



Fact Sheet

Commonwealth of Pennsylvania • Department of Environmental Protection

OFF-SITE DISCHARGES OF STORMWATER TO AREAS THAT ARE NOT SURFACE WATERS

Both construction and post construction stormwater runoff is to be managed through project layout design and best management practices (BMPs) to replicate the volume, rate and quality of predevelopment conditions. 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 National Pollutant Discharge Elimination System (NPDES) Permits for stormwater discharges associated with construction activities may propose off-site discharges of stormwater to areas that are not surface waters. In these cases the applicant must have the authority, legal or otherwise, to discharge stormwater onto off-site areas. In addition, the applicant must provide documentation that the discharge will not cause accelerated erosion or stormwater damage on the adjacent properties. This documentation is required with the permit application showing that the applicant has avoided, minimized or mitigated accelerated erosion and stormwater impacts.

Off-Site Discharge Analysis for Developers

Responses to the following items will assist the applicant in evaluating the legal authority to discharge stormwater to off-site areas that are not surface waters and assist in demonstrating that no accelerated erosion or damage from stormwater will occur.

1. Obtain the names and addresses of all property owners directly receiving stormwater from the project that is not discharged to a surface water;
2. Evaluate stormwater flows (frequency and amount) onto these properties prior to the construction of the project;
3. Evaluate the nature and scope of all changes to the natural drainage characteristics for all stormwater discharged during construction and after construction is completed;
4. Evaluate the volume, rate, and frequency of pre-construction, construction and post construction stormwater discharges from the project and the means of flow onto the adjoining properties; and

5. Evaluate the legal authority for the flow of water across the adjoining properties. This may include a common law easement, express flowage easements, drainage easements or other legal authorizations.

Demonstrating that no Accelerated Erosion or Damage from Stormwater will Occur

No matter what type of authorization for easements the applicant obtains for off-site discharges of stormwater, they need to document that the construction and post construction stormwater discharge to areas other than surface waters will not cause accelerated erosion or damage to down slope or adjacent properties. Applicants should use guidance from the Erosion and Sediment Pollution Control Program Manual (Document #363-2134-008) and the Pennsylvania Stormwater Best Management Practices Manual (Document #363-0300-002) when developing the following information with their NPDES permit applications:

- On the plan drawings, identify all property and property owners that may directly receive off-site stormwater discharges from the project site.
- On the plan drawings, identify the flow path from discharge point to the confluence with a surface water of the commonwealth. In addition, identify the soil types, erodibility factors and vegetative cover of the flow path.
- Provide documentation that the proposed volume and rate discharging to the flow path does not exceed the pre-construction volume and rate that discharged to the flow path.
- In the written narrative portion of the plans, provide an analysis that demonstrates how the applicant has avoided, minimized, or mitigated stormwater discharges to not cause accelerated erosion or damage to the down slope or adjacent properties.

For more information, visit DEP's Web site at www.depweb.state.pa.us, keyword: Stormwater,
or contact:

PERMITTING AND TECHNICAL SERVICES SECTION	COUNTY RESPONSIBILITY	PERMITTING AND TECHNICAL SERVICES SECTION	COUNTY RESPONSIBILITY
Northcentral Regional Office 208 W. Third St., Suite 101 Williamsport, PA 17701 570-327-3574	Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union	Southcentral Regional Office 909 Elmerton Avenue Harrisburg, PA 17110 717-705-4700	Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
Northeast Regional Office 2 Public Square Wilkes-Barre, PA 18711-0790 570-826-2511	Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming	Southeast Regional Office 2 East Main Street Norristown, PA 19401 484-250-5970	Bucks, Chester, Delaware, Montgomery and Philadelphia
Northwest Regional Office 230 Chestnut Street Meadeville, PA 16335 814-332-6984	Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren	Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 412-442-4000	Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland

DEP CENTRAL OFFICE

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4.18 Off-Site Discharges of Stormwater to Non Surface Waters

Permit applicants often propose off-site discharges of stormwater to areas that are not surface waters. These are overland discharges that follow an existing swale or other natural flow path lacking defined bed and banks before meeting a surface water. The flow path often crosses properties owned by another party. Although these proposed stormwater discharges are designed to follow an existing swale or other natural flow path, they usually exceed the volume, concentration and duration of the stormwater that currently follows the same flow path (prior to the earth disturbance activity). These proposed stormwater discharges can result in accelerated erosion of the overland flow path and damage to adjoining private property. Although the permittee is ultimately responsible for any off-site erosion or property damage caused by these stormwater discharges, the Department must employ the permit review process to try to alleviate the occurrence of off-site erosion and property damage.

Proposed off-site stormwater discharges present two main issues that the permit review process must address;

- The permittee has the legal authority to discharge stormwater to the proposed off-site area; and,
- The proposed stormwater discharge will not cause accelerated erosion or damage to the proposed flow area and/or adjoining properties.

Permits should not be authorized for projects that propose an off-site discharge to non-surface waters—for either construction stormwater discharge or post-construction stormwater discharge—unless one of the following criteria applies:

- The applicant can successfully demonstrate that the proposed discharge area qualifies for a Common Law flowage easement and, that the proposed construction stormwater or post-construction stormwater discharges will not cause accelerated erosion or damage to the proposed flow area and/or adjoining properties;
- The applicant can successfully demonstrate that an Express Easement for the entire flow path has been obtained and, that the proposed construction stormwater or post-construction stormwater discharges will not cause accelerated erosion or damage to the proposed flow area and/or adjoining properties; or,
- The applicant can successfully demonstrate that a third party does not own the proposed discharge area and, that the proposed construction stormwater or post-construction stormwater discharges will not cause accelerated erosion or damage to the flow area and/or adjoining properties.

Demonstrating legal authority to discharge to an off-site non-surface water

There are two types of easements that can establish legal authority to discharge stormwater across another party's property, a common law easement and an express easement. Permit applicants must provide written proof that they have one of these easements to discharge stormwater.

Common law easement: Pennsylvania courts have upheld a common law right to discharge stormwater to adjoining properties downstream for the past 150 years “[b]ecause water is descendible by nature, the owner of the dominant or superior heritage has an easement in the servient or inferior tenement for the discharge of all waters which by nature rise in or flow or fall upon the superior”. The Superior owner may “improve his land by throwing increased waters upon the inferior owners land by through the natural and customare channels”. This means that an uphill property owner has a common law flowage easement for water that naturally flows over a downhill property.

As long as the uphill property owner does not significantly change the volume of stormwater, or does not create a channel for the water to flow where it does not flow naturally, the common law flowage easement allows the stormwater discharge onto the downhill property.

It is incumbent upon permit applicants to demonstrate to the county conservation district or Regional Office that the proposed stormwater discharge is allowed by a common law easement. Applicants must provide a letter signed by an attorney stating that the proposed stormwater discharge and its flow path are subject to a common law flowage easement. They must also submit calculations and other supporting documentation demonstrating that the proposed stormwater discharge will not erode or cause damage to the off-site adjoining properties. *(See the following paragraphs on demonstrating that no erosion or damage will occur.)*

Express easement: An express flowage easement is documented permission from affected property owners to allow the proposed stormwater discharges to cross their property. The easement must be filed in the county courthouse and attached to the property deed. This type of easement is required for off-site stormwater discharges to non-surface waters when a common law easement is non-existent. This would occur when the uphill landowner significantly increases the volume of stormwater (any increase totaling more than .5cfs/tributary acre) or create a channel for the water to flow where it does not flow naturally.

It is incumbent upon permit applicants to demonstrate to the county conservation district or Regional Office that the proposed stormwater discharge is allowed by an express flowage easement. Applicants must provide a copy of the registered, deeded easement. They must also submit calculations and other supporting documentation demonstrating that the proposed stormwater discharge will not erode or cause damage to the off-site adjoining properties. *(See the following paragraphs on demonstrating that no erosion or damage will occur.)*

Demonstrating that no erosion or damage will occur

In addition, when demonstrating proof of flowage easement, applicants must also demonstrate that the proposed construction and/or post-construction stormwater discharge will not cause erosion or damage to the adjoining properties. Applicants must submit the following information if they propose an off-site stormwater discharge to non-surface water:

- Map detailing the flow path from discharge point to confluence with a surface water of the Commonwealth and identifying the soil types and erosivity factors;

- Sequential color photos of the entire flow path;
- Map showing that the proposed area discharging to the flow path does not exceed the pre-construction area that discharges to the flow path;
- Calculations showing flow path stability based on a stormwater discharge of 2.5cfs/ tributary acre; and,
- Calculations demonstrating that the proposed stormwater discharge to a flow path under common law easement will not exceed .5cfs/tributary acre, or the proposed stormwater discharge to a flow path under an express easement will not exceed 1.5 cfs/tributary acre.

Summary

Permit applicants proposing off-site discharges of construction and/or post-construction to non-surface waters must submit proof to the county conservation district or Regional Office that the proposed discharge flow path is authorized by a common law or express easement, and also provide proof that the proposed discharge will not cause erosion of damage to the adjoining properties.