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## ARTICLE III Stormwater

### DIVISION 1 Generally

Sec. 14-48 **Definitions.**  
[Ord. No. SW-1, 10-14-2004]

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

#### **AUTHORIZED ENFORCEMENT AGENCY**

Employees of the **Township** designated by the Supervisor to enforce this article.

#### **BASE FLOOD**

A flood having a one-percent chance of being equaled or exceeded in any given year (using National Oceanic and Atmospheric Administration Atlas 14, Volume 8).

#### **BASE FLOOD ELEVATION**

The high water elevation of the base flood, commonly referred to as the "one-hundred-year flood elevation."

#### **BASE FLOODPLAIN**

The area inundated by the base flood.

#### **BEST MANAGEMENT PRACTICES (BMPs)**

A practice, or combination of practices and design criteria, that comply with the State Department of Environmental Quality's *Guidebook of BMPs for Michigan Watersheds*, South East Michigan Council of Government's *Low Impact Development Manual for Michigan*, or equivalent practices and design criteria that accomplish the purposes of this article, including, but not limited to, minimizing stormwater runoff and preventing the discharge of pollutants into stormwater as determined by the **Township** Engineer, and, where appropriate, the standards of the Ottawa County Water Resources Commissioner.

#### **BUILDING OPENING**

Any opening of a solid wall such as a window or door, through which floodwaters could penetrate.

#### **CLEAN WATER ACT**

The Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq., as amended, and the applicable regulations promulgated thereunder.

#### **CONSTRUCTION SITE STORMWATER RUNOFF**

Stormwater runoff from a development site following an earth change.

**DESIGN ENGINEER**

A registered and licensed professional engineer in the state responsible for the design of a drainage plan.

**DETENTION**

A system that is designed to capture stormwater and release it over a given period of time through an outlet structure at a controlled rate.

**DEVELOPED or DEVELOPMENT**

The installation or construction of impervious surfaces on a development site that require, pursuant to state law or local ordinance, the **Township's** approval of a site plan, plat, site condominium, special land use, planned unit development, rezoning of land, land division approval, private road approval or other approvals required for the development of land or the erection of buildings or structures; provided, however, that for purposes of Division **2** of this article only, the term "developed" or "development" shall not include the actual construction of, or an addition, extension or modification to, an individual single-family or a two-family detached dwelling.

**Commented [CES1]:** NOTE: All references to other related Sections, Chapters, Articles of the **Township** ordinance are bolded. References to Chapters of other statutes or federal laws are NOT bolded.

**DEVELOPER**

Any person proposing or implementing the development of land.

**DEVELOPMENT SITE**

Any land that is being or has been developed, or that a developer proposes for development.

**DISCHARGER**

Any person or entity who directly or indirectly discharges stormwater from any property. The term "discharger" also means any employee, officer, director, partner, contractor, or other person who participates in, or is legally or factually responsible for, any act or omission which is or results in a violation of this article.

**DRAIN**

Any drain as defined in the Drain Code of 1956, Public Act No. 40 of 1956 (MCL 280.1 et seq.), other than an established county or intercounty drain.

**DRAINAGE**

The collection, conveyance, or discharge of groundwater and/or surface water.

**DRAINAGEWAY**

The area within which surface water or groundwater is carried from one part of a lot or parcel to another part of the lot or parcel or to adjacent land.

**EARTH CHANGE**

A human made change in the natural cover or topography of land, including cut and fill activities.

- (1) The term "earth change" includes, but is not limited to, any excavating, surface grading, filling, landscaping, or removal of vegetative roots.
- (2) The term "earth change" does not include the practice of plowing and tilling soil for the purpose of crop production.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)**

The agency of the federal government charged with environmental protection.

**EROSION**

The process by which the ground surface is worn away by action of wind, water, gravity or a combination thereof.

**EXEMPTED DISCHARGES**

Discharges other than stormwater as specified in Section **14-146**.

**FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)**

The agency of the federal government charged with emergency management.

**FLOOD or FLOODING**

A general and temporary condition of partial or complete inundation of normally dry land areas resulting from the overflow of water bodies or the unusual and rapid accumulation of surface water runoff from any source.

**FLOOD PROTECTION ELEVATION (FPE)**

The base flood elevation plus one foot at any given location.

**FLOODPLAIN**

Any land area subject to periodic flooding.

**FLOODPROOFING**

Any structural and/or nonstructural additions, changes, or adjustments to structures or property that reduce or eliminate flood damage to land or improvements, including utilities and other structures.

**FLOODWAY**

The channel of any watercourse and the adjacent land areas that must be reserved to carry and discharge a base flood without cumulatively increasing the water surface elevation more than 1/10 of a foot due to the loss of flood conveyance or storage.

**GRADING**

Any stripping, clearing, stumping, excavating, filling, leveling or stock-piling of soil or any combination thereof and the land in its excavated or filled condition.

**HAZARDOUS MATERIALS**

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.

**ILLICIT CONNECTION**

Any method or means for conveying an illicit discharge into water bodies or the **Township's** stormwater system.

**ILLCIT DISCHARGE**

Any discharge to water bodies that does not consist entirely of stormwater, discharges pursuant to the terms of an NPDES permit, or exempted discharges as defined in this article.

**IMPERVIOUS SURFACE**

A surface, such as a paved or gravel driveway, roof, parking area or road, that prevents the infiltration of water into the soil.

**LIVESTOCK PRODUCTION FACILITY**

An agricultural activity, in which 100 or more livestock are fed, bred and/or raised within a confined area, other than an open pasture either inside or outside an enclosed building.

**LOWEST FLOOR**

The lowest floor or the lowest enclosed area, including a basement, but not including an unfinished or flood-resistant enclosure which is usable solely for parking of vehicles or building access.

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ)**

The State department charged with protection of the environment.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)**

A publicly owned conveyance system designed or used for collecting or conveying stormwater.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT**

A permit issued by EPA, or by a state under authority delegated pursuant to 33 U.S.C. § 1342(b), that authorizes the discharge of pollutants to waters of the United States. The permit may be applicable on an individual, group, or general area-wide basis.

**NONSTORMWATER DISCHARGE**

Any discharge to the storm drain system that is not composed entirely of stormwater.

**OTTAWA COUNTY WATER RESOURCES COMMISSIONER (OCWRC)**

The County agency charged with the management of county and intercounty drains established pursuant to the Drain Code of 1956, Public Act No. 40 of 1956 (MCL 280.1 et seq.), and responsible for site plan drainage review pursuant to the Land Division Act No. Act 288 of 1967, as amended by Act 591 of 1996 (MCL 560.101 et seq.), and the Mobile Home Commission Act No. 96, of 1987 (MCL 125.2301 et seq.).

**OVERLAND FLOW-WAY**

Surface area that conveys a concentrated flow of stormwater runoff.

**PLAN**

Written narratives, specifications, drawings, sketches, written standards, operating procedures, or any combination of these, which contain information pursuant to this article.

**POLLUTANT**

A substance discharged which includes, but is not limited to, the following: any dredged spoil, solid waste, vehicle fluids, yard wastes, animal wastes, agricultural waste products, sediment, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological wastes, radioactive

materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, and industrial, municipal, commercial and agricultural waste, or any other contaminant or other substance defined as a pollutant under the Clean Water Act.

**PREMISES**

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

**PROPERTY OWNER**

Any person having legal or equitable title to property or any person having or exercising care, custody, or control over any property.

**RETENTION**

A system which is designed to capture stormwater and contain it until it infiltrates the soil or evaporates.

**SOIL EROSION**

The stripping of soil and weathered rock from land creating sediment for transportation by water, wind or ice, and enabling formation of new sedimentary deposits.

**STATE WATER QUALITY STANDARDS**

All applicable state rules, regulations, and laws pertaining to water quality, including the provisions of Section 3106 of Part 31 of Public Act No. 451 of 1994 (MCL 324.3106).

**STORM DRAIN**

A system of open or enclosed conduits and appurtenant structures intended to convey or manage stormwater runoff, groundwater and drainage.

**STORMWATER MANAGEMENT FACILITY**

The method, structure, area, system, or other equipment or measures which are designed to receive, control, store, or convey stormwater.

**STORMWATER PERMIT**

A permit issued by either the Ottawa County Water Resources Commissioner pursuant to state law or the **Township** pursuant to this article.

**STORMWATER POLLUTION PREVENTION PLAN**

A document which describes the best management practices and activities to be implemented by a person to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

**STORMWATER RUNOFF**

The runoff and drainage of precipitation resulting from rainfall or snowmelt or other natural event or process.

**STREAM**

A river, stream or creek which may or may not be serving as a drain, or any other water body that has definite banks, a bed, and visible evidence of a continued flow or continued occurrence of water.

**UNITED STATES GEOLOGIC SURVEY (USGS)**

The agency of the federal government charged with survey and mapping.

**WASTEWATER**

Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

**WATER BODY**

A river, lake, stream, creek or other watercourse or wetlands.

**WATERSHED**

A region draining into a water body.

**WETLANDS**

Land characterized by the presence of hydric soils and water at a frequency and duration sufficient to support wetland vegetation or aquatic life.

Sec. 14-49 **Statutory authority and title.**  
**[Ord. No. SW-1, 10-14-2004]**

The ordinance from which this article is derived is adopted in accordance with Chapter 16 of the Revised Statutes of 1846 (the Powers and Duties of **Townships**, etc.), (MCL 41.1 et seq.); the **Township** and Village Public Improvement Act, Public Act No. 188 of 1954 (MCL 41.721 et seq.); the Drain Code of 1956, Public Act No. 40 of 1956 (MCL 280.1 et seq.); the Land Division Act, Public Act No. 288 of 1967 (MCL 560.101 et seq.); the Revenue Bond Act, Public Act No. 94 of 1933 (MCL 141.101 et seq.); and the Natural Resources and Environmental Protection Act, Public Act No. 451 of 1994 (MCL 324.101 et seq.); Section 401(p) of the Federal Water Pollution Control Act (also known as the Clean Water Act), as amended, being 33 U.S.C. § 1342(p) and 40 CFR 9, 122, 123 and 124; and other applicable state and federal laws.

Sec. 14-50 **Findings.**  
**[Ord. No. SW-1, 10-14-2004]**

The **Township** finds that:

- (1) Water bodies, roadways, structures, and other property within, and downstream of the **Township** are at times subjected to flooding;
- (2) Flooding is a danger to the lives and property of the public and is also a danger to the natural resources of the **Township** and the region;
- (3) Land development alters the hydrologic response of watersheds, which may result in increased stormwater runoff rates and volumes, increased flooding, increased stream channel erosion, and increased sediment transport and deposition;
- (4) Stormwater runoff produced by land development may contribute to increased quantities of waterborne pollutants;
- (5) Increases of stormwater runoff, soil erosion, and nonpoint source pollution may have occurred as a result of land development, and may cause deterioration of the water resources of the **Township** and downstream municipalities;
- (6) Stormwater runoff, soil erosion, and nonpoint source pollution, may have resulted in a deterioration of the water resources of the **Township** and downstream municipalities;

**Commented [CES2]:** Language is specific to general law **Township**. Modify for Charter Twp., City or Village.

- (7) Increased stormwater runoff rates and volumes, and the sediments and pollutants associated with stormwater runoff, absent reasonable regulation and control, can adversely affect the Township's water bodies and water resources, and those of downstream municipalities;
- (8) Stormwater runoff, soil erosion, and nonpoint-source pollution can be controlled and minimized by the regulation of stormwater runoff from development;
- (9) Post-Construction Storm Water Runoff Program requirements for new and redevelopments within the Township are set forth in the 2013 MDEQ *Permit Application for Discharge of Storm Water to Surface Waters of the State from a Municipal Separate Storm Sewer System* under the NPDES program.
- (10) Adopting the standards, criteria and procedures contained in this article and implementing the same can address many of the deleterious effects of stormwater runoff;
- (11) Adopting these standards is necessary for the preservation of the public health, safety and welfare;
- (12) Adopting these standards is necessary to comply with the NPDES MS4 Permit.
- (13) Illicit discharges may contain pollutants that can significantly degrade the Township's water bodies and water resources;
- (14) Illicit discharges enter the municipal separate storm sewer system (MS4) through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system or spills connected by drain inlets);
- (15) Establishing the measures for controlling illicit discharges and connections contained in this article and implementing the same will address many of the deleterious effects of illicit discharges.

Sec. 14-51 **Purpose.**

**[Ord. No. SW-1, 10-14-2004]**

It is the purpose of this article to establish minimum stormwater management requirements and controls to accomplish, among others, the following objectives:

- (1) To reduce artificially induced flood damage;
- (2) To minimize increased stormwater runoff rates and volumes from identified new land development;
- (3) To minimize the deterioration of existing watercourses, culverts and bridges, and other structures;
- (4) To encourage water recharge into the ground where geologically favorable conditions exist;
- (5) To prevent an increase in nonpoint-source pollution;
- (6) To maintain the integrity of stream channels for their biological functions, as well as for drainage and other purposes;
- (7) To minimize the impact of development upon stream bank and streambed stability;
- (8) To reduce erosion from development or construction projects;
- (9) To preserve and protect water supply facilities and water resources by means of controlling increased flood discharges, stream erosion, and runoff pollution;

- (10) To reduce stormwater runoff rates and volumes, soil erosion, and nonpoint source pollution, wherever practicable, from lands that were developed without stormwater management controls meeting the purposes and standards of this article;
- (11) To reduce the adverse impact of changing the land use along water bodies and, to that end, this article establishes minimum standards to protect water bodies from degradation resulting from changing land use where there are insufficient stormwater management controls;
- (12) To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user;
- (13) To prohibit illicit discharges and connection to the municipal separate storm sewer system;
- (14) To establish legal authority to carry out all inspection, surveillance, monitoring and enforcement procedures necessary to ensure compliance with this article.

**Sec. 14-52 Applicability, exemptions and general provisions.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) This article shall apply to all new development and all redevelopment projects, including private, commercial and public projects that disturb one (1) acre or more, and projects less than one (1) acre that are part of a larger common plan of development or sale that would disturb one (1) acre or more.
- (b) Further, this article shall apply to any development site which requires approval of a plat, a site development plan, building permit, or any other permit for work which will alter stormwater drainage characteristics of the development site; provided, however, that this article shall not apply to the following:
  - (1) The installation or removal of individual mobile homes within a mobile home park. This exemption shall not be construed to apply to the construction, expansion, or modification of a mobile home park;
  - (2) Farm operations and buildings, except dwellings, directly related to farm operations. This exemption shall not apply to livestock production facilities as defined in this article, greenhouses and other similar structures;
  - (3) Plats with preliminary plat approval and other developments with final land use approval prior to the effective date of the ordinance from which this article is derived, where such approvals remain in effect.
- (c) This article shall apply to all discharges entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted.

**Sec. 14-53 through Sec. 14-77. (Reserved)**

**DIVISION 2**  
**Permits**

**Sec. 14-78 Required.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) A developer shall not engage in any development without first receiving a stormwater permit from the **Township** pursuant to this article via the **Township's** site plan approval process contained in the zoning regulations in Chapter **38**.
- (b) The granting of a stormwater permit shall authorize only such development for which the permit is issued, subject to the terms of the permit, and it shall not be deemed to approve other development or



other land use activities.

**Sec. 14-79 Review procedures.**  
**[Ord. No. SW-1, 10-14-2004]**

The **Township** shall grant a stormwater permit as part of the site plan approval process (see Article **II**, Division **3**, of the Zoning Regulations in Chapter **38**), which may impose terms and conditions in accordance with Section **14-86**, only upon compliance with all of the following requirements:

- (1) The developer has submitted a site (drainage) plan complying with Section **14-80** for the approval of post-construction stormwater runoff BMPs.
- (2) The drainage plan contains a description of an adequate, temporary stormwater retention system to prevent construction site stormwater runoff, satisfying the requirements of Section **14-82**, and the developer has obtained a soil erosion permit from the OCWRC, if necessary.
- (3) The drainage plan contains a permanent on-site stormwater management system complying with the OCWRC standards and specifications.
- (4) Written construction plan approval obtained from the OCWRC.
- (5) The developer has paid or deposited the stormwater permit review fee pursuant to Section **14-81**.
- (6) The developer has paid or posted the applicable financial guaranty pursuant to Section **14-83**.
- (7) The developer provides all easements necessary to implement the approved drainage plan and to otherwise comply with this article, including, but not limited to, Section **14-227**. All easements shall be acceptable to the **Township** in form and substance and shall be recorded with the Ottawa County Register of Deeds.
- (8) The drainage plan is designed in conformity with **Township** or OCWRC design and performance standards for drains and stormwater management systems, as set forth in Division 8 of this article.
- (9) All stormwater runoff facilities shall be designed in accordance with the then-current BMPs.
- (10) The developer provides the required maintenance agreement for routine, emergency, and longterm maintenance of all structural and vegetative BMPs installed and implemented to meet the performance standards. This agreement shall be in compliance with the approved drainage plan and this article including, but not limited to, Section **14-228**. The maintenance agreement shall be acceptable to the **Township** in form and substance and shall be recorded with the Ottawa County Register of Deeds.

**Sec. 14-80 Drainage plan.**  
**[Ord. No. SW-1, 10-14-2004]**

During the site plan approval process, the developer shall provide a drainage plan to the **Township** for review and approval by the **Township** and OCWRC. The drainage plan shall identify and contain all of the information required in the current version of the OCWRC *Site Development Rules* manual.

An implementation plan for construction and inspection of all storm water management facilities necessary to the overall drainage plan shall be submitted and include:

- (1) A schedule of the estimated dates of completing construction of the storm water management facilities shown on the plan.
- (2) An identification of the proposed inspection procedures to ensure that the storm water management

facilities are constructed in accordance with the approved drainage plan.

Sec. 14-81 **Review fees.**

**[Ord. No. SW-1, 10-14-2004]**

- (a) All expenses and costs incurred by the **Township** and/or the OCWRC directly associated with processing, reviewing and approving or denying a stormwater permit application shall be paid or reimbursed to the **Township** or the OCWRC from the funds paid directly to the OCWRC or from a separate escrow account established by the developer, as provided in Subsection (b) of this section. The **Township** may draw funds from a developer's escrow account to reimburse the **Township** and/or the OCWRC for out-of-pocket expenses incurred by the **Township** and/or the OCWRC relating to the application. Such reimbursable expenses include, but are not limited to, expenses related to the following:
- (1) Services of the **Township** Attorney directly related to the application.
  - (2) Services of the **Township** Engineer directly related to the application.
  - (3) Services of other independent contractors working for the **Township**, which are directly related to the application.
  - (4) Any additional public hearings, required mailings and legal notice requirements necessitated by the application.
- (b) At the time a developer applies for a stormwater permit through the site plan approval process, the developer shall either deposit with the **Township**, as an escrow deposit, an initial amount as determined by resolution of the **Township** Board for such matters and shall provide additional amounts as requested by the **Township** in such increments as are specified in said resolution or shall pay the required fees established by the OCWRC for a stormwater review. Any excess funds remaining in the escrow account after the application has been fully processed, reviewed, and the final **Township** approval and acceptance of the development has occurred will be refunded to the developer with no interest to be paid on those funds. At no time prior to the **Township's** final decision on an application shall the balance in the escrow account fall below the required initial amount. If the funds in the account are reduced to less than the required initial amount, the developer shall deposit into the account an additional amount as determined by **Township** Board resolution, before the application review process will be continued. Additional amounts may be required to be placed in the escrow account by the developer, at the discretion of the **Township**.

Sec. 14-82 **Construction site runoff controls.**

**[Ord. No. SW-1, 10-14-2004]**

Prior to making any earth change on a development site regulated by this article, the developer shall first obtain a soil erosion permit from the OCWRC issued in accordance with Part 91 of Public Act No. 451 of 1994 (MCL 324.9101 et seq.), if one is required. The developer shall install stormwater management facilities and shall phase the development activities so as to prevent construction site stormwater runoff and off-site sedimentation. During all construction activities on the development site, the **Township** Engineer may inspect the development site to ensure compliance with the approved construction site runoff controls.

Sec. 14-83 **Financial guaranty.**

**[Ord. No. SW-1, 10-14-2004; amended 1-13-2011 by Ord. No. 2011-001]**

- (a) The **Township** stormwater manager shall not approve a stormwater permit until the developer submits to the **Township**, in a form and amount satisfactory to the **Township**, a letter of credit or

other financial guaranty for the timely and satisfactory construction of all stormwater runoff facilities and site grading in accordance with the approved drainage plan. Upon (1) certification by a registered professional engineer that the stormwater management facilities have been completed in accordance with the approved drainage plan, including, but not limited to, the implementation plan required to be submitted in Section 14-80, and (2) receipt of construction record drawings for all private drainage systems meeting the minimum requirements of the Ottawa County Drain Commission, the Township may release the letter of credit or other financial guaranty, subject to final Township acceptance and approval.

- (b) Except as provided in Subsection (c) of this section, the amount of the financial guaranty shall be equal to the construction cost estimate provided by the developer of all stormwater runoff facilities and site grading, unless the Township determines that a greater amount is appropriate, in which case the basis for such determination shall be provided to the developer in writing. In determining whether an amount greater is appropriate, the Township shall consider the size and type of the development, the size and type of the on-site stormwater system, and the nature of the off-site stormwater management facilities the development will utilize.
- (c) The Township Manager may waive the financial guaranty for a development if the OCWRC or the Ottawa County Road Commission, as part of its review process, requires a letter of credit or other financial guaranty for the satisfactory construction of all stormwater management facilities.
- (d) The Township Manager may reduce or waive the amount of the financial guaranty for a development that will not increase the percentage of impervious surface of the development site by more than 10%.
- (e) This article shall not be construed or interpreted as relieving a developer of its obligation to pay all costs associated with on-site private stormwater runoff facilities as well as those costs arising from the need to make other drainage improvements in order to reduce a development's impact on a drain consistent with adopted design standards.

**Sec. 14-84 Certificate of occupancy.**

**[Ord. No. SW-1, 10-14-2004; amended 1-13-2011 by Ord. No. 2011-001]**

No certificate of occupancy shall be issued until stormwater management facilities have been completed in accordance with the approved drainage plan and all applicable restrictive covenants, including the block grading plan and minimum building opening/lowest floor elevations, and until the executed maintenance agreement is recorded with the Ottawa County Register of Deeds; provided, however, the Township may issue a temporary certificate of occupancy if an acceptable letter of credit or other financial guaranty has been submitted to the Township, OCWRC, or the Ottawa County Road Commission for the timely and satisfactory construction of all stormwater management facilities and site grading in accordance with the approved drainage plan.

**Sec. 14-85 No change in approved facilities.**

**[Ord. No. SW-1, 10-14-2004]**

Stormwater management facilities, after construction and approval, shall be maintained in good condition, in accordance with the approved drainage plan, and shall not be subsequently altered, revised or replaced except in accordance with the approved drainage plan, or in accordance with approved amendments or revisions in the plan.

**Sec. 14-86 Terms and conditions.**

**[Ord. No. SW-1, 10-14-2004]**

- (a) In granting a stormwater permit, the Township and/or the OCWRC may impose such terms and conditions as are reasonably necessary to effectuate the purposes of this article. A developer shall comply with such terms and conditions.

- (b) A permit is considered to be granted by the **Township** when site plan approval is granted to a development, unless authorization is required to be granted by the OCWRC under state law and this approval has not been offered.

Sec. 14-87 through Sec. 14-115. (Reserved)

### DIVISION 3

#### Stormwater System, Floodplain and Other Standards, Soil Erosion Control

Sec. 14-116 Management of and responsibility for stormwater system.  
**[Ord. No. SW-1, 10-14-2004]**

The **Township** is not responsible for providing drainage facilities on private property for the management of stormwater on such property. It shall be the responsibility of the property owner to provide for, and maintain, private stormwater runoff facilities serving the property and to prevent or correct the accumulation of debris that interferes with the drainage function of a water body.

Sec. 14-117 Stormwater system.  
**[Ord. No. SW-1, 10-14-2004]**

All stormwater management facilities shall be constructed and maintained in accordance with all applicable federal, state and local ordinances, and rules and regulations.

Sec. 14-118 Stormwater discharge rates and volumes.  
**[Ord. No. SW-1, 10-14-2004]**

The **Township** shall utilize the OCWRC minimum design standards for stormwater discharge release rates and volumes. However, if the **Township** Board makes a specific finding that the OCWRC standards are insufficient, the **Township** is authorized to establish minimum design standards for stormwater discharge release rates and to require dischargers to implement on-site retention, detention or other methods necessary to control the rate and volume of surface water runoff discharged into the stormwater drainage system, in the following circumstances:

- (1) A parcel of land is being developed in a manner that increases the impervious surface area of the parcel; or
- (2) The discharge exceeds the **Township** approved predevelopment discharge characteristics for the subject property, and the **Township** determines that the discharge is a violation of the drainage, flooding or soil erosion regulations of this article.

Sec. 14-119 Floodplain standards.  
**[Ord. No. SW-1, 10-14-2004]**

- (a) All new buildings and substantial improvements to existing buildings shall be protected from flood damage up to the flood protection elevation (FPE) and shall be in accordance with all applicable federal, state and local ordinances, and rules and regulations. Floodplain/floodway alteration shall be permitted only upon review and approval by the **Township** and OCWRC, in accordance with an approved drainage plan. If authorized under state law, MDEQ review and approval is also required.
- (b) A drainage plan providing for the filling or alteration of a floodplain/floodway shall include provisions to minimize erosion, stabilize the stream bank and to protect water quality. A natural vegetation strip shall be maintained on each parcel or lot between the top of the stream bank and a line, each point of which is 25 feet horizontal from the top of the stream bank toward the stream.
- (c) Within any required buffer zone, no earth change shall take place except in accordance with the approved drainage plan and soil erosion and sedimentation control permit. Such a plan may also include provisions for the acceptable replacement of floodplain storage volume, where such storage

volume is lost or diminished as a result of approved development.

**Sec. 14-120 Soil erosion and sedimentation control.**

**[Ord. No. SW-1, 10-14-2004]**

- (a) All persons who cause, in whole or in part, any earth change to occur shall provide soil erosion and sedimentation control so as to adequately prevent soils from being eroded and discharged or deposited onto adjacent properties or into a stormwater drainage system, a public street or right-of-way, wetland, creek, stream, water body, or floodplain. All development shall be in accordance with Part 91 of Act No. 451 of the Public Acts of 1994, as amended, and all applicable federal, state and local ordinances, rules and regulations.
- (b) A soil erosion and sedimentation control (SESC) permit is required for any earth change that is greater than one acre or less than 500 feet from any lake or stream. Permits are obtained from the SESC agent in the OCWRC office.
- (c) During any earth change which exposes soil to an increased risk of erosion or sediment tracking, the property owner and other persons causing or participating in the earth change shall do the following:
  - (1) Comply with the stormwater management standards of this article.
  - (2) Obtain and comply with the terms of a soil erosion and sedimentation control permit from the OCWRC office.
  - (3) Prevent damage to any public utilities or services within the limits of grading and within any routes of travel or areas of work of construction equipment.
  - (4) Prevent damage to or impairment of any water body on or near the location of the earth change or affected thereby.
  - (5) Prevent damage to adjacent or nearby land.
  - (6) Apply for all required approvals or permits prior to the commencement of work.
  - (7) Proceed with the proposed work only in accordance with the approved plans and in compliance with this article.
  - (8) Maintain all required soil erosion and sedimentation control measures, including, but not limited to, measures required for compliance with the terms of this article.
  - (9) Promptly remove all soil, sediment, debris, or other materials applied, dumped, tracked, or otherwise deposited on any lands, public streets, sidewalks, or other public ways or facilities, including catchbasins, storm sewers, ditches, drainage swales, or water bodies. Removal of all such soil, sediment, debris or other materials within 24 hours shall be considered prima facie compliance with this requirement, unless such materials present an immediate hazard to public health and safety.
  - (10) Refrain from grading lands at locations near or adjoining lands, public streets, sidewalks, alleys, or other public or private property without providing adequate support or other measures so as to protect such other lands, streets, sidewalks or other property from settling, cracking or sustaining other damage.

**Sec. 14-121 Building openings.**

**[Ord. No. SW-1, 10-14-2004; amended 1-13-2011 by Ord. No. 2011-001]**

- (a) No building opening/lowest floor shall be constructed below the following elevations:

- (1) One (1) foot above the one-hundred-year floodplain.
  - (2) **Two** (2) feet above the highest known groundwater elevation.
  - (3) The building opening/lowest floor elevation established at the time of plat or development approval and on file in the **Township** and/or OCWRC.
- (b) A waiver from elevations stated in Subsection (a) of this section may be granted by the **Township** stormwater manager following receipt of a certification from a registered professional engineer demonstrating that the proposed elevation does not pose a risk of flooding.
- (c) If the OCWRC has specified a minimum building opening at the time of plat or development approval or if construction occurs within the one-hundred-year floodplain, upon completion of construction of the structure's foundation and/or slab on grade, a registered land surveyor shall certify any minimum building opening elevation specified by this article. This certificate shall attest that the building opening elevation complies with the standards of this article. The permittee for the building permit shall submit the certificate to the **Township** building inspections official prior to the commencement of framing and/or structural steel placement. If the surveyor should find that the minimum building opening elevation is below the elevation specified in Subsection (a) of this section, that opening must be raised using a method that meets with the approval of the **Township**. After reconstruction, a registered land surveyor or engineer shall recertify that the minimum building opening elevation complies with the standards of this article prior to the commencement of framing and/or structural steel placement.
- (d) The **Township** building inspection official may grant a waiver of the required land survey under Subsection (c) of this section if the minimum building opening appears to be at or above the elevation of adjacent buildings that have already been certified, or if a grade map shows that the low opening elevation of the building is at least three (3) feet higher than the minimum building opening established pursuant to Subsection (a) of this section.

Sec. 14-122 **Sump pump discharge.**  
[Ord. No. SW-1, 10-14-2004]

- (a) Whenever building footing drains are required or utilized, a direct connection between the footing drains and the storm sewer through a sump pump-check valve system, or a gravity pipe with a double flap gate valve for backflow prevention is required.
- (b) In cases where Subsection (a) of this section applies, a stormwater lateral shall be provided for each parcel at the time of stormwater construction. If no lateral is provided, the lot owner shall discharge said water in such a manner as to not impact neighboring land or public streets.
- (c) Laundry facilities or other similar features shall not be connected to a footing drain or pump system discharging to footing laterals and the stormwater system. Laundry facilities must be drained to the sanitary sewage disposal system.

Sec. 14-123 **Public health, safety and welfare.**  
[Ord. No. SW-1, 10-14-2004]

Protection of the public health, safety and welfare shall be a primary consideration in the design of all stormwater runoff facilities.

**Commented [CES3]:** Ottawa standards presently state 1-foot.

Sec. 14-124 through Sec. 14-144. (Reserved)

DIVISION 4  
**Prohibitions and Exemptions**

Sec. 14-145 **Prohibited discharges.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) No person shall discharge to a water body, directly or indirectly, any substance other than stormwater or an exempted discharge. Any person discharging stormwater shall effectively prevent pollutants from being discharged with the stormwater, except in accordance with best management practices.
- (b) The **Township** is authorized to require dischargers to implement pollution prevention measures, utilizing BMPs, necessary to prevent or reduce the discharge of pollutants into the **Township's** stormwater drainage system.

Sec. 14-146 **Exempted discharges.**  
**[Ord. No. SW-1, 10-14-2004]**

The following nonstormwater discharges shall be permissible, provided that they do not result in a violation of state water quality standards:

- (1) Water supply line flushing;
- (2) Landscape irrigation;
- (3) Diverted stream flows;
- (4) Rising groundwater;
- (5) Uncontaminated groundwater infiltration to storm drains;
- (6) Uncontaminated pumped groundwater;
- (7) Discharges from potable water sources;
- (8) Foundation drains;
- (9) Air conditioning condensate;
- (10) Individual residential car washing;
- (11) Dechlorinated swimming pool water;
- (12) Street wash water;
- (13) Discharges or flows from emergency firefighting activities; and
- (14) Discharges for which a specific federal or state permit has been issued.

Sec. 14-147 **Interference with natural or artificial drains.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) It shall be unlawful for any person to stop, fill, dam, confine, pave, alter the course of, or otherwise interfere with, any natural or constructed drain or drainageway without first submitting a drainage plan to the **Township** and receiving approval of that plan. Any deviation from the approved plan is a

violation of this article. This section shall not prohibit, however, necessary emergency action so as to prevent or mitigate drainage that would be injurious to the environment or the public health, safety, or welfare. When any of the activities mentioned in this section involves an established county drain, a drain use permit is required from the OCWRC.

- (b) No filling, blocking, fencing or above-surface vegetation planting shall take place within a floodplain/floodway.
- (c) For an overland flow-way:
  - (1) Silt fence shall not be permitted below the top of the bank of a water body.
  - (2) Chain-link fences shall be permitted if the **Township** and the OCWRC determine that the fence will not obstruct or divert the flow of water.
  - (3) If a fence is removed by the **Township** or OCWRC for drain access or drain maintenance, the fence shall be replaced by the owner of the fence at the owner's expense, as long as the owner complies with Subsection (c)(2) of this section.
  - (4) No shrubs or trees shall be planted below the top of the bank of a water body, or within an easement for a waterway (for example, a backyard swale).
- (d) Shrubs, trees or other above-ground vegetation shall not be planted over the top of an underground storm sewer or over the top of the easement within which the storm sewer has been installed.

**Sec. 14-148 Storage of hazardous or toxic materials in drainageway.**  
**[Ord. No. SW-1, 10-14-2004]**

Except as permitted by law, it shall be unlawful for any person to store or stockpile within a drainageway any hazardous or toxic materials unless adequate protection and/or containment has been provided so as to prevent any such materials from entering a drainageway.

**Sec. 14-149 Discharge prohibitions.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) Prohibition of illicit discharges. No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses 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 stormwater. The commencement, conduct, or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:
  - (1) Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
  - (2) The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or water discharge order issued to the discharger and administered under the authority of the federal environmental 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 illicit connections.
  - (1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
  - (2) This prohibition expressly includes, without limitation, illicit connections made in the past,



regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

- (3) A person is considered to be in violation of this article if the person connects a line conveying wastewater to the MS4, or allows such a connection to continue.

Sec. 14-150 through Sec. 14-166. (Reserved)

## DIVISION 5

### Inspection, Monitoring, Reporting, and Recordkeeping

Sec. 14-167 **Inspection and sampling.**

**[Ord. No. SW-1, 10-14-2004]**

To ensure compliance with the standards in this pervasively regulated area, the **Township** may inspect and/or obtain stormwater samples from stormwater management facilities of any discharger to determine compliance with the requirements of this article. Upon request, the discharger shall allow the **Township's** or OCWRC's properly identified representative to enter upon the premises of the discharger at all hours necessary for the purposes of such inspection or sampling. The **Township** shall provide the discharger reasonable advance notice of such inspection and/or sampling. The **Township** or its properly identified representative may place on the discharger's property the equipment or devices used for such sampling or inspection.

Sec. 14-168 **Stormwater monitoring facilities.**

**[Ord. No. SW-1, 10-14-2004]**

A discharger of stormwater runoff shall provide and operate equipment or devices for the monitoring of stormwater runoff, so as to provide for inspection, sampling, and flow measurement of each discharge to a water body or a stormwater runoff facility, when directed in writing to do so by the **Township**. The **Township** may require a discharger to provide and operate such equipment and devices if it is necessary or appropriate for the inspection, sampling and flow measurement of discharges in order to determine whether adverse effects from or as a result of such discharges may occur. All such equipment and devices for the inspection, sampling and flow measurement of discharges shall be installed and maintained in accordance with applicable laws, ordinances and regulations.

Sec. 14-169 **Accidental discharges.**

**[Ord. No. SW-1, 10-14-2004]**

- (a) Any discharger who accidentally discharges into a water body any substance other than stormwater or an exempted discharge shall immediately inform the **Township** and/or OCWRC concerning the discharge. If such information is given orally, a written report concerning the discharge shall be filed with the **Township** and OCWRC within five (5) days. The written report shall specify:
  - (1) The composition of the discharge and the cause thereof.
  - (2) The exact date, time, and estimated volume of the discharge.
  - (3) All measures taken to clean up the accidental discharge, and all measures proposed to be taken to reduce and prevent any recurrence.
  - (4) The name and telephone number of the person making the report, and the name of a person who may be contacted for additional information on the matter.
- (b) A properly reported accidental discharge shall be an affirmative defense to a civil infraction proceeding brought under this article against a discharger for such discharge. It shall not, however, be a defense to a legal action brought to obtain an injunction, to obtain recovery of costs or to obtain other relief as a result of or arising out of the discharge. A discharge shall be considered properly

reported only if the discharger complies with all the requirements of Subsection (a) of this section.

**Sec. 14-170 Recordkeeping requirement.**  
**[Ord. No. SW-1, 10-14-2004]**

Any person subject to this article shall retain and preserve for no less than three (3) years any and all books, drawings, plans, prints, documents, memoranda, reports, correspondence and records, including records on magnetic or electronic media and any and all summaries of such records, relating to monitoring, sampling and chemical analysis of any discharge or stormwater runoff from any property.

Sec. 14-171 through Sec. 14-193. (Reserved)

**DIVISION 6**  
**Enforcement**

**Sec. 14-194 Sanctions for violation.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) Any person violating any provision of this article, except as provided in Subsection (b) of this section, shall be responsible for a municipal civil infraction and subject to a fine of not less than \$500 for a first offense, and not less than \$ 1,000 for a subsequent offense, plus costs, damages, expenses, and other sanctions as authorized under Chapter 87 of the Revised Judicature Act of 1961 and other applicable laws, including, without limitation, equitable relief. Each day such violation occurs or continues shall be deemed a separate offense and shall make the violator liable for the imposition of a fine for each day. The rights and remedies provided for in this section are cumulative and in addition to any other remedies provided by law. An admission or determination of responsibility shall not exempt the offender from compliance with the requirements of this ordinance.
- (b) For purposes of this section, "subsequent offense" means a violation of the provisions of this ordinance committed by the same person within 12 months of a previous violation of the same provision of this ordinance for which said person admitted responsibility or was adjudicated to be responsible.
- (c) Any person who neglects or fails to comply with a stop work order issued under Section **14-195** shall, upon conviction, be guilty of a misdemeanor punishable by a fine of not more than \$500 or imprisonment in the county jail for not more than 93 days, or both such fine and imprisonment, and such person shall also pay such costs as may be imposed in the discretion of the court.
- (d) Any person who aids or abets a person in a violation of this article shall be subject to the sanctions provided in this section.

**Sec. 14-195 Stop work order.**  
**[Ord. No. SW-1, 10-14-2004]**

Where there is work in progress that causes or constitutes in whole or in part, a violation of any provision of this article, the **Township** is authorized to issue a stop work order so as to prevent further or continuing violations or adverse effects. All persons to whom the stop work order is directed, or who are involved in any way with the work or matter described in the stop work order, shall fully and promptly comply therewith. The **Township** may also undertake, or cause to be undertaken, any necessary or advisable protective measures so as to prevent violations of this article or to avoid or reduce the effects of noncompliance herewith. The cost of any such protective measures shall be the responsibility of the owner of the property upon which the work was performed.

**Sec. 14-196 Failure to comply; completion.**  
**[Ord. No. SW-1, 10-14-2004]**

In addition to any other remedies, should any owner fail to comply with the provisions of this article, the **Township** may, after the giving of reasonable notice and opportunity for compliance, have the necessary work done, and the owner shall be obligated to promptly reimburse the **Township** for all costs of such work.

**Sec. 14-197 Emergency measures.**  
**[Ord. No. SW-1, 10-14-2004]**

When emergency measures are necessary to moderate a nuisance, to protect public safety, health and welfare, and/or to prevent loss of life, injury or damage to property, the **Township** is authorized to carry out or arrange for all such emergency measures. Property owners shall be responsible for the cost of such measures made necessary as a result of a violation of this article and shall promptly reimburse the **Township** for all of such costs.

**Sec. 14-198 Cost recovery for damage to storm drain system.**  
**[Ord. No. SW-1, 10-14-2004]**

A discharger shall be liable for all costs incurred by the **Township** as the result of causing a discharge that produces a deposit or obstruction, or causes damage to, or impairs a storm drain, or violates any of the provisions of this article. Costs include, but are not limited to, those penalties levied by the EPA or MDEQ for violation of an NPDES permit, attorney fees, and other costs and expenses.

**Sec. 14-199 Collection of costs; lien.**  
**[Ord. No. SW-1, 10-14-2004]**

Costs incurred by the **Township** and the OCWRC pursuant to Sections **14-195, 14-196, 14-197** and **14-198** shall be a lien on the premises which shall be enforceable in accordance with Public Act No. 94 of 1933 (MCL 141.101 et seq.). Any such charges which are delinquent for six (6) months or more may be certified annually to the **Township** Treasurer, who shall enter the lien on the next tax roll against the premises and the costs shall be collected and the lien shall be enforced in the same manner as provided for in the collection of taxes assessed upon the roll and the enforcement of a lien for taxes. In addition to any other lawful enforcement methods, the **Township** or the OCWRC shall have all remedies authorized by such Act.

**Sec. 14-200 Appeals.**  
**[Ord. No. SW-1, 10-14-2004]**

Any person to whom any provision of this article has been applied may appeal in writing, not later than 30 days after the action or decision being appealed from, to the **Township** Board the action or decision whereby any such provision was so applied. Such appeal shall identify the matter being appealed, and the basis for the appeal. The **Township** Board shall consider the appeal and make a decision whereby it affirms, rejects or modifies the action being appealed. In considering any such appeal, the **Township** Board may consider the recommendations of the **Township** Engineer and the comments of other persons having knowledge of the matter. In considering any such appeal, the **Township** Board may grant a variance from the terms of this article so as to provide relief, in whole or in part, from the action being appealed, but only upon finding that the following requirements are satisfied:

- (1) The application of the article provisions being appealed will present or cause practical difficulties for a development or development site; provided, however, that practical difficulties shall not include the need for the developer to incur additional reasonable expenses in order to comply with the article; and
- (2) The granting of the relief requested will not substantially prevent the goals and purposes sought to be accomplished by this article, nor result in less effective management of stormwater runoff.

Sec. 14-201 **Suspension of MS4 access.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) Suspension due to illicit discharges in emergency situations. The **Township** may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge, which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4. If the violator fails to comply with a suspension order issued in an emergency, the **Township** may take such steps as deemed necessary to prevent or minimize damage to the MS4 or the environment, or to minimize danger to the health or welfare of persons.
- (b) Suspension due to the detection of illicit discharge. Any person discharging to the MS4 in violation of this article may have the person's MS4 access terminated if such termination would abate or reduce an illicit discharge. The **Township** will notify a violator of the proposed termination of the violator's MS4 access. A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval of the **Township**.

Sec. 14-202 through Sec. 14-225. (Reserved)

DIVISION 7  
**Stormwater Easements and Maintenance Agreements**

Sec. 14-226 **Applicability of requirements.**  
**[Ord. No. SW-1, 10-14-2004]**

The requirements of this division concerning stormwater easements and maintenance agreements shall apply to all persons required to submit a drainage plan to the **Township** for review and approval.

Sec. 14-227 **Stormwater management easements.**  
**[Ord. No. SW-1, 10-14-2004]**

The developer shall provide all stormwater management easements necessary to implement the approved drainage plan and to otherwise comply with this article in form and substance required by the **Township** and shall record such easements as directed by the **Township**. The easements shall ensure access for proper inspection and maintenance of stormwater runoff facilities and shall provide adequate emergency overland flow-ways.

Sec. 14-228 **Maintenance agreements.**  
**[Ord. No. SW-1, 10-14-2004; amended 1-13-2011 by Ord. No. 2011-001]**

- (a) Maintenance agreement required. The developer shall provide all stormwater maintenance agreements necessary to implement the approved drainage plan and to otherwise comply with this article in form and substance as required by the **Township**, along with payment to cover the costs of recording such documents with the Ottawa County Register of Deeds. The **Township**, upon approving the agreements, shall record such agreements with the Ottawa County Register of Deeds. The maintenance agreements shall, among other matters, ensure access for proper inspection by the **Township** or their designee, allow for maintenance or corrective actions of stormwater BMPs, and include provisions for tracking the transfer of operation and maintenance responsibility to ensure the performance standards are met in perpetuity. A formal maintenance plan shall be included in the maintenance agreement.
- (b) Maintenance agreement provisions.
  - (1) The maintenance agreement shall include a plan for routine, emergency and long-term maintenance of all structural and vegetative stormwater BMPs installed and implemented to meet the performance standards, with a detailed annual estimated budget for the initial three (3) years, and a clear statement that only future maintenance activities in accordance with the

maintenance agreement plan shall be permitted without the necessity of securing new permits.

- (2) Written notice and submittal of maintenance documentation shall be provided to the **Township** by the property owner at the interval set forth in the maintenance agreement and subject to the provisions of Sections **14-167** through **14-200**.
- (3) If it has been found by the **Township**, following notice and an opportunity to be heard by the property owner, that there has been a material failure or refusal to undertake maintenance as required under this article and/or as required in the approved maintenance agreement as required hereunder, the **Township** shall then be authorized, but not required, to hire an entity with qualifications and experience in the subject matter to undertake the monitoring and maintenance as so required, in which event the property owner shall be obligated to advance or reimburse payment for all costs and expenses associated with such monitoring and maintenance, together with a reasonable administrative fee. The maintenance agreement required under this article shall contain a provision spelling out the requirements; and if the applicant objects in any respect to such provision or the underlying rights and obligations, such objection shall be resolved prior to the commencement of construction of the proposed development on the property.

**Sec. 14-229 Establishment of county drains.**  
**[Ord. No. SW-1, 10-14-2004]**

Prior to final approval, all stormwater management facilities for platted subdivisions and site condominium developments shall be established as county drains, as authorized in Section 433, Chapter 18 of the Michigan Drain Code, Public Act No. 40 of 1956 (MCL 280.433) for long-term maintenance.

Sec. 14-230 through Sec. 14-251. (Reserved)

**DIVISION 8**  
**Performance and Design Standards**

**Sec. 14-252 Performance Standards.**  
**[Ord. No. SW-1, 10-14-2004]**

In order to achieve the goals and purposes of this article, the following stormwater management performance standards are hereby established:

- (1) **Water Quality Treatment.** Treat the calculated site runoff for the entire project site from the 90 percent annual non-exceedance storm, which is approximately equal to 1-inch of rain (i.e. on average, 90 percent of the storms in a given year produce 1-inch of rainfall or less). The treatment volume specified is based on capturing and treating the volume of storm water that is the first to runoff in a storm and expected to contain the majority of pollutants. This volume of runoff is often referred to as the "first flush." The water quality treatment standard is required for all sites.
- (2) **Total Suspended Solids (TSS).** The methods selected to treat the volume of water calculated for the Water Quality Treatment performance standard shall be designed on a site-specific basis to achieve either a minimum of 80 percent removal of TSS, as compared with uncontrolled runoff, or a discharge concentration of TSS that does not exceed 80 milligrams per liter (mg/l). This performance standard is based on TSS as a surrogate for other pollutants normally found in storm water runoff. Control of TSS to meet this standard is expected to achieve control of other pollutants to an acceptable level that protects water quality.
- (3) **Channel Protection.** Maintain the post-development project site runoff volume and peak flow rate at or below pre-development levels for all storms up to the 2-year, 24-hour event. At a minimum, pre-development is defined as the last land use prior to the planned new development or redevelopment. The channel protection standard is required for stormwater discharges to surface waters. The channel protection standard does not apply to Lake Michigan, Lake Macatawa and Spring Lake.

- (4) Flood Control. Control the volume of site runoff from the flood control rainfall event with a maximum allowable release rate to reduce the potential for property damage from overbank flooding and preserve existing floodplains. The flood control event and maximum allowable release rate shall be in accordance with the current version of the OCWRC *Site Development Rules* manual. The flood control standard is required for all sites.
- (5) Overflow Routes. Acceptable overflow routes for the 100-year flood shall be identified for the site and for downstream areas between the site and the nearest acceptable floodway or outlet. Storm water conveyance systems are usually designed to handle flows generated by the 10-year storm. When larger storms generate higher flows, the conveyance system is expected to surcharge resulting in storm water accumulating on the surface of the ground. Gravity will cause such storm water to flow overland to lower elevations. By carefully managing the shape of the land surface such overland storm water flow can be directed to locations that will not cause property damage. Adequate emergency overland flow-ways will direct storm water flows generated by the 100-year storm to avoid damage to structures and facilities.
- (6) Site-Specific Requirements:
  - (a) Pretreatment. Pretreatment of site runoff is required on a site specific basis prior to discharging to storm water BMPs. Pretreatment provides for the removal of fine sediment, trash and debris, and preserves the longevity and function of the BMP.
  - (b) Hot Spots and Groundwater Contamination. Some land use activities have a potentially greater risk of polluted runoff than others. Project sites with these types of activities are referred to as “hot spots” and include used such as gas stations, commercial vehicle maintenance and repair, auto recyclers, recycling center, and scrap yards. Hot spots also include areas with the potential for contaminating public water supply intakes. Pretreatment of stormwater runoff to address pollutants associated with hot spots is required for the site. Stormwater management strategies and BMPs that reduce the potential to mobilize existing soil and groundwater contaminants, or that capture and treat stormwater runoff and/or accidental spills to protect groundwater or nearby surface waters are required.
  - (c) Coldwater Streams. Stormwater management strategies and BMPs that minimize thermal impacts from site runoff and maximize groundwater recharge are required for sites with a surface water discharge to a coldwater stream.

**Sec. 14-253 Alternatives for meeting performance standards.**  
**[Ord. No. SW-1, 10-14-2004]**

- (a) Alternative Approach for Channel Protection. In many cases, infiltration will likely be used as the primary means of retention. It is not, however, the sole means of providing onsite retention, and the developer must include consideration of storm water re-use, interception evapo-transpiration, and other vegetative (non-structural) BMPs at the project site.
  - (1) Site constraints that limit the use of infiltration may include:
    - (a) Poorly draining soils (<0.24 inches per hour; typically hydrologic soil groups C and D);
    - (b) Bedrock;
    - (c) High groundwater, or the potential of mounded groundwater to impair other uses;
    - (d) Well-head protection areas;

- (e) Storm water “hot spots;”
  - (f) Part 201 and Part 213 sites, and areas of soil or groundwater contamination.
- (2) The Township or OCWRC may grant a waiver of the on-site retention criteria for channel protection described in Sec. 14-252(3), and allow an alternative approach to meet the channel protect performance standard if the developer demonstrates that site constraints preclude sufficient retention onsite. If a waiver is granted, the developer must meet the following standard:
- (a) Detain the portion of the channel protection volume unable to be retained onsite for a minimum of 24-hours with a maximum release rate no greater than the existing 2-year peak discharge, and a drawdown time no greater than 72 hours.
- (b) Off-site Mitigation and Payment-in-Lieu Programs for Redevelopment Projects. The water quality treatment and channel protection performance standards focus on maintaining or restoring stable hydrology. However, potential physical constraints may limit the ability to fully meet the post-construction requirement at the project site. When physical constraints limit the feasibility of maintaining or restoring hydrology, offsite mitigation and/or payment-in-lieu may be approved by the Township.
- (1) Off-site Mitigation refers to BMPs implemented at a location different from the original project site.
  - (2) Payment-in-Lieu refers to the developer paying a fee to the Township that is applied to a public storm water management project. The storm water management project may be either a new BMP or a retrofit to an existing BMP and developed in accordance with the current version of the OCWRC *Site Development Rules* manual.
  - (3) The location for off-site mitigation and payment-in-lieu projects shall be within the same watershed and sewershed as the original project. The watershed is the area represented by the MDEQ, 10-digit Hydrologic Unit Code. The sewershed is the area where storm water is conveyed by an MS4 to a common outfall or point of discharge.
  - (4) The determination to approve off-site mitigation or payment-in-lieu will be based on multiple criteria and not solely on the difficulty or cost of implementing BMPs on site. Conditions under which the option to move off site would become available may include:
    - (a) Limited size of the lot outside of the building footprint to create the necessary infiltration capacity even with amended soils.
    - (b) Soil instability as documented by a thorough geotechnical analysis.
    - (c) A site use that is inconsistent with capture and reuse of stormwater.
    - (d) Too much shade or other physical conditions that preclude adequate use of plants.
    - (e) The potential water quality impact from the original project site and the benefits realized at the offsite location.
  - (5) The Township may approve off-site mitigation or payment-in-lieu if the developer demonstrates that site constraints preclude sufficient treatment and restoration of hydrology onsite. At a minimum, the Township requires:
    - (a) Offset ratio. The offset ratio for the amount of storm water not managed onsite in relation to the amount of stormwater required to be mitigated at another site, or for which in-lieu payments will be made is as follows:

- (i) First Tier: Manage a minimum of 0.4 inches of storm water runoff onsite, and provide a 1 to 1.5 offset ratio for the remaining amount of storm water managed offsite.
- (ii) Second Tier: If it completely infeasible to manage the minimum onsite, provide a 1 to 2 offset ratio for the amount of storm water managed offsite.
- (b) Schedule. Offsite mitigation and payment-in-lieu projects shall be completed within 24 months after the start of the original site construction.
- (c) Assurances. Offset and in-lieu projects shall be preserved and maintained in perpetuity through the procedures and tracking system administered by the Township.

**Commented [CES4]:** Must discuss with Township whether they want to have the flexibility to allow these options. County is not allowing payment-in-lieu. Omit as appropriate.

Sec. 14-254 **Design standards.**

**[Ord. No. SW-1, 10-14-2004]**

- (a) Storm water BMPs shall be designed to manage storm water flow within the available capacity of the downstream conveyance system as determined by the Township.
- (b) In addition, storm water BMPs shall be designed to meet the Performance Standards as described in Sec. 14-252. Stormwater system design shall be in accordance with the current version of the OCWRC *Site Development Rules* manual.

Sec. 14-255 **Resolution to implement performance and design standards.**

**[Ord. No. SW-1, 10-14-2004]**

The Township Board may adopt a resolution establishing more detailed design and performance standards for stormwater runoff facilities, consistent with the terms of this article, and in order to further implement its goals and purposes set forth in this article.

Sec. 14-256 **Responsibility to implement best management practices (BMPs).**

**[Ord. No. SW-1, 10-14-2004]**

The owner or operator of a commercial or industrial establishment shall provide, at the owner's or operator's own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and nonstructural BMPs. Further, any person responsible for a property or premises, which is or may be the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and nonstructural BMPs to prevent the further discharge of pollutants to the municipal separate stormwater system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPPP) as necessary for compliance with requirements of the NPDES permit.