

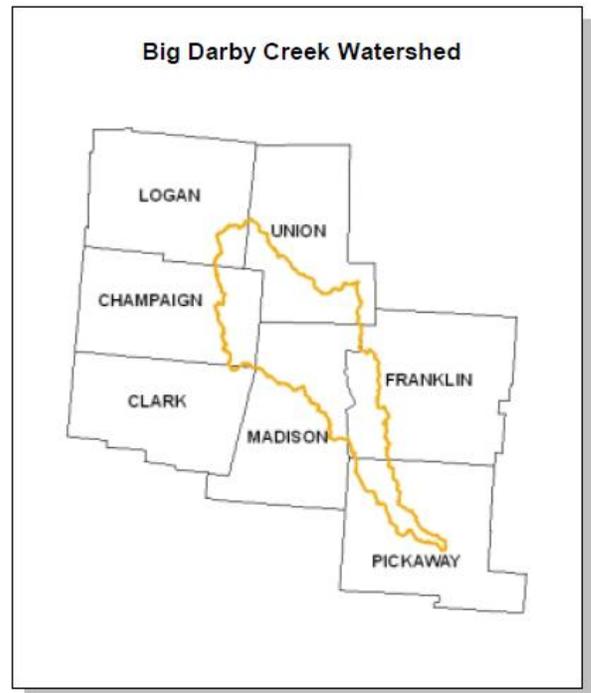
Ohio Environmental Protection Agency

Fact Sheet for

National Pollutant Discharge Elimination System (NPDES)

General Permit Renewal for Discharges of Storm Water Associated with
Construction Activity Located within the Big Darby Creek Watershed**I. Background**

There are several pollutants associated with discharges from construction sites, including: sediment, solid and sanitary wastes, fertilizer, pesticides, oil and grease, concrete truck washout, construction chemicals, and debris. Of those pollutants, sediment is the main pollutant of concern. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical and biological harm to surface waters. For example, excessive sediment can quickly fill rivers and lakes, requiring dredging and destroying aquatic habitat.



The federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]), which was enacted in 1972, provides that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act amendments of 1987 (referred to as the Water Quality Act of 1987) explicitly required the U.S. Environmental Protection Agency (EPA) to adopt regulations to require NPDES permits of storm water dischargers associated with construction activities. Construction sites disturbing one or more acres of land have been required to obtain NPDES permit coverage since March 10, 2003.

The Big Darby Creek watershed, covering 555 square miles in Central Ohio, has among the most biologically diverse waters in the Midwest. The watershed hosts state and national scenic rivers and is home to several endangered species. However, studies have documented declines in water quality and stream habitat. Among the most visible and widely publicized future threats to the Darby is conversion of farm land to suburban and commercial land uses, especially in Franklin County. As a result, Ohio EPA issued an alternative general permit for storm water associated with construction activity specific for the Big Darby Creek watershed in September 2006. This fact sheet addresses the renewal of this general permit.

This alternative general permit renewal implements many of the basic recommendations regarding the programs, activities and Best Management Practices developed through the Total Maximum Daily Load process and the State Water Quality Management Plan and 208 Plan. Ohio EPA believes implementation of these recommendations is necessary to protect the unique water quality and biological integrity of the Big Darby Creek system.

The Big Darby Creek Watershed TMDL report was approved by USEPA on March 31, 2006. This report can be viewed at the following:

<http://www.epa.state.oh.us/dsw/tmdl/BigDarbyCreekTMDL.aspx>

State Water Quality Management Plan:

<http://www.epa.state.oh.us/dsw/mgmtplans/208index.aspx>

208 Plan Prescriptions for Water Quality Protection within the Big Darby Creek Watershed:

http://www.epa.state.oh.us/portals/35/mgmtplans/Final2006Plan/Final208_Aug06_Append_9-3_DarbyRx.pdf

II. Description of General Permit Coverage and Type of Discharges

The permit would cover the entire Big Darby Creek watershed and would authorize storm water discharges from construction activity disturbing one or more acres. Also, the permit would authorize some discharges that are not entirely considered construction storm water (such as trench dewatering), as well as storm water discharges associated with on-site concrete and asphalt batch plants.

III. Application and Termination Procedures

New Dischargers: To obtain initial coverage, a discharger needs to submit a complete Notice of Intent (NOI) form, approvable Storm Water Pollution Prevention Plan (SWP3) and appropriate application fee at least 45 days prior to the commencement of construction activity.

Existing Dischargers: In accordance with Ohio Administrative Code (OAC) 3745-38-02(E)(2)(a)(i), entities authorized under a construction storm water general permit are required to renew their coverage every five years for projects which are not complete. This requires submittal of a renewal NOI and associated application fee. Permittees having coverage under OHCD00001 will have continued coverage under OHCD00002 until their approval for coverage date exceeds 5 years. Existing permittees who want to continue coverage under OHCD00002 must submit a new NOI form and appropriate application fee at least 21 days prior to their coverage date reaching 5 years. For example, if a permittee was issued coverage under OHCD00001 on June 1, 2007 then a renewal application must be submitted at least 21 days prior to June 1, 2012. This language has been included in Part II.E of the general permit renewal.

Permit Expiration: The general permit renewal will expire five years after the effective date.

Notice of Termination: Permittees must submit a Notice of Termination (NOT) form within 45 days of completing all permit requirements in accordance with Part IV of this draft general permit renewal.

IV. Description of Permit Conditions

The current Darby CGP (OHCD00001) includes eight conditions/requirements that differ from Ohio EPA's standard Construction Storm Water general permit (CGP) which is applicable statewide. These conditions/requirements are listed below and remain unchanged in this draft general permit renewal (OHCD00002):

1. Part II.A. Requiring submittal of the Storm Water Pollution Prevention Plan (SWP3). The SWP3 is the permittee's plan to minimize contamination of storm water that will be discharged to surface waters from the site. In order to ensure site plans are developed in accordance with draft permit requirements, Ohio EPA believes a review of the SWP3 is needed. This condition would require the SWP3 to be submitted as part of the initial application package.
2. Part II.A. Requiring the application package, which includes a Notice of Intent (NOI) and SWP3, be submitted 45 days prior to the initiation of ground disturbance. In an effort to not delay construction projects' estimated start dates and ensure adequate SWP3s, earlier NOI and mandatory SWP3 submission is being required.
3. Part III.G.2.b. Requiring riparian setback distances to provide additional filtering capacity and to provide for a margin of safety during construction. The draft permit includes riparian setback requirements.

Where an intrusion into the setback zone is necessary to accomplish the purposes of a project, the draft permit includes language for mitigation measured by the area of intrusion. Mitigation is required within the same Watershed Assessment Unit (14-digit HUC scale). Riparian setback mitigation requirements are dependent upon the intrusion distance from the stream edge. An intrusion within 25 feet of the stream edge would require mitigation at a rate of 4:1 within 25 feet of a stream edge. An intrusion within 25 to 100 feet of the stream edge would require mitigation at a rate of 3:1 within 100 feet of a stream edge and an intrusion in the setback area 100 or more feet from the stream edge would require mitigation at a rate of 2:1.

All mitigation would need to include conserved or restored setback zone and should be designed to maximize the ecological function of the mitigation. Mitigation at the stream edge along with associated setback areas is one way to maximize ecological function. Mitigation would be required to be protected by binding conservation easements.

4. Part III.G.2.c. Requiring the use of structural and non-structural BMPs to have post-construction groundwater recharge rates equal or exceed pre-development groundwater recharge rates. In order to ensure appropriate base flows in the watershed the draft permit requires that the permittee design the site to maintain pre-development rates of groundwater recharge. The draft permit includes an equation and a table which provides the annual average total groundwater recharge expected for various land uses and hydrologic soil groups in the watershed to calculate pre and post-development groundwater recharge volumes. The pre-development groundwater recharge volume can be calculated by determining the area of each land use - soil type pairing on the site of interest. The recharge associated with each such pairing multiplied by the area will give the pre-development volume of groundwater recharge. The same can be done for the post-development land use - soil type pairings. If the post-development recharge volume is less than the pre-development then mitigation will be required. Two basic options are

available. The preferred method is to convert additional land to a land use with higher recharge potential. The difference in recharge between the existing and converted recharge is the amount a developer can use as infiltration credits. Alternatively, or in addition to, a developer could choose to capture a portion of the runoff from a development and use structural BMPs to ensure this water infiltrates into the ground. The use of structural BMPs can only be contemplated on sites with little risk of groundwater pollution potential.

5. Part III.G.2.f.b. Requiring the use of sediment settling basins that receive drainage from disturbed areas of 5 acres or greater. In order to appropriately reduce sediment loads from active construction sites, Ohio EPA believes that it is necessary to require sediment settling basins for areas that receive drainage from disturbed areas of 5 acres or greater.
6. Part III.G.2.f.b. Requiring sediment settling basins to be sized to maintain a target discharge performance standard. In order to address sediment reduction recommendations of the Big Darby Creek Watershed TMDL, the draft permit requires that sediment settling ponds be sized to provide a minimum sediment storage volume of 134 cubic yards of effective sediment storage per acre of drainage and maintain a target discharge performance standard of 45 mg/l Total Suspended Solids (TSS) up to a 0.75 inch rainfall event within a 24 hour period.
7. Part III.G.2.f.b. Requiring monitoring of the outfalls associated with sediment settling ponds. In order to ensure that the target discharge of 45 mg/l TSS is maintained, the draft permit requires that the outfall of each sediment settling pond be monitored initially and on a quarterly basis. Exceedence of the target discharge would trigger the permittee to install/implement additional controls to achieve the target discharge. Sampling data would be required to be retained on site and available for inspection.
8. Part III.G.2.f.c. Prohibiting the use of silt fence as a primary sediment control for sites greater than 5 acres in size unless pre-approved by Ohio EPA in a SWP3. Silt fence is only 15 - 35 percent effective in removing suspended solids from construction storm water runoff; whereas, sediment basins are 60 - 80 percent effective. Ohio EPA believes this condition is needed in order to meet sediment reduction load goals.

In comparison to OHCD00001, this draft general permit renewal contains the following changes:

1. OHCD00001's standard permit conditions were based off the previous statewide CGP (OHC000002). This draft general permit contains the following updates to be consistent with the current statewide CGP (OHC000003):
 - a. Part III.G.2.i – Added language listing what's required to be included in a maintenance plan.
 - b. Part III.G.2.i – Added language to state that projects with no impervious surface do not require post-construction BMPs.
 - c. Part III.G.2.i.ii – Added an alternative formula to calculate the runoff coefficient.
 - d. Part III.G.2.i – Added language to specify the BMP drain time conditions (e.g., first half volume cannot drain faster than one-third of drain time).
 - e. Part III.G.2.i – Added paragraph in regards to BMPs for road construction activities.
 - f. Part III.G.2.i – Added paragraph for conditioning offsite mitigation of post-construction BMPs.

- g. Part III.G.2.i – Added language for post-construction BMP requirements for redevelopment projects.
 - h. Part III.G.2.j – Updated phone numbers and watershed assignments for Army Corps of Engineer offices.
 - i. Part III.G.2.j – Added language for requirements associated with concentrated storm water discharges to wetlands.
 - j. Part III.G.2.k.v – Added language addressing sites with contaminated soils.
 - k. Part III.G.2.m – Added language to specify what weekly construction site inspections must include.
 - l. Part IV.B.1 – Added language requiring a site inspection and post-construction BMP maintenance agreement before submitting an NOT form.
 - m. Part VII.Z – Added a definition for “Qualified Inspection Personnel.”
2. Part III.G.2.b. OHCD00001 provided three methods to delineate riparian setbacks. This draft general permit includes two methods. OHCD00001’s ‘Site Specific Riparian Setback Delineation’ has been merged with the method of delineating by using the setback equation ($W=133DA^{0.43}$) and sizing from the centerline of the stream. With OHCD00001, sizing the setback from the centerline of the stream resulted in protection of non-functional riparian areas. Therefore, this draft permit requires that the distance calculated from the equation be centered over the meander pattern of the stream such that a line representing the setback width would evenly intersect equal elevation lines on either side of the stream. This change will result in only functional floodplain being protected.
 3. Part III.G.2.b. In regards to riparian setback requirements for redevelopment projects, it was Ohio EPA’s intent to exempt previously developed areas which are located within a delineated setback boundary provided that the project does not further intrude the delineated setback boundary. Language has been added to more clearly indicate this intent.
 4. Part III.G.2.c. In regards to riparian setback mitigation for Zone 1 (0 – 25 feet from stream edge) intrusions, the requirement that at least a fourth of the mitigation area shall be mitigation in the form of stream restoration has been removed. This previous condition created difficulties in implementation of OHCD00001 and has been removed from the renewal.
 5. Federal Construction and Development Effluent Limitation Guidelines. On December 1, 2009, the U.S. Environmental Protection Agency (EPA) published effluent limitation guidelines (ELGs) and new source performance standards (NSPS) to control the discharge of pollutants from construction sites. The regulation became effective on February 1, 2010 (40 CFR 450.21-24). After this date, all construction storm permits issued by EPA or states must incorporate the final rule requirements.

This regulation includes both numeric and non-numeric effluent limitations. Effective, January 4, 2011, U.S. EPA stayed the numeric limitation of 280 NTU that was published in the December 1, 2009, Construction and Development Effluent Limitation Guideline. U.S. EPA will propose a revised limit in a future rulemaking. However, the non-numeric limitations are still applicable and required to be included in this general permit renewal. OHCD00001 already addressed many of the non-numeric limitations but the following conditions have been added in order to be in compliance with the federal regulation:

- a. Part III.G.2.f.i – Changing site dormancy period from 21 days to 14 days.

- b. Part III.G.2.h.ii – Added language requiring the use of a surface dewatering device for sediment ponds, when feasible.
- c. Part III.G.2.k.1 – Added language to minimize or prevent the discharge of non-sediment pollutants to surface waters of the State.
- d. Part III.G.2.k.ii – Added language to minimize or prevent the discharge of vehicle wash waters to surface waters of the State.

For additional information on the federal Construction and Development Effluent Limitation Guidelines, please see the following U.S. EPA web page for additional information:
<http://water.epa.gov/scitech/wastetech/guide/construction/index.cfm>.

V. Procedures for the Formulation of Final Determinations

This general permit shall be issued as a final action unless the director revises the draft after consideration of the record of a public hearing or written comments, or upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Interested persons are invited to submit written comments upon the general permit. Comments should be submitted in person or by mail no later than 45 days after the date of the Public Notice. Deliver or mail all comments to the following address:

Ohio Environmental Protection Agency
Division of Surface Water - Permits Processing Unit
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

The NPDES permit number (OHCD00002) should appear next to the above address on the envelope and on each page of any submitted comments. All comments received no later than 45 days after the date of the Public Notice will be considered.

VI. Additional Information

For additional information regarding this draft general permit renewal, please contact one of the following:

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