

WHY IS NPDES PERMITTING IMPORTANT TO YOUR PROJECT?

By David J. Molnar, PE



In June of 2008, four of the nation's largest home builders (Centex Homes, KB Home, Richmond American Homes, and Pulte Homes) paid settlements totaling \$4.3 million in response to accusations of violating stormwater runoff regulations of the Clean Water Act (CWA). Such stories are becoming more common as the country increases its focus on the quality of our

water resources.

The CWA was established in 1972 as a federal law to prohibit water pollution. The law requires industrial, municipal, and other facilities to obtain a permit through the National Pollutant Discharge Elimination System (NPDES) for any point source that discharges directly into a surface water. A point source is a defined location of stormwater discharge such as a pipe or swale. The governing body that oversees the regulations is the United States Environmental Protection Agency (EPA). The EPA has authorized agencies in 46 of the states to issue permits directly to applicants. Florida is one of the states authorized to issue permits, and this program is administered by the Florida Department of Environmental Protection (FDEP).

One of the most common CWA violations is the failure to acquire a permit prior to construction, or never obtaining one at all. Other violations include improper installation of soil erosion control measures (such as silt fence), failure to conduct weekly inspections and inspections within 24 hours of a one-half inch rain event, the discharge of pollutants other than stormwater, and failure to provide mud tracking for vehicles entering and exiting the project site.

In order to apply for coverage under the NPDES, a Stormwater Pollution Prevention Plan (SWPPP) must be developed. An SWPPP is a "living" document that must be kept current and on site at all times. If changes to the site's stormwater system occur, or if the controls are found to be ineffective, the SWPPP must be amended.

The SWPPP will contain a site description, including a description of what is being constructed, the sequence of activities, estimates of the total project area and area to be disturbed, and existing data concerning the site. Existing data pertains to soil information, current discharge quality, latitude and longitude of each discharge point, and the name of receiving waters for each discharge point.

An SWPPP will also include a site map showing drainage patterns and existing slopes, and areas of soil disturbance, as well as areas not to be disturbed. It must also contain the location of structural and non-structural controls, the location of stabilization, the position of wetlands and surface waters, and the points of discharge to surface water or state surface waters.

The purpose of structural controls is to control the stormwater volume and peak discharge rates, as well as to reduce the level of pollutants in the discharge water. Examples of structural controls are detention ponds, infiltration trenches, and treatment swales. Non-structural controls are installed at or near the sources of water pollutants to reduce the amount of pollutants entrained in the stormwater runoff. It is important to note that retention ponds should not be used to reduce sediment in stormwater runoff, as the silt from construction activities can severely diminish the infiltration properties of stormwater ponds. It is better to add a temporary treatment swale or pond prior to the discharge to the retention area.



All dewatering practices require approved filtering devices. This outlet has completely washed out



All sediment should be removed from filter cloth to allow for proper filtration



Silt fence must be trenched into the ground



This silt fence needs to be completely reinstalled and maintained

Others topics that will be addressed in the SWPPP include disposal methods for waste material such as paints, cement wash-out, and other debris, the method of reducing tracking from trucks that enter or leave the site, and methods for minimizing construction dust. In those instances where fertilization is necessary, the application rates should also be included. It is important only to fertilize when necessary to establish vegetation. The SWPPP must also address the required frequency and methods for stormwater control maintenance. This helps to ensure that the systems will be effective.

Lastly, the SWPPP will contain a certification statement identifying the contractor responsible for each measure being implemented. The contractor must sign the certification statement before conducting any on-site activities.

At least seven days prior to construction, a permit application must be submitted to the FDEP. The application is called the Generic Permit for Stormwater Discharge from Large and Small Construction Activity Notice of Intent. Large construction activity is described as the disturbance of five or more acres. Small construction activity is described as the disturbance of one or more acres of land. If the construction activity is less than one acre but part of a larger plan of development, the large construction application is still required. The permit application fees are \$200 for small construction activity, and \$400 for large construction activity.

Once an SWPPP has been developed, it is necessary to develop an inspection plan for the duration of the project. Inspectors should be certified through the FDEP Stormwater, Erosion, and Sedimentation Control Inspector Training Program. The inspector will check point discharges, disturbed areas that have not been stabilized, material storage, structural controls, and the location where vehicles enter and exit the site. Inspections should be done once a week and within 24 hours of a one-half inch (or greater) rain event. The inspector will fill out an inspection report provided in the SWPPP. This report includes the names and signatures of the inspector and permittee, the date of inspection, rainfall data, major observations and actions taken, incidents of non-compliance, and a plan that identifies measures for non-stormwater discharge.

A Notice of Termination is required to be completed within 14 days of final stabilization. If the work is not complete within five years, the permittee must re-apply for coverage.

Without control measures, stormwater runoff from construction sites can contaminate our water resources. This runoff can carry pollutants such as concrete washout, paints, pesticides, and other debris, as well as sediment that can build up over time and clog or redirect waterways. The proactive use of an SWPPP is a tool that reduces the need for more costly remedial activities.

For more information, please contact one of our offices or visit www.dep.state.fl.us/water/stormwater/npdes/ and <http://cfpub.epa.gov/NPDES/>.

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Illegal vehicular tracking of sediment onto public road



Inlet has no inlet protection. Protection must be



Sediment laden stormwater discharging into stream