

## Construction Stormwater Management: The New, the Old, and the Simply Worth Repeating

The New York State Department of Environmental Conservation (NYS DEC) has renewed the SPDES General Permit for Stormwater Discharges from Construction Activity as GP-0-15-002. The new general permit became effective on January 29, 2015. GP-0-15-002 is a five-year permit intended to cover discharges of stormwater to surface waters of the State from construction activities. Pursuant to the Clean Water Act, stormwater discharges are unlawful unless they are authorized by a permit prior to the commencement of construction activity.

Significant changes to the construction general permit (CGP) include:

- Addition of EPA's Narrative Effluent Limitation Guidelines (ELGs)
- Inclusion of Sizing Criteria from NYS Stormwater Management Design Manual
- Clarification of a screening process to address the NYS Historic Preservation Act
- Heightened stabilization requirements for projects in TMDL watersheds or that discharge to 303(d) waters

**GP-0-15-002 is available on the  
DEC Website  
At  
<http://www.dec.ny.gov/chemical/43133.html>**

ELGs are non-numeric, technology based limitations that represent the degree of pollutant reduction attainable through the application of currently available, best practicable technology. Adherence to the design, construction and maintenance standards of erosion and sediment control practices identified in the NYS Standards and Specifications for Erosion and Sediment Control (Blue Book) is deemed adequate for meeting ELGs.

Deviations from the performance criteria identified in the NYS Stormwater Design Manual (chapters 5, 6, and 10) are allowed in conformance with Part I.C.1 of the new permit; however, the owner or operator must demonstrate that any deviation or alternative design is "equivalent" to the design manual. "Equivalent" is defined to mean that the alternative practice or measure meets all performance, longevity, maintenance and safety objectives of the technical standard, and will provide an equal or greater degree of water quality protection.

Part I.C.2 of the new permit requires that post construction stormwater management practices **DO NOT DEVIATE** from the sizing criteria (i.e. WQv, RRv, Cpv, Qp, and Qf) defined in Chapters 4, 9 and 10 of the Design Manual. If these criteria cannot be met, the project is not eligible for coverage under GP-0-15-002. The owner/operator must secure an individual SPDES permit.

GP-0-15-002 requires evaluation of any building, structure or object that is greater than 50 years of age that has not already been evaluated for listing on the State or National Registers of Historic Places if the project proposes to construct a new permanent building within the following distances of the building, structure or object that is more than 50 years old:

<b>Total Project Disturbance Area</b>	<b>Distance</b>
1 to 5 Acres	20 feet
5 to 20 acres	50 feet
20+ acres	100 feet

The owner/operator may elect to avoid evaluation of such properties by adjusting the project layout to increase the distances of proposed permanent buildings from the unevaluated properties. DEC has developed a flow chart to assist owner/operators in screening projects to determine if there is a potential to impact a "cultural resource." It is available at

<http://www.dec.ny.gov/chemical/43133.htm>

For construction sites that directly discharge to 303(d) listed segments or are located in a listed TMDL watershed (see Appendices E and C of the new general permit), including Onondaga Lake, the general permit now requires more frequent inspections by a qualified inspector, and shortened timeframes for stabilization of exposed soils. For projects in TMDL watersheds or that discharge to 303d waters, soil stabilization must be initiated by the next business day upon temporary (no further disturbance within 14 days) or permanent ceasing of disturbance. Stabilization must be *completed* within 7 days. A qualified inspector must be responsible for conducting at least 2 site inspections every 7 calendar days with a minimum of 2 days between inspections.

## Noncompliance Penalties Revisited

You're probably aware that a site owner/operator can be fined up to \$37,500 per day for failure to comply with their Stormwater Pollution Prevention Plan and the terms of the Stormwater General Construction Permit. However, there are other penalties and actions possible that may present problems that are more immediate, and perhaps less easily foreseeable. In many cases, if a site is found to be noncompliant to the extent that it presents a potential threat to local water resources, the municipality or NYSDEC can place a stop work order on all activity other than that necessary to comply with the permit until the problem is corrected. The result is often substantial loss of time and money for everyone involved.

If a Water Quality Standards violation occurs (i.e. a visible contrast to natural conditions in the receiving water body, such as turbidity or muddy character of the water caused by introduction of sediment or other pollutants from a construction site), any or all of the above penalties may apply. A Water Quality Standards violation is a contravention of the NYS Environmental Conservation Law, and is therefore treated as a separate infraction in addition to any violation of the terms of GP-0-15-002. For Water Quality Standards violations or other significant violations, the NYSDEC may also elect to pursue a consent order **against an owner/operator and/or contractor**, requiring that certain actions be taken **at the owner or contractor's expense** to correct identified issues. Such an order may be enacted in place of, or in addition to fines; in either case, it can rapidly become expensive and derail the progress of a project.



To avoid encountering these types of difficulties, it is always a good idea to cooperate and work with NYSDEC and/or the local municipality in an attempt to foresee potential problems at a site before they occur. This often happens most effectively through pre-construction meetings and consultations, and when necessary during the course of construction. Ask questions to ensure you understand the regulations, and work with the authorities to consider and discuss options and solutions when issues do arise.

# NYS Stormwater Management Design Manual

## Revised and Revisited

The New York State Stormwater Management Design Manual provides designers with a general overview on how to size, design, select, and locate stormwater management practices at a development site to comply with State stormwater performance standards. The manual is a key component of the Phase II State Pollution Discharge Elimination System (SPDES) general permit for stormwater runoff from construction activities from all sizes of disturbance.

The Design Manual was updated in 2015 to include the addition of pond safety provisions in Chapter 6, updated isohyet maps in Chapter 4, and clarification of sizing criteria in Chapters 3, 4, 9, and 10 to be consistent with recent changes to Construction General Permit (GP-0-15-002). The 2015 Design Manual can be downloaded from the DEC website at <http://www.dec.ny.gov/chemical/29072.html>

The previous Design Manual (2010) introduced the use of green infrastructure instead of traditional ponds and closed drainage systems. At the time, green infrastructure was a poorly understood concept that was more contested than embraced. Over the past five years, green infrastructure has proven to be effective in reducing runoff and protecting water quality. Green infrastructure practices are increasingly more common, and as a result, better understood.

The principle behind green infrastructure is threefold:

- 1) Reduce the amount of stormwater runoff generated by preserving natural features and resources**
- 2) Reduce the amount of runoff generated by decreasing impervious surface**
- 3) *Treat runoff near its source in many small volumes, using practices designed to mimic natural features, rather than in one or a few large volumes via engineered structures.***

Green infrastructure reduces the margin for error in disturbing or clearing natural features such as trees, vegetation, existing drainage patterns, and resource buffer areas because these elements are now considered functioning parts of the Stormwater Pollution Prevention Plan (SWPPP) rather than simply part of the landscape.

On green infrastructure projects, grading often allows runoff water to be dispersed to vegetated areas rather than directed to a conveyance structure or traditional stormwater management practice. Rather than cutting and filling a site to accommodate the project, it is necessary to work with existing landscape topography and allow the natural conditions to drive the form and layout of the project.



## Some Key Points to Consider During Construction

- Soil must be restored in order for most green infrastructure practices to function
  - Aeration, addition of organic matter, and decompaction are usually needed
  - Timing is critical – soil must be restored AFTER grading is complete
- Vegetation selection is very important, and standards must be carefully followed
  - Native species that are suited to conditions must be used
  - Maintenance and care are high priorities
- Wetlands, buffers, trees, and other natural landscape elements to be preserved must be conspicuously marked onsite
- Precise grading of fine-scale features is necessary

If in doubt, check it out! The 2015 NYS Stormwater Design Manual is available on the NYS DEC website at <http://www.dec.ny.gov/chemical/29072.html>

## Some Key Winter Site Operations Points to Consider

- The ability of soil to infiltrate snowmelt and rain is significantly limited when frozen
- Water often continues to flow under snowpack and drainage patterns are likely to change
- Snow management and stockpiling impact operations, access, and runoff now, and next spring
- All entrances/exit locations must be properly stabilized and maintained to accommodate snow management
- Sediment barriers must be installed at all necessary perimeter and sensitive locations BEFORE the soil freezes
- Slopes and soil stockpiles must be protected with anchored straw or mulch, rolled erosion control product or other durable covering BEFORE the snow covers them
- Sediment barriers must be installed around piles and at slope toes to prevent soil transport from the stockpiles and exposed slopes

## Contractor Certification Training Requirements

The 4-hour contractor certification training is designed to ensure that contractors working on construction sites have the necessary knowledge to implement practices and techniques that prevent introduction of sediment and other pollutants to bodies of water. All contractors responsible for any installation or maintenance of erosion and sediment control practices must have received this training **within the past three years** in order to perform work on a construction site. Additionally, GP-0-15-002 has been updated to specify that the “Trained Contractor” shall perform the required maintenance inspections of the erosion and sediment controls being used on the site. These inspections were previously the responsibility of a “Qualified Inspector” (i.e. P.E, L.A, CSPEC).

The 4-hour training course is conducted by the Onondaga County Soil and Water Conservation District and other SWCDs around the state. Current training programs are identified on the NYSDEC's online training calendar at <http://www.dec.ny.gov/chemical/8699.html>. The Syracuse Builder's Exchange training calendar at <http://web.syrabex.com/events?eventtype=Class> provides a list of currently scheduled 4-hour training courses in the Syracuse area. At all times, at least one contractor onsite must have in their possession a current certification card showing that they have completed the training within the last three years. A municipal inspector or state official can require an individual or firm to stop work and leave the site if they are not properly certified.

## Pre-Construction Meetings: Are They Worth My Time?

A pre-construction meeting provides an opportunity for all parties involved in the implementation and enforcement of a Stormwater Pollution Prevention Plan for a site to discuss the progression, timeline, and logistics of construction, and to identify any potential issues before they arise. Attendees typically walk the site, identifying resource areas to be protected and discussing the proposed locations of structures and practices. Pre-construction meetings are valuable in developing a common understanding of expectations, particularly between representatives of the project owner and the municipality. Having this mutual understanding from the beginning prevents problems and miscommunication along the way, thereby increasing the efficiency and ease of SWPPP implementation. Pre-construction meetings typically are attended by the project owner, the owner's technical representative, the lead contractor, the qualified site inspector, the Code Enforcement Officer and/or Director of Planning, the municipal engineer, and preferably the Highway Superintendent. Subcontractors with major roles in SWPPP implementation should also attend.

The value of attending a pre-construction meeting for any project inside of the Onondaga Lake watershed may be even greater due to the enhanced phosphorus removal requirements for all new development projects.



This newsletter is funded by the CNY Stormwater Coalition, whose membership consist of 26 towns and villages, the City of Syracuse, Onondaga

County, and the NYS Fairgrounds. For more information on the CNY Stormwater Coalition and construction stormwater management, visit their website at

[www.cnyrpdb.org/stormwater](http://www.cnyrpdb.org/stormwater)



**Central New York Regional Planning & Development Board**  
126 North Salina Street, Suite 200, Syracuse, New York 13202  
phone: (315) 422-8276 • [mail@cnyrpdb.org](mailto:mail@cnyrpdb.org) • [www.cnyrpdb.org](http://www.cnyrpdb.org)