

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 stormwater 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)

<u>SITE PLAN</u>	
_____	<u>Vicinity Map</u> - A small map locating the site in relation to the surrounding area.
_____	<u>Existing Contours</u> - The existing contours of the site should be shown on a map.
_____	<u>Existing Vegetation</u> - The existing tree lines, grassy areas or unique vegetation should be shown on a map.
_____	<u>Soils</u> - The boundaries of the different soil types should be shown on a map.
_____	<u>Indicate North</u> - The direction of north in relation to the site should be shown.
_____	<u>Existing Drainage Patterns</u> - The dividing lines and the direction of flow for the different drainage areas should be shown on a map.
_____	<u>Development Plan</u> - Location and size of all areas to be rendered impervious.
_____	<u>Limits of Clearing and Grading</u> - Areas which are to be cleared and graded should be outlined on a map.
_____	<u>Location of Drainage Facilities and Control Structures</u> - 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 delineated.

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

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.)

STORMWATER MANAGEMENT EROSION CONTROL
PERMIT APPLICATION (CONT...)

- 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:

**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	Date
_____	_____
Contractor	Date
_____	_____
Village of Hicksville	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

7/13/01

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