# SOIL EROSION AND SEDIMENTATION CONTROL RULES

LUCAS COUNTY, OHIO

AS APPROVED BY THE BOARD OF LUCAS COUNTY COMMISSIONERS

JANUARY 2, 2018

EFFECTIVE: FEBRUARY 2, 2018

# 1. Purpose and Scope

1.1 The Board of Lucas County Commissioners adopts these Erosion and Sediment Control Rules, pursuant to Ohio Revised Code, Section 307.79, to establish technically feasible and economically reasonable standards to achieve a level of management and conservation practices in order to abate soil erosion and degradation of the waters of the State by soil sediment on land used or being developed for non-farm commercial, industrial, residential or other non-farm purposes, to establish criteria for determination of the acceptability of such management and conservation practices, and to promote the health, safety and well-being of the residents of Lucas County. Specifically, the Rules are intended to protect:

(1.1.1) Ditches, culverts and storm sewers from loss of capacity due to siltation.

(1.1.2) Adjacent landowners from property loss due to sedimentation, erosion and flooding.

(1.1.3) Water quality and habitat in streams and wetlands.

1.2 These Rules apply to soil-disturbing activities on land within the unincorporated area of Lucas County used or being developed for non-farm commercial, industrial, residential, or other non-farm purposes, including, but not limited to, individual or multiple residential lots, subdivisions, multi-family developments, commercial and industrial developments, recreational projects, general clearing and grading projects, underground utilities, highways, building activities on farms, redevelopment of urban areas and all other uses unless expressly excluded as follows:

(1.2.1) Activities related to producing agricultural crops or silviculture operations or areas regulated by the Ohio Agricultural Sediment Pollution Abatement Rules.

(1.2.2) A Storm Water Pollution Prevention Plan (SWP3) is not required before clearing, grading, excavating, filling or otherwise wholly or partially disturbing less than one (1) acre of land owned by one (1) person or operated as one (1) development unit for the construction of non-farm buildings, structures, utilities, recreational areas or other similar non-farm uses.

## 2. Terms Defined

2.1 Interpretation of Terms and Words

(2.1.1) Words used in the present tense include the future tense and the singular include the plural, unless the context clearly indicates the contrary.

(2.1.2) The term "shall" is always mandatory and not discretionary. The word "may" is permissive. The term "should" is permissive but indicates strong suggestion.

(2.1.3) The word or term not interpreted or defined by this section shall be construed according to the rules of grammar and common usage so as to give these Rules their most reasonable application.

2.2 Definitions

Accelerated Soil Erosion: Is the increased loss of the land surface that occurs as a result of human activities.

Acre: A unit of measure equaling 43,560 square feet.

Administrator: The person or entity having the responsibility and duty of administering and ensuring compliance with these Rules. The Administrator shall be the Lucas County Engineer.

Applicant: The individual developer, owner, or operator who is responsible for the implementation of erosion and sediment controls on the development site.

Best Management Practices (BMP): Structural or nonstructural facilities or activities that control soil erosion and/or storm water runoff at a development site. This includes treatment requirements, operating and maintenance procedures, or other practices to control site runoff, leaks, or waste disposal.

Buffer Area: A designated transitional area 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.

Channel: A natural bed that conveys water or a ditch excavated for the flow of water.

Critical Area: Any portion of an area subject to this Rule the disturbance of which would cause soil erosion and sediment run-off 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, riparian areas, wetlands and highly erodible soils.

Certified Professional in Erosion and Sediment Control (CPESC): A professional certification issued by EnviroCert International indicating the holder has the

educational training, expertise, and experience in soil erosion and sedimentation control.

Development Area: A contiguous area owned by one (1) person or persons, or operated as one (1) development unit, and used or being developed for non-farm commercial, industrial, residential or other institutional construction or alteration which changes the runoff characteristics of a parcel of land.

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 excavated channel for the purpose of drainage or irrigation. It may or may not be maintained by a public entity.

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

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, or stream.

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 or gravity.

External Inspection: Inspections required to be undertaken by the MS4 operator to ensure owner/developer compliance with these rules. Inspection must be performed at least once per month.

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 have been completed and a uniform perennial vegetative cover with a density of at least 70% cover for the area has been established or equivalent stabilization measures, such as the use of mulches or geotextiles, have been employed.

Grading: The excavating, filling, or stockpiling of earth material, or any combination thereof, includes the land in its excavated or filled condition.

Impervious: That which does not allow infiltration.

Internal Inspection: Inspections required to be undertaken by the owner/operator of the site. They are to occur once a week and within 24 hours of a one-half (1/2) inch rainfall event.

Land disturbance: Any clearing, grading, excavating, filling, or other alteration of land surface where natural or man-made cover is destroyed in a manner that exposes the underlying soils.

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 (1) plan.

Multi-family Development: Apartments, condominiums, duplexes or other similar buildings housing more than one family.

Maximum Extent Practicable: The level of pollutant reduction that operators of Small Municipal Separate Storm Sewer Systems (MS4) regulated under 40 C.F.R. Parts 9, 122, 123, and 124, referred to as NPDES Storm Water Phase II, must meet.

MS4: Small Municipal Separate Storm Sewer Systems (MS4) regulated under 40 C.F.R. Parts 9, 122, 123, and 124, referred to as NPDES Storm Water Phase II

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

NPDES: National Pollutant Discharge Elimination System; a regulatory program in the Federal Clean Water Act that prohibits the discharge of pollutants into surface waters of the United States without a permit.

Ohio EPA General Construction Permit: A general storm water permit issued by the Ohio EPA that is required for discharges associated with construction activities of $\geq$ 1 acre.

One Hundred Year Frequency Storm: A storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in one hundred (100) years. It may also be expressed as an exceedance probability with a one (1) percent chance of being equaled or exceeded in any given year.

Person: An individual, corporation, firm, trust, commission, board, public or private partnership, joint venture, agency, unincorporated association, municipal corporation, county or state agency, federal government or any combination thereof.

Phasing: Clearing a parcel of land in distinct sections, with the stabilization of each section before the clearing of the next.

Post-Development: The conditions which exist following the completion of the soil-disturbing activity in terms of topography, vegetation, land use and rate, volume or direction of storm water runoff.

Pre-Construction Meeting: A meeting between the Administrator and all principal parties, prior to the start of any construction, at a site that requires a Storm Water Pollution Prevention Plan (SWP3).

Post-Construction Runoff Control- A BMP designed to manage storm water quantity (and often quality) after construction is complete.

Rainwater and Land Development Manual: Ohio's standards for storm water management, land development, and urban stream protection. It was 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 this regulation.

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

Retention Structure: A permanent structure whose primary purpose is to permanently store a given volume of storm water runoff for release by infiltration and/or evaporation.

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

Sediment: The soils or other surface materials that can be transported or deposited from its site of origin by the action of wind, water, ice or gravity as a product of erosion.

Sedimentation: The deposit of sediment in water bodies.

Sediment Settling Pond: 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, industrial, residential or other non-farm purposes.

Sloughing/Slumping: Is 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.

Soil and Water Conservation District (SWCD): 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 Lucas SWCD.

Soil Loss: The soil moved from a given site by the forces of erosion, measured using “T.”

Stabilization: The installation of vegetative and/or structural measures to establish a soil cover in order to reduce soil erosion by storm water runoff, wind, ice, and gravity.

Storm Drain: Is a conduit, pipe or structure, which serves to transport storm water runoff.

Storm Water Management: Runoff water safely being conveyed or temporarily stored and released at an allowable rate to minimize erosion and flooding.

Storm Water 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.

Storm Water Management Standards Manual: A standards manual adopted by the Administrator that provides guidelines on BMP design and performance criteria.

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

Subsoil: That portion of the soil below the topsoil or plow layer, beginning 6" -12" below surface down to bedrock parent material.

Surface Waters of the State: Also WATER RESOURCE. Any stream, lake, reservoir, pond, marsh, wetland, or other waterway situated wholly or partly within the boundaries of the state, except those private waters which do not combine or affect a junction with surface water. Waters defined as sewage systems, treatment

works or disposal systems in Section 6111.01 of the Ohio Revised Code are not included.

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.

Ten Year Frequency Storm: A storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in ten (10) years. It may also be expressed as an exceedance probability with a ten (10) percent chance of being equaled or exceeded in any given year.

Two Year Frequency Storm: A storm that is capable of producing rainfall expected to be equaled or exceeded on the average of once in two (2) years. It may also be expressed as an exceedance probability with a fifty (50) percent chance of being equaled or exceeded in any given year.

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 bed and banks within which concentrated water flows, either continuously or intermittently.

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

Water Resource: Also SURFACE WATER OF THE STATE. Any stream, lake, reservoir, pond, marsh, wetland, or waterway situated wholly or partly within the boundaries of the state, expect those private water which no not combine or affect a jurisdiction with surface water. Waters defined as sewage systems, treatment works or disposal systems in Section 6111.01 of the Ohio Revised Code are not included.

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 that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas (40 CFR 232, as amended).

## 3. Disclaimer of Liability

Compliance with the provisions of this regulation shall not relieve any person from responsibility for damage to any person otherwise imposed by law. The provisions of this regulation are promulgated to promote the health, safety, and welfare of the public and are not designed for the benefit of any individual or for the benefit of any particular parcel of property.

## 4. Conflicts, Severability, Nuisances, and Responsibility

4.1 Where this regulation is in conflict with other provisions of law or ordinance, the most restrictive provisions shall prevail.

4.2 If any clause, section, or provision of this regulation is declared invalid or unconstitutional by a court of competent jurisdiction, the validity of the remainder shall not be affected thereby.

4.3 This regulation shall not be construed as authorizing any person to maintain a private or public nuisance on their property, and compliance with the provisions of this regulation shall not be a defense in any action to abate such a nuisance.

4.4 Failure of the County of Lucas to observe or recognize hazardous or unsightly conditions or to recommend corrective measures shall not relieve the site owner from the responsibility for the condition or damage resulting there from, and shall not result in the Community, its officers, employees, or agents being responsible for any condition or damage resulting there from.

## 5. Development of Storm Water Pollution Prevention Plans (SWP3s)

5.1 A Storm Water Pollution Prevention Plan (SWP3) shall be developed and implemented for all parcels where disturbance of one (1) acre or more, or will disturb less than one (1) acre of land as part of a larger common plan of development or sale that will ultimately disturb one (1) or more acres of land for non-farm, commercial, industrial, residential or other non-farm purposes.

5.2 A Storm Water Pollution Prevention Plan (SWP3) shall be developed and implemented for all parcels with soil disturbing activities as part of a redevelopment project that meet the disturbed area requirements of Section 1.2.

5.3 The SWP3 required by this regulation is not synonymous with the SWP3 required by the Ohio EPA. Although based on the Ohio EPA general construction permit, minor variations do exist. Therefore, acceptance by the Ohio EPA does not replace the need to adhere to the requirements of this regulation.

## 6. Application Procedures

6.1 Soil Disturbing Activities Submitting a Storm Water Pollution Prevention Plan (SWP3): The applicant shall submit (2) sets of the SWP3, electronic versions of those plans and the applicable fees to the Administrator:

(6.1.1) For Subdivisions: After the approval of the preliminary plat and with submittal of the infrastructure improvement plans.

(6.1.2) For Other Construction Projects: Before approval to commence land disturbance and prior to the issuance of township zoning approval.

(6.1.3) For General Clearing Projects: Before approval to commence land disturbance.

6.2 The Administrator shall review the plans submitted for conformance with this regulation and approve, or return for revisions with comments and recommendations for revisions. The Administrator or authorized representative may notify the applicant at any time that the SWP3 does not meet one or more of the minimum requirements of this part. Within fourteen (14) calendar days after such notification from the Administrator or authorized representative (or as otherwise provided in the notification), the applicant shall make the required changes to the SWP3 and, if requested, shall submit to the Administrator the revised SWP3 or a written certification that the requested changes have been made.

(6.2.1) The applicant shall amend the SWP3 whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the potential for the discharge of pollutants to surface waters of the state or if the SWP3 proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity.

6.3 Soil disturbing activities shall not begin and zoning permits shall not be issued without an approved SWP3.

6.4 Approvals issued in accordance with this regulation shall remain valid for eighteen (18) months from the date of approval. If construction is not initiated within eighteen (18) months, a new approval will be required before earth disturbing activities may occur.

## 7. Compliance with State and Federal Regulations

7.1 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, and/or county agencies. If requirements vary, the most restrictive requirement shall prevail. These permits may include, but are not limited to, those listed below. All submittals are required to show proof of compliance with these state and federal regulations and shall be submitted with Storm Water Pollution Prevention Plans.

(7.1.1) Ohio EPA NPDES Permits authorizing storm water discharges associated with construction activity or the most current version thereof: Proof of compliance with these requirements shall be the applicant's Facility ID number 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.

(7.1.2) 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.

(7.1.3) 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.

(7.1.4) 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 Program. This shall include one of the following:

(7.1.4.a) 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.

(7.1.4.b) 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.

(7.1.5) 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.

## 8. Storm Water Pollution Prevention Plans

8.1 In order to control sediment pollution of water resources and wetlands, an applicant disturbing property subject to section 5.1 of this regulation shall submit a SWP3 in accordance with this regulation.

8.2 The SWP3 shall be certified by a professional engineer (P.E.), a certified professional in erosion and sediment control (CPESC), or a registered landscape architect.

(8.2.1) Exception: A SWP3 for a single family home site with earth disturbance of 2 acres or less shall not require certification by a professional identified in Section 8.2.

8.3 Plan Availability – The plan shall be made available upon the following conditions:

(8.3.1) On Site: The plan shall be made available immediately upon request of the Administrator or his authorized representative and MS4 operators or their authorized representative during working hours.

(8.3.2) By written request: The applicant must provide the most updated copy of the SWP3 within 10 working days upon written request.

8.4 Duty to inform contractors and subcontractors: The applicant shall inform all contractors and subcontractors not otherwise defined as “operators” who will be involved in the implementation of the SWP3 of the terms and conditions of this regulation. The applicant shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created and signatures shall be obtained prior to the commencement of work at the site.

8.5 The SWP3 shall incorporate measures as recommended by the most current edition of *Rainwater and Land Development* as published by the Ohio EPA and shall include the following information:

(8.5.1) Site description and data: The SWP3 shall provide:

(8.5.1.a) A cover page or title identifying the name and location of the site, the name and contact information of all construction site operators, the name and contact information for the person responsible for authorizing and amending the SWP3, preparation date, and the estimated dates that construction will start and be completed.

(8.5.1.b) A description of the nature and type of the construction activity (e.g. residential, shopping mall, highway, etc.).

(8.5.1.c) Total area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including offsite borrow areas).

(8.5.1.d) Calculation of runoff coefficients for both the pre-construction and post-construction condition.

(8.5.1.e) Provide the area and percentage of existing impervious area and provide the area and percentage of proposed impervious area.

(8.5.1.f) 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.

(8.5.1.g) A description of prior land uses at the site.

(8.5.1.h) An implementation schedule which describes the sequence of major construction operations (i.e. grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence.

(8.5.1.i) The name and/or location of the immediate receiving stream or surface water(s) and the areal extent and description of wetlands or other specific aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project. For discharges to an MS4, the point of discharge to the MS4 and the location where the MS4 ultimately discharges to a stream or surface water of the state shall be indicated.

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

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

(8.5.1.k) Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants associated with the development area and the best management practices to address pollutants in these storm water discharges.

(8.5.1.l) The name of the applicant (person responsible for implementation of the SWP3).

(8.5.1.m) A copy of the permit requirements (attaching a copy of the current Ohio Construction General Permit is acceptable).

(8.5.1.n) A log documenting grading and stabilization activities as well as amendments to the SWP3 which occur after construction activities commence.

(8.5.2) Site Map: The SWP3 Site Map shall provide:

(8.5.2.a) Limits of earth-disturbing activity of the site including off-site borrow or spoil areas not addressed by a separate application and associate SWP3.

(8.5.2.b) Soils types should be depicted for all areas of the site, including locations of unstable or highly erodible soils.

(8.5.2.c) Existing and proposed one-foot (1') contours. This must include a delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed in acres.

(8.5.2.d) 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.

(8.5.2.e) Existing and planned locations of buildings, roads, parking facilities, and utilities.

(8.5.2.f) 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.

(8.5.2.g) Permanent storm water management practices to be used to control pollutants in storm water after construction operations have been completed.

(8.5.2.h) Areas designated for the storage or disposal of solid, sanitary and toxic wastes including dumpster areas, areas designated for cement truck washout, and vehicle fueling.

(8.5.2.i) The location of designated construction entrances where the vehicles will ingress and egress the construction site.

(8.5.2.j) The location of any in-stream activities including stream crossings.

(8.5.2.k) Sediment and storm water management basins noting their sediment settling volumes. Lucas County recommends the use of data sheets (See *Rainwater and Land Development*) to provide data for all sediment traps, sediment basins and storm water management treatment practices noting important inputs to design and resulting parameters such as their contributing drainage area, water quality volume, sedimentation volume showing how the sedimentation volume was calculated, practice surface area, facility discharge and dewatering time outlet type, and dimensions.

(8.5.3) Post-Construction BMP Inspection and Maintenance Agreement. The inspection and maintenance agreement required for SWP3s under this regulation shall be executed between Lucas County and the applicant. The agreement shall be a covenant appurtenant and shall run with the land in perpetuity. A copy of this agreement shall be recorded with the Lucas County Recorder. Evidence of recordation with the Lucas County Recorder shall be provided to the Administrator prior to the bond outlined on Section 12 of these rules being released. The agreement shall contain the following information and provisions:

(8.5.3.a) Identification of landowner(s) or organization responsible for long-term maintenance, including repairs of the post-construction BMP.

(8.5.3.b) The landowner(s) or organization shall maintain the post-construction BMP in accordance with this regulation along with a schedule of routine and non-routine maintenance activities to be performed to ensure the post-construction BMP functions as designed and constructed.

(8.5.3.c) An easement shall be provided where the Administrator has the authority to enter upon the property to conduct inspections, as necessary, with

prior notification to the property owner, to verify that the BMPs are being maintained and operated according to this regulation.

(8.5.3.d) The Administrator shall maintain public records of the results of site inspections, shall inform the landowner(s) or organization responsible for maintenance of the inspection results, and shall specifically indicate in writing any corrective actions required to bring the BMP into proper working order.

(8.5.3.e) If the Administrator notifies the landowner(s) or organization responsible for maintenance of the maintenance problems that require correction, the specific corrective actions shall be completed within a reasonable time as determined by the Administrator.

(8.5.3.f) The Administrator is authorized to enter upon the property and perform the corrective actions identified in the inspection report if the landowner(s) or organization responsible for the maintenance does not make the required corrections in the specified time period. The Administrator shall be reimbursed by the landowner or organization responsible for maintenance for all expenses incurred within 10 days of receipt of invoice from the Administrator, or more with written approval from the Administrator.

(8.5.3.g) The method of funding long-term maintenance and inspection of all BMPs.

(8.5.3.h) A release of the County of Lucas from all damages, accidents, causalities, occurrences, or claims that might arise or be asserted against the County of Lucas from the construction, presence, existence, or maintenance of the BMP.

(8.5.4) A Soils Engineering Report: The Administrator may require the SWP3 to include a Soils Engineering Report prepared and certified by a Professional Engineer 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.

(8.5.4.a) Data regarding the nature, distribution, strength, and erodibility of existing soils.

(8.5.4.b) If applicable, data regarding the nature, distribution, strength, and erodibility of the soil to be placed on the site.

(8.5.4.c) Conclusions and recommendations for grading procedures.

(8.5.4.d) Conclusions and recommended designs for interim soil stabilization devices and measures, and for permanent soil stabilization after construction is completed.

(8.5.4.e) Design criteria for corrective measures when necessary.

(8.5.4.f) Opinions and recommendations covering the stability of the site.

## 9. Performance Standards

9.1 The SWP3 shall contain appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented; and which contractor is responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). The SWP3 shall identify the subcontractors engaged in activities that could impact storm water runoff. The SWP3 shall contain signatures from all of the identified subcontractors indicating that they have been informed and understand their roles and responsibilities in complying with the SWP3. The primary site operator should review the SWP3 prior to commencement of construction activities and keep a SWP3 training log to demonstrate the review has occurred.

Erosion, sediment, and storm water management practices used to satisfy the conditions of this permit should meet the standards and specifications of the most current edition of Ohio's *Rainwater and Land Development Manual* (see definitions) or other standards acceptable to the Administrator or Ohio EPA. The controls shall include the following minimum components:

(9.1.1) Non-Structural Preservation Measures: The SWP3 shall make use of practices which preserve the existing natural condition as much as feasible. Such practices may include: preserving the existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time and designation of tree preservation areas or other protective clearing or grubbing

practices/ For all construction activities immediately adjacent to surface waters of the state, the permittee shall comply with the buffer non-numeric effluent limitation in section (9.1.2.f), as measured from the ordinary high water mark of the surface water.

(9.1.2) Erosion and Sediment Controls: The applicant shall design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls shall be designed, installed and maintained to:

(9.1.2.a) Control storm water volume and velocity within the site to minimize soil erosion;

(9.1.2.b) Control storm water discharges, including both peak flow rates and total storm water volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;

(9.1.2.c) Minimize the amount of soil exposed during construction activity;

(9.1.2.d) Minimize the disturbance of steep slopes;

(9.1.2.e) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls shall address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;

(9.1.2.f) If feasible, provide and maintain a 50-foot undisturbed natural buffer around surface waters of the state, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration. If it is infeasible to provide and maintain an undisturbed 50-foot natural buffer, you shall comply with the stabilization requirements found in Part II.B for areas within 50 feet of a surface water; and

(9.1.2.g) Minimize soil compaction and, unless infeasible, preserve topsoil.

(9.1.3) Stabilization: Disturbed areas shall be stabilized in accordance with Table 1 (Permanent Stabilization) and Table 2 (Temporary Stabilization)

| Area Requiring Permanent Stabilization | Time Frame to Apply Erosion Controls |
|---|---|
| Any area that will lie dormant for one (1) year or more. | Within seven (7) days of the most recent disturbance. |
| Any area within fifty (50) feet of surface water of the state and at final grade. | Within two (2) days of reaching final grade. |
| Any area at final grade. | Within seven (7) days of reaching final grade within that area. |

**Table 1 – Permanent Stabilization**

| Area Requiring Temporary Stabilization | Time Frame to Apply Erosion Controls |
|---|---|
| Any disturbed area within fifty (50) feet of a surface water of the state and not at final grade. | Within two (2) days of the most recent disturbance if that area will remain idle for more than fourteen (14) days. |
| For all construction activities, any disturbed area, including soil stockpiles that will be dormant for more than fourteen (14) days but less than one (1) year, and are not within fifty (50) feet of a stream. | Within seven (7) days of the most recent disturbance within that area.<br>For residential subdivisions, disturbed areas must be stabilized seven (7) days prior to transfer of permit coverage for individual lots (e.g. prior to the sale of the lot). |
| 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. These techniques may include mulching or erosion matting. | |

**Table 2 – Temporary Stabilization**

(9.1.4) 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 most recent edition of *Rainwater and Land Development*.

9.2 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. Velocity dissipation devices shall be installed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.

9.3 Sediment Control Practices: The SWP3 shall include a description of structural practices that shall store runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediments from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, silt fences, earth diversion dikes or channels which direct runoff to a sediment settling pond and storm drain inlet protection. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered sediment control practice unless those are used in conjunction with a sediment settling pond.

The SWP3 shall contain the detail drawings for all structural practices.

(9.3.1) Timing. Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven (7) days from the start of grubbing. They shall continue to function until the upslope development area is re-stabilized. As construction progresses and the topography is altered, appropriate controls must be constructed or existing controls altered to address the changing drainage patterns.

(9.3.2) Sediment Settling Ponds: A sediment settling pond is required for any one of the following conditions:

(9.3.2.a) Areas receiving concentrated storm water runoff (e.g. from storm sewer or ditch);

(9.3.2.b) Runoff from drainage areas exceeds the design capacity of silt fence or inlet protection; or

(9.3.2.c) Runoff from common drainage locations with disturbance of five (5) or more acres of land.

(9.3.2.d) The applicant may request approval from the Lucas County Engineer to use alternative controls if the applicant can demonstrate the alternative controls are equivalent in effectiveness to a sediment settling pond.

(9.3.2.e) The sediment-settling pond shall be sized to provide at least 67 $yd^3$ (1,800 $ft^3$) of storage per acre of total contributing drainage area with a minimum 48-hour drain time for sediment basins serving a drainage

area over 5 acres. The volume of the sediment storage zone shall be calculated by one of the following methods:

(i) Method One: The volume of the sediment storage zone shall be 1,000 $ft^3$ per disturbed acre within the watershed basin; or

(ii) Method Two: The volume of the sediment storage zone shall be the volume necessary to store the sediment as calculated with RUSLE or a similar generally accepted erosion control model.

(9.3.2.f) The accumulated sediment shall be removed from the sediment storage zone once it's full. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity shall 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 dewatering zone shall be less than or equal to five feet. The configuration between inlets and the outlet of the basin shall provide at least two units of length for each one unit of width (> 2:1 length: width ratio); however, a length to width ratio of 4:1 is recommended. When designing sediment settling ponds, the applicant shall consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls shall 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.

(9.3.3) Silt Fence and Diversions: Sheet flow runoff from denuded 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 areas to silt fence for a particular slope range is shown in Table 3 below. Storm water 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 storm water runoff from areas up to five (5) acres. This regulation does not preclude the use of other sediment barriers designed to control sheet flow runoff.

| Maximum Drainage Area (in acres) to 100 Linear Feet of Silt Fence | Range of Slope (%) for a Drainage Area |
|---|---|
| 0.5 | < 2 |
| 0.25 | ≥ 2 but < 20 |
| 0.125 | ≥ 20 but < 50 |

**Table 3 – Maximum Drainage Area to Silt Fence**

(9.3.4) 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. Please reference applicable sections of *Rainwater and Land Development* for acceptable forms of inlet protection.

(9.3.5) Offsite Tracking of Sediment and Dust Control: Best management practices must be implemented to ensure sediment is not tracked off-site and that dust is controlled. These best management practices must include, but are not limited to, the following:

(9.3.5.a) 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 sized greater than two (2) inches in diameter, to a depth of six (6) inches, placed over a geotextile fabric, and constructed in conformance with specifications in the most recent edition of *Rainwater and Land Development*.

(9.3.5.b) Streets directly adjacent to construction entrances and receiving traffic from the development area shall be cleaned daily to remove sediment tracked offsite. 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 best management practices to control off site tracking and dust. These additional BMPs may include:

(i) Silt fence or construction fence installed around the perimeter of the development area to ensure that all vehicle traffic adheres to designated construction entrances.

(ii) 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.

(9.3.5.c) 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, and regulation of the speed of vehicles on the site.

(9.3.6) Stream Protection: Construction vehicles shall avoid water resources and wetlands. If the applicant is permitted to disturb areas within 50 feet of a water resource or wetland, the following conditions shall be addressed in the SWP3:

(9.3.6.a) All BMPs and stream crossings shall be designed as specified in the most recent edition of *Rainwater and Land Development*.

(9.3.6.b) Structural practices shall be designated and implemented on site to protect water resources or wetlands from the impacts of sediment runoff.

(9.3.6.c) No structural sediment controls (e.g., the installation of silt fence or sediment settling pond in-stream) shall be used in a water resource or wetland.

(9.3.6.d) 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.

(9.3.6.e) Temporary stream crossings shall be constructed if water resources or wetlands will be crossed by construction vehicles during construction.

(9.3.6.f) 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.

(9.3.7) 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.

9.4 Non-Sediment Pollution Controls: No solid or liquid waste, including building materials, shall be discharged in storm water runoff. The applicant must

implement site best management practices 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:

(9.4.1) Waste Materials: A covered dumpster shall be made available for the proper disposal of garbage, plaster, drywall, grout, gypsum, and other waste materials.

(9.4.2) 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.

(9.4.3) Fuel Tank/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. All storage areas shall be lined with clay to prevent the contamination of groundwater resources.

(9.4.4) Toxic or Hazardous Waste Disposal: Any toxic or hazardous waste shall be disposed of properly.

(9.4.5) 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.

(9.4.6) Contamination from other Wastewaters: The SWP3 shall include methods to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. No detergents may be used to wash vehicles. Wash waters shall be treated in a sediment basin or alternative control that provides equivalent treatment prior to discharge.

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

9.6 Trench and Ground Water Control: There shall be no sediment-laden or turbid 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.

9.7 Internal Inspections: All controls on the site shall be inspected at least once every seven calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. Upon approval by the Administrator, the inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (e.g., site is covered with snow, ice, or the ground is frozen). The Administrator may provide a waiver of inspection requirements until one month before thawing conditions are expected to result in a discharge if all of the following conditions are met: the project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month); land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are approved by the Administrator and documented in the SWP3. Once a definable area is finally stabilized, the area may be reported to the Administrator for inspection, and upon approval by the Administrator, marked on the SWP3 and no further inspection requirements apply to that portion of the site.

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:

(9.7.1) 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.

(9.7.2) 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 provided by the Administrator or an alternate form acceptable to the Administrator.

(9.7.3) 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.

(9.7.4) Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

(9.7.5) 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.

9.8 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 up slope 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 and adequate funding to conduct this maintenance, all as determined by the Administrator. When inspections reveal the need for repair, replacement, or installation of erosion and sediment control BMPs, the following procedures shall be followed:

(9.8.1) 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.

(9.8.2) 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.

(9.8.3) 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.

9.9 Final Stabilization: Final stabilization shall be determined by the Administrator.

## 10. Post-Construction Runoff Control

10.1 So that a receiving stream's physical, chemical and biological characteristics are protected and stream functions are maintained, post-construction storm water practices shall provide perpetual management of runoff quality and quantity. To meet the post-construction requirements of this regulation, the SWP3 must contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection.

The rationale must address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality.

10.2 Detail drawings and maintenance plans must be provided for all post-construction BMPs. Maintenance plans shall be provided by the permittee to the post-construction operator of the site (including homeowner associations) upon completion of construction activities. For sites located within a community with a regulated municipal separate storm sewer system (MS4), the permittee, land owner, or other entity with legal control of the property may be required to develop and implement a maintenance plan to comply with the requirements of the MS4. Maintenance plans must ensure that pollutants collected within structural post-construction practices are disposed of in accordance with local, state, and federal regulations.

10.3 Large Construction Activities: For all large construction activities (involving the disturbance of five (5) or more acres of land or will disturb less than five (5) acres, but is a part of a larger common plan of development or sale which will disturb five (5) or more acres of land), the post-construction BMP(s) chosen must be able to detain storm water runoff for protection of the stream channels, stream erosion control, and improved water quality. Structural (designed) post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality volume (WQv) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQv shall be equivalent to the volume of runoff from a 0.75-inch rainfall and shall be determined according to one of the two following methods:

(10.3.1) Through a site hydrologic study approved by the Administrator that uses continuous hydrologic simulation and local long term hourly precipitation records; or

(10.3.2) Using the following equation :

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

where:

WQv = water quality volume in acre-feet

C = runoff coefficient appropriate for storms less than 1 inch

(Either use the following formula: $C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$, where i = fraction of post-construction impervious surface or use Table 4)

P = 0.75 inch precipitation depth

A = area draining into the BMP in acres

| Land Use | Runoff Coefficient, (C) |
|---|---|
| Industrial and Commercial | 0.8 |
| High Density Residential (>8 dwellings per acre) | 0.5 |
| Medium Density Residential ( 4 to 8 dwellings per acre) | 0.4 |
| Low Density Residential ( <4 dwellings per acre) | 0.3 |
| Open Space and Recreational Areas | 0.2 |

**Table 4 – Runoff Coefficients Based on the Type of Land Use**

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

(10.3.3) An additional volume equal to 20 percent of the WQv shall be incorporated into the BMP for sediment storage and/or reduced infiltration capacity. BMPs should be designed according to the methodology included in *Rainwater and Land Development* manual. BMPs shall be designed such that the drain time is long enough to provide treatment, but short enough to provide storage available for successive rainfall events as described in Table 5 below:

| Best Management Practice | Drain Time of WQv |
|---|---|
| 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 |

**Table 5 – Post-Construction BMPs & Associated Drain (Drawdown) Times**

*[1] 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.*
*[2] Dry basins must include forebay and micropool each sized at 10% of the WQv*
*[3] Provide both a permanent pool and an EDv above the permanent pool, each sized at 0.75 WQv.*
*[4] Extended detention shall be provided for the WQv above the permanent pool.*
*[5] 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* Rainwater and Land Development *have been met.*
*[6] This would include Grassed Linear Bioretention which was previously called Enhanced Water Quality Swale.*
*[7] 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*

(10.3.4) For sites greater than 1 acre and less than 5 acres, the applicant may request approval from the Administrator to use alternative structural post-construction BMPs if the applicant can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 5 above.

(10.3.5) For sites equal to or greater than five (5) acres, or less than five (5) acres but part of a larger common plan of development or sale which will disturb five (5) or more acres, the Administrator may allow alternative post-construction BMPs if the applicant can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 5 above and has prior written approval from the State of Ohio.

(10.3.6) Construction of new roads and roadway improvement projects by public entities (i.e., the state, counties, townships, cities, or villages) shall comply with the post-construction storm water management requirements of the current Ohio Department of Transportation standards.

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

10.4 Small Construction Activities: For all small land disturbance activities (which disturb one (1) or more, but less than five (5) acres of land and is not a part of a larger common plan of development or sale which will disturb five (5) or more acres of land), a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed must be included in the SWP3. Structural measures should be placed on upland soils to the degree attainable.

(10.4.1) Such practices may include, but are not limited to: storm water detention structures (including wet basins); storm water retention structures; flow attenuation by use of open vegetated swales and

natural depressions; infiltration of runoff onsite; alternative manufactured systems as approved by the Administrator; and sequential systems (which combine several practices). The SWP3 shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels.

(10.4.2) Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a watercourse so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

10.5 Surface Water Protection. If the project site contains any streams, rivers, lakes, wetlands, or other surface waters, certain construction activities at the site may be regulated under the Clean Water Act (CWA) and / or state isolated wetland permit requirements. Sections 404 and 401 of the Act regulate the discharge of dredged or fill material into surface waters and the impacts of such activities on water quality, respectively. Construction activities in surface waters, which may be subject to CWA regulations, and /or state isolated wetland permit requirements include, but are not limited to sewer line crossings, grading, backfilling, filling wetlands, road and utility line construction, bridge installation and installation of flow control structures. If the project area includes streams, rivers, lakes or wetlands or possible wetlands, the applicant shall contact the Buffalo District of the U.S. Army Corps of Engineers.

Concentrated storm water runoff from BMPs to natural wetlands shall be converted to diffuse flow before the runoff enters the wetlands. The flow should be released such that no erosion occurs down slope. Level spreaders may need to be placed in series, particularly on steep sloped sites, to ensure non-erosive velocities. Other structural BMPs may be used between storm water features and natural wetlands, in order to protect the natural hydrology, hydro period, and wetland flora. If the applicant proposes to discharge to natural wetlands, a hydrologic analysis shall be performed. The applicant shall attempt to match the pre-development hydro periods and hydrodynamics that support the wetland. The applicant shall assess whether their construction activity will adversely impact the hydrologic flora and fauna of the wetland. Practices such as vegetative buffers, infiltration basins, conservation of forest cover, and the preservation of intermittent streams, depressions, and drainage corridors may be used to maintain wetland hydrology.

## 11 Fees

Pursuant to ORC Section 307.79 (A), the Storm Water Pollution Prevention Plan (SWP3) review, filing, and inspection fee is part of a complete submittal and shall be submitted to

the Administrator before land disturbance of 1 (one) or more acres. Fees in accordance with the current fee schedule approved by Resolution of the Board of Lucas County Commissioners shall be charged at the time of submittal. SWP3s shall not be reviewed until the initial review and filing fee has been paid.

The fee schedule shall include an initial review and filing fee, as well as fees for review of the application package in addition to the initial review period, and for project inspection. The Administrator may require the Applicant to submit a deposit for an estimated inspection fee to be submitted prior to plan approval. If required, the inspection deposit will reimburse the Administrator for actual expenses as they occur during the inspection phase of the project.

When the amount of the deposit is at, or below, 10% of the estimated inspection fee, a further deposit of funds will be required to restore the balance to 50% of the original estimated inspection fee. The Administrator and/or the County of Lucas may enforce procedures outlined in Section 14 of these Rules until a sufficient deposit is restored. Funds kept on deposit by the Administrator will be returned at the same time as the bond outlined on Section 12 of these rules is released.

## 12 Bond

If a Storm Water Pollution Prevention Plan (SWP3) is required by this regulation in areas subject to the Lucas County Subdivision Regulations, soil disturbing activities shall not be permitted until the owner/developer provides a performance guarantee by posting a Performance Bond, executed by a security company or an escrow account. The bond shall be in the favor of the Board of Lucas County Commissioners and shall guarantee implementation of the obligations otherwise to be performed by the owner of the development area as stated in this regulation and to allow all work to be performed as needed in the event that the applicant fails to comply with the provisions of this regulation. The bond amount shall be the bid total dollar value of the erosion and sediment controls, plus an additional 25%. In the event that the Administrator must perform the construction of the erosion and sediment controls, the bond shall be returned to the private land owner or homeowner's association, less construction costs and the Administrator's administrative fees, and only after all the work required by these regulations has been completed and final stabilization has been reached, all as determined by the Administrator. Ohio counties may require performance bonds or other guarantees for water management improvement as stated in the ORC Chapter 711.101.

## 13 Prohibited Conduct

13.1 Pursuant to R.C. §307.79, No person shall violate any rule adopted or order issued pursuant to this regulation.

## 14 Enforcement

14.1 All development areas may be subject to external inspections by the Administrator to ensure compliance with the approved SWP3.

14.2 After each external inspection the Administrator shall prepare and distribute a status report to the applicant.

14.3 If the Administrator determines that a violation of the rules adopted under this code exist, Lucas County or representative 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.

14.3.1 No stop work order shall be issued under this section against any public highway, transportation or drainage improvement or maintenance project undertaken by a government agency or political subdivision in accordance with a statement of its standard sediment control policies that is approved by the board or the chief of the division of soil and water resources in the department of natural resources.

14.4 If the Administrator during an external inspection determines that a rule violation exists, regardless of whether or not the violator has obtained the proper permits, the Engineer may authorize the issuance of a notice of violation and may take action as detailed in Section 14 of this regulation.

14.5 Failure to maintain and repair erosion and sediment controls per the approved SWP3 may result in the following escalation:

14.5.1 First Violation: The Administrator shall issue a Notice of Violation (NOV) to the owner or operator which will include an administrative fee set in a fee schedule approved by the Board of Lucas County Commissioners. All controls are to be repaired or maintained per the SWP3 within thirty (30) days of the notification.

14.5.2 Second Violation: The Administrator shall issue a second Notice of Violation (NOV) to the owner or operator which will include an administrative fee set in a fee schedule approved by the Board of Lucas County Commissioners if the initial NOV was not rectified within the original thirty (30) days. All controls are to be repaired or maintained per the SWP3 within fifteen (15) days of the notification.

14.5.3 If, after fifteen (15) days have elapsed after the issuance of the second notice of violation, and the violation continues, the Administrator may issue a stop work order after first obtaining written approval of the Lucas County Prosecutor's Office.

14.6 Once a stop work order is issued, the Administrator shall request, in writing, that the Lucas County Prosecutor's Office is to seek an injunction or other appropriate relief in the court of common pleas to abate excessive erosion or sedimentation and secure compliance with the rules adopted under this section.

14.6.1 If the Prosecuting Attorney seeks an injunction or other appropriate relief, the court of common pleas, in granting the relief, 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 or more than five hundred dollars.

14.6.2 Each day of violation of a rule or stop work order issued shall be considered a separate violation subject to a civil fine.

14.7 The person to whom a stop work order is issued under this section may appeal the order to the Court of Common Pleas of Lucas County, seeking any equitable or other appropriate relief from that order.

14.8 Notwithstanding the above, if the Administrator determines that a violation of any rule adopted or administrative order issued under this section exists, the Administrator may request, in writing, that the Lucas County Prosecutor's Office is to seek an injunction or other appropriate relief in the Court of Common Pleas to abate excessive erosion or sedimentation and secure compliance with the rules or order.

14.8.1 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 or more than five hundred dollars.

14.8.2 Each day of violation of a rule adopted or administrative order issued under these regulations shall be considered a separate violation subject to a civil fine.

14.9 The imposition of any other penalties provided herein shall not preclude the County of Lucas instituting an appropriate action or proceeding in a Court of proper jurisdiction to prevent an unlawful development, or to restrain, correct, or abate a violation, or to require compliance with the provisions of this regulation or other applicable laws, ordinances, rules, or regulations, or the orders of the County of Lucas.

14.10 The Administrator will monitor soil-disturbing activities for non-farm residential, commercial, industrial, or other non-farm purposes on land of less than one contiguous acre to ensure compliance required by these Rules.

14.11 The Administrator shall notify the U.S. Army Corps of Engineers when there is a violation on a development project covered by an Individual or Nationwide Permit. The Administrator shall notify the Ohio Environmental Protection Agency when there is a violation on a development project covered by a Section 401 Water Quality Certification and/or Isolated Wetland Permit.

14.12 The Administrator shall not review or approve erosion and sediment control plans, of any type, for applicants that have an existing development project or site(s) that is not in compliance with its approved erosion and sediment control plan, or a project site(s) that is otherwise not in compliance with the Lucas County Erosion and Sediment Control Rules.

14.13 The Administrator shall not review or approve erosion and sediment control plans for sublots or other areas within existing development projects that are not in compliance with its approved erosion and sediment control plan or otherwise not in compliance with the Lucas County Erosion and Sediment Control Rules. Such development projects include but not limited to, subdivisions or other larger common plans of development.

14.14 The County of Lucas reserves the right to withhold relevant inspections and/or other approvals from its departments and/or agencies, to the extent permitted by law, for development projects or activities in support of development projects that are not in compliance with these Rules. This section also applies if administrative fees assessed under Section 4.5 of these Rules are outstanding to the County of Lucas and/or the Administrator.

14.15 The County of Lucas may not issue building permits for projects regulated under the Lucas County Erosion and Sediment Control Rules that have not received approval for an Erosion and Sediment Control Plan for said project(s). The issuance of required approvals for work regulated by the Ohio Building Code and the Residential Code of Ohio is controlled by Ohio Administrative Code Chapters 4101:1-01 and 4101:8-1-01, respectively.

## 15. Appeals

15.1 An Applicant receiving a denial of approval of the SWP3 may appeal the determination of the Administrator to the Board of Lucas County Commissioners, or their designee. A Notice of Appeal must be filed to the Administrator within 14 days of the Notice of Denial. A hearing shall take place within 30 days of filing of the appeal. Written notice of the hearing will be provided to the Applicant.

15.2 A variance from these Rules can only be granted when the application demonstrates the following:

(1) The variance request is consistent with the general purpose and intent of these Rules and will not cause damage to other properties or the surrounding environment or endanger the public health, safety or welfare.

(2) The variance request indicates special or unusual conditions that exist on the development site or project area.

(3) Strict application of these Rules would cause undo hardship for the applicant or deprive the applicant of reasonable use of the development site. Increased cost or inconvenience of meeting the

requirements of these Rules does not constitute an exceptional hardship to the applicant.

(4) A determination that the public water courses, storm drains, or adjacent properties is protected by methods to minimize soil erosion and sedimentation.

(5) A determination that the variance is the minimum necessary, considering the hazard to public water courses, storm drains, or adjacent properties, to afford relief.

(6) A determination that the granting of a variance will not result in increased soil erosion and sedimentation beyond that which is allowed in these regulations; additional threats to public safety; extraordinary public expense, nuisances, fraud on or victimization of the public, or conflict with existing local, State, or Federal laws and regulations.

Upon consideration of the above factors and the purposes of these Rules, the Board of Lucas County Commissioners, or their designee, may attach such conditions to the granting of variances, as it deems necessary to further the purposes of these Rules.