

CITY OF LIMA, OHIO
STORMWATER MANAGEMENT
& SEDIMENT CONTROL
REGULATIONS

50 Town Square, Lima, OH 45801

EFFECTIVE DATE: FEBRUARY 27, 2017
ORDINANCE NUMBER 035-17

TABLE OF CONTENTS

<u>ARTICLE</u>		<u>PAGE</u>
	TABLE OF CONTENTS	i
	LIST OF TABLES.....	ii
1	GENERAL PROVISIONS	
	1.1 Statutory Authority and Title.....	1
	1.2 Purpose.....	1
	1.3 Scope	1
	1.4 Variance Policy and Procedure.....	2
	1.5 Severability	2
	1.6 Disclaimer of Liability	2
	1.7 Relation to Other Regulations.....	2
2	ADMINISTRATION	
	2.1 Delegation of Program Responsibilities	5
	2.2 Authorized Plan Providers	5
	2.3 Plan Review and Approval.....	5
	2.4 Permit Process	6
	2.5 Application, Permitting and Other Fees.....	7
	2.6 Inspection and Compliance.....	7
	2.7 Stormwater and Sediment Complaints.....	9
	2.8 Appeals	9
3	SPECIAL CONSIDERATIONS	
	3.1 Regulated Activities and Applicability.....	10
	3.2 Permit Requirements when Portions of a Site are Sold.....	13
4	PERFORMANCE STANDARDS	
	4.1 Erosion and Sediment Control Practices.....	14
5	APPLICATION PROCEDURES FOR STORMWATER POLLUTION PREVENTION PLAN (SWP3)	
	5.1 Stormwater Pollution Prevention Plan (SWP3)	23
6	POST-CONSTRUCTION RUNOFF QUALITY & QUANTITY CONTROL	
	6.1 Purpose	27
	6.2 Post-Construction Runoff Control Design	27
	6.3 Permanent Maintenance of Stormwater Control Structures, Facilities & Outlets	33
	Appendix A Acronyms.....	35
	Appendix B Definitions	36
	Appendix C Single Family Residential Development Stormwater Pollution Prevention Plan (SWP3).....	44
	Appendix D Single Family Residential Development SWP3 Compliance Checklist	46

LIST OF TABLES

<u>TABLES</u>		<u>PAGE</u>
Table 1	Temporary Stabilization	15
Table 2	Permanent Stabilization.....	15
Table 3	Maximum Area Contributing Area Using Slope Length	17
Table 4	Critical Storm For Discharge Limitation.....	28
Table 5	Runoff Coefficients for WQv Calculations	29
Table 6	Drawdown Times for Post-Construction BMPs	29

**ARTICLE 1
GENERAL PROVISIONS**

1.1 STATUTORY AUTHORITY AND TITLE

These Regulations have been adopted by the City of Lima, Ohio in accordance with its Charter and Ordinances, and pursuant to the legal authority of Article XVIII, Sections 3 and 7 of the Ohio Constitution, to be administered by a City of Lima official designated as the "Administrator".

The official title of these Regulations shall be known as the City of Lima, Ohio Stormwater Management & Sediment Control Regulations (SMSCR).

1.2 PURPOSE

1.2.1 These Regulations are to establish stormwater management using Best Management Practices (BMPs) and conservation practices to minimize the impact to public waters from accelerated soil erosion and stormwater runoff caused by earth disturbing activities, subsurface drainage and land use changes connected with activities within a development area. These Regulations are intended to:

1.2.1.1 Reduce flooding, erosion, and sedimentation damages caused by land disturbance and development;

1.2.1.2 Reduce damage to receiving streams, storm sewers, or channels caused by increased runoff or pollutant loading of the water being discharged into them due to development or that may be caused by illicit discharges;

1.2.1.3 Establish the systematic submittal of plans and designs and implementation of appropriate BMPs through preconstruction stormwater management plan (SWMP) review, site inspections and penalties for non-compliance with these Regulations and related state and federal permits;

1.2.1.4 Establish the systematic submittal and review of appropriate post-construction structural and non-structural BMPs within new development and redevelopment areas, including assurances of the long-term operation of BMPs.

1.3 SCOPE

1.3.1 These Regulations shall apply to all non-farm earth disturbing activities performed on the incorporated lands of the City of Lima, Ohio, including public transportation, utilities and drainage improvements or maintenance thereof undertaken by a government agency. Exemptions are those activities as allowed by law and as follows:

- 1.3.1.1 Strip mining operations regulated under Chapter 1513.01 of the Ohio Revised Code;
- 1.3.1.2 Surface mining operations regulated under Chapter 1514.01 of the Ohio Revised Code.
- 1.3.2 In the event that an earth disturbing activity occurs within the property of a separate public entity and that entity has its own SWMP and SWP3 requirements, application shall be made to both the City of Lima and that entity. All City of Lima requirements will remain in force. The more stringent of the two entities' requirements will govern.

1.4 VARIANCE POLICY AND PROCEDURE

- 1.4.1 It is conceivable that earth disturbing activities may have exceptional circumstances applicable to the site such that strict adherence to the provisions of these Regulations will result in unnecessary hardship and not fulfill the intent of these Regulations. Therefore a variance request procedure is established as follows:
 - 1.4.1.1 The owner of the property may submit a written request to the Administrator for a variance from a requirement. This written request shall state the reason for proposed variance and how the requirements pose an unnecessary hardship and what measures are proposed to meet the intent of these Regulations;
 - 1.4.1.2 The Administrator will grant or deny the variance or request a modification to the variance;
 - 1.4.1.3 In the event the property owner disagrees with the decision of the Administrator the owner may appeal to the Board of Appeals in accordance with these Regulations.

1.5 SEVERABILITY

- 1.5.1 If any article, clause, section, or provision of these Regulations is declared invalid or unconstitutional by a court of competent jurisdiction, validity of the remaining provisions shall not be affected thereby.

1.6 DISCLAIMER OF LIABILITY

- 1.6.1 Neither submission of a plan under the provisions herein, nor compliance with the provisions of these Regulations shall relieve any person from responsibility for damage to any person or property otherwise imposed by law; nor impose any liability upon the City of Lima or its representatives for damage to any person or property.

1.7 RELATION TO OTHER REGULATIONS

Addressing only the requirements associated with the Construction General Permit (CGP) does not relieve the applicant of responsibility for obtaining all subsequent

permits and/or approvals from the Ohio Environmental Protection Agency (OEPA), the United States Army Corp of Engineers (USACE) or any other federal, state and/or county agencies. Should the requirements vary, the more restrictive requirements will govern. Additional permits may include, but are not limited to those listed below. Proof of compliance with these state and federal regulations shall be submitted with the project plans prior to permit issuance.

1.7.1 If a SWMP developed under these Regulations is in conflict with requirements of the Charter, City Code, or any ordinances of the City of Lima, Ohio, a variance may be granted by the Board of Appeals 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 City.

1.7.1.1 Subdivision plats prepared in conjunction with a SWMP shall include the necessary covenants and restrictions to assure compliance to these Regulations.

1.7.2 All SWMPs shall conform to all local, state and federal regulations and requirements, including, but not limited to:

1.7.2.1 The City of Lima, Ohio Storm Water Drainage Manual;

1.7.2.2 The most current OEPA CGP;

1.7.2.3 City of Lima City Code Chapter 1266, Flood Damage Reduction;

1.7.2.4 City of Lima City Code Chapter 1065, Illicit Discharges and Connections;

1.7.2.5 City of Lima City Code Chapter 1066, Construction Site Stormwater Runoff Control:

1.7.2.6 All applicable local Zoning Regulations and Requirements;

1.7.2.7 All applicable Comprehensive Development Plans;

1.7.2.8 All applicable regulations promulgated by the Allen County Public Health District. ie: Wells, Plumbing, Household Sewage Treatment, and Notice of Intent to Fill;

1.7.2.9 OEPA - Authorization of Stormwater Discharges Associated with Construction Activity - Proof of compliance will consist of an OEPA approved Notice of Intent (NOI) including NPDES project permit number;

1.7.2.10 OEPA - Municipal Separate Storm Sewer System - Phase II permit - City of Lima's Stormwater Management Plan; and,

1.7.2.11 All proposed development sites must be checked for the existence of wetlands by a qualified professional. If no wetlands are on the site, a letter from the qualified professional stating so shall be included with the

submittal of the project construction plan packet. If wetlands are found to be on the site one or all of the following may be required based on the determined extent of the impact:

- a. Proof of compliance shall be a copy of the Jurisdictional Determination from the USACE, confirming the findings of a qualified professionals survey and report.
- b. Proof of compliance shall be a copy of the USACE Individual Permit Application. Should an individual permit be required, public notification and meetings will be held. Should an individual permit not be required, proof of compliance shall be a copy of the USACE Nationwide Permit including a site plan indicating proposed fill areas in proximity to waters of the U.S.

1.7.2.12 Should a Section 404 Permit or Jurisdictional Determination not be necessary, the site owner shall submit a letter certifying that a qualified professional has surveyed the site and no waters of the United States were identified.

1.7.2.13 OEPA-Isolated Wetland Permit - Proof of compliance will consist of a copy of the OEPA's Isolated Permit Application, public notice or project approval or a letter from the site owner certifying that a qualified professional has surveyed the site and no waters of the state were identified.

1.7.2.14 Section 401 of Clean Water Act - Proof of compliance will consist of a copy of the OEPA's Water Quality Certification Application, public notice, project approval or a letter from the site owner certifying that a qualified professional has surveyed the site and no waters of the United States were identified.

1.7.2.15 Ohio Dam Safety Law - Proof of compliance will consist of a copy of the ODNR's - Division of Water permit application or a copy of the project approval letter for ODNR.

1.7.2.16 Federal Emergency Management Agency (FEMA) - Proof of compliance will consist of a copy of the project site showing all 100 year flood elevation limits. Should the project have been granted a waiver, copies of the approved Letter of Map Revision (LOMR) shall be submitted.

1.7.2.17 Notice of Intent (NOI)/ Notice of Termination (NOT) - Copies of the approved NOI shall accompany the construction plans. NOT's shall be applied for in a timely manner and a copy forwarded to the City of Lima Engineering Department to the attention of the Stormwater Manager as documentation of project close out.

1.7.2.18 All other local, state and federal requirements.

ARTICLE 2 ADMINISTRATION

2.1 DELEGATION OF PROGRAM RESPONSIBILITIES

2.1.1 The City of Lima Director of Public Works shall be the Administrator responsible for the duties set forth in these Regulations. The Administrator may delegate duties to any other city official or employee as determined necessary

2.1.2 The Administrator may also delegate authority over the following components of these Regulations to other non-city persons or entities:

2.1.2.1 SWMP review and approval authority and collection of fees;

2.1.2.2 Inspection before, during, and after construction and maintenance reviews of temporary and permanent BMP's;

2.1.2.3 Enforcement; and,

2.1.2.4 Resource reviews of proposed development sites.

2.2 AUTHORIZED PLAN PROVIDERS

2.2.1 All design plans, quantities and itemized cost estimates for the stormwater facilities be prepared and stamped by:

2.2.1.1 an Ohio Registered Professional Civil Engineer;

2.2.1.2 A Certified Professional in Erosion and Sediment Control (CPESC) experienced in the design and implementation of standard erosion and sedimentation controls and stormwater management practices addressing all phases of construction;

2.2.1.3 or an Ohio Registered Landscape Architect when the duties to be performed or the certifications that are to be made are within the powers and authority of a Landscape Architect pursuant to sections 4703.30 to 4703.49 of the Revised Code;

2.2.1.4 Single family residential site plans may be developed by the Allen Soil and Water Conservation District (ASWCD).

2.3 PLAN REVIEW AND APPROVAL

2.3.1 The Administrator shall review the SWMP within thirty (30) days of receipt and indicate approval or disapproval with the person who filed the plan. Indication of disapproval shall include the plan deficiencies and the procedure for filing a revised plan. No earth disturbing activities shall take place before preparation and approval of a SWMP and all permits being obtained.

During the plan review, the Administrator may request review and recommendations pertaining to the proposed SWMP and SWP3 from the ASWCD. The Administrator shall be responsible for review and approval of all hydrologic and runoff calculations, as well as design and construction inspection for all stormwater management facilities.

2.4 **PERMIT PROCESS**

- 2.4.1 Permit Application Forms will be made available by the Administrator. Information required will be sufficient for the Administrator to determine if the SWMP is complete and that the developer and/or property owner intends to comply with these Regulations.

When a permit and the SWMP are required, the permit will be issued upon approval of detail design, payment of required review inspection fees and posting of required bonds. All permits will expire after twelve (12) months from the date of issuance of the permit. Permit holders who require an extension may make application for continuance of the permit by contacting the Administrator within thirty (30) days of expiration. Failure to renew within this time period may result in a cessation of all construction activity and a fine of \$250 per day until a valid application for renewal is received by the Administrator. The continuance of a permit may result in an additional fee to be determined by the Administrator. Construction activity may not resume until the application is approved and appropriate on-site measures have been implemented.

- 2.4.2 If the Responsible Party that applied for and signed the Site Development and Sediment Control Permit changes, the Administrator must be notified of who the responsible party is. All contact information will be updated and a determination by the Administrator shall be made as to the applicability of the existing permit. The new permittee may be required to re-apply for a permit.

- 2.4.3 Ohio EPA NPDES Permits authorizing stormwater discharges associated with construction activity or the most current version thereof - Proof of compliance with these requirements shall be the applicant's Notice of Intent (NOI) from Ohio EPA, a copy of the Ohio EPA Director's Authorization Letter for the NPDES Permit, or a letter from the site owner certifying and explaining why the NPDES Permit is not applicable.

2.4.3.1 Deadlines for notification.

- a. Initial coverage: Operators who intend to obtain initial coverage for a stormwater 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 there is more than one operator, as 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.

- b. 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.

2.4.3.2 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 stormwater associated with construction activity.

2.4.4 The Operator is required to have readily available on site the City permit, approved NOI, SWP3 and weekly inspection reports.

2.5 APPLICATION, PERMITTING AND OTHER FEES

2.5.1 Permit Application, Plan Review and Inspection Fees - The Administrator shall establish a fee schedule for all permit application and plan review fees and site development bond, which shall be paid to the City of Lima.

A person requiring the approval of a Stormwater Management and Sediment Control Plan, which involves design and construction of stormwater management facilities, shall submit design plans, quantities and construction timeline review and approval. Payment shall be made to the City of Lima for the cost of plan review, permitting, and site development bond as provided by the Administrator fee schedule.

2.5.2 The permit application, plan review and site development bond shall be based upon site development costs. For projects completed in phases, these fees will be assessed for each phase of construction.

Upon issuance of the Notice of Termination (NOT) and certification that the permit holder has met the requirements of the permit, the permit holder may file for return of any remaining site development bonds not expended during inspection of the project.

No permit fee will be required for non-farm, earth disturbing activities which have been provided for in an already approved SWMP (i.e. home construction on a lot in an approved subdivision with an approved SWMP).

2.6 INSPECTION AND COMPLIANCE

2.6.1 Inspections by Administrator - The Administrator shall inspect land disturbance areas to determine that these Regulations are being complied with. The Administrator may, upon identification to the owner or person in charge, enter any land upon obtaining agreement with the owner, tenant, or manager of the land in order to determine whether

there is compliance with these Regulations. If the Administrator is unable to obtain such an agreement, the Administrator may apply for, and a judge of the Allen County Common Pleas Court may issue, an appropriate inspection warrant as necessary to achieve the purposes of these Regulations. With the submittal of a permit application and approval of plans, permission for ingress and egress is granted to the Administrator for continuous inspection.

2.6.1.1 A Site Development and Sediment Control Bond will also be required along with the proposed Construction Plans and Application for Engineering and Site Development Construction Permit.

a. The Bond cost will be a percentage of the site development costs. Upon final completion of site development, the Owner or Contractor shall request a final inspection of the site from the Administrator.

- (i) If site passes final inspection, the bond will be released one year from that final inspection date.
- (ii) If site fails final inspection, 14 days will be given to remedy problem. If remedy is not performed within 14 days, the Agency shall remedy with funds from the bond. Remaining funds will be released one year from the final inspection date.

2.6.1.2 Written documentation of Inspector site visits shall be provided to the designated construction site manager for all inspections as a means of documenting said inspections. This written documentation will indicate compliance or non-compliance with the requirements of these Regulations.

2.6.1.2 If the Administrator determines that a violation of these Regulations exists, the Administrator may issue an immediate stop work order if the violator failed to obtain any federal, state, or local permit necessary for sediment and erosion control, earth movement, clearing, or cut and fill activity.

2.6.1.3 In addition, if the Administrator determines such a violation exists, regardless of whether or not the violator has obtained the proper permits, the Administrator may authorize the issuance of a notice of violation. Upon receipt of the notice of violation, the Operator is required to respond in writing to the Administrator within ten (10) days stating what the site manager intends to do to rectify non-compliance with these Regulations.

a. If, after a period of not less than thirty (30) days has elapsed following the issuance of the notice of violation, the violation continues, the Administrator shall issue a second notice of violation.

b. If, after a period of not less than fifteen (15) days has elapsed following the issuance of the second notice of violation, the violation continues, the Administrator may issue a stop work order after first obtaining the written approval of the City Law Director if, in the opinion of the Law Director, the violation is egregious.

2.6.1.4 Once a stop work order is issued, the Administrator shall request, in writing, the Law Director to seek an injunction or other appropriate relief in the Allen County Common Pleas Court to abate excessive erosion or sedimentation and secure compliance with these Regulations. If the Law Director seeks an injunction or other appropriate relief, then, in granting relief, the Allen County Common Pleas may order the construction of sediment control improvements or implementation of other control measures and may assess a civil fine of not less than one hundred dollars (\$100.00) or more than five hundred dollars (\$500.00). Each day of violation of a rule or stop work order issued under this section shall be considered a separate violation subject to a civil fine.

2.6.1.5 The person to whom a stop work order is issued under this section may appeal the order to the Board of Appeals, seeking any equitable or other appropriate relief from that order.

2.6.1.6 No person shall violate any rule or order issued under these Regulations. Notwithstanding sections 2.6.1.2 and 2.6.1.3 above, if the Administrator determines that a violation of any rule or administrative order issued under these Regulations, the Administrator may request, in writing, the Law Director to seek an injunction or other appropriate relief in the Allen County Common Pleas Court to abate excessive erosion or sedimentation and secure compliance with the rules or order.

a. In granting relief, the court of common pleas may order the construction of sediment control improvements or implementation of other control measures and may assess a civil fine of not less than one hundred (\$100.00) or more than five hundred dollars (\$500.00).

b. Each day of violation of a rule adopted or administrative order issued under this section shall be considered a separate violation subject to a civil fine.

2.6.2 Inspections by Operator - see Article 4.1.1.8.

2.7 STORMWATER AND SEDIMENT COMPLAINTS

2.7.1 Upon receipt of a complaint made by an interested party, the Administrator shall investigate, within a reasonable time, the site and follow the procedures as outlined in these Regulations.

2.8 APPEALS

2.8.1 Any person subjected to any order, requirement, determination, or any other action by the Administrator in relation to these Regulations may appeal to the Board of Appeals. Such an appeal shall be made in conformity with applicable laws under the Ohio Revised Code. Written notice of appeal shall be served on the Administrator.

**ARTICLE 3
SPECIAL CONSIDERATIONS**

3.1 REGULATED ACTIVITIES & APPLICABILITY

3.1.1 No person shall cause or allow soil-disturbing activities, land clearing, grading, excavating or filling within the scope of these Regulations without full compliance with the requirements set forth in these Regulations.

3.1.1.1 Any person performing any non-farm, earth disturbing activity on land owned by one person or operated as one development unit, single family residential, major subdivisions, commercial development and industrial development will be required to make application for a Site Development and Sediment Control Permit. **Areas of less than one contiguous acre shall not be exempt from compliance with all other provisions of these Regulations.**

3.1.1.2 In the event that a subdivision/development may be constructed in phases the developer is required to meet the requirements of 3.1.1.1.

3.1.1.3 Construction activities covered include all new and existing discharges composed entirely of stormwater discharges associated with construction activity that enter surface waters of the state or a storm drain leading to surface waters of the state, or a combined sewer.

For the purposes of this permit, construction activities include any clearing and grubbing, grading, excavating, structural demolition 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 the CGP.

Construction activities disturbing one or more acres of total land, or will disturb less than one acre of land but are part of a larger common plan of development or sale that will ultimately disturb one or more acres of 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. **Areas of less than one contiguous acre shall not be exempt from compliance with all other provisions of these Regulations.**

This permit also authorizes stormwater 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 stormwater 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 stormwater 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 (offsite borrow pits and soil disposal areas, which serve only one project, do not have to be contiguous with the construction site).
- 3.1.1.4 When a new residential dwelling unit on an individual lot is proposed, which is not part of a larger common plan of development, the owner of said land shall be required to submit an application for a Site Development and Sediment Control Permit.
 - 3.1.1.5 The submitted SWP3 must be approved by the Administrator prior to the start of any soil-disturbing activity. The owner of said land shall notify the Administrator no less than two (2) working days before the start of soil-disturbing activity. The Administrator shall also be notified by the owner no later than two (2) working days after project completion.
 - 3.1.1.6 The SWP3 shall be submitted to the Administrator for review no less than thirty (30) working days prior to any soil-disturbing activity at the proposed site.
 - 3.1.1.7 The SWP3 shall contain narrative and drawings that explain practices to be used to prevent soil erosion and off-site discharge of soil sediment during and after land development. (See Article 5 for plan requirements and review schedules.)
 - 3.1.1.8 Erosion and sediment control practices used to satisfy the performance criteria of these Regulations shall meet the specifications provided in the current edition of the *Ohio Rainwater and Land Development Manual*, Ohio's Standards for Stormwater Management and Land Development, and Urban Stream Protection, and provisions of the City of Lima Code, Chapter 1266 Flood Damage Reduction.
 - 3.1.1.9 Approvals issued in accordance with this regulation do not relieve the applicant of responsibility for obtaining all other necessary permits and/or approvals from the Ohio EPA, the US Army Corps of Engineers, and other federal, state, county and/or township agencies. If requirements vary, the most restrictive requirement shall prevail. These permits may include, but are not limited to, those listed below. All submittals required showing proof of compliance with these state and federal regulations shall be submitted with SWP3s.

- a. Ohio EPA NPDES Permits authorizing stormwater discharges associated with construction activity or the most current version thereof: Proof of compliance with these requirements shall be the applicant's Notice of Intent (NOI) from Ohio EPA, a copy of the Ohio EPA Director's Authorization Letter for the NPDES Permit, or a letter from the site owner certifying and explaining why the NPDES Permit is not applicable.
- b. Section 401 of the Clean Water Act: Proof of compliance shall be a copy of the Ohio EPA Water Quality Certification application tracking number, public notice, project approval, or a letter from the site owner certifying that a qualified professional has surveyed the site and determined that Section 401 of the Clean Water Act is not applicable. Wetlands, and other waters of the United States, shall be delineated by protocols accepted by the U.S. Army Corps of Engineers at the time of application of this regulation.
- c. Ohio EPA Isolated Wetland Permit: Proof of compliance shall be a copy of Ohio EPA's Isolated Wetland Permit application tracking number, public notice, project approval, or a letter from the site owner certifying that a qualified professional has surveyed the site and determined that Ohio EPA's Isolated Wetlands Permit is not applicable. Isolated wetlands shall be delineated by protocols accepted by the U.S. Army Corps of Engineers at the time of application of this regulation.
- d. Section 404 of the Clean Water Act: Proof of compliance shall be a copy of the U.S. Army Corps of Engineers Individual Permit application, public notice, or project approval, if an Individual Permit is required for the development project. If an Individual Permit is not required, the site owner shall submit proof of compliance with the U.S. Army Corps of Engineer's Nationwide Permit Program. This shall include one of the following:
 - (i) A letter from the site owner certifying that a qualified professional has surveyed the site and determined that Section 404 of the Clean Water Act is not applicable.
 - (ii) A site plan showing that any proposed fill of waters of the United States conforms to the general and special conditions specified in the applicable Nationwide Permit. Wetlands, and other waters of the United States, shall be delineated by protocols accepted by the U.S. Army Corps of Engineers at the time of application of this regulation.
- e. Ohio Dam Safety Law: Proof of compliance shall be a copy of the ODNR Division of Water permit application tracking number, a copy of the project approval letter from the ODNR Division of Water, or a letter from the site owner certifying and explaining why the Ohio Dam Safety Law is not applicable.

- 3.1.1.10 The owner of said land and the developer, engineer and contractor of the project, and other principal parties, shall meet with the Administrator for a Pre-Construction Meeting no less than seven (7) days prior to soil-disturbing activity at the site in order to ensure that erosion and sediment control BMPs are properly installed, limits of disturbance and buffer areas are properly delineated and construction personnel are aware of such devices and areas. Pre-Construction Meetings for single family residential SWP3s may be waived at the discretion of the Administrator.
- 3.1.1.11 If site is, or planned, to remain active through the winter months, a Pre-Winter Stabilization Meeting shall be held by the owner of said land and the developer, engineer and contractor of the project and the Administrator prior to October 1, in order to plan and approve winter erosion and sediment controls as defined in the most current edition of the *Ohio Rainwater and Land Development Manual*, Ohio's Standards for Stormwater Management and Land Development and Urban Stream Protection, published by the Ohio Department of Natural Resources.
- 3.1.1.12 Upon completion of all construction and final stabilization of the entire construction site, the owner of said land shall contact the Administrator through written notification that construction is complete and final stabilization has been achieved. This is the appropriate time to file for an NOT with the OEPA CGP.

3.2 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 the CGP is submitted. For developments which require the use of centralized sediment and erosion controls (i.e., controls that address stormwater runoff from one or more lots) for which the current permittee intends to terminate responsibilities under this permit for a lot after sale of the lot to a new owner and such termination 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 cases where permit responsibilities for individual lot(s) will be terminated after sale of the lot, 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.

ARTICLE 4 PERFORMANCE STANDARDS

All properties adjacent to the site of soil-disturbing activity shall be protected from soil erosion and sediment runoff and damage, including, but not limited to, private properties, natural and artificial waterways, wetlands, storm sewers and public lands.

Construction site erosion and sediment control practices used to satisfy this requirement shall conform, as a minimum, to State of Ohio standards as set forth in the current edition of the *Ohio Rainwater and Land Development Manual* and shall conform to the current Ohio Environmental Protection Agency, Ohio Revised Code Chapter 6111, requirements.

SWP3 approvals issued in accordance with these Regulations do not relieve the owner of responsibility for obtaining all other necessary permits and/or approvals from federal, state and/or county agencies. If requirements vary, the most stringent requirement shall be followed.

4.1 EROSION AND SEDIMENT CONTROL PRACTICES

Erosion and sediment control practices at the site and as identified in the SWP3, shall comply with the following:

4.1.1 The SWP3 must contain a description of the controls appropriate for each construction operation and the applicant must implement such controls. The SWP3 must clearly describe the following for each major construction activity: the appropriate control measures; the general sequence during the construction process under which the measures will be implemented; and the contractor responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). The controls shall include the following minimum components:

4.1.1.1 Non-Structural Preservation Measures - The SWP3 must make use of practices that preserve the existing natural condition to the maximum extent practicable. Such practices may include preserving riparian areas, 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 and grubbing practices.

4.1.1.2 Erosion Control Practices - The SWP3 must make use of erosion controls that are capable of providing cover over disturbed soils. A description of control practices designed to re-stabilize 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, the use of construction entrances, and the use of alternative ground cover. Erosion control practices must meet the following requirements:

- a. Stabilization: Disturbed areas must be stabilized as specified in Tables 1 and 2.

TABLE 1 TEMPORARY STABILIZATION	
Area Requiring Temporary Stabilization	Time Frame To Apply Erosion Controls
Any disturbed areas within 50 feet of a surface water of the state and not at final grade.	Within 2 days of the most recent disturbance if the area will remain idle for more than 14 days.
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state.	Within 7 days of the most recent disturbance within the area. For residential subdivisions, disturbed areas must be stabilized at least 7 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.
Note: Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. Permanent and temporary stabilization are defined in Part VII of the CGP.	
Source: Ohio EPA NPDES Construction General Permit (CGP) OHC000004.	
NOTICE: This table is provided for reference purposes only. The most current CGP requirements will apply.	

TABLE 2 PERMANENT STABILIZATION	
Area Requiring Permanent Stabilization	Time Frame To Apply Erosion Controls
Any area that will lie dormant for 1 year or more.	Within 7 days of the most recent disturbance.
Any areas within 50 feet of a surface water of the state and at final grade.	Within 2 days of reaching final grade.
Any other areas at final grade.	Within 7 days of reaching final grade within that area.
Source: Ohio EPA NPDES Construction General Permit (CGP) OHC000004.	
NOTICE: This table is provided for reference purposes only. The most current CGP requirements will apply.	

- b. Permanent stabilization of conveyance channels: Applicants shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding, mulching, erosion control, matting, sodding, riprap, natural channel design with bioengineering techniques or rock check dams, all as defined in the current edition of the *Ohio Rainwater and Land Development Manual* or the NRCS Field Office Technical Guide available at www.nrcs.usda.gov/technical/efotg/.

- 4.1.1.3 Runoff Control Practices - The SWP3 shall incorporate measures that control the flow of runoff from disturbed areas so as to prevent erosion.

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.

4.1.1.4 Sediment Control Practices - The SWP3 shall include a description of, and detailed drawings for, all 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, but are not limited to, sediment-settling ponds, silt fences, rolled erosion control products, storm drain inlet protection, and earth diversion dikes or channels which direct runoff to a sediment-settling pond. 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 used in conjunction with a sediment-settling pond. Sediment control practices must meet the following requirements:

- a. Timing: Sediment control structures shall be functional throughout the course of soil-disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven (7) days from the start of grubbing. They shall continue to function until the upslope 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.
- b. Sediment-settling ponds: Concentrated stormwater runoff and runoff from drainage areas that exceed the design capacity of silt fence or inlet protection shall pass through a sediment-settling pond or equivalent best management practice (BMP) upon approval from the Administrator .

The sediment-settling pond shall be sized according to current CGP requirements. 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 (5) feet. The configuration between the 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 limit is typically reached when sediment occupies one-half of the basin depth. When designing sediment-settling ponds, the applicant 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.

- c. Silt fence and diversions: Sheet flow runoff from disturbed areas shall be intercepted by silt fence or diversions to protect adjacent properties, water resources, and wetlands from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour and shall be capable of temporarily ponding runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in Table 3. Stormwater diversion practices shall be used to keep runoff away from disturbed areas and steep slopes. Such devices, which include swales, dikes or berms, may receive stormwater runoff from areas up to 10 acres.

TABLE 3 MAXIMUM AREA CONTRIBUTING AREA USING SLOPE LENGTH		
Slope		Slope Length (ft.)
0% - 2%	Flatter than 50:1	250
2% - 10%	50:1 - 10:1	125
10% - 20%	10:1 - 5:1	100
20% - 33%	5:1 - 3:1	75
33% - 50%	3:1 - 2:1	50
> 50%	> 2:1	25
Source: Ohio Rainwater and Land Development Manual.		
NOTICE: This table is provided for reference purposes only. The most current CGP requirements will apply.		

- d. Inlet protection: Erosion and sediment control practices, such as boxed inlet protection, shall be installed to minimize sediment-laden water entering active storm drain systems. Straw or hay bales are not acceptable forms of inlet protection.
- e. Off-site tracking of sediment and dust control: BMPs must be implemented to ensure sediment is not tracked off-site and that dust is controlled. These BMPs must include, but are not limited to, the following:
 - (i) Construction entrances shall be built and shall serve as the only permitted points of ingress and egress to the development area. These entrances shall be built of a stabilized pad of aggregate stone or recycled concrete or cement sized greater than 2" in diameter, placed over a geotextile fabric, and constructed in conformance with specifications in the current edition of the *Ohio Rainwater and Land Development Manual*.
 - (ii) Streets directly adjacent to construction entrances and receiving traffic from the development area shall be cleaned

daily to remove sediment tracked off-site. If applicable, the catch basins on these streets nearest to the construction entrances shall also be cleaned weekly.

Based on site conditions the Administrator may require additional BMPs to control off-site tracking and dust. These additional BMPs may include:

- (iii) Silt fence or construction fence installed around the perimeter of the development area to ensure that all vehicle traffic adheres to designated construction entrances.
 - (iv) Designated wheel-washing areas. Wash water from these areas must be directed to a designated sediment trap, the sediment-settling pond, or to a sump pump for dewatering in conformance with Article 4.1.1.7 of this regulation.
 - (v) Applicants shall take all necessary measures to comply with applicable regulations regarding fugitive dust emissions, including obtaining necessary permits for such emissions. The Administrator may require dust controls including the use of water trucks to wet disturbed areas, tarping stockpiles, temporary stabilization of disturbed areas, chemical amendments to the soil and regulation of the speed of vehicles on the site.
- f. Stream protection: Construction vehicles shall avoid water resources and wetlands. If the applicant is requesting to disturb areas that contain a watercourse or wetland, Part II.A.6. of the OEPA CGP shall apply to provide and maintain a 50-foot undisturbed natural buffer between the sensitive area and limits of construction. The following conditions shall be addressed in the SWP3:
- (i) All BMPs and stream crossings shall be designed as specified in the current edition of the *Ohio Rainwater and Land Development Manual*.
 - (ii) Structural practices shall be designated and implemented on site to protect water resources or wetlands from the impacts of sediment runoff.
 - (iii) No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond in-stream) shall be used in a water resource or wetland.
 - (iv) Where stream crossings for roads or utilities are necessary and permitted, the project shall be designed such that the number of stream crossings and the width of the disturbance are minimized.

- (v) Temporary stream crossings shall be constructed if water resources or wetlands will be crossed by construction vehicles during construction.
- (vi) Construction of bridges, culverts, or sediment control structures shall not place soil, debris, or other particulate material into or close to the water resources or wetlands in such a manner that it may slough, slip, or erode.
- g. Modifying controls: If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the applicant shall replace or modify the control for site conditions.

4.1.1.5 Non-Sediment Pollutant Controls - No solid or liquid waste, including building materials, shall be discharged in stormwater runoff. The applicant must implement site BMPs to prevent toxic materials, hazardous materials, or other debris from entering water resources or wetlands. These practices shall include, but are not limited to, the following:

- a. Waste Materials: A covered dumpster shall be made available for the proper disposal of garbage, plaster, drywall, grout, gypsum, and other waste materials.
- b. Concrete Truck Wash Out: The washing of concrete material into a street, catch basin, or other public facility or natural resource is prohibited. A designated area for concrete washout shall be made available.
- c. Fuel/Liquid Tank Storage: All fuel/liquid tanks and drums shall be stored in a marked storage area. A dike shall be constructed around this storage area with a minimum capacity equal to 110% of the volume of all containers in the storage area unless secondary containment is provided by the product manufacturer.
- d. Toxic or Hazardous Waste Disposal: Any toxic or hazardous waste shall be disposed of properly.
- e. Contaminated Soils Disposal and Runoff: Contaminated soils from redevelopment sites shall be disposed of properly. Runoff from contaminated soils shall not be discharged from the site. Proper permits shall be obtained for development projects on solid waste landfill sites or redevelopment sites.

4.1.1.6 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 located within the development area.

- 4.1.1.7 Trench and Ground Water Control - There shall be no sediment-laden discharges to water resources or wetlands 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.
- 4.1.1.8 Inspections by Operator - All erosion and sediment controls on the site shall be inspected at least once every seven (7) calendar days and within 24 hours after any storm event greater than one-half (0.5) inch of rain per 24-hour period. The applicant shall assign qualified inspection personnel to conduct these inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate, or whether additional control measures are required. Qualified inspection personnel are individuals with knowledge and experience in the installation and maintenance of sediment and erosion controls. These inspections shall meet the following requirements:
- a. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that they are operating correctly. The applicant shall utilize an inspection form to be provided to the Administrator or an alternate form acceptable to the Administrator upon request.
 - b. 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.
 - (i) Non-Sediment Pollutant Controls: In accordance with CGP requirements, no solid (other than sediment) or liquid waste, including building materials, shall be discharged in stormwater 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 wastewater from the washout of concrete trucks, stucco, paint, form release oils, curing compounds, and other construction materials be discharged directly into a drainage channel, storm sewer or surface waters of the state. Also, no pollutants from vehicle fuel, oils, or other vehicle fluids can be discharged to surface waters of the state. No exposure of stormwater to waste materials is recommended. The SWP3 must include methods to minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, and sanitary waste to

precipitation, stormwater runoff, and snow melt. In accordance with CGP requirements, the SWP3 shall include measures to prevent and respond to chemical spills and leaks. You may also reference the existence of other plans (i.e., Spill Prevention Control and Countermeasure (SPCC) plans, spill control programs, Safety Response Plans, etc.) provided that such plan addresses conditions of this permit condition and a copy of such plan is maintained on site.

- c. Discharge locations shall be inspected to determine whether erosion and sediment control measures are effective in preventing significant impacts to the receiving water resource or wetlands.
- d. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.
- e. The applicant shall maintain for three (3) years following final stabilization the results of these inspections, the names and qualifications of personnel making the inspections, the dates of inspections, major observations relating to the implementation of the SWP3, a certification as to whether the facility is in compliance with the SWP3, and information on any incidents of non-compliance determined by these inspections.

4.1.1.9 Maintenance - The SWP3 shall be designed to minimize maintenance requirements. All control practices shall be maintained and repaired as needed to ensure continued performance of their intended function until final stabilization. All sediment control practices must be maintained in a functional condition until all upslope areas they control reach final stabilization. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices and shall ensure a responsible party to conduct this maintenance.

When inspections reveal the need for repair, replacement, or installation of erosion and sediment control BMPs, the following procedures shall be followed:

- a. When practices require repair or maintenance: If an internal 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 (3) days of the inspection. Sediment- settling ponds must be repaired or maintained within ten (10) days of the inspection.
- b. When practices fail to provide their intended function: If an internal inspection reveals that a control practice fails to perform its intended function as detailed in the SWP3 and that another, more appropriate control practice is required, the SWP3 must be amended and the new control practice must be installed within ten (10) days of the inspection.

- c. When practices depicted on the SWP3 are not installed: If an internal inspection reveals that a control practice has not been implemented in accordance with the schedule, the control practice must be implemented within ten (10) days from the date of the inspection. If the internal 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.
- 4.1.1.10 Final Stabilization - Final stabilization shall be determined by the Administrator.
- 4.1.1.11 Single Family Residential - Single family residential developments shall be required to obtain a Site Development and Sediment Control Permit. Criteria shall be provided by the Administrator in the form of a residential checklist and SWP3.0

ARTICLE 5
APPLICATION PROCEDURES FOR SWP3

The SWP3 for all development projects shall be submitted to the Administrator following the approval of the preliminary plans. In the case of other construction projects, the SWP3 shall be submitted at least 30 working days prior to any soil-disturbing activity for general clearing projects.

The Administrator shall review the SWP3 and approve, or return for revision with comments and recommendations for revision, within 21 working days after receipt of said plan. A plan rejected because of deficiencies shall receive a narrative report stating specific problems and the procedure for filing a revised plan. At the time of receipt of a revised plan, another 21 day review period shall commence. Approved plans shall remain valid for the duration of the permit. Retained plans shall be stamped approved.

5.1 SWP3

A plan is considered complete when it contains three sets of the following of which shall be obtained by the Administrator, Contractor and Inspector:

5.1.1 Site construction plans intended for contractor's bid.

5.1.2 Contact information for the owner of the land, the developer and project engineer; project engineer's certification; project name; and, project vicinity map.

5.1.3 Permit Verification -

5.1.3.1 Jurisdictional Wetlands - In areas where jurisdictional wetlands, as defined by an on-site delineation verified by the United States Army Corps of Engineers will be affected, a copy of the wetland delineation report shall be submitted with the SWP3. If an Individual Permit is required, a copy of that Permit, showing project approval and any restrictions that apply to site activities, shall also be submitted. If an Individual Permit is not required for the proposed project, the site owner shall submit proof of compliance with the Nationwide Permit Program as detailed under Article 3.1.1.9. If an Ohio EPA Section 401 Water Quality Certification and/or an Ohio EPA Isolated Wetland Permit is required the site owner shall submit proof of compliance with the Ohio EPA Water Quality Certification and/or Isolated Wetland Permit program as detailed in Article 3.1.1.9.

5.1.3.2 An Ohio Environmental Protection Agency (OEPA) Notice of Intent (NOI) and National Pollutant Discharge Elimination System (NPDES) permit with a copy of the Ohio EPA Director's Authorization Letter shall be submitted with the SWP3.

5.1.4 Project Description - A brief description of the project and types of soil-disturbing activities. Note specifically items not self-evident from the plan drawings. The project description shall list total project acreage, north arrow and adjacent property boundaries.

5.1.4.1 Site description - The SWP3 shall provide:

- a. A description of the nature and type of the construction activity (e.g. 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., clearing and grubbing, excavation, and filling or grading).
- c. Off-site borrow areas or export sites shall be designated on the Plan. Additional consideration and permitting may be required.
- d. Existing data describing the soil and, if available, the quality of any known pollutant discharge from the site such as that which may result from previous contamination caused by prior land uses.
- e. A description of prior land uses at the site.
- f. A construction and implementation schedule which describes the sequence of major soil-disturbing operations (i.e., grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion and sediment controls to be employed during each operation of the sequence.
- g. The location and name of the immediate receiving stream or surface water(s) and the first subsequent receiving water(s).
- h. The aerial (plan view) 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.
- j. Site map showing:
 - (i) Limits of soil-disturbing activity of the site, including off site spoil and borrow areas.
 - (ii) Existing and proposed one-foot (1') contours. This must include a delineation of pre and post drainage watersheds in acres.
 - (iii) Location, condition and outlet of existing drainage infrastructure.
 - (iv) Sensitive areas to be protected such as 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 applicant intends to fill or relocate for which the applicant 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 ponds, including their sediment settling volume and contributing drainage area.
- (viii) Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for concrete truck washout, and vehicle fueling.
- (ix) The location of designated stoned construction entrances where the vehicles will ingress and egress the construction site.
- (x) The location of any in-stream activities including stream crossings.

5.1.4.2 A soils engineering report - The Administrator may require the SWP3 to include a Soils Engineering Report based upon the determination that the conditions of the soils are unknown or unclear to the extent that additional information is required to protect against erosion or other hazards. This report shall be based on adequate and necessary test borings, and shall contain all the information listed below. Recommendations included in the report and approved by the Administrator shall be incorporated in the grading plans and/or other specifications for site development.

- a. Data regarding the nature, distribution, strength, and erodibility of existing soils.
- b. If applicable, data regarding the nature, distribution, strength, and erodibility of the soil to be placed on the site.
- c. Conclusions and recommendations for grading procedures.
- d. Conclusions and recommended designs for interim soil stabilization devices and measures, and for permanent soil stabilization after construction are completed.
- e. Design criteria for corrective measures when necessary.

- f. Opinions and recommendations covering the stability of the site.
- 5.1.5 The Stormwater Pollution Prevention Plan (SWP3) shall show the location, type and construction detail for perimeter controls; sediment settling devices; limits of disturbance; buffers for streams, wetlands, ponds and drainages; seeding mixtures and rates; and, type and quantity of mulching; application of water or fertilizer. SWP3s shall also provide a detailed construction sequence. Updates and/or corrections to schedules and/or sequencing shall be clearly marked or listed on approved plans, which shall be located at the site.
- 5.1.6 Stormwater Control Methods adequate to prevent pollution of public waters by soil sediment from accelerated stormwater runoff from development areas.
- 5.1.7 Contractor's Construction Sequence that estimates the time frame required for the following:
 - 5.1.7.1 Pre-Construction meeting.
 - 5.1.7.2 Initial clearing and grubbing to gain access and installation of perimeter controls within seven (7) days of clearing and grubbing.
 - 5.1.7.3 Clearing and grubbing followed by excavation of sediment traps and basins and temporary soil stabilization for these sediment settling devices within seven (7) days of excavation.
 - 5.1.7.4 Project engineer's initial inspection of erosion and sediment controls for "as-built" certification.
 - 5.1.7.5 Maintenance inspection schedule and party responsible for inspection and repair of BMPs.
 - 5.1.7.6 Pre-Winter Stabilization meeting if project is to be through the winter.
 - 5.1.7.7 Final grading and permanent soil stabilization within 7 days of finishing final grade.
 - 5.1.7.8 Removal of temporary sediment control devices shall not occur until approved by the Inspector or Agency.
- 5.1.8 Review, Permit and Inspection Fee shall be submitted with the SWP3. The Plans shall not be released until all permit fees have been paid.

ARTICLE 6
POST-CONSTRUCTION RUNOFF QUALITY & QUANTITY CONTROL

6.1 PURPOSE

6.1.1 Post-construction runoff quality and quantity controls are permanent controls designed to protect and maintain a receiving stream's physical, chemical and biological characteristics.

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

The use of innovative and/or emerging stormwater management post-construction technologies shall be at the discretion of the City of Lima Stormwater Manager and could require monitoring to ensure compliance with OEPA's CGP requirements. The Post-Construction portion of the Stormwater Pollution Prevention Plan shall include the following:

6.1.1.1 Description of post-construction BMPs to be installed during construction, including estimated installation schedule and sequencing plan (including post-construction sediment removal and installation of final outlets).

6.1.1.2 Rationale for selection - to address anticipated downstream impacts (on the channel and floodplain, morphology, hydrology and water quality).

6.1.1.3 Detailed Post-Construction BMP drawings and specifications.

6.1.1.4 BMP Maintenance plan for all BMPs selected and presented to post-construction operator. This maintenance plan shall include a disposal statement for structural BMPs to ensure pollutants collected within structural BMPs are disposed of in accordance with local, state and federal regulations.

6.2 POST-CONSTRUCTION RUNOFF CONTROL DESIGN

6.2.1 Minimum Design Standards -

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

6.2.1.1 Determine, using Rational Method, or equivalent methods, the total volume of runoff from a one-year frequency, twenty-four (24) hour storm, occurring on the development area before and after development. (Note: Sites that performed demolition six, or greater, months prior to plan submission shall use the present day runoff coefficient (C value)); and,

- 6.2.1.2 From the volume calculated, determine the percent increase in volume of runoff due to development, and using this percentage, select the twenty-four (24) hour critical storm from Table 4.

TABLE 4 CRITICAL STORM FOR DISCHARGE LIMITATION		
If the percentage of increase in volume of runoff is:		
equal to or greater than	and less than	The critical storm for discharge limitation 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
* The City of Lima's Engineer's Office requires the use of a minimum 10 year Critical Storm.		
Source: Mid-Ohio Regional Planning Commission Stormwater Design Manual		

The designer shall analyze the present and post-development runoff conditions and determine the critical storm for design. Once this is complete, the designer shall establish adequate storage and outlet structures to accommodate the necessary detention/ retention for the site. The ability to regulate the stormwater discharge is dependent on the detention/ retention basin volume and the proposed outlet structure. The basin and outlet system shall be analyzed by utilizing an approved methodology, such as the Rational Method or similar, as approved by the City Engineer.

6.2.2 Post-Construction Runoff Controls BMPs -

Selected structural BMPs shall be sized for protection of watercourses from erosion (quantity) and include water quality volumes for controlling sediment volumes.

WQ_v = Volume of runoff from a 0.75 inch rain event

WQ_v is determined according to following method:

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

Where:

WQ_v = channel protection and water quality volume in acre-feet

C = runoff coefficient appropriate for storm less than 1 inch

(Table 5 or $C = 0.858i^3 - 0.78i^2 + 0.744i + 0.4$ the equation being the preferred method)

P = 0.75 inch precipitation depth

A = area draining into the BMP in acres

TABLE 5 RUNOFF COEFFICIENTS BASED ON THE TYPE OF LAND USE	
Land Use	Runoff Coefficient (C)
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
Source: Ohio EPA NPDES Construction General Permit (CGP) OHC000004.	
NOTICE: This table is provided for reference purposes only. The most current CGP requirements will apply.	

Where the land use will be mixed, the runoff coefficient should be calculated using a weighted average.

- 6.2.2.1 An additional volume equal to 20 percent of the WQv shall be incorporated into the BMP for sediment storage and/or reduced infiltration capacity during construction.
- 6.2.2.2 BMPs shall be designed such that the drain time is long enough to provide settlement treatment, but short enough to provide storage available for successive rain events as described in Table 6.

TABLE 6 STRUCTURAL POST-CONSTRUCTION BMPs AND ASSOCIATED DRAIN (DRAWDOWN) TIMES	
Best Management Practice (BMP)	Drawdown Time of WQ _v
Infiltration Basin or Trench ¹	48 hours
Permeable Pavement - Infiltration ¹	48 hours
Permeable Pavement - Extended Detention	24 hours
Dry Extended Detention Basin ²	48 hours
Wet Extended Detention Basin ³	24 hours
Constructed Wetland (above permanent pool) ⁴	24 hours
Sand & Other Media Filtration ⁵	24 hours
Bioretention Area/Cell ^{5,6}	24 hours
Pocket Wetland ⁷	24 hours
Practices that are designed to fully infiltrate the WQv (basin, trench, permeable pavement) shall empty within 48 hours to provide storage for the subsequent storm events. Dry basins must include forebay and micropool each sized at 10% of the WQv. Provide both a permanent pool and an EDv above the permanent pool, each sized at 0.75 WQv. Extended detention shall be provided for the WQv above the permanent water pool. The surface ponding area (WQv) shall completely empty within 24 hours so that there is no standing water. Shorter drawdown times are acceptable as long as design criteria in the <i>Ohio Rainwater and Land Development Manual</i> have been met. This would include Grassed Linear Bioretention which was previously called Enhanced Water Quality Swale. Pocket wetlands must have a wet pool equal to the WQv, with 25% of the WQv in a pool and 75% in marshes. The EDv above the permanent pool must be equal to the WQv.	
Source: Ohio EPA NPDES Construction General Permit (CGP) current version OHC000004.	
NOTICE: This table is provided for reference purposes only. The most current CGP requirements will apply.	

6.2.3 Recommended Post-Construction Best Management Practices -

The post-construction best management practice controls in Table 6 are identified in OEPA's CGP and shall be incorporated in project development and design.

The Administrator will also consider non-structural practices in combination with these structural practices in reviewing site plans. Supporting documentation of nonstructural BMP estimated pollutant removal information, map of on-site BMP locations, description of BMP type, and frequency with which the BMP will be performed or maintained. Examples of non-structural BMPs include: site impervious area sweeping, natural buffers, porous pavements, etc.

All BMPs shall be designed and constructed per the *Ohio Rainwater and Land Development Manual*.

6.2.4 Post-Construction Runoff BMP Drawdown Curve -

A drawdown curve (volume vs drawdown time) shall be calculated and drawn for each BMP and submitted to the Administrator as part of the Final Stormwater Management and Sediment Control Permit application requirements.

6.2.5 Pond Design -

Ponds are one of the most widely used BMPs for meeting water quantity requirements and providing water quality treatment.

The pond improves water quality by detaining stormwater for an extended period of time in a permanent pool to allow pollutants to settle. Pollutants removed include suspended solids, organic matter, dissolved metals, and nutrients. There are enhancements that can be accomplished with ponds to increase the effectiveness of pollutant removal.

These enhancements are outlined in the *Ohio Rainwater and Land Development Manual*. Some of them are specifically required by the OEPA's CGP. Both the handbook and manual shall be followed in designing and constructing ponds and other approved BMPs. This article includes some of the OEPA requirements and ODNR guidelines, but does not replace those documents. Pond BMPs must specifically follow these guidelines. BMPs other than ponds shall include consideration for all of the below elements and shall address each item to the greatest extent practical.

6.2.5.1 Land Area - Land constraints, such as small sites or highly developed areas, may preclude the installation of a pond. The wet pond BMP is most useful for large subdivisions, or development sites. Owners of small properties may cooperatively construct a single large wet pond to serve several sites. Fewer ponds are preferred to numerous individual small ponds. Wet detention ponds are effective in meeting stormwater quantity and water quality (post construction runoff control) goals. Well designed wet ponds can also provide an aesthetic amenity.

- 6.2.5.2 Soils and Minimal Water Supply - Wet detention ponds must maintain a permanent pool of water. Wet ponds are recommended for medium to large drainage areas (greater than 10 acres).
- 6.2.5.3 Retrofit - Wet ponds provide opportunities for retrofit coverage for existing development. With minor excavation and/or modification of the outlet, existing dry ponds can be converted to wet ponds. The retrofits can generate greater water quality benefits for the receiving stream, helping the (community) meet water quality goals. Retrofit opportunities are encouraged in the City of Lima.
- 6.2.5.4 Maintenance - Adequate maintenance access and easements from public or private right-of-way to the basin shall be reserved. The access shall be on a slope of 5:1 (vertical to horizontal) or shallower, stabilized to support heavy construction equipment, and provide direct access to both the forebay and the riser/outlet. An adequate area for temporary staging of spoils, prior to ultimate disposal, shall be provided. This area shall be protected such that no sediment laden runoff will be directed back into the stormwater management system or onto private property. An easement must be provided over the disposal area.
- 6.2.5.5 Pond Shape and Depth - Surface area to volume ratio shall be maximized to the extent feasible. Depths of the permanent pool should be varied and average between 3 and 6 feet. A minimum length-to-width ratio of 3:1 should be used unless structural measures are used to extend the flow path. Ponds should be wedge-shaped, narrower at the inlet and wider at the outlet. Irregular shorelines are preferred. A marsh fringe should be established near the inlet or forebay and around at least 50 percent of the pond's perimeter. A shelf, a minimum of 4 feet wide at a depth of one foot, will surround the interior of the perimeter to provide suitable conditions for the establishment of aquatic vegetation, and to reduce the potential safety hazard to the public. For safety purposes and to minimize erosion, basin side slopes will not be flatter than 20:1, nor steeper than 3:1. Steeper slopes may be allowed if fencing at least 5 feet in height is provided, although fencing is discouraged for aesthetic reasons.
- 6.2.5.6 Basin Inlet/Outlet Design - Velocity dissipation measures shall be incorporated into basin designs to minimize erosion at inlets and outlets, and to minimize the re-suspension of pollutants. Inverts for inlet pipes shall discharge at the elevation of the permanent pool and perpendicular to the surface to allow the pool to dissipate the energy of the inflow. Stone riprap shall extend from the pipe invert to the pond bottom to prevent erosion. Anti-seep collars should be installed on any piping passing through the sides or bottom of the basin to prevent leakage through the embankment. To the extent feasible, the distance between inlet and outlet shall be maximized. The length and depth of the flow path across basins can be maximized by:
- a. Increasing the length-to-width ratio of the entire design.

- b. Increasing the dry weather flow path within the system to allow the stream space to naturally bend/curve.
 - c. Dual orifices, or other designs should be used to assure an appropriate detention time for all storm events. Where a pipe outlet is to be used to control discharge, it should have a minimum diameter of six (6) inches. In addition, orifice plates shall be used in combination with the six (6) inch outlet pipe where reduced discharge rates are required. Alternative outlet designs shall be utilized that incorporate self-cleaning flow restrictors, such as perforated risers, that provide the required release rate. The outlet should be well-protected from clogging. A reverse-slope-submerged orifice or hooded, broad crested weirs are recommended options. If a reverse-slope pipe is used, an adjustable valve may be necessary to regulate flows. Orifices used to maintain a permanent pool levels should withdraw water at least one foot below the surface of the water.
 - d. Backwater (tailwater) on the outlet structure from the downstream drainage system shall be evaluated when designing the outlet. All outlets shall be designed to be easily accessible for heavy equipment required for maintenance purposes.
 - e. All basins shall include provisions for a defined emergency spillway constructed on undisturbed soil. The emergency spillway should be set at the elevation of the 100-YR or more frequent storm. Where feasible, a drain for completely de-watering wet ponds should be installed for sediment removal and other maintenance purposes.
- 6.2.5.7 Riser Design - Hoods or trash racks should be installed on the riser to prevent clogging. Grate openings should be a maximum of 3 inches. The riser should be placed near or within the embankment, to provide for ready maintenance access. Inlet and outlet barrels and risers should be constructed of materials that will reduce future maintenance requirements. The riser pipe should be a minimum of 24 inches in diameter for riser pipes up to 4 feet in height. Riser pipes greater than 4 feet in height should be 48 inches in diameter. Riser pipes shall be constructed with poured-in-place concrete bottoms.
- 6.2.5.8 The height of water in detention facilities shall not be excessive and shall comply with the ODNR Dams and Reservoir Safety requirements.
- 6.2.5.9 A table of elevations (stage-storage-discharge table, with storage volume and discharge rates) shall be provided with the Final Engineering and Construction Plans for all basins. Profile view drawings of the outlet structure, with elevations, shall also be included.
- 6.2.5.10 Prior to final acceptance of the pond improvements, as-built data shall be submitted to the City of Lima Stormwater Manager verifying that the structure(s) have been built as designed and will function accordingly. The as-built information shall be prepared and stamped by an Ohio Registered Professional Civil Engineer or an Ohio Registered Landscape Architect.

6.3 PERMANENT MAINTENANCE OF STORMWATER CONTROL STRUCTURES, FACILITIES & OUTLETS

- 6.3.1 The owner and/or developer shall maintain all facilities and practices installed as part of the approved plan. This maintenance will continue for a period of one year from the date that construction was released by the Administrator and/or as required by the applicable subdivision regulations. This date shall begin upon receipt of the NOT confirmation correspondence from OEPA, receipt of As-Built Construction Drawings and certification of final costs.
- 6.3.2 Owners Submission of Completion -
- 6.3.2.1 Letter of Completion - The Owner must submit a Letter of Completion to the Administrator upon completion of site construction and final stabilization. On this letter, the Owner shall certify that construction, including final stabilization, is complete and in accordance with the approved permit.
- 6.3.2.2 Release of the Permit - Once the results of the final inspection signify compliance with the approved SWP3 plans and conditions, including final stabilization, the permit shall be terminated.
- 6.3.2.3 Release of Site Development Bond - One year after release of the permit, the final inspection for the release of the bond may be conducted. The Owner shall contact the Administrator to schedule this inspection.
- 6.3.3 Continuing maintenance of the stormwater drainage facilities (i.e. outlet structures, detention basins and primary drainage ditches) shall be petitioned by the landowner or developer to the Board through the Ohio Drainage Law for permanent maintenance. Such procedures shall follow Revised Code Chapter 1515, Chapter 6131 and Chapter 6137. If the petition for the affected facility is denied a maintenance agreement shall be legally recorded to address the perpetual maintenance by the owners or developer. In the case of new subdivision developments the above will be required before approval of final plat is granted.
- 6.3.4 Any on-going maintenance agreements or restrictions shall be recorded on the deed for the property, including reference to those responsible for maintenance. The location, dimension and bearing of such facilities, and easements shall also be recorded on the deed, and transferred to future owners. When on a subdivision, the items referenced above shall be a part of the final plat and will likewise be recorded for that subdivision.
- 6.3.5 Ownership and/or easements for purpose of maintenance of outlet structures shall be prepared by the permittee, recorded on the deed(s) and granted to the City for access to all outlet structures.
- 6.3.6 Any drainage system installed in accordance with public regulations within the road right-of-way of the State, County, Township or other municipality shall be maintained by that political subdivision. It is the intention that the permanent

maintenance program through the Petitioned Ditch Process is to be reserved for off of right-of-way drainage systems. However, a developer may request the storm drainage system to be petitioned for permanent maintenance.

- 6.3.7 The final outlet of any drainage facility shall be in compliance with the permitting process and standards as set forth by the applicable political subdivision.

APPENDIX A ACRONYMS

ASWCD – Allen Soil and Water Conservation District

BMP – Best Management Practices

CFR – Code of Federal Regulations

CGP – Construction General Permit

CPESC – Certified Professional in Erosion and Sediment Control

CPWQv – Channel Protection and Water Quality Volume

CWA – Clean Water Act

FEMA – Federal Emergency Management Agency

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NRCS – Natural Resources Conservation Service

ODNR – Ohio Department of Natural Resources

OEPA – Ohio Environmental Protection Agency

ORC – Ohio Revised Code

RUSLE – Revised Universal Soil Loss Equation

SPCC – Spill Prevention Control and Countermeasure

SWMP – Stormwater Management Plan

SWP3 – Stormwater Pollution Prevention Plan

USACE – United States Army Corp of Engineers

WQv – Water Quality Volume

APPENDIX B DEFINITIONS

ACCELERATED SOIL EROSION: The increased loss of the land surface that occurs as a result of human activities.

ACRE: A measurement of area equaling 43,560 square feet.

ADMINISTRATOR: The person or entity having the responsibility and duty of administering and ensuring compliance with these Regulations. The Administrator shall be the City of Lima Director of Public Works, or a designee therefore, or as otherwise established by City Code or Lima City Council Ordinance.

BACKWATER (TAILWATER): Water backed up in its course by an obstruction or opposing current.

BEST MANAGEMENT PRACTICES (BMP): 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.

BOARD OF APPEALS: As used in these Regulations the Board of Appeals shall mean the City of Lima Board of Adjustment.

BUFFER AREA: A designated transitional area adjacent to or around a stream or wetland left in a natural, usually vegetated, state so as to protect a stream or wetland from runoff pollution. Construction activities in this area shall be restricted or prohibited based on the sensitivity of the stream or wetland and the recommendation of the Administrator. See also setback.

CHANNEL: A natural or manmade stream bed or ditch, existing or excavated for the conveyance of water.

CHANNEL PROTECTION AND WATER QUALITY VOLUME (CPWQ_v): Volume of stormwater runoff that must be captured and treated before discharge from the developed site after construction is complete. CPWQ_v 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.

CITY: The City of Lima, Ohio.

COMMON PLAN OF DEVELOPMENT: A term used to define the entire scope of a development project, both on-site and off-site, regardless of ownership, including phases (future and existing), sublots, and parcels of development, associated easements, road and utility right of ways, and other land development or soil disturbances in support of the development project.

CRITICAL AREA: Any portion of an area subject to this Rule the disturbance of which would cause soil erosion and sediment runoff and damage to private properties, water courses, storm sewers or public lands due to topography, soil type, hydrology or proximity to a water course.

These areas include, but are not limited to, streams, riparian areas, wetlands and highly erodible soils.

CRITICAL STORM: That storm which is calculated using the post-construction percentage increase in volume of runoff from a proposed development. The critical storm is used to calculate the maximum allowable stormwater discharge rate from a developed site.

CUT: An excavation that reduces an existing elevation, as in road or foundation construction.

DETENTION STRUCTURE: A permanent stormwater management facility for the temporary storage of runoff, and is designed so as not to create a permanent pool of water.

DEVELOPMENT AREA: A lot or contiguous lots owned by one person or persons, or operated as one development unit, and used or being developed for commercial, industrial, residential, institutional, or other non-farm construction or alternative that changes runoff characteristics, upon which soil-disturbing activities occur.

DEVELOPMENT DRAINAGE AREA: A combination of each hydraulically unique drainage area with individual outlet points on the development area.

DEVELOPMENT PROJECT: An area of land, parcel or parcels, portions of parcels, and associated land disturbance that is being developed, redeveloped, or disturbed in support of development, for non-farm commercial, industrial, residential or other institutional construction or alteration which changes, either permanently or temporarily, the runoff characteristics or grade of the lands therein.

DISTURBED AREA: An area of land subject to erosion due to the removal of vegetative cover and/or soil moving activities, including filling.

DITCH: An open channel, either dug or natural, for the purpose of drainage or irrigation, with generally intermittent flow characteristics.

DRAINAGE: The removal of excess surface water or groundwater from land by surface or subsurface drains.

DRAINAGE SURFACE AREA: An area, measured in a horizontal plane, enclosed by a topographic divide from which surface runoff from precipitation normally drains by gravity into a stream above the specified point of measurement.

DRAINAGE IMPROVEMENT: An improvement as defined in O.R.C. 6131.01(C), and/or conservation works of improvement as defined in O.R.C. 1511 and 1515.

DRAINAGE WAY: A natural or manmade channel, ditch, or waterway that conveys surface water in a concentrated manner by gravity. See also watercourse, channel, stream.

DUMPING: An act of grading, pushing, piling, throwing, unloading or placing.

EARTH MATERIAL: The soil, sediment, rock, sand, gravel and organic material or residue associated with or attached to the soil.

ENGINEER: A Professional Engineer registered in the State of Ohio.

EROSION: The process by which the land surface is worn away by the action of wind, water, ice, gravity or any combination of those forces.

EROSION AND SEDIMENT CONTROL: The control of soil material, both mineral and organic, during soil-disturbing activity to prevent its transport out of the disturbed area by means of wind, water, ice, gravity, or human actions.

EROSION AND SEDIMENT CONTROL PLAN (SWP3): The written document meeting the requirements of Articles 3, 4 and 5 of these Regulations which sets forth the plans and practices to be used to minimize soil erosion and prevent off-site transport of soil sediment by containing sediment on-site or bypassing sediment-laden runoff through a sediment control measure during and after land development.

FARM: Land or water devoted to growing crops or cultivated in connection with raising or harvesting any agricultural or horticultural commodity, including nursery stock, and the raising, shearing, feeding, caring for, training, and management of livestock and poultry.

FINAL STABILIZATION: 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% 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.

GRADING: The excavating, filling, or stockpiling of soil material, or any combination thereof, including the land in its excavated or filled condition.

GRASSED WATERWAY: A broad and shallow natural watercourse or constructed channel, covered with erosion-resistant grasses or similar vegetative cover, used to convey surface water.

HYDRIC SOILS: Soils that are saturated, flooded, or ponded for a long enough time period during the growing season that anaerobic conditions develop in the upper part of the soil. Soils that are considered "wetland" soils.

HYDROGRAPH: Time distribution of runoff from a watershed.

HYDROPHYTIC VEGETATION: Plants that are found in wetland areas. These plants have been classified by their frequency of occurrence in wetlands.

ILLICIT DISCHARGE: As defined in 40 CFR, Section 122.26 (b)(2) means any discharge to the separate storm sewer system that is not composed entirely of stormwater, except as exempted in the Regulations Prohibiting Illicit Discharges to the Separate Storm Sewer System in the Unincorporated Areas of Allen County.

IMPERVIOUS: Not allowing infiltration which means any paved, hardened or structural surface regardless of its composition including (but not limited to) buildings, roads, driveways, parking lots, loading/unloading spaces, decks, patios, and swimming pools.

INSPECTOR: A person representing the Administrator who is knowledgeable in the principles and practice of erosion and sediment controls, who possesses the skills to assess all conditions

at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity.

INTERMITTENT STREAM: Stream which conveys flow periodically throughout the year. No permanent or consistent flow of water.

LANDSCAPE ARCHITECT: A Professional Landscape Architect registered in the State of Ohio.

LANDSLIDE: A rapid mass movement of soil and rock moving downhill under the influence of gravity.

LARGER COMMON PLAN OF DEVELOPMENT: A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

LOT: A tract of land occupied or intended to be occupied by a use, building, or group of buildings and their accessory uses and buildings as a unit, together with such open spaces and driveways as are provided and required. A lot may contain more than one contiguous lot.

MAXIMUM EXTENT PRACTICABLE: The level of pollutant reduction that site owners of small municipal separate storm sewer systems regulated under 50 CFR Parts 9, 122, 123, and 124, referred to as NPDES Stormwater Phase II, must meet.

MULTI-FAMILY DEVELOPMENT: Apartments, condominiums, townhouses, duplexes, or other similar buildings housing more than one family.

NATURAL WATERWAY: A waterway that is part of the natural topography, which usually maintains continuous or seasonal flow during the year and is characterized as being irregular in cross-section with a meandering course.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES): 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 Clean Water Act (CWA). The term includes an "approved program."

NOTICE OF INTENT (NOI): Notice of Intent obtained from the Ohio EPA under the NPDES CGP Program.

NOTICE OF TERMINATION (NOT): Notice of Termination obtained from the Ohio EPA under the NPDES CGP Program.

OHIO RAINWATER AND LAND DEVELOPMENT MANUAL: Ohio's standards for stormwater management, land development, and urban stream protection developed by the Ohio Department of Natural Resources, the U.S. Department of Agriculture Natural Resource Conservation Service, and the Ohio Environmental Protection Agency. The most current edition of these standards shall be used with these Regulations.

OPERATOR: 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).

OUTFALL: The place where effluent is discharged into receiving waters, most generally occurring as a pipe or earthen channel.

OWNER: The owner of any "facility or activity" subject to regulation under the NPDES program.

PARCEL: Means a tract of land occupied or intended to be occupied by a use, building or group of buildings and their accessory uses and buildings as a unit, together with such open spaces and driveways as are provided and required. A parcel may contain more than one contiguous lot individually identified by a 'Permanent Parcel Number' assigned by the Allen County Auditor's Office.

PERENNIAL STREAM: A stream that maintains water in its channel throughout the year.

PERSON: Any individual, corporation, firm, trust, commission, board, public or private partnership, joint venture, agency, unincorporated association, municipal corporation, county or state agency, the federal government, other legal entity, or an agent of combination thereof.

PHASING: Clearing/grubbing/excavating a parcel of land in distinct sections, with the stabilization of each section before the clearing of the next.

POROUS PAVEMENT: An alternative to conventional pavement whereby runoff is diverted through a porous asphalt layer and into an underground stone reservoir. The stored runoff then gradually infiltrates into the subsoil or an underdrain system.

PRE-CONSTRUCTION MEETING: A meeting between the Administrator and all principal parties, prior to the start of any soil-disturbing activities, at a site that requires an Erosion Sediment Control Plan.

PRE-WINTER STABILIZATION MEETING: A meeting between the Administrator and all principal parties, prior to October 1, in order to plan winter erosion and sediment controls for a site that requires an Erosion Sediment Control Plan.

QUALIFIED INSPECTION PERSONNEL: Individuals knowledgeable in the principles and practice of erosion and sediment controls, who possess the skills to assess all conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity.

RATIONAL METHOD: A simple technique for estimating a design discharge from a small watershed.

RETENTION STRUCTURE: A permanent Stormwater management facility that provides for the storage of runoff by means of a permanent pool of water.

RIPARIAN AREA: 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.

RUNOFF: The portion of rainfall, melted snow, or irrigation water that flows across the ground surface and is eventually returned to water resources, watercourses, or wetlands.

SEDIMENT: Soils or other surface materials that are or have been transported or deposited by the action of wind, water, ice, gravity, or any combination of those forces, as a product of erosion.

SEDIMENTATION: The deposition of settling of sediment.

SEDIMENT BASIN: A temporary barrier or other suitable retention structure built across an area of water flow to intercept runoff and allow transported sediment to settle and be retained prior to discharge into waters of the State.

SEDIMENT POLLUTION: The degradation of waters of the State by sediment as a result of failure to apply management or conservation practices to abate wind or water soil erosion, specifically in conjunction with soil-disturbing activities on land used or being developed for commercial, institutional, industrial, residential or other non-farm purposes.

SETBACK: A designated transition area adjacent to or around water resources or wetlands that is left in a natural, usually vegetated, state to protect the water resources or wetlands from runoff pollution. Construction activities in this area are restricted or prohibited as required in this regulation. See also buffer area.

SHEET FLOW RUNOFF: Water, usually storm runoff, flowing in a thin layer over the ground surface. This is also referred to as overland flow.

SLOUGHING/SLUMPING: A slip or downward movement of an extended layer of soil resulting from the undermining action of water or the soil-disturbing activity of man.

SOIL CONSERVATION: The use of the soil within the limits of its physical characteristics and protecting it from unalterable limitations of climate and topography.

SOIL-DISTURBING ACTIVITY: A clearing, grading, excavating, filling or other alteration of the earth's surface where natural or man-made ground cover is destroyed, which may result in, or contribute to, erosion and sediment pollution. Grubbing and stump removal that occurs during clearing or timber activities constitutes a soil disturbing activity.

SOIL AND WATER CONSERVATION DISTRICT: An entity organized under Chapter 1515 of the Ohio Revised Code referring either to the Soil and Water Conservation District Board or its designated employee(s), hereinafter referred to as the Allen SWCD.

SOIL LOSS: The soil moved from a given site by the forces of erosion, measured using "T" or tolerable soil loss as defined by the USDA Natural Resources Conservation Service (NRCS).

STABILIZATION: The use of Best Management Practices, such as seeding and mulching, that reduce or prevent soil erosion by water, wind, ice, gravity, or a combination of those forces.

STORM DRAIN: A conduit, pipe or human-made structure, which serves to transport stormwater runoff.

STORM FREQUENCY: The average period of time within which a storm of a given duration and intensity can be expected to be equaled or exceeded.

STORMWATER: Any surface flow, runoff and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

STORMWATER MANAGEMENT: Runoff water safely conveyed or temporarily stored and released at an allowable rate to minimize erosion and flooding.

STORMWATER POLLUTION PREVENTION PLAN: (SWP3): The written document that sets forth the plans and practices to be used to meet the requirements of the state and local permits.

STORMWATER RUNOFF: The direct response of a watershed to precipitation, which includes the surface and subsurface runoff that enters a stream, ditch, storm sewer or other concentrated flow during and following the precipitation.

STREAM: A body of water running or flowing on the earth's surface in which flow may be perennial, seasonally intermittent and/or ephemeral.

SUBSOIL: That portion of the soil below the topsoil or plow layer, typically beginning 6-12" below the surface, but can also extend to 48" or deeper in the case of prime farmland soils, down to bedrock parent material.

T: The soil loss tolerance expressed in tons per acre per year as determined by the USDA Revised Universal Soil Loss Equation (RUSLE).

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES: Interim control measures, which are installed or constructed to control soil erosion or sedimentation until permanent soil erosion control measures are established.

TEMPORARY SOIL STABILIZATION: 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.

TOPSOIL: The upper layer of soil that is usually darker in color and richer in organic matter and nutrients than the subsoil.

UNSTABLE SOILS: A portion of land surface or area which is prone to slipping, sloughing, landslides or is identified by Natural Resource Conservation Service, USDA methodology as having low soil strength.

WATERCOURSE: A definite channel with defined bed and banks within which concentrated water flows, either continuously or intermittently, (e.g., brooks, channels, creeks, rivers, or streams).

WATER RESOURCE: Any public or private body of water including lakes and ponds, as well as streams, gullies, ditches, swales, or ravines that have banks, a defined bed, and a definite direction of course, either continuously or intermittently flowing.

WATERSHED: The total drainage area contributing runoff to a single point.

WETLAND: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and contain a predominance of hydric soils, and that under normal circumstances do support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas (40 CFR 232, as amended).

APPENDIX C
SINGLE FAMILY RESIDENTIAL DEVELOPMENT
STORMWATER POLLUTION PREVENTION PLAN (SWP3)

SWP3 Objective

The primary objective of a Stormwater Pollution Prevention Plan (SWP3) on a residential construction site is to protect the waters of the state from runoff leaving the site and laden with sediment. Preventing soil particles, litter and other pollutants from migrating off the site is also an important objective. The following are basic principles of pollution prevention to be addressed on an individual home construction site:

Duration of Construction and Staging

Develop a realistic and honest time table for the total earth disturbance. Most home construction projects can be completed in a reasonable amount of time, such as six (6) months. Sometimes availability of funding and other resources causes a project to extend over multiple years. In this case, it is best to stage earth disturbances and keep all pre-existing vegetation on idle portions of the lot for as long as construction operations allow. Time tables should give careful consideration to completing activities in a season where grass can be planted and expected to have enough time to establish itself ahead of adverse growing weather or season.

Protection of Streams, Ditches, Swale, Drainage Structures and Wetlands

- A. Identify and protect all existing and constructed water conveyances and drainage structures, both on the site and nearby. Such conveyances and structures would include catch basins, yard drains, road side swales, ditches, streams and wetlands.
- B. A fifty foot (50') protective zone or buffer should be maintained between the limits of earth disturbance and open ditches, streams and wetlands. Placement of construction materials, soil stockpiles, fuel tanks, waste containers, portable toilets, and other potential pollution sources should also be maintained outside the fifty foot (50') buffer zone.
- C. A common practice for storm drain inlet protection is the use of geotextile material or filtering fabric. This practice must remain in place until the grass seeding reaches at least seventy percent (70%) establishment over the entire disturbed area – something that often is not achieved for six (6) to twelve (12) months after the seed is planted.
- D. Installation of silt fences or rolled erosion control products like wattles on the downslope of the construction site is an effective practice in detaining and filtering sediments before they exit the site. Inlet protection and silt fence will require weekly inspection and repair or replacement throughout the construction season. This practice must also remain in place until the grass seeding reaches at least seventy percent (70%) establishment over the entire disturbed area.

Installation of a Construction Entrance

The construction entrance is generally a single point, located at the end of the permanent driveway where it meets the roadway. It is a stabilized pad of large stone underlain with a geotextile material. This practice is used to reduce the amount of dirt and sediment tracked off-site with construction traffic. Sediment on streets/roads or soil particles deposited around curb inlet protection is to be removed daily to prevent it from accumulating. Removal should be performed by sweeping, shoveling or scraping and is not to be washed off paved surfaces into storm drains. Sediments removed are to be placed where it will not be subject to erosion or concentrated runoff.

Management of Soil Stockpiles

Capturing the topsoil or uppermost eight inch (8") layer on the site and stockpiling it for redistribution over the landscape after construction and final grading are completed is an excellent practice. Soil stockpiles do represent a considerable disturbed area that will require erosion control protection including surrounding the base with silt fence or rolled erosion control products such as wattles. Small piles can effectively be covered with a secured tarp. Temporary seeding and mulch cover are other measures.

Waste Management on the Construction Site

Landowners have a responsibility to prevent the migration of all construction associated wastes off the site by wind, rain and human activities. Critical consideration needs to be given to maintaining lids on trash receptacles, having a designated collection location and structure for concrete truck washout, securing the base of portable toilets so that disinfectants and other contents are not spilled, placing fuel tanks in secondary containment, and preventing spills including securing lids on all liquid construction materials.

Temporary and Permanent Seeding to Stabilize Bare Soil

When bare soil such as rough graded areas and soil stockpiles lay undisturbed for more than fourteen (14) days, a temporary seeding and/or mulch cover must be applied (refer to Sheets #16 & 17 for installation and maintenance specifications). Permanent seeding and mulch protection should be completed within fourteen (14) days after the site has reached final grade, and in a season conducive to allow grass growth and establishment. All erosion control practices are to remain in place until the seeding has established itself over a minimum of seventy percent (70%) of the soil surface.

Responsibility of Inspection

The above practices require weekly inspection by the landowner or developer every week and after every one-half inch (0.5") rainfall event. Keeping a rain gage on the site is a useful tool. Repairs and corrections to erosion and sediment control practices must be made throughout the entire construction period. Use the *Single Family Residential Development SWP3 Compliance Checklist* provided with the Allen County Stormwater Management & Sediment Control Regulations (SMSCR) to perform and record these inspections over the life of the construction.

APPENDIX D
SINGLE FAMILY RESIDENTIAL DEVELOPMENT SWP3 COMPLIANCE CHECKLIST

Project evaluation and weekly construction site inspection tool

Date _____ Weekly Inspection Post Rainfall Inspection

Inspection/Evaluation conducted by _____

Target construction end date and restored vegetation on all disturbed areas _____

Duration of Construction and Staging	Y	N	N/A	Observations/Notes
Are any areas being staged and left in vegetation, to minimize overall earth disturbance?				
Protection of Streams, Ditches, Drainage Structures, Swale/Drain ways and Wetlands				
Are all connections to the waters of the state being protected?				
Is a 50' vegetated buffer area being protected along ditches, streams and wetlands?				
Are catch basin grates or inlets being fully protected?				
Do any catch basins require inlet protection to be cleaned or replaced at this time?				
Are silt fence or straw wattles being used and managed?				
Are silt fence or wattles staying securely fastened at their base so that stormwater cannot flow underneath?				
Installation of a Construction Entrance				
Are construction entrances limited to single location?				
Is coarse rock being maintained at construction entrance?				
Is soil and mud tracked onto the roadway removed daily?				
Management of Soil Stockpiles				
Are bases of stockpiles protected with silt fence/straw wattles?				
If the stockpile has not been disturbed for 14 or more days, has it been seeded, mulched or otherwise covered?				
Waste Management on the Construction Site				
Is trash being managed so that there is no transport of litter off site by wind or rain?				
Is concrete washout being collected in a controlled area, away from stormwater conveyances?				
Are portable toilets secured at their base and kept away from or moved as needed from construction equipment?				
Are fuel tanks maintained in secondary containment?				
Are all liquid materials maintained securely and away from active equipment?				
Temporary and Permanent Seeding to Stabilize Bare Soil				
If there are bare areas of soil that have not been disturbed for 14 or more days, have they been seeded, mulched or covered?				
Have all landscape areas that have reached final grade been seeded and mulched?				
Does any seeded area require watering?				
Are all erosion control practices being left in place until the seeding reaches 70% established cover?				