REQUESTED BY:
STEINBECK

LAW DEPARTMENT
DRAFT NO. 0289

TITLE

AN ORDINANCE FOR THE PUROSE OF REPEALING CHAPTER 936 ("STORM WATER RUNOFF") OF THE CODIFIED ORDINANCES OF THE CITY OF WARREN, OHIO IN ITS ENTIRETY AND REPLACING AND REENACTING CHAPTER 936 ("COMPREHENSIVE STORMWATER MANAGEMENT") OF THE CODIFIED ORDINANCES OF THE CITY OF WARREN, OHIO, AND DECLARING AN EMERGENCY.

ORDINANCE NO. 13157/2022

WHEREAS, flooding is a significant threat to property and public health and safety and stormwater management lessens flood damage by reducing and holding runoff and releasing it slowly; and,

WHEREAS, there are watershed-wide efforts to reduce flooding, erosion, and water quality problems in the lower Mahoning River and to protect and enhance the water resources of the lower Mahoning River; and,

WHEREAS, the City of Warren desires to establish standards, principles, and procedures for the regulation of soil disturbing activities that may increase flooding and erosion and may cause adverse impacts to water resources, resulting from stormwater runoff; and,

WHEREAS, 40 C.F.R. Parts 122, 123, and 124, and Ohio Administrative Code 3745-39 require designated communities, including the City of Warren, to develop a Stormwater Management Program that, among other components, requires the City of Warren to implement standards, principles, and procedures to regulate the quality of stormwater runoff during and after soil disturbing activities; NOW THEREFORE

BE IT ORDAINED by the Council of the City of Warren, State of Ohio:

Section 1: That Chapter 936 ("Storm Water Runoff") of the Codified Ordinances of the City of Warren, Ohio, and each and every section of said Chapter 936, be, and the same hereby are, repealed in their entirety.

Section 2: That Chapter 936 ("Comprehensive Stormwater Management"), and the various sections thereof, be, and the same hereby are, replaced and reenacted within the Codified Ordinances of the City of Warren are as follows:

"CHAPTER 936"
COMPREHENSIVE STORMWATER MANAGEMENT

936.01 PURPOSE AND SCOPE

A. The purpose of this regulation is to establish technically feasible and economically reasonable stormwater management standards to achieve a level of stormwater 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 City of Warren:

B. The regulations described in this chapter require owners who develop or redevelop their property within the City of Warren to:

1. Control stormwater runoff from their property and ensure that all Stormwater Control Measures (SCMs) 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 stormwater runoff originating from their property so that surface water and groundwater 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 groundwater recharge, and maintain subsurface flow that replenishes water resources, except in slippage prone soils.

6. Incorporate stormwater 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 stormwater management.

8. Maximize use of stormwater control measures 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 water resource crossings and the width of associated disturbance in order to minimize the City of Warren's future expenses related to the maintenance and repair of water resource 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.

C. The regulations in this chapter 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.

D. Public entities, including the State of Ohio, Trumbull County, and the City of Warren shall comply with this regulation for linear projects within public rights-of way (e.g. roadway and sidewalk projects).

E. These regulations do not require a Post-Construction Stormwater Control Plan for linear construction projects, such as pipeline or utility line installation, that do not result in the installation of impervious surface as determined by the City of Warren Water Pollution Control Department or Ohio EPA. Such projects must be designed to minimize the number of water resource crossings and the width of disturbance. Linear construction projects must comply with the requirements of Chapter 938 Erosion and Sediment Control.

F. The Post-Construction Stormwater Control Plan developed to meet the requirements of this chapter shall be coordinated and submitted with the Stormwater Pollution Prevention Plan (SWP3) or Abbreviated SWP3 that are developed for the same site to meet the requirements of Chapter 938 Erosion & Sediment Control. These plans shall also be coordinated with any other plans under the jurisdiction of Warren WPC that are required by the City of Warren Codified Ordinances. These plans shall be titled and numbered in one consecutive sequence to make a Comprehensive Storm Water Management Plan for the site.

936.02 DEFINITIONS

The Ohio Environmental Protection Agency (Ohio EPA) produces and periodically updates the Construction General Permit, entitled "Authorization for Storm Water Discharges Associated with Construction Activity under the National Pollutant Discharge Elimination System". Ohio EPA also produces and periodically updates the Municipal Separate Storm Sewer (MS4) Permit, entitled "Authorization for Small Municipal Separate Storm Sewer Systems to Discharge Stormwater Under the National Pollutant Discharge Elimination System". The definitions contained in these permits shall apply to this chapter. When these permits are updated, the definitions in the most current versions of the permits shall apply to this chapter. The following definitions shall also apply:

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

B. AS-BUILT SURVEY: A survey shown on a plan or drawing prepared by a registered Professional Surveyor after construction is complete indicating the actual dimensions, elevations, and locations of any structures, underground utilities, swales, detention

facilities, and sewage treatment facilities.

C. BEST MANAGEMENT PRACTICES (BMPs): Schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

D. COMMUNITY: The City of Warren, its designated representatives, boards, or commissions.

E. CONSTRUCTION GENERAL PERMIT: The most recent General National Pollutant Discharge Elimination System (NPDES) permit for authorization of storm water discharges associated with construction activities issued by Ohio EPA (Ohio EPA Permit #OHC000005 and its successors).

F. CRITICAL STORM: A storm that is determined by calculating the percentage increase in volume of runoff by a proposed development area for the 1-year 24-hour event. The critical storm is used to calculate the maximum allowable stormwater discharge rate from a developed site.

G. 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 commercial, industrial, residential, institutional, or other construction or alteration that changes runoff characteristics.

H. DEVELOPMENT DRAINAGE AREA: A combination of each hydraulically unique watershed with individual outlet points on the development area. When determining the total contributing drainage area for a development site (new development and redevelopment), off-site areas that run on to the site and areas which remain undisturbed by construction activity shall be included, unless runoff from these areas is diverted away from the sediment settling practice and is not co-mingled with sediment-laden runoff.

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

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

K. ENGINEERED PERMEABLE PAVEMENT SYSTEMS: A paving system that captures and temporarily stores stormwater by filtering runoff through voids in an alternative pavement surface into an underlying stone reservoir. Filtered runoff may be collected and returned to the conveyance system or allowed to partially (or fully) infiltrate into the soil. Design variants include porous asphalt, pervious concrete, and permeable pavers.

L. 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.

M. GRADING: The process in which the topography of the land is altered to a new slope.

N. 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.

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

P. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES): A national program that addresses water quality issues by regulating pollution point sources that discharge to Waters of the United States. The program is responsible for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and enforcing pretreatment requirements. It operates under sections 307, 402, 318 and 405 of the Clean Water Act. The Ohio EPA permits construction sites, small MS4s, industrial sites, and other jurisdictions to discharge stormwater under the NPDES system.

Q. NOI: Notice of intent to be covered by the Construction General Permit.

R. OEPA: The Ohio Environmental Protection Agency. Also referred to as "Ohio EPA".

S. ODNR: The Ohio Department of Natural Resources.

T. POST-CONSTRUCTION STORMWATER CONTROL PLAN: The written document and plans meeting the requirements of these regulations that sets forth the plans, practices, and stormwater control measures to minimize stormwater 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 stormwater quality and stream channels.

U. 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 stormwater runoff.

V. 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 submitted and approved.

W. 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 stormwater runoff.

X. 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.

Y. RAINWATER AND LAND DEVELOPMENT (RLDM): A manual produced by the Ohio Environmental Protection Agency and the Ohio Department of Natural Resources which defines Ohio's standards and specifications for stormwater management practices implemented during land development. The purpose of this manual is to provide professionals involved in the planning, design, and implementation of land development projects with guidance on how to select, design, and locate stormwater management practices that minimize the adverse impacts of stormwater runoff during and after construction. The most up-to-date version of this manual must be consulted where specified in this chapter. Hereafter referred to as RLDM.

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

AA. 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.

BB. SITE OWNER: 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.

CC. SOIL & WATER CONSERVATION DISTRICT: An entity organized under Chapter 940 of the Ohio Revised Code referring to either the Trumbull County Soil and Water Conservation District Board or its designated employee(s). One of the managing bodies of the Trumbull County Regional Storm Water District, which does not include the City of Warren, but does include Bazetta Twp., Brookfield Twp., Champion Twp., Howland Twp., Hubbard Twp., Liberty Twp., Newton Twp., Vienna Twp., Warren Twp., Weathersfield Twp., Cortland City, Girard City, Hubbard City, Newton Falls City, Niles City, and the Village of McDonald. Hereafter referred to as Trumbull County SWCD.

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

EE. STORMWATER CONTROL MEASURE (SCM): A structure or area designed to

remove pollutants from stormwater and/or reduce stormwater flow rates. SCMs are a subset of Best Management Practices (BMPs).

FF. SUBDIVISION: (a) The division of any parcel of land shown as a unit or as contiguous units on the last preceding tax roll into two or more parcels, sites or lots, any one of which is less than five acres, for the purpose, whether immediate or future, of transfer of ownership; or (b) The improvement of one or more parcels of land for residential, commercial or industrial structures or groups of structures involving the division or allocation of land as open spaces for common use by the owner, occupants or lease holders or as easements for the extension or maintenance of public sewers, water lines, storm drainage or other public facilities.

GG. WATER RESOURCE: Any stream, lake, reservoir, pond, marsh, wetland, or 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 of the Ohio Revised Code are not included.

HH. 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.

II. WATER POLLUTION CONTROL DEPARTMENT: The City of Warren department responsible for the management of NPDES Permit No. OHQ000004, Authorization for Small Municipal Separate Storm Sewer Systems (MS4) to Discharge Stormwater under the National Pollutant Discharge Elimination System (NPDES). Hereafter referred to as Warren WPC.

JJ. WATER QUALITY VOLUME (WQv): The volume of storm water runoff which must be captured and treated prior to discharge from the developed site after construction is complete, as required by the Ohio EPA Construction General Permit.

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

LL. 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).

936.03 DISCLAIMER OF LIABILITY

A. Neither submission of a plan under the provisions herein, nor compliance with the provisions of this chapter, shall relieve any person or entity from responsibility for damage to any person or property that is 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 Stormwater Control Plan under this regulation, the City of Warren does not accept responsibility for the design, installation, and operation and maintenance of SCMs.

936.04 CONFLICTS, SEVERABILITY, NUISANCES & RESPONSIBILITY

A. Where this regulation is in conflict with other provisions of law or ordinance or requirements in the Construction General Permit, the most restrictive provisions, as determined by the City of Warren WPC, 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 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 City of Warren 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 City of Warren, its officers, employees, or agents being responsible for any condition or damage resulting therefrom.

936.05 DEVELOPMENT OF POST-CONSTRUCTION STORMWATER CONTROL PLANS

A. The regulations in this chapter require that a Post-Construction Stormwater Control Plan be developed and implemented for all soil disturbing activities disturbing one (1) or more acres 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 Section 936.01 (C) is proposed. A Post-Construction Stormwater Control Plan must be developed and implemented for all commercial and industrial site development with soil disturbing activities disturbing more than two-tenths (0.2) of an acre. For commercial or industrial parcels less than two-tenths (0.2) of an acre, or residential parcels less than 1 acre with soil disturbing activity, the City of Warren WPC may require a Post-Construction Stormwater Control Plan. Table 1 summarizes these requirements.

Table 1: Post-Construction Stormwater Control Plan (PSCSP) Requirements Summary

Total disturbed area	Requirement
5 or more acres	PCSCP required, including a Preliminary Plan and a Final Plan.
1 or more acres	PCSCP required.
0.2 – 1 acre	*If part of a larger common plan of development or sale:* PCSCP required. *If commercial or industrial site development:* PCSCP required. *If residential site development:* PCSCP generally not required, but PCSCP may be required by Warren WPC on a case-by-case basis.
Less than 0.2 acres	*If part of a larger common plan of development or sale:* PCSCP required. *If commercial or industrial activity:* PCSCP generally not required, but PCSCP may be required by Warren WPC on a case-by-case basis. *Otherwise*: PCSCP not required.

B. The City of Warren shall administer the regulations of this chapter, shall be responsible for determination of compliance with these regulations, and shall issue notices and orders as necessary. The City of Warren may consult with the Trumbull County SWCD, state agencies, private engineers, stormwater districts, or other technical experts in reviewing the Post-Construction Stormwater Control Plan.

936.06 APPLICATION PROCEDURES

A. Pre-Application Meeting: The applicant shall attend a Pre-Application Meeting specific to stormwater management with the City of Warren WPC to discuss the proposed project, review the requirements of this regulation, identify unique aspects of the project that must be addressed during the review process, and establish a preliminary review and approval schedule. The Pre-Application Meeting may be an in-person meeting or a phone or video conference call, at the discretion of the City of Warren WPC.

B. Preliminary Post-Construction Stormwater Control Plan: For all sites disturbing at least five (5) acres of land, the applicant shall submit one physical copy (including physical copies of half-scale minimum plans) and one electronic copy in .pdf format of a Post-Construction Stormwater Control Plan to the City of Warren WPC. Sites disturbing less than five (5) acres of land shall only submit a Final Plan, per Section 936.06(C). The Preliminary Plan shall include plans, reports, hydraulic calculations, hydraulic modeling (HydroCAD) files, model output files, and other documentation as requested. The Preliminary Plan shall show the proposed property boundaries, setbacks, dedicated open space, public roads, water resources,

SCMs, and easements in sufficient detail and engineering analysis to allow the City of Warren WPC to determine if the site is laid out in a manner that meets the intent of this regulation and if the proposed SCMs are capable of controlling runoff from the site in compliance with the regulations described in this chapter. The applicant shall the Preliminary Plan and applicable fees as follows:

1. For subdivisions: In conjunction with the submission of the preliminary plat for the proposed subdivision.

2. For all other projects required to submit a plan by Section 936.05: In conjunction with zoning review and approval.

C. Final Post-Construction Stormwater Control Plan: For all sites of any size, the applicant shall submit one physical copy (including physical copies of half-scale minimum plans) and one electronic copy in .pdf format of a Final Post-Construction Stormwater Control Plan and the applicable fees to the City of Warren WPC in conjunction with the submittal to the Engineering Department of the final plat, improvement plans, or application for a building permit for the site. This shall include plans, reports, hydraulic calculations, hydraulic modeling (HydroCAD) files, model output files, and other documentation as requested. Warren WPC may additionally request associated modeling or CAD files. Final Post-Construction Stormwater Control Plans shall meet the requirements of Section 936.08 and shall be approved by the City of Warren WPC prior to approval of the building permit.

D. Review and Comment: The City of Warren WPC 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 receive a narrative report stating specific problems and the procedures for filing a revised Preliminary or Final Plan.

E. Approval Necessary: Land clearing and soil-disturbing activities shall not begin and zoning and/or building permits shall not be issued without an approved Post-Construction Stormwater Control Plan.

F. Valid for Two Years: Plan approvals issued in accordance with this regulation shall remain valid for two (2) years from the date of approval or as stipulated in the Construction General Permit. Once built, post-construction BMPs approved under a Post-Construction Stormwater Control Plan shall be operated and maintained in perpetuity. See Section 936.09(A)(9) of this regulation for maintenance responsibility.

936.07 COMPLIANCE WITH STATE AND FEDERAL REGULATIONS

Approvals issued in accordance with the regulations in this chapter 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 City of Warren will provide zoning approval.

A. Ohio Environmental Protection Agency (Ohio EPA) National Pollutant Discharge Elimination System (NPDES) Permits authorizing stormwater discharges associated with construction activity or the most current version thereof: Proof of compliance with these requirements shall be the applicant's Notice of Intent (NOI), a copy of the Ohio EPA Director's Authorization Letter with NPDES Facility Permit number 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 or Ephemeral Stream Permit: Proof of compliance shall be a copy of Ohio EPA's Isolated Wetland Permit or Ephemeral Stream 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 or Ephemeral Stream 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 Resources permit application tracking number, a copy of the project approval letter from the ODNR Division of Water Resources, or a letter from the site owner certifying and explaining why the Ohio Dam Safety Law is not applicable.

936.08 POST-CONSTRUCTION STORMWATER CONTROL PLAN

Post-Construction Stormwater Control Plan Required: The applicant shall develop a Post-Construction Stormwater Control Plan describing how the quantity and quality of stormwater will be managed after construction is completed for every discharge from the site and/or into a water resource or small municipal separate storm sewer system (MS4). Post-Construction Stormwater Control Plans must meet the requirements in the Construction General Permit and these regulations.

A. Preparation by Professional Engineer: The Post-Construction Stormwater Control 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 City of Warren WPC, a site survey shall be performed by a registered Professional Surveyor to establish boundary lines, measurements, or land surfaces.

B. Community Procedures: The City of Warren WPC shall prepare and maintain procedures providing specific criteria and guidance to be followed when designing the stormwater management system for the site. These procedures may be updated from time to time, at the discretion of the City of Warren WPC based on improvements in engineering, science, monitoring, and local maintenance experience. The City of Warren WPC shall make the final determination of whether SCMs proposed in the Post-Construction Stormwater Control Plan meet the requirements of this regulation.

C. Contents of Post-Construction Stormwater Control Plan: The Post-Construction Stormwater Control Plan must contain all elements and meet all requirements specified in the Construction General Permit. It shall also meet the following requirements.

1. Location information: The application shall note the phase, if applicable, of the overall development plan and list sublot numbers if project is a subdivision.

2. Site maps and SCM design plans: It is preferred that all SCMs and 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. Existing and proposed drainage patterns and any relevant offsite SCMs should be depicted. For each SCM, include the following:

a. An individual identification number.
b. Location and size.
c. Final site conditions and detail drawings of stormwater inlets and permanent SCMs. Details of SCMs shall be drawn to scale and shall show relevant volumes, elevations and sizes of contributing drainage areas.

d. A completed Ohio EPA Water Quality Volume (WQv) Calculator Spreadsheet and/or Runoff Reduction Spreadsheet or other equivalent compliance tools provided by Ohio EPA.

e. A completed review checklist demonstrating all requirements for the SCM submittal have been met.

f. Any supplemental information requested by the City of Warren WPC.

3. Required Calculations: The applicant shall submit calculations for projected stormwater 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 incision of each water resource and its floodplain. 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 areas have been considered in the calculations. For each SCM, identify the drainage area and size in acres, percent impervious cover within the drainage area, volumetric runoff coefficient, peak discharge, and the time of concentration for each sub-watershed. Pervious and impervious areas should be treated as separate sub-watersheds unless allowed at the discretion of the City of Warren WPC. Identify the SCM surface area, provide stage-storage and stage-discharge graphs, discharge rates and dewatering time, outlet type and dimensions.

4. Inspection and Maintenance Agreement. The Inspection and Maintenance Agreement required for SCMs under this regulation is a stand-alone document between the City of Warren WPC and the applicant. This agreement shall be recorded with the County.

5. Inspection and Maintenance Plan. This plan shall meet the requirements of the Construction General Permit and shall be developed by the applicant and reviewed by the City of Warren WPC. Maintenance requirements of each SCM during and after construction should be included. Once the Inspection and Maintenance Plan is approved, a recorded copy of the Plan must be provided to the property owner or association that shall be responsible for long-term operation and maintenance of the SCM and submitted to the City of Warren WPC as part of the final inspection approval as described in 936.12.

936.09 PERFORMANCE STANDARDS

A. General: The stormwater system, including SCMs for storage, treatment and control, and conveyance facilities, shall be designed to prevent structure flooding during the 100-year, 24-hour storm event; to maintain predevelopment runoff patterns, flows, and volumes; to meet the requirements of the Construction General Permit; and to meet the following criteria:

1. Integrated SCMs that address degradation of water resources. The SCMs shall function as an integrated system that controls flooding and minimizes the degradation of the water resources receiving stormwater discharges from the site. Acceptable SCMs shall:

a. Not disturb riparian areas unless the disturbance is intended to support a watercourse restoration project.

b. Maintain predevelopment hydrology and groundwater recharge on as much of the site as practicable. Where feasible, bioretention, permeable pavement with infiltration, underground storage with infiltration, infiltration trenches, infiltration basins, and/or rainwater harvesting must be the water quality SCMs used. Separate SCMs may be used for peak discharge control and water quality treatment.

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 and soil compaction by reducing stormwater peak flows to less than predevelopment levels.

e. Be designed according to the methodology included in the most current

edition of Rainwater and Land Development or another design manual acceptable for use by the City of Warren WPC and Ohio EPA.

2. Practices designed for final use: SCMs shall be designed to achieve the stormwater management objectives of the regulations in this chapter, to be compatible with the proposed post-construction use of the site, to protect the public health, safety, and welfare, and to function safely with routine maintenance.

3. Stormwater management for all lots: Areas developed for a subdivision, as defined in Section 936.02(FF) of this chapter, shall provide stormwater management and water quality controls for the development of all subdivided lots. 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, volumes, and peaks from each lot.

4. Stormwater facilities for phased projects: For multi-phase projects, there must be a plan for overall phasing, and stormwater must be controlled to the full extent of the regulations of this chapter at each phase of the project. Applicant must demonstrate that the performance standards of this chapter and of Chapter 938 Erosion & Sediment Control are met via the installed SCMs for each phase and provide plans to demonstrate full conversion from construction BMPs to post-construction SCMs for each completed phase of construction.

5. Stormwater facilities in water resources: SCMs 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 936.07 of this chapter, and the activity is in compliance with Chapter 938 Erosion & Sediment Control, all as determined by the City of Warren WPC.

6. Stormwater ponds and surface conveyance channels: All stormwater pond and surface conveyance designs must provide a minimum of two (2) foot freeboard above the projected peak stage within the facility during the 100-year, 24-hour storm. When designing stormwater ponds and conveyance channels, the applicant shall consider public safety as a design factor and alternative designs must be implemented where site limitations would preclude a safe design.

7. Exemption: The site where soil-disturbing activities are conducted shall be exempt from the requirements of Section 936.09 if it can be shown to the satisfaction of the City of Warren WPC that the site is part of a larger common plan of development where the stormwater management requirements for the site are provided by an existing SCM, or if the stormwater management requirements for the site are provided by SCMs defined in a regional or local stormwater management plan approved by the City of Warren WPC.

8. Maintenance: All SCMs shall be maintained in accordance with the Inspection and Maintenance Plan and Agreements approved by the City of Warren WPC.

9. Maintenance Responsibility: The installed stormwater system shall be properly maintained and operated by the legal entity responsible for maintenance in order to achieve compliance with the conditions outlined in this chapter. All stormwater management plan applications shall contain documentation sufficient to demonstrate that the operation and maintenance entity is the legal entity empowered and obligated to perpetually maintain the stormwater management facilities.

   a. The following entities are considered to be acceptable to operate and maintain private stormwater management facilities:

      (1) Non-profit corporations, including homeowners associations, property owners associations or condominium owners associations, under certain conditions which ensure that the corporation has the financial, legal, and administrative capability to provide for the long-term operation and maintenance of the facilities.

      (2) The property owner or developer is normally not acceptable as a

responsible entity, especially when the property is to be sold to various third parties. However, the property owner or developer may be acceptable under one of the following circumstances provided the maintenance requirements are described in a document that has been submitted to the City:

i. The property is wholly owned by said applicant and the ownership is intended to be retained. This would apply to a farm, corporate office, or single industrial facility, for example.

ii. The ownership of the property is retained by the applicant and is either leased to third parties (such as in some shopping centers), or rented to third parties (such as in some mobile home parks), for example.

b. The stormwater management system shall be maintained by the legal entity. The City of Warren maintains the right to assess costs of labor and materials for such corrective action to the responsible party in accordance with usual and customary costs in place at the time of action.

c. Maintenance of stormwater facilities shall allow the stormwater management system to perform as originally designed and permitted by the City of Warren and as set forth in the written plan.

10. Ownership: Unless otherwise required by the City of Warren WPC, SCMs serving multiple lots in subdivisions shall be on a separate lot held and maintained by an entity of common ownership. SCMs serving single lots shall be placed on these lots, protected within an easement, and maintained by the property owner.

11. Preservation of Existing Natural Drainage: Practices that preserve 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 vegetative buffer strips; phasing of construction operations in order to minimize the amount of disturbed land at any one time, and designation of tree preservation areas or other protective clearing and grubbing practices; and maintaining unconcentrated stormwater runoff to and through these areas.

12. Post-Construction Soil Restoration: Except for areas that will be covered by impervious surface or have been incorporated into an SCM, the soil moisture-holding capacity of areas that have been cleared and graded must be restored to that of the original, undisturbed soil to the maximum extent practicable. Areas that have been compacted or had the topsoil or duff layer removed should be amended using the soil profile restoration design criteria in RLDM. Topsoil is the upper layer of natural soil (A horizon), which is typically darker and more fertile than the subsoil due to increased amounts of organic material.

B. Stormwater Storage Facilities Design Criteria:

1. Standards and Specifications: Stormwater storage can be classified as surface detention, underground detention, extended dry detention, wet retention, or alternative practices. Some facilities include one or more types of storage. Post-construction stormwater storage facilities shall be designed to meet the standards and specifications in the most current editions of the RLDM and/or the Ohio EPA Construction General Permit, whichever is more stringent, as well as the following standards.

2. General Design Criteria: Storage facilities shall be designed and constructed with the following characteristics:

a. Water surface depths two feet above the base flood elevation will not damage the storage facility.

b. The storage facilities shall be accessible and easily maintained. All facilities shall have 25-foot ingress/egress easements and other provisions as required for maintenance access.

c. All outlet works shall function without human intervention or outside power and shall operate with minimum maintenance.

d. Outlet works shall have an outlet pipe of minimum 12 inches diameter.

e. Control orifices shall incorporate anti-clogging measures when the orifice measures less than 4 inches in the shortest direction.

f. Storage facilities shall facilitate sedimentation and catchment of floating material.

g. Storage facilities shall minimize impacts of stormwater runoff on water quality by incorporating best management practices.

h. Storage facilities shall provide an overflow structure and overflow path that can safely pass excess flows through the development site. The minimum design rate shall be the undetained peak flow rate of the upstream watershed for the 100-year design rainfall event.

3. Safety Features:

a. The primary spillway opening shall not permit access to the public and other non-maintenance personnel.

b. The perimeter of all water pool areas that are deeper than three (3) feet shall be surrounded by benches that meet the following:

(1) A safety bench, with a maximum slope of three percent (3%), which extends outward, on dry land, from the shoreline. This bench will be a minimum of 25 feet wide to provide for the safety of individuals and maintenance vehicles that are adjacent to the water pool. The safety bench may be landscaped, without the use of structures, to prevent access to the water pool.

(2) Side slopes between the bench and the aquatic bench shall not be steeper than 3:1 (3 feet horizontal for every 1 foot vertical).

(3) An aquatic bench that extends inward from the shoreline far enough to ensure public safety and has a maximum depth of 15 inches below the normal water surface elevations. The aquatic bench may be landscaped to prevent access to the deeper water pool. The aquatic bench may also be incorporated into the Post-Construction Water Quality Plan.

(4) Side slopes beyond the aquatic bench and below the permanent water level shall not be steeper than 2:1 (2 feet horizontal for every 1 foot vertical).

(5) The contours of the pond will be designed and managed to eliminate drop-offs and other hazards. Side slopes getting to the pond shall not exceed 3:1 and shall terminate on a safety bench.

C. Stormwater Conveyance Design Criteria: All SCMs shall be designed to convey stormwater to allow for the maximum removal of pollutants and reduction in flow velocities. This shall include but not be limited to:

1. Surface water protection: The City of Warren WPC may allow modification to streams, rivers, lakes, wetlands or other surface waters 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 936.07 of this regulation, and the activity is in compliance with Chapter 938 Erosion and Sediment Control, as determined by the City of Warren WPC. At a minimum, stream relocation designs must show how the project will minimize changes to the vertical stability, floodplain form, channel form, and habitat of upstream and downstream channels on and off the property.

2. Off-site stormwater discharges: Off-site stormwater runoff that discharges to or

across the applicant's development site shall be conveyed through the stormwater conveyance system planned for the development site at its existing peak flow rates during each design storm. Off-site flows shall be diverted around stormwater quality control facilities or the stormwater quality control facility shall be sized to treat the off-site flow. Post-Construction Stormwater Control Plans shall not be approved until it is demonstrated to the satisfaction of the City of Warren WPC that off-site runoff will be adequately conveyed through the development site in a manner that does not exacerbate upstream or downstream flooding and erosion.

3. Sheet flow: The site shall be graded in a manner that maintains cross slope sheet flow over as large an area as possible. The maximum area of sheet flow shall be determined based on the slope, the uniformity of site grading, and the use of easements or other legally binding mechanisms that prohibit re-grading and/or the placement of structures within sheet flow areas. While sheet flow area shall be maximized, the distance that sheet flow shall travel on a site before entering a catch basin or other stormwater infrastructure shall not exceed 100 feet from impervious areas or 150 feet from pervious areas. Flow beyond this distance, as determined by the City of Warren WPC, shall be directed into an open channel, storm sewer, or other SCM.

4. Storm drainage systems: Storm sewer systems shall be preferred over storm ditches on all new development sites to convey stormwater where feasible. During the design process for all storm sewer systems, the City of Warren Sewer Systems Superintendent must be consulted. The following criteria shall be used to design storm sewer systems when applicable:

   a. New storm sewer installations shall be designed such that they do not surcharge from runoff caused by the 10-year, 24-hour storm, and that the hydraulic grade line of the storm sewer stays below the gutter flow line of the overlying roadway, or below the top of drainage structures outside the roadway during a 25-year, 24-hour storm. The system shall be designed to meet these requirements when conveying the flows from the contributing drainage area within the proposed development and existing run-on flows from offsite areas that are upstream from the development.

   b. The minimum inside diameter of pipe to be used in public storm sewer systems is 12 inches. Ditch pipe must be minimum of 8 inches, or must match size of upstream and downstream ditch pipe such that it does not create a hydraulic bottleneck, whichever is greater. The invert elevations of the new ditch pipe must match the invert elevations of the upstream and downstream pipes. Smaller pipe sizes may be used in private systems, subject to the approval of the City of Warren WPC. Installation of ditch pipe shall be coordinated with the City of Warren Sewer Systems Superintendent.

   c. All storm sewer 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 junctions within the system.

   d. 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.

   e. Headwalls shall be required at all storm sewer inlets or outlets to and from open channels or lakes.

5. Water Resource Crossings. The following criteria shall be used by the project's design engineer to design structures that cross a water resource in the City of Warren:

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

   b. Bridges, open bottom arch or spans are the preferred crossing technique and

shall be considered in the planning phase of the development. Bridges and open spans should be considered for all State Scenic Rivers, coldwater habitat, exceptional warmwater habitat, seasonal salmonid habitat streams, and Class III headwater streams. The footers or piers for these bridges and open spans shall not be constructed below 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 1 foot of box culverts and pipe arches must be embedded below the channel bed. The conduit or conveyance must be sized to carry the 25-year storm under these conditions.

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

e. The maximum slope allowable shall be a slope that produces a 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. Headwalls shall be required at all culvert inlets or outlets to and from open channels or lakes.

h. Streams with a drainage area of 5 square miles or larger shall incorporate floodplain culverts at the bankfull elevation to restrict head loss differences across the crossing so as to cause no rise in the 100-year storm event.

i. 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, 24-hour storm, or the 100-year flood elevation as determined by the Federal Emergency Management Agency (FEMA), whichever is more restrictive.

6. Overland flooding: Overland flood routing paths shall be used to convey stormwater runoff from the 100-year, 24-hour storm event to an adequate receiving water resource or SCM 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 two feet below the finished grade elevation of all structures. When designing the flood routing paths, the conveyance capacity of the site's storm sewers shall be taken into consideration.

7. Compensatory flood storage mitigation: In order to preserve floodplain storage volumes and thereby avoid increases in water surface elevations, any filling within floodplains approved by the City of Warren must be compensated by providing an equivalent storage volume. First consideration for the location(s) of compensatory floodplain volumes should be given to areas where the stream channel will have immediate access to the new floodplain within the limits of the development site. Consideration will also be given to enlarging existing or proposed retention basins to compensate for floodplain fill if justified by a hydraulic analysis of the contributing watershed. Unless otherwise permitted by the City of Warren, reductions in volume due to floodplain fills must be mitigated within the legal boundaries of the development. Embankment slopes used in compensatory storage areas must reasonably conform to the natural slopes adjacent to the disturbed area. The use of vertical retaining structures is specifically prohibited.

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

D. Stormwater Quality Control: For new development and redevelopment projects, the site shall be designed to direct runoff to one or more SCMs that meet or exceed the criteria in the Construction General Permit.

E. Stormwater Quantity Control: For all proposed development and redevelopment sites, the

Post-Construction Stormwater Control Plan shall describe how the proposed SCMs are designed to meet the following requirements for stormwater quantity control for each watershed in the development:

1. The peak discharge rate of runoff from the Critical Storm and all more frequent storms (shorter return period) occurring under post-development conditions shall not exceed the peak discharge rate of runoff from a 2-year, 24-hour storm occurring on the same development drainage area under pre-development conditions. The peak discharge rate of runoff from the 1-year storm post-development conditions shall not exceed the 1-year storm pre-development conditions.

2. Storms of less frequent occurrence (longer return periods) than the Critical Storm, up to and including the 100-year, 24-hour storm, shall have peak runoff discharge rates no greater than the peak runoff rates from the 10-year storm 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.

3. In addition to the above regulations, in no case shall the post-development peak discharge runoff rate exceed the pre-development peak discharge runoff rate for an equivalent storm event.

4. For sites which are currently developed and are scheduled to be redeveloped, the pre-developed condition shall be defined to be 100% of the site as grassland in good condition for all critical storm and volume storage calculations.

5. The Critical Storm for each specific development drainage area shall be determined as follows:

    a. Determine, using a curve number-based hydrologic method or other hydrologic method approved by the City of Warren WPC, the total volume (acre-feet) of runoff from a 2-year, 24-hour storm occurring on the development drainage area before and after development. These calculations shall meet the following standards:

        (1) Calculations shall include the lot coverage assumptions used for full build out as proposed.

        (2) Calculations shall be based on the entire contributing drainage area, as defined in Section 936.02(H) of this chapter.

        (3) Model pervious, directly connected impervious and disconnected impervious areas as separate sub-watersheds.

        (4) Drainage area maps shall include area presumed, curve number, and time of concentrations. Calculated time of concentration shall also show the flow path and the separation in flow type.

        (5) Use the Precipitation-Frequency Atlas of the United States, NOAA Atlas 14, Vol 2(3). [available online: http://hdsc.nws.noaa.gov/hdsc/pfds/] for rainfall depth data for stormwater design.

        (6) Use the SCS Type II rainfall distribution for all design events with a recurrence interval greater than 1 year. Include lot coverage assumptions used for full build out of the proposed condition.

        (7) Determine Curve Numbers for pre-development and post-development conditions.

            i. Curve numbers for the pre-development condition shall reflect the average type of land use over the past 10 years and not only the current land use.

            ii. Pre-development Curve Numbers – Consult *TR-55 NRCS USDA Urban Hydrology for Small Watersheds, 1986.* For

wooded or brushy areas, use listed values in good hydrologic condition. For meadows, use listed values. For all other areas (including all types of agriculture), use pasture, grassland, or range in good hydrologic condition.

iii. Pre-development Curve Numbers for Currently Developed Sites: For sites which are currently developed and are scheduled to be re-developed, use listed values for grassland in good condition. This corresponds to a curve number of 80 for Hydrologic Soil Group D, a curve number of 74 for Hydrologic Soil Group C, 61 for Hydrologic Soil Group B, and 39 for Hydrologic Soil Group A.

iv. Post-development Curve Numbers - Open space areas shall use post-construction hydrologic soil groups from RLDM, unless the soil is amended using the soil profile restoration design criteria in RLDM. All undisturbed areas or open space with amended soils shall be treated as "open space in good condition."

(8) Time of Concentration - Use velocity-based methods from *TR-55 NRCS USDA Urban Hydrology in Small Watersheds, 1986* to estimate travel time (Tt) for overland (sheet) flow, shallow concentrated flow and channel flow as segments present in the Tc flow path.

i. Maximum sheet flow length is 100 ft.

ii. Use the appropriate velocity equation (paved or unpaved) for shallow concentrated flow from Soil Conservation Service National Engineer Handbook Part 630 Hydrology, Chapter 15.

iii. Use a minimum time of concentration of 6 minutes.

(9) The volume reduction provided by runoff reduction SCMs may be subtracted from the post-development stormwater volume. Volume reductions for these SCMs may be demonstrated using methods outlined in Rainwater and Land Development or a hydrologic model acceptable to the City of Warren WPC.

b. 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 except in instances of engineered permeable pavement systems. From the volume determined in Section 936.09(E)(5)(a), determine the percent increase in volume of runoff due to development. Using the percentage, select the 24-hour Critical Storm from Table 2:

Table 2: 24-Hour Critical Storm

If the Percentage of Increase in Volume of Runoff is:		The Critical Storm shall 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 2-year storm is 35%, the Critical Storm is 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 2-year frequency storm under pre-development conditions in the development drainage area. The post-development runoff from all less frequent storms shall be controlled so as not to exceed the peak discharge rate from the 10-year frequency storm under pre-development conditions in the development drainage area.

c. In no case shall the post developed runoff exceed the pre-developed runoff condition for an equivalent storm event.

F. Stormwater Management for Previously Developed Areas

1. Previously developed sites that are being re-developed must meet the Stormwater Quantity Control requirements as described in Section 936.09(D) of this chapter, including the specific requirements regarding pre-development curve number in Section 936.09(E)(5)(a)(7)(iii) of this chapter.
2. SCMs on previously developed sites that are being re-developed must meet all applicable criteria set forth in the Construction General Permit.

936.10 ALTERNATIVE ACTIONS

A. When the City of Warren WPC determines that site constraints compromise the intent of this regulation, offsite mitigation alternatives may be used that result in an improvement of water quality and a reduction of stormwater quantity. Such alternatives shall meet the standards in the Construction General Permit and shall achieve the same level of stormwater quantity control that would be achieved by the on-site controls required under this regulation. City of Warren WPC shall require proof of the Ohio EPA's review and approval for any alternative action proposed.

936.11 EASEMENTS

Access to SCMs as required by the City of Warren WPC for inspections and maintenance shall be secured by easements. The following conditions shall apply to all easements:

A. Easements shall be included in the Inspection and Maintenance Agreement submitted with the Post-Construction Stormwater Control Plan.

B. Easements shall be approved by the City of Warren WPC prior to approval of the final site plan and shall be recorded with the Trumbull County Auditor and on all property deeds.

C. Unless otherwise required by the City of Warren WPC, access easements between a public right-of-way and all SCMs shall be no less than 25-feet wide. The easement shall also incorporate the entire SCM plus an additional 25-foot wide band around the perimeter of the SCM.

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

E. Easements to SCMs shall be restricted against the construction therein of buildings, fences, walls, and other structures that may obstruct the free flow of stormwater 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 City of Warren WPC. Any re-grading and/or obstruction placed within a maintenance easement may be removed by the City of Warren WPC at the property owners' expense.

936.12 MAINTENANCE AND FINAL INSPECTION APPROVAL

To receive final inspection and acceptance of any project, or portion thereof, the following must be completed by the applicant and provided to the City of Warren WPC:

A. Final stabilization must be achieved and all permanent SCMs must be installed and made functional, as determined by the City of Warren WPC and per the approved Post-Construction Stormwater Control Plan.

B. An As-Built Certification, including As-Built Survey and Inspection, must be sealed, signed and dated by a Professional Engineer and a Professional Surveyor with a statement certifying that the SCMs, as designed and installed, meet the requirements of the Post-Construction Stormwater Control Plan approved by the City of Warren WPC. In evaluating this certification, the City of Warren WPC may require the submission of a new set of SCM calculations if they determine that the design was altered significantly from the approved Post-Construction Stormwater Control Plan. The As-Built Survey must provide the location, dimensions, and bearing of such SCMs and include the name or title of the entity responsible for long-term maintenance as detailed in the Inspection and Maintenance Agreement.

C. A copy of the complete and recorded Inspection and Maintenance Plan and Inspection and Maintenance Agreement as specified in Section 936.08 must be provided to the City of Warren WPC.

936.13 ON-GOING INSPECTIONS

The owner shall inspect SCMs regularly as described in the Inspection and Maintenance Plan and Inspection and Maintenance Agreement. The City of Warren WPC has the authority to enter upon the property to conduct inspections as necessary, with prior notification of the property owner, to verify that the SCMs are being maintained and operated in accordance with this regulation. Upon finding a malfunction or other need for maintenance or repair, the City of Warren WPC 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 have ten (10) working days, or other mutually agreed upon time, to makes 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 City of Warren WPC for these repairs not in place, the City of Warren WPC may undertake the necessary repairs and assess the responsible party.

936.14 FEES

The Post-Construction Stormwater Control Plan review, filing, and inspection fee is part of a complete submittal and is required to be submitted to the City of Warren WPC before the review process begins. The City of Warren WPC shall establish a fee schedule based upon the actual estimated cost for providing these services. The current fee schedule is available on the City of Warren Water Pollution Control website: https://www.warren.org/index.php/water-pollution-con/wpc-program-information.

936.15 BOND

A. For projects that require a Post-Construction Stormwater Control Plan and disturb more than 5 total acres of land, soil-disturbing activities shall not be permitted until a cash bond has been deposited with the City of Warren WPC. The specific bond amount shall be a percentage of the total project cost, determined by the City of Warren WPC on a case-by-case basis. Bond may be waived at the discretion of WPC. This bond may also be required for any project that disturbs more than 1 acre of land. This bond shall be posted for the City of Warren to perform the obligations otherwise to be performed by the owner of the development area as stated in this regulation and to allow all work to be performed as needed in the event that the applicant fails to comply with the provisions of the regulations described in this chapter. The stormwater bond will be returned when the following three criteria are met:

1. The site has been stabilized, temporary BMPs have been removed, and the sediment settling basin has been converted to or replaced with post-construction SCM(s) and one of the following conditions are met:

   a. 100% of the total project has achieved permanent stabilization.

   b. Less than one (1) acre of lots remain unbuilt.

   c. No development activities have occurred for at least one (1) year.

2. An As-Built Certification of all SCMs is approved by the City of Warren WPC.

3. An Inspection and Maintenance Plan has been approved by the City of Warren WPC and an Inspection and Maintenance Agreement has been signed by the developer, the contractor, the City of Warren WPC and the private owner or homeowners association who will take long term responsibility for these SCMs, is accepted by the City of Warren WPC.

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, the City of Warren may use the bond monies to fix any outstanding issues with all stormwater 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.

936.16 INSTALLATION OF WATER QUALITY STORMWATER CONTROL MEASURES

The applicant may not direct runoff through any water quality structures or portions thereof that would be degraded by construction site sediment until the entire area tributary to the structure has reached final stabilization as determined by the City of Warren WPC. This occurs after the completion of the final grade at the site, after all the utilities are installed, and the site is subsequently stabilized with vegetation or other appropriate methods. The developer must provide documentation acceptable to the City of Warren WPC to demonstrate that the site is completely stabilized. Upon this proof of compliance, the water quality structure(s) may be completed and placed into service. Upon completion of installation of these SCMs, all disturbed areas and/or exposed soils caused by the installation of these practices must be stabilized within two (2) days.

936.17 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.

936.18 APPEALS

Any person aggrieved by any order, requirement, determination, or any other action or inaction by the City of Warren in relation to this regulation may appeal to the court of common pleas. Such an appeal shall be made in conformity with applicable local, state, and/or federal law. Written notice of appeal shall be served on the City of Warren.

936.99 PENALTY

A. If at any time the City of Warren WPC or their designated representative determines that the project is not in accordance with the approved plan, or if any project subject to the stormwater regulations is being carried out without an approved plan, the City of Warren is authorized to:

(1) Give the legal entity written notice of the corrective action required to be taken and the time frame in which this corrective action must be taken (up to 30 calendar days). Should the legal entity fail within the provided timeframe to complete such corrective action, this shall constitute a violation of this chapter.
(2) Take appropriate corrective action in the event of an emergency situation which endangers persons or property, or both, as determined to exist by the City of Warren WPC.
(3) Issue written notice to the applicant specifying the nature and location of the alleged noncompliance, with a description of the remedial actions necessary to bring the project into compliance within five working days.
(4) Issue a stop-work order directing the applicant or persons in possession to cease and desist all or any portion of the work which violates the provisions of the stormwater regulations if the remedial work is not completed within the specified time. The applicant shall then bring the project into compliance.

B. Civil Penalties. Whoever violates an order of the City of Warren or fails to comply with any provisions of this chapter shall be subject to the imposition of a civil penalty. The City of Warren may assess these penalties in accordance with the tier system below at their discretion. Such civil penalties shall be determined by the City of Warren WPC based on the severity of the violation and the number of times the legal entity was in violation of the same limit. The tier system shall be as follows:

(1) Tier 1. One thousand dollars ($1,000) per violation; each day constitutes a separate

violation.

(2) Tier 2. Five thousand dollars ($5,000) per violation; each day constitutes a separate violation.

(3) Tier 3. Ten thousand dollars ($10,000) per violation; each day constitutes a separate violation.

C. Criminal Penalties. Any willful or negligent violation of this chapter will be subject to criminal prosecution when the City of Warren has evidence of noncompliance which shows criminal intent, and such Discharger shall be punished by a fine of not more than one thousand dollars ($1,000) or by imprisonment for not more than six (6) months, or by both. Each day in which any such violation continues shall constitute a separate offense.

D. Falsifying Information. Any person who knowingly makes false statements, representations or certifications in any application, record, report, plan or other document filed or required to be maintained pursuant to this chapter, or wastewater contribution permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter, shall be punished by a fine of not more than one thousand dollars ($1,000) or by imprisonment for not more than six (6) months, or by both.

E. Administrative Penalties. The City of Warren may assess penalties ranging in the amount of one hundred dollars ($100.00) to three hundred dollars ($300.00) per day upon anyone who fails to comply with the administrative orders issued by the City of Warren or other regulatory agencies. Such administrative penalties shall be determined by the City of Warren based on the severity of the violation. The Tier structure shall be as follows:

(1) Tier 1. One hundred dollars ($100.00) per violation; each day constitutes a separate violation.

(2) Tier 2. Two hundred dollars ($200.00) per day violation; each day constitutes a separate violation.

(3) Tier 3. Three hundred dollars ($300.00) per day violation; each day constitutes a separate violation.

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

Section 3: That this Ordinance is hereby declared to be an emergency measure necessary for the immediate preservation of the public peace, health, welfare and safety, and for the further reason that the integrity of the environment of the City of Warren, Ohio may be more fully insured at the earliest possible time without undue delay. WHEREFORE, this Ordinance shall go into immediate effect.

Passed in Council this 28th day of September 2022.

SIGNED: _____ ATTEST: _____
PRESIDENT OF COUNCIL CLERK

FILED WITH THE MAYOR: 9-28-2022

DATE APPROVED: 9-28-2022

_____
MAYOR, CITY OF WARREN, OHIO