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ATTACHMENT G

Resolution No: 19-714 (Updated 10/30/2019)
Adoption of Erosion and Sediment Control Rules

Resolution No: 19-713 (Updated 10/30/2019)
Lorain County (Post Construction Rules)
Comprehensive Storm Water Management Program

Codified Ordinances 19-62
The City Oberlin

RESOLUTION NO. 19-714

In the matter of approving updated Lorain County)
Comprehensive Storm Water Management Regulations) October 30, 2019
To maintain compliance with Ohio Environmental)
Protection Agency's current National Pollutant Discharge)
Elimination Permit and updating fees)

WHEREAS, The Lorain County Storm Water Management District and its co-permittees hold a National Pollutant Discharge Elimination Permit through the Ohio Environmental Protection Agency (OEPA) over time; and

WHEREAS, the Ohio Environmental Protection Agency amends and updates requirements of the National Pollutant Discharge Elimination Permit (NPDES); and

WHEREAS, permit holding communities are required to comply with these changes; and

WHEREAS, The Lorain County Storm Water Management District is requesting to update the Comprehensive Storm Water Management Regulations and permit fees to maintain compliance with the Ohio EPA's NPDES program; and

WHEREAS, the Lorain County Commissioners held 2 public hearing on October 15, 2019 and October 30, 2019; and

WHEREAS, Under Ohio Revised Code 307.79, the board of county Commissioners may adopt, amend, and rescind rules establishing technically feasible and economically reasonable standards to achieve a level of management and conservation practices that will abate wind or water erosion of the soil or abate the degradation of waters of the state.

NOW THEREFORE BE IT Resolved, based upon the above information, the Lorain County Board of Commissioners hereby approve updates to the Lorain County Comprehensive Storm Water Management Regulations and permit fees to maintain compliance with OEPA's NPDES program.

Motion by Lundy seconded by Kokoski to adopt Resolution. Upon roll call the vote taken thereon, resulted as: Ayes: Lundy, Kokoski, & Sweda / Nays: None
Motion carried. _____(discussion was held on the above)

I, Theresa L. Upton, Clerk to the Lorain County Board of Commissioners do hereby certify that the above Resolution No. 19-714 is a true copy as it appears in Journal No. 19 on date of October 30, 2019

Theresa L. Upton, Clerk

NPDES – PHASE II

LORAIN COUNTY
COMPREHENSIVE STORM WATER MANAGEMENT REGULATIONS

Effective – December 19, 2009
Updated – December, 2016
Updated – October 30, 2019

Administrator:

Lorain County Engineer
247 Hadaway Street
Elyria, Ohio 44035
Phone – 440-328-5585
Fax – 440-328-5587

www.loraincounty.com/engineer/

REFERENCES

The standards and specifications for Best Management Practices are contained within the

Rainwater and Land Development Manual, Ohio's
Standards, Current Edition
For
Storm Water Management, Land Development and Urban Stream Protection

Published in cooperation with:

Ohio Department of Natural Resources Division of Soil and Water Conservation
U.S.D.A. Natural Resource Conservation Service
Ohio Environmental Protection Agency

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Comprehensive Storm Water Management

CHAPTER 1
COMPREHENSIVE STORM WATER MANAGEMENT

1. PURPOSE AND SCOPE

A. The purpose of this regulation is to establish technically feasible and economically reasonable storm water management standards to achieve a level of storm water quality and quantity control that will minimize damage to property and degradation of water resources and will promote and maintain the health, safety, and welfare of the citizens of the Lorain County:

B. This regulation requires that a Comprehensive Storm Water Management Plan be developed and implemented before any non-agricultural soil disturbing activities for all development for which 10,000 sf or more of impervious area is added or for all soil disturbing activities disturbing one (1) acre or more of total land, or less than one acre if part of a larger common plan of development or sale disturbing one (1) or more acres of total land. The administrator may require a comprehensive stormwater management plan on any site with soil disturbing activities disturbing less than one (1) acre.

C. This regulation requires owners who develop or re-develop their property within Lorain County to:

1. Control storm water runoff from their property and ensure that all storm water management practices are properly designed, constructed, and maintained.

2. Reduce water quality impacts to receiving water resources that may be caused by new development or redevelopment activities.

3. Control the volume, rate, and quality of storm water runoff originating from their property so that surface water and ground water are protected and flooding and erosion potential are not increased.

4. Minimize the need to construct, repair, and replace subsurface storm drain systems.

5. Preserve natural infiltration and ground water recharge, and maintain subsurface flow that replenishes water resources, except in slippage prone soils.

6. Incorporate storm water quality and quantity controls into site planning and design at the earliest possible stage in the development process.

7. Reduce the expense of remedial projects needed to address problems caused by inadequate storm water management.

8. Maximize use of storm water management practices that serve multiple purposes including, but not limited to, flood control, erosion control, fire protection, water quality protection, recreation, and habitat preservation.

9. Design sites to minimize the number of stream crossings and the width of associated disturbance in order to minimize Lorain County's future expenses related to the maintenance and repair of stream crossings.

10. Maintain, promote, and re-establish conditions necessary for naturally occurring stream processes that assimilate pollutants, attenuate flood flows, and provide a healthy water resource.

D. This regulation shall apply to all parcels used or being developed, either wholly or partially, for new or relocated projects involving highways and roads; subdivisions or larger common plans of development; industrial, commercial, institutional, or residential projects; building activities on farms; redevelopment activities; grading; and all other uses that are not specifically exempted.

E. Public entities, including the State of Ohio, Lorain County, and the County shall comply with this regulation for roadway projects initiated after March 10, 2006 and, to the maximum extent practicable, for projects initiated before that time.

F. This regulation does not apply to activities regulated by, and in compliance with, the Ohio Agricultural Sediment Pollution Abatement Rules.

G. This regulation does not require a Comprehensive Storm Water Management Plan for linear construction projects, such as culverts, maintenance projects, ditch cleaning projects, pipeline or utility line installation, that do not result in the installation of impervious surface as determined by the Lorain County Engineer. Such projects shall be designed to minimize the number of stream crossings and the width of disturbance.Linear construction projects shall comply with the requirements of Erosion and Sediment Control Rules.

H. It is not the role of Lorain County to point out each and every part of these rules and how to implement them on the individual job sites. It is the project owner's responsibility to be proactive in meeting the intent, purpose and requirements of these rules.

2. DEFINITIONS

For the purpose of this regulation, the following terms shall have the meaning herein indicated:

A. ACRE: A measurement of land area equal to 43,560 square feet.

B. ADMINISTRATOR: Lorain County Engineer is named the administrator for these Regulations and is the entity having the responsibility and duty of administrating and ensuring compliance with these Rules.

C. AS-BUILT SURVEY: A survey shown on a plan or drawing prepared by a Registered Surveyor indicating the actual dimensions, elevations, and locations of any structures,

underground utilities, swales, detention and stormwater management facilities, and sewage treatment facilities after construction has been completed.

D. BEST MANAGEMENT PRACTICES (BMPs): Structural or nonstructural facilities or activities that control soil erosion and/or storm water runoff at a development site. Schedule of activities, prohibitions of practices, operation and maintenance procedures, treatment requirements, and other practices to reduce the pollution of water resources and to control storm water volume and rate.

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

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

G. CLEAN WATER ACT: The Federal Water Pollution Control Act enacted in 1972 by Public Law 92-500 and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless said discharges is in accordance with an NPDES permit. The 1987 amendments include guidelines for regulatingmunicipal, industrial, and construction storm water discharges under the NPDES permit.

H. 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.

I. COMPREHENSIVE STORM WATER MANAGEMENT PLAN: The written document including plans and drawings that meet the requirements of this regulation and set forth the techniques, programs, strategies and practices to minimize storm water runoff from a development area, to safely convey or temporarily store and release post-development runoff at an allowable rate to minimize flooding and stream bank erosion, and to protect or improve storm water quality and stream channels.

J. CONSERVATION: The development of land using alternative layout and building arrangements in order to better conserve open space and retain natural resources.

K. COUNTY: Throughout these rules Lorain County shall mean the Lorain County Board of Commissioners, State of Ohio, and its designated agents and representatives. County shall mean unincorporated areas in Lorain County.

L. CRITICAL STORM: A storm that is calculated by means of the percentage increase in volume of runoff by a proposed development area. The critical storm is used to calculate the maximum allowable storm water discharge rate from a developed site.

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

N. DETENTION FACILITY: A basin, pond, oversized pipe, or other structure that reduces the peak flow rate of storm water leaving the facility by temporarily storing a portion of the storm water entering the facility.

O. DEVELOPMENT AREA: A parcel or contiguous parcels owned by one person or persons, or operated as one development unit, and used or being developed for non-farm commercial, industrial, residential, institutional, or other construction or alteration that changes runoff characteristics of a parcel of land.

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

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

R. DISTURBED AREA: An area of land subject to erosion due to the removal of vegetative cover and/or soil disturbing activities.

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

T. EARTH DISTURBING ACTIVITY: Any grading, excavations, filling, or other alteration of the earth's surface where natural or man-made ground cover is destroyed.

U. 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.

V. EXISTING: In existence at the time of the passage of this ordinance and these regulations.

W. EXTENDED CONVEYANCE: A storm water management practice that replaces and/or enhances traditional open or closed storm drainage conduits by retarding flow, promoting percolation of runoff into the soil, and filtering pollutants during the storm water quality event.

X. EXTENDED DETENTION: A storm water management practice that replaces and/or enhances traditional detention facilities by releasing the runoff collected during the storm water quality event over at least 24 to 48 hours, retarding flow and allowing pollutants to settle within the facility.

Y. FARM: Land or water devoted to agricultural uses as defined in O.R.C. 519.01 including farming, ranching, aquaculture; horticulture; viticulture; animals; poultry husbandry and the production poultry products; dairy production; the productions of field crops, tobacco, fruits, vegetables, nursery stock, ornamental shrubs, ornamental trees, flowers, sod, or mushrooms; timber; pasturage, any combination of the foregoing; the processing, drying, storage, and marketing of agricultural products when those activities are conducted in conjunction with, but

are secondary to, such husbandry or production.

Z. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): The agency with overall responsibility for administering the National Flood Insurance Program.

AA. 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% coverage for the area has been established or equivalent stabilization practices, such as the use of mulches or geotextiles, have been employed.

BB. FLOOD PLAIN: Any Special Flood Hazard Area (SFHA) identified by the Federal Emergency Management Agency (FEMA), including other areas that are susceptible to flooding as determined by the Lorain County Engineer.

CC. GRADING: The process in which the topography of the land is altered to a new elevation, grade or slope or any combination thereof, includes the land in its excavated or filled condition.

DD. GRUBBING: Removing, clearing or scalping material such as roots, stumps or sod.

EE. HYDROLOGIC UNIT CODE: a cataloging system developed by the United States Geological Survey and the Natural Resource Conservation Service to identify watersheds in the United States.

FF. IMPERVIOUS COVER: Any surface that cannot effectively absorb or infiltrate water. This may include roads, streets, parking lots, rooftops, sidewalks, and other areas not covered by vegetation.

GG. INFILTRATION: A storm water management practice that does not discharge to a water resource during the storm water quality event, requiring collected runoff to either infiltrate into the groundwater and/or be consumed by evapotranspiration, thereby retaining storm water pollutants in the facility.

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

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

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

1. Owned or operated by the federal government, state municipality, township,county, district or other public body (created by or pursuant to state or federal law) including special district under state law such as a sewer district, floodcontrol district or drainage districts, or similar entity, or a designated and approved management

agency under sections 208 of the Act (33 U.S.C., section 1288, effective February 4, 1987) that discharges into surface waters of the state;

2. Designated or used for collecting or conveying solely storm water;

3. Not combined sewer, and;

4. Not a part of a publicly owned treatment works.

KK. MS4 – SMALL: all municipal separate storm water systems that are neither a large MS4 nor a medium MS4.

LL. MS4 – MEDIUM: all municipal separate storm water systems that is located in an incorporated place with a population of one hundred thousand (100,000) or more, but less than two hundred fifty thousand (250,000) or more as determined by the 1990 censes by the United Stated Bureau of Censes. The 1990 census is available at public libraries and on the United Stated Bureau of the Censes web site: www.census.gov

MM. MS4 – LARGE: all municipal separate storm water systems that are located in an incorporated place with a population of two hundred fifty thousand (250,000) or more as determined by the 1990 censes by the United Stated Bureau of Censes. The 1990 census is available at public libraries and on the United Stated Bureau of the Censes web site: www.census.gov

NN. MAXIMUM EXTENT PRACTICABLE: The level of pollutant reduction that operators of small municipal separate storm sewer systems regulated under Section 40 C.F.R. Parts 9, 122, 123, and 124, referred to as NPDES Storm Water Phase II, shall meet.

OO. NPDES PERMIT: 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.

PP. NATURAL RESOUCES CONSERVATION SERVICE (NRCS): An agency of the United States Department of Agriculture, formerly known as the Soil Conservation Service (SCS).

QQ. NONSTRUCTURAL STORM WATER MANAGEMENT PRACTICE: Storm water runoff control and treatment techniques that use natural practices, as defined by the Rainwater and Land Development Manual, to control runoff and/or reducepollution levels.

RR. OHIO EPA: The Ohio Environmental Protection Agency.

SS. OUTFALL: An area where water flows from a structure such as a conduit, storm sewer, improved channel or drain, and the area immediately beyond the structure which is impacted by the velocity of flow in the structure.

TT. 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 Lorain County Auditor's Office.

UU. 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.

UU. POST-DEVELOPMENT: The conditions that exist following the completion of soil disturbing activity in terms of topography, vegetation, land use, and the rate, volume, quality, or direction of storm water runoff.

VV. PRE-CONSTRUCTION MEETING: Meeting prior to construction between all parties associated with the construction of the project including government agencies, contractors and owners to review agency requirements and plans as approved and submitted.

WW. PRE-DEVELOPMENT: The conditions that exist prior to the initiation of soil disturbing activity in terms of topography, vegetation, land use, and the rate, volume, quality, or direction of storm water runoff.

XX. PROFESSIONAL ENGINEER: A Professional Engineer registered in the State of Ohio with specific education and experience in water resources engineering, acting in conformance with the Code of Ethics of the Ohio State Board of Registration for Engineers and Surveyors.

YY. RAINWATER AND LAND DEVELOPMENT MANUAL: Ohio's standards for storm water 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.

ZZ. REDEVELOPMENT: A construction project on land where impervious cover has previously been developed and where the new land use will not increase the runoff coefficient. If the new land use will increase the runoff coefficient, then the project is considered a new development project rather than redevelopment project.

AAA. RIPARIAN AREA: Land adjacent to any watercourse such as a brook, creek, river, or stream having a defined bed and bank that, if appropriately sized, helps to stabilize streambanks, limit erosion, reduces flood size flows, and/or filters and settles out runoff pollutants, or performs other functions consistent with the purposes of this regulation.

BBB. RIPARIAN AND WETLAND SETBACK: The real property adjacent to a water resource on which soil disturbing activities are limited, all as defined by reference to Lorain County Erosion and Sediment Rules or locally adopted Riparian and Wetland Setbacks.

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

DDD. SEDIMENT: The soils or other surface materials that can be transported or deposited by the action of wind, water, ice, or gravity as a product of erosion.

EEE. SEDIMENTATION: The deposition of sediment in water resources.

FFF. 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.

GGG. SEDIMENT CONTROL: The limiting of sediment being transported by controlling erosion or detaining sediment-laden water, allowing the sediment to settle out.

HHH. SEDIMENT POLLUTION: The degradation of water 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.

III. SENSITVE AREA: An area or water resource that requires special management because of its susceptibility to sediment pollution or because of its importance to the well-being of the surrounding communities, region, or the state and includes, but is not limited to, the following:

1. Ponds, wetlands or small lakes with less than five (5) acres of surface area;

2. Small streams with gradients less than ten (10) feet per mile with averageannual flows of less than 3.5 feet per second containing sand or gravel bottoms;

3. Drainage areas of locally designated or an Ohio designated Scenic River;

4. Riparian and wetland areas.

JJJ. SETTLING POND: A runoff detention structure, such as a Sediment Basin or Sediment Trap, which detains sediment-laden runoff, allowing sediment to settle out.

KKK. SHEET FLOW: Water runoff in a thin uniform layer or rills and which is of small enough quantity to be treated by sediment barriers.

LLL. SITE OWNER/OPERATOR: 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 thereof that is responsible for the overall construction site.

MMM. SLIP: A landslide as defined under "Landslides."

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

OOO. SOIL DISTURBING ACTIVITY: Clearing, grading, excavating, filling, or other alteration of the earth's surface where natural or human made ground cover is destroyed and that may result in, or contribute to, increased storm water quantity and/or decreased storm water quality.

PPP. SOIL: Unconsolidated erodible earth material consisting of minerals and/or graphics.

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

RRR. SOIL LOSS: the soil moved from a given site by the forces of erosion, measured using " T ".

SSS. SOIL SURVEY: The official soil survey produced by the Natural Resources Conservation Service, USDA in cooperation with the Division of Soil and Water Conservation, ODNR and the local Board of County Commissioners; www.websoilsurvey.nrcs.usda.gov./app/

TTT. STRUCTURAL STORM WATER MANAGEMENT PRACTICE OR STORMWATER CONTROL MEASURE (SCM): Any constructed facility, structure, or device that prevents or reduces the discharge of pollutants to water resources and/or controls stormwater volume and flow rate.

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

VVV. STORM WATER POLLUTION PREVENTING PLAN (SWP3): The written document that sets forth the plans and practices to be used to meet the requirements of the NPDES permit.

WWW. 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 precipitation.

XXX. STABILIZATION: The use of Best Management Practices that reduce or prevent soil erosion by storm water runoff, trench dewatering, wind, ice, gravity, or a combination thereof.

YYY. STREAM: Shall have the same meaning as "water of the state" contained in O.R.C. 6111.01 and shall include all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs irrigation systems, drainage systems, and other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, that are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters that do not combine or effect a junction with natural surface or underground waters.

ZZZ. STRUCTURAL STORM WATER MANAGEMENT PRACTICE: Any constructed facility, structure, or device that provides storage, conveyance, and/or treatment of storm water runoff.

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

BBBB. SURFACE WATERS OF THE STATE: All streams, lakes, reservoirs, marshes, wetlands, or other waterways 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 sewerage systems, treatment works or disposal systems in Section 6111.01 of the Ohio Revised Code are not included.

CCCC. TOTAL MAXIMUM DAILY LOAD: The sum of the existing and/or projected point source, nonpoint source, and background loads for a pollutant to a specified watershed, water body, or water body segment. A TMDL sets and allocates the maximum amount of a pollutant that may be introduced into the water and still ensures attainment and maintenance of water quality standards.

DDDD. 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.

EEEE. WATER QUALITY VOLUME: The volume of runoff from a contributing watershed that shall be captured and treated, equivalent to the maximized capture volume as defined in the American Society of Civil Engineers (ASCE) Manual and Report on Engineering Practice No. 87 and Water Environment Federation Manual of Practice No. 23 titled *Urban Runoff Quality Management*.

FFFF. WATER RESOURCE: Any public or private body of water; including wetlands; the area within the ordinary high water level of lakes and ponds; as well as the area within the ordinary high water level of any brook, creek, river, or stream having a defined bed and bank (either natural or artificial) which confines and conducts continuous or intermittent flow.

GGGG. WATER RESOURCE CROSSING: Any bridge, box, arch, culvert, truss, or other type of structure intended to convey people, animals, vehicles, or materials from one side of a watercourse to another. This does not include private, non-commercial footbridges or pole mounted aerial electric or telecommunication lines, nor does it include below grade utility lines.

HHHH. WATERCOURSE: Any natural, perennial, or intermittent channel, stream, river or brook.

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

JJJJ. 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).

KKKK. WETLAND SETBACK: Those lands within the County that fall within the area defined by the criteria set forth in these regulations.

3. DISCLAIMER OF LIABILITY

A. 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 any particular parcel of property.

B. By approving a Post Construction Comprehensive Storm Water Management Plan under this regulation, the County does not accept responsibility for the design, installation, and operation and maintenance of storm water management practices.

4. CONFLICTS, SEVERABILITY, NUISANCES & RESPONSIBILITY

A. Where this regulation is in conflict with other provisions of law or ordinance, the most restrictive provisions, as determined by the Administrator shall prevail.

B. 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.

C. These Rules shall not be construed as authorizing any person to maintain a 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.

D. Failure of the County 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 therefrom, and shall not result in the County, its officers, employees, or agents being responsible for any condition or damage resulting therefrom.

5. DEVELOPMENT OF COMPREHENSIVE STORM WATER MANAGEMENT PLANS

A. This regulation requires that a "Post-Construction" Comprehensive Storm Water Management Plan be developed and implemented to meet these Rules and be coordinated and combined with any Riparian and Wetland Setback Plan and the Lorain County Erosion and Sediment Control Rules. Combination of these documents may constitute the Comprehensive Storm Water ManagementPlan. **The Plan shall be implemented for which 10,000 sf or more of impervious area is added or for all soil disturbing activities disturbing one (1) acre or more of total land, or less than one (1) acre if part of a larger common plan of development or sale disturbing one (1) or more acres of total land, and on which any regulated activity** of Lorain County Erosion and Sediment Control Rules – Section 1.3 and 3.1 is proposed. The Comprehensive Storm Water Management Plan so developed may serve as the Stormwater Pollution Prevention Plan required by Ohio EPA as part of the NPDES Storm Water Permit for General Construction.

B. The County shall administer this regulation, shall be responsible for determination of compliance with this regulation, and shall issue notices and orders as may be necessary. The

landowners / developers may consult with the Lorain County Soil & Water Conservation District, Lorain County Engineer's Office, private engineers, storm water districts, or other technical experts in reviewing the Comprehensive Storm Water Management Plan.

C. In addition to the requirements and design standards of this regulation the Comprehensive Storm Water Management Plan must meet the minimum requirements of the current Ohio EPA Construction General Permit and the design standards of the Ohio EPA Rainwater and Land Development Manual, current edition.

6. APPLICATION PROCEDURES

http://www.loarainswcd.com/forms/post-Constr-Plan-Application.pdf

A. Pre-Application Meeting: The applicant shall attend a Pre-Application Meeting with the Administrator and County Engineer to discuss the proposed project, review the requirements of this regulation, identify unique aspects of the project that shall be addressed during the review process, and establish a preliminary review and approval schedule.

B. Preliminary Comprehensive Storm Water Management Plan: The applicant shall submit two (2) sets of a Preliminary Comprehensive Storm Water Management Plan (Preliminary Plan) and the applicable fees to the Administrator. The Preliminary Plan shall show the proposed property boundaries, setbacks, topography extending at least 25 feet beyond site extents, dedicated open space, public roads, water resources, storm water control facilities, and easements in sufficient detail and engineering analysis to allow the Administrator to determine whether the site will meet the intent of this regulation and if the proposed storm water management practices will be capable of controlling runoff from the site in compliance with this regulation. The applicant shall submit two (2) sets of the Preliminary Plan and applicable fees as follows:

1. For subdivisions: In conjunction with the submission of the preliminary subdivision plan.

2. For other construction projects: In conjunction with the application for a zoning permit.

3. For general clearing projects: In conjunction with the application for a zoning permit.

1. Final Comprehensive Storm Water Management Plan: The applicant shall submit two (2) sets of a Final Comprehensive Storm Water Management Plan (Final Plan) and the applicable fees to the Administrator prior to any of the following: (1) Submittal of the final plat (for subdivisions) with applicable fees paid to Lorain County Commissioners; (2) Submittal of improvement plans with applicable fees to Lorain County Engineer's Office; (3) Submittal of an application for a building with applicable fees to a certified Building Department; (4) Submittal of a zoning permit for the site with applicable fees to that township. The Final Plan shall meet the requirements of Section 8 of these rules and shall be approved prior to approval of the final plat and/or before issuance by the township's zoning inspector or building permit by the Building Inspector.

C. Review and Comment: Lorain County Soil & Water Conservation District and Lorain County Engineer shall review the Preliminary and Final Plans submitted and shall approve or return for revisions with comments and recommendations for revisions. A Preliminary or Final Plan rejected because of deficiencies shall be returned with a narrative report stating specific inadequacies and the procedures for filing a revised Preliminary or Final Plan. The Administrator shall review the plan and approve or return for revision with comments and recommendations for revisions, within thirty (30) days working days after receipt of said plan. At the time of receipt of a revised plan, another thirty (30) working days review period shall be commenced.

D. Approval Necessary: Land clearing and soil-disturbing activities shall not begin and zoning and/or building permits shall not be issued without an approved Comprehensive Storm Water Management Plan.

E. Valid for Two Years: Approvals issued in accordance with this regulation shall remain valid for two (2) years from the date of approval.

F. One (1) Year Maintenance Bond: Shall be required for all improvements including "post-construction" measures. Lorain County Engineer may waive the requirement of the maintenance bond for small residential water quality SCMs within a larger common plan of sale that disturbs less than five (5) acres of land.

7. COMPLIANCE WITH STATE AND FEDERAL REGULATIONS

Approvals issued in accordance with this regulation do not relieve the applicant of responsibility for obtaining all other necessary permits and/or approvals from other federal, state, and/or county agencies. If requirements vary, the most restrictive shall prevail. These permits may include, but are not limited to, those listed below. Applicants are required to show proof of compliance with these regulations before the County will issue a storm water approval.

A. Ohio EPA NPDES Permits authorizing storm water discharges associated with construction activity. Proof of compliance with these requirements shall be the applicant's Notice of Intent (NOI) 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.

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:

1. 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.

2. 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.

F. Flood Plain Permit(s): Proof of compliance shall be a copy of the U.S. Army Corps of Engineer's Conditional Letter of Map Revisions and/or a local flood plain permit. If no work is proposed in the flood plain, the applicant shall submit proof in the form of a letter from the site owner certifying that a qualified professional has surveyed the site and determined that no fill will be placed in the flood plain.

8. COMPREHENSIVE STORM WATER MANAGEMENT PLAN

A. Comprehensive Storm Water Management Plan Required: The applicant shall develop a "Post-Construction" Storm Water Management Plan describing how the quantity and quality of storm water for every discharge will be managed after construction is complete from the site, no "bypass" allowed. The plan will illustrate the type, location, and dimensions of every structural and non-structural storm water management practice incorporated into the site design, and the rationale for their selection. The rationale shall address how these storm water management practices will address flooding within the site as well as flooding that may be caused by the development upstream and downstream of the site. The rationale will also describe how the storm water management practices minimize impacts to the physical, chemical, and biological characteristics of on-site and downstream water resources and, if necessary, correct current degradation of water resources that is occurring or take measures to prevent predictable degradation of water resources.

B. Preparation by Professional Engineer: The Comprehensive Storm Water Management Plan shall be prepared by a registered professional engineer and include supporting calculations,

plan sheets, and design details. To the extent necessary, as determined by the Lorain County Engineer's office, a site survey shall be performed by a Registered Professional Surveyor to establish boundary lines, measurements, or land surfaces.

C. Community Procedures: The Lorain County Engineer's office shall prepare and maintain procedures providing specific criteria and guidance to be followed when developing the Comprehensive Storm Water Management Plan. These procedures may be updated from time to time, at the discretion of the Lorain County Engineer's office based on improvements in engineering, science, monitoring, and local maintenance experience. The Lorain County Engineer's office will make the final determination of whether the practices proposed in the Comprehensive Storm Water Management Plan meet the requirements of this regulation. The Lorain County Engineer's office may also maintain a list of acceptable Best Management Practices to be used in Lorain County, that meet the criteria of this regulation.

D. Contents of the Comprehensive Storm Water Management Plan: The Preliminary Comprehensive Storm Water Management Plan shall contain an application, narrative report, construction site plansheets, a long-term Inspection and Maintenance Agreement, and a site description with thefollowing information provided:

1. Site description:

   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. grubbing, clearing, excavation, filling or grading, including off-site borrow areas).

   c. A description of prior land uses at the site.

   d. An estimate of the impervious area and percent of imperviousness created by the soil-disturbing activity at the beginning and at the conclusion of the project.

   e. Existing data describing the soils throughout the site, including the soil series and association, hydrologic soil group, porosity, infiltration characteristics, depth to groundwater, depth to bedrock, and any impermeable layers.

   f. 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.

   g. The location and name of the immediate water resource(s) and the first subsequent water resource(s).

   h. The plan (aerial view) extent and description of water resources at or near the site that will be disturbed or will receive discharges from the project.

   i. Describe the current condition of water resources including the vertical stability

of stream channels and indications of channel incision that may be responsible for current or future sources of high sediment loading or loss of channel stability.

Site map showing:

j. Limits of soil-disturbing activity on the site.

k. Soils types for the entire site, including locations of unstable or highly erodible soils.

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

m. Water resource locations including springs, wetlands, streams, lakes, water wells, and associated setbacks on or within two-hundred (200) feet of the site, including the boundaries of wetlands or streams and first subsequent named receiving water(s). Include wetlands to be preserved and protected.

n. Existing and planned locations of buildings, roads, parking facilities, and utilities.

o. The location of any in-stream activities including stream crossings.

2. Contact information: Company name and contact information as well as contact name, addresses, email address(es), and phone numbers for the following:

   a. The Professional Engineer who prepared the Comprehensive Storm Water Management Plan.

   b. The Owner(s) of the Development Area.

   c. The Applicant.

   d. The Developer.

3. Phase, if applicable, of the overall development plan.

4. List of sub-lot numbers if project is a subdivision.

5. Ohio EPA NPDES Permit Number and other applicable state and federal permit numbers, if available or status of various permitting requirements if final approvals have not been received.

6. Location, including complete site address and sub-lot number if applicable.

7. Location of any easements or other restrictions placed on the use of the property.

8. A site plan sheet showing:

   a. The location of each proposed post construction storm water management practice and its point of discharge from the site. The size of the total drainage area contributing to the practice shall be indicated with either:
   a. the percent imperviousness; or *b.* post-Construction land use breakdown in acres shown.

   b. The geographic coordinates of the site AND each proposed practice in North American Datum Ohio State Plan North longitude and latitude.

   It is preferred that the entire site be shown on one plan sheet to allow a complete view of the site during plan review. If a smaller scale is used to accomplish this, separate sheets providing an enlarged view of areas on individual sheets should also be provided.

9. An Inspection and Maintenance Agreement. The Inspection and Maintenance Agreement required for storm water management practices under this regulation shall be a separate agreement between Lorain County and the owner, and shall contain the following information and provisions (The standard Inspection and Maintenance Agreement is provided in Appendix A):

   a. The location of each storm water control measure (SCM), including those practices permitted to be located in, or within fifty (50) feet of, water resources, and identification of the drainage area served by each storm water management practice.

   b. A schedule for regular maintenance for each aspect of the storm water management system and description of routine and non-routine maintenance tasks to ensure continued performance of the system as is detailed in the approved Post-Construction Storm Water Management Plan. This schedule may include additional standards, as required by the Lorain County Engineer, to ensure continued performance of storm water management practices permitted to be located in, or within fifty (50) feet of, water resources.

   c. The location and documentation of all access and maintenance easements to serve the property.

   d. Identification of the current and proposed landowner(s), organization, or municipality responsible for long-term maintenance, including repairs, of the storm water management practices.

   e. The landowner(s), organization, or municipality who shall maintain storm water management practices in accordance with this regulation.

f. Lorain County has the authority to enter upon the property to conduct inspections as necessary to verify that the storm water management practices are being maintained and operated in accordance with this regulation.

g. Lorain County shall maintain public records of the results of its site inspections, shall inform the landowner(s), organization, or municipality responsible formaintenance of the inspection results, and shall specifically indicate any corrective actions required to bring the storm water practices into proper working condition.

h. If Lorain County notifies the landowner(s), organization, or municipality responsible for maintenance of the maintenance problems that require correction, the specific corrective actions shall be taken within a reasonable time frame as determined by Lorain County.

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

j. The proposed method of funding long-term maintenance and inspections of all storm water management practices.

k. A release of Lorain County from all damages, accidents, casualties, occurrences, or claims that might arise or be asserted against Lorain County from the construction, presence, existence, or maintenance of the storm water management practices.

Alteration or termination of these stipulations is prohibited. The applicant shall provide a draft of this Inspection and Maintenance Agreement as part of the Comprehensive Storm Water Management Plan submittal. A recorded copy of the final Agreement shall be submitted to Lorain County to receive final inspection approval of the site.

10. Calculations required: The applicant shall submit calculations for projected storm water runoff flows, volumes, and timing into and through all SCMs for flood control, channel protection, water quality, and the condition of the habitat, stability, and condition of each water resource and its flood plain, as required in Section 9 of this regulation. These submittals shall be completed for both pre- and post-development land use conditions and shall include the underlying assumptions and hydrologic and hydraulic methods and parameters used for these calculations. The applicant shall also include critical storm determination and demonstrate that the runoff from offsite and upper watershed areas have been considered in the calculations.

11. List of all contractors and subcontractors before construction: Prior to construction and before the pre-construction meeting, provide the list of all contractors and subcontractors names, addresses, and phones involved with the implementation of the Post Construction Storm Water Management Plan including a written document containing signatures of all parties as proof of acknowledgment that they have reviewed and understand the requirements and responsibilities of the Post Construction Storm Water Management Plan.

12. Existing and proposed drainage patterns: The location and description of existing and proposed drainage patterns and storm water management practices, including any related storm water management practices beyond the development area including the larger common development area.

13. For each storm water management practice to be employed, include the following:

    a. Location and size, including detail drawings, maintenance requirements during and after construction, and design calculations, all where applicable.

    b. Final site conditions including storm water inlets and permanent nonstructural and structural storm water management practices. Details of storm water management practices shall be drawn to scale and shall show volumes and sizes of contributing drainage areas.

    c. Any other structural and/or non-structural storm water management practices necessary to meet the design criteria in this regulation and any supplemental information requested by the Lorain County Engineer.

    d. 25' wide clear access to SCMs with minimum 15 feet wide level graded base and 12 feet wide gravel, asphalt or concrete driveway as determined by the Lorain County Engineer.

9. DESIGN PERFORMANCE STANDARDS

A. General: The storm water system, including storm water management practices for storage, treatment and control, and conveyance facilities, shall be designed to prevent structure flooding during the NRCS one-hundred (100)-year, twenty-four (24)-hour storm event; to maintain predevelopment runoff patterns and flows, and to meet the following criteria:

1. Integrated practices that address degradation of water resources. The storm water management practices shall function as an integrated system that controls flooding and minimizes the degradation of the physical, biological, and chemical integrity of the water resources receiving storm water discharges from the site. Acceptable practices shall:

    a. Not disturb riparian areas, unless the disturbance is intended to support a watercourse restoration project and complies with Lorain County Erosion and Sediment Control Rules – Section 4.4-F-2 and or the locally adopted Riparian

and Wetland Setbacks.

b. Minimize impacts to predevelopment hydrology and groundwater recharge on as much ofthe site as practical.

c. Only install new impervious surfaces and compact soils where necessary to support the future land use.

d. Compensate for increased runoff volumes caused by new impervious surfaces development and soil compaction by reducing storm water peak flows to equal or less than predevelopment levels, and by capturing all runoff from said practices. Storm water management practices that meet these criteria in this regulation, and additional criteria required by the Lorain County Engineer, shall comply with this regulation.

2. Practices designed for final use: Storm water management practices shall be designed to achieve the storm water management objectives of this regulation, to be compatible with the proposed development and post-construction use of the development area, to protect the public health, safety, welfare, and to function safely with minimal maintenance.

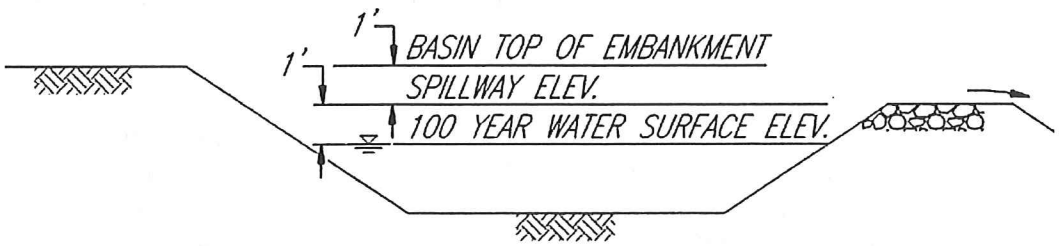
3. Adequate Outfall: Convey runoff from the development area to an adequate outfall, as recommended by the applicant's Professional Engineer, and approved by the Lorain County Engineer. Submit an engineering report at the preliminary plan stage that addresses the adequate outfall issue. Convey runoff to any adequate outfall that lies beyond the development area in accordance with these Comprehensive Storm Water Management Regulations. In this case, the applicant shall obtain easements for construction and maintenance and shall provide off-site improvements as recommended by his or her Professional Engineer and approved by the Lorain County Engineer.

4. Storm water management for entire development area: Areas developed for a subdivision, shall provide storm water management and water quality controls for the entire development area. This shall include provisions for lot grading and drainage that prevent structure flooding during the 100-year, 24-hour storm; and maintain, to the extent practicable, the pre-development runoff patterns, and peak flows from the development area.

5. Storm water facilities in water resources: Storm water management practices and related activities shall not be constructed in water resources unless the applicant shows proof of compliance with all appropriate permits from the Ohio EPA, the U.S. Army Corps, and other applicable federal, state, and local agencies as required in Section 7 of this regulation, and the activity is in compliance with Chapter 3 – Regulated Activities of the Lorain County Erosion and Sediment Control Rules and /or the locally adopted Riparian and Wetland Setbacks all as determined by the Lorain County Engineer.

6. Storm water management basins and surface conveyance channels: All storm water basin and surface conveyance designs shall provide a minimum of one foot of freeboard from

the peak water surface elevation within the facility during the one-hundred (100)-year, 24-hour storm, to the auxiliary "emergency spillway". The top of basin embankment shall be a minimum of one foot above the emergency spillway elevation. Design overflow structures for the condition when all other outlets are obstructed, and the facility has reached 100-year design storage capacity. When designing storm water management basins and conveyance channels, the applicant shall consider public safety as a design factor and alternative designs shall be implemented where site limitations would preclude a safe design. Storm Water Management Basins shall also conform to NRCS Conservation Practice Standard 378 "Pond" or to Ohio Dam Safety Law as applicable.



7. Exemption: The site where soil-disturbing activities are conducted shall be exempt from the requirements of Section 9 of this regulation if it can be shown to the satisfaction of the Lorain County Engineer that the site is part of a larger common plan of development where the storm water management requirements for the site are provided by an existing storm water management practice, or if the storm water management requirements for the site are provided by practices defined in a regional or local storm water management plan approved by the Lorain County Engineer.

8. Maintenance: All storm water management practices shall be maintained in accordance with Inspection and Maintenance Agreements approved by the Lorain County Engineer.

9. Ownership: Unless otherwise required by Lorain County, storm water management practices serving multiple lots in subdivisions shall be located on a separate lot or block of land with at least a 25' wide access corridor as part of the block, held and maintained by an entity of common ownership or, if compensated by the property owners, by Lorain County. Storm water conveyance practices serving multiple lots in a subdivision may be located in the rear of the lots accessed and restricted within easements, and maintained by an entity of common ownership or, if compensated by the property owners, by Lorain County. Storm water management practices serving single lots shall be placed on those lots, or blocks protected within easements, and maintained by the property owner.

10. Preservation of Existing Natural Drainage. Practices that preserve and/or improve the existing natural drainage shall be used to the maximum extent practicable. Such practices may include minimizing site grading and compaction; protecting and/or restoring water resources, riparian areas, and existing vegetation; and maintaining un-concentrated storm water runoff to and through these areas.

11. Preservation of Wetland Hydrology: Concentrated storm water runoff from BMPs to

wetlands shall be converted to diffuse flow before the runoff enters a wetland in order to protect the natural hydrology, hydro-period, and wetland flora. The flow shall be released such that no erosion occurs down slope. Practices such as level spreaders, vegetative buffers, infiltration basins, conservation of forest covers, and the preservation of intermittent streams, depressions, and drainage corridors may be used to maintain the wetland hydrology.

If the applicant proposes to discharge to natural wetlands, a hydrological analysis may be required to demonstrate that the proposed discharge matches the pre-development hydro-periods and hydrodynamics.

B. Storm Water Conveyance Design Criteria: All storm water management practices shall be designed to convey storm water safely, and to allow for the maximum removal of pollutants and reduction in flow velocities. This shall include but not be limited to:

1. Stream relocation or enclosure: The Lorain County Engineer may allow the enclosure or relocation of water resources only if the applicant shows proof of compliance with all appropriate permits from the Ohio EPA, the U.S. Army Corps, and other applicable federal, state, and local agencies as required in Section 7 of this regulation, and the activity is in compliance with Section 3 – Regulated Activities of the Lorain County Erosion and Sediment Control Rules and / or locally adopted Riparian and Wetland Setbacks all as determined by the Lorain County Engineer. At a minimum, stream relocation designs shall show how the project will minimize changes to the vertical stability, flood plain form, channel form, and habitat of upstream and downstream channels on and off the property.

2. Storm water discharges from off-site storm water runoff that discharges to or across the applicant's development site shall be conveyed through the storm water conveyance system at its pre-development peak flow rates during each design storm. Off-site flows shall be diverted around storm water quality control facilities or, if this is not possible, the storm water quality control facility shall be sized to treat the off-site flow. Comprehensive Storm Water Management Plans will not be approved until it is demonstrated to the satisfaction of the Lorain County Engineer that off-site runoff will be safely conveyed through the development site to an adequate outfall in a manner that does not exacerbate upstream or downstream flooding and erosion.

3. Runoff and Sheet Flow
Retard runoff velocity, reduce erosion, promote infiltration into the soil, and improve water quality by avoiding the direct connection of impervious areas (also termed "disconnecting") through the use of: splash blocks, sheet flow, overland flow, grass filters, vegetated buffer strips, grassed swales, open channel flow, and pervious pavement all in accordance with OEPA recommendations and as determined by the Lorain County Engineer. For design calculations, the length of post-development sheet flow shall not exceed 100 feet.

4. Open channels: Unless otherwise approved by the Lorain County Engineer, drainage tributary to SCMs may be provided by an open channel with vegetated banks, designed

to carry the ten (10)-year, storm water runoff.

5. Open drainage systems: Open drainage systems are preferred on all new development sites to convey storm water where feasible. Storm sewer systems shall be allowed only when the site cannot be developed at densities allowed under township's zoning or where the use of an open drainage system affects public health or safety, all as determined by the Lorain County Engineer. The following criteria shall be used to design storm sewer and open channel systems:

   a. Design storm sewers and open channels by the Rational Method (Q=CiA) for tributary areas less than two hundred acres. Calculate flow capacity in accordance with Manning's Formula ($V=1.486/n\ R^{2/3}\ S^{1/2}$). Use n=0.015 for pipes less than thirty inches in diameter.

      Storm sewers and open channels that drain tributary areas in excess of two hundred acres may be designed using flows calculated by Soil Service Technical Release No. 20 (TR-20).

      Design storm sewers and open channels with minimum mean velocity when flowing full of two feet per second, and with maximum mean velocity of ten feet per second in sewers, or five feet per second in open channels.

      Design Culverts in accordance with ODOT 1100.

      Design residential, commercial and industrial storm sewers and open channels as non-pressure conduits (to flow "just full") for the ten-year storm, with their twenty-five-year hydraulic grade line below the gutter line of the overlying roadway, or below the top of drainage structures outside the roadway. Also design open channels with a minimum of one foot freeboard to the top of their banks. The system shall be designed to meet these requirements when conveying the flows from the contributing areas within the proposed development and existing flows from offsite areas that are upstream from the development.

   b. Design public open channels with minimum slope of 0.3%, minimum bottom width of two feet, and maximum side slopes of 3:1. Specify vegetative cover and appropriate turf reinforcement.

   c. The minimum inside diameter of pipe permitted to be used in public storm sewer systems shall be twelve (12) inches (with minimum slope of 0.2%). Smaller pipe sizes may be used in private systems, subject to the approval of the Lorain County Engineer. Match crown elevations for public and private sewers.

   d. All storm sewer and open channel systems shall be designed taking into consideration the tailwater of the receiving facility or water resource. The tailwater elevation used shall be based on the design storm frequency. The hydraulic grade line for the storm sewer system shall be computed with consideration for the energy losses associated with entrance into and exit from

the system, friction through the system, and turbulence in the individual manholes, catch basins, and junctionswithin the system.

e. The inverts of all curb inlets, manholes, yard inlets, and other structures shall be formed and channelized to minimize the incidence of quiescent standing water where mosquitoes may breed.

f. Headwalls shall be required at all storm sewer inlets or outlets.

g. Submit profile and cross section drawings for all storm water management practices.

6. Water Resource Crossings. The following criteria shall be used to design structures that cross a water resource in the Lorain County:

a. Water resource crossings other than bridges shall be designed to convey the stream's flow for the minimum twenty-five (25)-year, twenty-four (24)-hour storm.

b. The design and construction of bridges or any other special drainage structures shall be reviewed and approved by the County Engineer. Bridges, open bottom arch or spans (3 or 4-sided culverts) are the preferred crossing technique and shall be considered in the planning phase of the development.

Bridges and open bottom spans should be considered for all State Scenic Rivers, coldwater habitat, exceptional warm water habitat, seasonal salmonid habitat streams, and Class III headwater streams. The footers or piers for these bridges and open spans should not be constructed within the ordinary high water mark.

c. If a culvert or other closed bottom crossing is used, twenty-five (25) percent of the cross-sectional area or a minimum of one (1) foot of box culverts and pipe arches shall be embedded below the channel bed.

d. The minimum inside diameter of pipes to be used for crossings shall be twelve (12) inches.

e. The maximum slope allowable shall be a slope that produces a maximum ten (10)-feet per second velocity within the culvert barrel under design flow conditions. Erosion protection and/or energy dissipaters shall be required to properly control entrance and outlet velocities.

f. All culvert installations shall be designed with consideration for the tailwater of the receiving facility or water resource. The tailwater elevation used shall be based on the design storm frequency.

g. Streams with a drainage area of 5 square miles or larger shall incorporate

flood plain culverts at the bank-full elevation to restrict head loss differences across the crossing so as to cause no rise in the 100-year storm event.

h. Bridges shall be designed such that the hydraulic profile through a bridge shall be below the bottom chord of the bridge for either the 100-year, twenty-four (24)-hour storm, or the 100-year flood elevation as determined by FEMA, whichever is more restrictive.

7. Overland flooding: Safely route overland flooding from the 100-year, twenty-four (24)-hour storm event to an adequate receiving water resource or storm water management practice such that the runoff is contained within the drainage easement for the flood routing path and does not cause flooding of buildings or related structures. The peak 100-year water surface elevation along flood routing paths shall be at least one foot below the finished grade elevation at all structures and roads. When designing the flood routing paths, the conveyance capacity of the site's storm sewers shall be taken into consideration. Provide drainage easements for all overland flood routing paths.

8. Compensatory flood storage mitigation: The Lorain County Engineer recommends that no fill be proposed in any flood plain. In order to preserve flood plain storage volumes and thereby avoid increases in water surface elevations, any filling within flood plains approved by the Lorain County Engineer shall be compensated by removing an equivalent volume of material therein. First consideration for the location(s) of compensatory flood plain volumes should be given to areas where the stream channel will have immediate access to the new flood plain within the limits of the development site. Consider enlarging existing or proposed storm water management facilities to compensate for flood plain fill if justified by a hydraulic analysis of the contributing watershed. Unless otherwise permitted by the Lorain County Engineer, reductions in volume due to flood plain fills shall be mitigated within the legal boundaries of the development. Embankment slopes used in compensatory storage areas shall reasonably conform to the natural slopes adjacent to the disturbed area. The use of vertical retaining structures is specifically prohibited.

9. Velocity dissipation: Velocity dissipation devices shall be placed at discharge locations and along the length of outfalls to provide non-erosive flow velocity from the structure to a water resource, so that the natural physical and biological characteristicsand functions of the water resource are maintained and protected.

C. **Storm Water Quality & Volume Control:**

1. Direct runoff to a BMP: Design the site to direct all runoff to one or more of the following SCMs.

a. For sites that disturb less than two (2) acres, the Administrator may approve other SCM's if the applicant demonstrates to the Lorain County Engineer's satisfaction that these SCM's meet the objectives of the regulation as stated in Section 9.C.6.

b. For sites that disturb two (2) acres or more of land, the Administrator and/or the Lorain County Engineer may approve other SCM's if the applicant demonstrates to the Administrator and/or the Lorain County Engineer's satisfaction that these SCM's meet the objectives of this regulation as stated in Section 9.C.6, and has prior written approval from the Ohio EPA.

c. For the construction of new roads, roadways and improvement projects by public entities (i.e. the state, counties, townships, cities, or villages), the Lorain County Engineer may approve alternative SCMs in accordance, with the current version of the Ohio Departments of Transportations "*Location and Design Manual, Volume Two Drainage Design*".

2. Criteria applying to all storm water management practices. Practices chosen shall be sized to treat the water quality volume (WQv) and to ensure compliance with OhioWater Quality Standards (OAC Chapter 3745—1).

a. WQv is determined by the methodology provided in the current edition of the Ohio EPA Construction General Permit.

b. Post-construction practices shall be sized to treat 100% of the WQv associated with their contributing drainage area. If there is an existing post-construction BMP that treats runoff from the disturbed area, and the BMP design (i.e. extended detention volume and outlet) allow the BMP to meet the post-construction requirements of this regulation, no additional post-construction BMP will be required. Design information for such facilities such as contributing drainage areas, capacities, elevations, outlet details and drain times shall be included in the plan.

c. Only Post-construction BMPs that are allowed by the current edition of the Ohio EPA Construction General Permit are permitted by this regulation. All Post-construction BMPs shall be designed in accordance with the current edition of the Ohio EPA Construction General Permit and the *Rainwater and Land Development Manual.*

d. Post-construction BMPs shall be designed such that the drain time is long enough to provide treatment and protect against downstream bank erosion, but short enough to provide storage for successive rainfall events.

e. Each practice shall be designed to facilitate sediment removal, vegetation management, debris control, and other maintenance activities defined in the Inspection Plan and Maintenance Agreement for the site.

3. Additional criteria applying to infiltration facilities (including Bio-Retention).

a. Infiltration facilities shall only be allowed if the soils of the facility fall within hydrologic soil groups A or B, if the seasonal high water table is at least three (3) feet below the final grade elevation, and any underlying bedrock is at least

six feet below the final grade elevation.

b. All runoff directed into an infiltration basin shall first flow through a pretreatment practice such as a grass channel or filter strip to remove coarser sediments that could cause a loss of infiltration capacity.

c. During construction, all runoff from disturbed areas of the site shall be diverted away from the proposed infiltration basin site. No construction equipment shall be allowed within the infiltration basin site to avoid soil compaction.

d. See also Section 16.

4. Additional criteria applying to underground facilities:

a. Underground storage systems with infiltration must have adequate pretreatment of suspended sediments included in the design and documented in the SWP3 in order to minimize clogging of the infiltrating surface. Pretreatment shall concentrate sediment in a location where it can be readily removed. Examples include media filters situated upstream of the storage or other suitable alternative approved by Ohio EPA.

b. For infiltrating underground systems, pretreatment shall be 80% effective at capturing total suspended solids according to the testing protocol established in the Alternative Post Construction BMP Testing Protocol.

c. For non-infiltrating, underground extended detention systems, pretreatment shall be 50% effective at capturing total suspended solids according to the testing protocol established in the Alternative Post Construction BMP Testing Protocol.

5. Additional criteria for dry and wet extended detention facilities:

a. The outlet shall be designed to not release more than the first half of the water quality volume in less than one-third (1/3) of the drain time. A valve or sump shall be provided to drain any permanent pool volume for removal of accumulated sediments. The outlet shall be designed to minimize clogging, vandalism, maintenance, and to promote the capture of floatable pollutants.

b. The basin design shall incorporate the following features to maximize multiple uses, aesthetics, safety, and maintainability:

(1) Basin side slopes above and below the permanent pool shall have a run to rise ratio of 4:1 or flatter.

(2) The perimeter of all permanent pool areas deeper than four (4) feet shall be surrounded by an aquatic bench that extends at least eight (8) feet and no

more than fifteen (15) feet outward from the normal water edge. The six (6) feet wide portion of the aquatic bench closest to the shorelineshall have an average depth of six (6) inches below the permanent pool to promote the growth of aquatic vegetation. The remainder of the aquatic bench shall be no more than fifteen (15) inches below the permanent pool to minimize risk to persons who accidentally or intentionally enter the basin, and to limit growth of dense vegetation in a manner that allows waves and mosquito predators to pass through the vegetation. The maximum slope of the aquatic bench shall be ten (10) (H) to 1 (V). The aquatic bench shall be planted with hardy plants comparable to wetland vegetation that are able to withstand prolonged inundation.

(3) A forebay shall be placed at all basin inlets with a volume equal to at least at least ten (10)% of the water quality volume (WQv). A micropool shall also be placed at the basin outlet with a volume equal to at least at least ten (10)% of the water quality volume (WQv).

c. **Thermal Impacts**
To reduce thermal impacts, shade the permanent pool and open channels. Provide a landscape plan showing shade trees, subject to approval by the Lorain County Engineer's Office.

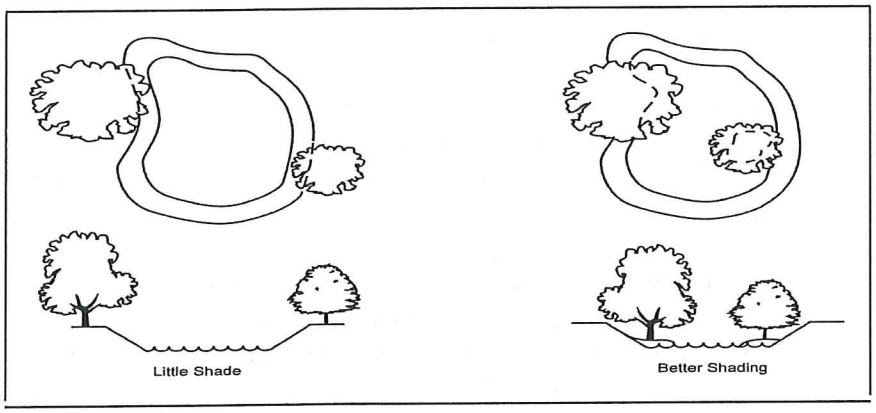


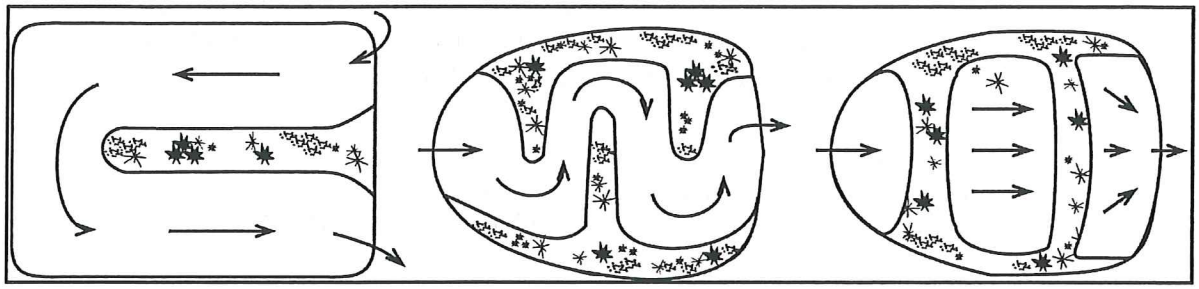
Figure: 2.6.7 Tree Placement to Shade Pond and Reduce Thermal Impacts

d. **Basin Embankment** - Construct the embankment with suitable soils. A qualified professional engineer shall conduct an on-site evaluation of the proposed pond site and borrow areas prior to final design to characterize the adequacy of the site and the excavated soils for use as core trench or embankment fill. The evaluation should include a test pit at each abutment, along the centerline of the proposed embankment, the emergency spillway, the borrow area and the pool area. Approximately one test pit should be placed for every 10,000 square feet of area examined. All explorations shall be logged using the Unified Soil Classification System. Embankment design shall be sealed by the qualified professional engineer.

e. **Wet or Dry Basin Configuration** – Configure the basin so that water quality treatment

is optimized through basin shape and flow length. Improved settling of pollutants occurs as the flow length is maximized. Optimally, designs will avoid the problems of dead storage or incoming water short- circuiting through the pond and the re-suspension of deposited sediments.

1. **Length to Width Ratio -** Wedge shaped or basins that are longer than wide will prevent flow from short-circuiting the main body of water. The ratio of flow length to basin width should be at least 3:1. To increase a basin's flow length, the contours of the basin may be configured with baffles or an extended flow path. Construct submerged aquatic benches to form cells to enhance flow routing.

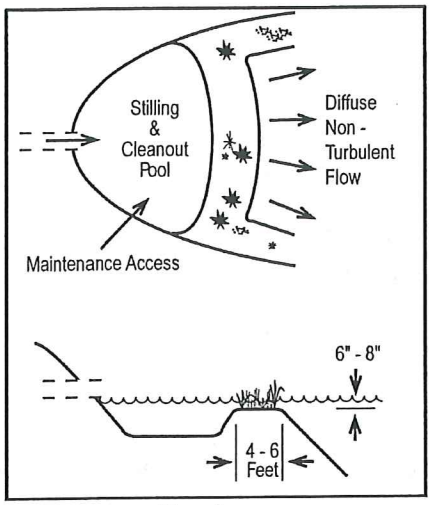


Flow Routing to Enhance Water Quality Treatment

2. **Slide Slopes** – Varying the slope to create benches above and below waterlines increases safety and stability and can create water quality features such as wetland benches in permanent pools. Slopes should not be steeper than 4:1 or gentler than 12:1.

3. **Forebay (s)** – A forebay is a settling pool located at the inlet to a pond. It is separated from the rest of the pond by a level dike often planted with emergent wetland vegetation. Forebays are primarily used to improve the settling efficiency of a pond but they also reduce maintenance by promoting settling in a confined, easily accessible location.

   Forebays promote settling by: segmenting or dividing the pond into cells which reduce mixing and promote plug flow; by converting the high velocity concentrated inflow from a pipe to a wide uniform slow flow to the normal pool area, and by dissipating flows through emergent vegetation.



Forebay

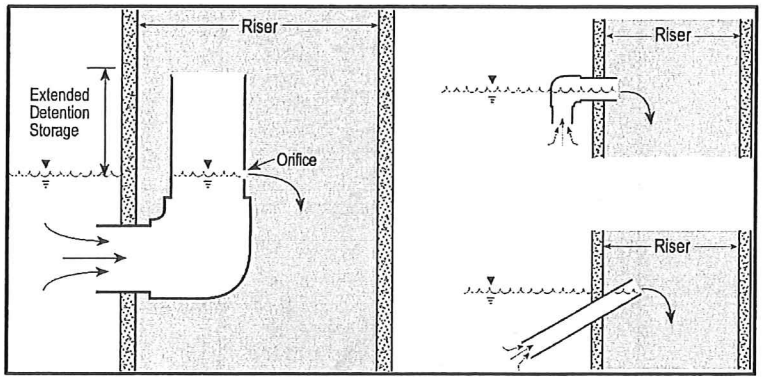
4. **Forebay Size** – Forebay for single inlet should occupy from 8-25% of the normal pool area. Forebays should be large enough to avoid scour and re-suspension of trapped sediment and sized for ease of construction and cleanout. Forebays should have a water depth of at least three (3) feet.

5. **Forebay Outlet** – Provide an outlet to the main pond, consisting of a level spreader or submerged level dike. A submerged dike separating the Forebay from the rest of a wet pool or wetland should be 6-12 inches below the normal water surface elevation and provide a non-erosive overflow. It should also be planted with hardy emergent wetland vegetation. See the wetland extended detention pond section below for more information on planting.

6. **Forebay Maintenance Access** – To accommodate relatively frequent sediment cleanout, provide easy equipment access to the forebay. Include gradual slopes without obstructions and an access easement. Additionally, install a drain under the dike so that the Forebay can be drained during maintenance operations.

f. **Micro-pool** – For wetland and dry extended detention Stormwater basins, a micro-pool is also required in front of the outlet. The micro-pool allows a reverse slope pipe or other non-clogging outlet to be used. The micro-pool should be 4-6 feet deep and equal to ten (10)% of the water quality volume.

g. **Non-clogging Outlet** –Provide a minimum two (2) inch diameter water quality orifice and a reverse flow pipe or other non-clogging outlet or as otherwise approved by the Lorain County Engineer.



Reverse Flow Structures Reduce Clogging and Trap Floating Pollutants

h. **Pond Drain** – Install a drain such that the entire basin can be drained for maintenance or repair purposes.

i. **Auxiliary "Emergency Spillway"** – Construct auxiliary spillways according to Section 9.A.6.

j. **Additional Specifications for Basin Construction** – basins shall be well constructed and built according to NRCS Conservation Practice Standards 378 (Pond) addressing issues such as:

1. Basins shall incorporate emergency spillways designed to safely convey flows exceeding design storm flows.

2. Outlet structures should be built to withstand flotation and incorporate anti-vortex and debris or trash rack devices.

3. Embankments and principal spillway shall utilize adequate soils and compactions, core trenches and anti-seep collars.

k. **Transition from Temporary Sediment Control Basin to permanent Stormwater Management Basin** – Often permanent Stormwater management basins are used for sediment control during construction. In most cases, these facilities will need dewatering and sediment removal in order to ensure that the pond has the appropriate permanent volume for Stormwater design. This includes removal of temporary risers used for sediment control, opening orifices and windows on the outlet structure that were temporarily plugged to comply with the sediment basin outlet detail in the Erosion and Sediment Control Plan, and reseeding bare soil or establishing wetland vegetation in designated areas within the basin.

l. **Permanent Pool Depth** – For Wet Extended Detention Basins – The mean depth of the permanent pool should be between three (3) and six (6) feet in order to optimize settling of suspended particles. This is calculated by dividing the permanent pool's storage volume by the pool's surface area. A pool that varies in depth will allow diverse

conditions for wetland vegetation and portions which are deep enough for fish. If fish are to be maintained in the pool, approximately 25% of the pool should be at least six (6) to eight (8) feet deep. Provide 4:1 side slope both above and below the permanent pool.

6. Criteria for the Acceptance of Alternative post-construction BMPs: The applicant may request approval from the Lorain County Engineer for the use of alternative structural post-construction BMPs in accordance with the current Ohio EPA Construction General Permit, and with Section 10.

7. Storm Water Quality on Redevelopment Projects: Provide storm water quality in accordance with the current Ohio EPA Construction General Permit for redevelopment projects.

D. Storm Water Rate Control

The Comprehensive Storm Water Management Plan shall describe how the proposed storm water management practices are designed to satisfy the following requirements for storm water rate or quantity control for each watershed in the development:

1. The peak discharge rate of runoff from the Critical Storm and from all more frequent storms that occur under post-development conditions shall not exceed the peak discharge rate of runoff from a 1-year, 24-hour storm occurring on the same development drainage area under pre-development conditions.

2. Pre-development runoff calculations shall reflect historic vegetative cover as meadow or woods (not agriculture). Post-development runoff calculations shall reflect adjusted Hydrologic Soil Group (HSG) classifications according to the OEPA Rainwater and Land Development Manual Appendix 9.

3. Storms of less frequent occurrence (longer return periods) than the Critical Storm, up to the 100-year, 24-hour storm shall have peak runoff discharge rates no greater than the peak runoff rates from equivalent size storms under pre-development conditions.The 1, 2, 5, 10, 25, 50, and 100-year storms shall be considered in designing a facility to meet this requirement.

4. The Critical Storm for each specific development drainage area shall be determined as follows, but shall be no less than the 5-year critical storm:

   a. Determine, using a curve number-based hydrologic method that generated hydrologic method that generates hydrographs, or other hydrologic method approved by the Lorain County Engineer, the total volume (acre-feet) of runoff from a 1-year, 24-hour storm occurring on the entire development drainage area before and after development. These calculations shall meet the following standards:

      1. Calculation shall include the lot coverage assumptions used for full build out as proposed.

      2. Calculations shall be based on the development drainage area (as defined in

Section 2).

3. To account for future post-construction improvements to the site, calculations shall assume an impervious surface such as asphalt or concrete for all parking areas and driveways, regardless of the surfaceproposed in the site description.

b. From the volume determined the percent increase in volume of runoff due to development. Using the percentage, select the 24-hour Critical Storm at Table 3 on page 40.

Table 3: 24-Hour Critical Storm

If the Percentage of Increase in Volume of Runoff is:		**The Critical Storm will be:**
Equal to or Greater Than:	and Less Than:	
----	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

For example, if the percent increase between the pre- and post-development runoff volume for a 1-year storm is 35%, the Critical Storm will be a 5-year storm. The peak discharge rate of runoff for all storms up to this frequency shall be controlled so as not to exceed the peak discharge rate from the 1-year frequency storm under pre-development conditions in the development drainage area. The post-development runoff from all less frequent storms need only be controlled to meet pre-development peak discharge rates for each of those same storms.

10. ALTERNATIVE ACTIONS

A. When the Lorain County Engineer determines that site constraints compromise the intent of this regulation, off-site alternatives may be used that result in an improvement of water quality and a reduction of storm water quantity. Such alternatives shall meet the following standards:

1. Shall achieve the same level of storm water quantity and quality control that would be achieved by the on-site controls required under this regulation.

2. Implemented in the same Hydrologic Unit Code (HUC) 14 watershed unit as the proposed development project.

3. The mitigation ratio of the water quality volume is 1.5 to 1 or the water quality volume at the point of retrofit, whichever is greater.

4. An inspection and maintenance agreement as described in Chapter 8.0 – D.10 is established to ensure operations and treatment in perpetuity.

5. Obtain prior written approval from Ohio EPA.

B. Alternative actions may include, but are not limited to the following. All alternative actions shall be approved by the Lorain County Engineer:

1. Fees, in an amount specified by Lorain County Soil & Water Conservation District to be applied to community-wide storm water management practices.

2. Implementation of off-site storm water management practices and/or the retrofit of an existing practice to increase quality and quantity control.

3. Stream, flood plain, or wetland restoration.

4. Acquisition or conservation easements on protected open space significantly contributing to storm water control such as wetland complexes.

11. EASEMENTS

Access to storm water management practices as required by Lorain County Engineer for inspections and maintenance shall be secured by easements in favor of the Lorain County Commissioners. The following conditions shall apply to all easements:

A. Easements shall be included in the Inspection and Maintenance Agreement submitted with the Comprehensive Storm Water Management Plan.

B. Easements shall be approved by Lorain County Engineer prior to approval of a final plat and shall be recorded with the Lorain Recorder and on all property deeds.

C. Unless otherwise required by Lorain County Engineer access blocks or easements between a public right- of-way and all storm water management practices shall be no less than twenty-five (25-feet)wide. The easement shall also incorporate the entire practice plus an additional twenty-five (25- foot) wide band around the perimeter of the storm water management practice.

D. The easement shall be graded and/or stabilized as necessary to allow maintenance equipment to access and maneuver around and within each facility, as defined in the Inspection and Maintenance Agreement for the site.

E. Easements to structural storm water management practices shall be restricted against the construction therein of buildings, fences, walls, and other structures that may obstruct the free flow of storm water and the passage of inspectors and maintenance equipment; and against the changing of final grade from that described by the final grading plan approved by the Administrator. Any re-grading and/or obstruction placed within a maintenance easement may be removed by Lorain County at the property owners' expense.

12. MAINTENANCE AND FINAL INSPECTION APPROVAL

To receive final inspection and acceptance of any project, or portion thereof, the following shall be completed and submitted to Lorain County Engineer:

A. Final stabilization shall be achieved and all permanent storm water management practices shall be installed and made functional, as determined by Lorain County Engineer and per the approved Comprehensive Storm Water Management Plan.

B. An As-Built Certification, including a Survey and Inspection, shall be sealed, signed and dated by a Professional Engineer and a Professional Surveyor with a statement certifying that the storm water management practices, as designed and installed, meet the requirements of the Comprehensive Storm Water Management Plan approved by Lorain County Engineer. In evaluating this certification, Lorain County Engineer may require the submission of a new set of storm water practice calculations if he/she determines that the design was altered significantly from the approved Comprehensive Storm Water Management Plan. The As-Built Survey shall indicate the location, dimensions, elevations, and volumes of such practices. Include the entity responsible for long-term maintenance as detailed in the Inspection and Maintenance Agreement.

C. Include in the certification, the as-built volumes and key invert and overflow elevations of SCMs.

D. Provide to the Lorain County Engineer, the complete and recorded Inspection and Maintenance Agreement as specified inSection 8.0.

13. ON-GOING INSPECTIONS

The Lorain County Soil & Water Conservation District and or Lorain County Engineer may inspect storm water management practices after acceptance. Upon finding a malfunction or other need for maintenance, the Lorain County Engineer shall provide written notification to the responsible party, as detailed in the Inspection and Maintenance Agreement, of the need for maintenance. Upon notification, the responsible party shall within ***five (5) working days***, or other mutually agreed upon time, make repairs or submit a plan with detailed action items and established timelines. Should repairs not be made within this time, or a plan approved by the Lorain County Engineer for these repairs not be in place, the Lorain County Engineer may undertake the necessary repairs and assess the responsible entity.

14. FEES

The Comprehensive Storm Water Management Plan review, filing, and inspection fees are part of a complete submittal and shall be submitted to the Administrator before the review process begins. The Lorain County Storm Water Management District shall establish a fee schedule based upon the actual estimated cost for providing these services. All fees are payable to the Lorain County Commissioners. For Fee Schedule see page 48.

15. BOND

A. If a Comprehensive Storm Water Management Plan is required by this regulation, soil-disturbing activities shall not be permitted until a maintenance bond ***of 100% of the total project cost of the storm water facilities***, has been deposited with the Lorain County Engineer. This bond shall be posted for the Lorain County Soil & Water Conservation District to perform the obligations otherwise to be performed by the owner of the development area as stated in this regulation and to allow allwork to be performed as needed in the event that the applicant fails to comply with the provisions of this regulation. The maintenance bond will be returned, less administrative fees established by Lorain County, when the following three criteria are met:

1. 100% of the total project has been permanently stabilized.

2. An As-Built Inspection of all SCMs is conducted by the Lorain County Engineer.

3. An Inspection and Maintenance Agreement signed by the developer, the contractor, theLorain County Engineer, and the private owner or homeowners association who will take long-term responsibility for these SCMs, is accepted by the Lorain County Storm Water District.

B. Once these criteria are met, the applicant shall be reimbursed all bond monies that were not used for any part of the project. If all of these criteria are not met after three years of permanent stabilization of the site, Lorain County may use the bond monies to remedy any outstanding issues with all storm water management structures on the site and the remainder of the bond shall be given to the private lot owner/ homeowners association for the purpose of long term maintenance of the project.

16. INSTALLATION OF STORM WATER CONTROL MEASURES (SCMs)

The operator may not direct runoff through any water quality SCMs and structures or portions thereof that could be degraded by construction site sediment until the entire area tributary to the structure has reachedfinal stabilization as determined by Lorain County Soil & Water Conservation District. Final stabilization requires the completion of the final grading at the site, all of the utilities installed, and the site subsequently stabilized with vegetation or other appropriate methods. The operator shall provide documentation acceptable to Lorain County Soil & Water Conservation District to demonstrate that the site is completely stabilized. Upon this proof of compliance, the water quality SCMs and structure(s) may be installed and placed into service. Schedule and sequence construction operations accordingly to protect water quality SCMs from sediment clogging. Upon completion of installation of these practices, all disturbed areas and/or exposed soils caused by the installation of these practices shall be stabilized within seven (7) days.

17. MONITORING FOR COMPLIANCE: ENFORCEMENT

A. Following the initial inspection of control devices by the project engineer, regular inspections will be performed by the Administrator for compliance with these Rules. If it appears that a violation of any of these Rules has occurred, the owner and developer will be notified of deficiencies or noncompliance in writing by certified mail, return receipt requested.

B. The rules shall be enforced in accordance with O.R.C. 307.79 and at a minimum shall permit: The Board of County Commissioners or any duly authorized representative of the Board 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 the rules adopted under this section. If the Board or its duly authorized representative is unable to obtain such an agreement, the Board or representative may apply for, and a judge of the Lorain County Common Pleas Court inspection warrant as necessary to achieve the purposes of this chapter.

1. If the Board of County Commissioners or its duly authorized representative determines that a violation of the rules adopted under this section exists, the Board 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. In addition, if the Board or representative determines such a rule violation exists, regardless of whether or not the violator has obtained the proper permits, the Board or representative may authorize the issuance of a notice of violation. 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 Board or its duly authorized representative shall issue a second notice of violation. Except as provided in division Subsection (3) of this section, 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 Board or its duly authorized representative may issue a stop work order after first obtaining the written approval of the prosecuting attorney of the county if, in the opinion of the prosecuting attorney, the violation is egregious.

   Once a stop work order is issued, the Board or duly authorized representative shall request, in

writing, the prosecuting attorney of the county to seek an injunction or other appropriate relief in the court of common pleas to abate excessive sedimentation and secure compliance with the rules adopted under this section. If the prosecuting attorney seeks an injunction or otherappropriate relief, then, in granting relief, the Court of Common Pleas may order the construction of sediment control improvements or implementation of other control measure and may assess a civil fine of not less than one hundred or more than five hundred dollars. Each day of violation of a rule or stop work order issued under this section shall be considered aseparate violation subject to a civil fine.

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

3. No stop work order shall be issued under this section against any public highway transportation, or drainage improvement or maintenance project undertaken by a governmentagency 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 Conservation, Ohio Department of Natural Resources.

The Administrator shall have the authority to require immediate on-site adjustments to the Comprehensive Storm Water Management Regulations in order to achieve compliance with these Rules.

A final inspection will be made to determine if the criteria of these Rules have been satisfied and a report will be presented to the Board of Lorain County Commissioners on the site's compliancestatus.

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.

The Administrator shall not review or approve Comprehensive Stormwater Management 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 Lorain County Comprehensive Stormwater ManagementPlan.

The Administrator shall not review or approve Lorain County Comprehensive Stormwater Management 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 Lorain County Comprehensive Stormwater Management Plans. Such development projects include but not limited to, subdivisions or other common plans of development

The County of Lorain reserves the right to withhold relevant inspections and/or other approvalsfrom its departments and/or agencies for development projects or activities in support of development projects that are not in compliance with these Rules.

The County shall not issue building permits for projects regulated under the Lorain County Comprehensive Stormwater Management Plan that have not received approval for a Comprehensive Stormwater Management Plan for said project(s).

18. VIOLATIONS

No person shall violate or cause or knowingly permit to be violated any of the provisions of this regulation, or fail to comply with any of such provisions or with any lawful requirements of any public authority made pursuant to this regulation, or knowingly use or cause or permit the use of any lands in violation of this regulation or in violation of any permit granted under this regulation.

19. APPEALS

Any person receiving a denial of permit may appeal the determination to the Board of Commissioners or its designee. The Notice of Appeal shall be mailed to the Clerk of the Board of Commissioners within 14 days of the Notice of Denial. A hearing shall take place within thirty (30) days of receipt of the Notice. Written notice of the hearing will be sent to the appellant.

20. PENALTY

No person, firm, entity or corporation; including but not limited to, the owner of the property, his agents and assigns, occupant, property manager, and any contractor or subcontractor shall violate any rule adopted or order issued under this Regulation. Notwithstanding Section 17.B, if the Board of County Commissioners determines that a violation of any rule adopted or administrative order issued under this Regulation exists, the Board may request, in writing, the prosecuting attorney of the County to seek an injunction or other appropriate relief in the Court of Common Pleas to abate storm water management and secure compliance with the rules or order. In granting relief, the Court of Common Pleas may order the construction of sediment control improvements or implementation of other control measures any may assess a civil fine or not less than one hundred ($100.00) or more than five hundred dollars ($500.00). Each day of violation or a rule adopted or administrative order issued under this section shall be considered a separate violation subject to a civil fine.

21. CONTRACTOR REGISTRATION

Contractors planning to perform comprehensive storm water management related construction activities must be registered with the Lorain County Storm Water Management District. To become registered the contractor must have on staff and in responsible charge of comprehensive storm water management permit compliance a certified inspector. Lorain County Stormwater Management District will keep on file specific requirements and application forms which may be updated as needed for contractor registration.

In order to obtain a Comprehensive Storm Water Management permit the applicant must include the name and contact information of the registered contractor that will be performing the work.

Appendix A
Inspection and Maintenance Agreement for SCMs

INSPECTION AND MAINTENANCE AGREEMENT
FOR STORM WATER CONTROL MEASURES

This Inspection and Maintenance Agreement, made this _____ day of _____ 20____, by and between _____ (hereafter referred to as the "Owner") and the ***Lorain County Storm Water Management District***, provides as follows:

WHEREAS, the Owner is responsible for certain real estate described as Lorain County Auditor's Tax Map Parcel No._____, located at _____ ___ ***(complete street address, or attach legal description of the property)*** that is to be developed as _____ ___ ***(development's official name),*** and referred to as the "Property;" and,

WHEREAS, the Owner is providing a storm water management system consisting of the following storm water control measures (SCMs):

1.
2.
3.
4. ***(list all SCMs here)***
5.

as shown and described on the attached Comprehensive Storm water Management Plan ***attached and incorporated fully herein and Marked as "Exhibit A"***; also on file with the Lorain County Storm Water Management District, and,

WHEREAS, to comply with Comprehensive Storm Water Management Regulations of Lorain County, as they exist on the date of this agreement pertaining to this project, the Owner hereby agrees to inspect, operate, maintain, and repair the SCMs in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, for and in consideration of the mutual covenants and undertaking of the parties, the parties hereby agree as follows:

A. FINAL INSPECTION and APPROVAL

1. The Owner shall record all easements as described in Section 11.0 of the Comprehensive Storm Water Management Regulations, and shall submit copies thereof to the Lorain County Engineer.

2. The Owner shall install and make functional all SCMs, and request a final inspection by the Lorain County Engineer, as described in Section 12.0 (A) of the Comprehensive Storm Water Management Regulations.

3. The Owner shall further submit to the Lorain County Engineer the Owner's Professional Engineer's as-built Comprehensive Storm Water Management Plan that includes the Engineer's Certification and Inspection, and the Owner's Professional Surveyor's As-Built Survey, as described in Section 12.0 (B) of the Comprehensive Storm Water Management Regulations.

4. The Owner shall further record this complete Inspection and Maintenance Agreement, including copies of the approved Inspection and Maintenance Plan; and the Owner shall submit copies thereof to the Lorain County Engineer as described in Section 12.0 (C) of the Comprehensive Storm Water Management Regulations.

5. Within 30 days of receipt of the above documents, the Lorain County Engineer shall then make a final inspection of SCMs, and the Owner shall make any necessary repairs as described in Section 13.0 of the Comprehensive Storm Water Management Regulations.

6. The Owner shall further pay all fees in accordance with Section 14.0 of the Comprehensive Storm Water Management Regulations.

7. Within 30 days of satisfactory completion of all these requirements, the Lorain County Engineer shall approve in writing, and shall notify the ***Lorain County Storm Water Management District*** that the SCMs are constructed in accordance with the approved plans and specifications of the approved Comprehensive Storm Water Management Plan.

8. The Inspection and Maintenance agreement may be amended with approval from the ***Lorain County Storm Water Management District*** for any subsequent phases of construction.

B. MAINTENANCE of STORMWATER CONTROL MEASURES

1. The Owner agrees to maintain in perpetuity the SCMs in accordance with the approved Maintenance Plans described in #2 below, and in a manner that will permit the SCMs to perform the purposes for which they were designed and constructed, and in accordance with the standards by which they were designed and constructed, all as shown and described in the approved Comprehensive Storm Water Management Plan. This includes all pipes and channels built to convey storm water to the SCMs, as well as structures, improvements, established elevations and grades, grading, vegetation, practices, and non-structural measures provided to control the quantity and quality of the storm water runoff.

2. The Owner shall provide a Maintenance Plan for each SCM. The Maintenance Plans shall include the following:

   i. The location of each SCM and identification of the drainage areas served by each SCM.

ii. Photographs of each SCM, including all inlets and outlets upon completion of construction.

iii. A schedule of inspection.

iv. A schedule for regular maintenance for each aspect of the SCM and description of routine and non-routine maintenance tasks to ensure continued performance of the SCM as detailed in the approved Comprehensive Storm Water Management Plan. The Owner shall also provide a maintenance inspection checklist written so the average person can understand it. The maintenance plan shall include detailed drawings of each SCM and outlet and control structures (with the parts of the structures labeled). This schedule may include additional standards, as required by the ***Lorain County Storm Water Management District***, to ensure continued performance of SCMs permitted to be located in, or within 50 feet of, water resources.

v. Location and documentation of all access routes and access and maintenance easements on the Property.

Alteration or termination of these stipulations is prohibited, without written approval from the ***Lorain County Storm Water Management District.***

3. The Owner shall maintain, update, and store the inspection, maintenance and repair records for the SCMs.

4. The Owner shall regularly inspect, shall perform all maintenance in accordance with the Inspection and Maintenance Plan, and shall complete all repairs identified, and any additional repairs or improvements necessary to make the SCMs function properly as requested in writing by the ***Lorain County Storm Water Management District.***

C. INSPECTION, MAINTENANCE and REPAIR of SCMs

1. During the first year of operation, the Owner shall inspect all SCMs listed in this Agreement, at a minimum of every three (3) months, and after major storm water runoff events.

2. The Owner's Professional Engineer shall inspect all SCMs listed in this Agreement at least once each year, and shall submit his report to the ***Lorain County Storm Water Management District*** including his recommendations and including his summary of the prior year's activities.

3. Upon request, The Owner shall submit Inspection Reports, Maintenance Logs, and Repair Records in writing, in a form acceptable to the District, to the ***Lorain County Storm Water Management District*** within seven (7) days.

4. The Owner grants permission to the ***Lorain County Storm Water Management District*** to enter the Property with prior notification to the Owner to inspect all aspects of the SCMs and related drainage whenever the ***Lorain County Storm Water Management District*** deems necessary to verify that the SCMs are being maintained and operated in accordance with the terms and conditions hereinafter set forth. The ***Lorain County Storm Water Management District*** shall maintain public records of these

reports of such site inspections, and shall deliver copies of said reports to the Owner, and shall indicate in writing any corrective actions and repairs or improvements necessary to make the SCMs function properly.

5. The Owner shall complete all corrective actions and repairs within five (5) working days of their discovery through Owner inspections, or through a request from the ***Lorain County Storm Water Management District.*** If repairs do not occur within this five (5) day period, the Owner shall request written approval from the ***Lorain County Storm Water Management District*** for his schedule of repairs.

6. In the event of any default or failure by the Owner in the performance of any of the covenants and warranties pertaining to the maintenance of the SCMs, or in the event the Owner fails to maintain the SCMs in accordance with the approved design standards and Inspection and Maintenance Plan, or, in the event of an emergency as determined by the ***Lorain County Storm Water Management District,*** in the sole discretion of the ***Lorain County Storm Water Management District,*** after providing reasonable notice to the Owner, may enter the property and take whatever steps necessary to correct deficiencies and to charge the cost of such repairs to the Owner. The Owner shall reimburse the ***Lorain County Storm Water Management District*** upon demand, within ten (10) days of receipt thereof for all actual cost incurred by the ***Lorain County Storm Water Management District*** (or later with written permission from the ***Lorain County Storm Water Management District***). All costs expended by the ***Lorain County Storm Water Management District*** in performing such necessary maintenance or repairs shall constitute a lien against the properties of the Owner. Nothing herein shall obligate the ***Lorain County Storm Water Management District*** to maintain the SCMs.

D. FUNDING

The Owner shall specify the method of funding for the perpetual inspection, operation, and maintenance of the SCMs listed in this Inspection and Maintenance Agreement. A description of the funding mechanism shall be submitted with its application to the ***Lorain County Storm Water Management District*** and approved by the ***Lorain County Storm Water Management District.***

E. INDEMNIFICATION

1. The Owner hereby agrees to save, hold harmless, and to indemnify the ***Lorain County Storm Water Management District*** and its employees and officers and agents from and against all liability, losses, claims, demands, costs and expenses arising from, or out of, default or failure by the Owner to maintain the SCMs, in accordance with the terms and conditions set forth herein, and from acts of the Owner arising from, or out of, the construction, operation, repair or maintenance of the SCMs.

2. The Owner hereby releases the ***Lorain County Storm Water Management District*** from all damages, accidents, casualties, occurrences, or claims that might arise or be asserted against the ***Lorain County Storm Water Management District*** from the presence, existence, or maintenance of the SCMs.

3. The parties hereto expressly do not intend by execution of this Inspection and Maintenance Agreement to create in the public, or any member thereof, any rights as a third party beneficiary, nor to authorize anyone not a party hereof to maintain a suit for any damages pursuant to the terms of this Inspection and Maintenance Agreement.

4. This Inspection and Maintenance Agreement shall be a covenant that runs with the land and shall inure to the benefit of and shall be binding upon the parties hereto, their respective successors and assigns, and all subsequent owners of the property.

5. The current Owner shall promptly notify the ***Lorain County Storm Water Management District*** when the Owner legally transfers any of the Owner's responsibilities for the SCMs. The Owner shall furnish to the ***Lorain County Storm Water Management District*** a copy of any document of transfer, executed by both parties.

6. Upon execution of this Inspection and Maintenance Agreement, The ***Lorain County Storm Water Management District*** shall record it in the Recorder's Office of ***Lorain County***, Ohio, at the Owner's expense.

7. In the event that the ***Lorain County Storm Water Management*** District shall determine in its sole discretion that any or all of the SCMs are no longer necessary, then the ***Lorain County Storm Water Management District*** shall, at the request of the Owner, execute and record a release of this agreement, at the Owner's expense.

IN WITNESS WHEREOF, the Owner has caused this Inspection and Maintenance Agreement to be signed in its name by a duly authorized person.

By:_____, its _____
Owner (signature and title)

_____, _____
Owner (please print signatory's name and name of Owner)

State of: _____
County of:_____

Subscribed and Sworn to me on this _____day of _____20_____ by _____.

_____
Notary Signature

By:_____, PE, PS
Lorain County Engineer, on behalf of the Lorain County Storm Water Management District

State of: _____
County of:_____

Subscribed and Sworn to me on this _____day of _____20_____ by _____.

_____
Notary Signature

Approved as to form_____
By: Assistant County Prosecutor

_____
Print Name

This instrument prepared by the Lorain County Storm Water Management District

Appendix B
Application Form & Fee Schedule

COMPREHENSIVE STORM WATER MANAGEMENT
(POST CONSTRUCTION)
APPLICATION FORM
LORAIN SOIL AND WATER CONSERVATION DISTRICT

ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM. THE REVIEW AND INSPECTION FEE SHALL BE SUBMITTED WITH THE DEVELOPMENT PLAN. PLANS SHALL NOT BE REVIEWED UNTIL THE FEE HAS BEEN PAID.

1. Owner Information

Name_____ Phone_____

Address_____ Fax/Email_____

City_____ State_____ Zip_____

2. Agent/Engineer/Contractor/Builder Information

Name_____ Phone_____

Contact Person_____ Phone_____

Address_____ Fax/Email_____

City_____ State_____ Zip_____

3. Subcontractors

Firm Name_____ Phone_____

Contract Person_____ Phone_____

Address_____ Fax/Email_____

City_____ State_____ Zip _____

4. Site Information

Site Name_____ Township_____ Site Address___

_____ City_____ Prior Land Uses _____

_____ Type of Construction Activity _____

_____ Project Type_____

_____ NPDES Permit #_____ Wetland Permit

#_____ Sublot #___ Phase #_____ Receiving

Watershed_____

5. Soil Disturbing Activity Information

Total Project Area (acres)_____ Estimated Completion Date _____

Total Contributing Drainage Area (acres)_____

Pre-Construction Site Conditions_____

6. Received the Following:

Yes / No Storm Water Management Plan

Yes / No 2 Copies of Storm Water Mgt Plan

Yes / No Plan Prepared by an Engineer / Surveyor

Yes / No Long Term Inspection & Maintenance Agreement

Yes/ No Narrative Report Yes / No Construction Site Plan Sheets

Yes/ No Completed Storm Water Pollution (SWP3) Checklist

7. Payment Information **Make Checks Payable to Lorain County Commissioners**

Date of Check_____Check #_____Amount $_____

8. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and are to the best of my knowledge and belief, true, accurate, and complete.

Printed Name_____Affiliation _____

I authorize the Lorain County Commissioners or its appointed agents to enter this property for the purposes of plan review, site inspection or compliance with the Lorain County Post Construction Rules for the duration of the project.

Signature_____Date _____

9. Approval

Approved as submitted Y N By_____Date _____

_____Disapproved – Please Correct the following items:_____

10. Approval Stamp (Lorain SWCD)

Lorain County Comprehensive Storm Water Management Plan Fee Schedule

Please make all checks payable to: Lorain County Commissioners

Single Lot Residential – Not Part of a Greater Plan of Development **Fee**

Single Projects	$ 100.00

Residential Developments Property Under Construction **Fee**

On five (5) acre or more (these fees are cumulative)	
a. for first five (5) acre	$ 800.00
b. for each additional acre or any part thereof:	$ 60.00

Non-Residential Property Under Construction **Fee**

On five (5) acre or more (these fees are cumulative)	
a. for first five (5) acre	$ 800.00
b. for all acreage over 5 acres	$ 60.00 / acre

Site Inspections **Fee**
Both Residential and Non-Residential

Sites 1 – 5 acres	$ 250.00
Each additional acre or portion thereof	$ 25.00
** ***Please note*****: Non-compliant sites will incur an additional inspection fee of $100.00 per hour for each inspection required until site meets compliance.**	

RESOLUTION NO. 19-713

In the matter of approving updated Lorain County) Erosion and Sediment Control Regulations to) maintain compliance with Ohio Environmental) Protection Agency's current National Pollutant) Discharge Elimination Permit and updating fees)

October 30, 2019

WHEREAS, The Lorain County Storm Water Management District and its co-permittees hold a National Pollutant Discharge Elimination Permit through the Ohio Environmental Protection Agency (OEPA) over time; and

WHEREAS, the Ohio Environmental Protection Agency amends and updates requirements of the National Pollutant Discharge Elimination Permit (NPDES); and

WHEREAS, permit holding communities are required to comply with these changes; and

WHEREAS, The Lorain County Storm Water Management District is requesting to update the Erosion and Sediment Control Regulations and permit fees to maintain compliance with the Ohio EPA's NPDES program; and

WHEREAS, the Lorain County Commissioners held 2 public hearing on October 15, 2019 and October 30, 2019; and

WHEREAS, Under Ohio Revised Code 307.79, the board of county Commissioners may adopt, amend, and rescind rules establishing technically feasible and economically reasonable standards to achieve a level of management and conservation practices that will abate wind or water erosion of the soil or abate the degradation of waters of the state.

NOW THEREFORE BE IT Resolved, based upon the above information, the Lorain County Board of Commissioners hereby approve updates to the Lorain County Erosion and Sediment Control Regulations and permit fees to maintain compliance with OEPA's NPDES program.

Motion by Lundy seconded by Kokoski to adopt Resolution. Upon roll call the vote taken thereon, resulted as: Ayes: Lundy, Kokoski, & Sweda / Nays: None
Motion carried.

I, Theresa L. Upton, Clerk to the Lorain County Board of Commissioners do hereby certify that the above Resolution No. 19-713 is a true copy as it appears in Journal No. 19 on date of October 30, 2019

Theresa L. Upton, Clerk

NPDES – PHASE II

LORAIN COUNTY
EROSION & SEDIMENT CONTROLREGULATIONS

Effective – June 29, 2008
Addendum – November 19, 2009
Updated – November, 2016
Updated – November, 2018
Updated – November, 2019

Administrator:

Lorain Soil & Water Conservation District

Agricultural Center
42110 Russia Road
Elyria, Ohio 44035

Phone – 440-326-5800
Fax – 440-326-5807

www.lorainswcd.com

REFERENCES

The standards and specifications for Best Management Practices are contained within the

Rainwater and Land Development Manual, Ohio's Standards For Storm Water Management, Land Development and Urban Stream Protection, current edition

published in cooperation with:

Ohio Department of Natural Resources Division of Soil and Water Conservation
U.S.D.A. Natural Resource Conservation Service Ohio Environmental Protection Agency

Table of Contents

LORAIN COUNTY EROSION & SEDIMENT CONTROL RULES

1. Purpose and Scope

1.1 The Lorain County Board of 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 conservationpractices, and to implement Phase II of the storm water program of the National Pollutant Discharge Elimination System (NPDES) established in 40 CFR Part 122, and to promote thehealth, safety and well-being of the residents of Lorain County. Specifically, the Rules are intended to protect:

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

b) County and township ditches, culverts and storm sewers from loss of capacity due to siltation.

c) Water and habitat quality in streams and wetlands.

1.2 These Rules apply to soil-disturbing activities on land within the unincorporated area of Lorain County used or being developed for non-farm commercial, industrial, residential, or other non-farm purposes, including, but not limited to, individual or multiple 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:

a) Activities related to producing agricultural crops or silviculture operations or areasregulated by the Ohio Agricultural Sediment Pollution Abatement Rules.

b) Strip mine and surface mine operations.

1.3 An Erosion and Sediment Control Plan is not required before clearing, grading, excavating, filling or otherwise wholly or partially disturbing less than one contiguous acre of land owned by one person or operated as one development unit for the construction of non-farm buildings, structures, utilities, recreational areas or other similar non-farm uses; however, areas of

less than one contiguous acre are not exempt from compliance with all other provisions of these Rules.

1.4 An Erosion and Sediment Control Plan is not required for a public highway, transportation, or drainage improvement or maintenance thereof undertaken by a governmentagency or political subdivision in accordance with a statement of its Standard Sediment Control Policies that is approved by the Lorain County Board of Commissioners or the Chief of theODNR Division of Soil and Water Conservation.

1.5 No soil disturbing activities shall commence without compliance with these rules.

1.6 **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.

1.7 **Conflicts, Severability, Nuisances and Responsibility**

(a) Where this regulation is in conflict with other provisions of law, resolutions,or ordinances, the most restrictive provisions shall prevail.

(b) 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.

(c) 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.

(d) Failure of the County 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 therefrom, and shall notresult in the County, its officers, employees, or agents being responsible for any condition or damage resulting therefrom.

2 Terms Defined

2.1 Interpretation of Terms and Words

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

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

(c) 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

Abbreviated Erosion and Sediment Control Plan (Abbreviated ESC Plan): The written document that sets forth the plans and practices to be used to meet the requirements of this regulation.

Accelerated Soil Erosion: 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 appointed by the Board of Lorain County Commissioners.

Best Management Practices: Structural or nonstructural facilities or activities that control soil erosion and/or storm water runoff at a development site. 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 or manmade bed or ditch, existing or excavated for the conveyance of water.

Commencement of Construction: The initial disturbance of soils associated with clearing, grubbing, grading, placement of fill, or excavating activities or other construction activities.

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.

Clean Water Act: The Federal Water Pollution Control Act enacted in 1972 by Public Law 92-500and amended by the Water Quality Act prohibits the discharge of pollutants to Waters of the United States unless said discharge is in accordance with an NPDES permit. The 1987 amendments include guidelines for regulating municipals, industrial, and construction storm water discharges under the NPDES permit.

Conservation: The development of land using alternative layout and building arrangements in order to better conserve open space and retain natural resources.

Construction Entrance: The permitted points of ingress and egress to development areas regulated under this regulation.

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.

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

Development Area: A contiguous area owned by one person or persons, or operated as one 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.

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.

Dewatering Volume: See current Ohio Rainwater and Land Development Manual.

Discharge: The addition of any pollutant to surface waters of the state from a point source.

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.

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 intermittent flow.

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: A 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 or gravity.

Erosion Sediment Control Plan: The written document meeting the requirements of Sections 3, 4 and 5 of these Rules which sets forth the plans and practices to be used to minimize soil erosion and prevent off-site disposal of soil sediment by containing sediment on-site or by passing sediment-laden runoff

through a sediment control measure during and after land development.

Farm: Land or water devoted to agricultural uses as defined in O.R.C. 519.01 including farming; ranching; aquaculture; horticulture; viticulture; animals; poultry husbandry and the production poultry products; dairy production; the productions of field crops, tobacco, fruits, vegetables, nursery stock, ornamental shrubs, ornamental trees, flowers, sod, or mushrooms; timber; pasturage, any combination of the foregoing; the processing, drying, storage, and marketing of agricultural products when those activities are conducted in conjunction with, but are secondary to, such husbandry or production.

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 all disturbed areas has been established or equivalent stabilization measures, such as the use of mulches or geo-textiles, 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. Final stabilization also requires the installation of permanent (post-construction) BMPs.

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

Grubbing: removing or grinding of roots, stumps and other unwanted material below existing grade.

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

Impervious: That which does not allow infiltration.

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 or Sale: A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

Maximum Extent Practicable (MEP): The technology-based discharge standard of Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by the Clean Water Act 402(p). A discussion of MEP as it applies to small MS4s is found in 40 CFR 122.34.

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are:

Owned or operated by the federal government, state, municipality, township, county, district, or other public body (created by or pursuant to state or federal law) including a special district under state law such as a sewer district, flood control district or drainage districts, or similar entity, or a designated and approved management agency under Section 208 of the Federal Water Pollution Control Act that discharges into surface waters of the state; and

Designed or used for collecting or conveying solely stormwater,

Which is not a combined sewer, and

Which is not part of a publicly owned treatment works.

Multi-family Development: Apartments, condominiums, 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-sectionwith 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.

Operator: Any party associated with a construction project that meets either of the following two criteria:

The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a Stormwater Pollution Prevention Plan (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.

Owner or Operator: The owner or operator 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 Lorain County Auditor'sOffice.

Percent Imperviousness: The impervious area created divided by the total area of the project site.

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

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.

Point Source: Any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or the floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater 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 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 anErosion Sediment Control Plan.

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

Qualified Inspection Personnel: A person 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 measure selected to control the quality of stormwater discharges from the construction activity.

Rainwater and Land Development Manual: Ohio's standards for storm water management, land development, and urban stream protection. The most current edition of these standards shall be used with this regulation.

Riparian Area: The transition area between flow 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 conveyed to water resources or wetlands.

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 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, industrial, residential or other non-farm purposes.

Silviculture: The activity for which the primary purpose is the growing, managing and harvesting of a merchantable forest product of commercial species under accepted silvicultural systems through natural or artificial reforestation methods and for which there is an approved forest management plan.

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 RevisedCode referring either to the Soil and Water Conservation District Board or its designated employee(s), hereinafter referred to as the Lorain 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 inorder to reduce soil erosion by storm water runoff, wind, ice, and gravity.

Stream or Watercourse: Shall have the same meaning as "water of the state" contained in O.R.C. 6111.01 and shall include all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs irrigation systems, drainage systems, and other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, that are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters that do not combine or effect a junction with natural surface or underground waters.

Storm Drain: A conduit, pipe or human-made structure, which serves to transport storm waterrunoff.

Storm Water Pollution Prevention Plan: (SWP3): The written document that sets forth the plans and practices to be used to meet the requirements of the NPDES permit.

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.

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 or Water Body. 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 sewerage systems, treatment works or disposal systems in Section 6111.01 or the Ohio Revised Code are not included.

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: Also, Temporary Stabilization. The establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation, and other techniques capable of quickly establishing cover over disturbed areas to provide erosion control between construction operations.

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.

Water Quality Volume: (WQv) The volume of stormwater runoff which must be captured and treated prior to discharge from the developed site after construction is complete. WQv is based on the expected runoff

generated by the mean storm precipitation volume from post-construction site conditions at which rapidly diminishing returns in the number of runoff events captured begins to occur.

Water Resource: Also, Surface water of the state. 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 sewerage systems, treatment works or disposal systems in Section 6111.01 or 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. Regulated Activities.

No person shall cause or allow soil-disturbing activities, land clearing, grading, excavating or filling within the scope of these Rules without full compliance with the requirements set forth in these Rules and all applicable fees are paid.

3.1 When a proposed soil-disturbing activity on land used or being developed, either wholly or partially, for non-farm residential, commercial, industrial, or other non-farm purposes consisting of one or more contiguous acres of land owned by one person or operated as one development unit for the construction of non-farm buildings, structures, utilities, recreational areas or other limited non-farm uses, the owner of said land shall prepare and file with the Administrator an Erosion and Sediment Control (ESC) plan. Areas of less than one contiguous acre shall not be exempt from compliance with all other provisions of these Rules.

3.2 When a residential dwelling unit is proposed on an individual lot of one or more acres or a lot which is part of a large common plan of development, the owner of said land shall prepare and file with the Administrator an Abbreviated Erosion and Sediment Control (ESC) plan, which shall consist of items listed in Section 4.11 of this document. A copy of the Ohio EPA Notice of Intent orGeneral Permit authorization shall be provided.

3.3 When a residential dwelling unit on an individual lot is proposed, which is not part of a larger common plan of development and less than one-acre, the owner of said land shall not be required to prepare and file an Erosion and Sediment Control Plan; however, said owner shall comply with all other provisions of these Rules.

3.4 The submitted ESC plan must be approved by the Administrator of these Rules 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. Failure to comply may result in the issuance of a stop work order, additional fees, and/or other adverse actions such as fines.

3.5 The ESC plan 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.

3.6 The ESC plan 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. (SeeSection 5 for plan requirements and review schedules.)

3.7 Erosion and sediment control practices used to satisfy the performance criteria of these Rules shall meet the specifications provided in the current edition of Rainwater & Land Development Manual, Ohio's Standards for Storm Water Management and Land Development, and UrbanStream Protection, published by the Ohio Department of Natural Resources and Provisions of the Lorain County Floodplain Regulations. (See Section 4 for performance standards and requirements.)

3.8 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 required showing proof of compliance with these state and federal regulations shall be submitted with Erosion and Sediment Control Plans or Abbreviated Erosion and Sediment Control Plans to the Administrator.

(a) Ohio EPA NPDES Permits authorizing storm water discharges associated with construction activity or the most current version thereof: Proof of compliancewith these requirements shall be the applicant's Notice of Intent (NOI) 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.

(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:

(1) 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.

(2) 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.

3.9 The ESC plan shall be certified by a professional engineer, professional surveyor or certified professional erosion and sediment control specialist or landscape architect registered in the State of Ohio.

3.10 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 devices 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 Abbreviated ESC Plans may be waived at the discretion of the Administrator.

3.11 The approved erosion and sediment control plan shall be kept at the development site and made available to contractors, site managers, inspectors, and the administrators of these regulations.

3.12 The project engineer shall perform first inspection of erosion and sediment control devices to certify that the 'as built' condition complies with the approved plan no less than two (2) working days prior of the start of the project. An inspection report shall be produced and kept at thedevelopment site and be made available to the Administrator within seven (7) working days from the date of inspection.

3.13 All project activity shall be subject to monitoring. A record of site inspections and compliance and non-compliance shall be maintained by the Administrator.

3.14 If the 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 Rainwater and Land Development Manual Ohio's Standards for Storm Water Management and Land Development and Urban Stream Protection published by the Ohio Department of Natural Resources.

3.15 Upon completion of all construction and final stabilization of the entire construction site, theowner of said land shall contact the Administrator through written notification that construction is complete and final stabilization has been achieved.

4. Performance Standards

All properties adjacent to the site of soil-disturbing activity shall be protected from soil erosion and sediment run-off 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 most-current edition of the *Rainwater and Land Development Manual* and shall conform to the most current Ohio Environmental Protection Agency, Ohio Revised Code Chapter 6111, requirements. The ESC Plan must meet the minimum requirements of the Ohio EPA's current General Storm Water permit. All SWP3 requirements listed in the General permit must also be met.

Erosion and sediment control plan approvals issued in accordance with these Rules 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.

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

The ESC Plan must contain a description of the controls appropriate for each construction operation and the applicant must implement such controls. The ESC Plan must clearly describe 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 NON-STRUCTURAL PRESERVATION MEASURES: The ESC Plan must make use of practices that preserve the existing natural condition to the maximum extent practicable. Such practices include preserving riparian areas, reserving existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time, minimizing disturbance of steep slopes, designation of tree preservation areas or other protective clearing or grubbing practices. Soil compaction shall be minimized and, unless infeasible, topsoil shall be preserved. Provide and maintain a 50-foot buffer of undisturbed natural vegetation around surface waters of the state, or riparian or wetland setbacks, if applicable, whichever is greater, unless maintaining this buffer is infeasible (e.g., stream crossings for roads or utilities, or for channel and floodplain rehabilitation and restoration). Direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration.

4.2 EROSION CONTROL PRACTICES: The ESC Plan must make use of erosion controls that are capable of providing cover over disturbed soils. The amount of soil exposed during construction activity shall be minimized. A description of control practices designed to re-stabilize disturbed areas after grading or construction shall be included in the ESC Plan. The ESC Plan 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 below.

Table 1: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any area that will lie dormant for one year or more.	Within 7 days of the most recent disturbance.
Any area within 50 feet of a watercourse or wetland and at final grade.	Within 2 days of reaching final grade.
Other areas at final grade.	Within 7 days of reaching final grade within that area.

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed area within 50 feet of a watercourse or wetland and not at final grade.	Within 2 days of the most recent disturbance if that area will remain idle for more than 14 days.
Any disturbed area, including soil stockpiles 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 ownership or operational responsibility.
Disturbed areas that will be idle over winter.	Prior to November 1 or the onset of winter weather, whichever occurs first.
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.	

(b) Permanent stabilization of conveyance channels. Applicants shall under takespecial 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 Manual or the Field Office Technical Guide available at http://epa.ohio.gov/dsw/storm/technical_guidance.

4.3 RUNOFF CONTROL PRACTICES. The ESC Plan shall incorporate measures that control the volume and velocity of stormwater runoff within the site to prevent erosion. Peak flow rates and total stormwater volume shall be controlled to minimize erosion and outlets, downstream channel and streambank 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 placed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.

4.4 SEDIMENT CONTROL PRACTICES. The ESC Plan 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 to minimize sediment discharges from the site. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, silt fences, 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 earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven (7) days from the start ofgrubbing. They shall continue to function until the up-slope development area is re-stabilized. As construction progresses and the topography is altered, appropriate controls must be constructed, or existing controls altered to addressthe changing drainage patterns.

Sediment settling ponds. Sediment settling ponds shall be provided in the form of a sediment trap or sediment basin as defined in the latest edition of *Rainwater and Land Development*. The maximum allowable contributing drainage area to a sediment trap shall be limited to less than 5 acres. Contributing drainage areas of 5 acres or more shall be treated with a sediment basin. An equivalent best management practice may be utilized upon approval from the Lorain County Stormwater Management District.

The sediment-settling pond shall provide both a sediment storage zone and a dewatering zone. The volume of the dewatering zone shall be at least 1,800 cubic feet of storage per acre of total contributing drainage area. The dewatering structure of sediment basins shall be designed to have a minimum 48-hour drain time, and, unless infeasible, be designed to always withdraw runoff from the surface of the pond throughout the storm cycle. As such, a skimmer discharge device consistent with *Rainwater and Land Development* shall be provided to dewater sediment basins. Sediment traps shall also provide both a sediment storage zone and dewatering zone, but the outlet structure shall be constructed consistent with the specifications contained in the latest edition of *Rainwater and Land Development*.

When post-construction detention/water quality ponds are to be used as temporary sediment trapping BMPs, a skimmer discharge device consistent with *Rainwater and Land Development* shall be utilized during construction phase and until the site is deemed permanently stabilized by the Administrator.

The skimmer shall be designed per the equivalent requirements of sediment basins and the operator must ensure that the outlet structure of the pond provides an equivalent or better sediment storage zone and dewatering zone. As such, temporarily while the site is under construction, there shall be no discharge of runoff below the elevation required for the sediment storage zone and the discharge of stormwater within the dewatering zone shall only occur through the skimmer.

The volume of the sediment storage zone shall be calculated by one of the following methods:

> Method 1: The volume of the sediment storage zone shall be $1000 ft^3$ per disturbed acre within the watershed of the basin.
>
> Method 2: The volume of the sediment storage zone shall be the volume necessary to store the sediment as calculated with RUSLE or other generally accepted erosion prediction model.

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 dewatering zone must be less than or equal to five (5) feet. The configuration between the inlets and the outlet of the sediment-settling pond must provide at least two units of length for each one unit of width $\geq$ 2:1 length-to-width ratio; however, a length to width ratio of $\geq$ 4:1 is recommended. Sediment must be removed from the sediment-settling pond when the design capacity of the sediment storage zone has been completely filled by sediment accumulations. 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.

(b) 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 area to silt fence for a particular slope range is shown in Table 3 below. Placing silt fence in a parallel series does not extend the size of the permissible drainage area. 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 storm water runoff from areas up to 10 acres.

Table 3: Maximum Drainage Area to Silt Fence

Maximum Drainage Area (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%

Silt fence or similar perimeter controls shall not be implemented where the slope is greater than 50%; instead water should be collected and conveyed to a sediment settling pond. Where slopes are greater than 50% adjacent to water resources,
the use of erosion controls shall be emphasized.

(c) 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. All inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond. Straw or hay bales and filter socks around catch basins are not acceptable forms of inlet protection.

(d) Off-site 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:

1. 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 most recent edition of the Rainwater and Land Development Manual. Construction entrances shall be installed prior to the commencement of any soil disturbing activity.

2. Streets and catch basins adjacent to construction entrances shall be kept free of sediment tracked off site. Streets directly adjacent to construction entrances and receiving traffic from the development area, shall be cleaned daily to remove sedimenttracked off-site. If applicable, the catch basins on these streets nearest to the construction entrances shall also be cleaned weekly and protected from sediment-laden runoff, if feasible without posing a public safety hazard.

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

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

2. 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 Section 4.7 of this regulation.

3. 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.

(e) Surface Waters of the State protection. Construction vehicles shall avoid water resources. A 50-foot undisturbed natural buffer shall be provided around surface waters of the state unless infeasible. If it is infeasible to provide and maintain an undisturbed 50-foot natural buffer, the ESC plan shall comply with the stabilization requirements for areas within 50 feet of a surface water and minimize soil compaction and, unless infeasible, preserve topsoil. 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 ESC Plan:

1. All BMPs and stream crossings shall be designed as specified in the most recent edition of the Rainwater and Land Development Manual.

2. Structural practices shall be designated and implemented on site to protect water resources or wetlands from the impacts of sedimentrunoff. A 25-foot minimum setback for riparian and wetlands isrequired.. A 25-foot minimum setback on all sides must be maintained as a permanent buffer and protected with construction fence until final site stabilization occurs except as otherwise provided in Subsection F.

3. 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, wetland or floodplain.

4. 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.

5. Temporary stream crossings shall be constructed if water resources or wetlands will be crossed by construction vehicles during construction.

6. 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.

7. Concentrated stormwater runoff from BMPs to natural wetlands shall be converted to diffuse flow through the use of level spreaders or other such appropriate measure before the runoff enters the wetlands. The flow should be released such that no erosion occurs downslope. Level spreaders may need to be placed in series to ensure non-erosive velocities.

8. Protected areas or critical areas, including wetlands and riparian areas shall be physically

marked in the field prior to earth disturbing activities.

(f) 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.

4.5 NON-SEDIMENT POLLUTANT 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, wetlands or the MS4. 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, other public facility, natural resource or water of the state is prohibited. A designated area for concrete washout shall be provided and clearly marked for usage.

(c) Disposal of Other Wastewaters: The discharge of washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials to a street, catch basin, other public facility, natural resource or waters of the state is prohibited. The discharge of soaps or solvents used in vehicle and equipment washing is also prohibited. If generated, these wastewaters must be collected and disposed of properly.

(d) 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.

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

(f) Contaminated Soils Disposal and Runoff: Discovery of previously unknown contaminated soils onsite shall be self-reported to Ohio EPA and local authorities. 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. Where construction activities are to occur on sites with contamination from previous activities, operators shall be aware that concentrations of materials that meet other criteria (i.e. not considered a Hazardous Waste, meeting Voluntary Action Program (VAP standards)) may still result in stormwater discharges in excess of Ohio Water Quality Standards. Such discharges are not authorized by this code. Control measures which may be utilized to meet this requirement include, but are not limited to:

(1) Use berms, trenches, pits or tanks to collect contaminated runoff and prevent discharge.

(2) Pump runoff from contaminated soils to the sanitary sewer with the prior approval of the sanitary sewer system operator, or pump into a container for transport to an appropriate treatment or disposal facility; and

(3) Cover areas of contamination with tarps, daily cover or other such methods to prevent storm water from coming into contact with contaminated materials.

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. The SWP3 shall include measures to prevent and respond to chemical spills and leaks. Applicants 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 this requirement and a copy of such plan is maintained on site.

(g) Restroom facilities must be provided for site workers during all phases of construction.

4.6 COMPLIANCE WITH OTHER REQUIREMENTS. The ESC Plan shall be consistent with applicable State and/or local waste disposal, sanitary sewer, orseptic system regulations, including provisions prohibiting waste disposal byopen burning, and shall provide for the proper disposal of contaminated soilslocated within the development area.

4.7 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.

4.8 INTERNAL INSPECTIONS. At a minimum, procedures in an ESC Plan shall provide that all controls on the site are inspected at least once every seven calendar days and within 24-hours after any storm event greater than one-half inch of rain per 24-hour period. The inspection frequency may be reduced to at least one 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 theground is frozen). A waiver of inspection requirements is available until one month before following 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., morethan one month); land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are documented in the ESC Plan.

Once a definable area has been finally stabilized, you may mark this on your SWP3 and no further inspection requirements apply to that portion of thesite. The applicant shall assign "qualified inspection personnel" to conduct these inspections to ensure that the control practices are functional and to evaluatewhether the ESC Plan is adequate and properly implemented in accordance with the schedule proposed herein or whether additional control measures are required.

Following each inspection, a checklist must be completed and signed by the qualified inspection personnel representative. At a minimum, the inspection report must include:

1) the inspection date;

2) names, titles, and qualifications of personnel make the inspections;

3) weather information for the period since the last inspection (or since commencement of construction activities if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall or each storm event (in inches), and whether any discharges occurred;

4) weather information and a description of any discharges occurring at the time of the inspection;

5) location(s) of discharges of sediment or other pollutants from the site;

6) location(s) of BMP's that need to be maintained;

7) locations(s) of BMP's that failed to operate as designed or proved inadequate for a particular location;

8) location(s) where additional BMP's are needed that did not exist at the time of inspection; and

9) corrective action required including any changes to the ESC Plan necessary with implementation dates.

These inspections shall meet the following requirements:

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.

2) Erosion and sediment control measures identified in the ESC Plan shall be observed to ensure that they are operating correctly. The applicant shall utilize an inspection form to be provided by the Administrator or an alternate form acceptable to the Administrator.

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.

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

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 ESC Plan, a certification as to whether the facility is in compliance with the ESC Plan, and information on any incidents of non-compliance determined by these inspections.

4.9 MAINTENANCE. The ESC Plan 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.

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

(a) <u>When practices require repair or maintenance.</u> 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 ESC plan and that another, more appropriate control practice is required, the ESC plan must be amended, and the new control practice must be installed within ten (10) days of the inspection.

(c) When practices depicted on the ESC Plan 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.

4.10 FINAL STABLIZATION. Final stabilization shall be determined by the Administrator. "Final stabilization" means that either:

1) All soil disturbing activities at the site are completed and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the areas has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of landscape mulches, rip- rap, gabions or geotextile) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or

2) For individual lots in residential construction by either:

    a) The homeowner completing final stabilization as specified above; or

    b) The homeowner establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner on the need for and benefits of, final stabilization; or

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

4.11 ABBREVIATED EROSION AND SEDIMENT CONTROL PLAN.

(a) Any Abbreviated ESC Plan which does not follow the model provided by the Lorain Soil & Water Conservation District must be designed by a certifiedengineer, landscape architect, surveyor or erosion and sediment controlspecialist. In order to control sediment pollution of water resources andwetlands, the applicant shall submit an Abbreviated ESC Plan in accordance with the requirements of this regulation. Said plan shall contain the minimum requirements set forth in (c) hereafter and substantially conformwith the model developed by the Administrator.

(b) The Administrator may require re-submission of any plan which does notcomply with this section.

(c) The Abbreviated ESC Plan shall include a minimum of the following BMPs. The Administrator may require other BMPs as site conditions warrant.

1. Construction Entrances: 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 2" in diameter, placed over a geotextile fabric, and constructed in conformance with specifications in the most recent edition of the Rainwater and Land Development Manual.

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 indicated on the plan. Use for other waste and wastewater is prohibited.

3. Street Sweeping: 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 be cleaned weekly.

4. Stabilization: The development area shall be stabilized as detailed in Table 4.

Table 4: Stabilization

Area	Time frame to apply
Any disturbed area within 50 feet of a watercourse or	Within 2 days of the most recent disturbance if that area will remain idle for more than 14 days
For all construction activities, any disturbed area, including soil	Within 7 days of the most recent disturbance within the area
Disturbed areas that will be idle over winter	Prior to November 1.
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.	

5. Silt Fence or Other Approved Perimeter Barriers: Shall be placed along the down slope of any disturbed areas and along any water resources.

6. 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, including rear yard inlets. Straw, hay bales, and filter socks are not acceptable forms of inlet protection.

7. Internal Inspection and Maintenance. All controls on the development area shall be inspected at least once every seven-calendar days and within 24hours after any storm event greater than one-half inch of rain per 24-hour period. Maintenance shall occur as detailed below:

   A. When practices require repair or maintenance. If the internal inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment-settling pond, itmust 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 the internal inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the Abbreviated ESC Plan must be amended, and the new control practice must be installed within ten (10)days of the inspection.

C. When practices depicted on the Abbreviated ESC Plan are not installed. If the 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 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.

8. Final Stabilization: Final stabilization shall be determined by the Administrator in accordance with Section 4.10.

5. Application Procedures for ESC Plan

The ESC Plan for development projects shall be submitted to the Administrator after the approval of the preliminary plans and prior to the approval of improvement plans or drawings by the Lorain County Planning Commission in the case of subdivisions; concurrently with the submittal of construction drawings to the Lorain County Engineer or Township Zoning Inspector in the case of other construction projects; and thirty (30) working days prior to any soil-disturbing activity for general clearing projects.

The Administrator shall review the ESC plan and approve or return for revision with comments and recommendations for revision, within twenty-one (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 be commenced.

Approved plans shall remain valid for two years from the date of approval. A copy of the approved plan and its review report shall be forwarded by the Administrator to the Lorain Soil & Water Conservation District, County Planning Commission, and County Engineer.

A plan is considered complete when it contains two sets of the following:

5.1 **Site construction plans** intended for contractor's bid.

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

5.3 **Permit Verification**

(a) 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 ESC Plan. 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 compliancewith the Nationwide Permit Program as detailed under Section 3.8. If an Ohio EPASection 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 WaterQuality Certification and/or Isolated

Wetland Permit program as detailed in Section 3.8.

(b) An Ohio Environmental Protection Agency (OEPA) National Pollutant Discharge Elimination System permit with permit verification number or Notice of Intent shall be submitted with the ESC Plan.

5.4 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.

(1) Site description: The ESC Plan 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., grubbing, clearing, excavation, filling or grading, including off-site borrowareas).

C. 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.

D. A description of prior land uses at the site.

E. An 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.

F. The location and name of the immediate receiving stream or surface water(s) and the first subsequent receiving water(s).

G. 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.

H. For subdivided developments where the ESC Plan 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.

I. Site map showing:

i. Limits of soil-disturbing activity of the site, including off site spoil and borrow areas.

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

iii. 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.

iv. Surface water locations including springs, wetlands, streams, lakes, water wells,

etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the 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, utilities and easements.

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.

xi. Location and identification of all permanent post-construction BMP's.

5.5 **Existing site conditions** shown with maximum scale of 1"=200' and 2' contour intervals; locations and names of soil type boundaries, vegetation, ditches, springs, streams, lakes, wetlands, woods, agricultural fields; location of downstream lakes and wetlands within 1000' of project; and, existing drainage patterns including direction of flow and watershed acreage.

5.6 **Grading plan** showing types of soils and boundaries; limits of disturbance; areas of excavation and fill; final contours; and, proposed drainage pattern including storm sewer inlets and permanent storm water basins. Basin detail shall be drawn to scale and show volumes and size of contributing drainage area.

5.7 **Erosion and Sediment Control plan** showing 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. Erosion and Sediment Control plans 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.

5.8 **Storm Water Control Methods** adequate to prevent pollution of public waters by soil sediment from accelerated storm water runoff from development areas.

5.9 **Contractor's Construction Sequence** that estimates the time frame required for the following:

(a) Pre-Construction meeting.

(b) Initial clearing and grubbing to gain access and installation of perimeter controls within seven (7) days of clearing and grubbing.

(c) 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.

(d) Project engineer's initial inspection of erosion and sediment controls for "as-built" certification.

(e) Maintenance inspection schedule and party responsible for inspection and repair of erosion and sediment control devices.

(f) Pre-Winter Stabilization meeting if project is to be through the winter.

(g) Final grading and permanent soil stabilization within seven (7) days of finishing final grade.

(h) Removal of temporary sediment control devices. The construction maintenance guarantee shall not be released until all temporary devices are removed; properly disposed of and trapped sediment has been stabilized or removed.

5.10 **Review and Inspection Fee** shall be submitted with the Erosion and Sediment Control Plan.ESC Plans shall not be reviewed until the fee has been paid. The fee is based on project size and paid by the owner or developer directly to the Administrator. The review and inspection fee shall be established by the Board of Lorain County Commissioners by Resolution. Payment is made payable to Lorain County Commissioners.

6. Monitoring for Compliance: Enforcement

6.1 Following the initial inspection of erosion and sediment control devices by the project engineer, regular inspections will be performed by the Administrator for compliance with these Rules. If it appears that a violation of any of these Rules has occurred, the owner and developer will be notified of deficiencies or noncompliance in writing by certified mail, return receipt requested.

6.2 The rules shall be enforced in accordance with O.R.C. 309.79 and at a minimum shall permit: The Board of County Commissioners or any duly authorized representative of the Board 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 the rules adopted under this section. If the Board or its duly authorized representative is unable to obtain such an agreement, the Board or representative may apply for, and a judge of the Lorain County Common Pleas Court inspection warrant as necessary to achieve the purposes of this chapter.

1. If the Board of County Commissioners or its duly authorized representative determines that a violation of the rules adopted under this section exists, the Board 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. In addition, if the Board or representative determines such a rule violation exists, regardless of whether or not the violator has obtained the proper permits, the Board or representative may authorize the issuance of a notice of violation. 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 Board or its duly authorized representative shall issue a second notice of violation. Except as provided in division Subsection (3) of this section, if after a period of not less than fifteen

(15) days has elapsed following theissuance of the second notice of violation, the violation continues, the Board or its duly authorized representative may issue a stop work order after first obtaining the written approval of the prosecuting attorney of the county if, in the opinion of the prosecuting attorney, the violation is egregious.

Once a stop work order is issued, the Board or duly authorized representative shall request, in writing, the prosecuting attorney of the county to seek an injunction or other appropriate relief in the court of common pleas to abate excessive sedimentation and secure compliance with the rules adopted under this section. If the prosecuting attorney seeks an injunction or other appropriate relief, then, in granting relief, the Court of Common Pleas may order the construction of sediment control improvements or implementation of other control measure and may assess a civil fine of not less than one hundred or more than five hundred dollars. 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. The person to who a stop work order is issued under this section may appeal the order to Lorain County Common Pleas Court issued, seeking any equitable or other appropriate relief from that order.

3. 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 Conservation, Ohio Department of Natural Resources.

The Administrator shall have the authority to require immediate on-site adjustments to the ESC Plan in order to achieve compliance with these Rules.

A final inspection will be made to determine if the criteria of these Rules have been satisfied and a report will be presented to the Board of Lorain County Commissioners on the site's compliance status.

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 bythese Rules.

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.

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 Lorain County Erosion and Sediment Control Rules.

The Administrator shall not review or approve Erosion and Sediment Control Plans for sub-lots 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 Lorain County Erosion and Sediment Control Rules. Such development projects include but not limited to, subdivisions or other common plans of development

The County of Lorain reserves the right to withhold relevant inspections and/or other approvals from its

departments and/or agencies for development projects or activities in support of development projects that are not in compliance with these Rules.

The County shall not issue building permits for projects regulated under the Lorain County Erosion and Sediment Control Rules that have not received approval for an Erosion and Sediment Control Plan forsaid project(s).

7. Variances to Rules

The Lorain County Board of Commissioners, or its designated agent, may grant a variance to these Rules if all of the following are found to exist:

(a) There are exceptional or extraordinary circumstances or conditions applying to the land.

(b) Literal enforcement of the Rules would cause undue hardship or practical difficulties. The standards shall have the same general meaning as applied in zoning variances.

(c) The exceptional or extraordinary circumstances or conditions and the undue hardship or practical difficulties were not the result of any prior actions of the owner of the land.

(d) The variance is necessary for the preservation and enjoyment of substantial property rights of the owner of the land.

(e) The variance will not be a substantial detriment to adjacent land and will not materially impair the purposes of these Rules.

Adverse economic conditions shall not be a valid reason to grant a variance.

A request for a variance shall be in writing and shall state specifically the reasons for the request and shall include all data and information in support of the request. The request shall be reviewed and approved, disapproved or approved with modifications within thirty – (30) working days. Failure to act within said time will result in the variance request being approved.

8. Appeals

Any person receiving a denial of permit may appeal the determination to the Board of Commissioners or its designee. The Notice of Appeal must be mailed to the Clerk of the Board of Commissioners within 14 days of the Notice of Denial. A hearing shall take place within 30 days of receipt of the Notice. Written notice of the hearing will be sent to the appellant.

9. Penalties

No person shall violate any rule adopted or order issued under this section. Notwithstanding Section 6.2 of this section, if the Board of County Commissioners determines that a violation of any rule adopted, or administrative order issued under this section exists, the Board may request, in writing, the prosecuting attorney of the county 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. In granting relief, the Court of Common Pleas may order the construction of sediment control improvements orimplementation of other control measures and may assess a civil fine or not less than one hundred ormore than five hundred dollars. Each day of violation or a rule adopted, or administrative order issued under this section shall be considered a separate violation subject to a civil fine.

10. Contractor Registration

Contractors planning to perform erosion and sediment control related construction activities must be registered with the Lorain County Storm Water Management District. To become registered the contractor must have on staff and in responsible charge of erosion and sediment control permit compliance a certified inspector. Lorain County Stormwater Management District will keep on file specific requirements and application forms which may be updated as needed for contractor registration.

In order to obtain an Erosion and Sediment Control permit the applicant must include the name and contact information of the registered contractor that will be performing the work.

Review and Inspection Fee Schedule

Please make all checks payable to: Lorain County Commissioners

Full Erosion & Sediment Control Plan Review- For Up To Three (3) Submittals

Subdivisions, Commercial, Industrial, Residential Subdivisions *	10 acres or less	$ 120.00
	More than 10 to and including 20 acres	$ 180.00
	More than 20 to and including 50 acres	$ 240.00
	More than 50 acres	$300.00
Non-Residential Individual Development Site	One acre to and including 5 acres	$ 120.00
	More than 5 to and including 10 acres	$ 180.00
	For each additional 5 acres, above fees apply plus	+$60.00
Multi Family Development Site (Apartments, Condominiums, Townhouses)	10 acres or less	$ 120.00
	More than 10 to and including 20 acres	$ 180.00
	More than 20 to and including 50 acres	$ 240.00
	More than 50 acres	$ 300.00
A Non-Residential lot within a Common Plan of Development	Any lot **one acre or greater** within a Common Plan of Development	$120.00
Multi-Family Development within a Common Plan of Development	Any lot **one acre or greater** within a Common Plan of Development	$120.00
General Non-Residential Grading and Clearing/ Grading for Recreational	10 acres or less	$ 30.00
	More than 10 up to and including 20 acres	$60.00
	More than 20 up to and including 50 acres	$90.00
	For all acreage over 50 acres	$120.00

* Fees will be assessed with each phase of development.

Abbreviated ESC Plan – see page 35

Review and Inspection Fees

Please make all checks payable to: Lorain County Commissioners

Erosion and Sediment Control Permit- Valid for 2 years. Includes up to 24 monthly Inspections

Subdivisions, Commercial, Industrial, Residential Subdivisions *	10 acres or less	$ 2,160.00
	More than 10 to and including 20 acres	$ 2,880.00
	More than 20 to and including 50 acres	$ 4,320.00
	More than 50 acres	$5,760.00
Non-Residential Individual Development Site	one acre to and including 5 acres	$ 1,440.00
	More than 5 up to and including 10 acres	$ 2,160.00
	For each additional 5 acres, above fees apply plus	+$1,000.00
Multi Family Development Site (Apartments, Condominiums, Townhouses)	10 acres or less	$ 500.00
	More than 10 to and including 20 acres	$ 800.00
	More than 20 to and including 50 acres	$ 1,100.00
	More than 50 acres	$ 1,400.00
A Non-Residential lot within a Common Plan of Development	Any lot **one acre or greater** within a Common Plan of Development	$360.00
Multi-Family Development within a Common Plan of Development	Any lot **one acre or greater** within a Common Plan of Development	$360.00
General Non-Residential Grading and Clearing/ Grading for Recreational	10 acres or less	$ 30.00
	More than 10 up to and including 20 acres	$60.00
	More than 20 up to and including 50 acres	$90.00
	For all acreage over 50 acres	$120.00

* Fees will be assessed with each phase of development.

Erosion and Sediment Control Permit- Valid for 2 years. Includes up to 24 monthly Inspections		
Individual Residential Projects	Any project one acre or greater	$360.00

Review and Inspection Fee Schedule

Please make all checks payable to: Lorain County Commissioners

Abbreviated ESC Plan		
Single Lot ESC Evaluation (Lot Splits)	Lots 10 acres or less Lots more than 10 acres	$20.00 $30.00
All New, Single-Family Residential Projects	Any project one acre or greater or part of a common Plan of development	$ 50.00
Any Residential Clearing	Any project one acre or greater	$ 30.00
Variance Fee		$ 150.00
Stop Work Order Inspections – Inspection to determine contractor is in compliance following a stop work order	10 acres or less More than 10 Acres	$ 100.00 $ 200.00
Stop Work Order Re-inspections	Initial Stop Work Order fee above plus $50 for each additional week of non-compliance	$50.00
Non-Compliance re-inspections (NOV 2)		$100.00

CITY OF OBERLIN, OHIO

ORDINANCE No. 19-62 AC CMS

AN ORDINANCE AMENDING CHAPTER 916 OF THE MUNICIPAL CODE OF THE CITY OF OBERLIN, OHIO, IN ORDER TO UPDATE STORMWATER RUNOFF MANAGEMENT STANDARDS AND STORMWATER EROSION AND SEDIMENT CONTROL STANDARDS FOR THE CITY OF OBERLIN STORMWATER SYSTEM AND DECLARING AN EMERGENCY

WHEREAS, the City of Oberlin owns, operates and maintains a municipal separate stormwater system for the collection and conveyance of storm and other surface and subsurface waters and for flood control in accordance with the requirements of the Ohio Environmental Protection Agency National Pollutant Discharge Elimination System; and

WHEREAS, the City of Oberlin must update its standards regulating the quantity of stormwater discharged and regulating stormwater contaminants necessary to protect water quality in accordance with the permit requirements of the Ohio Environmental Protection Agency National Pollutant Discharge Elimination System for municipal separate stormwater systems.

NOW, THEREFORE BE IT ORDAINED, by the Council of the City of Oberlin, County of Lorain, State of Ohio:

SECTION 1. That Chapter 916 – Municipal Stormwater Utility of the Codified Ordinances of the City of Oberlin, Ohio is hereby amended as set forth in Exhibit A attached hereto and incorporated herein by reference.

SECTION 2. It is hereby found and determined that all formal actions of this Council concerning or relating to the adoption of this ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its committees that resulted in such formal action, were in meetings open to the public in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code.

SECTION 3. That this Ordinance is hereby declared to be an emergency measure necessary for the immediate preservation of the public peace, health and safety of the citizens of the City of Oberlin, Ohio, or to provide for the usual daily operation of a municipal department, to wit: *to update the Codified Ordinances of the City of Oberlin to ensure compliance with the requirements of the City's National Pollutant Discharge Elimination System permit*; and provided that it is elevated to emergency status by the affirmative vote of at least five members of Council and receives the affirmative vote of at least five members of Council upon final passage, it shall go into full force and effect from and immediately after its passage; otherwise, it shall take effect at the earliest period allowed by law.

PASSED: 1st Reading: October 21, 2019

2nd Reading: November 4, 2019

3rd Reading: November 18, 2019 :/ Passed on Emergency

ATTEST:

Belinda B. Anderson

BELINDA B. ANDERSON, MMC
CLERK OF COUNCIL

Bryan T. Burgess

BRYAN BURGESS
PRESIDENT OF COUNCIL

POSTED: 11/19/2019

EFFECTIVE DATE: 11/18/2019

EXHIBIT A

Chapter 916
Municipal Storm Water Utility

916.20 STORMWATER RUNOFF MANAGEMENT STANDARDS

(1) The City of Oberlin Stormwater Runoff Management Standards establish technically feasible and economically reasonable stormwater management standards to achieve a level of stormwater quality and quantity control that will minimize degradation of water resources and the potential for property damage.

(2) The City of Oberlin Stormwater Runoff Management Standards shall apply to any development equal to or greater than one (1) acre or to any size development if it is part of a larger contiguous common plan of development.

(3) Subject to the provisions set forth in this chapter, the City of Oberlin hereby adopts the City of Oberlin Stormwater Runoff Management Standards which are and shall be incorporated into the City of Oberlin Public Works Standards. The City of Oberlin Stormwater Runoff Management Standards shall meet or exceed the technical requirements set forth in the Ohio Environmental Protection Agency NPDES Construction General Permit and any subsequent Ohio Environmental Protection Agency issued permits.

(4) The City of Oberlin Stormwater Runoff Management Standards are hereby referenced and adopted as part of this chapter. The City Engineer is authorized to amend, supplement, or revise the City of Oberlin Stormwater Runoff Management Standards based on improvements in engineering, science, monitoring, local maintenance experience, and federal or state regulations.

(5) The City of Oberlin Stormwater Runoff Management Standards shall be available at the Office of the City Engineer.

916.21 STORMWATER MANAGEMENT PERMIT REQUIRED.

Any person performing any earth-disturbing activity that disturbs an area equal to or greater than one (1) acre shall be required to file a Stormwater Management Plan with and to obtain a Stormwater Management Permit from the City of Oberlin Public Works Department.

Permit application forms shall be made available from the Public Works Department. Information required shall be sufficient for the Department to determine that the Stormwater Management Plan is in compliance with the OEPA Construction General permit and the City of Oberlin Stormwater Management Runoff Standards. At a minimum, the Stormwater Management Plan shall include the following:

(1) Name, address and phone number of property owner, the Stormwater Management Plan designer and the person responsible for the activity.

(2) Location of the activity.

(3) Description of the activity.

- (A) Type of activity
- (B) Location, permanent parcel number(s)
- (C) The size of the parcel(s) on which the activity will occur
- (D) The size of the area to be disturbed
- (E) Current impervious area
- (F) Area to be rendered permanently impervious
- (G) Project duration including anticipated start and completion dates
- (H) Stormwater Management Run-off Calculations
- (I) Structural Best Management Practices to be implemented
- (J) Non-Structural Best Management Practices to be implemented

(4) The Public Works Department reserves the right to request such additional information as may be necessary to ensure the Stormwater Management Plan meets the requirements of the City's Stormwater Runoff Management Standards.
(5) No permit shall be required for earth-disturbing activities which have been provided for in a Stormwater Management Plan approved before the effective date of this Ordinance.
(6) No permit shall be required for farming activities regulated by, and in compliance with, the Ohio Agricultural Sediment Pollution Abatement Rules.

916.22 STORMWATER MANAGEMENT PLAN REVIEW.
All Stormwater Management Permit Applications, Plans and Run-off Calculations shall be submitted to the City of Oberlin Public Works Department. The Office of the City Engineer shall review the stormwater management plan and runoff calculations within thirty days of receipt and indicate its approval or disapproval. Notice of disapproval shall include the plan deficiencies. No earth-disturbing activities shall be permitted until an acceptable plan has been filed with and approved by the City Engineer.

The Stormwater Management Permit shall be issued by the City Engineer at such time as all of the requirements of the City's Stormwater Runoff Management Standards have been met by the Applicant's Stormwater Management Plan and (where applicable) upon Site Plan approval by the City Planning Commission.

916.23 PERMIT DURATION; RENEWAL
The Stormwater Management Permit shall be valid until 30 calendar days after the anticipated completion date identified by the permit holder in the application. Upon the permit holder's written request, the City Engineer is authorized to renew the Stormwater Management Permit for up to 180 days per renewal. At the sole discretion of the City Engineer, renewal permits may be subject to compliance with any and all regulatory changes that may have been adopted between the date of the initial permit and any subsequent renewal permit(s).

916.24 CERTIFICATION OF COMPLETION.
The permit holder shall submit to the Office of the City Engineer a copy of the as-built drawings for the stormwater management facilities and a signed, stamped statement by the Professional Engineer or Professional Surveyor, who prepared the Stormwater Management Plan and/or supervised the construction of the stormwater management facilities, indicating that said facilities have been constructed in accordance with the approved Stormwater Management Plan.

916.25 MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES AND IMPROVEMENTS.
Stormwater management facilities and improvements constructed under the approved Stormwater Permit are the property owner's responsibility to inspect, operate, properly maintain, repair and replace. An Inspection and Maintenance Agreement for stormwater management facilities and improvements between the City and the applicant shall be recorded at the Lorain County Recorder's Office. Said Agreement shall include an Operation and Maintenance Plan developed and implemented in accordance with the City of Oberlin Stormwater Runoff Management Standards. Where stormwater management facilities and improvements are located on individual parcels and said facilities and improvements are the responsibility

of the parcel owner, the necessary provisions shall be written into the deeds for said parcels, to ensure their continuing function as stormwater management facilities and improvements.

916.30 STORMWATER EROSION AND SEDIMENT CONTROL STANDARDS.

(1) In order to minimize and/or eliminate the degradation of the waters of the State, the City of Oberlin adopts the Stormwater Erosion and Sediment Control Standards for construction and post-construction stormwater management established in the most recent edition of the Ohio Environmental Protection Agency Construction General Permit. .

(2) These Standards shall apply to any development equal to or greater than one (1) acre or to any size development if it is part of a larger contiguous common plan of development.

916.31 STORMWATER POLLUTION PREVENTION PERMIT REQUIRED

When a proposed development involves an area equal to or more than one acre of earth-disturbing activities, the owner shall develop and submit a Stormwater Pollution Prevention Plan to the Office of the City Engineer for review and approval.

For development involving less than one acre of earth-disturbing activities, which is part of a larger common plan of development that has or will disturb one or more acres of land, the owner shall develop and submit a Stormwater Pollution Prevention Plan to the Office of the City Engineer for review and approval.

Permit application forms shall be made available from the Public Works Department. Information required shall be sufficient for the Department to determine that the Stormwater Pollution Prevention Plan is in compliance with the requirements of the OEPA Construction General Permit. At a minimum, the Stormwater Pollution Prevention Plan shall include the following:

(1) Name, address and phone number of property owner, the Stormwater Pollution Prevention Plan designer and the person responsible for implementing the Plan during construction.

(2) Location of the activity

(3) Description of the activity

- (A) Type of activity
- (B) Location by address and by permanent parcel number(s)
- (C) The size of the parcel(s) on which the activity will occur and the size of the area to be disturbed
- (D) Project duration including anticipated start and completion dates
- (E) A site map, drawn to scale, including but not limited to:
  - a. Project boundaries
  - b. Grading Plan at 1' contour intervals with direction of flow arrows
  - c. Public and/or Private Stormwater Infrastructure on and adjacent to the site
- (F) Structural and Non-Structural Best Management Practices to be implemented during construction
- (G) Post-construction Structural and Non-Structural Best Management Practices
- (H) A copy of the Construction General Permit Notice of Intent submitted to the Ohio Environmental Protection Agency

(4) The Public Works Department reserves the right to request such additional information as may be necessary to ensure that the Stormwater Pollution Prevention Plan meets the requirements of the OEPA Construction General Permit.

(5) No permit shall be required for earth-disturbing activities which have been provided for in a Stormwater Pollution Prevention Plan approved before the effective date of this Ordinance.
(6) No permit shall be required for farming activities regulated by, and in compliance with, the Ohio Agricultural Sediment Pollution Abatement Rules.

916.32 STORMWATER POLLUTION PREVENTION PLAN REVIEW

No earth-disturbing activities shall be permitted until an acceptable plan has been filed with and approved by the City Engineer. All Stormwater Pollution Prevention Plan Permit Applications shall be submitted to the City of Oberlin Public Works Department. The Office of the City Engineer shall review the Stormwater Pollution Prevention Plan within thirty days of receipt and indicate its approval or disapproval. Notice of disapproval shall include the plan deficiencies.

When the Stormwater Management Plan Permit has been issued as provided for in Section 916.22 and all of the requirements of the OEPA Construction General Permit have been met by the Applicant's Stormwater Pollution Prevention Plan, the City Engineer shall issue the Stormwater Pollution Prevention Plan Permit.

916.33 PERMIT DURATION; RENEWAL

The Stormwater Pollution Prevention Plan Permit shall be valid until 30 calendar days after the anticipated completion date identified by the permit holder in the application. Upon the permit holder's written request, the City Engineer is authorized to renew the Stormwater Pollution Prevention Plan Permit for up to 180 days per renewal. At the sole discretion of the City Engineer, renewal permits may be subject to compliance with any and all regulatory changes adopted between the date of the initial permit and any subsequent renewal permit(s).

916.34 CERTIFICATION OF COMPLETION.

Upon completion of the development activity subject to a Stormwater Pollution Prevention Plan Permit, the Office of the City Engineer shall conduct a final inspection of the development site with the permit holder. The permit holder shall submit a signed statement to the Office of the City Engineer, indicating that the approved Plan has been fully implemented and that the development activities have been completed. The permit holder shall submit to the Office of the City Engineer, a copy of the Construction General Permit Notice of Termination sent to the Ohio Environmental Protection Agency.

916.80 INSPECTION FEES

(1) Prior to issuance of the Stormwater Pollution Prevention Plan Permit, the permit applicant shall pay a non-refundable, inspection fee to the Public Works Department to offset inspection costs to assure conformance with the Stormwater Management Permit and compliance with the Stormwater Pollution Prevention Plan. The fee shall be in the amount of fifty dollars ($50.00) for every 30-day period of project duration identified in the Stormwater Pollution Prevention Plan Permit Application.
(2) Renewal Permits shall be subject to an additional inspection fee of fifty dollars ($50.00) for every additional 30-day period of project duration.
(3) A re-inspection fee of $50.00 shall be due and payable for every such re-inspection after the second written notice described hereinbelow in Section 916.42 (3)c.

(4) The inspection fee is applicable during the development of phased residential development projects for the construction of the common improvements serving said development. The inspection fee does not subsequently apply to the development of each residential parcel subject to the Stormwater Management Plan and/or the Stormwater Pollution Prevention Plan.

No inspection fee shall be required for projects with a Stormwater Management Plan and/or a Stormwater Pollution Prevention Plan approved before the effective date of this Ordinance.

916.81 RIGHT OF ACCESS

The City of Oberlin shall be permitted to enter onto properties subject to Stormwater Management and/or Stormwater Pollution Prevention plans and under the terms of the Inspection and Maintenance Agreement per Section 916.25, in order to inspect said properties, facilities and improvements for compliance with the approved plan(s) and Agreement(s) as often as may be necessary.

Nothing in this section shall be deemed to authorize the City Engineer or his/her designee to enter any premises without the consent of the owner or person or entity having control of such premises except by lawful process.

916.82 COMPLIANCE.

(1) The Office of the City Engineer shall inspect all properties subject to Stormwater Management and/or Storm Water Pollution Prevention plans during construction to determine compliance with the approved plan(s).

(2) The Office of the City Engineer shall inspect all properties subject to post-construction Inspection and Maintenance Agreements to determine compliance with said Agreement(s).

(3) If it is determined that the responsible party is in noncompliance with the approved plan(s) or agreement(s), the responsible party shall be:

a. Given a verbal or written notice and a schedule for compliance to complete required remedial actions.

b. On or after the date by which the remedial action described in Section 916.42 (3)a, is to be completed, the premises shall be re-inspected. If the required remedial action is not complete, a written notice shall be served on the permit holder stating the cause of the violation, the remedial steps to be taken, the schedule for compliance and the subsequent consequences of continued non-compliance.

c. On or after the date by which the remedial action described in Section 916.42 (3)b, is to be completed, the premises shall be re-inspected. If the required remedial action is not complete, a second written notice shall be served on the permit holder stating the cause of the violation, the remedial steps to be taken, the schedule for compliance and the subsequent consequences of continued non-compliance.

d. On or after the date by which the remedial action described in the second written notice of violation is to be completed, the premises shall be re-inspected. If the required remedial action is not complete, the City Engineer is authorized to issue a Stop Work Order. The Stop Work Order shall be issued in writing with the reason for the order clearly stated and the condition(s) under which the cited work may resume. The Stop Work Order shall be given to the permit holder or its agent and to the person(s) doing the work. Upon issuance of the Stop Work Order, all work shall immediately cease, except such work as the permit holder is directed to perform to correct said violation or to

remove an unsafe condition. Failure to cease work after receipt of a Stop Work Order is hereby declared to be a public nuisance.

e. If, after fourteen (14) days following receipt of the Stop Work Order, the remedial action has not been completed, the matter of such noncompliance shall be reported to the City Law Director for legal action in accordance with the provisions of this Chapter.

f. If, after fourteen (14) days following receipt of the Stop Work Order, the remedial action has not been completed, the City may elect to complete the necessary remedial action with its own forces or by contract. The costs, thereof, shall be paid by the permit holder.

916.99 PENALTY.

Violation of the provisions of this chapter or failure to comply with any of its requirements shall constitute a minor misdemeanor. Whoever violates any provision of this chapter or fails to comply with any of its requirements shall be fined not more than One Hundred Fifty Dollars ($150.00) for each offense. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation.

H

ATTACHMENT H

MOU between Lorain County Engineer, Lorain County Commissioners and Lorain County Soil and Water Conservation District

MEMORANDUM OF UNDERSTANDING

Between

Lorain County Engineer, Lorain County, Ohio

and

Lorain County Commissioners, Lorain County, Ohio

and

Lorain Soil & Water Conservation District

On this 23 day of September 1980, this Memorandum of Understanding was entered into by and between the Lorain Soil and Water Conservation District, State of Ohio, hereinafter called the District; the Lorain County Commissioners, State of Ohio, hereinafter called the County; and the Lorain County Engineer, State of Ohio, hereinafter called the Engineer.

Recognizing the need for close working relationships in carrying ou the responsibilities for which each is charged, the County, Engineer, and District enter into this Memorandum of Understanding as the foundation for the enduring cooperative working relationship. Such cooperation allows for joint effort in the solution of problems relating to the planning and development of soil and water resources in Lorain County.

Whereas, the Ohio Drainage Law designates specific authorities and responsibilities to the Engineer and the County for the purpose of constructing and maintaining improvements enhancing water management in Lorain County, and the District has judged the construction and maintenance of such improvement to be necessary and complimentary to the conservation and development of the land and water resources of Lorain County,

Within the limitations of authorities, resources, and established policies of the District and its cooperating agencies,

The District will:

1. Make technical assistance available to the County and the Engineer, as requested.

2. Provide information and educational materials to guide proper land use patterns.

3. Provide materials and secretarial help to prepare soil and water resource plans, as funds permit.

4. Advise the County on planning and development programs dealing with soil, water and land uses.

5. Inform the County of proposed watershed projects and works of improvement that affect land use planning.

6. Provide the County and Engineer with plans and specifications on proposed group drainage projects for approval and recording.

7. Cooperate with the County and Engineer in promoting maintenance on District group projects.

8. Coordinate with the Engineer for the purpose of construction, maintenance of drainage improvements and other water improvements initiated through petition or mutual agreements the following:

   a. Design criteria and engineering or other data at its disposal, that is pertinent to proposed improvements.

   b. Policies and procedures, as set up for mutual agreement improvements.

   c. Construction and inspection of completed mutually agreed to improvements for adherence to approved design, as requested by the Engineer.

   d. The organization of lay committees for the purpose of viewing improvements regularly, determining maintenance needs, and reporting the same to the Engineer.

   e. Information activities for public understanding and acceptance of improvements and their maintenance.

   f. Recommendations for adjustments in the procedures for improved services.

   g. The gathering of watershed and other resource data to expedite the construction and maintenance of improvements under the provisions of the Ohio Drainage Laws.

9. Provide assistance to the County and Engineer with the interpretation of the Lorain County Soil Survey.

10. Review water disposal and erosion problem areas. Recommend vegetative and/or structural measures necessary to alleviate the problem.

11. Predict potential water disposal and erosion problems that will be created by uncontrolled urban development and other changes in land use. Recommend the need for and type of control measures that should be incorporated in a development plan.

12. Provide consultive assistancee in the investigation, design criteria, specifications,, and construction procedures for conservation measures.

13. Make recommendations on the installation of project measures.

14. Assist in conducting inventories of resources.

15. Counsel with the planning commission and planning consultants on the County's objectives for long-range development.

16. Follow established procedures in contacting the Ohio Utilities Protection Service and other utility companies about about the location of utility lines within proposed construction areas.

The County will cooperate with the District in the development and implementation of long-range land and water use programs, utilizing such resource information as that made available by the Soil Conservation Service and other cooperating resource agencies.

The County will:

1. Observe principles of sound soil and water conservation, giving consideration to the need for water disposal and drainage, erosion control measures, stabilization of sediment producing areas, proper disposal of pollutants, beautification and maintenance of these practices.

2. Consult with the District in the development of future plans concerning long-range development for the County. Use the soil interpretation maps made available by the District and the Soil Conservation Service in preparing the plans.

3. Provide the necessary funds to employ personnel, furnish office space, and equipment, mutually agreed to by the County and the District.

4. Expedite the legal function and procedures required for the construction and maintenance of improvement under the provisions of the Ohio Drainage Laws.

5. Participate annually in a general field inspection in cooperation with the District and the Engineer, for the purpose of viewing improvements and evaluating maintenance conditions.

6. Refer to the District any proposed future urban and rural development projects for review and for technical opinions on the effect that the project may have on the land use, the soil and water problems that may develop, and the measures that may be needed to alleviate them.

7. Adopt and apply those recommendations made by the District which are acceptable to the County and in compliance with any ordinances.

8. Follow policies and procedures set up for mutual agreement improvements.

9. Be responsible for seeing that builders and developers incorporate into their plans, any soil and water resource plans and interpretive material supplied to them by the District and the Soil Conservation Service.

The Engineer will cooperate with the District in establishing policy and procedures to expedite the improvement and maintenance of drainage and other works of improvement initiated through the mutual agreement or petition process in Lorain County.

The Engineer will:

1. Cooperate with the District in establishing acceptable standards for the design of water management improvements and their maintenance.

2. Consult with the District in establishing the basic criteria for determining benefits to property owners from a drainage improvement that was constructed by mutual agreement or the petition process of the Ohio Drainage Law.

3. Observe the principles of a sound soil and water conservation program by considering the need for water disposal and drainage, erosion control measures, stabilization of sediment producing areas, the proper disposal of pollutants, and the maintenance and beautification of these practices.

4. Make available to the District engineering or other information that would be useful in conducting an information or education program.

5. Consult with the District at least annually, to explore improved methods for the construction and maintenance of soil and water improvements.

6. Follow policies and procedures set up for mutual agreement improvements.

7. Follow established procedures in contacting the Ohio Utilities Protection Service and other utility companies about the location of utility lines within proposed construction project areas.

It is mutually agreed that:

1. The District, County, and Engineer will meet periodically to review, and where possible, coordinate their individual programs and activities for maximum mutual benefit.

2. That the type of materials and technical data needed to give competent consultive service will be agreed upon, and prior to the publication of this material will be reviewed by all parties and credit will be given in the publication to the County, Engineer, District, or other cooperating agencies.

3. To place all group drainage projects under maintenance, as specified in the Ohio Drainage Laws.

4. This Memorandum of Understanding may be amended or terminated at any time by mutual consent of the parties involved. It may be terminated by any one of the parties involved by giving written notice to the other parties a sixty (60) day notice of their intent to terminate the agreement.

It is further understood that this Memorandum becomes effective on the signing of all parties involved, and that each party is obligated by this Memorandum only to the extent that funds and personnel are available for carrying out the provisions of this Memorandum.

This Memorandum does not alter or relieve the Engineer or the County from the legal responsibilities assigned by the existing Ohio Drainage Laws.

This Memorandum is executed and agreed to on the 23 day of September, 1986.

Lorain County Commissioners

By: Herbert J. Jacoby

Title: President -Lorain County Commissioners

Date: 9/23/86

Lorain County Enginner

By: Lawrence O. McGlincy

Title: Lorain County Engineer

Date: October 1, 1986

Lorain Soil & Water Conservation District

By: Russell Lockwood

Title: Chairman, Board of Supervisors

Date: October 28, 1986

Reviewed by the Lorain County Prosecutor's Office

By: John S. Keresztes, Jr.
Assistant County Prosecutor

Date: 9/23/86

I

ATTACHMENT I

Plan Reviews/inspections/enforcement per Soil and Water District Records

LORAIN SOIL & WATER CONSERVATION DISTRICT

Sites by Community

Active Sites Between: 1/1/2019 and 12/31/2019

Amherst Township

321 Copper Creek
46980 Middle Ridge Road
8465 Oberlin Road
8485 Oberlin Road
8501 Leavitt Road – Brick Layers Training Facility
Hampshire Farms Subdivision

6 Total – 2 CSWMP, 4 ESC

Brownhelm Township

52620 Sperry Road
Beaver – Brownhelm Transmission
Brownhelm Gun Range
Baumhart Storage Facility
Silver Ridge Estates

5 Total – 4 CSWMP, 1 ESC

Carlisle Township

11452 Robson Road
40120 Alexis Drive
41125 Mills Circle

3 Total – 3 ESC

Columbia Township

10245 Station Road
10871 Bridle Path
11127 West Bend Court
11449 Antler Drive
11476 Reserve Way
11482 Antler Drive
11500 Reserve Way
11827 White Tail Run
11856 White Tail Run
11884 White Tail Run

11887 White Tail Run
11915 White Tail Run
11941 White Tail Run
11968 White Tail Run
11969 White Tail Run
11997 White Tail Run
12025 White Tail Run
12052 White Tail Run
12053 White Tail Run
12080 White Tail Run
12081 White Tail Run
12108 White Tail Run
12109 White Tail Run
12136 White Tail Run
12137 White Tail Run
12164 White Tail Run
12201 White Tail Run
12229 Caribou Court
12248 Caribou Court
12257 Caribou Court
12276 Caribou Court
12285 Caribou Court
12360 Caribou Court
12416 Caribou Court
12453 Caribou Court
12472 Caribou Court
12487 Caribou Court
12500 Caribou Court
12528 Caribou Court
12556 Caribou Court
12584 Caribou Court
12612 Caribou Court
12886 Caribou Court
23312 Lakeridge Way
25619 Osborne Road
26466 Akins Road
26690 Glencove Trail
Berea Animal Rescue Friends
Creek Ridge Subdivision Phase 1
Hunting Meadows Subdivision Phase 3
Hunting Meadows Subdivision Phase 4
Jayna Reserve Subdivision
Parcel #1200058000045

Red Fern Trails Subdivision Phase 1
Red Fern Trails Subdivision Phase 2
Riverside Trails Subdivision

56 Total – 8 CSWMP, 48 ESC

Eaton Township

13137 Grafton Road
13171 Barrington Drive
13176 Barrington Drive
13181 Barrington Drive
13183 Barrington Drive
13185 Barrington Drive
13187 Barrington Drive
13191 Barrington Drive
13194 Barrington Drive
13195 Barrington Drive
13196 Barrington Drive
13197 Barrington Drive
33720 Brokaw Road
33840 Brokaw Road
34630 N. Legends Way
34678 N. Legends Way
34690 N. Legends Way
34696 N. Legends Way
34697 N. Legends Way
34702 N. Legends Way
34705 N. Legends Way
34722 Legends Way
34747 Legends Way
34750 N. Legends Way
34756 N. Legends Way
34768 N. Legends Way
34780 N. Legends Way
34798 N. Legends Way
37137 Butternut Ridge Road
38315 Chestnut Ridge Road – KFC
Barrington Park Subdivision Phase 8
Barrington Park Subdivision Phase 9
Eaton Crossing Subdivision Phase 1
Mallards Edge Subdivision Phase 4
Timber Creek Subdivision
Upper 90 Soccer Field

36 Total – 7 CSWMP, 29 ESC

LaGrange Township

Parcel #1500023000024

Parcel #1500039000016

2 Total – 2 ESC

New Russia Township

12077 State Route 58 – Rockwood Flooring

43566 Parsons Road

46561 Russia Road

47445 Garfield Road

4 Total – 1 CSWMP, 3 ESC

Wellington Township

46391 Peck Wadsworth Road

Beaver – Wellington Transmission

2 Total – 1 CSWMP, 1 ESC

114 Total – 23 CSWMP, 91 ESC

LORAIN SOIL & WATER CONSERVATION DISTRICT

Sites by Community

Active and Archived Sites Between: 1/1/2019 and 12/31/2019

Amherst Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
321 Copper Creek	2		2
46980 Middle Ridge Road	1		1
8465 Oberlin Road	1		1
Total for Amherst Township	**4**	**-**	**4**

Brownhelm Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
Brownhelm Gun Range	2		2
Total for Brownhelm Township	**2**	**-**	**2**

Carlisle Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
40120 Alexis Drive	3		3
41125 Mills Circle	2		2
Total for Carlisle Township	**5**	**-**	**5**

Columbia Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
10245 Station Road	2	1	3
10871 Bridle Path	1		1
11127 West Bend Court	1		1
11476 Reserve Way		1	1
25619 Osborne Road	3	1	4
Hunting Meadows Sub. Ph 3	6		6
Hunting Meadows Sub. Ph 4	2		2
Total for Columbia Township	**15**	**3**	**18**

Eaton Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
33840 Brokaw Road	2		2
38315 Chestnut Ridge Rd – KFC	2		2
Barrington Park Sub. Ph 8	3		3
Mallards Edge Sub. Ph 4	2		2
Timber Creek Sub.	2		2
Total for Eaton Township	**11**	**-**	**11**

New Russia Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
12077 SR 58 – Rockwood Flooring	1		1
47445 Garfield Road	2		2
Total for New Russia Township	**3**	**-**	**3**

Wellington Township			
	Notice of Violations	**Stop Work Order**	**Total Violations**
46391 Peck Wadsworth Road	4		4
Total for Wellington Township	**4**	**-**	**4**

Grand Total		
Notice of Violations	**Stop Work Order**	**Total Violations**
44	**3**	**47**

J

ATTACHMENT J

Lorain County General Health District
IDDE Letter

RE: Notice to Provide Assistance to Lorain County
NPDES Small MS4 Communities

LORAIN COUNTY GENERAL HEALTH DISTRICT
9880 SOUTH MURRAY RIDGE, ROAD
ELYRIA, OHIO 44035

TELEPHONE
Area Code 440
Elyria 322-6367
Lorain 244-3418
244-2209

Fax Line 322-0911

"For The Health of Us All"

David Covell, RS, MPH
Health Commissioner

November 10, 2016

To: All Designated Lorain County NPDES Small MS4 Communities

RE: Notice of Intent to Provide Assistance

The Lorain County General Health District has a responsibility to protect public health and the environment within our jurisdiction. One of these responsibilities is to assist with the identification, reduction, and elimination of non-point sources of pollution that can be attributed to poorly maintained or failing sewage treatment systems. These sources are included in the definition of an illicit MS4 discharge.

Our agency has and will continue to offer assistance to our communities to identify and remediate malfunctioning and failing sewage treatment systems. We are further committed to working collaboratively with our communities in determining solutions for the elimination of these sources as illicit discharges.

Our agency also serves as an educator in our communities. We provide information on the importance of proper and routine maintenance of sewage treatment systems to residents, business owners, and community groups. Educational materials are available for distribution and we are also able to offer speaking opportunities.

Beginning January 1, 2017, all designated Lorain County NPDES Small MS4 Communities will be under the jurisdiction of the Lorain County General Health District.

Sincerely,

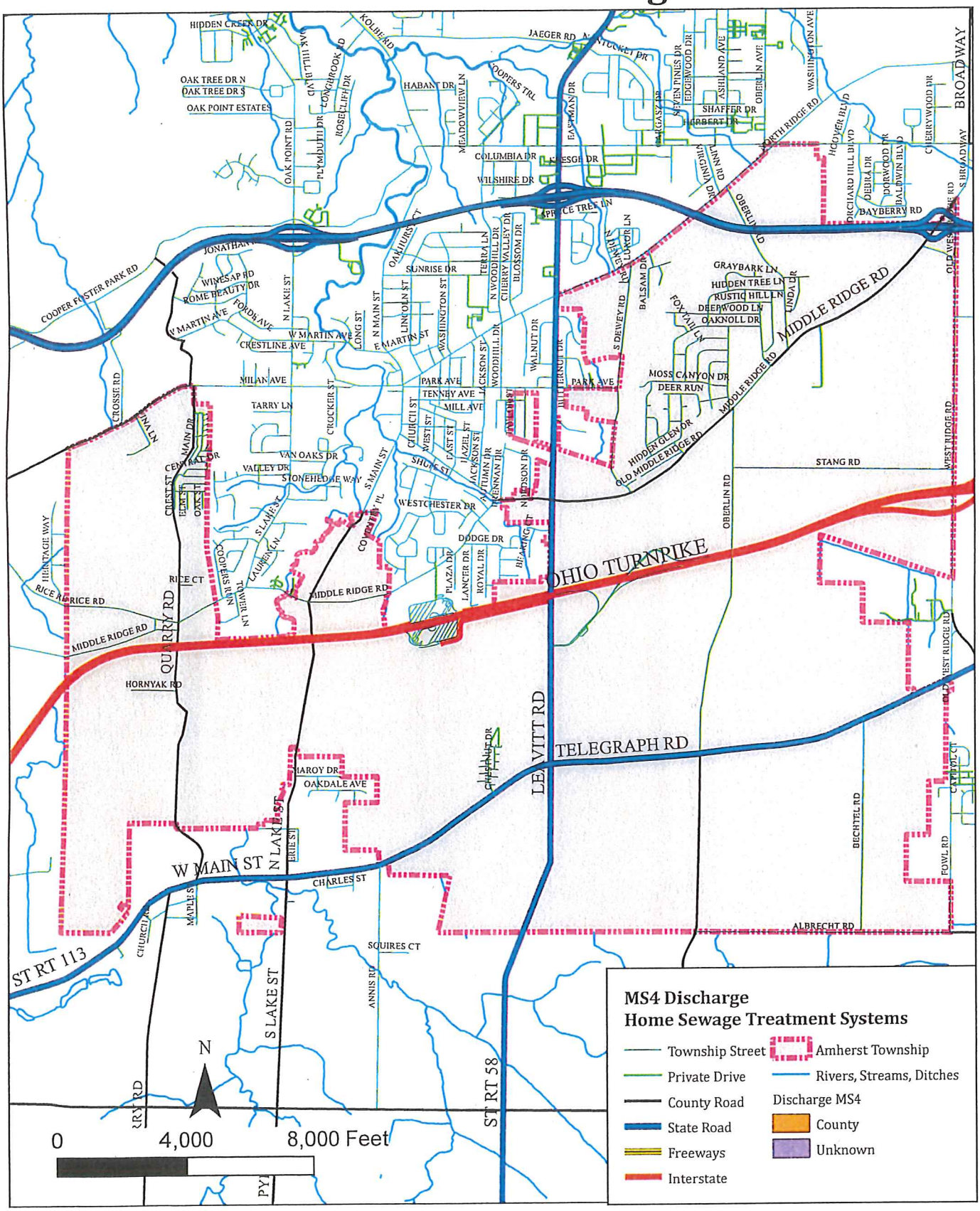
Jill Lis, R.S.
Director of Environmental Health
(440) 284-3224
jlis@loraincountyhealth.com

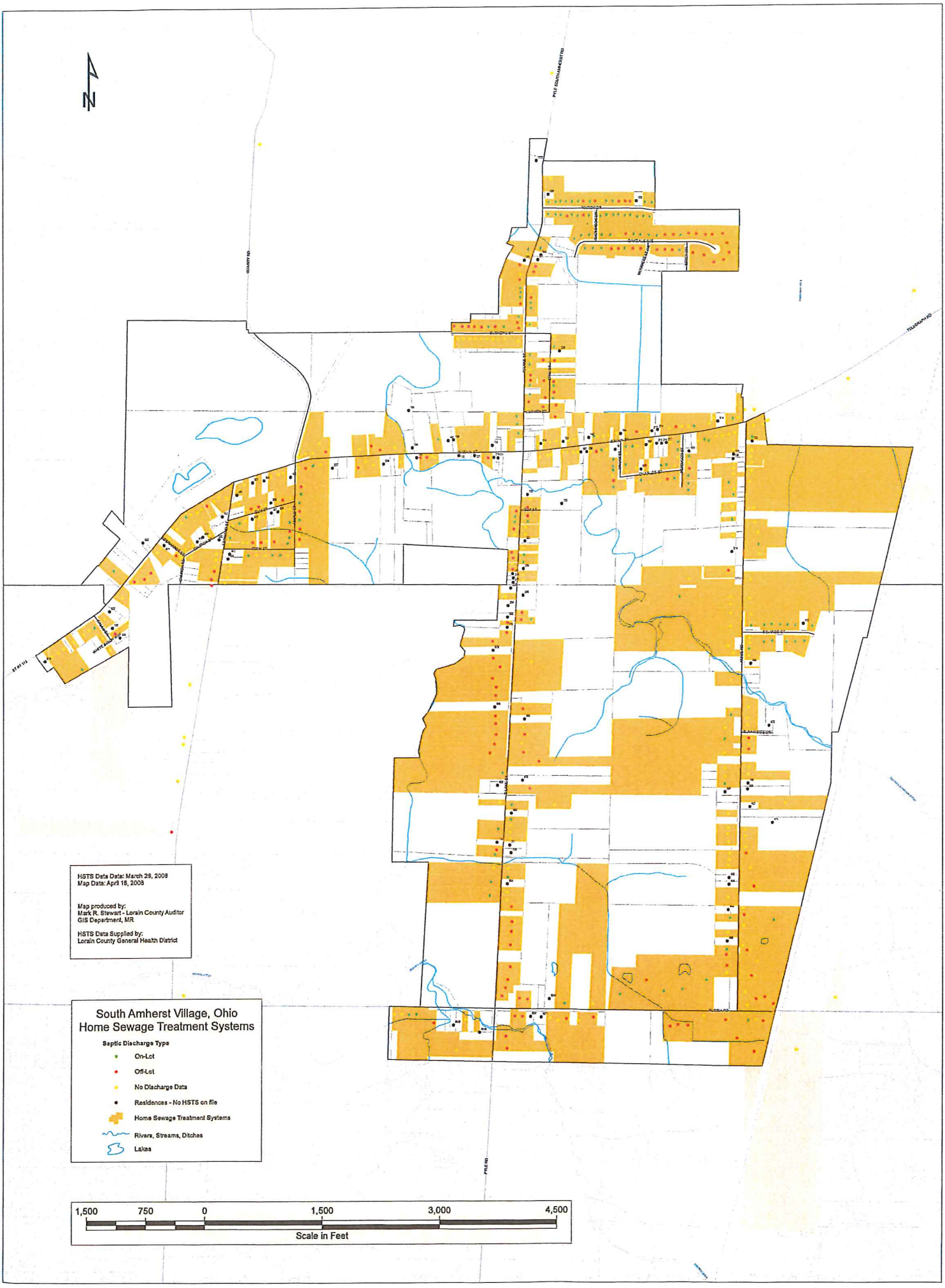
K

ATTACHMENT K

HSTS Maps

Amherst Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge

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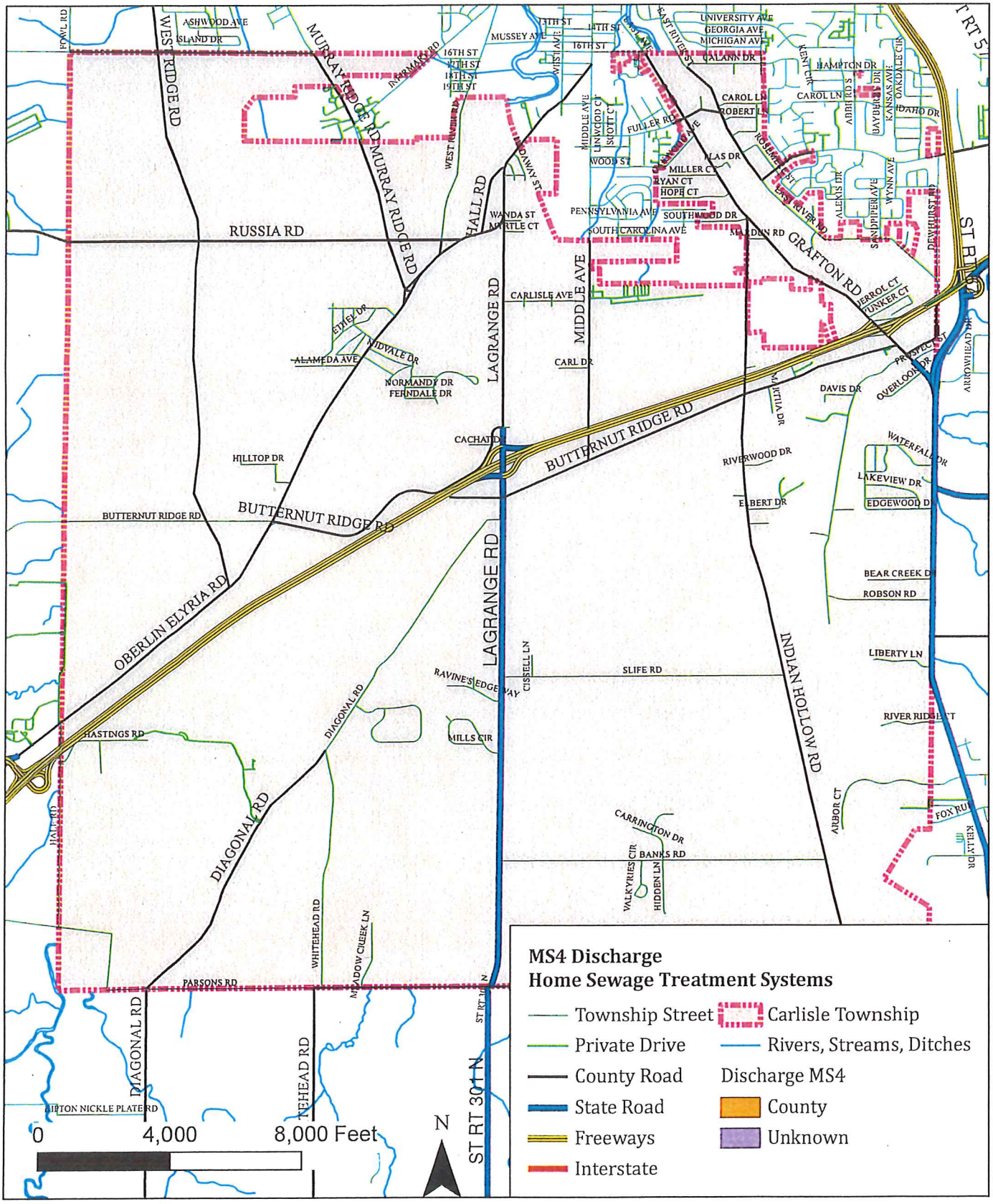
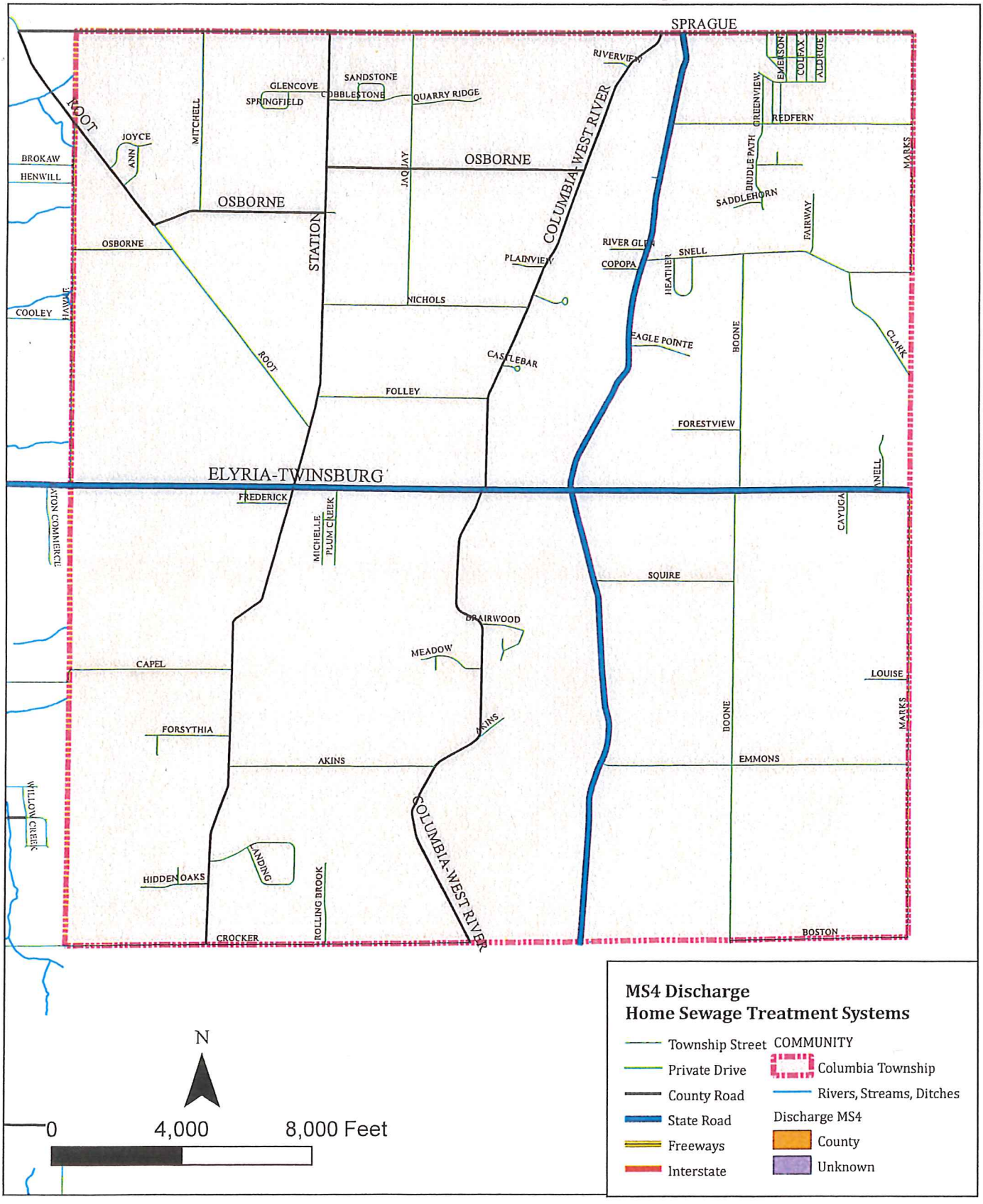
HSTS Data Data: March 26, 2008
Map Data: April 18, 2008
Map produced by:
Mark R. Stewart - Lorain County Auditor
GIS Department, MR
HSTS Data Supplied by:
Lorain County General Health District
South Amherst Village, Ohio
Home Sewage Treatment Systems
Septic Discharge Type
On-Lot
Off-Lot
No Discharge Data
Residences - No HSTS on file
Home Sewage Treatment Systems
Rivers, Streams, Ditches
Lakes
1,500
750
0
1,500
3,000
4,500
Scale in Feet

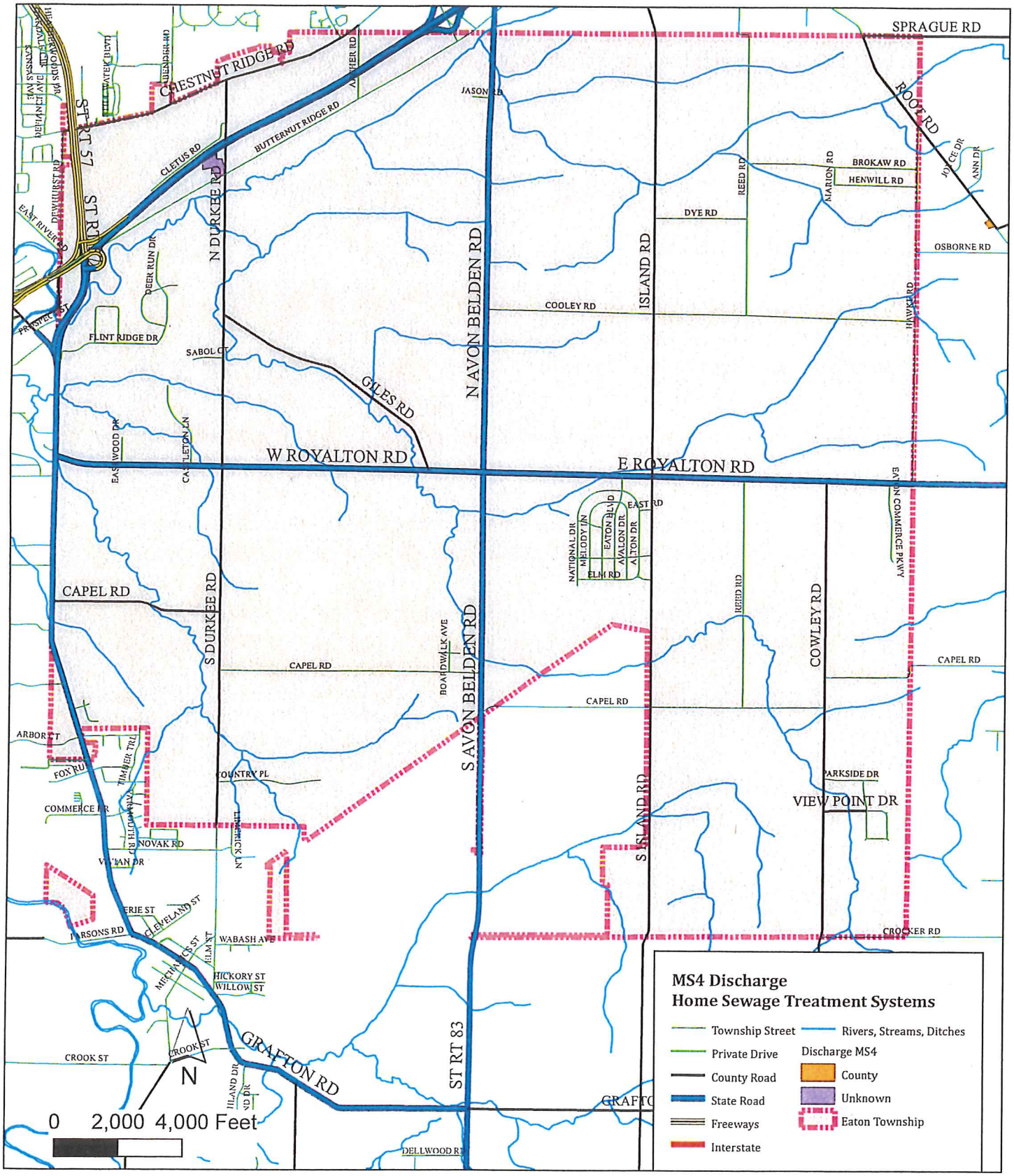
Carlisle Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge



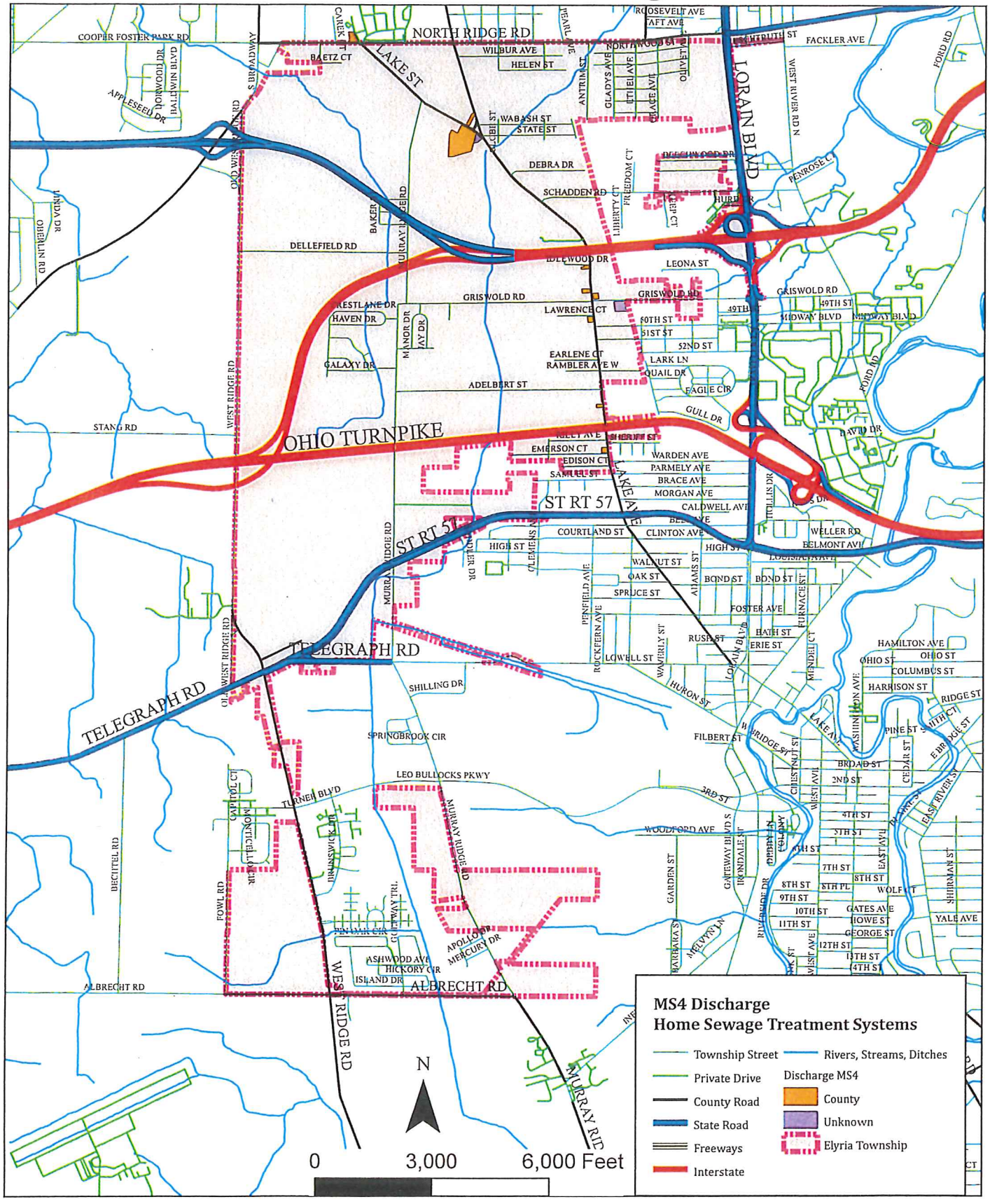
Columbia Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge



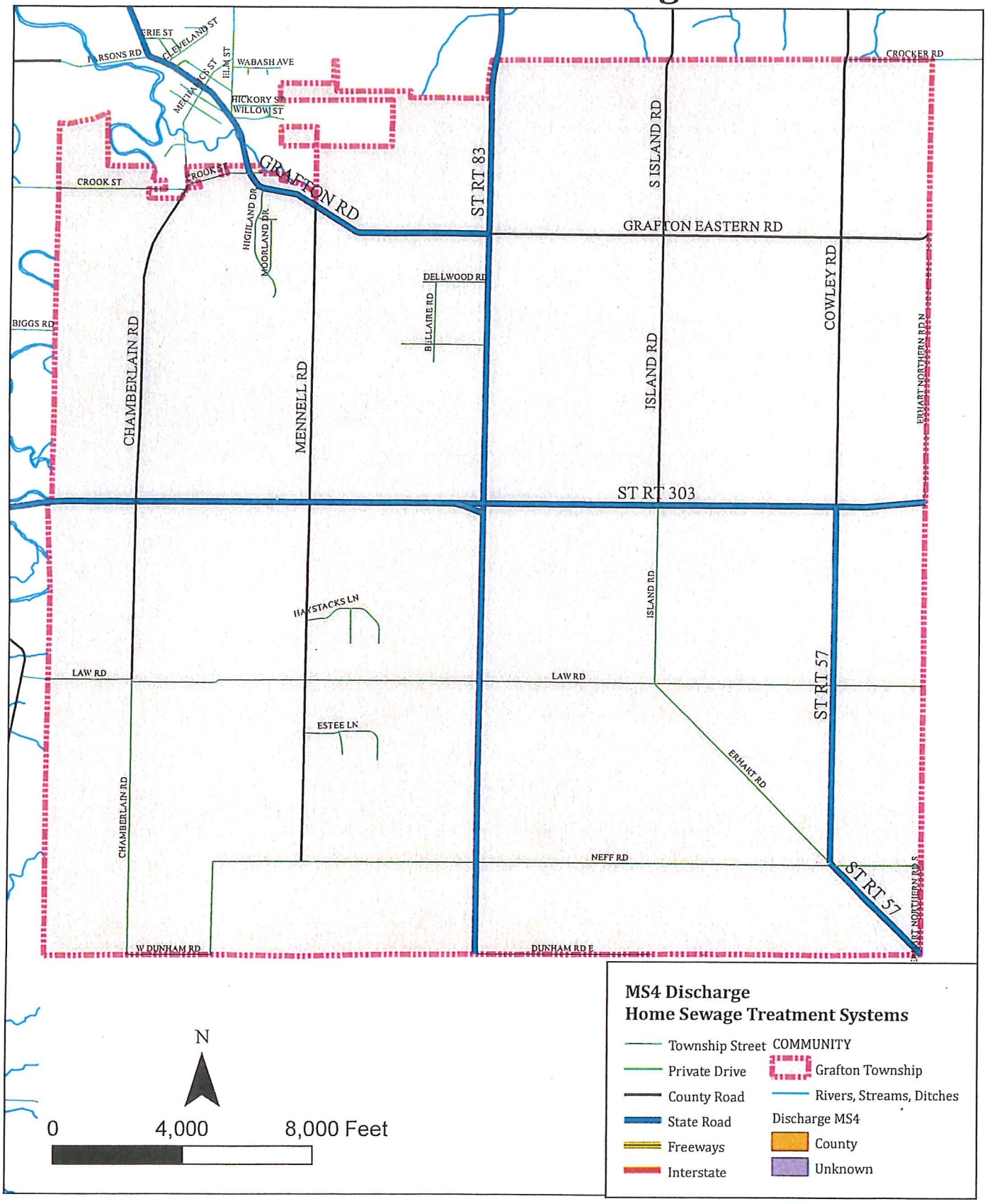
Eaton Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge



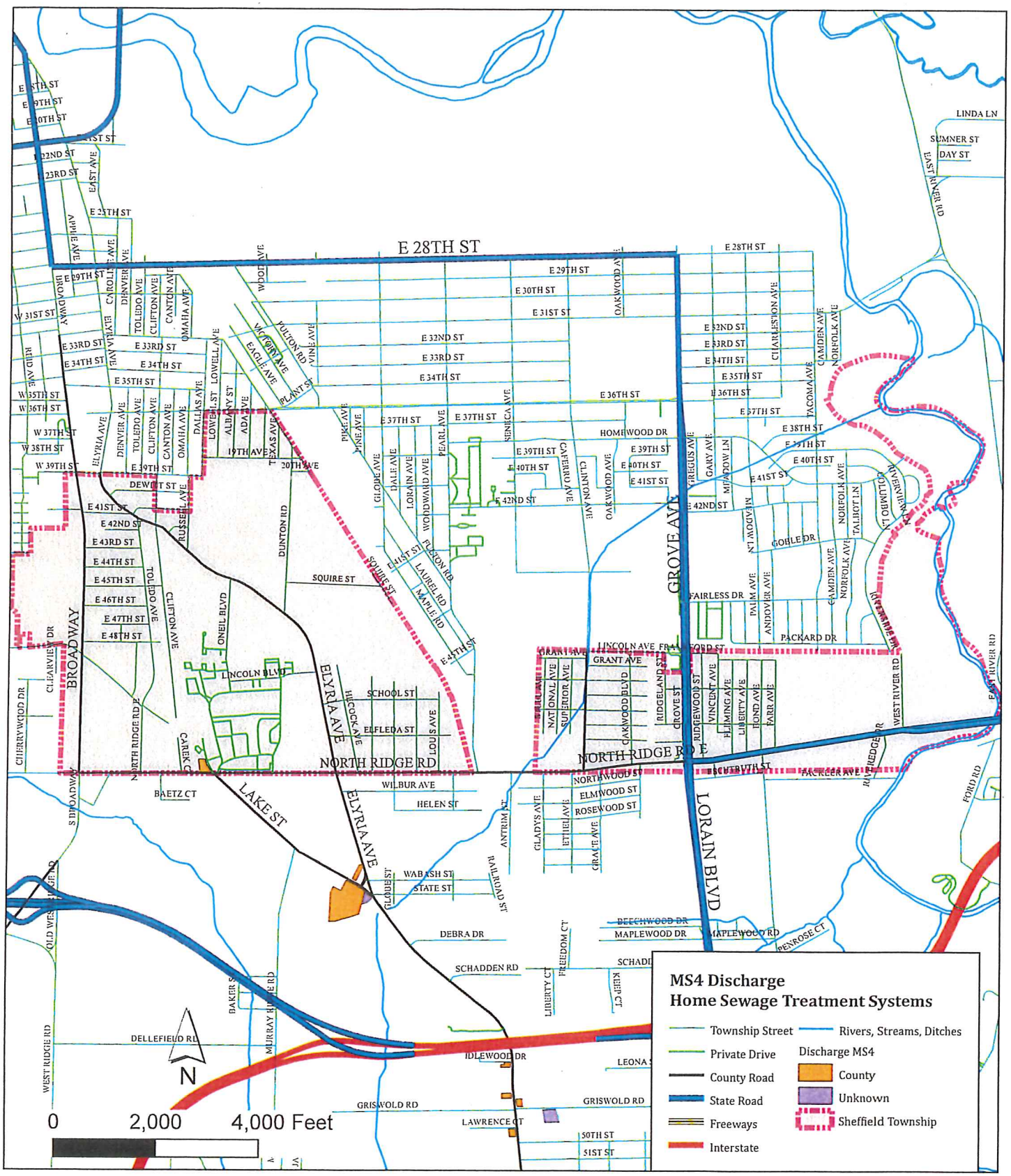
Elyria Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge

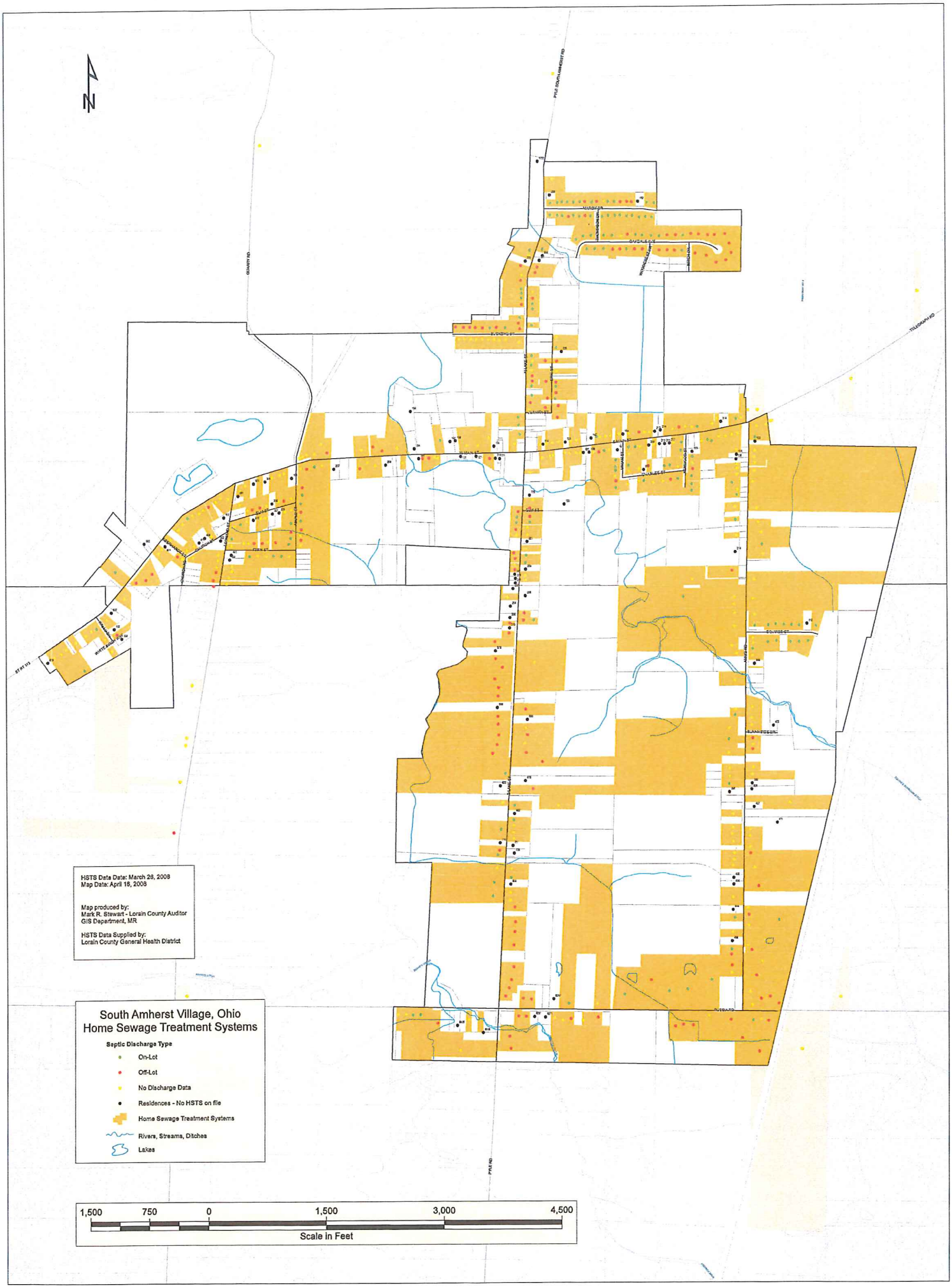


Grafton Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge



Sheffield Township, Ohio
Home Sewage Treatment System
Offsite MS4 Discharge

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HSTS Data Date: March 28, 2008
Map Data: April 16, 2008
Map produced by:
Mark R. Stewart - Lorain County Auditor
GIS Department, MR
HSTS Data Supplied by:
Lorain County General Health District
South Amherst Village, Ohio
Home Sewage Treatment Systems
Septic Discharge Type
On-Lot
Off-Lot
No Discharge Data
Residences - No HSTS on file
Home Sewage Treatment Systems
Rivers, Streams, Ditches
Lakes
1,500
750
0
1,500
3,000
4,500
Scale in Feet