Comprehensive Storm Water Management Regulations of the Village of Galena, Ohio

Adopted

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Section 1 - Purpose and Scope

1.01: Purpose of These Regulations

These Regulations shall be known as the *2019 Comprehensive Storm Water Management Regulations of the Village of Galena, Ohio.* The Village of Galena sits at the confluence of Little Walnut and Big Walnut creeks, the headwaters of Hoover Reservoir, a City of Columbus drinking water supply. Little Walnut and Big Walnut creeks are classified as a warm water habitat and an exceptional warm water habitat, respectively. Hoover Reservoir, surrounded by the Hoover Nature Preserve situated on the North American Flyway, is home to several critical ecological habitats including a Prothonotary Warbler reintroduction nesting area, Osprey and Eagle nesting sites, rare flora and fauna, and important migratory stops. Our natural resources are highly valued by our community and these regulations seek to protect them.

The purpose of these regulations is to regulate storm water management for the benefit of the public and environment through implementation of sound engineering practices, construction procedures, and Stormwater Control Measures (SCMs) designed to reduce or limit the detrimental effects of earth disturbing activities and practices by Village property owners. These regulations shall encourage SCMs for storm water management with the goal of cleansing storm water by encouraging percolation into ground water. Storm water management controls the quantity and quality of runoff from all surfaces. Specifically, the harmful effects of erosion, sedimentation, uncontrolled runoff from disturbed soils, illicit discharges, and harmful pollution shall be limited and monitored by these regulations to ensure public safety through responsible environmental protection. These regulations 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, degradation of water resources, and will promote and maintain the health, safety, and welfare of the citizens of the Village of Galena.

1.02: Requirements

These regulations require property owners who perform earth disturbing activities on their property within the Village of Galena to:

A. Control storm water runoff from their property and ensure that all Storm Water Control Measures (SCMs) are properly designed, constructed, and maintained.
B. Reduce water quality impacts to receiving water resources that may be caused by new development, demolition, redevelopment, or construction activities.
C. Control the volume, rate, and quality of storm water runoff originating from their property so that surface and ground water are protected, and flooding and erosion potential are reduced or at least not increased.
D. Utilize SCMs first before other more traditional storm water methods.
E. Minimize the need to construct, repair, and replace subsurface storm drain systems.
F. Preserve natural infiltration and ground water recharge, and maintain subsurface flow that replenishes water resources, except in slippage prone soils.

G. Incorporate SCMs for storm water quality and quantity controls into site planning and design at the earliest possible stage in the development and construction process.
H. Reduce the expense of remedial projects needed to address problems caused by inadequate storm water management.
I. Maximize use of SCMs that serve multiple purposes including, but not limited to, flood control, erosion control, fire protection, water quality protection, recreation, and habitat preservation.
J. Design sites to minimize the number of stream crossings and the width of associated disturbances in order to minimize the Village of Galena's future expenses related to the maintenance and repair of stream crossings.
K. Maintain, promote, and re-establish conditions necessary for naturally occurring stream processes that assimilate pollutants, attenuate flood flows, and provide a healthy water resource.

1.03: Application of Regulations

These regulations shall apply to all property and uses in the Village of Galena including 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 including demolition and renovations of existing structures which may affect storm water management; grading, and any other uses not specifically exempted by these regulations.

A. The Village shall comply with these regulations for all applicable projects initiated after the adoption of these regulations and, to the maximum extent practicable, for projects initiated before that time.
B. These regulations do not apply to activities regulated by, and in compliance with, the Ohio Agricultural Sediment Pollution Abatement Rules.
C. These regulations do not require a Comprehensive Storm Water Management Plan (CSWMP) 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 Village's engineer. Such projects must be designed to minimize the number of stream crossings and the width of disturbance. Linear construction projects must comply with the requirements of the Erosion and Sediment Control (ESC) requirements of these regulations.

Section 2 – Development of Comprehensive Storm Water Management Plans

These regulations require that a Comprehensive Storm Water Management Plan (CSWMP) be developed and implemented for activities subject to the regulations as defined by Section 1.02 for which 10,000 sf or more of impervious area is added or 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 disturbing one (1) or more acres of total land, or
- on which any regulated activity under these regulations is proposed.
- All land disturbances under one (1) acre will require an abbreviated Storm Water Pollution Prevention Plan (SWP3), the requirements for which are located in Section 9.

The Village shall administer these regulations; shall be responsible for determination of compliance with these regulations; and, shall issue notices and orders as may be necessary. The Village may consult with other technical experts in reviewing the Comprehensive Storm Water Management Plan.

These regulations require the use of SCMs first before the use of more traditional storm water management methods that typically involve storm water pipes. The landowner must prove why they cannot use SCMs in order to use traditional storm water management methods.

Section 3 - Application Procedures

3.01: Pre-Application Meeting

The applicant shall attend a Pre-Application or Sketch Plan Meeting with the Village staff and engineer to discuss the proposed project; review the requirements of these regulations; identify unique aspects of the project that must be addressed during the review process; and, establish a preliminary review and approval schedule.

3.02: Preliminary Comprehensive Storm Water Management Plan

The applicant shall submit an application (Appendix A) and one (1) electronic and two (2) 22" x 34" printed sets of a Preliminary Comprehensive Storm Water Management Plan (Preliminary CSWMP) at a maximum scale of 1":50' and such other plan submittals as the Village engineer may require or request. The applicable fees shall be made payable to the Village of Galena. The Preliminary Plan shall show the proposed property boundaries, setbacks, dedicated open space, public and private roads, trails and sidewalks, water resources, storm water control facilities, and easements in sufficient detail and engineering analysis to allow the Village engineer to determine if the site is laid out in a manner that meets the intent of these regulations and if the proposed SCMs are capable of controlling runoff from the site in compliance with these regulations. The plan is required for the following:

A. For subdivisions: In conjunction with the submission of the preliminary subdivision plan. Required for any earth disturbing activity more than one (1) acre or less than 1 acre if part of a larger common plan of development. It would be required whether or not a zoning permit is required.
B. For demolition projects: In conjunction with the application for a demolition permit.

3.03: Final Comprehensive Storm Water Management Plan

The applicant shall submit an application (Appendix A) and one (1) electronic and two (2) 22" x 34" printed sets of a Final Comprehensive Storm Water Management Plan (Final CSWMP) at a maximum scale of 1":50' and the applicable fees to the Village in conjunction with the submittal of the final plat, improvement plans, or application for a zoning permit for the site. The Final CSWMP shall meet the requirements of these Village regulations and shall be approved by the Village engineer prior to approval of the final plat and/or before issuance of a zoning permit by the Zoning Inspector. It shall clearly designate by recorded instrument or on the plat the party or entity responsible for maintenance which may be the Homeowners' Association, property owner, or property occupant, or any combination of the foregoing.

3.04: Review and Comment

The Village engineer shall review the Preliminary and Final CSWMPs submitted and shall approve or return with comments and recommendations for revisions. A Preliminary or Final CSWMP rejected because of deficiencies shall receive a narrative report stating specific problems and the procedures for filing a revised Preliminary or Final CSWMP. A revised Preliminary or Final CSWMP will result in an additional fee.

3.05: Approval Necessary

Land clearing and soil-disturbing activities shall not begin, and zoning permits shall not be issued, without an approved Final Comprehensive Storm Water Management Plan.

3.06: Valid for Two Years

Approvals issued in accordance with these regulations shall remain valid for two (2) years from the date of approval. Extensions are subject to approval of the Planning and Zoning Commission upon application by the property owner.

Section 4 – Compliance with State and Federal Regulations

Approvals issued in accordance with these regulations do not relieve the applicant of responsibility for obtaining all other necessary permits and/or approvals from other federal, state, and/or local agencies. If requirements vary, the most restrictive shall prevail. Applicants are required to show proof of compliance with these regulations before the issuance of a zoning permit. These permits may include, but are not limited to, those listed below:

4.01: 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 National Pollutant Discharge Elimination System (NPDES) Permit, or a letter from the site owner certifying and explaining why the NPDES Permit is not applicable.

4.02: The Clean Water Act

For 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 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.

For 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:

A. A letter from the site owner certifying that a qualified professional has surveyed the site and determined that Section 404 is not applicable.
B. A site plan showing that any proposed fill of Waters of the United States conforms to the general and special conditions specified in the applicable Nationwide Permit.

4.03: 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.

4.04: Ohio Dam Safety Law

Proof of compliance with the Ohio Dam Safety Law shall be a copy of the Ohio Department of Natural Resources (ODNR) Division of Water Resources permit application tracking number, a copy of the project approval letter, or a letter from the site owner and a qualified professional certifying and explaining why the Ohio Dam Safety Law is not applicable.

Section 5 – Comprehensive Storm Water Management Plan (CSWMP)

5.01: Comprehensive Storm Water Management Plan Required

The applicant shall develop a Comprehensive Storm Water Management Plan (CSWMP) describing how the quantity and quality of storm water 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). The Plan will illustrate the type, location, and dimensions of every structural and non-structural SCM incorporated into the site design, and the rationale for their selection. The rationale must show how these SCMs 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 SCMs minimize impacts to the physical, chemical, and biological characteristics of on-site and downstream water resources and, if necessary, corrects current degradation of water resources that is occurring or takes measures to prevent predictable degradation of water resources.

5.02: Preparation by a Professional Engineer

The CSWMP 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 Village engineer, a site survey shall be performed by a registered professional surveyor to establish boundary lines, measurements, and land surfaces including woodlots, wetlands, ponds, and drainage areas.

5.03: Village Procedures

The Village engineer shall prepare and maintain procedures providing specific criteria and guidance to be followed when designing the storm water management system for the site. These procedures may be updated from time to time, at the discretion of the Village engineer based on improvements in engineering, science, monitoring, and local maintenance experience. The Village engineer shall make the final determination of whether the practices proposed in the CSWMP meet the requirements of these regulations. Where a conflict may exist between these standards, the more stringent standard shall apply as approved by the Village engineer.

The following criteria and guidance documents shall be used as minimum standards for design where applicable:

A. OEPA *Rainwater and Land Development Manual*, current edition.
B. OEPA *Construction General Permit*, current edition.
C. NRCS CPS *Pond Code 378*, current edition.
D. ODOT's *Location and Design Manual, Volume 2, Drainage Design*, current edition.
E. *Delaware County Engineer Design, Construction and Surveying Standards Manual*, current edition.
F. *Geauga Soil and Water Conservation District Rain Garden Manual,* current edition.
G. *Silva Cell Fact Sheet, Deep Root Green Infrastructure, LLC, current edition.*
H. Village Storm Water Lid Standards in Appendix C of this document.
I. *ODNR's Floodplain Management Program.*

5.04: Contents of Comprehensive Storm Water Management Plan

The CSWMP shall contain an application, narrative report, construction site plan sheets, a long-term Inspection and Maintenance Plan, Inspection and Maintenance Agreement, and a site description and map with the following information provided:

5.041: Site Description

A. A description of the nature and type of the construction activity (e.g. residential, commercial, 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, and filling or grading, including on-site or off-site borrow areas).
C. A description of prior land uses at the site.
D. A measure of the impervious area and percent imperviousness created by the construction activity (existing, new, and total impervious area after construction).
E. Storm water calculations, including the volumetric runoff coefficients for both the pre-construction and post-construction site conditions, and resulting water quality volume; design details for post-construction storm water facilities and pretreatment practices such as contributing drainage areas, capacities, elevations, outlet details and drain times; and, if applicable, explanation of the use of existing post-construction facilities. The Ohio EPA recommends the use of data sheets (see OEPA *Rainwater and Land Development Manual*, current edition and other OEPA resources for examples).
F. Existing data describing the soils throughout the site, with the soil map units including series, complexes, and associations, hydrologic soil group, porosity, infiltration characteristics, depth to groundwater, depth to bedrock, and any impermeable layers.
G. 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.
H. The location and name of the immediate water resource(s) and the first subsequent water resource(s).
I. The aerial (plan view) extent and description of water resources at or near the site that will be disturbed or will receive discharges from the project. For this plan, water resources must be mapped over aerial imagery that is no greater than two (2) years old.
J. If applicable, identify the point of discharge to a municipal separate storm sewer system (MS4) and the location where that MS4 ultimately discharges to a stream, lake, or wetland. The location and name of the immediate receiving stream or surface water(s), the first subsequent receiving water(s), and the aerial 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 undisturbed areas of the project.
K. Total Maximum Daily Loads (TMDLs) applicable for the site and demonstrate that appropriate SCMs have been selected to address these TMDLs.
L. For each SCM, identify the drainage area, percent impervious cover within the drainage area, runoff coefficient for water quality volume, peak discharge, and the time of concentration for each sub-watershed per the current edition of the *Rainwater and Land Development Manual*. Identify the SCM surface area, discharge and dewatering time, and outlet type and dimensions. Each SCM shall be designated with an individual identification number.

M. 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.

5.042: Site Map Showing the Following:

A. Limits of soil-disturbing activity on the site.
B. Soils map units for the entire site, including locations of unstable, wet, or highly erodible soils.
C. Existing and proposed one-foot (1') contours. This must 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.
D. Water resource locations including springs, wetlands, streams, lakes, water wells, and associated setbacks on or within 200 feet (200') of the site, including the boundaries of wetlands or streams and first subsequent named receiving water(s), whether or not the applicant intends to fill or relocate, for which the applicant is seeking approval from the U.S. Army Corps of Engineers and/or Ohio EPA.
E. Existing and planned locations of buildings, roads, parking facilities, and utilities.
F. The location of any in-stream activities including stream crossings.
G. Phases or phasing, if applicable, of the overall development plan.
H. List of sub-lot numbers if the project is a subdivision**.**
I. Ohio EPA NPDES Permit Number and other applicable state and federal permit numbers, if available, or the status of various permitting requirements if final approvals have not been received.
J. Location, including complete site address and sub-lot numbers if applicable.
K. Location of any easements or other restrictions placed on the use of the property.
L. Company name and contact information as well as contact name, addresses, emails, and phone numbers for the following: the professional engineer who prepared the CSWMP, the developer, and the site owner.

5.043: Site plan sheet showing the following:

A. The location of each proposed post-construction SCM.
B. The geographic coordinates of the site and each proposed practice in North American Datum, Ohio State Plane North.
C. 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.

5.044: Inspection and Maintenance Agreement and Plan

The Inspection and Maintenance Agreement required for SCMs under these regulations shall be a standalone document between the Village of Galena and the applicant and shall contain the following information and provisions (See Appendix B for approved template):

A. Identification of the landowner(s), organization, or municipality responsible for long-term maintenance, including repairs of the SCMs.
B. The responsible party identified shall maintain SCMs in accordance with these regulations.
C. Agreement that the Village has the authority to enter upon the property to conduct inspections with a twenty-four (24) hour advanced notice emailed and posted at the property together with such additional form of notice as the Village engineer may deem appropriate for the purpose of verifying the storm water management practices are being maintained and

operated in accordance with these regulations and, in cases of emergency, no advance notice is required. By acceptance of the ownership or occupancy of a property subject to these regulations, the property owner and/or occupant consents to the entry upon the property as described herein by Village representatives.

D. The Village shall maintain public records of the results of site inspections, shall inform the landowner(s) or organization responsible for maintenance of the inspection results, and shall specifically indicate any corrective actions required to bring the SCMs into proper working condition.
E. If the Village notifies the landowner(s) or organization responsible for maintenance of the problems requiring correction, the specific corrective actions shall be taken within a reasonable time frame as determined by the Village.
F. The Village representatives are authorized to enter upon the property to perform the corrective actions identified in the inspection report if the responsible party fails to take the required corrections specified within the time period allowed. The Village shall be reimbursed by the responsible party (and there may be multiples including the landowner, developer, organization, or occupant) for all expenses incurred within thirty (30) days of receipt of the invoice from the Village. If the Village is not reimbursed, said expenses shall result in a lien against the properties of the owner.
G. The method of funding long-term maintenance and inspections of all storm water management practices shall be stated.
H. The owner, developer, occupant, and any other person or entity with an interest in the property releases the Village and its agents from all damages, accidents, casualties, occurrences, or claims that might arise and be asserted against the Village or its representatives from the construction, presence, existence, or maintenance, or lack thereof of the SCMs.

The Inspection and Maintenance Agreement will be developed by the applicant and reviewed by the Village. The applicant must provide a draft of this Inspection and Maintenance Agreement as part of the CSWMP application submittal. Once the Inspection and Maintenance Agreement is approved, a recorded copy must be submitted to the Village such that it is in the chain of title for all properties. The recorded copy will be submitted to the Village as part of the final inspection approval of the site. Alteration or termination of this Agreement is prohibited. The agreement will include at a minimum:

A. A detailed drawing of each SCM and outlet structures with the parts of the outlet structure labeled.
B. The location of each SCM, including those practices permitted to be located in or within 50 feet (50') of water resources and identification of the drainage area served by each SCM.
C. Photographs of each SCM, including all inlets and outlets, upon completion of construction.
D. 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 system as is detailed in the approved CSWMP. This schedule may include additional standards, as required by the Village engineer, to ensure continued performance of storm water management practices permitted to be located within 50 feet (50') of water resources. The Maintenance Schedule shall identify the person or entity responsible for the maintenance as the responsible party which shall, at a minimum, include the owner or occupant of the property.
E. A maintenance inspection checklist written so the average person can understand it shall be incorporated.

F. The location and documentation of all access and maintenance easements on the property.

5.05: 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 inclusion of each water resource and its floodplain, as required in these regulations. 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 the runoff from offsite areas have been considered in the calculations. Calculations shall be provided in accordance with the current edition of the *Delaware County Engineer Design, Construction and Surveying Standards Manual*.

5.06: List of All Contractors and Subcontractors before Construction

Prior to construction or before the Pre-Construction Meeting, the applicant shall provide the list of all contractors and subcontractors and their names, addresses, email addresses, and phone numbers involved with the implementation of the CSWMP 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 CSWMP.

5.07: Existing and Proposed Drainage Patterns

The location and description of existing and proposed drainage patterns and SCMs, including any related SCMs beyond the development area and the larger common development area shall be shown and included.

5.08: For Each Storm Water Management Practice to be employed on the Development Area, 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 SCMs. Details of SCMs shall be drawn to scale and shall show volumes and sizes of contributing drainage areas.
C. Any other structural and/or non-structural SCMs necessary to meet the design criteria in these regulations and any supplemental information requested by the Village engineer.
D. Each SCM shall be designated with an individual identification number.

Section 6 - General Performance Standards

The storm water 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; and, to meet the criteria in this section. The current edition of the *Delaware County Engineer Design, Construction and Surveying Standards Manual* shall be used for general performance standards including, but not limited to, standard construction details, construction and material specifications, plan submittal requirements and design parameters where not conflicting with these regulations. The Village engineer may, on a case-by-case basis, overrule these standards.

6.01: Integrated Practices That Address Degradation of Water Resources

The SCMs 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 the Village riparian setback requirements (Reference Section 15).
B. Maintain predevelopment hydrology and groundwater recharge on as much of the site as practicable.
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 storm water peak flows to less than predevelopment levels.
E. Be designed according to the methodology included in the most current edition of the *Rainwater and Land Development Manual*, criteria in these regulations, and additional criteria and standards as may be required by the Village engineer.

6.02: Practices Designed for Final Use

SCMs shall be used to achieve the storm water management objectives of these regulations; 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.

6.03: Storm Water Management for All Lots

Areas developed for a subdivision shall provide storm water 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.

6.04: Storm Water 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 applicable federal, state, and local agencies as required in these regulations, or by the law, and the activity is in compliance with the Village's

erosion and sediment control requirements and riparian setback requirements, all as determined by the Village engineer.

6.05: Storm Water Ponds and Surface Conveyance Channels

All storm water pond and surface conveyance designs must provide a minimum of one (1) foot freeboard above the projected peak stage within the facility during the 100-year, 24-hour storm. When designing storm water 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.

6.06: Exemption

The site where soil-disturbing activities are conducted shall be exempted from the storm water management requirements if it can be shown to the satisfaction of the Village 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 SCM, 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 Village engineer.

6.07: Maintenance

All SCMs shall be maintained in accordance with the Inspection and Maintenance Agreements approved by the Village engineer.

6.08: Ownership

Unless otherwise required by the Village, 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 those lots, protected within an easement, and maintained by the property owner.

6.09: Preservation of Existing Natural Drainage

A. Practices that preserve and/or improve the existing natural drainage shall be used to the maximum extent practicable. Such practices may include the following:
   1. Minimizing site grading and compaction;
   2. Protecting and/or restoring water resources, riparian areas, and existing vegetation and vegetative buffer strips;
   3. Phasing of construction operations in order to minimize the amount of disturbed land at any one time;
   4. Designation of tree preservation areas or other protective clearing and grubbing practices; and,
   5. Maintaining un-concentrated storm water runoff to and through these areas.

B. Post-construction storm water practices shall provide perpetual management of runoff quality and quantity so that a receiving stream's physical, chemical, and biological characteristics are protected, and ecological functions are maintained.

6.10: Preservation of Wetland Hydrology

If the applicant proposes discharging to natural wetlands, a hydrological analysis shall be performed to demonstrate that the proposed discharge matches the pre-development hydro periods and hydrodynamics that support the wetland. Concentrated storm water runoff from SCMs shall be converted to diffuse flow before the runoff enters the wetlands 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.

6.11: Soil Preservation and Post-Construction Soil Restoration

To the maximum extent practicable, the applicant needs to leave native soil undisturbed and protected from compaction during construction. 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 will be amended using the following steps:

A. Till subsoil to a depth of fifteen to eighteen inches (15-18");
B. Incorporate compost through the top twelve inches (12"); and,
C. Replace with stockpiled site or imported suitable topsoil to a minimum depth of four inches (4").

6.12: Storm Water Conveyance Design Criteria

All SCMs shall be designed to convey storm water to allow for the maximum removal of pollutants and reduction in flow velocities.

6.13: Surface Water Protection

The Village engineer may allow the modifications of water resources only if the applicant shows proof of compliance with all appropriate permits from the Ohio EPA, the U.S. Army Corps of Engineers, and other applicable federal, state, and local agencies as required in these regulations, and the activity is in compliance with the erosion and sediment control requirements, and the riparian setback requirements, all as determined by the Village engineer. 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.

6.14: Off-site Storm Water Discharges

Off-site storm water runoff that discharges to or across the applicant's development site shall be conveyed through the storm water conveyance system planned for the development site at its existing 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. The CSWMP will not be approved until it is demonstrated to the satisfaction of the Village engineer 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.

6.15: Sheet Flow

The site shall be graded in a manner that maintains 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. In no case shall the sheet flow length be longer than 300 feet (300'), nor shall a sheet flow area exceed one and one-half (1.5) acres. Flow shall be directed into an open channel, storm sewer, or other SCMs from areas too long and/or too large to maintain sheet flow, all as determined by the Village engineer.

6.16: Open Channels

Unless otherwise allowed by the Village engineer, drainage tributary to storm water management facilities shall be provided by an open channel with landscaped banks and designed to carry the 100-year, 24-hour storm water runoff from upstream contributory areas.

6.17: Storm Sewer Systems

SCMs that limit the need for traditional storm sewers to convey storm water shall be preferred on all new development sites. The Village encourages storm water infiltration versus storm water running through pipes carrying pollutants into streams and rivers. When traditional storm sewer is required, it shall be designed in accordance with the methodology outlined in the current version of the *Ohio Department of Transportation Location and Design Manual, Volume 2*. In addition, the following criteria shall be used to design storm sewer systems:

A. Storm sewers shall be designed such that they do not surcharge from runoff caused by the 5-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 10-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 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 twelve inches (12"). Smaller pipe sizes may be used in private systems, subject to the approval of the Village engineer.
C. All storm sewer systems shall be designed taking into consideration the tail water of the receiving facility or water resource. The tail water 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.

6.18: Water Resource Crossings

The following criteria shall be used to design structures that cross a water resource in the Village:

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, with open bottom arches 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, cold-water habitat, exceptional warm water habitat, seasonal 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 percent (25%) of the cross-sectional area or a minimum of 1 foot (1') 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 twelve inches (12").
E. The maximum slope allowable shall be a slope that produces a ten-feet (10') per second (fps) 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 tail water of the receiving facility or water resource. The tail water elevation used shall be based on the design storm frequency.
G. Headwalls shall be required at all culvert inlets or outlets to and from water resources.
H. Streams with a drainage area of five (5) square miles or larger shall incorporate floodplain 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.
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 FEMA, whichever is more restrictive.
J. Any structure with a span of 9 feet (9') or larger must be reviewed and approved by the Delaware County Engineer.

6.19: Overland Flooding

Overland flood routing paths shall be used to convey storm water runoff from the 100-year, 24-hour storm event to an adequate receiving water resource or storm water management facility 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 (1') below the finished grade elevation at the structure. When

designing the flood routing paths, the conveyance capacity of the site's storm sewers shall be taken into consideration.

6.20: 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 Village 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 Village, 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.

The requirement for compensatory floodplain storage is only permitted when the riparian setback does not include the entire 100-year floodplain. A variance to permit the filling in the floodplain when it is determined that stream or floodplain restoration is needed due to site constraints, or to meet the objectives of these regulations, or when the Village engineer, with the agreement of the Commission, determines a variance from the standards is appropriate.

6.21: 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.

6.22: Direct Runoff to an SCM

The site shall be designed to direct runoff to one or more of the SCMs approved for use in the current edition of the *OEPA Construction General Permi*t. These practices shall be implemented in accordance with the following general performance standards:

A. Extended detention facilities that detain storm water; settle or filter particulate pollutants; and, release the controlled storm water to a water resource.
B. Infiltration facilities that retain storm water; promote settling, filtering, and biodegradation of pollutants; and, infiltrate captured storm water into the ground. The Village engineer may require a soil engineering report to be prepared for the site to demonstrate that any proposed infiltration facilities meet these performance standards.
C. For all construction activities that will disturb one (1) or more acres of land, or will disturb less than one (1) acre, that is a part of a larger common plan of development or sale which will disturb one (1) or more acres of land, the post construction SCMs chosen shall be able to manage storm water runoff for protection of stream channels, stream stability, and water quality. The SCMs chosen must be compatible with site and soil conditions. Structural post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the

site. The SCMs chosen must be sized to treat the water quality volume (WQv) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1.

D. For the construction of new roads and roadway improvement projects by public entities, the Village engineer may approve SCMs not included in *Ohio EPA's Construction General Permit* but must show compliance with the current version of the Ohio Department of Transportation's *Location and Design Manual*.

6.23: Criteria Applying to All SCMs

Practices chosen must be sized to treat the water quality volume (WQv) and to ensure compliance with Ohio Water 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 one hundred percent (100%) of the WQv associated with their contributing drainage area. If there is an existing post-construction SCM that treats runoff from the disturbed area, and the SCM design (i.e. extended detention volume and outlet) allows the SCM to meet the post-construction requirements of these regulations, no additional post-construction SCM will be required. Design information such as contributing drainage areas, capacities, elevations, outlet details and drain times shall be included in the CSWMP.
C. Only post-construction SCMs that are allowed by the current edition of the *Ohio EPA Construction General Permit* are permitted by these regulations. All post-construction SCMs shall be designed in accordance with the current edition of the *Ohio EPA Construction General Permit* and the *Rainwater and Land Development Manual*.
D. Each individual SCM must be sized to treat the WQv associated with its entire contributing drainage area. Exceptions to this may be granted by the Village engineer and/or the OEPA on a case-by-case basis.
E. Post-construction SCMs 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.
F. 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.

6.24: Additional Criteria Applying to Infiltration Facilities

Infiltration facilities should be designed to meet all criteria in the current edition of the *Rainwater and Land Development Manual*.

A. All runoff directed into an infiltration basin must 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.
B. During construction, all runoff from disturbed areas of the site shall be diverted away from the proposed infiltration basin site. To avoid soil compaction, no construction equipment shall be allowed within the infiltration basin site.

6.25: Additional Criteria for Extended Detention Facilities

A. The outlet shall be designed to not release more than the first half (½) of the water quality volume in less than one-third (⅓) of the drain time. The outlet shall be designed to minimize clogging, vandalism, maintenance, and 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 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 feet (4') shall be surrounded by an aquatic bench that extends at least eight feet (8') and no more than fifteen feet (15') outward from the normal water edge. The eight-foot (8') wide portion of the aquatic bench closest to the shoreline shall have an average depth of six inches (6") below the permanent pool to promote the growth of aquatic vegetation. The remainder of the aquatic bench shall be no more than fifteen inches (15") below the permanent pool to minimize drowning risk to individuals 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 (Height) to one (Vertical) (10:1). The aquatic bench shall be planted with a variety of native plant species comparable to wetland vegetation that are able to withstand prolonged inundation. The use of invasive plant species is prohibited.
    3. A forebay designed to allow larger sediment particles to settle shall be placed at basin inlets. The forebay and micropool volume shall be equal to at least ten percent (10%) of the water quality volume (WQv).
    4. Detention basins shall be provided with an emergency drain, where practicable, so that the basin may be emptied if the primary outlet becomes clogged and/or to drain the permanent pool to facilitate maintenance. The emergency drain should be designed to drain by gravity where possible.
    5. Detention basins shall be provided with an emergency spillway designed to handle the 100-year storm event with all other outlets plugged and the water surface elevation starting at the bottom of the emergency spillway. Emergency spillways are only allowed to be utilized for storms in excess of the 100-year storm event.

6.26: Criteria for the Acceptance of Alternative Post-construction SCMs

The applicant may request approval from the Village engineer for the use of alternative structural post-construction SCMs if the applicant shows to the satisfaction of the Village engineer these SCMs are equivalent in pollutant removal and runoff flow/volume reduction effectiveness to those approved by the current edition of the *Ohio EPA Construction General Permit* and with prior approval from the Ohio EPA. To demonstrate the equivalency, the applicant must show:

A. The alternative SCM has a minimum total suspended solid (TSS) removal efficiency of eighty percent (80%), using the Level-II Technology Acceptance Reciprocity Partnership (TARP) testing protocol.
B. The water quality volume discharge rate from the selected SCM is reduced to prevent streambed erosion, unless there will be negligible hydrologic impact to the receiving Surface Waters of the State. The discharge rate from the SCM will have negligible impacts if the applicant can demonstrate one of the following conditions:
    1. The entire water quality volume is recharged to groundwater.
    2. The development will create less than one (1) acre of impervious surface.

3. The development project is a redevelopment project with an ultra-urban setting, such as a downtown area, or where one-hundred percent (100%) of the project area is already impervious surface and the storm water discharge is directed into an existing storm sewer system.
4. The storm water drainage system of the development discharges directly into a large river of the fourth order or greater or to a lake, and where the development area is less than five percent (5%) of the water area upstream of the development site, unless a Total Maximum Daily Load (TMDL) has identified water quality problems in the receiving surface water of the State.

6.27: Storm Water Quantity Control

The CSWMP shall describe how the proposed SCMs are designed to meet the following requirements for storm water quantity control for each watershed in the development.

6.271: Peak Discharge from Critical Storm

The peak discharge rate of runoff from the Critical Storm and all more frequent storms occurring 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.

6.272: Peak Discharge from Less Frequent Occurrence Storms

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.

6.273: Critical Storm

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 Village engineer, the total volume (acre-feet) of runoff from a 1-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 onsite contributing watershed to the development area.
    3. Drainage area maps shall include area, curve number, and time of concentrations. Time of concentration shall also show the flow path and the separation in flow type.
    4. Rainfall Depth – For the most accurate, up-to-date, location-specific rainfall data for storm water design, use the *Precipitation-Frequency Atlas of the United States, NOAA Atlas 14*, available online: http://hdsc.nws.noaa.gov/hdsc/pfds/.
    5. Temporal Distribution – Use the Soil Conservation Service (SCS) Type II rainfall distribution for all design events with a recurrence interval greater than one (1) year. Include lot coverage assumptions used for full build out of the proposed conditions.

6. Curve numbers for the pre-development condition must reflect the average type of land use over the past ten (10) years and not only the current land use.
    a. Pre-development Curve Numbers – For wooded or brushy areas in good hydrologic condition, use listed values from *TR-55 NRCS USDA Urban Hydrology for Small Watersheds, 1986*. For meadows, use listed values. For impervious area that has been in place prior to 1986, use listed values. For all other areas (including impervious area added after 1986 and all types of agriculture), use pasture, grassland, or range in good hydrologic condition. In no case shall the composite pre-development curve number be larger than seventy-seven (77).
    b. Post-development Curve Numbers - Open space areas shall use post-construction Hydrologic Soil Groups (HSGs) from the current edition of the *Rainwater and Land Development Manual* unless the soil is amended after development according to the following protocol: till the subsoil to fifteen to eighteen inches (15-18"), then till using a chisel, spader, or rotary tillage and incorporate compost through the top twelve inches (12"), and replace topsoil to a minimum depth of four inches (4"). All undisturbed areas or open space with amended soils shall be treated as "open space in good condition".
7. 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. Maximum sheet flow length is one-hundred feet (100').
8. The volume reduction provided by permeable pavement, bio-retention, or other Low Impact Development (LID) SCMs may be subtracted from the post-development storm water volume. Volume reductions for these practices may be demonstrated using methods outlined in the current edition of the *Rainwater and Land Development Manual* or a hydrologic model acceptable to the Village engineer.
9. 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 surface proposed in the site description, except in instances of engineered permeable pavement systems.

B. From the volume, determine the percent increase in volume of runoff due to development. Using the percentage, select the 24-hour Critical Storm from Table 1.

Table 1: 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 one-year (1) storm is thirty-five percent (35%), the Critical Storm is a five-year (5) 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 one-year (1) 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.

6.28: Redevelopment Projects

CSWMPs for redevelopment projects shall meet the minimum Water Quality Volume (WQv) requirement as defined in the current version of the *Ohio EPA Construction General Permit* for redevelopment projects.

6.29: New Development and Redevelopment

Where projects are a combination of new development and redevelopment, the total water quality volume that must be treated shall be calculated as defined in the current version of the *Ohio EPA Construction General Permit*.

6.30: Alternatives

Where conditions prevent impervious area reduction or on-site storm water management for redevelopment projects, practical alternatives as detailed may be approved by the Village engineer.

Section 7 - Alternative Actions

7.01: Off-Site Alternatives

When the Village of Galena determines that site constraints compromise the intent of these regulations, 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:

A. Shall achieve the same level of storm water quantity and quality control that would be achieved by the on-site controls required under these regulations.
B. Shall be implemented in the same Hydrologic Unit Code (HUC) 12 watershed unit as the proposed development project.
C. The mitigation ratio of the water quality volume is 1.5:1 or the water quality volume at the point of retrofit, whichever is greater.
D. An Inspection and Maintenance Agreement (Appendix B) is established to ensure operations and treatment in perpetuity.
E. Obtain prior written approval from the Ohio EPA.

7.02: Alternative Actions

All alternative actions shall be approved by the Village engineer. Alternative actions may include, but are not limited to the following:

A. Fees, in an amount specified by the Village, are to be applied to community-wide SCMs.
B. Implementation of off-site SCMs and/or the retrofit of an existing facility to increase quality and quantity control.
C. Stream, floodplain, or wetland restoration.
D. Acquisition of conservation easements on protected open space significantly contributing to storm water control such as wetland complexes.

Section 8 - Easements

8.01: Easements Required for Inspections and Maintenance

As required by the Village, access to SCMs 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 CSWMP.
B. Easements shall be approved by the Village of Galena prior to approval of the final plat and shall be recorded with the Delaware County Recorder's Office in the chain of title for all properties affected by the specific SCM.
C. Unless otherwise required by the Village engineer, access easements between a public right-of-way and all SCMs shall be no less than twenty-five feet (25') wide. The easement shall also incorporate the entire facility plus an additional twenty-five foot (25') wide band around the perimeter of the SCM.
D. The easement shall be graded and/or stabilized by the property owner 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 structural SCMs 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 Village of Galena. Any re-grading and/or obstruction placed within a maintenance easement may be removed by the Village at the property owners' expense.

Section 9 – Erosion and Sediment Control

9.01: Stormwater Pollution Prevention Plan Requirements

Erosion and Sediment Control (ESC) shall be provided for all earth disturbances subject to these regulations. Erosion and Sediment Control shall meet the minimum requirements set forth by the *Ohio EPA NPDES Construction Storm Water General Permit* that includes development of a Storm Water Pollution Prevention Plan (SWP3) subject to approval by the Village engineer.

9.02: Abbreviated Stormwater Pollution Prevention Plan (SWP3) Requirements

For disturbances that are less than one (1) acre, an Abbreviated Stormwater Pollution Prevention Plan (SWP3) is required. The Abbreviated SWP3 shall include a minimum of the following SCMs:

A. **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 or cement sized greater than two inches (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.*
B. **Concrete Truck Wash Out** – The washing of concrete material into a street, catch basin, or other public facility or natural resource is prohibited. A designated area for concrete washout shall be indicated on the plan. Use of this washout for other waste and wastewater is prohibited.
C. **Fuel Storage and Fueling** – Storage of fuel or fueling of vehicles shall not occur near catch basins, storm water systems, or natural resources. The intentional flushing or accidental spilling of fuel into a street, catch basin, or other public facility or natural resource is prohibited.
D. **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.
E. **Stabilization** – The development area shall be stabilized as detailed in Table 2.

Table 2: Stabilization

Area requiring stabilization	Time frame to apply erosion controls
Any disturbed area within fifty feet (50') of a surface water of the state and not at final grade.	Within two (2) days of the most recent disturbance if that area will remain idle for more than fourteen (14) days.
For all construction activities, any disturbed area, including soil stockpiles, that will be dormant for more than fourteen (14) days but less than one (1) year, and not within fifty feet (50') of a stream.	Within seven (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.	

F. **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.
G. **Silt Fence and Other Perimeter Controls** – Silt fence and other perimeter controls approved by the Village of Galena shall be used to protect adjacent properties and water resources from sediment discharged via sheet (diffused) flow. Silt fence shall be placed along level contours and the permissible drainage area is limited to as provided in the current edition of the *Rainwater and Land Development Manual*.
H. **Internal Inspection and Maintenance** – All controls on the development area shall be inspected at least once every seven (7) calendar days and within twenty-four (24) hours after any storm event greater than one-half inch (½") of rain per twenty-four (24) hour period. Maintenance shall occur as detailed below:
    1. **When SCMs require repair or maintenance** – If the internal inspection reveals that a SCM 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.
    2. **When SCMs fail to provide their intended function** – If the internal inspection reveals that a SCM fails to perform its intended function and that another, more appropriate control practice is required, the Abbreviated SWP3 must be amended and the new control practice must be installed within ten (10) days of the inspection.
    3. **When SCMs depicted on the Abbreviated SWP3 are not installed** – If the internal inspection reveals that a SCM has not been implemented in accordance with the schedule, the control practice must be implemented within three (3) 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.
I. **Final Stabilization** – Final stabilization shall be determined by the Village engineer.

9.03: Inspections and Enforcement of Erosion and Sediment Control (ESC) Requirements

A. All earth disturbances subject to these regulations are subject to external inspections by the Village of Galena to ensure compliance with the Ohio EPA NPDES Construction Storm Water General Permit. See Appendix D for sample Construction Site Inspection Checklist utilized by the Village of Galena. This checklist may be revised as needed by the Village Engineer.
B. Failure to maintain and repair Erosion and Sediment Controls (ESCs) per the approved SWP3 may result in the following escalation:
    1. **Notice of Deficiency**: The Village of Galena will issue a Notice of Deficiency to the owner or operator. All controls are to be repaired or maintained per the SWP3 within three (3) days of the notification. If controls have not been corrected after this time, the Village of Galena may issue a Notice of Violation.
    2. **First Violation**: The Village of Galena may issue a formal Notice of Violation that includes a fine. All controls are to be repaired or maintained per the approved SWP3 within three (3) days of the Notice of Violation. Each day a violation exists constitutes a new violation and a new fine.
    3. **Subsequent Violations**: For subsequent violations, the Village of Galena may issue a **Stop Work Order** for all construction activities. The Stop Work Order will be lifted once all controls are in compliance with the approved SWP3 and all fines are paid.

Section 10 – Maintenance and Final Inspection Approval

To receive final inspection and acceptance of any project, or portion thereof, the following must be completed and provided to the Village engineer:

A. Final stabilization must be achieved and all permanent SCMs must be installed and made functional, as determined by the Village engineer and per the approved CSWMP.
B. An As-Built Certification, including an 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 CSWMP approved by the Village engineer. In evaluating this certification, the Village engineer may require the submission of a new set of storm water practice calculations if the Village engineer determines the design was altered significantly from the approved CSWMP. The As-Built Survey must provide the location, dimensions, and bearing of such facilities and include 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 Agreement clearly identifying the responsible party or parties as specified must be provided to the Village engineer.

Section 11 – Ongoing Inspections

The Village shall inspect SCMs regularly as described in the Inspection and Maintenance Agreement. The Village of Galena has authority to enter upon the property to conduct inspections as necessary verifying the SCMs are being maintained and operated in accordance with these regulations. The Village will notify about upcoming inspections by posting a notice at the property and sending an email notification to the responsible party. In case of emergency as determined by the Village in its sole discretion, no notice is required. Upon finding a malfunction or other need for maintenance, the Village 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 five (5) 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 Village engineer for these repairs not be in place, the Village may undertake the necessary repairs and assess the property owner.

Failure to maintain and repair Stormwater Control Measures per the approved SWP3 may result in the following escalation:

A. **Notice of Deficiency**: The Village of Galena will issue a Notice of Deficiency to the owner or operator. All controls are to be repaired or maintained per the SWP3 within three (3) days of the notification. If controls have not been corrected after this time, the Village of Galena may issue a Notice of Violation.
B. **First Violation**: The Village of Galena may issue a formal Notice of Violation that includes a fine. All controls are to be repaired or maintained per the approved SWP3 within three (3) days of the Notice of Violation. Each day a violation exists constitutes a new violation and a new fine.
C. **Subsequent Violations**: For subsequent violations, the Village of Galena may issue a **Stop Work Order** for all construction activities. The Stop Work Order will be lifted once all controls are in compliance with the approved SWP3 and all fines are paid.

Section 12 – Performance Bond

12.01: Storm Water Performance Bond Required

If a CSWMP is required by these regulations, soil-disturbing activities shall not be permitted until a Performance Bond covering one-hundred percent (100%) of the storm water management and erosion and sediment control portions of the project's construction costs has been approved by the Village solicitor and deposited with the Village. This bond shall be posted for the Village to perform the obligations otherwise to be performed by the responsible party of the development area as stated in these regulations and to allow all work to be performed as needed in the event that the responsible party fails to comply with the provisions of these regulations. If the storm water bond or any portion of the bond is utilized for the purposes described herein, the bond must be replenished to the amount initially provided. The responsible party may pay any expenses incurred and, if so, the bond will be returned to the responsible party. If there is execution on the bond in whole or in part, the bond will be returned less Village administrative fees and amounts utilized for the above purposes when the following three (3) criteria are met:

A. After one-hundred percent (100%) of the total project has been permanently stabilized for two (2) years.
B. An As-Built Inspection of all SCMs is conducted and approved by the Village engineer.
C. An Inspection and Maintenance Agreement signed by the developer, the contractor, the Village, and the private owner or homeowner's association who will take long-term responsibility for these storm water management structures, is accepted by the Village engineer.

12.02: Reimbursing Bond

Once the above criteria are met, the responsible party shall be reimbursed all bond monies that were not used for any part of the project less Village administrative fees. If all of these criteria are not met after three (3) years of permanent stabilization of the site, the Village may use the bond monies to fix any outstanding issues with all storm water management structures on the site.

Section 13 – Final Stabilization

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 Village engineer. Final stabilization occurs with the following:

A. Completion of the final grade at the site;
B. After all of the utilities are installed; and,
C. The site is subsequently stabilized with vegetation or other appropriate methods.

The property owner or developer must provide documentation acceptable to the Village engineer 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 facilities, all disturbed areas and/or exposed soils caused by the installation of these practices must be stabilized within two (2) days.

Section 14 – Illicit Discharge and Connection

14.01: Purpose/Intent

The purpose of this section is to provide for the health, safety, and general welfare of the citizens of the Village of Galena, Ohio through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal, state, and local law. This section establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit. The objectives of this chapter are:

A. To regulate the contribution of pollutants to the MS4 by storm water discharges by any user.
B. To prohibit illegal connections and discharges to the MS4.
C. To establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this chapter.

14.02: Applicability

This section shall apply to all water entering the MS4 or other water resources generated by any property, developed or undeveloped, within the Village of Galena unless explicitly exempted by the Ohio EPA.

14.03: Responsibility for Administration

The Village Administrator shall administer, implement, and enforce the provisions of this section. Any powers granted, or duties imposed upon the Administrator's office may be delegated by the Village Administrator to persons or entities acting in the beneficial interest of, or in the employ of, the Village.

14.04: Ultimate Responsibility

The standards set forth herein and promulgated pursuant to this chapter are minimum standards; therefore, this section does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

14.05: Discharge Prohibitions

A. Prohibition of Illicit Discharges

No person shall discharge or cause to be discharged into the MS4 or other water resources any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water. The commencement, conduct, or continuance of any illegal discharge to the storm sewer system is prohibited except as described as follows:

1. The following discharges are exempt from discharge prohibitions established by this chapter:
   a. Water line flushing or other potable water sources;
   b. Landscape irrigation or lawn watering;

c. Diverted stream flows;
d. Rising ground water;
e. Ground water infiltration to storm drains;
f. Uncontaminated pumped ground water;
g. Foundation or footing drains (not including active groundwater dewatering systems);
h. Sump pumps;
i. Air conditioning condensation;
j. Springs;
k. Non-commercial washing of vehicles;
l. Natural riparian habitat or wetland flows;
m. Swimming pools (if de-chlorinated: typically, less than one part per million (PPM) chlorine);
n. Firefighting activities; and,
o. Any other water source not containing pollutants.

2. Discharges specified in writing by the Village as being necessary to protect public health and safety.
3. Dye testing is an allowable discharge but requires a verbal notification to the Village prior to the time of the test.
4. The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the U.S. Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

B. Prohibition of Illegal Connections

1. The construction, use, maintenance, or continued existence of illegal connections to the storm drain system is prohibited.
2. This prohibition expressly includes, without limitation, illegal connections made in the past, regardless of whether the connection was permissible under laws or practices applicable or prevailing at the time of connection.
3. A person is considered to be in violation of this chapter if the person connects a line conveying sewage to the MS4 or allows such a connection to continue.

14.06: Suspension of MS4 Access

A. Suspension Due to Illicit Discharges in Emergency Situations – The Village may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge that presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4, or Waters of the State. If the violator fails to comply with a suspension order issued in an emergency, the Village may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the State, or to minimize danger to persons.

B. **Suspension Due to the Detection of Illicit Discharge –** Any person discharging to the MS4 in violation of this section may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The Village of Galena will notify a violator of the proposed termination of its MS4 access. The violator may petition the Village to appeal the suspension.

C. **Reconnection Without Approval –** A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to these regulations without the prior approval of the Village Administrator.

14.07: Industrial or Construction Activity Discharges

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Village Administrator prior to allowing discharges to the MS4.

14.08: Monitoring of Discharges

A. **Applicability –** This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

B. **Access to Facilities**

1. The Village of Galena and/or its Village engineer shall be permitted to enter and inspect facilities subject to regulation under this section as often as may be necessary to determine compliance. If a discharger has security measures in force that require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the Village.
2. Facility operators shall allow the Village ready access to all parts of the premises for the purposes of inspection, sampling, and examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.
3. The Village of Galena shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the Village Administrator to conduct monitoring and/or sampling of the facility's storm water discharge.
4. The Village has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure their accuracy.
5. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the Village Administrator and shall not be replaced. The costs of clearing such access shall be borne by the operator.
6. Unreasonable delays in allowing the Village access to a permitted facility is a violation of an OEPA storm water discharge permit and of this section. A person who is the operator of a facility with an NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the Village of Galena or its representatives' reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this section.
7. If the Village has been refused access to any part of the premises from which storm water is discharged, and is able to demonstrate probable cause to believe that there may be a violation of this section, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with these regulations or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Village may seek issuance of a search warrant from any court of competent jurisdiction.

14.09: Requirements to Prevent, Control, and Reduce Storm Water Pollutants by the Use of Storm Water Control Measures

These regulations identify Storm Water Control Measures (SCMs) for any activity, operation, or facility that may cause or contribute to pollution or contamination of storm water, the storm drain system, or Waters of the State. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the MS4 or watercourses through the use of these structural and non-structural SCMs. Further, any person responsible for a property or premise which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural SCMs to prevent the further discharge of pollutants to the MS4. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section. These SCMs shall be part of a storm water pollution prevention plan (SWP3) as necessary for compliance with requirements of the NPDES permit.

14.10: Watercourse Protection

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately-owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

14.11: Notification of Spills

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm sewer system, or Waters of the State, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release as follows:

A. In the event of such a release of hazardous or unknown materials, said person shall immediately notify the following:
    1. Emergency response agencies of the occurrence via 911;
    2. The Village mayor at 614-531-2117;
    3. The Village administrator at 740-965-2484;
    4. The City of Columbus Division of Water at 614-645-7168; and,
    5. The City of Columbus Division of Sewerage & Drainage at 614-645-7873.
B. In the event of a release of non-hazardous materials, said person shall notify the Village administrator or mayor in person or by phone at 740-965-2484 no later than the next business day.
C. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Village administrator at PO Box 386, Galena, Ohio 43021 within three (3) business days of the phone notice.

D. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written and photographic record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years and transmitted to the Village Administrator as well.

Section 15 – Riparian Setbacks

15.01: Purpose and Scope

A. It is hereby determined that the system of rivers, streams, and other natural watercourses within the Village of Galena contributes to the health, safety, and general welfare of the residents of the Village of Galena. The specific purpose and intent of these regulations is to regulate uses and developments within riparian setbacks that would impair the ability of riparian areas to:
   1. Reduce flood impacts by absorbing peak flows, slowing the velocity of floodwaters, and regulating base flow.
   2. Assist stabilizing the banks of watercourses to reduce woody debris from fallen or damaged trees, stream bank erosion, and the downstream transport of sediments eroded from watercourse banks.
   3. Reduce pollutants in watercourses during periods of high flows by filtering, settling, and transforming pollutants already present in watercourses.
   4. Reduce pollutants in watercourses by filtering, settling, and transforming pollutants in runoff before they enter watercourses.
   5. Provide watercourse habitats with shade and food.
   6. Reduce the presence of aquatic nuisance species to maintain a diverse aquatic system.
   7. Provide habitat to a wide array of wildlife by maintaining diverse and connected riparian vegetation.
   8. Benefit the Village of Galena by minimizing encroachment on watercourse channels and the need for costly engineering solutions such as gabion baskets and rip rap to protect structures and reduce property damage and threats to the safety of watershed residents; and by contributing to the scenic beauty and environment of the Village of Galena, and thereby preserving the character of the Village, the quality of life of its residents, and corresponding property values.

B. All plans prepared for this section must meet the minimum standards of the *Delaware County Engineer's Design, Construction & Surveying Standards*, current edition.

C. The following regulations have been enacted to protect and enhance these functions of riparian areas by providing reasonable controls governing structures and uses within a riparian setback along designated watercourses in the Village of Galena.

15.02: Establishment of Designated Watercourses and Riparian Setbacks

A. **Designated watercourses** shall include those watercourses meeting any ONE of the following criteria:
   1. All watercourses draining an area greater than one-half (½) square mile, OR
   2. All watercourses draining an area less than one-half (½) square mile and having a defined bed and bank. In determining if watercourses have a defined bed and bank, the Village of Galena may consult with a representative of the Delaware County SWCD or other technical experts as necessary. Any costs associated with such consultations may be assessed to the applicant.

B. **Riparian setbacks on designated watercourses** are established as follows:
   1. A minimum of three hundred feet (300') on either side of all watercourses draining an area greater than three hundred (300) square miles.

2. A minimum of one hundred twenty feet (120') on either side of all watercourses draining an area greater than twenty (20) square miles and up to three hundred (300) square miles.
3. A minimum of seventy-five feet (75') on either side of all watercourses draining an area greater than one-half (½) square mile and up to twenty (20) square miles.
4. A minimum of twenty-five feet (25') on either side of all watercourses draining an area less than one-half (½) square mile and having a defined bed and bank as determined by the Village of Galena in Section 15.05 of this regulation.

C. **Riparian Setback Guide Map**: The Village of Galena may create a guide map identifying designated watercourses and their riparian setbacks. The following shall apply to the Riparian Setback Guide Map:
1. It shall be used as a reference document and the information contained therein shall be believed to be accurate.
2. It shall be a guide only.
3. Nothing herein shall prevent the Village of Galena from amending the Riparian Setback Guide Map from time to time as may be necessary.
4. In the absence of a Guide Map, or if any discrepancy is found between the Riparian Setback Guide Map and these regulations, the criteria set forth in this section shall prevail.

D. **The following conditions shall apply in riparian setbacks**:
1. Riparian setbacks shall be measured in a horizontal direction outward from the ordinary high-water mark of each designated watercourse, except for in-line ponds as addressed in this section.
2. Except as otherwise provided in these regulations, riparian setbacks shall be preserved in their natural state.
3. Where the 100-year floodplain is wider than a minimum riparian setback on either or both sides of a designated watercourse, the minimum riparian setback shall be extended to the outer edge of the 100-year floodplain. The 100-year floodplain shall be defined by FEMA. If a FEMA defined floodplain does not exist for a designated watercourse, the Village of Galena may require a site-specific floodplain delineation in conformance with standard engineering practices and approved by the Village. Any costs associated with reviewing this site-specific floodplain delineation may be assessed to the applicant.
4. Where a wetland is identified within a minimum riparian setback, the minimum riparian setback width shall be extended to the outermost boundary of the wetland. Wetlands shall be delineated through a site survey prepared by a qualified wetlands professional retained by the landowner using delineation protocols accepted by the U.S. Army Corps of Engineers at the time an application is made under these regulations. Any costs associated with reviewing these delineations may be assessed by the Village to the applicant.
5. The minimum riparian setback on an in-line pond existing at the time of application of these regulations shall be measured from the ordinary high-water mark of the designated watercourse as it enters said pond and through the impoundment along the centerline of the designated watercourse as it flows through the in-line pond. Riparian setbacks on in-line ponds existing at the time an application is made under these regulations shall be expanded to include wetlands and floodplains as detailed in Section 15.04. The creation of new in-line impoundments shall not be permitted under these regulations.

15.03: Applications and Site Plans

A. The applicant shall be responsible for delineating riparian setbacks as required by these regulations and shall identify such setbacks on a site plan included with all subdivision plans, land development plans, and/or zoning permit applications submitted to the Village of Galena. The site plan shall be prepared by a professional engineer, surveyor, landscape architect, or such other qualified professional as determined by the Village and shall be based on a survey of the affected land. Two (2) copies of the site plan shall be submitted. The site plans shall include the following information:
   1. The boundaries of the lot with dimensions.
   2. The locations of all designated watercourses.
   3. The limits, with dimensions, of the riparian setbacks.
   4. The existing topography at intervals of two feet (2').
   5. The location and dimensions of any proposed structures or uses, including proposed soil disturbance, in relationship to all designated watercourses.
   6. North arrow, scale, date, and stamp bearing the name and registration number of the qualified professional who prepared the site plan.
   7. Other such information as may be necessary for the Village of Galena to ensure compliance with these regulations.

B. The Village may, in reviewing the site plan, consult with the Delaware SWCD or other such experts. Any costs associated with this review may be assessed to the applicant.

C. If soil-disturbing activities will occur within fifty feet (50') of the outer boundary of the applicable riparian setback as specified in these regulations, the riparian setback shall be clearly identified by the applicant on site with construction fencing as shown on the site plan. Such identification shall be completed prior to the initiation of any soil disturbing activities and shall be maintained throughout soil disturbing activities.

D. No approvals or permits shall be issued by the Village of Galena prior to identification of riparian setbacks on the affected land in conformance with this regulation.

15.04: Uses Permitted in Riparian Setbacks

A. **By Right Uses Without a Permit**

Open space uses that are passive in character shall be permitted in riparian setbacks, including, but not limited to, those listed in these regulations. No use permitted under these regulations shall be construed as allowing trespass on privately held lands.

1. **Recreational Activity**: Hiking, fishing, hunting, picnicking, and similar passive recreational uses, as permitted by federal, state, and local laws.
2. **Removal of Damaged or Diseased Trees**: Damaged or diseased trees may be removed. Refer to the Village's Subdivision Regulations on tree preservation and replacement requirements.
3. **Re-vegetation and/or Reforestation**: Riparian setbacks may be re-vegetated and/or reforested with native, noninvasive plant species.

B. **By Conditional Use Permit Granted by the Planning and Zoning Commission**

When granting Conditional Use Permits for the following uses, the Planning and Zoning Commission may, for good cause, attach such conditions as it deems appropriate. Permits issued under these regulations are issued to the applicant only, shall not be transferred, and shall be void if not implemented within one (1) year of issuance.

1. **Crossings**

   Crossings of designated watercourses through riparian setbacks with roads, driveways, easements, bridges, culverts, utility service lines, or other means may be permitted provided such crossings minimize disturbance in riparian setbacks and mitigate any necessary disturbances. Such crossings shall only be undertaken upon approval of a Crossing Plan by the Planning and Zoning Commission. Any costs associated with review of Crossing Plans may be assessed to the applicant.

   If work will occur below the ordinary high-water mark of the designated watercourse, proof of compliance with the applicable conditions of a U.S. Army Corps of Engineers Section 404 Permit (either a Nationwide Permit, including the Ohio State Certification Special Conditions and Limitations, or an Individual Permit, including Ohio 401 water quality certification), shall also be provided to the Village of Galena. Proof of compliance shall be the following:

   a. A site plan showing that any proposed crossing conforms to the general and special conditions of the applicable Nationwide Permit, or
   b. A copy of the authorization letter from the U.S. Army Corps of Engineers approving activities under the applicable Nationwide Permit, or
   c. A copy of the authorization letter from the U.S. Army Corps of Engineers approving activities under an Individual Permit.

2. **Stream Bank Stabilization Projects**

   Stream bank stabilization projects along designated watercourses may be allowed, provided that such measures are ecologically compatible and substantially utilize natural materials and native plant species to the maximum extent practicable. Such stream bank stabilization measures shall only be undertaken upon approval of a Stream Bank Stabilization Plan by the Planning and Zoning Commission. Any costs associated with review of Stream Bank Stabilization Plans may be assessed to the applicant.

   If stream bank stabilization work is proposed below the ordinary high-water mark of the designated watercourse, proof of compliance with the applicable conditions of a U.S. Army Corps of Engineers Section 404 Permit (either a Nationwide Permit, including the Ohio State Certification Special Conditions and Limitations, or an Individual Permit, including Ohio 401 water quality certification) shall be provided to the Village of Galena. Proof of compliance shall be the following:

   a. A site plan showing that any proposed crossing conforms to the general and special conditions of the applicable Nationwide Permit, or
   b. A copy of the authorization letter from the U.S. Army Corps of Engineers approving activities under the applicable Nationwide Permit, or,
   c. A copy of the authorization letter from the U.S. Army Corps of Engineers approving activities under an Individual Permit.

3. **Landscaping**

   The removal of natural vegetation within a riparian setback and the subsequent cultivation of lawns, landscaping, shrubbery, or trees may be allowed provided that such cultivation is done in conformance with a Landscaping Plan approved by the Planning and Zoning Commission. Any costs associated with review of Landscaping Plans may be assessed to the applicant. Landscaping Plans shall meet the following criteria:

a. Maintain trees in the riparian setback larger than nine inches (9") in caliper (diameter), as measured fifty-four inches above the ground, to the maximum extent practicable.
b. Maintain trees, shrubbery, and other non-lawn, woody vegetation in the riparian setback to the maximum extent practicable.

15.05: Uses Prohibited in Riparian Setbacks

Any use not authorized under these regulations shall be prohibited in riparian setbacks. By way of example, the following uses are specifically prohibited, however, prohibited uses are not limited to those examples listed here:

A. **Construction**: There shall be no buildings or structures of any kind.
B. **Dredging or Dumping**: There shall be no drilling, filling, dredging, or dumping of soil, spoils, liquid, or solid materials, except for noncommercial composting of uncontaminated natural materials and except as permitted under these regulations.
C. **Fences and Walls**: There shall be no fences or walls, except as permitted under these regulations.
D. **Roads or Driveways**: There shall be no roads or driveways, except as permitted under these regulations.
E. **Disturbance of Natural Vegetation**: There shall be no disturbance of natural vegetation within riparian setbacks except for the following:
    1. Maintenance of lawns, landscaping, shrubbery, or trees existing at the time of passage of these regulations.
    2. Cultivation of lawns, landscaping, shrubbery, or trees in accordance with an approved Landscaping Plan submitted in conformance with these regulations.
    3. Conservation measures designed to remove damaged or diseased trees or to control noxious weeds or invasive species.
F. **Parking Spaces or Lots and Loading/Unloading Spaces for Vehicles**: There shall be no parking spaces, parking lots, or loading/unloading spaces.
G. **New Surface and/or Subsurface Sewage Disposal or Treatment Areas**: Riparian setbacks shall not be used for the disposal or treatment of sewage, except as necessary to repair or replace an existing home sewage disposal system and in accordance with recommendations of the Delaware County Board of Health.

15.06: Non-conforming Structures or Uses in Riparian Setbacks

A. A non-conforming use, existing at the time of passage of these regulations and within a riparian setback, that is not permitted under these regulations may be continued but shall not be changed or enlarged unless changed to a use permitted under these regulations.
B. A non-conforming structure, existing at the time of passage of these regulations and within a riparian setback, that is not permitted under these regulations, may be continued but shall not have the existing building footprint or roofline expanded or enlarged.
C. A non-conforming structure or use, existing at the time of passage of these regulations, and within a riparian setback, that has substantial damage and that is discontinued, terminated, or abandoned for a period of six (6) months or more may not be revived, restored, or re-established.

15.07: Variances within Riparian Setbacks

A. The Planning and Zoning Commission may grant a variance to this regulation as provided herein. In granting a variance, the following conditions shall apply:
   1. In determining whether there is unnecessary hardship with respect to the use of a property or practical difficulty with respect to maintaining the riparian setback as established in these regulations, such as to justify the granting of a variance, the Planning and Zoning Commission shall consider the potential harm or reduction in riparian functions that may be caused by a proposed structure or use.
   2. The Planning and Zoning Commission may not authorize any structure or use in a Zoning District other than those authorized in the Zoning Ordinance.
   3. Variances shall be void if not implemented within one (1) year of the date of issuance.

B. In making a determination under this section of these regulations, the Planning and Zoning Commission may consider the following:
   1. The natural vegetation of the property as well as the percentage of the parcel that is in the 100-year floodplain.
   2. The extent to which the requested variance impairs the flood control, erosion control, water quality protection, or other functions of the riparian setback. This determination shall be based on sufficient technical and scientific data.
   3. The degree of hardship, with respect to the use of a property or the degree of practical difficulty with respect to maintaining the riparian setback as established in these regulations, placed on the landowner by these regulations and the availability of alternatives to the proposed structure or use.
   4. Soil disturbing activities permitted in the riparian setback through variances should be implemented to minimize clearing to the extent possible and to include SCMs necessary to minimize erosion and control sediment.
   5. The presence of significant impervious cover, or smooth vegetation such as maintained lawns, in the riparian setback compromises its benefits. Variances should not be granted for asphalt or concrete paving in the riparian setback. Variances may be granted for gravel driveways when necessary.
   6. Whether a property, otherwise buildable under Village of Galena regulations, will be made unbuildable because of this regulation.

C. In order to maintain the riparian setback to the maximum extent practicable, the Planning and Zoning Commission may consider granting variances to other area or setback requirements imposed on a property by the Zoning Ordinance. These may include, but are not limited to, parking requirements, requirements for the shape, size, or design of buildings, or front, rear, or side lot setbacks.

D. In granting a variance under these regulations, the Planning and Zoning Commission, for good cause, may impose such conditions that it deems appropriate to maintain the purposes of these regulations and to mitigate any necessary impacts in the riparian setbacks permitted by variance. In determining appropriate mitigation, the Planning and Zoning Commission may consult with the Village engineer or other agencies including Delaware County SWCD.

15.08: Inspection of Riparian Setbacks

Riparian setbacks may be inspected by the Village of Galena:

A. Prior to soil disturbing activities authorized under these regulations. The applicant shall

provide the Village of Galena with at least two (2) working days' written notice prior to starting such soil disturbing activities.

B. Any time evidence is brought to the attention of the Village that uses or structures are occurring that may reasonably be expected to violate the provisions of these regulations.

15.09: Penalty

A. Any person who shall violate any section of the Riparian regulations shall be subject to the Enforcement section of these regulations and shall be required to restore the riparian setback through a Restoration Plan approved by the Planning and Zoning Commission.

Section 16 – Enforcement

16.01: Severability

The provisions of these regulations are hereby declared to be severable. If any provision, clause, sentence, paragraph, section, or provision of these regulations or the application thereof to any person, establishment, or circumstances is declared invalid or unconstitutional by a court of competent jurisdiction, validity of the remainder of these regulations shall not be affected thereby.

16.02: Conflicts with Other Regulations

A. These regulations, whether in conflict with other regulations of a public or private nature, and whether imposing a greater or lesser burden upon the land involved, are intended to take precedence over all other public or private laws or regulations.
B. These regulations shall not limit or restrict the application of other provisions of law, regulation, contract, or deed, or the legal remedies available thereunder except as set forth above.

16.03: Applicability & Compliance

A. These regulations shall apply to all property in the Village of Galena.
B. These regulations shall apply to all structures and uses on lands containing a designated watercourse as defined in these regulations, except as provided herein.
C. No approvals or permits shall be issued by the Village of Galena without full compliance with the terms of these regulations.

16.04: Procedures for Variances

A. **Public Interest**: The Galena Planning and Zoning Commission, appointed by the Village of Galena Council may, upon application, grant such variances from the provisions or these regulations as will not be contrary to the public interest.
B. **Hardship of the Land**: Where, by reason of the exceptional narrowness, shallowness or unusual shape of a specific piece of property on the effective date of these regulations, or by reason of exceptional topographic conditions, or other extraordinary situations or conditions of such parcel of property, or of the use or development of property immediately adjoining the property in question, the literal enforcement of these regulations would involve practical difficulty or would cause unnecessary hardship, the Commission shall have power to authorize a variance from the terms of these regulations.
C. **Applying for a Variance**: Any applicant seeking a variance to the conditions imposed under these regulations may apply to the Planning and Zoning Commission. The following procedures shall apply:
    1. The applicant shall file a variance request with the Planning and Zoning Commission clerk no less than twenty-one (21) days prior to the next regularly scheduled commission meeting. See Appendix E for application.
    2. Applications for variances shall not be resubmitted to the Planning and Zoning Commission within one (1) year of the date of a final decision by the Planning and Zoning Commission on the original variance application, unless the applicant shows the Planning and Zoning Commission either of the following:

a. Newly discovered evidence that could not have been presented with the original submission, or
b. Evidence of a substantial change in circumstances since the time of the original submission.

3. All applications shall be submitted on the Storm Water Variance Application form found in Appendix E. No application will be considered unless the same is fully completed and accompanied by all required information listed on said application along with the appropriate fees.

D. **Public Notice**: A written application for a variance shall be submitted to the Planning and Zoning Commission clerk who shall transmit said application to the Galena Planning and Zoning Commission. The Commission shall give written notice by first class mail at least ten (10) days prior to the hearing on said variance to all owners of property within, contiguous to, and directly across the street and within two-hundred feet (200') from such area for which said variance is proposed to the address of such owners appearing on the County Auditor's current tax list or the Treasurer's mailing list and to such other list or lists that may be specified by the Commission. An application for a variance shall be advertised in one or more newspapers of general circulation within the Village of Galena at least ten (10) days before the date of said hearing. The notice shall set forth the time and place of the hearing and the nature of the proposed variance.

E. **Hearing**: At such public hearing, the applicant shall present a statement and adequate evidence, in such form as the Planning and Zoning Commission may require. In granting a variance, the Commission shall determine that said variance will not be contrary to the public interest, is justified due to special conditions, that the literal enforcement of these regulations will result in unnecessary hardship, and that the spirit of these regulations will be observed and substantial justice done. In granting any variance under the provisions of these regulations, the Planning and Zoning Commission shall designate such conditions in connection therewith as will, in its opinion, secure substantially the objectives of these regulations or provisions in the application on which the variance is granted.

F. **Decision:** Within thirty (30) days after a public hearing, the Planning and Zoning Commission shall either approve, approve with supplementary conditions, or disapprove the request. If the request for a variance is denied, the applicant may seek relief through the Delaware County Court of Common Pleas.

16.05: Violations

No person shall violate, cause or permit to be violated, or fail to comply with any of the provisions of these regulations or with any lawful requirements of any public authority made pursuant to these regulations, or use or cause or permit the use of any lands in violation of these regulations or in violation of any permit granted under these regulations. Any condition caused or permitted to exist in violation of these regulations is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action may be taken to abate, enjoin, or otherwise compel the cessation of such nuisance.

A. **Notice of Violation**

Whenever the Village finds that a person has violated a prohibition or failed to meet a requirement of these regulations, the Village administrator may order compliance by written notice of violation to the owner and/or occupant. Such notice may require without limitation:

1. Specific details about the violation;

2. That violating discharges, practices, or operations shall cease and desist;
3. Specific details about the elimination of illicit connections or discharges;
4. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
5. The timeframe within which the violator must cure any deficiencies;
6. In addition to any other monetary penalties set forth in these regulations, the owner and/or occupant shall reimburse the Village for the time expended by its representatives and the Village shall further be reimbursed any remediation costs via an administrative fee and costs passed through to the owner;
7. The implementation of source control or treatment SCMs; and,
8. The performance of monitoring, analyses, and reporting required.

B. **Abatement**
If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be completed by a designated governmental agency or a contractor of the Village's choosing and the expenses thereof, including actual Village representatives' time, shall be charged to the violator.

16.06: Cost of Abatement of a Violation

A. Within thirty (30) calendar days after abatement of a violation, the owner of the property will be notified of the cost of abatement, including contractors and actual Village representatives' time and an administrative fee. The property owner may file a written protest objecting to the amount of the assessment within ten (10) business days. If the amount due is not paid within thirty (30) days or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment as well as late penalties, interest, and administrative fees. A special assessment must be certified by the County Auditor.

B. Any person violating any of the provisions of this article shall become liable to the Village by reason of such violation. The liability shall entail the abatement costs referenced above together with any administrative costs, court costs, village attorney fees and other expenses of enforcement of these regulations including but not limited to engineering costs, sampling, administrative fees, penalties and other engineering pass through costs of contractors and/or village engineers. The liability shall be paid in full within sixty (60) days of written notice sent to the property owner at the tax billing address for the property. If not paid at that time, the Village at its option may by legislation declare a lien on the premises for such costs which will be certified to the local governmental offices including but not limited to the county recorder's office and the Village may proceed to collect such assessment and/or lien as otherwise provided by law. Upon application of the liable party to Village Council, the Village Council in its discretion may extend the time for payment and create an installment payment agreement which shall be due and payable every month for a period not to exceed one (1) year and the obligations shall bear interest at the judgment rate of interest in the State of Ohio as of the date of authorization and approval of Council of the installment agreement. If the liable party fails to adhere to any of the terms of the installment payment agreement, that failure shall constitute an event of default and the Village is free to collect the unpaid balance of such liability as provided by law.

16.07: Penalties & Criminal Prosecution

Any person, firm, corporation or entity including, but not limited to, the owners of the property, the owners' agents and assigns, occupants of the property, the property manager, and any contractor or subcontractor who violates or fails to comply with any provisions of these regulations is guilty of a misdemeanor as set forth below. A separate offense shall be deemed committed for each day during or on which a violation or noncompliance occurs or continues. Upon conviction thereof, the violator shall be subject to the following:

A. For conviction of a first offense, the violator shall be found guilty of a minor misdemeanor and fined not more than one hundred dollars ($100.00).
B. For conviction of a second offense, the violator shall be found guilty of a misdemeanor of the fourth degree and fined not more than three hundred dollars ($300.00) and incarcerated for not more than thirty (30) days.
C. For conviction of a third and subsequent offenses, the violator shall be found guilty of a misdemeanor of the third degree and fined not more than five hundred dollars ($500.00) and incarcerated for not more than sixty (60) days.
D. Complying with a Restoration Plan developed by the Village engineer and approved by the Planning and Zoning Commission;
E. Mitigating the damage caused to any property by the violation in accordance with the Restoration Plan; and,
F. The violator shall pay the attorney's fees incurred by the Village, court costs, administrative fees, and any and all costs including Village representatives' time with enforcement of these regulations, including sampling and monitoring expenses.

16.08: Injunctive Relief

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of these regulations. If a person has violated or continues to violate the provisions of these regulations, the Village may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

The imposition of any other penalties provided herein shall not preclude the Village of Galena from instituting an appropriate action or proceeding in Delaware County Common Pleas Court to prevent an unlawful development, or to restrain, correct, or abate a violation, or to require compliance with the provisions of these regulations or other applicable laws, ordinances, rules, or regulations, or the orders of the Village of Galena.

16.09: Procedures on Hearing Appeals

A. **Appeals**: It is the intent of these regulations that all questions of interpretation and enforcement shall be first presented to the Village administrator and that such questions shall be presented to the Planning and Zoning Commission only on appeal of the decision of the Village administrator. Appeals to the Galena Planning and Zoning Commission concerning interpretation or administration of these regulations may be filed by any person aggrieved or affected by any decision of the Village administrator related to these regulations.
B. **Filing an Appeal**: Any person aggrieved by any order, requirement, determination, suspension,

or any other action or inaction by the Village of Galena administrator in relation to these regulations may file an appeal in writing with the Planning and Zoning Commission setting forth the issues of disagreement. The following procedures shall apply:

1. The applicant shall file an appeal with the Planning and Zoning Commission clerk within twenty (20) days of the day of the Notice of Violation, Disapproval, Approval, or Approval with Conditions from the Village administrator from whom this appeal is taken. See Appendix F for application.
2. The appeal shall be heard at the next regularly scheduled Planning and Zoning Commission meeting after a hearing notice has been published.
3. All applications shall be submitted on the Storm Water Appeal Application form found in Appendix F. No application will be considered unless the same is fully completed and accompanied by all required information listed on said application along with the appropriate fees.
4. Upon determining that the application is complete, including the required fees, the clerk shall transmit to the Planning and Zoning Commission the application and any pertinent details constituting the record from which the administrative decision subject to appeal was based. This transmission shall occur no less than fourteen (14) days prior to a regularly scheduled meeting of the Planning and Zoning Commission.

D. The Planning and Zoning Commission Clerk shall then schedule a public hearing to be advertised and held within thirty (30) days from the date of receipt of the notice of appeal.

E. **Public Notice**: Upon determining that the application is complete including the required fees, the Planning and Zoning Commission clerk shall give written notice by first class mail at least ten (10) days prior to the hearing on said variance to all owners of property within, contiguous to, and directly across the street and within two-hundred feet (200') from such area for which said appeal is requested to the address of such owners appearing on the County Auditor's current tax list or the Treasurer's mailing list and to such other list or lists that may be specified by the Commission. An appeal hearing shall be advertised in one or more newspapers of general circulation within the Village of Galena at least ten (10) days before the date of said hearing. The notice shall set forth the time and place of the hearing and the nature of the requested appeal.

F. **Stay**: An appeal stays all proceedings in furtherance of the action appealed from, unless the Village administrator from whom the appeal is taken certifies to the Planning and Zoning Commission after the notice of appeal is filed, that a stay would cause imminent peril to life and property. In such case, proceedings shall not be stayed other than by a restraining order which may be granted by the Planning and Zoning Commission or by the Delaware County Court of Common Pleas.

D. **Hearing**: At such public hearing, the applicant shall present a statement and adequate evidence, in such form as the Planning and Zoning Commission may require.

E. **Decision:** Within thirty (30) days after a hearing, the Planning and Zoning Commission shall either approve, approve with supplementary conditions, or disapprove the request. In granting an appeal, the Commission shall determine whether or not there has been a violation of these regulations.

F. **Recourse:** If the aggrieved party disagrees with the Commission's final decision, he/she may appeal to the Delaware County Court of Common Pleas. It is further the intent of these regulations that the duties of the Galena Council in connection with these regulations shall not include hearing and deciding questions of interpretation and enforcement that may arise. The

procedure for deciding such questions shall be as stated in these regulations. Under these regulations, the Galena Council shall have only the duties of considering and adopting or rejecting proposed amendments, or the repeal of these regulations as provided by law, and of establishing a schedule of fees and charges.

16.10: Enforcement Measures after Appeal

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or in the event of an appeal, within ten (10) business days of the decision of the Planning and Zoning Commission upholding the decision of the Village administrator, representatives of the Village shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property and other affected properties at the violating property owner's expense. It shall be unlawful for any person, owner, agent, or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

16.11: Remedies Not Exclusive

The remedies listed in these regulations are not exclusive of any other remedies available under any applicable federal, state, or local laws and it is within the discretion of the Village to seek cumulative remedies.

Section 17 – Definitions

Rules
For the purpose of these regulations, words used in the present tense include the future tense; and the singular includes the plural, unless the context clearly indicates the contrary. The terms "shall" and “will” are always mandatory and not discretionary; the word "may" is permissive. The word or term not interpreted or defined by this section shall be used with a meaning of common or standard utilization, so as to give these regulations the most responsible application.

Acre
A measurement of area equaling 43,560 square feet.

Agriculture
Includes farming; ranching; algaculture meaning the farming of algae; aquaculture; apiculture; horticulture; viticulture; animal husbandry, including, but not limited to, the care and raising of livestock, equine, and fur-bearing animals; poultry husbandry and the production of poultry and poultry products; dairy production; the production of field crops, tobacco, fruits, vegetables, nursery stock, ornamental shrubs, ornamental trees, flowers, sod, or mushrooms; timber; pasturage; any combination of the foregoing; and 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.

As-Built Survey
A survey shown on a plan or drawing prepared by a registered professional surveyor documenting the actual dimensions, elevations, and locations of any structures, underground utilities, swales, detention facilities, storm water drainage systems, streets, trails, sidewalks, easements, and sewage treatment facilities after construction has been completed.

Authorized Enforcement Agency
The Village administrator or his/her designees or the Village engineer or his/her employees, designees, or authorized representatives.

Background Loads
Naturally occurring pollutant loads to Waters of the State.

Base Flood
The flood having a one percent chance of being equaled or exceeded in any given year. This is the regulator standard also referred to as the “100-year flood.”

Bio-Retention
As defined by the *Ohio EPA Rainwater and Land Development Manual,* bio-retention is a practice that utilizes a soil media, mulch and vegetation to treat runoff and improve water quality.

Bio-Swale
A landscape element designed to remove silt and pollution from surface runoff water. They consist of a swale drainage course with gently sloped sides (less than six percent) and filled with vegetation,

compost and /or rock channel protection. Storm water runoff conveyances are systems that provide an alternative to traditional piped storm sewers. They can absorb low flows or carry runoff from heavy rains and snowmelt to storm sewer inlets or directly to surface waters, or to infiltrate ground water.

Bogs
A poorly drained usually acidic area rich in accumulated plant material frequently surrounding a body of open water and having a characteristic flora (as of sedges, heaths, and sphagnum).

Brook
See Creek.

Catch Basin
An inlet designed to intercept and redirect surface waters.

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

Channel Flow
The flow of water within a channel.

Clean Water Act
The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto. Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, and Pub. L. 100-4, 33 U.S.C. 1251 et. seq. Referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972

Commission
Commission refers to the Village of Galena Planning and Zoning Commission.

Committee
Committee refers to the Village of Galena Infrastructure Committee.

Community
Throughout these regulations, this shall refer to the Village of Galena or its designated representatives, boards, or commissions.

Compaction
The process by which the porosity of a given form of soil is decreased as a result of its mineral grains being squeezed together by the weight of overlying sediment or by mechanical means.

Comprehensive Storm Water Management Plan (CSWMP)
The written document and plans meeting the requirements of these regulations that set forth the plans and practices to minimize storm water runoff from a developed 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.

Construction Activity
Activities subject to National Pollutant Discharge Elimination System (NPDES) construction permits including construction projects resulting in land disturbance of 1 acre or more or that are part of a common plan of development of one acre or more. Such activities include but are not limited to clearing and grubbing; grading and excavating; demolition; building, assembling, expansion, modification, or alteration of the existing contours of the site; the erection of buildings or other structures; or any part thereof.

Conveyance
A feature designed to transport stormwater runoff.

Council
Council refers to the Village of Galena Council.

Creek
A small stream or minor tributary of a river.

Critical Storm
A storm calculated by means of 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 storm water discharge rate from a developed site.

Culvert
A drain, ditch, or conduit not incorporated in a closed system that carries drainage water under a driveway, roadway, railroad, pedestrian walk, trail, or public way.

Curb
A stone or concrete edging to a street or path.

Damaged or Diseased Trees
Trees that have split trunks; broken tops; heart rot; insect or fungus problems that will lead to imminent death; undercut root systems that put the tree in imminent danger of falling; lean as a result of root failure that puts the tree in imminent danger of falling; or any other condition that puts the tree in imminent danger of being uprooted or falling into or along a watercourse or onto a structure.

Designated Watercourse
A watercourse within the Village of Galena that is in conformity with the criteria set forth in this regulation.

DEO or DCEO
DEO or DCEO refers to the Delaware County Engineer's Office.

Demolition
To destroy by pulling or knocking down or burning an existing structure.

DSWCD
Delaware County Soil and Water Conservation District.

Detention
See detention facility.

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.

Developed Area
See development.

Development
A parcel or contiguous parcels owned by one person or persons, or operated as one unit, and converted from another use such as agriculture, recreational or single family use, or planned or used for commercial, industrial, residential, institution, or other construction or alteration that changes the runoff characteristics.

Development Drainage Area
A combination of each hydraulically unique watershed with individual outlet points in the development area.

Discharge
The release of a material whether liquid, solid or gas, especially from development that may or may not contain pollutants.

Disposal Systems
A system for disposing of sewage, sludge, sludge materials, industrial waste or other wastes.

Disturbed Area
An area of land subject to erosion due to soil disturbing activities and/or the removal of vegetative cover.

Ditch
An excavation, 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.

Drainageway
An area of concentrated water flow other than a river, stream, ditch, or grassed waterway.

Duff Layer
A layer of decomposing organic material, decomposed to the point at which there is no identifiable organic materials.

Earth-Disturbing Activity
Any grading, excavating, filling, or other alteration of the earth's surface where natural or man-made ground cover is destroyed and which may result in or contribute to erosion and sediment pollution.

Earth Material
Soil, sediment, rock, sand, gravel, and organic material or residue associated with or attached to the soil.

Elevations
Height above a given level, especially sea level.

EPA
The Environmental Protection Agency

Erosion
Erosion means:

A. The wearing away of the land surface by running water, wind, ice, or other geological agents, or any combination of those forces, including such processes as gravitational creep.
B. Detachment and movement of soil or rock by wind, water, ice, or gravity.
C. Erosion includes:
    1. **Accelerated erosion**: Erosion much more rapid than normal, natural, or geologic erosion, primarily as a result of the influence of the activities of man.
    2. **Floodplain erosion**: Abrading and wearing away of the nearly level land situated on either side of a waterway due to overflow flooding.
    3. **Gully erosion**: The erosion process whereby water accumulates in narrow channels during and immediately after rainfall or snow or ice melt that actively removes the soil from this narrow area to considerable depths such that the channel would not be obliterated by normal smoothing or tillage operations.
    4. **Natural erosion (geologic erosion)**: Wearing away of the earth's surface by wind, water, ice, or other natural environmental conditions of climate, vegetation, etc., undisturbed by people.
    5. **Normal erosion**: The gradual erosion of land used by man which does not greatly exceed natural erosion.
    6. **Rill erosion**: An erosion process in which numerous small channels only several inches deep are formed, which occurs mainly on recently disturbed soils.
    7. **Sheet erosion**: The removal of a fairly uniform layer of soil from the land surface by wind or runoff water.

Evapotranspiration
A process by which water is evaporated from a wet surface and water vapor given off by plants.

Excavation
To make hollow by removing material, especially earth.

Exceptional Warm Water Habitat
Beneficial use designation for Ohio waters defined as waters capable of supporting and maintaining an exceptional or unusual community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the seventy-fifth percentile of the identified reference sites on a statewide basis.

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 a storm water quality event

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.

Federal Emergency Management Agency (FEMA)
The agency with overall responsibility for administering the National Flood Insurance Program.

Fertilizer
A chemical or natural substance added to soil or land to increase its fertility.

Fill or Filling
The process of adding material to existing ground.

Filtration
In wastewater treatment, the mechanical process that removes particulate matter from water, usually by passing it through a filter or other material, such as sand, that prevents the passage of certain molecules, particles, or substances

Final Stabilization
All soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a density of at least eighty percent (80%) coverage for the area has been established or equivalent stabilization practices, such as the use of mulches or geo-textiles or rock channel protection, have been employed.

Flood
An overflowing of a large amount of water beyond is normal confines, especially over what is normally dry land.

Floodplain
An area of land that will be inundated by the flood event having a one-percent chance of being equaled or exceeded in any given year.

Floodway
The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

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

Grassed Waterway
A broad or shallow natural course or constructed channel covered with erosion-resistant grasses or similar vegetative cover that is used to conduct surface water.

Gravity Flow
The movement of earth materials down slope by the natural force of gravity.

Green Infrastructure
Wet weather management approaches and technologies that utilize, enhance, or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration, and reuse.

Ground Water
Water held underground in the soil or in pores and crevices in rock.

Gutters
On a roof, the shallow trough fixed beneath the edge of a roof for carrying off stormwater. On a road, the shallow trough along the edge of a roadway for carrying off stormwater.

Hazardous Material
Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Herbicide
A substance that is toxic to plants, used to destroy unwanted vegetation.

Hillside
An area with an average slope of more than fifteen percent (15%).

Hydrology
The science concerned with the properties of the earth's water, and especially its movement in relation to land.

Hydrologic Cycle
The sequence of conditions through which water passes from vapor in the atmosphere through precipitation upon land or water surfaces and ultimately back into the atmosphere as a result of evaporation and transpiration.

Hydrologic Unit Code (HUC)
A cataloging system developed by the United States Geological Survey and the Natural Resource Conservation Service to identify watersheds in the United States.

Illicit Discharge
As defined at 40 Code of Federal Regulations (CFR) 122.26 (b)(2) means any discharge not composed entirely of stormwater, except as exempted in Section 14.06

Illegal Connections
An illegal connection is defined as any of the following:

A. Any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, processed wastewater, and wash water to enter the storm drain system;
B. Any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or
C. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial Activity
Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

Impervious Cover or Surface
Any surface that cannot effectively absorb or allow infiltration of water and may include roads, streets, trails, parking lots, rooftops, sidewalks, and other areas not covered by vegetation. Any material that reduces and prevents absorption of storm water into previously undeveloped land.

Impoundment
A body of water, such as a pond or lake, confined by a dam, dike, floodgate, or other barrier.

Infiltration
The gradual downward flow of water from the surface through soil to groundwater. Encouraging infiltration is a storm water management practice that does not discharge to a water resource during a storm water quality event, requiring collected runoff to either gradually filter into the groundwater and/or be consumed by evapotranspiration, thereby retaining storm water pollutants in the facility.

In-Line Pond
A permanent pool of water created by impounding a designated watercourse.

Intermittent
Occurring at irregular intervals; not continuous or steady.

Lake
A large body of water surrounded by land.

Larger Common Plan of Development
A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

Low Impact Development (LID)
Low-impact development (LID) is a site design approach which seeks to integrate hydrologically functional design with pollution prevention measures to compensate for land development impacts on hydrology and water quality. LID's goal is to mimic natural hydrology and processes by using small-scale, decentralized practices that infiltrate, evaporate, detain, and transpire stormwater. LID stormwater control measures (SCMs) are uniformly and strategically located throughout the site.

Maximum Extent Practicable
The level of pollutant reduction that operators of small municipal separate storm sewer systems (MS4) regulated under 40 CFR Parts 9, 122, 123, and 124 (referred to as NPDES Storm Water Phase II) must meet.

Marsh
An area of low-lying land which is flooded in wet seasons or at high tide, and typically remains waterlogged at all times.

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:

A. Owned or operated by the federal or state government, 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 Clean Water Act that discharges into water resources;
B. Designed or used for collecting or conveying solely storm water,
C. Which is not a combined sewer, and
D. Which is not a part of a publicly owned treatment works.

National Pollutant Discharge Elimination System (NPDES)
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. The NPDES is managed and enforced by the Environmental Protection Agency.

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit
A permit issued by the Ohio EPA that authorizes the discharge of pollutants to Waters of the State, whether the permit is applicable on an individual, group, or general area-wide basis.

Nationwide Permit
Under Section 404(e) of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) can issue general permits to authorize activities that have only minimal individual and cumulative adverse environmental effects. General permits can be issued for a period of no more than five years. A nationwide permit is a general permit that authorizes activities across the country, unless a district or division commander revokes the nationwide permit in a state or other geographic region.

Natural Practices
Methods that mimic nature, especially processes that absorb and filter.

New Development
An area proposed to be used for commercial, industrial, residential, institutional, or other construction or alteration that changes the runoff characteristics. Runoff characteristics include land use, vegetation, slope, soil type, drainage area, drainage area shape, elevation, drainage network patterns, topography, etc.

Non-Storm Water Discharge
Any discharge to the storm drainage system that is not composed entirely of storm water.

Non-Point Source
Polluted water not originating from a specific location such as pollution coming from polluted runoff and or physical alterations to a stream or river channel. Polluted runoff is rain or snow melt flowing across the land picking up contaminants such as sediment, nutrients, or bacteria, carrying these pollutants to small streams that eventually flow into a larger river. Physical alterations are changes made to a stream channel or stream banks and include activities such as the conversion of headwater streams into drainage ditches, constructing levees and dams, and straightening a stream to encourage improved drainage. Physical alterations also include activities such as removing trees along a riverbank or installing rock rip-rap on a river bank to prevent erosion.

Nonstructural Storm Water Management Practice
Storm water runoff control and treatment techniques that use natural practices to control runoff and/or reduce pollution levels.

Noxious
Harmful, poisonous, or very unpleasant.

Noxious Weed
Any plant species defined by the Ohio Department of Agriculture as a "noxious weed" and listed as such by the Department. For the purposes of these regulations, the most recent version of this list at the time of application of these regulations shall prevail.

ODNR
The Ohio Department of Natural Resources.

ODOT
The Ohio Department of Transportation.

OEPA
The Ohio Environmental Protection Agency.

Ohio EPA Construction General Permit
This refers to the current version of the Ohio Environmental Protection Agency General Permit Authorization for Storm Water Discharges Associated with Construction Activity under the National Pollutant Discharge Elimination System.

Official Soil Map
Maps delineating soil types that are part of the USDA Natural Resources Conservation Service soil survey including the written description of soil types and their characteristics and accompanying maps which are part of a recognized soil survey.

One-Hundred Year Flood
A flood with a percentage frequency of occurring with a chance of one in one hundred. See also Base Flood.

Ordinary High-Water Mark
The point of the bank or shore to which the presence and action of surface water is so continuous as to leave a distinct mark of erosion and destruction, prevention of woody terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic. The ordinary high-water mark defines the bed of a watercourse.

Overflow Flooding
Covering or submerging of normally dry land with a large amount of water from a flood event.

Peak Flow
The maximum rate of discharge during the period of runoff caused by a precipitation event.

Permeable Surface
A surface capable of being permeated or penetrated, especially by liquids or gasses.

Permeable Paving or Pavement
A pavement surface capable of being permeated or penetrated, especially by liquids or gasses.

Person
Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the property owner or as the property owner's agent.

Pesticide
Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest or for use as a plant regulator, defoliant, or desiccant.

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, and 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.

Pollutant
Anything that causes or contributes to pollution. Pollutants may include, but are not limited to paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects; ordnances and accumulations that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform, animal wastes, and pathogens; dissolved and particulate metals; wastes and residues that result from constructing a building or structure; and, noxious or offensive matter of any kind.

Pond
A body of water similar to but smaller than a lake.

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.

Post-Construction
Considered after construction activities are completed and final stabilization has been achieved on all portions of the site.

Pre-Construction or Pre-Con Meeting
A meeting (also referred to as a Pre-Con Meeting) prior to construction between all parties associated with the construction of the project including government agencies, engineers, contractors, and owners to review agency requirements and plans as approved.

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.

Premises
Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Professional Engineer
A person registered as an Engineer in the State of Ohio with specific education and experience, acting in conformance with the Code of Ethics of the Ohio State Board of Registration for Engineers and Surveyors.

Qualified Professional
A qualified professional is an individual with the relevant education, certification, registration and experience that meets the minimum standard set forth for the field in which said individual is performing tasks and duties.

Rain Garden
A garden using rainfall and storm water runoff in its design and plant selection. Usually, a small garden which is designed to withstand the extremes of moisture and concentration of nutrients, particularly Nitrogen and Phosphorous, that are found in storm water runoff.

Receiving Waters
Waters of the State that receive discharge from development.

Redevelopment
A construction project on land that has been previously developed and where the new land use will not increase the runoff coefficient used to calculate the water quality volume. If the new land use will increase the runoff coefficient, then the project is considered to be a new development project rather than a redevelopment project.

Reserve
A parcel of land within a subdivision set aside for future subdivision or set aside for other purposes, as noted on the plat.

Reservoir
A large natural or artificial lake used as a source of water supply.

Retention Facility
An engineered basin or receptacle designed to accept and hold surface water drainage.

Reuse
To use again, or more than once.

Riparian Area
Land adjacent to any brook, creek, river, wetland, or stream having a defined bed and bank that, if appropriately sized, helps to stabilize stream banks, limit erosion, reduce flood size flows, and/or filter and settle out runoff pollutants, or performs other functions consistent with the purposes of these regulations.

Riparian and Wetland Setback or Buffer
The real property adjacent to a water resource on which soil disturbing activities are limited by the Village of Galena riparian setback requirements.

River
A large natural stream of water in a channel or another such stream flowing to a lake or the sea.

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

SCM or SCMs
See Storm Water Control Measures.

Sediment
Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by wind, water, gravity, or ice, and has come to rest on the earth's surface above or below sea level.

Sediment Basin
A barrier, dam, or other suitable detention facility built across an area of waterflow to settle and retain sediment carried by the runoff waters.

Sediment Control Plan
A written description that can include drawings and diagrams, acceptable to the Village engineer, of methods for controlling sediment pollution from accelerated erosion on a development area of one or more contiguous acres.

Sediment Pollution
Failure to use management or conservation practices to abate wind or water erosion of the soil or to abate the degradation of the Waters of the State by soil sediment in conjunction with land grading, excavating, filling, or other soil-disturbing activities on land used or being developed for non-farm commercial, industrial, residential, or other purposes.

Sedimentation
The deposition of sediment in water resources.

Sewage Treatment System
See Wastewater Treatment System.

Shallow Concentrated Flow
Flow concentrated in small swales, rills and gullies, not having a well-defined channel with flow depths of 0.1 to 0.5 feet.

Sheet Flow
Flow over plane surfaces. Typically occurs for no more than 100 feet before transitioning to shall concentracted flow.

Silt
Fine sand, clay, or other material carried by running water and deposited as a sediment.

Silt Fence
A woven material fence used to catch silt in surface water runoff, while letting the water pass through.

Silva Cell
A modular, underground bio-retention system that utilizes the proven capacity of soils for storm water management and healthy tree growth to bring green infrastructure to the built environment.

Slip
Slip means a landslide this is a rapid downward and outward movement of large rock material and/or soil mass under the influence of gravity in which the movement of the soil mass occurs along an interior slope surface of low friction.

Slope
A surface of which one end or side is at a higher level than another; a rising or falling surface.

Sloughing
A slip or downward movement of an extended layer of soil resulting from the undermining action of water or the earth-disturbing activity of man.

Soil and Water Conservation District
An entity organized under Chapter 1515 of the Ohio Revised Code referring to either the Soil and Water Conservation District Board or its designated employee(s), hereinafter referred to as the Delaware County Soil and Water Conservation District (DCSWCD).

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.

Soil Loss
Soil relocated on or removed from a given site by the forces of erosion and the redeposit of the soil at another site on land or in a body of water.

Stabilization
Such practices as temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, use of construction entrances and the use of alternative ground cover that reduce or prevent soil erosion by storm water runoff, trench dewatering, wind, ice, gravity, or a combination thereof.

Storm Drainage System
Facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

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

Stormwater or Storm Water
Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation and resulting from such precipitation. Defined in 40 CFR 122.26(b)(13) and means stormwater runoff, snow melt runoff, and surface runoff and drainage.

Storm Water Management
The overall culmination of techniques used to reduce surface run-off from causing flooding and dispersing pollutants. Stormwater management includes detaining, retaining, or providing a discharge point for stormwater to be reused or infiltrated into the groundwater. It should best preserve or mimic the natural hydrologic cycle and fit within the capacity of existing infrastructure.

Storm Water Control Measures (SCMs)
A schedule of activities, prohibitions of practices, operation and maintenance procedures, treatment requirements, and other management practices (both structural and non-structural) to prevent or reduce the pollution of water resources and to control stormwater volume and rate. This includes practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. For guidance, please see U.S. EPA's National Menu of BMPs at http://water.epa.gov/polwaste/npdes/swbmp/index.cfm.

Storm Water Discharge Rate
See Peak Flow.

Storm Water Quality
A measure of the pollutant load in stormwater runoff. Quantified by Ohio EPA's *Construction General Permit*.

Storm Water Quality Event
The rainfall event defined by Ohio EPA *Construction General Permit* that is required to capture and treat the Water Quality Volume.

Storm Water Pollution Prevention Plan (SWP3)
A document which describes the SCMs and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to storm water, storm water conveyance systems, and/or receiving waters to the maximum extent practicable.

Stream
A body of water running or flowing on the earth's surface or a channel in which such flow occurs. Flow may be seasonally intermittent.

Structural Storm Water Management Practice or Storm Water Control Measure (SCM)
Any constructed facility, structure, or device that provides storage, conveyance, and/or treatment of storm water runoff.

Substantial Damage
Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would be equal to, or would exceed, 50% of the market value of the structure before the damage occurred.

Surface Waters
See Waters of the State.

Surveyor
A person registered as a Surveyor in the State of Ohio with specific education and experience, acting in conformance with the Code of Ethics of the Ohio State Board of Registration for Engineers and Surveyors.

Swamp
An area of low-lying ground unfit for cultivation, where water collects.

Time of Concentration
The time needed for water to flow from the hydraulically most remote point in a watershed to the watershed outlet.

Terrace
A level landscaped and/or surfaced area directly adjacent to a principal building at or within three feet of the finished grade and not covered by a permanent roof.

Trench Dewatering
The removal of water from an excavation.

Topography
The arrangement of the natural and artificial physical features of an area.

Topographical Contours
Lines which connect points of equal elevation used to show topography.

Topsoil
Surface and upper surface soils which presumably are darker colored, fertile soil materials, ordinarily rich in organic matter or humus debris.

Total Maximum Daily Load (TMDL)
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 ensure attainment and maintenance of water quality standards as established by the state or federal EPA.

Total Suspended Solids (TSS)
A water quality parameter defined by the quantity of material suspended in a known volume of water.

Transpire
The process where plants absorb water through the roots and then give off water vapor.

Vegetation
Plant cover of an area.

Vegetative Buffer
A strip of land with vegetative cover dedicated to the capture of pollutants prior to their discharge.

Village Engineer
A registered engineer employed by the Village of Galena.

Village
The Village of Galena, Delaware County, Ohio

Volumetric Runoff Coefficient
An empirically derived value that indicates the fraction of rainfall converted into runoff for that land use (Pitt, 1987; Schueler, 1987)

Warmwater Habitat
Beneficial use designation for Ohio waters defined as waters capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the twenty-fifth percentile of the identified reference sites within each of the following ecoregions: the interior plateau ecoregion, the Erie/Ontario lake plains ecoregion, the western Allegheny plateau ecoregion and the eastern corn belt plains ecoregion.

Wastewater
Liquid waste containing sludge, sludge materials, animal or vegetable matter, or non-sediment pollutants in suspension or solution, and may include household wastes as commonly discharged from residences and from commercial, industrial, institutional, construction sites, or similar facilities.

Wastewater Treatment System
Any plant, disposal field, lagoon, dam, pumping station, building sewer connected directly to treatment works, incinerator, or other works used for the purpose of treating, stabilizing, blending, composting, or holding sewage, sludge, sludge materials, industrial waste, or other wastes.

Water Quality
See Stormwater Quality

Water Quality Volume (WQv)
Water Quality Volume (WQv) means the volume of storm water 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
See, Waters of the State.

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.

Waters of the State
Also, Surface Waters of the State or Water Resource. Any stream, lake, reservoir, marsh, wetland, or other waterway situated wholly or partly within the boundaries of the state, except those private waters that 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.

Watershed
The total drainage area contributing storm water runoff to a single point.

Waterway
Any brook, creek, river, stream or other body of water having a defined bed and bank (either natural or artificial) which confines and conducts continuous or intermittent flow.

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).

Section 18 – Enactment

These Regulations shall become effective after the date of its approval and adoption by the Village of Galena Council. The Planning and Zoning Commission makes a recommendation to Village Council and, after a public hearing, the Village Council adopts and certifies the new regulations to the Delaware County Recorder. Henceforth, any other storm water management regulations previously adopted by the Village of Galena Council shall be deemed to be repealed. Reference Appendix G for the Ordinance adopting this regulation.

Section 19 – Fees

The CSWMP review and filing fees are as follows:

Initial CSWMP (one review) .....$500/20 acres +

.....$20/Additional Acre

CSWMP Re-Submittal.....$50/CSWMP sheet

CSWMP Plan Change/Revision .....$50/CSWMP sheet

Final CSWMP Engineering Approval Submittal.....$50/CSWMP sheet

Administrative Fee.....$300

Deficiency Notice $0

First Violation .....$200 each day

Subsequent Violations .....$500 each day

Variance Application $450

Appeal Application $45

In addition to the above, the applicant is responsible for fees incurred by the Village engineer or Village solicitor for plan review, site inspection during construction, and compliance and other associated work. The applicant will be invoiced for fees incurred monthly and payment is due within 30 days.

Section 20 – Appendices

Appendix A: Comprehensive Storm Water Management Application

Appendix B: Inspection and Maintenance Agreement Template

Appendix C: Storm Sewer Lid Standards

Appendix D: Construction Site Inspection Checklist

Appendix E: Storm Water Variance Application

Appendix F: Storm Water Appeal Application

Appendix G: Ordinance Adopting the Comprehensive Storm Water Management Regulations of the Village of Galena, Ohio

APPENDIX A

Comprehensive Stormwater Management Application

PO Box 386
109 Harrison Street
Galena, Ohio 43021
740-965-2484

Comprehensive Stormwater Management Permit Application

Submittal Type	(Check One)
Initial CSWMP Submittal	
CSWMP Re-submittal	
CSWMP Plan Change/Revision Submittal	
Final CSWMP Engineering Submittal	

Total Fee Amount: _____ (Make checks payable to: Village of Galena)

Project Name: _____

Project Location: _____

Total Site Acreage: _____ **Receiving Waters:** _____

Developer: _____

Developer Phone: _____ **Developer Email:** _____

Developer Address: _____

Site Contact: _____

Site Contact Phone: _____ **Site Contact Email:** _____

Engineer: _____

Engineer Phone: _____ **Engineer Email:** _____

It is understood and agreed, that in addition to application submittal fees, the applicant is also responsible to pay fees incurred by the village for engineering plan reviews and construction site inspection. The applicant will be invoiced for fees incurred monthly and payment is due within 30 days. By signing this application, the applicant agrees to the conditions and requirements contained within the Village of Galena Comprehensive Storm Water Management Regulations.

Applicant Name: _____ **Email:** _____

Applicant Signature: _____ **Date:** _____

Submit to: Village of Galena Zoning Inspector, PO Box 386, 109 Harrison Street, Galena, Ohio 43021

APPENDIX B

Inspection and Maintenance Agreement Template

Inspection and Maintenance Agreement for Stormwater Control Measures (SCMs)

This Inspection and Maintenance Agreement, made this_____day of_____ 20___, by and between the ***[party responsible for the project on which the stormwater control*** (hereafter referred to as the Owner) and the ***Village of Galena*** hereafter referred to as the Village, provides as follows:

WHEREAS, the Owner is responsible for certain real estate shown as Tax Map Parcel No(s). ***(parcel number),*** more particularly described on the legal description attached hereto as Exhibit A and incorporated herein by reference, that is to be developed as ***(development's official name)*** and referred to as the Property**;** and,

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

1. (list all components of the stormwater management system)

as shown and described on Exhibit B, Stormwater Management Plan, attached hereto; ***(attach copy of development's approved stormwater management plan)*** and,

WHEREAS, to comply with Ohio EPA MS4 permit requirements, pertaining to this project, the Owner has agreed to maintain the stormwater management practices 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:

FINAL INSPECTION REPORTS AND AS BUILT CERTIFICATION

The Owner shall certify in writing to the Village within 30 days of completion of the storm water management practices that the storm water management practices are constructed in accordance with the approved plans and specifications. The Owner shall further provide As-Built Certifications of the locations of all access and maintenance easements and each storm water control measure, including those practices permitted to be located in, or within 50 feet of, water resources, and the drainage areas served by each storm water control measure.

MAINTENANCE PLANS FOR THE STORM WATER MANAGEMENT PRACTICES

1. The Owner agrees to maintain in perpetuity the stormwater control measures in accordance with approved Maintenance Plans listed in #2 below and in a manner that will permit the stormwater control measures 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 Stormwater Management Plan. This includes all pipes and channels built to convey storm water to the stormwater control measures, as well as structures, improvements, and vegetation provided to control the quantity and quality of the storm water.

2. The Owner shall provide a Maintenance Plan for each stormwater control measure. The

Maintenance Plans shall include a schedule for monthly and annual maintenance. The Owner shall maintain, update, and store the maintenance records for the stormwater control measures. The specific Maintenance Plans for each stormwater control measure are as follows:

Note: *This section must be tailored to the SCM's approved for a specific development and the maintenance necessary and associated schedule for each SCM. The following are example SCMs.*

(a) Stormwater Pond Maintenance. To be completed MONTHLY.
   (1) Remove floating debris.
   (2) Remove woody vegetative growth from pond area including embankments.
   (3) Remove trash and/or accumulated sediment.
   (4) Remove obstructions in orifices and/or outlets.

(b) Stormwater Pond Maintenance. To be completed ANNUALLY.
   (1) Repair erosion to outfall or spillway.
   (2) Repair and/or replace damaged structures, such as catch basins, risers, pipes, and headwalls.
   (3) Repair animal burrows and/or other leaks in the dam structures.
   (4) Remove debris from overflow spillway and grates.
   (5) Mow embankments and remove woody vegetation on embankments.
   (6) Inspect and remove invasive plants.
   (7) Dredge pond on a 3-7 year cycle or as necessary to retain design capacity.

(c) Infiltration Trench Maintenance. To be completed MONTHLY.
   (1) Remove debris and or sediment from inlet and outlet pipes.
   (2) Minimize heavy equipment, including mowers, in the vegetated areas to reduce compaction.
   (3) Check observation wells 72 hours after rain events twice a year to ensure dewatering between storms is taking place at the facility. Repair as necessary to ensure functionality.
   (4) Repair washed-out/damaged check dams.

(d) Infiltration Trench Maintenance. To be completed ANNUALLY.
   (1) Remove sediment in sediment traps and pretreatment swales
   (2) Check and remove any tree cover over trenches.
   (3) Remove any aggregate (soil/mineral based) deposits.

(e) Bioretention Area Maintenance. To be completed MONTHLY.
   (1) Minimize heavy equipment, including mowers, in the vegetated areas to reduce compaction.
   (2) Remove and replace any diseased or dead plant material. If specific species are not successful in the bioretention area, replace as appropriate to ensure full vegetation as designed.

(f) Bioretention Area Annual Maintenance. To be completed ANNUALLY.
   (1) Replace mulch at a depth of no greater than 3″ and cover the entire area.
   (2) Remove compacted mulch prior to new mulch placement.
   (3) Repair any areas that have eroded.

(4) Ensure cell is dewatering within 1.66 days or 40 hours as required by the Ohio EPA and not bypassing facility. Repair as necessary to ensure functionality.

(g) Maintenance Plans for all Stormwater Management Practices with decentralized design criteria shall be drawn up to comply with the latest edition of the Ohio Department of Natural Resources Division of Soil and Water Conservation "Rainwater and Land Development Manual".

3. The Owner shall perform all maintenance in accordance with the above Maintenance Plan and shall complete all repairs identified through regular inspections, and any additional repairs as requested in writing by the Village.

INSPECTION AND REPAIRS OF STORMWATER MANAGEMENT PRACTICES

1. The Owner shall inspect all stormwater control measures listed, every three (3) months and after major storm events for the first year of operation.

2. The Owner shall inspect all stormwater control measures listed at least once every year thereafter.

3. The Owner shall submit Inspection Reports in writing to the Village engineer within 30 days after each inspection. The reports shall be in the format provided in Exhibit C *[select appropriate inspection reports for the approved SCMs from Exhibit C]*.

4. The Owner grants permission to the Village to enter the Property and to inspect all aspects of the stormwater control measures and related drainage whenever the Village deems necessary. The Village shall provide the Owner copies of the inspection findings and a directive to commence with the repairs if necessary.

5. The Owner shall make all repairs within ten (10) days of their discovery through Owner inspections or through a request from the Village. If repairs will not occur within this ten (10) day period, the Owner must receive written approval from the Village engineer for a repair schedule.

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 storm water control measures, or the Owner fails to maintain the stormwater control measures in accordance with the approved design standards and Maintenance Plan, or, in the event of an emergency as determine by the Village, it is the sole discretion the Village, after providing reasonable notice to the Owner, to 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 Village upon demand, within thirty (30) days of receipt thereof for all actual cost incurred by the Village. All costs expended by the Village in performing such necessary maintenance or repairs shall constitute a lien against the properties of the Owner. Nothing herein shall obligate the Village to maintain the stormwater control measures.

FUNDING

Funding will be provided through the general operating budget of the owner for inspection, operation and maintenance of the stormwater control measures on the property.

[The Owner shall specify the method of funding for the perpetual inspection, operation, and maintenance of the stormwater management practices listed in this Inspection and Maintenance Agreement if different that that shown above. This funding mechanism shall be approved by the Village].

INDEMNIFICATION

The Owner hereby agrees that it shall save, hold harmless, and indemnify the Village and its employees and officers 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 stormwater control measures, in accordance with the terms and conditions set forth herein, or from acts of the Owner arising from, or out of, the construction, operation, repair or maintenance of the stormwater control measures.

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 or to authorize anyone not a party hereof to maintain a suit for any damages pursuant to the terms of this Inspection and Maintenance Agreement.

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.

The current Owner shall promptly notify the Village when the Owner legally transfers any of the Owners responsibilities for the stormwater management practices. The Owner shall supply the Village with a copy of any document of transfer, executed by both parties.

Upon execution of this Inspection and Maintenance Agreement, it shall be recorded with the Delaware County Recorder of Delaware County, Ohio, at the Owner's expense.

Attach the Following Completed Documents:

Exhibit A - Legal Description
Exhibit B - Comprehensive Stormwater Management Plan
Exhibit C - Stormwater Control Measure Inspection Report

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

Village:
Village of Galena, an Ohio municipal corporation

_____
Print Name

_____
Title

_____
Signature

_____
Date

Owner:
_____, a state corporation

_____
Print Name

_____
Title

_____
Signature

_____
Date

Exhibit A
Legal Description

Exhibit B
Comprehensive Stormwater Management Plan

Exhibit C
Stormwater Control Measure Inspection Reports

Bio-retention Area Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **forebay** □ **other, specify:**			□ **none**
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. DEWATERING			
Standing water is present after 24 hours. If yes, describe sheen, color, or smell.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. VEGETATION			
Vegetation is wilting, discolored, or dying due to disease or stress.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Vegetation needs to be controlled through mowing or manual removal.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. BIO-RETENTION MAIN INFILTRATION AREA			
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated at the surface.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Topmost layer is caked or crusted over with sediment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Mulch is compacted.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or animal borrows are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. SIDE SLOPES AND EMBANKMENT			
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or instability is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OUTLETS AND OVERFLOW STRUCTURE (i.e., catch basin)			
Outlets or overflow structures in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris is blocking the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Height from surface of practice to top of overflow structure is insufficient to allow for ponding during rain events.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**

Additional Notes
Wet weather inspection needed □ **Yes** □ **No**

Site Sketch:

Dry Pond or Dry Extended Detention Basin Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **forebay** □ **other, specify:**			
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		**Comment**	**Action Needed**
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. DEWATERING			
The water quality orifice is visible.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. EMBANKMENT			
Sinkholes or cracks are visible in the embankment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trees or woody vegetation present on the dam or embankment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. BASIN OR BOWL AREA			
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Invasive plants are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is evident on the basin floor or low flow channel.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
The micro-pool has sediment accumulation.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or animal borrows are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. SIDE SLOPES AND EMBANKMENT			
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes, animal borrows or instability are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OUTLETS AND OVERFLOW STRUCTURE			
Outlets or overflow structures in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris is blocking the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Joints are not water tight and/or leaks are visible.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**

Additional Notes
Wet weather inspection needed □ **Yes** □ **No**

Site Sketch:

Wet Pond or Wet Extended Detention Basin Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **forebay** □ **other, specify:**			
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		**Comment**	**Action Needed**
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. DEWATERING			
The water quality orifice is visible.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. EMBANKMENT			
Sinkholes, cracks or seeps are visible in the embankment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trees or woody vegetation present on the dam or embankment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. BASIN PERMANENT POOL			
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated and reduced pool volume.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Invasive plants are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is present at shoreline.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Excessive algae blooms are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. SIDE SLOPES AND EMBANKMENT			
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes, animal borrows or instability is present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OUTLETS AND OVERFLOW STRUCTURE			
Outlets or overflow structures in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris is blocking the outlets, trash racks or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the outlets or outlet structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Joints are water tight and no leaks are visible.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**

Additional Notes
Wet weather inspection needed □ **Yes** □ **No**

Site Sketch:

Vegetated Infiltration Swale Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **forebay** □ **other, specify:**			
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. DEWATERING			
Standing water is present after 24 hours. If yes, describe sheen, color, or smell.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. VEGETATION			
Vegetation is wilting, discolored, or dying due to disease or stress.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Vegetation needs to be controlled through mowing or manual removal.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. MAIN INFILTRATION AREA			
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated at the surface.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Topmost layer is caked or crusted over with sediment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Mulch is compacted.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or animal borrows are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. SIDE SLOPES AND EMBANKMENT			
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or instability is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OUTLETS AND OVERFLOW STRUCTURE (i.e., catch basin)			
Outlets or overflow structures in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris is blocking the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Height from surface of practice to top of overflow structure is insufficient to allow for ponding during rain events.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**

Additional Notes
Wet weather inspection needed □ **Yes** □ **No**

Site Sketch:

Permeable Pavement Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pavement Type: □ **permeable interlocking concrete pavement (PICP)** □ **asphalt** □ **concrete** □ **other, specify:**			
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **forebay** □ **other, specify:**			□ **none**
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

*Permeable interlocking concrete pavement (PICP)

Inspection Item		**Comment**	**Action Needed**
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. PAVEMENT TRANSITION AREA			
Non-permeable transition area at pavement edges is unstable/deteriorating.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. DEWATERING			
Standing water is visible on the surface after a rain event.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. PAVEMENT SURFACE AND JOINTS			
Sediment has accumulated on pavement surface.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated on pavement surface or around curbing.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Pavement has deteriorated, cracked, settled, or raveled.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated in the joints of PICP.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Vegetation is growing in the joints of PICP.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Gravel is insufficient in the joints of PICP.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Additional Notes			
Wet weather inspection needed □ **Yes** □ **No**			

Site Sketch:

Green Roof Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours: □ Yes □ No		**If yes, list amount and timing:**	
Type of Irrigation System: □ overhead □ drip □ other, specify:			
Results from Most Recent Soil Test Available: □ Yes □ No			
Site Plan or As-Built Plan Available: □ Yes □ No			

Inspection Item		Comment	Action Needed
1. VEGETATION			
Plant cover is less than 90%.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Vegetation is wilting, discolored, or dying due to disease, pests, or stress.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Vegetation is stressed due to drought.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Vegetation needs to be controlled through manual removal or mowing if specified by manufacturer.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
2. GROWING MEDIUM/SOIL LAYER			
Standing water is present. If yes, describe color or smell.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Sediment has accumulated at the surface or throughout the media.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Gullies or other evidence of erosion are observed.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Soil depth is insufficient.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Based on most recent soil test, fertilization is needed.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
3. STRUCTURAL COMPONENTS			
Waterproof membrane is cracked or leaking.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Other structural components are in poor condition.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
4. INLETS/DRAINAGE LAYER			
Inlets are in poor structural condition.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Sediment, vegetation, trash or debris are blocking inlets.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
5. IRRIGATION SYSTEM			
Drip lines, supply lines, or other irrigation components are not functioning or are in poor structural condition.	☐ **Yes** ☐ **No** ☐ **N/A**		☐ **Yes** ☐ **No**
Additional Notes			
Wet weather inspection needed □ **Yes** □ **No**			

Site Sketch:

Non-Structural Storm Water Control Measure Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Non-structural SCM Type: □ **riparian setback** □ **wetland setback** □ **conservation area** □ **other, specify:**			
Pretreatment: □ **vegetated filter strip** □ **level spreader** □ **gravel verge** □ **other, specify:**			
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		**Comment**	**Action Needed**
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion or scouring is visible	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. UNAUTHORIZED ACTIVITY			
There is unauthorized dumping of yard waste, litter or debris.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
There are unauthorized structures or construction activity.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
There is unauthorized removal of vegetation or trees.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
There are unauthorized recreational activities or motorized vehicles.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. VEGETATION			
Vegetation is dying or diseased.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Invasive vegetation is present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. NON-STRUCTURAL AREA			
The boundaries are clearly marked.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Signage is visible and intact.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Other:	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**

Additional Notes
Wet weather inspection needed □ **Yes** □ **No**

Site Sketch:

Rain Barrel/Cistern Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **downspout screen** □ **gutter guards** □ **rain barrel filter/screen** □ **other, specify:**			
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment and debris have accumulated in gutter.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
The screen or trap is clogged or not attached.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. FOUNDATION			
Barrel foundation is unstable.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. INLETS/DOWNSPOUTS			
Gutters and downspouts joints are disconnected and/or leaks are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Downspouts are disconnected to barrel and/or leaks are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Diverter is disconnected and/or leaks are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. SPIGOT			
Visible leaks are present and connections are not tight.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Valves and knobs do not turn.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. RAIN BARREL/CISTERN			
Sediment accumulated at bottom of barrel.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Odor of mildew present or algae is visible inside the barrel.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Cracks or leaks are visible in barrel.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Mosquito larva is visible in barrel.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. OVERFLOW STRUCTURE			
Overflow is directed away from the structure or disconnected from the downspout.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Other:	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Special Notes: An untrained individual should never enter a cistern. Never drink water from a rain barrel or a cistern. Always follow the manufacturer's manual and recommended maintenance schedule.			
Additional Notes			
Wet weather inspection needed □ **Yes** □ **No**			

Site Sketch:

Rain Garden Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **other, specify:**			□ **none**
Inlet Type: □ **swale** □ **disconnected downspout** □ **pipe** □ **sheet flow**			
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. DEWATERING			
Standing water is present after 24 hours. If yes, describe sheen, color, or smell.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. INLET			
Structural inlet in poor condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated and/or is blocking the inlet.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the inlet.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. VEGETATION			
Vegetation is wilting, discolored, or dying due to disease or stress.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Vegetation needs to be controlled through mowing or manual removal.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. RAIN GARDEN MAIN INFILTRATION AREA			
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment has accumulated at the surface.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Topmost layer is caked or crusted over with sediment.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Mulch is compacted.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or animal borrows are present.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. EDGES AND BERM			
Erosion is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sinkholes or instability is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OUTLET AND OVERFLOW STRUCTURE (i.e., catch basin)			
Outlet or overflow structure in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris is blocking the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around the outlets or overflow structure.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Height from surface of practice to top of overflow structure is insufficient to allow for ponding during rain events.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**

Additional Notes
Wet weather inspection needed □ Yes □ No

Site Sketch:

Sand Filter System Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **forebay** □ **other, specify:**			□ **none**
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

*Do not enter sand filter chambers to inspect system unless Occupational Safety & Health Administration (OSHA) regulations for confined space entry are followed.
*Follow inspection and maintenance instructions and schedules provided by system manufacturer and installer.
*Properly dispose of all wastes.

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris have accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. SAND OR SAND/PEAT FILTER LAYER			
Sediment accumulation threshold has been reached.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Surface is hardened/crusted.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. COLLECTION CHAMBERS			
Trash and debris have accumulated in chambers.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Oil is visible at surface.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OTHER SYSTEM COMPONENTS			
Structural deterioration is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
7. OUTLETS			
Outlets in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris are blocking outlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around outlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
8. OTHER			
Evidence of ponding water on area draining to system.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Evidence that water is not being conveyed through the system.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Additional Notes			
Wet weather inspection needed □ **Yes** □ **No**			

Site Sketch:

Underground Detention System / Water Quality Unit Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **forebay** □ **other, specify:**			□ **none**
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

*Do not enter underground detention chambers to inspect system unless Occupational Safety & Health Administration (OSHA) regulations for confined space entry are followed.
*Follow inspection and maintenance instructions and schedules provided by system manufacturer and installer.
* Properly dispose of all wastes.

Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash, or debris have accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. CHAMBERS			
Sediment accumulation threshold has been reached.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated in chambers.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. OTHER SYSTEM COMPONENTS			
Structural deterioration is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
5. OUTLETS			
Outlets in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris are blocking outlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around outlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OTHER			
Evidence of ponding water on area draining to system.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Evidence that water is not being conveyed through the system.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Additional Notes			
Wet weather inspection needed □ **Yes** □ **No**			

Site Sketch:

Oil-Water Separator Inspection and Maintenance Checklist

Facility:			
Location/Address:			
Date:	**Time:**	**Weather Conditions:**	**Date of Last Inspection:**
Inspector:		**Title:**	
Rain in Last 48 Hours □ **Yes** □ **No**		**If yes, list amount and timing:**	
Pretreatment: □ **vegetated filter strip** □ **swale** □ **turf grass** □ **forebay** □ **other, specify:**			□ **none**
Site Plan or As-Built Plan Available: □ **Yes** □ **No**			

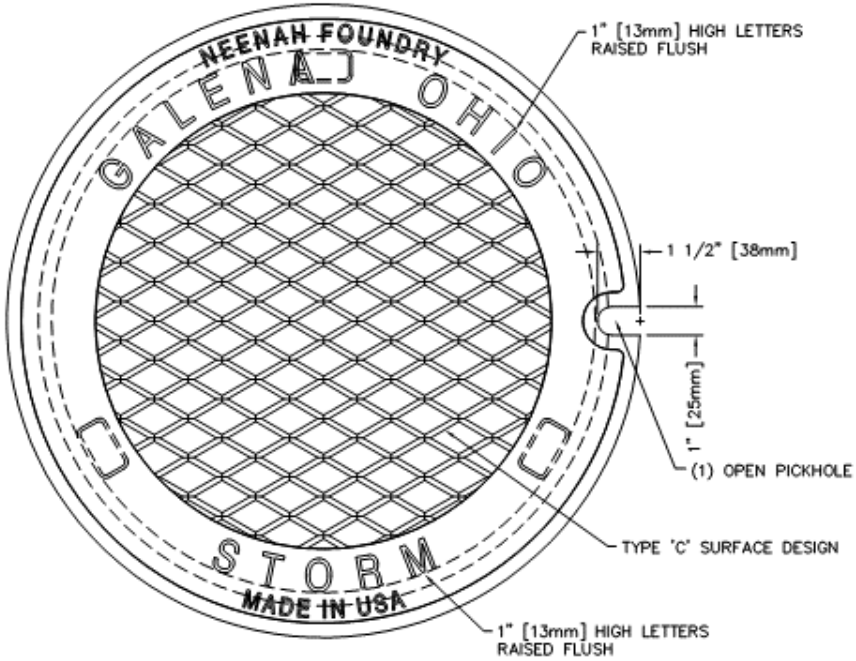
*Do not enter underground detention chambers to inspect system unless Occupational Safety & Health Administration (OSHA) regulations for confined space entry are followed.
*Follow inspection and maintenance instructions and schedules provided by system manufacturer and installer.
* Properly dispose of all wastes.

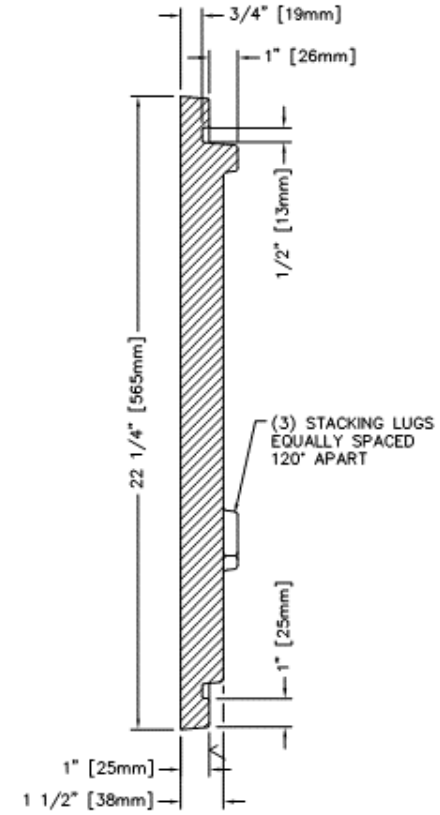
Inspection Item		Comment	Action Needed
1. PRETREATMENT			
Sediment has accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Trash and debris have accumulated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
2. INLETS			
Inlets are in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash, or debris has accumulated and/or is blocking the inlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
3. OIL CONTAINMENT CHAMBER			
Oil volume threshold has been reached.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Oil-absorbing pads are saturated.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. SEDIMENT COLLECTION CHAMBER			
Sediment accumulation threshold has been reached.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sludge accumulation threshold at bottom of chamber has been reached.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
4. OTHER SYSTEM COMPONENTS			
Structural deterioration is evident.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Spills or leaks are evident.	☐**Yes** ☐**No** ☐**N/A**		
5. OUTLETS			
Outlets in poor structural condition.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Sediment, trash or debris is blocking outlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Erosion is occurring around outlets.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
6. OTHER			
Evidence of ponding water on area draining to system.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Evidence that water is not being conveyed through the system.	☐**Yes** ☐**No** ☐**N/A**		☐**Yes** ☐**No**
Additional Notes			
Wet weather inspection needed □ **Yes** □ **No**			

Site Sketch:

APPENDIX C

Storm Sewer Lid Standards





EQUIPMENT: D99991786, K99991785 (1 NEW DRAG INSERT FOR LETTERING)
NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC].
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 126#

DR. E. NIVER	SCALE 1/4"=1"	TITLE: R-1762, PLATEN LID LTRD. 'GALENA OHIO' 'STORM'	
CH. RKB			
APP. SPT	NEENAH FOUNDRY	NF-1762T45	B
DATE 04-02-2018	NEENAH WISCONSIN 54956 PHONE 800-558-5075		
www.nfco.com	LINCOLN, NEBRASKA 68529 PHONE 800-234-7466		

CAD DWG. REF: 1762T45.DWG- 1

APPENDIX D

Inspection Checklist

PO Box 386
109 Harrison Street
Galena, Ohio
740-965-2484

Construction Site Inspection Checklist

Construction site inspection procedures have been developed to ensure that consistent site inspections are performed for active construction sites with a disturbed area greater than or equal to one acre. The construction site inspector is expected to perform an initial site inspection at the start of construction and monthly inspections thereafter until the site has been finally stabilized and a Notice of Termination submitted to the Village of Galena and Ohio EPA.

Inspection Preparation: Prepare documentation for initial inspection. This includes a copy of the approved SWP3, copies of the reduced size SWP3 site plans for markup during inspections, and filling out the general information required for the site inspection checklist.

Documentation of Inspections: Record all inspections performed, follow-up inspections and enforcement action if required.

Inspection Procedure: As adapted from the Minnesota Pollution Control Agency's (MPCA) "Storm Water Construction Inspection Guide":

1. *Plan your inspection ahead of time*.
   Before entering the construction site, take note of the surroundings and stages of construction. The inspector should begin at a low point and work uphill, making sure to observe all discharge points and any off-site support activities.

2. *Inspect perimeter controls and slopes*.
   The inspector should examine all perimeter controls (such as silt fences) to determine whether they are adequate for the drainage area they were designed to treat, and that they have been properly installed and maintained. The structural integrity of the SCM should be checked to determine whether portions of the SCM need to be replaced. Slopes and temporary stockpiles should be inspected to determine if sediment and erosion controls are effective; look for signs of rills or gullies, as well as tracking of stockpiled materials to other parts of the site.

3. *Compare SCMs in the site plan with the construction site conditions*.
   Determine whether SCMs are in place as specified in the site plan and evaluate whether those SCMs have been adequately installed and maintained. Document any potential violations and their location and look for areas where additional SCMs are needed that are not specified in the site plan.

4. *Inspect site entrances/exits*.
   Inspect the vehicle construction entrance/exit and surrounding streets to determine if there has been excessive tracking of sediment from the site. Look for evidence of additional areas where vehicles are entering or exiting that are not on the site plan and are not stabilized.

5. *Inspect sediment controls*.
   Inspect sediment basins and look for signs that sediment has accumulated beyond one-third to one-half the original capacity of the basin. If so, document that maintenance is required.

6. *Inspect non sediment pollutant control measures*.
   Inspect trash areas and material storage and staging areas to ensure that materials are properly maintained and that pollutant sources are not exposed to rainfall or runoff. Where applicable, verify that concrete washouts are being used properly. Inspect vehicle/equipment fueling and maintenance areas for the presence of spill control measures and for evidence of leaks or spills.

7. *Inspect disturbed areas:*
   Make sure grading logs are current and that areas that require stabilization have been properly stabilized.

8. *Inspect discharge points and downstream, off-site areas*.
   Inspect all discharge points and downstream areas to determine if erosion and sediment control practices are effective in preventing offsite impacts. Walk down the street if necessary to look for evidence of discharges from the site. This is particularly important in areas with existing curb and gutter. Inspect down-slope catch basins to determine whether they are adequately protected, and identify whether sediment buildup has occurred. The inspector should document any violations or evidence of offsite impacts on the inspection form and with photographs.

PO Box 386
109 Harrison Street
Galena, Ohio
740-965-2484

Construction Site Inspection Checklist

Project:		**Approval Date:**	
Location:		**Inspector Name:**	
Site Owner:		**Construction Site Operator:**	
Site Owner Address:		**Construction Site Operator Address:**	
Construction Site Inspection Date:		Time:	
Last Rainfall Event:		Precipitation:	Temperature:
Contractor Onsite at time of Inspection:			

	Initial Inspection		Monthly Inspection		Follow Up Inspection		Final Inspection
	Complaint Response	If Complaint Response is related to a site that does not have approval from Planning & Zoning Commission skip to the comments section.					

Construction Site Inspection Elements	Applicable?		Yes		No
A. Is the approved SWP3 onsite?		Yes		No	N/A
B. Are NOI Letter and Co-permittee Letters attached to the SWP3?		Yes		No	N/A
C. Are Weekly and 0.5" Rainfall Inspection Logs current?		Yes		No	N/A
D. Are all erosion and sediment control measures (E&SCM) installed in accordance with the SWP3? If not, note the E&SCMs that have not been installed on the attached SWP3 Site Plan.		Yes		No	N/A
E. Are all E&SCMs being maintained in accordance with the SWP3? If not, note the E&SCMs that have not been maintained on the attached SWP3 Site Plan.		Yes		No	N/A
F. Are any additional E&SCMs required due to site conditions? If yes, note the locations on the attached Site Plan.		Yes		No	N/A
G. Are all non-sediment pollutant control measures (NSPCM) installed in accordance with the SWP3? If not, note the NSPCMs that have not been installed on the attached SWP3 Site Plan.		Yes		No	N/A
H. Is grading log current and have all disturbed areas been properly stabilized? If not, note the un-stabilized areas on the SWP3 Site Plan.		Yes		No	N/A
I. Are all off-site and/or undisturbed areas being protected from sediment and or erosion. If not note the area on the SWP3 Site Plan.		Yes		No	N/A
J. Are all soil stockpiles properly contained and stabilized?		Yes		No	N/A
K. Have prior non-compliance issues been addressed?		Yes		No	N/A

Comments/Compliance Actions:

All compliance actions required indicate a violation of the Village of Galena Codified Ordinance and require compliance within 3 days of the date of this inspection. Failure to comply could result in a stop work order and or fines.

Compliance Action Required?		Yes, See Compliance Actions above.		No
Follow-Up Inspection Required?		Yes, Inspection to be performed within 10 days		No

Compliance Status: In Compliance

In Compliance. No compliance action items that required correction were found for this inspection.

Please correct all compliance actions immediately.

APPENDIX E

Stormwater Variance Application

FORM (VARIANCE) CASE NO.: _____ Date Filed: _____

Village of Galena Planning & Zoning Commission
109 Harrison Street, PO Box 386, Galena, Ohio 43021 ◆ 740-965-2484 ◆ GalenaOhio.gov

Stormwater Variance Application

(To be filed by the Applicant & Property Owner)

Name of Applicant: _____

Mailing address: _____

Phone: (_____)_____ **Mobile: (**_____)_____

Email address: _____

Name of Property Owner: _____

Mailing address: _____

Phone: (_____**)**_____ **Mobile: (**_____**)**_____

Email address: _____

Street address of property subject to this variance request:

_____

Subdivision: _____ **Parcel Number:** _____

Current Use of Property: _____

Future Use of Property: _____

Total Property Size (acres or square feet): _____

Area of land to be disturbed (acres or square feet): _____

Planned impermeable surfaces (roofs, patio, driveways, roads, sidewalks, trails, or other hard surfaces) (acres or square feet): _____

Note: This variance request must be typewritten and filed in duplicate twenty-one (21) days prior to the next regularly scheduled Galena Planning and Zoning Commission meeting.

Applicant Notes: Check each item to ensure application is complete.

- ❑ **Attach Proof of ownership or authorization to represent the property owner.**
- ❑ **Attach a description of the project for which the variance is sought.**
- ❑ **Attach the legal description** of the subject property as shown by the Delaware County Recorder's Office.

- ❑ **Attach a typewritten list on gummed labels and one copy of this list** of the current names and mailing addresses of all adjoining and abutting property owners including but not limited to those across the street and all properties within 200 feet of the property's exterior boundaries subject to this variance request as shown in the current records of the Delaware County Auditor printed on gummed labels.

- ❑ **Attach** six (6) copies of a plat map for the subject property and adjoining properties, showing the exact sizes and locations of any existing and proposed structures drawn to scale, driveways, easements, and front, side, rear, and riparian setbacks.

- ❑ **Attach** six (6) copies of a topographical map for the subject property and adjoining properties.

- ❑ **Attach** the current variance application fee as established by Village Council with a check made payable to the Village of Galena.

The applicant shall not rely on the Village to return original documents or to provide copies for the applicant. A variance requires a public hearing, notice to property owners within two hundred (200') feet of the exterior boundaries of the subject property, and notice published in a newspaper of general circulation.

The Village of Galena *Comprehensive Storm Water Regulations* is available online at GalenaOhio.gov. Copies are available for purchase at the Village Office in either hard copy or on CD ROM.

The Applicant must file an EXPLICIT STATEMENT Setting Forth:

1. The principal points on which this variance request is made.
2. The specific exceptional conditions pertaining to the property in question, which it is claimed would cause undue hardship were the provisions of the Storm Water Regulations strictly applied, and which it is claimed would justify the grant of relief from such strict application of the Storm Water Regulations.
3. Construction plans and time schedules for every proposed excavation, renovation, building, or structure affected.
4. Such other information as may be necessary to determine and provide for the proper hearing of this variance request.
5. The current variance application fee, made payable to the Village of Galena, shall accompany each variance application. Such fee shall be for the purposes of defraying the expenses of publishing and preparing for the hearing.

The applicant/owner requests a variance for the following reasons: (Attach additional sheets as necessary to explain the variance requested.)

_____

_____

_____

_____

_____

_____

_____

_____

The undersigned requests a public hearing for a variance request as described above. It is understood and agreed that, in addition to the application submittal fees, the applicant is also responsible to pay fees incurred by the Village engineer for plan review and construction site inspections. The Village will invoice the applicant for fees incurred monthly and payment is due within 30 days of invoicing. Late payment penalties can apply.

Signature of Owner(s)	Date	Signature of Applicant(s)	Date
Printed Name of Owner(s)	Date	Printed Name of Applicant(s)	Date

For Office Use Only

Date Received: _____ Received by: _____

Fee paid? _____ Check Number: _____

Receipt Number: _____ Neighboring properties labels? _____

Legal description? _____ PIN # _____

Plat map attached? _____ Topo map attached? _____

Application # _____ Hearing Date Set: _____

Publication Date: _____ Property Posted: _____

Published in: _____

Notices sent first class to property owners within 200′ of subject property: _____

Village Administrator's notes and findings:

_____

_____

_____

_____

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_____

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Action taken by Zoning & Planning Commission:

_____

_____

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_____

Date of Action by Commission: _____ Date Applicant Notified: _____

Method of Notifying Applicant of Commission's Action:

_____

Attach: Fee Schedule, SW Section 16.04

Documents\Forms\Form Storm Water Variance Application 2019.doc

APPENDIX F

Stormwater Appeal Application

FORM 4 (APPEAL) CASE NO.: _____ Date Filed: _____

Village of Galena Planning & Zoning Commission
109 Harrison Street, PO Box 386, Galena, Ohio 43021 ◆ 740-965-2484 ◆ GalenaOhio.gov

Stormwater Appeal from Decision of the Village Administrator

(To be filed by the Applicant & Property Owner)

Name of Appellant: _____

Mailing address: _____

Phone: (_____)_____ **Mobile: (_____)**_____

Email address: _____

Name of Property Owner: _____

Mailing address: _____

Phone: (_____)_____ **Mobile: (_____)**_____

Email address: _____

Street address of property subject to this appeal: _____

Subdivision: _____ **Parcel Number:** _____

Note: This appeal must be typewritten and filed in duplicate within twenty (20) days after the day of the decision or refusal of the Village administrator from whom this appeal is taken and twenty-one (21) days prior to the next regularly scheduled Galena Planning and Zoning Commission meeting.

Applicant Notes: Check each item to ensure application is complete.

- ❑ **Attach Proof of ownership or authorization to represent the property owner.**
- ❑ **Attach a description of the project for which the appeal is sought.**
- ❑ **Attach the legal description** of the subject property as shown by the Delaware County Recorder's Office.
- ❑ **Attach a typewritten list on gummed labels and one copy of this list** of the current names and mailing addresses of all adjoining and abutting property owners including but not limited to those across the street and all properties within 200 feet of the property's exterior boundaries subject to this variance request as shown in the current records of the Delaware County Auditor printed on gummed labels.
- ❑ **Attach** six (6) copies of a plat map for the subject property and adjoining properties, showing the exact sizes and locations of any existing and proposed structures drawn to scale, driveways, easements, and front, side, rear, and riparian setbacks.
- ❑ **Attach** six (6) copies of a topographical map for the subject property and adjoining properties.

- ❑ **Attach** the current appeal application fee as established by Village Council with a check made payable to the Village of Galena.

The applicant shall not rely on the Village to return original documents or to provide copies for the applicant. A variance requires a public hearing, notice to property owners within two hundred (200') feet of the exterior boundaries of the subject property, and notice published in a newspaper of general circulation.

The Village of Galena *Comprehensive Storm Water Regulations* is available online at GalenaOhio.gov. Copies are available for purchase at the Village Office in either hard copy or on CD ROM.

The Appellant must file an EXPLICIT STATEMENT Setting Forth:

1. The principal points on which this appeal is made. In any case, the principal points set forth in the appeal shall be the same as those under which the Village Administrator issued a refusal, order, or decision.
2. Specific reference to the section of the Storm Water Regulations under which it is claimed the Village administrator has erred in the order or interpretation.
3. The specific exceptional conditions pertaining to the property in question, which it is claimed would cause undue hardship were the provisions of the Storm Water Regulations strictly applied, and which it is claimed would justify the grant of relief from such strict application of the Storm Water Regulations.
4. Construction plans and time schedules for every proposed excavation, renovation, building, or structure affected by the order.
5. Such other information with regard to the order or interpretation as may be necessary to determine and provide for the proper hearing of this appeal.
6. The current appeal application fee, made payable to the Village of Galena, shall accompany each appeal. Such fee shall be for the purposes of defraying the expenses of publishing and preparing for the hearing.

It is the applicant/owner's contention the following error or interpretation was made in the determination of or by the Village Administrator. (Attach additional sheets as necessary to explain the appeal.)

_____

_____

_____

_____

_____

_____

_____

_____

The undersigned requests a public hearing for review of the decision by the Village administrator regarding this order or interpretation as above described. It is understood and agreed that, in addition to the application submittal fees, the applicant is also responsible to pay fees incurred by the Village engineer for plan review and construction site inspections. The Village will invoice the applicant for fees incurred monthly and payment is due within 30 days of invoicing. Late payment penalties can apply.

Signature of Owner(s)	Date	Signature of Appellant(s)	Date
Printed Name of Owner(s)	Date	Printed Name of Appellant(s)	Date

For Office Use Only

Date Received: _____ Received by: _____

Fee paid? _____ Check Number: _____

Receipt Number: _____ Neighboring properties labels? _____

Legal description? _____ PIN # _____

Plat map attached? _____ Topo map attached? _____

Application # _____ Hearing Date Set: _____

Publication Date: _____ Property Posted: _____

Published in: _____

Notices sent first class to property owners within 200′ of subject property: _____

Village Administrator's notes and findings:

_____

_____

_____

_____

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_____

_____

_____

Action taken by Zoning & Planning Commission:

_____

_____

_____

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_____

_____

_____

Date of Action by Commission: _____ Date Applicant Notified: _____

Method of Notifying Applicant of Commission's Action:

_____

Attach: Fee Schedule, SW Section 16.09

Documents\Forms\Form Storm Water Appeal Application 2019.docx

APPENDIX F

Ordinance Approving the Comprehensive Stormwater Management Regulations of the Village of Galena, Ohio