

*FINAL*

## Village of Hicksville

# Stormwater Management Rules and Regulations

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# STORMWATER MANAGEMENT RULES & REGULATIONS

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# CHAPTER ONE

## GENERAL PROVISIONS

### Section 1.10 Authority and Title

The Village of Hicksville establishes this set of water quality and quantity policies applicable to all storm waters to provide reasonable guidance for the regulation of stormwater runoff for the purpose of protecting local water resources from degradation. It

is determined that the regulation of stormwater runoff discharges from land development projects and other construction activities, in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff, is in the public interest and will prevent threats to public health and safety.

The official title of these rules shall be known as the "Village of Hicksville Stormwater Management Rules and Regulations."

#### Section 1.20            Purpose

The Village of Hicksville has adopted Stormwater Management Rules and Regulations to establish feasible and economically reasonable standards to achieve a level of management and conservation practices which will protect and safeguard the general health, safety and welfare of the public by abating erosion of the soil and abating the degradation of the waters of the state by soil sediment in conjunction with non-farm, earth-disturbing activities.

It is the intent of these rules and regulations to:

- a.) minimize increases in stormwater runoff from any development in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels;
- b.) minimize increases in nonpoint source pollution caused by stormwater runoff from developments which would otherwise degrade local water quality;

- c.) minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic condition to the maximum extent practicable;
  
- d.) reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety;
  
- e.) Establish a basis for the design of all storm drainage systems which will preserve the rights and options of property owners and help assure the long term adequacy of storm drainage systems.

### **Section 1.30            Applicability**

These rules & regulations shall be applicable to all subdivision or site plan applications, unless eligible for an exemption or granted a waiver by the Village of Hicksville (the Village cannot grant a waiver of the requirements of the OEPA concerning stormwater) of these rules & regulations. These rules & regulations also apply to land development activities that are smaller than the minimum applicability criteria if such activities are part of a larger common plan of development that meets the following applicability criteria, even though multiple separate and distinct land development activities may take place at different times on different schedules to ensure that established water quality standards will

be maintained during and after development of the site and that post construction runoff levels are consistent with any local and regional watershed plans.

To prevent the adverse impacts of stormwater runoff, the Village of Hicksville has developed a set of performance standards that must be met at new development sites. These standards apply to any construction activity disturbing 5,000 or more square feet of land. This includes all requirements of the OEPA General Permit (1 acre or more). The following activities may be exempt from these stormwater performance criteria:

1. Any logging and agricultural activity which is consistent with an approved soil conservation plan or a timber management plan.
2. Additions or modifications to existing single family structures
3. Developments that do not disturb more than 5,000 square feet of land, provided they are not part of a larger common development plan;
4. Repairs to any stormwater treatment practice deemed necessary by the Village of Hicksville.

### **Section 1.31 Requirements**

- a. Any person performing any non-farm, earth-disturbing activity that disturbs 5,000 square feet or more on five or more contiguous acres of land owned by one person or operated as one development unit shall be required to file a Stormwater Management Plan and obtain a Stormwater Management Permit.
- b. Any person performing any non-farm, earth-disturbing activity that disturbs 5,000 square feet or more on less than five contiguous acres of land owned by one person or operated as one development unit is required to submit a Drainage Plan



and obtain a Stormwater Management Permit, and may be required to submit a Stormwater Management Plan.

- c. Any person performing any non-farm, earth-disturbing activity that disturbs less than 5,000 square feet is required to obtain a Stormwater Management Permit and submit a Drainage Plan but is not required to submit a Stormwater Management Plan. However, all non-farm, earth-disturbing activities are not exempt from compliance with all other criteria as outlined in this text.
- d. In the event that a subdivision/development is constructed in phases, then the entire subdivision/development size shall determine whether a, b, or c pertains. All projects of 1 acre or more will also be required to file an OEPA NOI and prepare a Storm Water Pollution Prevention Plan (SWPPP).

### **Section 1.32           Waivers**

It is conceivable that earth-disturbing activities not automatically subject to exemptions by Section 1.30 may exist such that the submission of a Stormwater Management or Drainage Plan serves no real purpose. Such activity shall be eligible for a waiver from the requirement of submitting a Plan and/or other requirements of this text.

To obtain a waiver, the developer shall submit a written request to the Village of Hicksville. This request shall include sufficient data to determine that granting a waiver will not result in excessive stormwater runoff or rate of runoff.

#### **Waivers for Providing Stormwater Management**

Every applicant shall provide for stormwater management as required by these rules & regulations, unless a written request is filed to waive this requirement. Requests to waive the stormwater management plan requirements shall be submitted to the Village of Hicksville for approval.

**NOTE:** No waiver shall be given by the Village of Hicksville when the amount of disturbed land is over 1 acre. In such case the OEPA rules for an NOI shall govern.

The minimum requirements for stormwater management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:

1. It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance.

2. Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the Village of Hicksville and the implementation of the plan is required by local ordinance.
3. Provisions are made to manage stormwater by an off-site facility. The off-site facility is required to be in place, to be designed and adequately sized to provide a level of stormwater control that is equal to or greater than that which would be afforded by on-site practices and there is a legally obligated entity responsible for long-term operation and maintenance of the stormwater practice.
4. The Village of Hicksville finds that meeting the minimum on-site management requirements is not feasible due to the natural or existing physical characteristics of a site.

#### Compatibility with Other Permit and Ordinance Requirements

These rules & regulations are not intended to interfere with, abrogate, or annul any other rules or regulations, statute, or other provision of law. The requirements of these rules & regulations should be considered minimum requirements, and where any provision of these rules & regulations imposes restrictions different from those imposed by any other rules & regulations, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence. OEPA NOI is still required.

### Section 1.33            General Performance Criteria for Stormwater Management

Unless judged by the Village of Hicksville to be exempt or granted a waiver, the following performance criteria shall be addressed for stormwater management at all sites:

- a. All site designs shall establish stormwater management practices to control the peak flow rates of stormwater discharge associated with specified design storms and reduce the generation of stormwater. These practices should seek to utilize pervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots, detention basins and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity.

### Section 1.40            Plan Review

The Village of Hicksville shall review the Stormwater Management Plan or Drainage Plan within thirty (30) days of receipt and indicate approval or disapproval to the person who filed the plan. Indication of disapproval shall include the plan deficiencies and the procedure for filing a revised plan. Pending preparation and approval of a revised plan, earth-disturbing activities shall not be allowed until the deficiencies have been properly addressed. An approved OEPA Permit will need to be submitted when the amount of earth disturbed is 1 acre or greater.

The Village of Hicksville shall be responsible for review and approval of all hydrological

and runoff calculations, as well as design and construction inspection for all stormwater management facilities.

#### **Section 1.41           Permits**

Permit Application Forms will be made available in the Office of the Village of Hicksville Administrator (Appendix B). Information required will be sufficient for the Village of Hicksville to determine if a stormwater management or drainage plan is necessary and that the developer intends to comply with these regulations. At a minimum the application shall include the following:

1. Name, address and phone number of property owner or other person responsible for the activity.
2. Location of the activity.
3. Description of the activity.
  - a. Type of activity
  - b. Area to be disturbed
  - c. Area to be rendered permanently impervious
  - d. Size of parcel or lot on which activity will occur
4. If no plan is required, a signed statement that the responsible person will comply with these rules and regulations.

The Village of Hicksville will review the permit application and if no Stormwater Management Plan or Drainage Plan is required, issue a permit within thirty (30) working days. Where applicable a SWPPP shall be completed in accordance with OEPA General Permit.

In the event that a plan is required, the permit will be issued upon approval of detail design, payment of required review inspection fees, and posting of required bonds.

## Section 1.42            Fees

### A.     Permit Fees

Permit fees in the amount fixed by resolution of the Village of Hicksville, Ohio shall be paid to the Village when a permit is issued.

No permit fee will be required for the following:

1.     Non-farm, earth-disturbing activities which have been provided for in an already approved stormwater management plan (i.e. home construction on a lot in an approved subdivision with an approved stormwater management plan).

### B.     Plan Checking and Field Inspection Fees

The person who obtains a Stormwater Management permit upon approval of a Stormwater Management Plan or Drainage Plan, which involves design and construction of Stormwater Management Facilities, shall submit design plans, quantities and itemized cost estimates for the facilities, prepared by a Professional Registered Engineer to the Village of Hicksville

for review and approval. A certified check in the amount of \$100.00 plus 0.50% of the construction cost estimate shall be paid to the Village of Hicksville to offset the cost of plan review. The check shall be made out to the Village of Hicksville.

Plans requiring submittal and additional review time will be charged on an hourly basis over and above the initial fee by the Village's Engineer hired to review the plans.

All field inspection of the construction to assure its conformance with the plans, shall be charged on an hourly basis and paid to the Village of Hicksville. If the Stormwater Management Facilities to be constructed are part of a subdivision being developed then this provision of the Stormwater Management Regulations shall run in concurrence with them. Fees to be paid by developer for Village's personnel and/or engineering services shall be placed in an escrow account to be used by the Village. All unused money shall be returned to the developer at the end of the services performed by Villages Engineer and/or personnel.

#### **Section 1.43            Assurance of Completion**

The assurance of completion of the stormwater drainage facilities and control structures included in a Stormwater Management Plan or Drainage Plan which has been developed and approved under these regulations shall be satisfied by the furnishing of a 100% performance, or surety bond. The Village shall approve the sufficiency of the bond and the Village Solicitor shall approve the bond as to form.

If it can be shown that assurance of completion is being provided through another

regulation of this Village, this section of the Stormwater Management Regulations shall be waived.

When the development requires water service, water meters shall not be installed, nor water turned on until all drainage improvements, as approved on the construction plans, are in place, final inspection completed and approved by the Village.

#### **Section 1.50            Inspection and Compliance**

The Village Administrator or his designed representative shall inspect land disturbance areas to determine that these rules and regulations are being complied with. If it is determined that a violation of these rules and regulations exists, the responsible person shall be notified of the deficiencies or noncompliance by the Village Administrator or his representative at the site and in deficiency or noncompliance shall be corrected or construction shall cease until the problem is corrected. If there is a disagreement by the owner/developer he may appeal to the Village of Hicksville. If the Village of Hicksville determines a violation exists, they shall request the Solicitor of the Village of Hicksville, in writing, to seek an injunction or other appropriate relief to secure compliance with these rules and regulations if the Village's orders are ignored. In granting relief through the court, it may order the construction of additional control measures, as per Section 307.79 O.R.C.

With the submittals and approval of the plans, permission for ingress and egress is granted to the Village of Hicksville or their appointed agency, the Village's Inspector, for continuous inspection as per Section 307.79 O.R.C.



## **Section 1.51            Stormwater and Sediment Complaint**

Upon receipt of a complaint, the Village of Hicksville shall inspect the site and follow the procedures as outlined in Section 1.50. The Village administrator shall also file a report and a copy sent to the person filing the complaint on the findings.

During the complaint review, the Village may request recommendations from the Defiance County Soil and Water Conservation District, the Hicksville Planning Commission and the OEPA.

## **Section 1.60            Relationship to Subdivision Regulations**

Many stormwater management techniques conflict with traditional urban subdivision requirements (i.e. stormwater can often be better managed in open grassed waterways while subdivision regulations often require that the water be collected and carried away in underground pipes).

If the stormwater management plan or drainage plan developed under these regulations is in conflict with requirements of the Village of Hicksville Subdivision Regulations, a variance may be made to the Village of Hicksville Subdivision Regulations by the Village Planning Commission where it is determined that such exception will enhance the management of stormwater and not be detrimental to the health, safety and general well being of life and inhabitants within the Village.

A subdivision plat prepared in conjunction with a stormwater management or drainage

plan, shall include the necessary covenants and restrictions to assure compliance to these regulations and conformance to the approved stormwater management or drainage plan.

#### **Section 1.61            Severability**

If any clause, section or provision of these rules and regulations are declared invalid or unconstitutional by a court of competent jurisdiction, validity of the remainder shall not be affected thereby.

## CHAPTER TWO

### STORMWATER RUNOFF CONTROL

#### Section 2.00

#### Purpose

Stormwater Management Rules and Regulations have been adopted for the purpose of regulating non-farm, earth-disturbing activities to control sediment pollution caused by accelerated soil erosion.

Stormwater management is premised on the fact that non-farm, earth-disturbing activities which increase the rate and/or volume of runoff will increase the rate of erosion and volume of sedimentation. Therefore, earth-disturbing activities which increase the rate and/or volume of runoff shall be required to control the discharge rate of runoff prior to its release to off-site land. The purpose of controlling the release rates is as follows:

1. Permit development without increasing the flooding of the lands.
2. Reduce damage to receiving streams and impairment of their capacity.
3. Establish a basis for design of a stormwater drainage control system which will preserve the rights and options of both the dominant and servient property owners.

These rules and regulations shall apply to all non-farm, earth-disturbing activities performed on the lands within the Village of Hicksville; except those activities as outlined in Section 1.30 of this text.

## Section 2.10

## Calculating Stormwater Runoff

The amount of stormwater runoff depends on a great number of factors. Some of these factors are reasonably fixed and subject to accurate determination, such as watershed size and shape, ground slope and natural ponding. Others are seasonably variable, such as frozen soil, soil moisture condition, evaporation, or transpiration. Still others vary by land use, such as type of ground cover and impervious areas or method of cultivation. Finally, rainfall is extremely variable as to seasonal conditions and other variable factors. Despite the indeterminate nature of these factors, methods for obtaining useful information about stormwater runoff have been developed. One of the four methods described in Urban Hydrology for Small Watersheds, Technical Release Number 55, by the Soil Conservation Service of the United States Department of Agriculture and its Ohio Supplement can be used to determine stormwater runoff or The Rational Method, (Appendix D), which shall be the minimum design.

## Section 2.20

### Stormwater Runoff Control Criteria

Stormwater runoff control addresses both peak rate and total volume of runoff.

1. The storm drainage system installed shall carry a minimum five year 24 hour frequency storm. The design of which shall conform to Appendix D. The retention/detention area shall have a storage capacity determined with a minimum for a ten year 24 hour frequency storm by the Critical Storm Method (Appendix C).
2. The peak rate of discharge from the retention/detention area shall not exceed a two year 24 hour frequency storm based on pre-development conditions.
3. Storage volume does not have to be provided for off-site upstream areas. Flow from such areas will be routed through the drainage system in the development under consideration at a rate determined in the same manner as the on-site system. Off-site land uses over the last year before the development shall be considered as the pre-development condition for the purpose of calculating changes in runoff.

## Section 2.30

### Runoff Control Methods

The runoff control criteria of this section necessitates the use of stormwater runoff control facilities in many development situations. While the success of such facilities for accomplishing a desirable level of runoff control cannot be denied, it is often found these same facilities have the potential for adding to neighborhood blight or a threat to public

health and safety.

Stormwater storage facilities can be functional and wholly unobtrusive. Their presence can offer an added amenity to the urban environment. This positive impact can be achieved by adherence to four basic steps in the implementation of stormwater runoff control facilities. These are:

1. Proper selection of runoff control mechanisms.
2. Proper design of facility.
3. Construction of facility in strict adherence to design.
4. Regular maintenance program and designated responsibility for maintenance.

#### **Section 2.40                      Maintenance of Stormwater Drainage Facilities and Control Structures**

When stormwater drainage facilities and control structures that benefit more than one property owner are of a permanent nature the Village will assume responsibility for said structures once they have been constructed and are functioning according to approved plans.

Ownership and/or easement for the purpose of maintenance shall be granted to the Village for access to all structures and facilities for which the Village is assuming permanent maintenance responsibility.

## Section 2.50

## Preparing a Stormwater Management Plan (SWPPP)

A Stormwater Management Plan is required on all developments. The plan development process is one which provokes thought and consideration of management alternative relative to stormwater early in the overall site development process.

### Section 2.50.1

### Data Collection

Inventory the existing site conditions to gather information which will help develop the most effective stormwater management plan. The information obtained should be plotted on a map and included with the calculations portion of the plan.

a. Topography

A 200-scale topographic map of the site should be prepared to show the existing elevations at two foot (2') intervals or other intervals as deemed necessary by the Village of Hicksville. When drainage areas are large and cover areas off-site, USGS maps may be used to show these off-site drainage areas.

b. Drainage Patterns

All existing drainage swales and patterns should be located and clearly marked on the topographic map.

c. Soils

Major soil type(s) on the site should be determined and shown on the topographic map. Soil information can be obtained from the Defiance County Soil Survey of the Village of Hicksville. Soil information should be plotted directly onto the map or an overlay of the same scale for ease of interpretation.

d. Ground Cover

The existing vegetation on the site should be shown on the topographic map. Such features as tree clusters, grassy areas and unique vegetation should be located on the map. In addition, existing denuded or exposed soil areas should be indicated on the map.

### **Section 2.50.2      Runoff Calculations Before Development**

With the completion of the Data Collection activity the peak rate of runoff and runoff volume for the pre-development situation can be determined for the two (2) year storm.

### **Section 2.50.3      Data Analysis**

When all of the data collected has been considered together, a picture of the site potential and limitations should begin to emerge. The areas of the site which have potentially critical drainage hazards should be determined. The following are some important points



to consider in site analysis.

a. Topography

The primary topographic considerations are slope steepness and slope length. Because of the adverse effect of long and steep slope on runoff, special care should be used in these potentially critical areas.

b. Natural Drainage

Natural drainage patterns exist on the land and should be identified on the plan so they can be incorporated into the proposed drainage system. Where it is possible, natural drainage ways should be used to convey the runoff to avoid the expense and problems of constructing artificial drainage systems. Care should also be taken to be sure that the existing natural drainage system is not overloaded.

c. Soils

The major soil consideration from a runoff control standpoint is rate of infiltration of rainwater. Soils of the Village have been grouped into hydrologic soil classes, which can be used to help determine the areas where critical runoff will occur.

d. Ground Cover

The type of existing ground cover greatly affects the amount of existing runoff from

any given area. By knowing the types of existing ground cover and the proposed types, critical areas of runoff can be determined.

#### Section 2.50.4 Drainage System Development

After analyzing the data and determining the site limitations, the Engineer can then develop a drainage system. The engineer should work with the site planner and attempt to locate the buildings, roads and parking lots to exploit the strengths of the site and overcome the drainage limitations of the site. The following are some points to consider in making these decisions:

a. Fit Drainage Systems to Terrain

The Engineer should attempt to tailor the drainage system to the existing site conditions. This will avoid unnecessary land disturbance and therefore help reduce the increase in runoff.

b. Confine Construction to Areas Not in Drainageways

Any land disturbance in drainageways will necessitate the installation of more costly control measured.

c. Cluster Building Sites Together

Clustering building sites together outside of natural drainageways minimizes the amount of disturbed cover and helps reduce the increase in runoff.

d. Minimize Impervious Areas

Keep paved areas such as parking lots and roads to a minimum. The more land that is kept in vegetative cover, the more water will have a chance to infiltrate, thus minimizing runoff.

**Section 2.50.5 Plan for Runoff Control**

When the general layout of the site has been decided upon, a plan to control runoff from the site must be formulated.

a. Divide the Site Into Drainage Areas

Determine how much and where the runoff will travel over the site. Consider how runoff can be controlled in each drainage area. In most cases it is easier to control runoff in smaller areas than to try to handle the entire site at some location downstream as it leaves the site.  
b. Select Runoff Control Practices

Runoff control practices can be divided into three broad categories:

- Vegetative Controls
- Structural Controls

➤ Management Measures

Local or State handbooks should be used to select and design appropriate vegetative and structural practices. Management measures are common sense types of controls used to help minimize the need for physical practices.

1. Vegetative Controls

Keep in mind that the first line of defense is to prevent increase in volume or rate of runoff. This is accomplished by protecting the soil surface as much as possible and not decreasing the over-land flow time.

2. Structural Controls

Where large increases in runoff occur, structural practices are generally the only way to control runoff. It is very important the structural practices be selected, designed and constructed according to standards and specifications of the engineer of jurisdiction. Improper use of inadequate installation can create problems which are greater than the structure was designed to solve.

3. Management Measures

Good site design and construction management is as important as any physical practices used for runoff control. The following are only some management considerations:

- a. Design site to help reduce runoff in open areas and not increase it.
- b. Use stage construction.
- c. Use as few pipe systems as possible.
- d. Allow runoff to travel around within the site and not just straight through.

#### **Section 2.50.6      Develop Design Details**

Once a development plan and drainage system that meets the runoff criteria has been decided upon, the detailed plans for the drainage facilities and control structures should be developed. Detailed design plans shall be developed according to generally accepted engineering principles and approved by the Village.

#### **Section 2.60      Preparing a Drainage Plan**

Smaller site developments can result in major increases in runoff, but the alternatives for handling them are usually limited. Wherever possible, the developer is encouraged to go through all of the steps under Section 2.50. However, in the situation where there is only one alternative for surface development on a small site and it is merely a matter of designing a drainage system to meet the runoff criteria, the developer shall submit sufficient information to show that the criteria is being met and that the drainage facilities and control structures have been designed to standard.

### **Section 2.60.1      Data Collection**

In order to analyze the before development condition, the same data that is required for a management plan is required for a drainage plan. Follow Section 2.50.1.

### **Section 2.60.2      Runoff Calculations Before Development**

With the completion of the Data Collection activity, the peak rate of runoff and runoff volume for the pre-development situation can be determined for the two (2) year storm.

### **Section 2.60.3      Runoff Calculation and Control Criteria (Critical Storm Method)**

The critical storm method shall be used in determining the magnitude of runoff control (See Appendix C).

In most cases for small sites, the developer will know how the surface of the site is to be developed. He can then go directly to calculation of increase of runoff and determination of runoff criteria following the steps in Section 2.50.5.

### **Section 2.60.4      Plan for Runoff Control**

From the results of Section 2.60.3, the developer can determine the type and magnitude of control practices he will need, in most cases being some type of structural control. These controls should be located on the site plan and runoff calculations checked.

## Section 2.60.5      Develop Design Details

Once a development plan and drainage plan and drainage system that meets the runoff criteria has been decided upon, then detailed design plans for the drainage facilities and structures should be developed. It is important at this point to work closely with the Village's engineer or Village personnel to make sure that all facilities and structures are being designed according to any standards and criteria that may exist for these types of structures within the jurisdiction.

## Section 2.70      Submission of a Drainage Plan

The plan submission shall consist of three parts:

1.      Site Plan
2.      Engineering details
3.      SWPPP (OEPA Stormwater Pollution Prevention Plan)

The site plan is a series of maps pictorially explaining the information in the narrative. The engineering details are detailed drawings, calculations and specifications on the drainage facilities and control structures to be constructed as part of the development.

# CHECKLIST

## FOR STORMWATER CONTROL PLANS

(Min. For Village Additional items required to OEPA)

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### SITE PLAN

---

Vicinity Map - A small map locating the site in relation to the surrounding area.

---

Existing Contours - The existing contours of the site should be shown on a map.

---

Existing Vegetation - The existing tree lines, grassy areas or unique vegetation should be shown on a map.

---

Soils - The boundaries of the different soil types should be shown on a map.

---

Indicate North - The direction of north in relation to the site should be shown.

---

Existing Drainage Patterns - The dividing lines and the direction of flow for the different drainage areas should be shown on a map.

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Development Plan - Location and size of all areas to be rendered impervious.

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Limits of Clearing and Grading - Areas which are to be cleared and graded should be outlined on a map.

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Location of Drainage Facilities and Control Structures - The location of the drainage facilities and control structures to be used on the site should be ~~shown on a map. Facilities or structures subject to section 2.40 shall be~~

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### ENGINEERING DETAILS

The following shall be submitted for drainage facilities or control structures to be constructed.

---

Design calculations

Design drawings

---

Specifications

Quantities

## CHAPTER THREE

### EROSION AND SEDIMENT CONTROL MEASURES

#### Section 3.00 Plan Development Criteria

Effective erosion control planning requires a working knowledge of both the application of control measures in terms of their selection and location and the design of the control

measure in terms of their selection and location and the design of the control measure in terms of its configuration, size and construction. Of utmost importance, however, is a familiarity with the basic criteria that should guide the preparation of all erosion control plans regardless of their scale or complexity. These criteria are as follows:

a. Stabilization of Denuded Areas and Soil Stockpiles

Permanent or temporary soil stabilization should be applied to denuded areas after final grade is reached on any portion of the site. Soil stabilization should also be applied to denuded areas which may not be at final grade, but will remain undisturbed during the construction period.

Soil stabilization refers to measures which protect soil from the erosive forces of raindrop impact and flowing water. Applicable practices include vegetative establishment, mulching and the early application of gravel base on areas to be paved. Soil stabilization measures should be selected to be appropriate for the time of year, site conditions and estimated duration of use.

Soil stockpiles should be stabilized or protected with sediment trapping measures to prevent soil loss.

b. Establishment of Permanent Vegetation

A permanent vegetative cover should be established on denuded areas not otherwise permanently stabilized. Permanent vegetation should not be considered established until a ground cover is achieved which is mature enough to control soil erosion satisfactorily and to survive severe weather conditions.

c. Protection of Adjacent Properties

Properties adjacent to the site of a land disturbance should be protected from sediment deposition. This may be accomplished by preserving a well vegetated buffer strip around the lower perimeter of the land disturbance, by installing perimeter controls such as sediment barriers, filters or dikes, or sediment basins, or by a combination of such measures.

Vegetated filter strips may be used only where sheet flow runoff is expected. In general, filter strips should be at least fifteen feet (15') in width. If at any time it is found that a vegetated filter strip is ineffective in stopping sediment movement into adjacent property, additional perimeter controls should be provided.

d. Timing and Stabilization of Sediment Trapping Measures

Sediment basins, diversions, sediment barriers and other measures intended to trap sediment on-site should be constructed as a first step in grading and be made functional before upslope land disturbance takes place. Earthen structures such as dams, dikes and diversions should be seeded and mulched after installation.

e. Sediment Basins

Stormwater runoff containing damaging amounts of sediment should pass through a sediment basin or other suitable sediment trapping facility.

f. Cut and Fill Slopes

Cut and fill slopes should be designed and constructed in a manner which will minimize erosion. Consideration should be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions and other applicable factors. Slopes which are found to be eroding excessively within one year of construction should be provided with additional slope stabilizing measures until the problem is corrected.

g. Stabilization of Waterways and Outlets

All on-site stormwater surface channels should be designed and constructed to withstand the expected velocity of flow from a ten year frequency storm without erosion. Design for a larger frequency storm may be necessary for protection from the stormwater flow. Stabilization adequate to prevent erosion should also be provided at the outlets of all pipes and paved channels.

h. Storm Sewer Inlet Protection

All storm sewer inlets which are made operable during construction should be protected so that sediment-laden water will not enter the conveyance system without first being filtered or otherwise treated to remove sediment.

i. Working In or Crossing Watercourses

Construction vehicles should be kept out of watercourses to the extent possible. Where in-channel work is necessary, precautions should be taken to stabilize the work area during construction to minimize erosion. The channel (including bed and banks) should always be re-established immediately after in-channel work is completed. Where a live watercourse must be crossed by construction vehicles regularly during construction, a temporary stream crossing should be provided.

j. Construction Access Routes

Wherever construction vehicle access routes intersect paved public roads, provisions should be made to minimize the transport of sediment (mud) by runoff or vehicle tracking onto the paved surface.

k. Disposition of Temporary Measures

All temporary erosion and sediment control measures should be disposed of after final site stabilization is achieved or after the temporary measures are no longer needed. Trapped sediment and other disturbed soil areas resulting from the disposition of temporary measures should be permanently stabilized to prevent further erosion and sedimentation.

l. Maintenance

All temporary and permanent erosion and sediment control measures shall be maintained and repaired as needed to assure continued performance of their intended function. Inspection by Village of Hicksville Administrator or his appointed inspector shall determine if and when maintenance/repair is needed.

m. Plans and Specifications

All erosion control practices contained on the plan shall be built to the standards and specifications of the “Water Management and Sediment Control for Urbanizing Areas” handbook.

n. OEPA SWPPP

A Stormwater Pollution Prevention Plan must be prepared in accordance with the OEPA General Permit. A Notice of Intent must be submitted to the OEPA 45 days prior to beginning work.

The SWPPP must be submitted to the Village for approval.

# APPENDIX A

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*Page 32*

*Hicksville Stormwater Management  
Rules, Regulations and Erosion Control*

## **DEFINITIONS**



## DEFINITIONS

### Development Area

Means any contiguous (abutting) area owned by one person or operated as one development unit and used or being developed for non-farm commercial, industrial, residential or other non-farm purposes upon which earth-disturbing activities are planned or underway.

### Drainage Area

Means:

1. The contributing area to a single drainage basin, expressed in acres, square miles, or other unit or area. Also call Catchment Area, Watershed and River Basin.
2. The area served by a drainage system receiving storm and surface water or by a watercourse.

### Drainage way

Means a route or course along which water moved or may move to drain an area.

### Earth-Disturbing Activity

Means any grading, excavating, filling or other alteration of the earth's surface where natural or man-made ground cover is destroyed and which may result in increased rate and/or volume of runoff and/or contribute to erosion and sediment pollution.

### Flood

Means a general and temporary condition of partial inundation or normally dry land areas.

### Person

Means any individual, corporation, partnership, joint venture, agency, unincorporated association, municipal corporation, county or state agency, the federal government, or any combination thereof.

### Primary Drainage System

Means that part of the storm drainage system which is used regularly for collecting, transporting and disposing of storm runoff, snow melt, and miscellaneous minor flows. The capacity of the primary drainage design storm which may have a frequency of occurrence of once in two, five, or ten years.

The primary system is also termed the "convenience system," "minor system," or the

“storm sewer system” and may include many features ranging from curbs and gutters to storm sewer pipes and open drainageways.

### Post-Development

Means the state or condition of the earth’s surface after urbanization occurs. Other terms are developed, future and after development.

### Pre-Development

Means that state or condition of the earth’s surface the year prior to development.

### SWPPP

Means Storm Water Pollution Prevention Plan

### Stormwater Management Facilities

Means the drainage system and control facilities necessary to meet the runoff criteria of these regulations.



# APPENDIX B

## APPLICATION AND PERMIT FORMS

### STORMWATER AND EROSION CONTROL PERMIT

**Village of Hicksville  
111-113 S. Main Street  
Hicksville, Ohio 43526  
Phone 419-542-8095  
Fax 419-542-2018**

---

**STORMWATER MANAGEMENT EROSION CONTROL  
PERMIT APPLICATION**

APPLICATION NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

1. OWNER:

DEVELOPER:

\_\_\_\_\_

\_\_\_\_\_

Name

Name

\_\_\_\_\_

\_\_\_\_\_

Address

Address

\_\_\_\_\_

\_\_\_\_\_

City, State, Zip

City, State, Zip

CONTRACTOR:

\_\_\_\_\_

\_\_\_\_\_

Name

Address

\_\_\_\_\_

City, State, Zip

2. PROPERTY LOCATION:

\_\_\_\_\_

\_\_\_\_\_

Township

City/Village

\_\_\_\_\_

\_\_\_\_\_

Adjoining Road

Section/Lot

\_\_\_\_\_

Nearest Intersection

North

South

East

West

3. TYPE OF DEVELOPMENT:

Single Family

Subdivision

Multi-Family Units (Condos)

- Commercial                       Industrial                       Multi-Family Units  
 Other \_\_\_\_\_

4. Total Area of Parcel: \_\_\_\_\_ Acres
5. Total Area of Parcel to be Developed: \_\_\_\_\_ Acres/Sq. Ft.
6. Total Area to be Permanently Impervious: \_\_\_\_\_ Acres/Sq. Ft.  
(i.e. Roads, Roofs, Drives, etc.)
7. Attach a site plan and any other additional information (i.e. lot survey, photo), that you have available that might help depict your intended activity and how the end project will appear.
8. I, \_\_\_\_\_ the undersigned, being responsible for the above described activity understand that the activity is subject to and must comply with the Stormwater Management Rules and Regulations of the Village of Hicksville.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

- Title:     Owner                       Developer                       Contractor  
 Other \_\_\_\_\_

-----*For Official Use Only*-----  
 -----

The above application had been reviewed and the applicant has been:



- Issued a permit (permit fee \$25.00)
- No permit required
- Advised that a Stormwater Management and Erosion Control Plan must be submitted, reviewed and approved prior to the issuance of a permit.
- Advised that a Drainage Plan must be submitted, reviewed and approved prior to the issuance of a permit.
- Advised that there is an existing approved Stormwater Management Plan of this site that must be complied with.
- Advised that no plan is required, but applicant is not exempt from compliance to the regulations.

---

Administrator  
Village of Hicksville

Comments:

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**Village of Hicksville**

111-113 S. Main Street  
Hicksville, Ohio 43526  
Phone 419-542-8095  
Fax 419-542-2018

---

PERMIT NUMBER: \_\_\_\_\_

APPLICATION NUMBER: \_\_\_\_\_

FEE: \$25.00

### STORMWATER AND EROSION CONTROL PERMIT

This permit is being issued in accordance with the Stormwater Management Rules, Regulations and Erosion Control (SWREC) in effect as of November 2007. The below signed parties have agreed to the application (# \_\_\_\_\_), that the SWREC will be adhered to. That any violation found upon inspection will be grounds for suspending the earthmoving disturbing activity until such time as compliance is met (see SWREC Section 1.50 and 1.51).

---

Owner

---

Date

---

---

Developer

---

Contractor

---

Village of Hicksville

---

Date

---

Date

---

Notary

---

## APPENDIX C

### CRITICAL STORM CALCULATION

## QUICK DETENTION

Critical Storm Calculation

Stream Channel and Flood Plain

Erosion

To control pollution of public waters by soil sediment from accelerated stream channel erosion and to control flood plain erosion caused by accelerated stormwater runoff from development areas, the increased peak rates and volumes of runoff shall be controlled such that:

- (a) The peak rate of runoff from the critical storm and all more frequent storms occurring on the development area does not exceed the peak rate of runoff from a one year frequency storm (of 24 hours duration) occurring on the same area under pre-development conditions.
  
- (b) Storms of less frequent occurrence than the critical storm, up to the one hundred year storm, have peak runoff rates no greater than the peak runoff rates from equivalent size storms under pre-development conditions.

The critical storm for a specific development area is determined as follows:

- (a) Determine by appropriate hydrologic methods the total volume of runoff from a two year frequency, 24-hour storm occurring on the development area before and after development.
  
- (b) From the volumes determined in (a), determine the percentage increase in volume of runoff due to development, and using this percentage, select the 24-hour critical storm from this table.

If the percentage of increase in volume of runoff is:

equal to or greater than	and less than	The critical storm for peak rate control will be
- - -	10	1 year
10	20	2 year

20	50	5 year
50	100	10 year
100	250	25 year
250	500	50 year
500	- - -	100 year

**QUICK DETENTION**

1	Gross Area =		sf		
2	Pavement Area =		sf		
3	Building Area =		sf		
4	Total Impervious	0	sf	s.f. x 0.90	0
5	Net Pervious Area	0	sf	s.f. x 0.15	0
6	Wt. C - Cw = CAI/At				

7. Allowable Q into existing system

$Q_{allow} = C_i A = 0.15 \times 3.5 \times AT / 43560$

0.00 CFS

(Note:  $i = 3.5$ "/hr. 5 year 20 min.)

8. Detention Volume Required

Tc (min.)	i10 in/hr	Cwa (A=acres)	Qin Q10	Qout=Qallow	(Qin-Qout x tx x 60)
-----------	-----------	---------------	---------	-------------	----------------------

10	5.41	0.00	0.00	0.00	0
20	1.40	0.00	0.00	0.00	0
30	3.50	0.00	0.00	0.00	0
40	2.90	0.00	0.00	0.00	0
50	2.50	0.00	0.00	0.00	0
60	2.21	0.00	0.00	0.00	0
70	1.95	0.00	0.00	0.00	0
80	1.76	0.00	0.00	0.00	0
90	1.61	0.00	0.00	0.00	0
100	1.50	0.00	0.00	0.00	0
110	1.40	0.00	0.00	0.00	0
120	1.30	0.00	0.00	0.00	0
130	1.25	0.00	0.00	0.00	0
140	1.15	0.00	0.00	0.00	0
150	1.10	0.00	0.00	0.00	0
160	1.05	0.00	0.00	0.00	0

**REQUIRED DETENTION VOLUME = 0 CUBIC FEET**



# APPENDIX D

STORM SEWER DESIGN CRITERIA

SPECIAL DRAINAGE STRUCTURES

STORM PIPE AND PIPE SPECIALS

1. STORM SEWERS

a. General

The sub divider or developer shall provide the necessary means to assure complete drainage in and adjacent to the development. Storm sewer systems shall be constructed of an adequate size to carry away runoff produced by the development. The drainage area shall include all of the pavement surface, front, side and back of all lots and future plat extensions utilizing the same system.

b. Design Formula for "Rational Method"

The quantity of storm water runoff to be used in the design of the system shall be determined when using the "Rational Method" and the "Manning Formula" for areas less than 200 acres. The equation is  $Q=CxIxA$ .

Where:Q= Ratio of runoff in cubic feet per second  
C= Ratio of runoff to rainfall  
I= Rainfall intensity in inches per hour  
A= Area of the watershed in acres

When using the Soil Conservation Service Methods that programs values will be used.

c. Runoff Coefficient

The following runoff coefficients shall be used in single family residential subdivisions including right-of-way:

<u>Average Lot Size in Subdivision</u>	<u>Runoff Coefficient "C"</u>
5,000 sq ft or less	0.50
5,000 sq ft to 6,999 sq ft	0.40
7,000 sq ft to 10,000 sq ft	0.35
Over 10,000 sq ft	0.30

These coefficients shall be used in residential subdivisions unless actual coefficients are determined by engineering analysis.

Coefficients for surfaces and occupancies other than one family residential subdivisions shall be based on the following values:

<u>Character of Surface</u>	<u>Runoff Coefficient "C"</u>
Pavement	0.95
Roofs	0.95

Lawns 0.15

Description of Area

Business:

Downtown 0.95

Neighborhood 0.75

Residential:

Multi-units, detached 0.75

Multi-units, attached 0.85

Apartments 0.85

Industrial:

Light 0.80

Heavy 0.95

The coefficients in these tabulations are applicable for storms of 5 to 10 year frequencies and shall be called minimum coefficients.

d. Rainfall Intensity

The rainfall intensity, "I" will be taken from the appropriate curves for Hicksville, Ohio, as published by the ODOT or from the following formula:

Residential 5 year frequency  $-I = \underline{131}$

		t+19
Industrial	10 year frequency	-I= <u>170</u> t+23
Commercial	10 year frequency	-I= <u>170</u> t+23

Where: I=Rainfall Intensity in inches per hour  
t=Time of Concentration or Inlet Time in minutes

A maximum of twenty (20) minutes shall be used as time of concentration to the first collection point in the system for residential areas. Preferred runoff pattern design of streets and lot grading shall be such that runoff from roofs, driveways and other impervious surfaces shall be toward the street or rear lot swales/tile systems. The subsurface system shall be designed such that each lot will have an outlet for footer tile, perimeter drains, sump pumps, etc. The runoff/discharge shall be collected in either system and both systems shall be directed to a detention/retention facility.

e. Design Storm Frequency

Minimum frequencies for various types of occupancies or land use shall be as

follows:

Residential Area	5 year frequency
Industrial Area	10 year frequency
Commercial Area	10 year frequency

Storm sewers shall be designed to flow just full for the five year frequency storm. The detention/retention facility shall be designed for a ten year frequency storm if surface water is directly outletted into it. Catch basin type and spacing shall be designed using the five year intensity duration frequency curve.

f. Drainage Calculations Presentation

An overall drainage layout plan showing the limits of the contributing runoff area broken down into areas contributing to each drainage pick-up point, shall be submitted with the paving and drainage plans. Drainage design within the development shall be adequate to handle future development and not the area under submission only. When the design makes use of an existing storm sewer or open ditch, cross sections and profiles shall be submitted which show the existing conditions at least 500 feet downstream from the plat being considered.

If future plat extensions will utilize the same drainage system, the overall drainage plan shall be submitted with the first plat plans

Complete drainage calculations shall be submitted for pipe size determinations, five year hydraulic gradient checks, and catch basin type and spacing designs.

g. Materials

Reinforced concrete pipe, having a minimum diameter of 12 inches, shall be used for all main trunk sewers and pipes under roadway pavement. All pipe, catch basins and manholes shall conform to the latest edition of the Ohio Department of Transportation "Construction and Materials Specifications," Item 603 and 604.

Polyvinyl Chloride pipe (PVC) ASTM D 3034 or corrugated polyethylene drain pipe with smooth interior such as Hancor lh-Q or ADS N-12 may be used for rear lot drainage systems or laterals to the main trunk sewer. These may be designed to a size smaller than 12 inch but not less than 6 inch.

Unreinforced pipe or plastic pipe shall have a minimum cover of eighteen inches (18"). Reinforced concrete pipe under roadways shall have a minimum cover of nine inches (9") measured from the top of the pipe to the pavement subgrade.

h. Conduit Design Factors

Velocity when flowing full or half full shall not be less than 2.5 feet per second nor more than twelve feet (12') per second.

Drop manholes shall be used to keep the velocity below twelve feet (12') per second.

Sewer capabilities shall be computed using the “Mannings Formula” with a value of  $n=0.012$  for sewers thirty inches (30”) in diameter or less and  $n=0.011$  for sewers larger than thirty three inches (33”) in diameter.

Sewer invert grades and elevations shall be established, wherever possible, to prevent surcharge and in no case shall the hydraulic grade line be above the surface of the ground or gutter for flows equal to a ten (10) year frequency storm.

i. Manholes and Catch Basins

Manholes and catch basins are required as follows:

1. At all changes of grade.
2. At all changes in alignment.
3. At all points of intersection of sewers.
4. At the point of all change in pipe size.
5. At all locations where inlets from catch basins connect to the main sewer.

j. Transitions in Size and Flow

Where the sewer size or shape changes, a manhole or structure shall be constructed. The inside of the tops of the pipes shall be matched at the same elevation; the inverts of the sewers will be stepped.

Special attention must be given where smaller sewers enter larger sewers to prevent blocking of the flow of either sewer. In some instances special transition



junction structures may be required. Smooth flow at all manholes and junction structures is vital.

k. Outfall Ends

The outfall ends of storm sewers shall be properly protected by concrete headwalls, rip-rapping of banks of open channels, paved inverts of open channels, or similar means as required by standard engineering practices and approved by the Village.

Splash aprons are required according to the following tables:

<u>Earth Type</u>	<u>Discharge Velocity-ft./sec.</u>
Sand and Sandy Loam	2.5
Silty Loam	3.0
Sandy Clay Loam	3.5
Clay Loam	4.0
Stiff Clay and Fine Gravel	5.0
Graded Silt to Cobbles	5.5
Shale, Bedrock, Hardpan, and Coarse Gravel	6.0

2. SPECIAL DRAINAGE STRUCTURES

a. General

Special drainage structures are considered to be such items as open drainage channels, culverts, bridges and retention ponds. The design of these items must be

discussed with all concerned departments or agencies prior to commencement; they can include the following:

1. County Highway Engineer
2. Soil and Water Conservation District
3. Township Trustees
4. Hicksville Planning Commission

b. Open Drainage Channels

As a general rule, storm water runoff in subdivisions shall be collected in a system of closed conduits (storm sewers) of adequate design and properly constructed to conduct the runoff to a proper and adequate outlet. Open drainage channels may be used to collect and convey storm water runoff in subdivisions where approved by the various agencies. If closed, conduits would have to equal in size and capacity to a pipe larger than four feet (4') in diameter. The approved open drainage channel shall be so located on an individual lot so that there is a minimum distance of not less than fifteen feet (15') from the top of the bank of the drainage channel to the property line, or to any physical encroachment, obstacle or structure. It is intended by the requirement to provide a permanent easement along the top of each bank of the drainage channel at least fifteen feet (15') in width in which to move equipment for maintenance of the open channel.

The above does not preclude an open drainage channel, where permitted, to be so located so that its centerline follows a property line dividing individual lots of a subdivision, or along a boundary line or tract of property, provided in the minimum width of fifteen feet (15') along the top of each bank is provided.

Permanent easements shall be dedicated for all open drainage channel and right of ingress provided so the Village may have its maintenance forces enter upon the easement to maintain the open drainage channel or have this work done by a Contractor. The width of the easements shall be determined after the open drainage channels have been designed.

Open drainage channels shall be designed to adequately carry the storm water runoff, which shall be determined as if closed conduits or storm sewers were to be constructed as provided in this manual. The slopes shall be protected from erosion and the grade of the invert of the channel shall be such that will not cause erosion of the bottom of the channel. Cross-sections shall show the type of channel at each fifty foot (50') along the channel centerline. Check dams or grade stabilization structures shall be constructed as required to preserve the channel from excessive velocities.

Existing drainage channels shall be enlarged, repaired, realigned, graded and sloped as required for new channels and shall be adequately sized to care for the runoff.

All construction work on open drainage channels shall be completed and approved by the Village before any building construction is started in the subdivision. Open drainage channels shall be protected from scouring on curves, storm sewer outfalls and similar damage by proper rip-rapping of the banks using heavy stone or concrete. Paved stone aprons shall lead from storm sewer outfalls to prevent scouring and erosion.

Open drainage channel banks shall be properly sloped, in accordance with standard engineering practice and properly seeded, sodded or paved as may be required.

c. Pipe Culverts

Pipe culverts or other culvert structures conveying an open ditch under public streets or public ways shall be constructed of reinforced concrete.

The pipe culverts shall be designed to carry a ten (10) year post development flow.

d. Driveway Culverts

In estate type subdivisions of lots with areas of two acres or more and frontages of 150 feet or more, the Planning Commission may approve open roadside ditches where rights-of-way widths for streets and public ways are not less than 66 feet.

Where culverts are provided under driveways from individual lots onto streets or public ways without curbs and utilizing roadside ditches for street drainage, each driveway shall be provided with reinforced concrete pipe not less than twelve inches (12") in diameter and a minimum length of thirty two feet (32').

3. Storm Pipe and Pipe Specials

a. General

Pipe and pipe specials shall be furnished in accordance with the provisions of the following specifications or shall be in accordance with such other specifications as may be shown on plans or ordered by the Engineer.

b. Pipe Fittings – Type and Kind

Pipe ten inches (10”) or smaller shall be one of the following:

1. Plain concrete pipe conforming to the requirements of A.S.T.M. Specification C-14, Table 11, for extra strength non-reinforced concrete pipe.
2. Polyvinyl Chloride (PVC) SDR-35 or Corrugated Polyethylene smooth bore pipe.

Pipe twelve inches (12”) and larger shall be:

1. Reinforced concrete pipe conforming to the requirements of A.S.T.M. Specification C-76 and of a class as required by the Village.
2. Reinforced elliptical concrete pipe conforming to the requirements of A.S.T.M. Specification C-507 and of a class as required by the Village.
3. Polyvinyl Chloride (PVC) SDR-35 or Corrugated Polyethylene smooth

bore pipe (for off road use only).

No connections shall be permitted to the storm sewer pipe without the use of either a catch basin or manhole.

c. Joints

All sewer pipe joints shall be watertight to prevent trench settlement from leaking joints. Joints for various type of pipe shall conform to:

1. Polyvinyl Chloride (PVC) shall be gasketed.
2. Concrete sewer pipe of a resilient flexible joint as required in A.S.T.M. Specification C-443.
3. Concrete sewer pipe of a cold application mastic joint filled as required by the Ohio Department of Transportation "Construction Material Specifications" Item 706.10 and 603.06.

d. Pipe Fittings – Inspection and Rejection

1. All pipes shall bear a means to identify the manufacturer and the class of pipe. The markings shall be indented or stenciled on the barrel and shall be plainly legible for purposes of identification.

2. All pipes shall be subject to inspection at the factory and the job site.
  
3. The manufacturer shall furnish a Certificate of Conformance in the form of an affidavit of conformance, test results or copies of test results for the pipe supplied for the project.
  
4. Inspection by the Village will not relieve the manufacturer of the responsibility of furnishing material performing in all respects to the specifications.
  
5. Pipe shall be subject to rejection on account of the following:
  - a. Variations in any dimensions exceeding permissible variations as shown in the appropriate A.S.T.M. Specifications.
  
  - b. Fractures, splits or cracks passing through the shell, barrel, bell or socket of a pipe or fitting.
  
  - c. Blisters or defects which indicate imperfect proportioning, mixing or molding.
  
  - d. Cracks which impair the strength, durability or serviceability of the pipe.
  
  - e. Variation of more than 1/8 inch per foot in alignment of the pipe

intended to be straight.



# APPENDIX E

## SITE PLAN CHECKLIST

## CHECKLIST

### SITE PLAN

\_\_\_\_\_ Vicinity Map – A small map locating the site in relation to the surrounding area.

\_\_\_\_\_ Existing Contours – The existing contours of the site should be shown on a map at two (2") intervals.

\_\_\_\_\_ Existing Vegetation – The existing tree lines, grassy areas, or unique vegetation should be shown on the map.

\_\_\_\_\_ Soils – The boundaries of the different soil types should be shown on the map.

\_\_\_\_\_ Indicate North – The direction of North in relation to the site should be shown.

\_\_\_\_\_ Critical Erosion Areas – Areas with potentially serious erosion problems should be shown on the map.

\_\_\_\_\_ Existing Drainage Problems – The dividing lines and the direction of flow for the different drainage areas should be shown on the map.

\_\_\_\_\_ Final Elevations – Changes to the existing contours should be shown on

the map as final finish grades to building sites and directions of flow to channels, storm sewer, etc.

---

Limits of Clearing and Grading – Areas which are to be cleared and graded should be outlined on the map.

---

Location of Practices – The locations of the erosion and sediment control and storm water management practices used on the site should be shown on the map.

---

Detailed Drawings – The detailed drawings for the structural practices that will be installed should show on the map.

---

Utilities and Easements – Show the existing location of buried and overhead utilities and all recorded easements on the map.

---

Legend – Explain all symbols used.

---

Scale – Show the scale use on the site plan. 1"=100' shall be minimum scale.

---

Existing Features – Show the location of natural and man-made features, utilities and easements.

# APPENDIX F

## OhioEPA GENERAL PERMIT





## Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General Permit

(Read accompanying instructions carefully before completing this form)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment D of the NOI instructions for the appropriate processing fee)

### I. Applicant Information/Mailing Address

Company (Applicant) Name: \_\_\_\_\_

Mailing (Applicant) Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Contact E-Mail Address: \_\_\_\_\_

### II. Facility/Site Location Information

Facility Name: \_\_\_\_\_

Facility Address/Location: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

County(ies): \_\_\_\_\_ Township(s): \_\_\_\_\_

Facility Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Facility Contact E-Mail Address: \_\_\_\_\_

Quarter: \_\_\_\_\_ Section(s): \_\_\_\_\_ Range: \_\_\_\_\_

Receiving Stream or MS4: \_\_\_\_\_

If aware of a state nature preserve within 1,000 feet of the facility/site, check here:

Enter river code here, if discharge is to a river designated scenic, wild, or recreational, or to a tributary within 1,000 feet (see instructions): \_\_\_\_\_

General Permit Number: OH \_\_\_\_\_ Initial Coverage:  Renewal Coverage:

Type of Activity: \_\_\_\_\_

SIC Code(s): \_\_\_\_\_

Existing NPDES Permit Number: \_\_\_\_\_

ODNR Coal Mining Application Number: \_\_\_\_\_

Outfall	Design Flow (MGD)	Latitude	Longitude
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**For Ohio EPA Use Only**

Check ID (OFA): \_\_\_\_\_

Person: \_\_\_\_\_

Place: \_\_\_\_\_

DOC #: \_\_\_\_\_

ORG #: \_\_\_\_\_

Rev. ID #: \_\_\_\_\_

Other DSW Permits Required: \_\_\_\_\_

Proposed Project Start Date (MO DY YR): \_\_\_\_\_ Estimated Completion Date (MO DY YR): \_\_\_\_\_

Total Land Disturbance (Acres): \_\_\_\_\_ MS4 Drainage Area (Square Miles): \_\_\_\_\_

Payment Information: Check # \_\_\_\_\_ Check Amount: \_\_\_\_\_ Date of Check: \_\_\_\_\_

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Name: \_\_\_\_\_ Title: \_\_\_\_\_

Applicant Signature: \_\_\_\_\_ Date: \_\_\_\_\_

AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED  
WITH CONSTRUCTION ACTIVITY UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the federal Water Pollution Control Act, as amended (33 U.S.C. Section 1251 et. seq. hereafter referred to as "the Act") and the Ohio Water Pollution Control Act [Ohio Revised Code ("ORC") Chapter 6111], dischargers of storm water from sites where construction activity is being conducted, as defined in Part I.B of this permit, are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to discharge from the outfalls at the sites and to the receiving surface waters of the state identified in their Notice of Intent ("NOI") application form on file with Ohio EPA in accordance with the conditions specified in Parts I through VII of this permit.

This permit is conditioned upon payment of applicable fees, submittal of a complete NOI application form and written approval of coverage from the director of Ohio EPA in accordance with Ohio Administrative Code ("OAC") Rule 3745-38-06.

Original signed by Christopher Jones

Christopher Jones  
Director

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## PART VI. REOPENER CLAUSE

## PART VII. DEFINITIONS

A. Permit Area.

This permit covers the entire State of Ohio.

B. Eligibility.

1. Construction activities covered. Except for storm water discharges identified under Part I.B.2, this permit may cover all new and existing discharges composed entirely of storm water discharges associated with construction activity that enter

surface waters of the state or a storm drain leading to surface waters of the state. For the purposes of this permit, construction activities include any clearing, grading, excavating, grubbing and/or filling activities that disturb the threshold acreage described in the next paragraph. Discharges from trench dewatering are also covered by this permit as long as the dewatering activity is carried out in accordance with the practices outlined in Part III.G.2.g.iv of this permit.

Prior to March 10, 2003, only construction activities disturbing five or more acres of total land were required to obtain NPDES construction storm water permit coverage. On and after March 10, 2003, construction activities disturbing one or more acres of total land will be eligible for coverage under this permit. The threshold acreage includes the entire area disturbed in the larger common plan of development or sale.

This permit also authorizes storm water discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:

- a. The support activity is directly related to a construction site that is required to have NPDES permit coverage for discharges of storm water associated with construction activity;
  - b. The support activity is not a commercial operation serving multiple unrelated construction projects and does not operate beyond the completion of the construction activity at the site it supports;
  - c. Appropriate controls and measures are identified in a storm water pollution prevention plan (SWP3) covering the discharges from the support activity;
- and

d. The support activity is on or contiguous with the property defined in the NOI;

2.Limitations on coverage. The following storm water discharges associated with construction activity are not covered by this permit:

a. Storm water discharges that originate from the site after construction activities have been completed, including any temporary support activity, and the site has achieved final stabilization. Industrial post-construction storm water discharges may need to be covered by an NPDES permit;

b. Storm water discharges associated with construction activity that the director has shown to be or may reasonably expect to be contributing to a violation of a water quality standard; and

c.Storm water discharges authorized by an individual NPDES permit or another NPDES general permit;

3.Waivers. After March 10, 2003, sites whose larger common plan of development or sale have at least one, but less than five acres of land disturbance, which would otherwise require permit coverage for storm water discharges associated with construction activities, may request that the director waive their permit requirement. Entities wishing to request such a waiver must certify in writing that

the construction activity meets one of the two the waiver conditions:

a. Rainfall erosivity waiver. For a construction site to qualify for the rainfall erosivity waiver, the cumulative rainfall erosivity over the project duration must be five or less and the site must be stabilized with at least a 70 percent vegetative cover or other permanent, non-erosive cover. The rainfall erosivity must be calculated according to the method in U.S. EPA Fact Sheet 3.1 Construction Rainfall Erosivity Waiver dated January 2001. If it is determined that a construction activity will take place during a time period where the rainfall erosivity factor is less than five, a written waiver certification must be submitted to Ohio EPA at least 21 days before construction activity is scheduled to begin. If the construction activity will extend beyond the dates specified in the waiver certification, the operator must either: (a) recalculate the waiver using the original start date with the new ending date (if the R factor is still less than five, a new waiver certification must be submitted) or (b) submit an NOI application form and fee for coverage under this general permit at least seven days prior to the end of the waiver period (see Attachment A); or

3. TMDL (Total Maximum Daily Load) waiver. Storm water controls are not

needed based on a TMDL approved or established by U.S. EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, an equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. The pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the director of Ohio EPA that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis. A written waiver certification must be submitted to Ohio EPA at least 21 days before the construction activity is scheduled to begin.

4. Prohibition on non-storm water discharges. All discharges covered by this permit must be composed entirely of storm water with the exception of the following: discharges from fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water from trench or well point dewatering and foundation or footing drains where flows are not contaminated with process materials such as solvents. Dewatering activities must be done in

compliance with Part III.G.2.g.iv of this permit. Discharges of material other than storm water or the authorized non-storm water discharges listed above must comply with an individual NPDES permit or an alternative NPDES general permit issued for the discharge.

Except for flows from fire fighting activities, sources of non-storm water listed above that are combined with storm water discharges associated with construction activity must be identified in the SWP3. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

5. Spills and unintended releases (Releases in excess of Reportable Quantities). This permit does not relieve the permittee of the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302. In the event of a spill or other unintended release, the discharge of hazardous substances in the storm water discharge(s) from a construction site must be minimized in accordance with the applicable storm water pollution prevention plan for the construction activity and in no case, during any 24-hour period, may the discharge(s) contain a hazardous substance equal to or in excess of reportable quantities.

40 CFR Part 117 sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than the reportable



quantities, when discharged to surface waters of the state. 40 CFR Part 302 designates under section 102(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, those substances in the statutes referred to in section 101(14), identifies reportable quantities for these substances and sets forth the notification requirements for releases of these substances. This regulation also sets forth reportable quantities for hazardous substances designated under section 311(b)(2)(A) of the Clean Water Act (CWA).

C. Requiring an individual NPDES permit or an alternative NPDES general permit.

1. The director may require an alternative permit. The director may require any operator eligible for this permit to apply for and obtain either an individual NPDES permit or coverage under an alternative NPDES general permit in accordance with OAC Rule 3745-38-04. Any interested person may petition the director to take action under this paragraph.

The director will send written notification that an alternative NPDES permit is required. This notice shall include a brief statement of the reasons for this decision, an application form and a statement setting a deadline for the operator to file the application. If an operator fails to submit an application in a timely manner as required by the director under this paragraph, then coverage, if in effect, under this permit is automatically terminated at the end of the day specified for application submittal.

2. Operators may request an individual NPDES permit. Any owner or operator eligible for this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request to the director in accordance with the requirements of 40 CFR 122.26. If the reasons adequately support the request, the director shall grant it by issuing an individual NPDES permit.

3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be.

#### D. Permit requirements when portions of a site are sold

If an operator obtains a permit for a development, and then the operator (permittee) sells off lots or parcels within that development, permit coverage must be continued on those lots until a Notice of Termination (NOT) in accordance with Part IV.B is submitted. For developments which require the use of centralized sediment and erosion controls (i.e., controls that address storm water runoff from one or more lots)

for which the conveyance of permit coverage for a portion of the development will either prevent or impair the implementation of the controls and therefore jeopardize compliance with the terms and conditions of this permit, the permittee will be required to maintain responsibility for the implementation of those controls. For developments where this is not the case, it is the permittee's responsibility to temporarily stabilize all lots sold to individual lot owners unless an exception is approved in accordance with Part III.G.4. In cases where permit coverage for individual lot(s) will be conveyed, the permittee shall inform the individual lot owner of the obligations under this permit and ensure that the Individual Lot NOI application is submitted to Ohio EPA.

## E. Authorization

1. Obtaining authorization to discharge. Operators that discharge storm water associated with construction activity must submit an NOI application form in accordance with the requirements of Part II of this permit to obtain authorization

to discharge under this general permit. As required under OAC Rule 3745-3806(E), the director, in response to the NOI submission, shall notify the applicant in writing that he/she has been granted general permit coverage to discharge storm water associated with construction activity under the terms and conditions of this permit or that the applicant must apply for an individual NPDES permit or coverage under an alternate general NPDES permit as described in Part I.C.1.

2. No release from other requirements. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations. Other permit requirements commonly associated with construction activities include, but are not limited to, section 401 water quality certifications, isolated wetland permits, permits to install sanitary sewers or other devices that discharge or convey polluted water, permits to install drinking water lines, single lot sanitary system permits and disturbance of land which was used to operate a solid or hazardous waste facility (i.e., coverage under this NPDES general permit does not satisfy the requirements of OAC Rule 3745-27-13 or ORC Section 3734.02(H)). This permit does not relieve the permittee of other responsibilities associated with construction activities such as contacting the Ohio Department of Natural Resources, Division of Water, to ensure proper well installation and abandonment of wells.

## Part II. NOTICE OF INTENT REQUIREMENTS

### A. Deadlines for notification.

Initial coverage: Operators who intend to obtain initial coverage for a storm water

discharge associated with construction activity under this general permit must submit a complete and accurate NOI application form and appropriate fee at least 21 days prior to the commencement of construction activity. If more than one operator, as defined in Part VII of this general permit, will be engaged at a site, each operator shall seek coverage under this general permit. Where one operator has already submitted an NOI prior to other operator(s) being identified, the additional operator shall request modification of coverage to become a co-permittee. In such instances, the copermitees shall be covered under the same facility permit number. No additional permit fee is required.

Individual lot transfer of coverage: Operators must each submit an individual lot notice of intent (Individual Lot NOI) application form (no fee required) to Ohio EPA at least seven days prior to the date that they intend to accept responsibility for permit requirements for their portion of the original permitted development from the previous permittee. The original permittee may submit an Individual Lot NOT at the time the Individual Lot NOI is submitted. Transfer of permit coverage is not granted until an approval letter from the director of Ohio EPA is received by the applicant.

**B. Failure to notify.**

Operators who fail to notify the director of their intent to be covered and who discharge pollutants to surface waters of the state without an NPDES permit are in violation of ORC Chapter 6111. In such instances, Ohio EPA may bring an enforcement action for any discharges of storm water associated with construction activity.

C. Where to submit an NOI.

Operators seeking coverage under this permit must submit a signed NOI form, provided by Ohio EPA, to the address found in the associated instructions.

D. Additional notification.

The permittee shall make NOIs and SWP3s available upon request of the director of Ohio EPA, local agencies approving sediment and erosion control plans, grading plans or storm water management plans, local governmental officials, or operators of municipal separate storm sewer systems (MS4s) receiving drainage from the permitted site. Each operator that discharges to an NPDES permitted MS4 shall provide a copy of its Ohio EPA NOI submission to the MS4 in accordance with the MS4's requirements, if applicable.

E. Renotification.

Upon renewal of this general permit, the permittee is required to notify the director of his intent to be covered by the general permit renewal. Permittees covered under the previous NPDES general permit for storm water discharges associated with construction activity (NPDES permit number OHR100000) shall have continuing coverage under this permit. The permittees covered under OHR100000 shall submit a letter within 90 days of receipt of written notification by Ohio EPA expressing their intent that coverage be continued. There is no fee associated with these letters of intent for continued coverage. Permit coverage will be terminated after the 90-day period if the letter is not received by Ohio EPA. Ohio EPA will provide instructions on the contents of the letter and where it is to be sent within the notification letter.

#### A. Storm Water Pollution Prevention Plans.

A SWP3 shall be developed for each site covered by this permit. For a multi-phase construction project, a separate NOI shall be submitted when a separate SWP3 will be prepared for subsequent phases. SWP3s shall be prepared in accordance with sound engineering and/or conservation practices by a professional experienced in the design and implementation of standard erosion and sediment controls and storm water management practices addressing all phases of construction. The SWP3 shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction activities. In addition, the SWP3 shall describe and ensure the implementation of best management practices (BMPs) that reduce the pollutants in storm water discharges during construction and pollutants associated with post-construction activities to ensure compliance with ORC Section 6111.04, OAC Chapter 3745-1 and the terms and conditions of this permit.

#### B. Timing

A SWP3 shall be completed prior to the timely submittal of an NOI and updated in accordance with Part III.D. Upon request and good cause shown, the director may waive the requirement to have a SWP3 completed at the time of NOI submission. If a waiver has been granted, the SWP3 must be completed prior to the initiation of construction activities. The SWP3 must be implemented upon initiation of construction activities.

Permittees continuing coverage from the previous generation of this permit

(OHR100000) that have initiated construction activity prior to the receipt of written notification from Ohio EPA to submit a letter of intent to continue coverage, as required in Part II.E, are not required to update their SWP3 as a result of this renewal (OHC000002). All permittees developing sites with coverage under OHR100000 that seek continuation of coverage do not need to update the post-construction section of their SWP3 as required in Part III.G.2.e of this permit.

### C. SWP3 Signature and Review.

1. Plan Signature and Retention On Site. The SWP3 shall be signed in accordance with Part V.G. and retained on site during working hours.

#### 2. Plan Availability

a. On-site: The plan shall be made available immediately upon request of the director or his authorized representative during working hours. A copy of the NOI and letter granting permit coverage under this general permit also shall be made available at the site.

b. By written request: The permittee must provide a copy of the SWP3 within 10 days upon written request of any of the following:

- i. The director or the director's authorized representative;
- ii. A local agency approving sediment and erosion plans, grading plans or storm water management plans; or
- iii. In the case of a storm water discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the operator of the system.

c. To the public: All NOIs, general permit approval for coverage letters, and



SWP3s are considered reports that shall be available to the public in accordance with the Ohio Public Records law. The permittee shall make documents available to the public upon request or provide a copy at public expense, at cost, in a timely manner. However, the permittee may claim to Ohio EPA any portion of an SWP3 as confidential in accordance with Ohio law.

3. Plan Revision. The director or authorized representative, may notify the permittee at any time that the SWP3 does not meet one or more of the minimum requirements of this part. Within 10 days after such notification from the director, (or as otherwise provided in the notification) or authorized representative, the permittee shall make the required changes to the SWP3 and, if requested, shall submit to Ohio EPA the revised SWP3 or a written certification that the requested changes have been made.

#### D. Amendments

The permittee shall amend the SWP3 whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the potential for the discharge of pollutants to surface waters of the state or if the SWP3 proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity. Amendments to the SWP3 may be reviewed by Ohio EPA in the same manner as Part III.C.

#### E. Duty to inform contractors and subcontractors

The permittee shall inform all contractors and subcontractors not otherwise defined as “operators” in Part VII of this general permit, who will be involved in the implementation of the SWP3, of the terms and conditions of this general permit. The permittee shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created and signatures shall be obtained prior to commencement of work on the construction site.

#### F. Total Maximum Daily Load (TMDL) allocations

If a TMDL is approved for any waterbody into which the permittee’s site discharges and requires specific BMPs for construction sites, the director may require the permittee to revise his/her SWP3.

#### G. SWP3 Requirements

Operations that discharge storm water from construction activities are subject to the following requirements and the SWP3 shall include the following items:

1. Site description. Each SWP3 shall provide:
  - a. A description of the nature and type of the construction activity (e.g., low density residential, shopping mall, highway, etc.);
  - b. Total area of the site and the area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including off-site borrow areas);
  - c. A calculation of the runoff coefficients for both the pre-construction and post construction site conditions;
  - d. An estimate of the impervious area and percent imperviousness created by the construction activity;
  - e. Existing data describing the soil and, if available, the quality of any discharge from the site;
  - f. A description of prior land uses at the site;
  
- g. An implementation schedule which describes the sequence of major construction operations (i.e., grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion, sediment and

storm water management practices or facilities to be employed during each operation of the sequence;

h. The name and/or location of the immediate receiving stream or surface water(s) and the first subsequent named receiving water(s) and the areal extent and description of wetlands or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project;

i. For subdivided developments where the SWP3 does not call for a centralized sediment control capable of controlling multiple individual lots, a detail drawing of a typical individual lot showing standard individual lot erosion and sediment control practices.

This does not remove the responsibility to designate specific erosion and sediment control practices in the SWP3 for critical areas such as steep slopes, stream banks, drainage ways and riparian zones.

j. Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants covered by this permit and the best management practices to address pollutants in these storm water discharges;

k. A copy of the permit requirements (attaching a copy of this permit is acceptable); and

l. Site map showing:

i. Limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated SWP3;

- ii. Soils types should be depicted for all areas of the site, including locations of unstable or highly erodible soils;
- iii. Existing and proposed contours. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;
  
- iv. Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA;
- v. Existing and planned locations of buildings, roads, parking facilities and utilities;
- vi. The location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during the course of site development;
- vii. Sediment and storm water management basins noting their sediment

settling volume and contributing drainage area;

viii. Permanent storm water management practices to be used to control pollutants in storm water after construction operations have been completed.

ix. areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;

x. The location of designated construction entrances where the vehicles will access the construction site;

xi. The location of any in-stream activities including stream crossings;

2. Controls. The SWP3 must contain a description of the controls appropriate for each construction operation covered by this permit and the operator(s) must implement such controls. The SWP3 must clearly describe for each major construction activity identified in Part III.G.1.g: (a) appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented; and (b) which contractor is responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). Ohio EPA recommends that the erosion, sediment, and storm water management practices used to satisfy the conditions of this permit, should meet the standards and specifications in the current edition of Ohio's Rainwater and Land Development (see definitions) manual or other standards acceptable to Ohio EPA. The controls shall include the following minimum components:

a. Non-Structural Preservation Methods. The SWP3 must make use of practices which preserve the existing natural condition as much as feasible. Such practices may include: preserving riparian areas adjacent to surface waters of the state, preserving existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time and designation of tree preservation areas or other protective clearing or grubbing practices. The recommended buffer that operators should leave undisturbed along a surface water of the state is 25 feet as measured from the ordinary high water mark of the surface water.

b. Erosion Control Practices. The SWP3 must make use of erosion controls that are capable of providing cover over disturbed soils unless an exception is approved in accordance with Part III.G.4. A description of control practices designed to restabilize disturbed areas after grading or construction shall be included in the SWP3. The SWP3 must provide specifications for stabilization of all disturbed areas of the site and provide guidance as to which method of stabilization will be employed for any time of the year. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, use of construction entrances and the use of alternative ground cover.

i. Stabilization. Disturbed areas must be stabilized as specified in the following tables below. Permanent and temporary stabilization are defined in Part VII.

Table 1: Permanent Stabilization

Area requiring permanent stabilization Time frame to apply erosion controls

Any areas that will lie dormant for one year or more

Within seven days of the most recent disturbance

Any areas within 50 feet of a stream and at final grade

Within two days of reaching final grade

Any other areas at final grade Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization Time frame to apply erosion controls

Any disturbed areas within 50 feet of a stream and not at final grade

Within two days of the most recent disturbance if the area will remain idle for more than 21 days

For all construction activities, any disturbed areas that will be dormant for more than 21 days but less than one year, and not within 50 feet of a stream



Within seven days of the most recent disturbance within the area

For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).

Disturbed areas that will be idle over winter

Prior to the onset of winter weather

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed.

ii.

Permanent stabilization of conveyance channels. Operators shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding (as defined in the 1996 edition of the Rainwater and Land Development manual), mulching, erosion control matting, sodding, riprap, natural channel design with bioengineering techniques or rock check dams.

c. Runoff Control Practices. The SWP3 shall incorporate measures which control the flow of runoff from disturbed areas so as to prevent erosion from occurring. Such practices may include rock check dams, pipe slope drains, diversions to direct flow away from exposed soils and protective grading practices. These practices shall divert runoff away from disturbed areas and steep slopes where practicable.

d. Sediment Control Practices. The plan shall include a description of structural practices that shall store runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may

include, among others: sediment settling ponds, silt fences, earth diversion dikes or channels which direct runoff to a sediment settling pond and storm drain inlet protection. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless those are used in conjunction with a sediment settling pond.

The SWP3 must contain detail drawings for all structural practices.

- i. Timing. Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing. They shall continue to function until the up slope development area is restabilized. As construction progresses and the topography is altered, appropriate controls must be constructed or existing controls altered to address the changing drainage patterns.
- ii. Sediment settling ponds. Concentrated storm water runoff and runoff from drainage areas, which exceed the design capacity of silt fence or inlet protection, shall pass through a sediment settling pond. For common drainage locations that serve an area with 10 or more acres disturbed at one time, a temporary (or permanent) sediment settling pond must be provided until final stabilization of the site. The permittee may request approval from Ohio EPA to use alternative controls if it can demonstrate the alternative controls are equivalent in effectiveness to a

sediment settling pond. It is recommended for drainage locations serving less than 10 acres, smaller sediment basins and/or sediment traps should be used.

The sediment settling pond shall be sized to provide at least 67 cubic yards of storage per acre of total contributing drainage area. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity must be included unless runoff from these areas is diverted away from the sediment settling pond and is not co-mingled with sediment-laden runoff. The depth of the sediment settling pond must be less than or equal to five feet. The configuration between inlets and the outlet of the basin must provide at least two units of length for each one unit of width (> 2:1 length:width ratio). Sediment must be removed from the sediment settling pond when the design capacity has been reduced by 40 percent (This is typically reached when sediment occupies one-half of the basin depth). When designing sediment settling ponds, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls must be used where site limitations would preclude a safe design. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal is encouraged.

iii. Silt Fence and Diversions. Sheet flow runoff from denuded areas shall be intercepted by silt fence or diversions to protect adjacent properties

and water resources from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour. This permit does not preclude the use of other sediment barriers designed to control sheet flow runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in the table below.

Maximum drainage area (in acres) to 100 linear feet of silt fence

Range of slope for a particular drainage area (in percent)

0.5 < 2%

0.25 > 2% but < 20%

0.125 > 20% but < 50%

Storm water diversion practices shall be used to keep runoff away from disturbed areas and steep slopes where practicable. Such devices, which include swales, dikes or berms, may receive storm water runoff from areas up to 10 acres.

iv. Inlet Protection. Other erosion and sediment control practices shall minimize sediment laden water entering active storm drain systems, unless the storm drain system drains to a sediment settling pond.

v. Stream Protection. If construction activities disturb areas adjacent to streams, structural practices shall be designed and implemented on site to protect all adjacent streams from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond in-stream) shall be used in a stream. For all construction activities immediately adjacent to surface waters of the state, it is recommended that a setback of at least 25-feet, as measured from

the ordinary high water mark of the surface water, be maintained in its natural state as a permanent buffer. Where impacts within this setback area are unavoidable due to the nature of the construction activity (e.g., stream crossings for roads or utilities), the project shall be designed such that the number of stream crossings and the width of the disturbance within the setback area are minimized.

vi. Modifying Controls. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee must replace or modify the control for site conditions.

e. Post-Construction Storm Water Management Requirements. So that receiving stream's physical, chemical, and biological characteristics are protected and stream functions are maintained, post-construction storm water practices shall provide perpetual management of runoff quality and quantity. To meet the post-construction requirements of this permit, the SWP3 must contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection. The rationale must address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality.

Detail drawings and maintenance plans must be provided for all post-construction BMPs. Maintenance plans shall be provided by the permittee to the post-construction operator of the site (including homeowner associations)

upon completion of construction activities (prior to termination of permit coverage). For sites located within a community with a regulated municipal separate storm sewer system (MS4), the permittee, land owner, or other entity with legal control of the property may be required to develop and implement a maintenance plan to comply with the requirements of the MS4. Maintenance plans must ensure that pollutants collected within structural post-construction practices, be disposed of in accordance with local, state, and federal regulations. Permittees, except for those regulated under the small MS4 program, are not responsible under this permit for operation and maintenance of post-construction practices once coverage under this permit is terminated.

This permit does not preclude the use of innovation or experimental post-construction storm water management technologies. However, the director may require discharges from such structures to be monitored to ensure compliance with Part III.G.2.e of this permit. The installation of structural controls in certain scenarios may also require a separate permit under section 404 of the CWA. Permittees are only responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site and are not responsible for maintenance after storm water discharges associated with construction activity have been eliminated from the site. However, post-construction storm water BMPs that discharge pollutants from point sources once construction is completed, may in themselves, need authorization under a separate NPDES permit.

Linear construction projects, (e.g., pipeline or utility line installation), which do

not result in the installation of impervious surface, are not required to comply with the conditions of Part III.G.2.e of this permit. However, linear construction projects must be designed to minimize the number of stream crossings and the width of disturbance.

Large Construction Activities. For all large construction activities (involving the disturbance of five or more acres of land or will disturb less than five acres, but is a part of a larger common plan of development or sale which will disturb five or more acres of land), the post construction BMP(s) chosen must be able to detain storm water runoff for protection of the stream channels, stream erosion control, and improved water quality. Structural (designed) post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality volume (WQv) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQv shall be equivalent to the volume of runoff from a 0.75-inch rainfall and shall be determined according to one of the two following methods:

- i. Through a site hydrologic study approved by the local municipal permitting authority that uses continuous hydrologic simulation and local long-term hourly precipitation records or
- ii. Using the following equation:

$$WQv = C * P * A / 12$$

where:

WQv = water quality volume in acre-feet

C = runoff coefficient appropriate for storms less than 1 inch

(see Table 1)

P = 0.75 inch precipitation depth

A = area draining into the BMP in acres

Table 1

Runoff Coefficients Based on the Type of Land Use

Land Use Runoff Coefficient

Industrial & Commercial 0.8

High Density Residential (>8 dwellings/acre) 0.5

Medium Density Residential (4 to 8 dwellings/acre) 0.4

Low Density Residential (<4 dwellings/acre) 0.3

Open Space and Recreational Areas 0.2

Where the land use will be mixed, the runoff coefficient should be calculated using a weighted average. For example, if 60% of the contributing drainage area to the storm water treatment structure is Low Density Residential, 30% is High Density Residential, and 10% is Open

Space, the runoff coefficient is calculated as follows  $(0.6)(0.3) + (0.3)(0.5) + (0.1)(0.2) = 0.35$ .

An additional volume equal to 20 percent of the WQv shall be incorporated into the BMP for sediment storage and/or reduced infiltration capacity. Ohio EPA recommends that BMPs be designed according to the methodology included in the Rainwater and Land Development manual or in another design manual acceptable for use by Ohio EPA.



BMPs shall be designed such that the drain time is long enough to provide treatment, but short enough to provide storage available for successive rainfall events as described in Table 2 below.

Table 2

Target Draw Down (Drain) Times for Structural  
Post-Construction Treatment Control Practices  
Best Management Practice Drain Time of WQv  
Infiltration 24 - 48 hours  
Vegetated Swale and Filter Strip 24 hours  
Extended Detention Basin (Dry Basins) 48 hours  
Retention Basins (Wet Basins)\* 24 hours  
Constructed Wetlands (above permanent pool) 24 hours  
Media Filtration, Bioretention 40 hours

\* Provide both a permanent pool and an extended detention volume above the permanent pool, each sized at 0.75 \* WQv

The permittee may request approval from Ohio EPA to use alternative structural post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. Construction activities shall be exempt from this condition if it can be demonstrated that the WQv is provided within an existing structural post-construction BMP that is part of a larger common plan of development or if structural post-construction BMPs are addressed in a regional or local storm water management plan. Public entities (i.e., the state, counties, townships, cities, or villages) shall comply with the post-construction storm water

management requirements of Part III.G.2.e for roadway construction projects initiated after March 10, 2006 and where practicable for projects initiated as of the effective date of this permit and thereafter.

For redevelopment projects (i.e., developments on previously developed property), post-construction practices shall either ensure a 20 percent net reduction of the site impervious area, provide for treatment of at least 20 percent of the WQv, or a combination of the two.

Small Construction Activities. For all small land disturbance activities (which disturb one or more, but less than five acres of land and is not a part of a larger common plan of development or sale which will disturb five or more acres of land), a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed must be included in the SWP3. Structural measures should be placed on upland soils to the degree attainable.

- i. Such practices may include, but are not limited to: storm water detention structures (including wet basins); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The SWP3 shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels.
- ii. Velocity dissipation devices shall be placed at discharge locations and

along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

f. Surface Water Protection. If the project site contains any streams, rivers, lakes, wetlands or other surface waters, certain construction activities at the site may be regulated under the CWA and/or state isolated wetland permit requirements. Sections 404 and 401 of the Act regulate the discharge of dredged or fill material into surface waters and the impacts of such activities on water quality, respectively. Construction activities in surface waters which may be subject to CWA regulation and/or state isolated wetland permit requirements include, but are not limited to: sewer line crossings, grading, backfilling or culverting streams, filling wetlands, road and utility line construction, bridge installation and installation of flow control structures. If the project contains streams, rivers, lakes or wetlands or possible wetlands, the permittee must contact the appropriate U.S. Army Corps of Engineers District Office. (CAUTION: Any area of seasonally wet hydric soil is a potential wetland - please consult the Soil Survey and list of hydric soils for your County, available at your county's Soil and Water Conservation District. If you have any questions about Section 401 water quality certification, please contact the Ohio Environmental Protection Agency, Section 401 Coordinator.)

U.S. Army Corps of Engineers (Section 404 regulation):

Huntington, WV District (304) 529-5210 (Muskingum, Hocking and Scioto River Basin)

Buffalo, NY District (716) 879-4329 (Lake Erie Basin)

Pittsburgh, PA District (412) 395-7152 (Mahoning River Basin)

Louisville, KY District (502) 315-6678 (Little & Great Miami River Basin)

Ohio Environmental Protection Agency (Section 401 regulation):

Columbus, OH (614) 644-2001 (all of Ohio)

g. Other controls.

i. Non-Sediment Pollutant Controls. No solid (other than sediment) or liquid waste, including building materials, shall be discharged in storm water runoff. The permittee must implement all necessary BMPs to prevent the discharge of non-sediment pollutants to the drainage system of the site or surface waters of the state. Under no circumstance shall concrete trucks wash out directly into a drainage channel, storm sewer or surface waters of the state. No exposure of storm water to waste materials is recommended.

ii. Off-site traffic. Off-site vehicle tracking of sediments and dust generation shall be minimized.

iii. Compliance with other requirements. The SWP3 shall be consistent with applicable State and/or local waste disposal, sanitary sewer or septic system regulations, including provisions prohibiting waste disposal by open burning and shall provide for the proper disposal of contaminated soils to the extent these are located within the permitted area.

iv. Trench and ground water control. There shall be no turbid discharges to surface waters of the state resulting from dewatering activities. If

trench or ground water contains sediment, it must pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag or comparable practice. Ground water dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.

h. Maintenance. All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices must be maintained in a functional condition until all up slope areas they control are permanently stabilized. The SWP3 shall be designed to minimize maintenance requirements. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices.

i. Inspections. At a minimum, procedures in an SWP3 shall provide that all controls on the site are inspected at least once every seven calendar days

and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. The permittee shall assign qualified inspection personnel (those with knowledge and experience in the installation and maintenance of sediment and erosion controls) to conduct these inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate and properly implemented in accordance with the schedule proposed in Part III.G.1.g of this permit or whether additional control measures are required. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that those are operating correctly. Discharge locations shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

The permittee shall maintain for three years following the submittal of a notice of termination form, a record summarizing the results of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWP3 and a certification as to whether the facility is in compliance with the SWP3 and the permit and identify any incidents of non-compliance. The record and certification shall be signed in accordance with Part V.G. of this permit.

- i. When practices require repair or maintenance. If the inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment settling pond, it must be repaired or maintained within three days of the inspection. Sediment settling ponds must be repaired or maintained within 10 days of the inspection.
- ii. When practices fail to provide their intended function. If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the SWP3 must be amended and the new control practice must be installed within 10 days of the inspection.
- iii. When practices depicted on the SWP3 are not installed. If the inspection reveals that a control practice has not been implemented in accordance with the schedule contained in Part III.G.1.g of this permit, the control practice must be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record must contain a statement of explanation as to why the control practice is not needed.

3. Approved State or local plans. All dischargers regulated under this general permit must comply, except those exempted under state law, with the lawful

requirements of municipalities, counties and other local agencies regarding discharges of storm water from construction activities. All erosion and sediment control plans and storm water management plans approved by local officials shall be retained with the SWP3 prepared in accordance with this permit. Applicable requirements for erosion and sediment control and storm water management approved by local officials are, upon submittal of a NOI form, incorporated by reference and enforceable under this permit even if they are not specifically included in an SWP3 required under this permit. When the project is located within the jurisdiction of a regulated municipal separate storm sewer system (MS4), the permittee must certify that the SWP3 complies with the requirements of the storm water management program of the MS4 operator.

4. Exceptions. If specific site conditions prohibit the implementation of any of the erosion and sediment control practices contained in this permit or site specific conditions are such that implementation of any erosion and sediment control practices contained in this permit will result in no environmental benefit, then the permittee shall provide justification for rejecting each practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in this permit will be approved or denied on a case-by-case basis.

A. Failure to notify.

The terms and conditions of this permit shall remain in effect until a signed Notice of Termination (NOT) form is submitted. Failure to submit an NOT constitutes a violation



of this permit and may affect the ability of the permittee to obtain general permit coverage in the future.

#### B. When to submit an NOT

1. Permittees wishing to terminate coverage under this permit must submit an NOT form in accordance with Part V.G. of this permit. Compliance with this permit is required until an NOT form is submitted. The permittee's authorization to discharge under this permit terminates at midnight of the day the NOT form is submitted.

2. All permittees must submit an NOT form within 45 days of completing all permitted land disturbance activities. Enforcement actions may be taken if a permittee submits an NOT form without meeting one or more of the following conditions:

a. Final stabilization (see definition in Part VII) has been achieved on all portions of the site for which the permittee is responsible (including, if applicable, returning agricultural land to its pre-construction agricultural use);

b. Another operator(s) has assumed control over all areas of the site that have not been finally stabilized;

c. For residential construction only, temporary stabilization has been completed and the lot, which includes a home, has been transferred to the homeowner.

(Note: individual lots without housing which are sold by the developer must undergo final stabilization prior to termination of permit coverage.); or

d. An exception has been granted under Part III.G.4.

#### C. How to submit an NOT

Permittees must use Ohio EPA's approved NOT form. The form must be completed

and mailed according to the instructions and signed in accordance with Part V.G of this permit.

A. Duty to comply.

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of ORC Chapter 6111. and is grounds for enforcement action.

2. Ohio law imposes penalties and fines for persons who knowingly make false statements or knowingly swear or affirm the truth of a false statement previously made.

B. Continuation of an expired general permit.

An expired general permit continues in force and effect until a new general permit is issued.

C. Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Duty to provide information.

The permittee shall furnish to the director, within 10 days of written request, any information which the director may request to determine compliance with this permit. The permittee shall also furnish to the director upon request copies of records required to be kept by this permit.

F. Other information.

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI, SWP3, NOT or in any other report to the director, he or she shall promptly submit such facts or information.

G. Signatory requirements.

All NOIs, NOTs, SWP3s, reports, certifications or information either submitted to the director or that this permit requires to be maintained by the permittee, shall be signed.

1. These items shall be signed as follows:

a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- i. A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation; or
- ii. The manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

- b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
- c. For a municipality, State, Federal or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).

2. All reports required by the permits and other information requested by the director shall be signed by a person described in Part V.G.1 of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described in Part V.G.1 of this permit and submitted to the director;

- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator of a well or well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

- c. The written authorization is submitted to the director.

3. Changes to authorization. If an authorization under Part V.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.G.2 of this permit must be submitted to the director prior to or together with any reports, information or applications to be signed by an authorized representative.

#### H. Certification.

Any person signing documents under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

#### I. Oil and hazardous substance liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the

permittee is or may be subject under section 311 of the CWA or 40 CFR Part 112. 40 CFR Part 112 establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable surface waters of the State or adjoining shorelines.

J. Property rights.

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

K. Severability.

The provisions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

L. Transfers.

Ohio NPDES general permit coverage is transferable. Ohio EPA must be notified in writing sixty days prior to any proposed transfer of coverage under an Ohio NPDES general permit. The transferee must inform Ohio EPA it will assume the responsibilities of the original permittee transferor.

M. Environmental laws.

No condition of this permit shall release the permittee from any responsibility or

requirements under other environmental statutes or regulations.

N. Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWP3s. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

O. Inspection and entry.

The permittee shall allow the director or an authorized representative of Ohio EPA, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;



2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

#### PART VI. REOPENER CLAUSE

A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with construction activity covered by this permit, the permittee of such discharge may be required to obtain coverage under an individual permit or an alternative general permit in accordance with Part I.C of this permit or the permit may be modified to include different limitations and/or requirements.

B. Permit modification or revocation will be conducted according to ORC Chapter 6111.

#### PART VII. DEFINITIONS

A. "Act" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117 and Pub. L. 100-4, 33 U.S.C. 1251 et. seq.

B. "Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the state. BMP's also include treatment requirements, operating procedures and practices to

control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

C. "Commencement of construction" means the initial disturbance of soils associated with clearing, grubbing, grading, placement of fill or excavating activities or other construction activities.

D. "Concentrated storm water runoff" means any storm water runoff which flows through a drainage pipe, ditch, diversion or other discrete conveyance channel.

E. "Director" means the director of the Ohio Environmental Protection Agency.

F. "Discharge" means the addition of any pollutant to the surface waters of the state from a point source.

G. "Disturbance" means any clearing, grading, excavating, filling, or other alteration of land surface where natural or man-made cover is destroyed in a manner that exposes the underlying soils.

H. "Final stabilization" means that either:

1. All soil disturbing activities at the site are complete and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the area has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of mulches, rip-rap, gabions or geotextiles) have been

employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or

2. For individual lots in residential construction by either:

a. The homebuilder completing final stabilization as specified above or

b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for and benefits of, final stabilization. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to final stabilization as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or

3. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were previously used for agricultural activities, such as buffer strips immediately adjacent to surface waters of the state and which are not being returned to their pre-construction agricultural use, must meet the final stabilization criteria in (1) or (2) above.

I. "Individual Lot NOI" means a Notice of Intent for an individual lot to be covered by this permit (see parts I and II of this permit).

J. "Larger common plan of development or sale"- means a contiguous area where

multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

K. "MS4" means municipal separate storm sewer system which means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) that are:

1. Owned or operated by the federal government, state, municipality, township, county, district(s) or other public body (created by or pursuant to state or federal law) including special district under state law such as a sewer district, flood control district or drainage districts or similar entity or a designated and approved management agency under section 208 of the act that discharges into surface waters of the state; and
2. Designed or used for collecting or conveying solely storm water,
3. Which is not a combined sewer and
4. Which is not a part of a publicly owned treatment works.

L. "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the CWA. The term includes an "approved program."

M. "NOI" means notice of intent to be covered by this permit.

N. "NOT" means notice of termination.

O. "Operator" means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with an SWP3 for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

As set forth in Part II.A, there can be more than one operator at a site and under these circumstances, the operators shall be co-permittees.

P. "Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Q. "Permanent stabilization" means the establishment of permanent vegetation, decorative landscape mulching, matting, sod, rip rap and landscaping techniques to provide permanent erosion control on areas where construction operations are complete or where no further disturbance is expected for at least one year.

R. "Percent imperviousness" means the impervious area created divided by the total area of the project site.

S. "Point source" means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or the floating craft from which pollutants are or may be discharged. This term

does not include return flows from irrigated agriculture or agricultural storm water runoff.

T. "Rainwater and Land Development" is a manual describing construction and post-construction best management practices and associated specifications. A copy of the manual may be obtained by contacting the Ohio Department of Natural Resources, Division of Soil & Water Conservation.

U. "Riparian area" means the transition area between flowing water and terrestrial (land) ecosystems composed of trees, shrubs and surrounding vegetation which serve to stabilize erodible soil, improve both surface and ground water quality, increase stream shading and enhance wildlife habitat.

V. "Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

W. "Sediment settling pond" means a sediment trap, sediment basin or permanent basin that has been temporarily modified for sediment control, as described in the latest edition of the Rainwater and Land Development manual.

X. "Storm water" means storm water runoff, snow melt and surface runoff and drainage.

Z. "Surface waters of the state" or "water bodies" means all streams, lakes, reservoirs, ponds, marshes, wetlands or other waterways which are situated wholly or partially within the boundaries of the state, except those private waters which do not combine or effect a junction with natural surface or underground waters. Waters defined as sewerage systems, treatment works or disposal systems in Section 6111.01 of the ORC are not included.

AA. "SWP3" means storm water pollution prevention plan.

BB. "Temporary stabilization" means the establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation and other techniques capable of quickly establishing cover over disturbed areas to provide erosion control between construction operations.

CC. "Water Quality Volume (WQv)" means the volume of storm water runoff which must be captured and treated prior to discharge from the developed site after construction is complete. WQv is based on the expected runoff generated by the mean storm precipitation volume from post-construction site conditions at which rapidly diminishing returns in the number of runoff events captured begins to occur.