



**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT
601 57th Street SE
Charleston, WV 25304-2345**

**FACT SHEET, RATIONALE AND INFORMATION FOR
GENERAL NPDES PERMIT FOR CONSTRUCTION STORMWATER**

This fact sheet explains the new Construction Stormwater General Permit WV0115924, issued on December 5, 2012.

1. NAME AND ADDRESS OF APPLICANT

An applicant is any establishment with discharges composed entirely of stormwater associated with industrial activity (construction) agreeing to be regulated under the terms of this General Permit (except as noted herein). Construction activities are defined as land disturbing operations such as clearing, grubbing, grading and excavating operations during site development for residential, commercial or industrial purposes except for operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale. A common plan of development is a contiguous construction project where multiple separate and distinct construction activities may be taking place at different times on different schedules but under one plan, including most subdivisions.

2. GENERAL WV/NPDES PERMIT NO: WV0115924

3. COUNTY: Any WV county **RECEIVING STREAM:** Any WV stream

4. PUBLIC COMMENT PERIOD FROM August 16, 2012 **TO** September 27, 2012

5. SIC CODE: 17

6. DESCRIPTION OF APPLICANT'S FACILITY OR ACTIVITY:

The activities and facilities will be varied.

7. DESCRIPTION OF DISCHARGES:

Earthmoving and grading projects create conditions where accelerated erosion can cause large quantities of soil to be deposited into the streams and rivers of the state. The lack of vegetation, steepening of slopes, increased runoff, decreased infiltration, and other ill effects of construction can cause a 1,000-fold increase in the rate of erosion over pre-existing conditions. The erosion rates on construction sites can run into the hundreds of tons per acre. By volume, sediment is the number one pollutant in the state's waters and degrades more miles of stream than any other pollutant.

8. BACKGROUND

The 1972 Amendments to the federal Water Pollution Control Act (referred to as the Clean Water Act or CWA), prohibit the discharge of any pollutant to navigable waters from a point source to a water of the United States unless the discharge is authorized by an NPDES permit. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage.

However, as pollution control measures were initially developed for these discharges, it became evident that more diffuse sources (occurring over a wide area) of water pollution, such as agricultural and urban runoff, are also major causes of water quality problems. Some so-called diffuse sources of water pollution, such as agricultural stormwater discharges and irrigation return flows, are statutorily exempted from the NPDES program.

Since the enactment of the 1972 amendments to the CWA, considering the rise of economic activity and population, significant progress in controlling water pollution has been made, particularly with regard to industrial process wastewater and municipal sewage.

The "National Water Quality Inventory" 1988 report to Congress provided a general assessment of water quality that concluded pollution from diffuse sources is a serious problem. Runoff from agricultural, urban areas, construction sites, land disposal, and resource extraction is cited by the states as the leading cause of water quality impairment.

The states conducted a more comprehensive study of diffuse pollution sources under the sponsorship of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) and the EPA, which indicated that urban runoff, is a major cause of beneficial use impairment.

This trend has continued almost unabated. Recent studies (Metropolitan Council of Governments, EPA, states, and others) have shown that urban runoff from all sources severely impacts water quality and limits designated uses of the waters of the United States. Studies by the Watershed Assessment Section of the Division of Water and Waste Management have determined that sediment is the number one source of water quality impairment in West Virginia. Sediment moderately to heavily impacts approximately 70% of the state's waterways. One of the largest sources of sediment is construction activities.

The Water Quality Act (WQA) of 1987 contained provisions that specifically addressed stormwater discharges. Section (p) was added to the stormwater discharge provision Section 402. Section 402(p)(4)(A) required the EPA to promulgate final regulations governing stormwater permit application requirements for stormwater discharges associated with industrial activity and discharges from large municipal separate stormwater systems. In response to lawsuits filed by the Natural Resource Defense Council (NRDC), the EPA finally published regulations on November 16, 1990. West Virginia's first stormwater general permit was based on this rule. In early 1992, the EPA published additional information that changed some of the standards, particularly in relation to construction. The state's previous construction stormwater general permits closely mirrored the EPA's permit except the federal permit's higher minimum disturbance threshold was lowered to three acres.

The NRDC again sued the EPA on several issues, one germane to this permit. NRDC contended, among other items, that the five-acre limit for construction site disturbance was arbitrary and capricious and should be rethought. The court agreed, telling the EPA to come up with a new and lower disturbance threshold. In 1999, the EPA published the new rule for Phase II of the Stormwater General Permit in the Federal Register, and among other things, lowered the disturbance threshold to one acre, meeting the intent of the court ruling on NRDC's lawsuit.

In 2009, EPA published a new Construction and Development Effluent Limitations Guidelines rule (C&D rule) (40 CFR Part 450) which established numeric and non-numeric effluent limitations for storm water construction discharges. The numeric effluent limitations have been stayed for further study (November 5, 2010), however the non-numeric effluent limitations are in effect and are reflected in revisions for this General Permit.

9. GENERAL

The Division of Water and Waste Management, through its permitting system, is responsible for ensuring that wastewaters are identified, receive adequate treatment and are disposed of in accordance with federal and state regulations. Usually this requires an individual permit based on a thorough review of the facility processes and the constituents of its waste stream. The issuance of an individual permit for any facility is a resource intensive and time consuming process for both the permitting agency and the industry.

All parties recognize the immensity of the problem of issuing individual permits for the large number of anticipated new sites throughout the state; hence, such permitting is currently too resource intensive.

For these reasons, the Division of Water and Waste Management has decided to utilize a general WV/NPDES permit. The Division of Water and Waste Management assumed primacy for the NPDES Program from the EPA in 1982. Under 47CSR10-13.6 of the Legislative Rules, a general permit can be used to regulate either separate storm sewers or a category of point sources other than separate storm sewers if the sources all:

- a. Involve the same or substantially similar types of operations;
- b. Discharge the same types of wastes;

- c. Require the same effluent limitations or operating conditions;
- d. Require the same or similar monitoring; and
- e. In the opinion of the Director, are more appropriately controlled under a general permit than under individual permits.

About 424 construction sites per year have been permitted over the last 20 years. The general permit process has proven to be a very efficient mechanism to cover construction-related activities. It is proposed to continue the use of a general permit for these facilities.

11. SUMMARY OF SIGNIFICANT CHANGES TO THE GENERAL PERMIT

The draft general permit includes a number of new or modified requirements, many of which are related to the implementation of the new Effluent Limitations Guidelines rule (40 CFR Part 450), and thus differ from the 2007 General Permit. The following list summarizes the changes to the General Permit:

1. **Eligibility for Emergency-Related Construction-** Division of Water and Waste Management provides immediate authorization for construction activities required for response to public emergencies (e.g., natural disaster such as a tornado or hurricane, widespread disruption in essential public services). Immediate authorization will enable work that is necessary to avoid imminent endangerment to human health or the environment, or to reestablish essential public services, to proceed without administrative delay. The construction operator must submit an NOI and develop a stormwater pollution prevention plan within 30 calendar days after commencing earth-disturbing activities, whereas typically operators must submit NOIs 15 days or SRAs 60 days prior to commencing earth-disturbing activities. The draft general permit also provides for suspension of inspection requirements in areas that are considered unsafe for inspection personnel.
2. **Eligibility for use of Treatment Chemicals-** Division of Water and Waste Management EPA authorizes the use of polymers, flocculants, or other treatment chemicals at sites provided operators using treatment chemicals comply with the requirements of the General Permit. The use of cationic treatment chemicals is not eligible for permit coverage.
3. **Historic Properties Requirements-** Construction operators are required to follow the procedures for determining eligibility related to the consideration of impacts to historic properties.
4. **When to Apply-** Division of Water and Waste Management has increased the application deadlines in this draft General Permit. The application for construction activities requiring coverage must be submitted at least 60 days prior to starting the project, except as follows. Projects that discharge to Tier 3 waters, or with 100 or greater acres of disturbance, or with an initial grading construction phase of one year or greater, must be submitted at least 100 days prior to start of construction in order to allow time for the public notice procedure. Minor construction projects (less than

three acres) not discharging upstream of Tier 3 waters must only submit the NOI form 15 days prior to initiation of construction. Minor construction projects discharging upstream of Tier 3 waters must submit the NOI form and SWPPP at least 60 days prior to start of construction. A project that disturbs one to less than three acres but will have construction activities one year or longer must file a Site Registration Application Form. Time frames have been expanded from the previous General Permit to allow for additional review and processing time required to determine compliance with Antidegradation Rules and approved Total Maximum Daily Loads (TMDL). Division of Water and Waste Management is hoping to maximize the use of its electronic permitting process by requiring that applicants seek coverage using the electronic permitting process. A paper application will be allowed in cases where filling an electronic application is not feasible.

5. **Sediment and Erosion Control-** The draft general permit includes specific requirements that implement the C&D rule's sediment and erosion control limits. While some of these requirements are already included in the 2007 General Permit, the draft General Permit includes more detail and additional requirements in order to more closely track the language and organization of the C&D rule. The following is a list of requirements that can be considered significant modifications to the 2007 General Permit:
 - a. **Buffer Compliance Alternatives-** To implement the C&D rule requirement to provide and maintain natural buffers around surface waters, unless infeasible, sites must ensure that any discharges flowing through the area between the disturbed portions of the property and any surface waters located on or within 50 feet of the property on which the construction activities will occur are treated by an area of undisturbed natural vegetation and/or additional erosion and sediment controls to achieve a reduction in sediment loads equivalent to that achieved by 50 feet of undisturbed natural vegetation. Certain exemptions to this requirement based on feasibility considerations are also provided.
6. **Stabilization Requirements-** The draft General Permit includes a change to the temporary seeding and mulching requirements as required by the C&D rule. Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g., the total time period that construction activity is temporarily halted is less than 14 days) then stabilization measures do not have to be initiated on that portion of the site by the seventh day after construction activities have temporarily ceased.
7. **Water Quality-Based Effluent Limits-** In addition to general requirements that protect water quality in all receiving waters, the draft general permit includes specific requirements that apply to sites discharging to waters impaired for common pollutants associated with construction activities, such as total iron and to sites discharging to high quality waters. For such sites, construction activities are subject to additional

requirements. The permit also includes additional requirements for waters identified as Tier 3 for antidegradation purposes.

8. **Notice of Termination-** Division of Water and Waste Management includes additional requirements that affect when a site may terminate coverage under the CGP. For instance, beyond enabling sites to terminate coverage when earth-disturbing activities have stopped and the site is stabilized, the permit requires the removal of all temporary stormwater controls and construction materials, waste, and waste handling devices. A final inspection must be conducted by the Division of Water and Waste Management to verify the requirements of the Notice of Termination before the registration is terminated.

10. COVERAGE UNDER THE GENERAL PERMIT

The general permit proposes to provide coverage for any discharges composed entirely of stormwater associated with industrial (construction) activity and agreeing to be regulated under the terms of the general permit except for:

1. Operations that result in the disturbance of less than one acre of total land area, which is not part of a larger common plan of development or sale.
2. Stormwater discharges associated with land disturbing activities that may reasonably be expected to be causing or contributing to a violation of a water quality standard as determined by the Director.
3. Land disturbing activities governed by other NPDES permits issued by the Department of Environmental Protection. This includes Division of Mining and Reclamation permits for coal mining and non-metallic quarries.
4. Landfills, except in the preparation of a new landfill, landfill treatment facilities and/or borrow areas.
5. Other activities exempt from NPDES permitting requirements as set forth in 40CFR122.3 and 47CSR10.3.2.b.
6. Land disturbing activities related to oil and gas activities as required by the Energy Policy Act of 2005. These activities include construction of drilling sites, waste management pits, and access roads, as well as construction of the transportation and treatment infrastructure, such as pipelines, natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations. Construction activities that result in a discharge of a reportable quantity release or that contribute pollutants (other than non-contaminated sediments) to a violation of a water quality standard are still subject to permit coverage under WV0115924 or an individual NPDES permit.

Determination of the disturbed area is made by totaling all disturbed area directly related to construction of the entire project. Offsite waste (excluding sales of topsoil to individuals) and borrow sites are included in the total disturbance unless borrow sites are commercial quarries and regulated by the Division of Mining and Reclamation.

For subdivisions, the total disturbed area is calculated by adding up all disturbances related to the installation of utilities, construction of sediment control facilities, building of roads and other infrastructure. Phased projects that disturb less than one acre in each phase but will eventually disturb more than one acre with all phases will need to register under this permit.

Construction of single family residences by the homeowner or homeowner's contractor requiring land disturbances less than three acres in size are provided coverage under the General WV/NPDES Water Pollution Control Permit and do not require application for registration. The NPDES General Permit regulations at 40 CFR 122.28(b) (2) require that a Notice of Intent (NOI) be submitted to obtain coverage under a general permit for which the discharge is eligible. However, those regulations at 40 CFR 122.28(b) (2) (v) also provide that at the discretion of the Director, certain discharges can be authorized under a general permit without submitting an NOI where the Director finds that an NOI would be inappropriate for such discharges. In this general permit, the DEP is not requiring submission of an NOI for single family home construction with land disturbance less than 3 acres in size, when the construction is done by the homeowner or contracted by the homeowner.

This consideration is based on the following finding. In West Virginia, residential subdivision construction by the original developer often consists only of the installation of roads and other infrastructure. This activity requires coverage under the General Permit if the 1 acre threshold is exceeded and requires submittal of an SRA form or NOI as appropriate. The lots are platted but undisturbed, and the lot purchasers may construct their home when they choose. Although the disturbance required for home construction is usually less than 1 acre, the construction activity is subject to coverage under the General Permit because it is part of a larger common plan of development. The type and nature of discharge from this construction activity is similar for all sites, consisting of storm water runoff from land grading for the home site and driveway. These discharges are low volume and temporary in nature and are expected to have limited potential for toxic or conventional pollutants. Privately owned housing starts in West Virginia have ranged between about 50 -200 units for the last 2 years (U.S. Department of Commerce, Census Bureau). The majority of these discharges are located within areas previously identified through General Permit coverage by the original developer and discharge into existing storm water systems. The DEP believes there is a logical break between this class of discharges and others requiring registration under the General Permit. In addition, the DEP has developed a generic Storm Water Pollution Plan for single family home construction to provide guidance on measures required to comply with the general permit. The generic plan can be found at the following link: <https://apps.dep.wv.gov/dwwm/stormwater/BMP/index.html>. The generic plan is in Chapter 6 of the Best Management Practices Manual. Since most lot owners are not otherwise involved in commercial or industrial activities, the DEP believes submittal of an NOI is an administrative burden and not necessary for the control of these discharges. As such, the DEP has chosen to focus on SWPPP compliance and implementation versus administrative

compliance. The DEP works closely with the regional home builders associations and the WV Homebuilders Association in regards to this provision. They have been supportive of this provision and have made their members aware of it over the past five years. During training sessions for contractor, consultants, etc. this provision and the generic stormwater pollution plan is discussed. During routine inspections DEP also makes the lot owner aware of the provision and directs them to the Stormwater Teams resources found on the DEP website. In cases where developers are building homes for sale, application for registration is still required.

For minor construction activities (one to less than three acres) a simpler program exists. These minor land disturbing activities are required to submit a Notice of Intent (NOI) form prior to commencing construction. The NOI is a simplified application form. A Stormwater Pollution Prevention Plan (SWPPP) still needs to be developed, kept onsite, and made available for review by DEP personnel. A project that disturbs one to less than three acres but will have construction activities one year or longer must file a Site Registration Application Form.

Sites approved from January 1, 2011 through November 5, 2012, are hereby granted coverage under General WV/NPDES Water Pollution Control Permit WV0115924 and must comply with the terms and conditions of that permit. Sites approved prior to January 1, 2011, will have until June 30, 2013, to have final stabilization completed. Final stabilization means disturbed areas shall be covered by the appropriate permanent protection. Final stabilization includes pavement, buildings, stable waterways (riprap, concrete, grass or pipe), a healthy, vigorous stand of perennial grass that uniformly covers at least 70 percent of the ground, stable outlet channels with velocity dissipation which directs site runoff to a natural watercourse, and any other approved structure or material. If these sites are not stabilized by June 30, 2013, an application to receive permit coverage will be required to be submitted to the Division of Water and Waste Management on or before July 1, 2013. The Division of Water and Waste Management believes that the majority of registrations issued before January 1, 2011, should have all construction activities completed and the site stabilized. These are projects that have not gone to public notice for a grading phase lasting more than a year and should be complete.

11. MONITORING REQUIREMENTS

Monitoring is not required unless requested by the Director. Construction activities are usually of short duration, less than one year, and the pollutant associated with construction is primarily sediment. The measures used to minimize pollution for land disturbing activities are preventative i.e., best management practices (BMPs) and are not subject to effluent limits. Monitoring may be required for projects discharging to waters that have established Total Maximum Daily Loads (TMDL) for stormwater construction activities.

12. WHEN TO APPLY

The application for construction activities requiring coverage must be submitted at least 60 days prior to starting the project, except as follows. Projects that discharge to Tier 3 waters, or with 100 or greater acres of disturbance, or with an initial grading construction phase of one year or greater, must be submitted at least 100 days prior to start of construction in order to allow

time for the public notice procedure. Minor construction projects (less than three acres) not discharging upstream of Tier 3 waters must only submit the NOI form 15 days prior to initiation of construction. Minor construction projects discharging upstream of Tier 3 waters must submit the NOI form and SWPPP at least 60 days prior to start of construction. A project that disturbs one to less than three acres but will have construction activities one year or longer must file a Site Registration Application Form. Time frames have been expanded from the previous General Permit to allow for additional review and processing time required to determine compliance with Antidegradation Rules and approved Total Maximum Daily Loads (TMDL). The General Permit also allows eligibility for earth-disturbances that occur in response to a public emergency (e.g., a natural disaster, widespread disruption in essential public services). If earth-disturbances require immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services, permit coverage for discharges associated with such earth-disturbances are authorized on the condition that a complete and accurate NOI or application and SWPPP is submitted within 30 calendar days after commencing earth-disturbing activities. The applicant must provide documentation in their SWPPP to substantiate the occurrence of a public emergency. Division of Water and Waste Management recognizes that obtaining General Permit coverage following the normal procedures is not feasible in situations requiring emergency-related construction. By providing the operators of these projects with the ability to immediately begin work, and to postpone the NOI or application and SWPPP submission deadlines for 30 calendar days, EPA intends that these projects may proceed without delay. Once the initial 30 calendar days has expired, however, it is the requirement of this permit that an NOI or application and SWPPP be submitted for permit coverage.

13. SECTION-BY-SECTION RATIONALE

Section A. Terms of Permit

This section of the permit establishes discharge limitations. Since construction activities are normally short term, sampling is not required unless requested by the Director.

Section B. Schedule of Compliance

Compliance with this General Permit and the approved Stormwater Pollution Prevention Plan (including the sequence of events) and Groundwater Protection Plan is required upon the beginning of the construction project.

Section C. Management Condition

This section is boilerplate language essentially extracted from Title 47, Series 10 of the West Virginia Legislative Rules. These rules establish that every NPDES permit contains certain standard conditions. A reference to Title 47, Series 11, Section 9 of the West Virginia Legislative Rules was included that requires that outlet markers be posted. Outlet markers would be required only during the time of active permit coverage.

Section D. Operation and Maintenance

This section is boilerplate language essentially extracted from Title 47, Series 10 of the West Virginia Legislative Rules.

Section E. Monitoring and Reporting and Definitions

Unless directed by the Director of the Division of Water and Waste Management monitoring will not be required. Reports will be maintained in accordance with and as required in Section G.4.e.2.C.vi. In addition, new definitions are included which relate to the stormwater permitting program.

Section F. Other Reporting

This section is boilerplate language essentially extracted from Title 47, Series 10 of the West Virginia Legislative Rules.

Section G. Effluent Limitation and Other Requirements

This section encompasses the requirements specific to the stormwater permitting program and those sites subject to regulation under the general permit.

- G.1 This paragraph simply depicts the situations for which the Director may require a facility covered by the permit to be covered by a different permit or when such facility may approach the Director on its own initiative to obtain coverage by a different permit.
- G.2 Prohibition of non-stormwater discharges. Minor revisions are included to reflect requirements of the C&D rule. The purpose of G.2 is to provide permittees with a comprehensive list of the types of discharges that are authorized once covered under this permit. This list makes permittees aware of allowed stormwater discharges, and of any additional requirements associated with those discharges to minimize the discharge of pollutants, and also makes permittees aware that any discharges not included on the list are prohibited from coverage under this General Permit. Division of Water and Waste Management notes that "uncontaminated" means that the discharge meets water quality standards. Similarly, "non-turbid" means the discharge meets turbidity-related water quality standards.
- G.3 This paragraph details that stormwater discharges from a project cannot contain hazardous substances.
- G.4 This section details the requirements of the SWPPPs that must be developed for each facility covered by the general permit.

This general permit establishes minimum standards of practices (best management practices) for specific situations rather than specific effluent limitations for stormwater discharges. This means the quality of the discharges must meet a best management practice

requirement that represents the minimum level of controls. This permit allows the meeting of water quality standards with the proper installation of the minimum standards set forth in the permit and instructions. The application and plans detailing the permittee's schedules and intended best management practices must be submitted for approval in the time frames detailed in Section 12 titled 'When to Apply'. Compliance with the plans detailing the permittee's schedule and intended best management practices must begin immediately as detailed in the SWPPP.

The development and implementation of the SWPPP is one of the most important parts of this permit and is critical to the successful control of stormwater pollution. The SWPPP must be modified as necessary to include additional or modified BMPs designed to correct specific problems identified. These adaptive management requirements are designed to result in permit compliance and prevent stormwater discharges that could cause a violation of state water quality standards. The SWPPP must also be modified whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the state.

All NPDES permittees are required to develop a Groundwater Protection Plan (GPP). For construction sites, the areas of concern will be equipment maintenance yards, including fueling and refueling areas, and product storage facilities. GPPs should address groundwater protection, and maintenance. A generic GPP for construction-related activities has been developed and is available upon request from the Division of Water and Waste Management. The GPP must be developed and kept onsite.

- G.4.b. This section details the timeframe an application must be submitted. This section also includes the requirements for the public notice sign.
- G.4.c. This section details when the SWPPP must be modified.
- G.4.d. This section details general management conditions including preventive maintenance, good housekeeping and spill prevention and response. Probably the most common reason for failure of construction site erosion control devices (BMPs) is inadequate maintenance. If BMPs are properly constructed, but not properly or frequently maintained, very little benefit may be expected. Newly installed devices will perform as initially expected until their capacity is exceeded. Silt fences, for example, should be maintained before the material that accumulates behind them becomes excessive. More importantly, the integrity of the fences needs to be checked frequently. Many silt fences at construction sites are undermined or bypassed because of large flows or large sediment accumulations. Sedimentation basins, sediment traps, etc., need to be cleaned frequently. The cleaning frequency of these devices located in areas undergoing construction should be quite high because of the very large discharges of sediment from construction sites. Rill or gully erosion must be corrected immediately when first observed. During each inspection, the person conducting the inspection should document whether the BMP is performing correctly, any damage to the BMP since the last inspection, and what should be done to repair the BMP if damage has occurred. The housekeeping and spill

prevention and response requirement is intended to prevent the discharge of trash, chemicals and other polluting materials from the site.

- G.4.e. This section details what must be included in the site description section, the erosion and sediment control section, the stormwater management control section and other control section of the SWPPP.

Site description section- Development projects must be phased or sequenced in order to minimize the amount of exposed soil at any one time and prevent the transport of sediment from the site during construction. Construction sequencing can be an effective tool for erosion and sediment control because it ensures that management practices are installed where necessary and when appropriate. A comparison of sediment loss from a typical development and from a comparable phased project showed a 42 percent reduction in sediment export in the phased project (EPA, 2002). As discussed previously, permittees are required to evaluate BMP performance. Based on the results of inspections and monitoring, remedial actions must be implemented, documented and reported in accordance with specific timeframes.

The purpose of stabilizing entrances to construction sites is to minimize the amount of sediment and mud being tracked offsite by motorized vehicles. Installing and maintaining a pad of gravel over filter cloth where construction traffic leaves a site can help stabilize the entrance. As a vehicle drives over the gravel pad, mud and other sediments are loosened and removed from the vehicle's wheels thereby reducing the offsite transport of sediment. The gravel pad also reduces mechanical erosion and prevents the formation of muddy wheel ruts, which can be a source of "track-out". The filter fabric reduces the amount of rutting caused by vehicle tires by spreading the vehicle's weight over a larger soil area than just the tire width. The filter fabric also separates the gravel from the soil below, preventing the gravel from being ground into the soil. Limiting construction site access to one point minimizes the surface area that could be affected by tracked out mud and sediment from construction traffic.

The pre-development and post-development peak discharge rates for a one year, 24-hour storm in cubic feet per second.

This section also details what is required on the site maps.

Controls- The duff layer (A layer of moderately to highly decomposed leaves, needles, fine twigs, and other organic material found between the mineral soil surface and litter layer of forest soil), native topsoil and natural vegetation must be retained in an undisturbed state to the extent practicable. This requirement is partly based on the fundamental principle that vegetation is the most effective form of erosion control. Vegetation reduces runoff volume, reduces flow velocity, filters suspended sediment, absorbs the erosive energy of falling raindrops, and retains soil structure. In areas where soils have been disturbed or exposed during construction activity, timely permanent seeding is appropriate in areas where permanent, long-lived vegetative cover is the most practical or most effective method of stabilizing the soil. Use of native vegetation is also encouraged and any

revegetation should be in compliance with the West Virginia Noxious Weed Act (Code of West Virginia Chapter 19, Article 12). Vegetation controls erosion by protecting bare soil surfaces from displacement by raindrop impacts and by reducing the velocity and quantity of overland flow. The advantages of seeding over other means of establishing plants include lower initial costs and labor inputs. Seeding that produces a successful stand of grass has been shown to remove between 50 and 100 percent of total suspended solids from stormwater runoff, with an average removal of 90 percent (EPA 2002).

Sodding is a permanent erosion control practice that involves laying a continuous cover of grass sod on exposed soils. In addition to stabilizing soils, sodding can reduce the velocity of stormwater runoff. Sodding can provide immediate vegetative cover for critical areas and stabilize areas that cannot be vegetated by seed. It can also stabilize channels or swales that convey concentrated flows and reduce flow velocities. Sod has been shown to remove between 98 and 99 percent of total suspended solids in runoff, and is considered a highly effective best management practice (EPA 2002). Mulching is a temporary erosion control practice in which materials such as hay, wood chips, wood fibers, or straw are placed on exposed or recently planted soil surfaces. Mulching is highly recommended as a stabilization method and is most effective when anchored in place until vegetation is well established. Mulching can also reduce the velocity of stormwater runoff. When used in combination with seeding or planting, mulching can aid plant growth by holding seeds, fertilizers, and topsoil in place, by preventing birds from eating seeds, by retaining soil moisture, and by insulating plant roots against extreme temperatures.

The purpose of the requirement to minimize the disturbance of steep slopes is to minimize the amount of soil eroded on construction sites, and the amount of sediment and other pollutants discharged from the site. Minimizing the disturbance of steep slopes during construction activity can be accomplished through a number of practices. These include practices related to how much soil is exposed on steep slopes, such as phasing land disturbing activities, and providing timely soil stabilization on slopes, such as through the use of mulches, rolled erosion control products, and vegetation. Permittees have flexibility to select appropriate controls to minimize disturbance of steep slopes at their individual sites. Permittees also have flexibility to schedule and phase construction activities so as to limit the amount of land disturbed at one time and the duration of exposure on steep slopes. The permit does not prevent or prohibit disturbance on steep slopes. Division of Water and Waste Management recognizes that for some projects, disturbance on steep slopes may be necessary for construction (e.g., a road cut in mountainous terrain). If a disturbance to steep slopes is required for the project, Division of Water and Waste Management would recognize that it is not practicable to minimize the disturbance of steep slopes. Division of Water and Waste Management notes that the requirement to minimize the disturbance of steep slopes does not apply to the creation of soil stockpiles.

The requirement to preserve topsoil, unless infeasible implements the C&D rule noted in 40 CFR 450.21(a)(7). The requirement to preserve topsoil helps to maintain the soil structure on construction sites and provides a growing medium for vegetative stabilization measures. Better vegetative stabilization reduces erosion rates of the underlying soil and also increases the infiltrative capacity of the soil, thereby reducing the amount of sediment transported to downslope sediment and perimeter controls. Topsoil can be preserved by stockpiling the native topsoil on the site for later use (e.g., for vegetative stabilization), or by limiting disturbance and removal of the topsoil and associated vegetation. For example, topsoil can be preserved by limiting clearing and grading to only those

areas where necessary to accommodate the building footprint. Division of Water and Waste Management notes that some projects may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain. In these cases, Division of Water and Waste Management recognizes that preserving topsoil at the site would not be feasible or desirable. In addition, some sites may not have space to stockpile topsoil on site for later use, in which case, it may also not be feasible to preserve topsoil. Division of Water and Waste Management is aware that stockpiling of topsoil in off-site locations, or transfer of topsoil to other locations, is frequently used in these situations and Division of Water and Waste Management would view this as acceptable practice. However, EPA notes that stormwater discharges from any construction support activities meeting the requirements are subject to the permit requirements.

The purpose of the requirement to minimize soil compaction is to allow for infiltration and retention of stormwater to reduce stormwater discharge volume and velocity. Reducing stormwater discharges reduces erosion and therefore reduces the amount of sediment and other pollutants discharged from the site. To comply with this requirement, permittees may either restrict vehicle and equipment use on areas that will be vegetatively stabilized or where infiltration practices will be installed, or can use soil conditioning techniques to decompact soils to support vegetative growth. Division of Water and Waste Management notes that the requirement to use soil conditioning techniques is not required in any area where it would not be feasible, such as on steep slope areas or any other areas where it is not safe for the required equipment. Division of Water and Waste Management also notes that the requirement to minimize soil compaction does not apply to areas that will not be used for final vegetative stabilization or for areas where infiltration practices will be installed. For example, the requirements do not apply to disturbed areas that will become paved surfaces, such as roads, foundations, footings, or on embankments, or on areas where soil compaction is necessary by design.

If a project's earth disturbances are located within 50 feet of a surface water (defined as a "water of the state", surface waters do not include stormwater control features), the permittee is required to ensure that any discharges to surface waters through the area between the disturbed portions of the property and any surface waters located within 50-feet of the site are treated by an area of undisturbed natural buffer and/or additional erosion and sediment controls in order to achieve a reduction in sediment load equivalent to that achieved by a 50-foot natural buffer. The requirements implements the C&D rule's requirement to minimize the discharge of pollutants from the site by providing and maintaining "natural buffers around surface waters... unless infeasible." See 40 CFR 450.21(a)(6). This requirement applies to all project sites that are situated within 50 feet of a surface water, with certain exceptions. Note that the requirements do not apply to stormwater control features (e.g., stormwater conveyance channels, sediment basins).

Sediment control systems create conditions that allow for the settlement of soil particles that are suspended in stormwater runoff. Sediment containment systems (sediment traps and sediment basins) are hydraulic controls that function by modifying the storm-runoff hydrograph and slowing water velocities. This allows for the settling and deposition of suspended particles by gravity.

Sediment traps are appropriate where the contributing drainage area is five acres or less.

Sediment basins are often used on construction sites to minimize sediment discharges. They are typically placed at or near low points of drainageways on in order to temporarily detain

stormwater discharges, allowing sediment particulates to settle. Sediment basins are also often designed to reduce peak flow rates, reducing downstream flooding and channel erosion. At the point of discharge, which is typically a pipe or channel, installation of riprap or other stabilization measures is often necessary because the concentrated discharge can cause erosion. Sediment basins are also often designed to reduce flow duration impacts by reducing the total volume of stormwater being discharged or by providing extended detention to reduce discharge rates. The purpose of the requirements in this part is to provide specific design and maintenance requirements for the proper implementation of sediment basins, if used on a site. Sediment basins are generally larger and more effective in retaining sediment than temporary sediment traps and typically remain active throughout the construction period. A sediment basin must be used where the contributing drainage area is greater than five acres. Sediment basins must control the discharge in order to dewater the wet storage volume between 48 and 72 hours. This requirement may be waived at the discretion of the DEP when skimmer dewatering devices are used. In addition, the safety of embankment structures requires the outlets to safely pass the peak discharge from 25-year 24-hour storm.

The permit requires sediment traps and sediment basins to be sized for 3,600 cubic feet per acre of watershed draining to that structure, half of which is dry storage and half of which is wet storage. The permit now requires that dewatering structures must withdraw from the surface, unless infeasible, as required by the Effluent Guidelines Rule. The permit also states that, barring impossible site conditions, all projects will utilize, to the extent practicable, sediment traps or sediment basins and diversions.

The use of treatment chemicals may be used only in accordance with good engineering practices and specifications for use by the chemical provider/supplier. The use of cationic treatment chemicals is prohibited.

The SWPPP should address the steepness of cut-and-fill slopes and how the slopes will be protected from runoff, stabilized and maintained. Berms, diversions, and other stormwater practices that require excavation and filling should also be incorporated into the grading plan.

Rock outlet structures placed at the outfall of channels or culverts reduce the velocity of flow in the receiving channel to non-erosive rates. This practice applies where discharge velocities and energies at the outlets of culverts are sufficient to erode the next downstream reach and is applicable to outlets of all types such as sediment traps, sediment basins and culverts.

Sediment-laden water is not allowed to leave a site without going through an appropriate device.

Hay and straw bales are not acceptable BMPs. It has been the experience of this agency that hay or straw bales have a high rate of functional failure and that there are numerous other BMPs that are as easy to install and exceed the performance of hay or straw bales.

Antidegradation review is addressed in the General Permit for Construction Stormwater. The legislature, in codifying the Antidegradation Policy, eliminated general permit registrations from antidegradation review except in Tier 3 waters. However, general permits must go through antidegradation review during the issuance/reissuance process. Construction projects by their

nature are normally short term and transient. Anticipating the scope and location of construction projects is difficult. While local, short term sediment impacts can be extreme; in general, sediment impacts are temporary.

A. To meet antidegradation requirements for the waters of the state, the following guidelines must be followed on all projects.

1. Sediment basins

Sediment basins/traps must be installed with 3,600 cubic feet of storage measured from the bottom elevation of the structure to the top of the riser or weir, per acre of drainage and will have draw down times of 48 to 72 hours. Half of the pond will be in wet storage and half in dry storage. Dewatering devices that skim the discharge from the top several inches are required.

B. Large long-term projects

Projects where the initial grading construction phase lasts for more than one year or disturbs 100 acres or more must submit an application for coverage 120 days prior to construction. These projects will be subject to the public notice requirements as outlined in 47CSR10 prior to receiving coverage under this permit.

C. Projects that discharge to or upstream of Tier 3 waters.

1. Public notice

All applications for construction projects that will discharge to a Tier 3 stream must submit the application 120 days prior to construction. Public comments will be used in the decisions leading to issuing the approval or denial for coverage under the general permit.

2. Presumptive Conditions

Construction activities discharging to Tier 3 waters will go through the Tier 3 antidegradation review process.

No degradation will be allowed on Tier 3 waters except for temporary, short term activities (one year or less).

Stormwater management plan section- A description of measures that will be installed during construction to control pollutants in stormwater discharges after the project is completed must be included in the SWPP. The completed project must convey stormwater runoff in a manner that will protect both the site and the receiving stream from post construction erosion and sedimentation. All waterways and other runoff conveyance structures must be permanently stabilized as appropriate for expected flows. Velocity

dissipation devices must be placed at the outlet of all detention or retention structures and along the length of any outlet channel as necessary to provide a non-erosive velocity flow from the structure to a natural water course.

Projects located in areas that have local government requirements and/or criteria for post construction stormwater management are subject to meeting those requirements and/or criteria.

Permanent stormwater control structures that will impound water shall be designed and certified by a registered professional engineer.

Other control section- This section requires the solid waste be disposed of properly. Provisions must be made to control dust. This section also details maintenance, inspection, training and record keeping requirements. The requirement to restrict vehicle use to properly designated exit points, the requirement for appropriate stabilization techniques at all points that exit onto paved roads and the requirement that all public and private roads adjacent to a construction entrance must be inspected and cleaned of debris originating from the construction site implement the C&D rule requirement to "minimize sediment discharges from the site." In order to avoid pollutants from being discharged into surface waters, the permittee must minimize the generation of dust through the application of water or other dust suppression techniques. The purpose of the requirement to minimize the generation of dust on the site is to minimize the discharge of sediment in stormwater. Dust suppression techniques prevent dust from being generated, minimizing the potential for the dust to accumulate where it is likely to discharge from the site in stormwater discharges.

Compliance with other state laws and statutes- This section advises the permit that nothing in this general permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations. For those projects that may impact historic preservation sites, the permittee should coordinate the project with the State Historic Preservation Officer.

G.5. Discharges to Impaired Waters

This permit does not authorize new sources or new discharges of constituents of concern to impaired waters unless consistent with the approved total maximum daily load (TMDL) and applicable state law. Impaired waters are those that do not meet applicable water quality standards and are listed on the Clean Water Act Section 303(d) list. Pollutants of concern are those constituents for which the water body is listed as impaired. Discharges of pollutants of concern to impaired waterbodies for which there is an approved TMDL are not eligible for coverage under this permit unless they are consistent with the approved TMDL. A TMDL is a plan of action used to clean up streams that are not meeting water quality standards. The plan includes pollution source identification and strategy development for contaminant source reduction or elimination. Within six months of the TMDL approval, permittees must incorporate any limitations, conditions or requirements applicable to their discharges necessary for compliance with the TMDL, including any

monitoring or reporting required by the Division of Water and Waste Management rules, into their SWPPP in order to be eligible for coverage under this general permit. General Permit Registrations that discharge where TMDL's have established acreage limits for stormwater construction activities will be issued for one (1) year. Pursuant to 40 CFR 122.44(d)(1)(vii)(B), effluent limits must be "consistent with the assumptions and requirements of any available wasteload allocation for the discharge...." In addition, the federal regulations generally prohibit issuance of a permit to a new discharger "if the discharge from its construction or operation will cause or contribute to the violation of water quality standards." A discharge permit for a new discharger could be issued under the following scenarios:

- A new facility could be permitted anywhere in the watershed, provided that effluent limitations are based on the achievement of water quality standards at end-of-pipe for the pollutants of concern in the TMDL.
- NPDES permitting rules mandate effluent limitations for metals to be prescribed in the total recoverable form. West Virginia water quality criteria for iron are in total recoverable form and may be directly implemented.
- Subwatershed-specific future growth allowances have been provided for site registrations under the Construction Stormwater General Permit in most TMDLs. In general, the successful TMDL allocation provides 1.5 or 2.5 percent of modeled subwatershed area to be registered under the general permit at any point in time. Furthermore, the iron allocation spreadsheet provides a cumulative area allowance for the immediate subwatershed and all upstream contributing subwatersheds. Projects in excess of the acreage provided for the immediate subwatershed may also be registered under the General Permit, provided that the total registered disturbed area in the immediate subwatershed and all upstream subwatersheds is less than the cumulative area provided. Furthermore, larger projects may be permitted in phases that adhere to the area allowances or by implementing controls beyond those afforded by the General Permit. Larger areas may be permitted if it can be demonstrated that more stringent controls will result in a loading condition commensurate with that afforded by the management practices associated with the General Permit.

Effluent limitations and monitoring consistent with the approved TMDL will be required for projects that are under construction for more than 1 year or if acreage limits have already been reached.

Chesapeake Bay TMDL Watershed Implementation Plan II

Construction Stormwater- The wasteload allocations for this subcategory of sources are based upon the total concurrently disturbed area registered under the General Permit and are prescribed at the county scale. Implementation is intended to be accomplished by maintaining total registered disturbed areas equal to or less than the area provided for each county. This may be accomplished by requiring phasing of the total disturbed area in the approved SWPPP. This mechanism is consistent with the approach used in local TMDLs, where construction activities

in parts of the Chesapeake Bay Watershed have restrictions applicable to the amount of concurrently registered area.

Urban Stormwater- The West Virginia Phase II WIP does not prescribe pollutant reductions from existing urban stormwater sources. CBWM WIP scenarios establish 2010 No Action loading as the 2017 and 2025 targets for the pervious and impervious urban model land uses (RIP, RPD, NID, NPD, CID and CPD). In aggregate, the existing nutrient loadings from those land uses are less than target loads due to BMPs that have been reported. West Virginia recognizes that new development will occur, the area of the urban land uses will increase in the future and increased loads from new development must be accommodated while maintaining established nutrient caps. West Virginia will require post construction controls under the MS4 permitting program in regulated areas and will encourage voluntary measures in non-regulated areas. All verified BMPs will be tracked and reported. Data from WVDEP's construction stormwater permitting program indicates that virtually no development in Berkeley or Jefferson County is occurring on forested lands. In Berkeley County, 75% of new construction is occurring on pasture, 15% on crop land and 10% on low intensity urban land. In Jefferson County, 70% of new construction is occurring on pasture, 20% on low intensity urban land, and 10% on crop land. Because the pre-development land uses already contribute non-negligible loads, it is reasonable to assume that the implementation of the one inch capture performance standard will, over time, reduce baseline conditions in MS4 areas of responsibility. The relatively higher delivery factors and development rates in those areas will further counter growth in non-regulated areas. WVDEP believes that the MS4 requirements coupled with other BMPs implemented in non-regulated areas and pre-development land use accounting will be sufficient to attain no net increase in 2010NA delivered nitrogen and phosphorus loads from urban stormwater sources. In the process of reviewing registrations under the Construction Stormwater General Permit, the Construction Stormwater staff will track location, developed area and pre- and post-construction land use in the Chesapeake Bay Watershed. Any qualified BMPs for post-construction control that are identified in the Construction Stormwater General Permitting process will also be tracked. The compliance assistance person, in conjunction with the WVDEP's Potomac Basin Coordinator, will communicate with local government entities that are not currently regulated MS4s but nonetheless implement post-construction regulations to capture BMP information that may have been missed in the Construction Stormwater General Permit registration process. Once verified, these BMPs will be reported to the Chesapeake Bay Program through the National Environmental Information Exchange Network (NEIEN). West Virginia will perform a comprehensive assessment of new growth and nutrient loadings from the urban stormwater sector in 2015. The assessment will be based on information obtained under Construction Stormwater and MS4 permitting programs. The programs are implemented across the Chesapeake Bay watershed. All new activity under the programs occurring after January 1, 2011 will be tracked. If the assessment indicates that the urban stormwater sector goals will not be attained then West Virginia will implement these contingencies by 2017:

- If the incorporated areas of Charles Town, Ranson and Shepherdstown in Jefferson County do not qualify as MS4s after the most current census data is released, WVDEP will pursue residual designation authority for those areas.

- WVDEP will encourage the WV Legislature to enact statewide stormwater management regulations that address post-construction impacts outside of MS4 areas. This would ensure a level playing field for all new development across the watershed and help to prevent sprawl in areas where there are no stormwater management regulations. If EPA's nationwide stormwater management regulations are not finalized, the WVDEP will pursue a statewide program. WVDEP will evaluate provisions needed to attain "no net increase" goals and propose an appropriate program to the 2017 West Virginia Legislature.
- WVDEP will require the necessary level of retrofits in Chesapeake Bay Watershed MS4s it determines are necessary to attain wasteload allocations. These retrofits will meet the capture requirement of 0.80 inches of rainfall on site with no discharge to surface waters. Pursuant to Part III.D.1 and D.2 of the existing permit, permittees are required to achieve wasteload allocations of any applicable TMDLs. Upon demonstration of noncompliance, WVDEP will require SWMP modification to include retrofits. No modification to the MS4 general permit is necessary to implement this contingency.
- As a final contingency, and if statewide post-construction stormwater management requirements are not realized, the WVDEP will pursue expansion of the General Permit for Construction Stormwater to require post-construction controls as necessary to comply with the Chesapeake Bay TMDL. Pursuant to Section G.5 of the Construction Stormwater General Permit, this contingency may be implemented without permit modification. Alternatively, new construction activities may be regulated under an individual permit. Finally, the Construction Stormwater General Permit is scheduled for reissuance in 2017 and the WVDEP will be able to include more specific requirements that it determines are necessary.

Sites that discharge into a receiving water which has been listed on the Clean Water Act 303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the water body is impaired, must document in the SWPPP how the BMPs will control the discharge of the pollutant(s) of concern.

G.6. Endangered and Threatened Species and State Historic Preservation Officer.

If a site discharges to a stream where a federally endangered or threatened species or its habitat is present, the applicant must contact the U.S. Fish and Wildlife Service to ensure that requirements of the federal Endangered Species Act are met.

In addition, the Division of Water and Waste Management will include in the application instructions a list of streams in West Virginia with possible presence of endangered or threatened species, to assist applicants in determining when that issue needs to be considered. This list can be found at the following link:

<http://www.dep.wv.gov/WWE/Programs/stormwater/csw/Pages/cswdocs.aspx>

For those projects that may impact historic preservation sites, the permittee shall coordinate the project with the State Historic Preservation Officer.

- H. This paragraph serves as a reopener mechanism to go back to a permittee covered under the general permit and places any necessary additional requirements upon the site as necessary, due to potential or realized water quality impacts by the site stormwater discharges.

- J. This section provides for the Notice of Termination (NOT) and explains final stabilization. This section reminds the permittee that until permit coverage is terminated, the permittee is required to comply with all conditions and effluent limitations in the permit. Permit coverage is not terminated until Division of Water and Waste Management has received a complete and accurate NOT, certifying that the requirements for termination are met and Division of Water and Waste Management has conducted a final inspection verifying the NOT.

The State of West Virginia, Department 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 information 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. Comment shall be made in writing and addressed to:

Director, Division of Water and Waste Management, DEP
601 57th Street SE
Charleston, WV 25304-2345
Attention: Alice Cantley
E-mail: Alice.E.Cantley@wv.gov

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 oral or written 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.

A public hearing for this general permit will be held September 17, 2012, starting at 6 p.m. at the DEP Headquarters Coopers Rock Training Room at 601 57th Street, Charleston, WV 25304.

If information received during the public 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 57th Street SE, Charleston, West Virginia 25304, Monday through Friday (except State holidays) between 8:00 a.m. to 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. Calls must be made between 8 a.m. to 3:30 p.m. Monday through Friday.

Requests for additional information should be directed to Alice Cantley at (304) 926-0499, Extension 1103 or Alice.E.Cantley@wv.gov.