pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Clean Water

Chapter 102 Off-Site Discharges of Stormwater to Non-Surface Waters

Frequently Asked Questions (FAQ)
January 2, 2019

Background

Both construction and post-construction stormwater runoff is to be managed through project layout design and best management practices (BMPs) to protect, maintain, reclaim and restore water quality and the existing and designated uses of waters of this Commonwealth. Some sites, after consideration of possible project design and BMP options, do not have direct access to surface waters to discharge stormwater runoff. Applicants for permitting under 25 Pa. Code Chapter 102 may propose off-site discharges of stormwater to areas that are not surface waters. In these cases, the applicant must have the legal authority to discharge stormwater onto off-site areas. The applicant must provide documentation that the discharge will not cause accelerated erosion on the properties along the flow path to a surface water. This documentation is required with the permit application showing that the applicant has avoided, minimized or mitigated accelerated erosion and stormwater impacts to the receiving surface water(s).

Additionally, Pennsylvania's Stormwater Management Act (Act 167) requires persons engaged in the development of land to take certain measures regarding stormwater management in order to prevent injury to health, safety, or other property. A person submitting a permit application under Chapter 102 should ensure that they are in compliance with Act 167 in this regard.

Nothing in this document affects regulatory requirements. The interpretations herein are not an adjudication or a regulation. There is no intent on the part of the Department of Environmental Protection (DEP) to give the interpretations in this document that weight or deference. This document provides a framework within which DEP and the delegated county conservation districts (CCDs) will exercise administrative discretion in the future. DEP reserves the discretion to deviate from the interpretations in this document if circumstances warrant.

FAQ #1: What are Surface Waters?

Surface waters are defined under 25 Pa. Code § 102.1 as "Perennial or intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps, and estuaries, excluding water facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds, and constructed wetlands used as part of a wastewater treatment process."

NOTE 1.A – A post-construction stormwater management (PCSM) or stormwater management BMP is not considered a surface water, including constructed wetlands to treat or manage stormwater runoff.

NOTE 1.B – Existing and proposed ditches, swales, and channels are not considered surface waters, although such features are considered waters of the Commonwealth under Pennsylvania's Clean Streams Law.

FAQ #2: What is a permittee legally responsible for with respect to off-site discharges?

Persons proposing to discharge must have the legal authority to discharge their stormwater either through a common law easement or an express easement. For sites that discharge to existing swales, ditches, storm sewers or similar structures where the new activities will not result in a change in volume or rate of stormwater runoff (for all storm events), the existing common law easement could be relied upon. An express easement will likely be necessary when there will be a change in volume or rate of stormwater (for all storm events). If an express easement is necessary, the easement should be in place before any new or increased stormwater discharges commence.

For the purposes of obtaining an individual permit or coverage under a general permit authorization, the applicant need not provide or identify their legal right to discharge stormwater. However, the individual permit or coverage under a general permit authorization does not convey property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property not an invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

FAQ #3: What must be included with a permit application?

No matter what type of easement the applicant obtains for off-site discharges of stormwater, for point source discharges, the applicant must also evaluate the affect construction and post-construction stormwater discharges may have on accelerated erosion to down slope or adjacent properties, regardless of whether there are increases in the volume or peak rate of stormwater discharges from a project site. Applicants should use guidance from the *Erosion and Sediment Pollution Control Program Manual* (DEP Document No. 363-2134-008) and the *Pennsylvania Stormwater Best Management Practices Manual* (DEP Document No. 363-0300-002) when developing the following information with their permit applications:

- On the Erosion and Sediment Control (E&S) and the PCSM Plan drawings, identify all properties and property owners that will or may receive off-site stormwater discharges from the project site until discharges reach surface waters.

- On the E&S and PCSM Plan drawings, identify the flow path from discharge point to the confluence with a surface water. In addition, identify the soil types, erodibility factors and vegetative cover of the flow path.

- In the written narrative portion of the E&S and PCSM Plans, provide an analysis that demonstrates that the proposed volume and peak rate of stormwater discharging to the flow

path will avoid, minimize, or mitigate accelerated erosion or sedimentation for storm events up to and including the 10-year/24-hour storm. The calculations should be consistent with the Erosion and Sediment Pollution Control Program Manual and the Pennsylvania Stormwater Best Management Practices Manual.

NOTE 3.A – If there is an increase in stormwater runoff volume or rate, DEP may require a scour analysis to be performed upon the receiving surface water.

FAQ #4: Since the design of the PCSM Plan manages the net change in stormwater rate, volume and water quality, do I still have to perform an off-site discharge analysis?

For any off-site discharge to a non-surface water, any point source discharge (including discharges from a basin, BMP, channel, storm sewer, etc.) will require an off-site discharge analysis, regardless if the stormwater is being managed to meet 25 Pa. Code §§ 102.8(g)(2) & (3) for rate, volume and water quality.

EXAMPLE 4.A – A site has been designed to manage the post-construction stormwater runoff such that there is no increase in the runoff volume from the 2-yr/24-hr storm event and there is no increase in the peak rate from the 2-, 10-, 50-, and 100-yr/24-hr storm events. The stormwater is being managed by an infiltration basin, which discharges near the property line to an area that is not a surface water. The stormwater will flow off-site before reaching the receiving surface water. Because of the point source discharge created by the basin, an off-site discharge analysis is required.

FAQ #5: If the PCSM Plan reduces the post-construction stormwater runoff rate to the pre-construction rate, is that a sufficient demonstration for preventing accelerated erosion?

A demonstration of meeting pre-construction runoff rates would not be sufficient where post-construction runoff is concentrated in comparison to pre-construction conditions.

EXAMPLE 5.A – The pre-development flow rate is 10 cfs, spread across an area that is 100-ft. wide in a shallow concentrated flow condition. The post-construction flow rate from the PCSM BMP's outlet is 8 cfs (for a reduction to the flow rate). However, the post-construction flow width will be narrowed down to an area that is only 15-ft. wide, producing a more concentrated flow condition. The off-site discharge analysis should evaluate the 15-ft. wide flow area to ensure that it is a stable flow path.

NOTE 5.A – When the off-site flow path is within an underground storm sewer system, a demonstration of preventing accelerated erosion is not required to be provided.

FAQ #6: How far does the off-site discharge flow path have to be analyzed from the site?

The flow path should be identified and analyzed from point source (i.e., BMP outlet, channel, storm sewer, etc.) until the confluence with the receiving surface water.

If stormwater discharges will enter a municipal separate storm sewer system (MS4) or a combined sewer system with combined sewer overflows (CSOs), and there will be an increase in runoff

volume or peak rate, the applicant must provide written consent from the MS4 or CSO permittee before a permit under Chapter 102 can be issued or general permit coverage authorized. This is applicable until the runoff reaches the receiving surface water.

FAQ #7: Is the expectation for an applicant to survey the flow path for contours and property boundary information?

At a minimum, the applicant needs to provide the information identified in FAQ #3. In order to obtain the property owner and boundary information, the data available from a County's GIS database should be sufficient. Contour and topographic information obtained from a LiDAR database may be sufficient.

DEP does not expect an applicant to perform a field survey to obtain this information, unless the information does not otherwise exist in a suitable form or level of detail.

> ***NOTE 7.A*** – Contour and topographic information from a USGS Topographic Map is not sufficient for the off-site discharge analysis because these maps do not contain the level of detail required to properly identify and evaluate the flow path.
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> ***NOTE 7.B*** – When the off-site flow path is within an underground storm sewer system, contour and topographic and soils information are not required to be provided.

FAQ #8: Does an applicant have to submit proof of obtaining an express easement or proof of using a common law easement with the application?

No, providing proof of the legal authority to discharge stormwater from a project site/property is not a requirement under 25 Pa. Code § 102 to obtaining a permit/permit coverage.

> ***NOTE 8.A*** – Permit authorizations or individual permits issued under 25 Pa. Code § 102 do not convey property rights. Permits under Chapter 102 grant the permittee the permission to discharge stormwater from their project site to surface waters, but not the right to affect off-site property.

FAQ #9: What if stormwater runoff from my project flows through another BMP or stormwater management facility, not located within my Project Site, before discharging to a surface water?

When an applicant's post-construction stormwater runoff will or may pass through an existing PCSM BMP or other stormwater management facility, the applicant must evaluate how any increases in their post-construction stormwater runoff may affect the function of that existing PCSM BMP or other stormwater management facility.

> ***EXAMPLE 9.A*** – A PCSM Plan is designed such that the post-construction stormwater runoff volume for the 2-yr/24-hour storm event is reduced to the pre-construction runoff volume and the post-construction stormwater runoff peak rates are reduced to pre-construction peak rates for the 2-, 10-, 50- and 100-year/24-hour storm events. The PCSM

Plan proposes to utilize an infiltration basin to accomplish the volume and rate reductions. The proposed infiltration basin will discharge at the edge of the property, via a common law easement, to an area that is not a surface water. The off-site discharge flow path travels 1,000-lf across the neighbor's property, and then enters an existing detention basin, which discharges to a perennial stream. For this example, the applicant must evaluate how the increase in post-construction stormwater runoff volume for the 10-, 50-, and 100-year/24-hour storm events would affect the discharge rate from the existing detention basin (i.e., that the increase in runoff volume from the project site does not increase the discharge peak rate from the existing detention basin).

FAQ #10: May I rely upon an off-site stormwater management facility to manage the stormwater runoff from my project site?

Yes. An existing off-site stormwater management facility or a proposed PCSM BMP located off property may be utilized to manage the post-construction stormwater runoff before reaching the receiving surface water.

The use of any stormwater facility or PCSM BMP will still require that the long-term operation and maintenance schedule be provided as part of the PCSM Plan (25 Pa. Code § 102.8(f)(10)) and that an instrument be recorded (25 Pa. Code § 102.8(m)(2)).

NOTE 10.A – The proof of recording the instrument or proof of the ability to record the instrument is not required for authorization of coverage under a General Permit or the issuance of an Individual Permit.

FAQ #11: The regulations do not specifically identify that information related to the off-site discharge analysis be included in the E&S and PCSM Plans; what is DEP's regulatory authority to require this information?

DEP has identified the information described in FAQ #3 as being necessary to evaluate the potential for accelerated erosion along the off-site discharge flow path and to evaluate the stormwater discharge to the receiving surface water, both of which are used to demonstrate the maintenance and protection of water quality and existing and designated uses. DEP requires this information under the authority of the Pennsylvania Clean Streams Law and 25 Pa. Code §§ 102.4(c) & 102.8(f)(15).

FAQ #12: Can a basin or channel discharge to an off-site area that has no existing channel or other means of concentrated conveyance?

Yes, a basin or channel can discharge to an off-site area that has no existing channel or other means of concentrated conveyance. However, the discharge and flow path must be analyzed to ensure that accelerated erosion will not occur. Several options are available to address this condition; such as constructing a level spreader or obtaining an expressed easement off-site to construct a stable flow path.