommunication Device for the Deaf (TDD) may contact our agency by calling 304.926.0489. Call must be made between 8:00 a.m. and 3:30 p.m. Monday through Friday.

Requests for additional information should be directed to Sharon Mullins at 304.926.0499 ext.1132, Fax: 304.926.0446 or email [Sharon.A.Mullins@wv.gov](mailto:Sharon.A.Mullins@wv.gov)