ARTICLE VII – CONSTRUCTION SITE EROSION

Sec. 98-301. - Authority.

(a) This article is adopted under the authority granted by Wis. Stats. § 62.234, and supersedes all provisions of an ordinances previously enacted that relate to construction site erosion control. Except as otherwise specified in Wis. Stats. § 62.234, Wis. Stats. § 62.23 applies to this article and to any amendments thereof.

(b) The provisions of this article are deemed not to limit any other lawful regulatory powers of the city.

(c) The city hereby designates the commissioner of public works or designee ("commissioner") shall to administer and enforce the provisions of this article.

(d) The requirements of tThis article does not pre-empt more stringent erosion and sediment control requirements that may be imposed by any of the following:

(1) Wisconsin Department of Natural Resources ("WDNR") administrative rules, permits or approvals, including those authorized under Wis. Stats. §§ 281.16 and 283.33.

(2) Targeted nonagricultural performance standards promulgated in rules by DNR under Wisconsin Administrative Code § NR 151.004.

Sec. 98-302. - Findings of fact.

The common council acknowledgesfinds that runoff from land disturbing construction activity carries a significant amount of sediment and other pollutants to the waters of the state in the city.

Sec. 98-303. - Purpose.

It is the purpose of this article to further the maintenancemaintain of safe and healthful conditions; prevent and control water pollution; prevent and control soil erosion and sediment discharge; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; preserve ground cover and scenic beauty; and promote sound economic growth, by minimizing the amount of sediment and other pollutants carried by runoff or discharged from land disturbing construction activity to waters of the state in the citycity.

(Ord. No. 20-04, pt. 1, 8-2-04)

Sec. 98-304. - Applicability and jurisdiction.

(a) Applicability.

(1) Except as provided under subsection (2), tThis article applies to any construction site that has one or more acres of land disturbing construction activities, except as provided under subsection (a)(2): as defined under Section 98-305

(2) This article does not apply to the following:

1.

a. Transportation facilities, except transportation facility construction projects that are part of a larger common plan of development such as local roads within a residential or industrial development

~~a.~~b. ~~a.~~ A construction project that is exempted by federal statutes or regulations from the requirement to have a national pollutant discharge elimination system permit issued under article 40, Code of Federal Regulations, part 122, for land disturbing construction activity.

~~b.~~c. ~~b.~~ Nonpoint discharges from agricultural facilities and practices.

~~c.~~d. ~~c.~~ Nonpoint discharges from silviculture activities.

~~d.~~e. ~~d.~~ Routine maintenance for project sites under five acres of land disturbance if performed to maintain the original line and grade, hydraulic capacity or original purpose of the facility.

(3) Notwithstanding the applicability requirements in subsection (a)(1), this article applies to construction sites of any size that, in the opinion of the commissioner, are likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, that causes undue channel erosion, that increases water pollution by scouring or the transportation of particulate matter or that endangers property or public safety.

(b) Jurisdiction. This article applies to land disturbing construction activity on ~~construction sites located within the city limits.~~ lands within the boundaries and jurisdiction of the city

(c) Exclusions. This article is not applicable to activities conducted by a state agency, as defined under Wis. Stats. § 227.01 (1)~~, nor to the office of district attorney, which is subject to the state plan promulgated or a memorandum of understanding entered into under Wis. Stats. § 281.33(2).~~

Sec. 98-305. - Definitions.

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

Administering authority means a governmental employee or a regional planning commission empowered under Wis. Stat. § 62.234, that is designated by the city to administer this article.

Agricultural facilities and practices has the meaning stated in Wis. Stats. § 281.16(1).

Average annual rainfall means a calendar year of precipitation, excluding snow, which is considered typical.

Best management practice or "BMP" means structural or nonstructural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

Business day means a day the office of the department of public works is routinely and customarily open for business.

Cease and desist order means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit or in violation of a permit issued by the commissioner~~.~~

Construction site means an area upon which one or more land disturbing construction activities occurs, including areas that are part of a larger common plan of development or sale where multiple separate and distinct land disturbing construction activities may be taking place at different times on different schedules but under one plan. A long-range planning document that describes separate construction projects, such as a 20-year transportation improvement plan, is not a common plan of development.

Design Storm means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency and total depth of rainfall.

Division of land means the creation from~~of~~ one parcel of two~~two~~ or more parcels ~~from one parcel~~ or building site of one~~[number]~~ or fewer acres each in area where such creation occurs at one time or through the successive partition within a five year period.

Erosion means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.

Erosion and sediment control plan means a comprehensive plan developed to address pollution caused by erosion and sedimentation of soil particles or rock fragments during construction.

Extraterritorial means the unincorporated area within three miles of the corporate limits of a first, second, or third class city, or within 1.5 miles of a fourth class city or village.

Final stabilization means that all land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established, with a density of at least 70 percent of the cover for the unpaved areas and areas not covered by permanent structures, or that employ equivalent permanent stabilization measures.

Governing body means the common council.

Land disturbing construction activity means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or nonvegetative soil cover, that may result in runoff and lead to an increase in soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

Landowner means any person holding fee title, an easement or other interest in property, which allows the person to undertake cropping, livestock management, ~~land~~and ~~and~~ land disturbing construction activity or maintenance of storm water BMPs on the property.

Maximum extent practicable or "MEP" means a level of implementing best management practices in order to achieve~~–~~ the highest level of performance that is achievable but is not equivalent to a performance standard identified in this article as determined in accordance with section 98-305A~~[§ 055]~~ of this article~~a performance standard specified in this article which takes into account the best available technology~~, ~~cost effectiveness and other competing issues such as human safety and welfare, endangered and threatened resources, historic properties and geographic features. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions~~.

Performance standard means a narrative or measurable number specifying the minimum acceptable outcome for a facility or operation.

Permit means a written authorization made by the commissioner~~'s written authorization~~ to the applicant to conduct land disturbing construction activity or to discharge post~~-~~construction runoff to waters of the state.

Pollutant has the meaning stated in Wis. Stats. § 283.01(13).

Pollution has the meaning stated in Wis. Stats. § 281.01(10).

Responsible party means the landowner or any other entity ~~holding fee title to the property or~~ performing services to meet the ~~performance standards of this article~~requirements of this article through a contract or other agreement.

Runoff means stormwater or precipitation including rain, snow or ice melt or similar water that moves on the land surface via sheet or channelized flow.

Sediment means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.

Separate storm sewer means a conveyance or system of conveyances including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:

(1) Is designed or used for collecting water or conveying runoff.

(2) Is not part of a combined sewer system.

(3) Discharges directly or indirectly to waters of the state.

Silviculture activity means activities including tree and nursery operations, tree harvesting operations, reforestation, tree thinning, prescribed burning, and pest and fire control. Clearing and grubbing of an area of a construction site is not a silviculture activity.

Site means the entire area included in the legal description of the land on which the land disturbing construction activity is proposed in the permit application.

Stop work order means an order issued by the commissioner that requires that all construction activity on the site be stopped.

Technical standard means a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.

Transportation facility means a highway, a railroad, a public mass transit facility, a public-use airport, a public trail or any other public work for transportation purposes such as harbor improvements un Wis. Stat. § 85.095(1)(b). "Transportation facility" does not include building sites for the construction of public buildings and buildings that are places of employment that are regulated by the Department pursuant to Wis. Stat. § 281.33.

Waters of the state includes those portions of Lake Michigan and Lake Superior within the boundaries of this state, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within this state or its jurisdiction. ~~has the meaning stated in Wis. Stats. § 281.01(18).~~

Sec. 98-305A. - Applicability of Maximum Extent Practicable

Maximum extent practicable applies when a person who is subject to a performance standard of this article demonstrates to the commissioner's satisfaction that a performance standard is not achievable and that a lower level of performance is appropriate. In making the assertion that a performance standard is not achievable and that a level of performance different from the performance standard is the maximum extent practicable, the responsible party shall take into account the best available technology, cost effectiveness, geographic features, and to her competing interests such as protection of public safety and welfare, protection of endangered and threatened resources, and preservation of historic properties.

Sec. 98-306. - Technical standards.

(a) ~~Design criteria, standards and specifications.~~ All BMPs required ~~to comply with this article~~for compliance with this article shall meet the design criteria, standards and specifications based on any of the following:

~~(1) Applicable design criteria, standards and specifications identified in the Wisconsin Construction Site Best Management Practice Handbook, WDNR Pub. WR-222 November 1993 Revision~~.

(1~~2~~) Other design guidance and technical standards identified or developed by the WDNR under subchapter V of chapter NR 151, Wisconsin Administrative Code.

(2~~3~~) Soil loss prediction tools (such as the Universal Soil Loss Equation) when using an~~For this article, average annual basis is calculated using the~~ appropriate annual rainfall or runoff factor, (also referred to as the R factor), or an ~~equivalent~~ appropriate design storm and precipitation distribution, and when considering the ~~using a type II distribution, with consideration given to the~~ geographic location of the site and the period of disturbance.

(3) Technical standards and methods approved by the commissioner.

(b) Other standards. Other technical standards not identified or developed in subsection (a) may be used, provided that the commissioner has approved the methods.

Sec. 98-307. - Performance Sstandards for Construction Sites of One Acre or More.

(a) *Responsible party*. The responsible party shall comply with this section and implement thean erosion and sediment control plan, developed in accordance with section 98-309, that incorporates the requirements of this section. .

(b) *Erosion and Sediment Control Plan*. A written site-specific erosion and sediment control plan shall be developed in accordance with section 98-309 and implemented for each construction site.

(c) *Erosion and other pollutant control requirements*. The plan required under subsection (b) shall include the following:

(1) *Erosion and Sediment Control Practices*. Erosion and sediment control practices at each site where land disturbing construction activity is to occur shall be used to prevent or reduce all of the following:

a. The deposition of soil from being tracked onto streets by vehicles.

b. The discharge of sediment from disturbed areas into on-site storm water inlets.

c. The discharge of sediment from disturbed areas into adjacent waters of the state.

d. The discharge of sediment from drainage ways that flow off the site.

e. The discharge of sediment by dewatering activities

f. The discharge of sediment eroding from soil stockpiles existing for more than 7 days.

g. The discharge of sediment from erosive flows at outlets and in downstream channels.

h. The transport by runoff into waters of the state of chemicals, cement, and other building compounds and materials on the construction site during the construction period. However, projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this subdivision.

a.i. The transports by runoff into waters of the state of untreated wash water from vehicle and wheel washing.

(21) *Sediment Performance Standards*. In addition to the erosion and sediment control practices under subsection (1), the following erosion and sediment control practices shall be employed:

a. BMPs that, by design, discharge no more than 5 tons per acre per year, or to the maximum extent practicable, of the sediment load carried in runoff from initial grading to final stabilization

b. No person shall be required to employ more BMPs than are needed to meet a performance standard in order to comply with maximum extent practicable. Erosion and sediment control BMPs may be combined to meet the requirements of this paragraph. Credit may be given toward meeting the sediment performance standard of this paragraph for limiting the duration or area, or both, of land disturbing construction activity, or for other appropriate mechanism.

c. Notwithstanding subsection a., if BMPs cannot be designed and implemented to meet the sediment performance standard, the erosion and edimentsediment control plan shall include a written, site-specific explanation of why the sediment performance standard

cannot be met and how the sediment load will be reduced to the maximum extent practicable

(3) *Preventive Measures*. The erosion and sediment control plan shall incorporate all of the following:

a. Maintenance of existing vegetation, especially adjacent to surface waters whenever possible.

b. Minimization of soil compaction and preservation of topsoil.

c. Minimization of land disturbing construction activity on slopes of twenty percent or more.

d. Development of spill prevention and response procedures.

~~BMPs that, by design, achieve to the maximum extent practicable, a reduction of 80 percent of the sediment load carried in runoff, on an average annual basis, as compared with no sediment or erosion controls until the construction site has undergone final stabilization. No person shall be required to exceed an 80 percent sediment reduction to meet the requirements of this section. Erosion and sediment control BMPs may be used alone or in combination to meet the requirements of this paragraph. Credit toward meeting the sediment reduction shall be given for limiting the duration or area, or both, of land disturbing construction activity, or other appropriate mechanism.~~

~~(2) Notwithstanding subsection (1), if BMPs cannot be designed and implemented to reduce the sediment load by 80 percent, on an average annual basis, the plan shall include a written and site-specific explanation as to why the 80 percent reduction goal is not attainable and the sediment load shall be reduced to the maximum extent practicable.~~

~~(3) Where appropriate, the plan shall include sediment controls to do all of the following to the maximum extent practicable:~~

~~a. Prevent tracking of sediment from the construction site onto roads and other paved surfaces.~~

~~b. Prevent the discharge of sediment as part of site dewatering.~~

~~c. Protect the separate storm drain inlet structure from receiving sediment.~~

~~(4) The use, storage and disposal of chemicals, cement and other compounds and materials used on the construction site shall be managed during the construction period to prevent their entrance into waters of the state, excepting that projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this paragraph.~~

(~~4~~d) *Location*. The BMPs used to comply with this section shall be located ~~prior to runoff entering waters of the state.~~ so that treatment occurs before runoff enters waters of the state.

(~~d~~e) Implementation. The BMPs used to comply with this section shall be implemented as follows:

(1) ~~*Alternate requirements*. The commissioner may establish stormwater management requirements more stringent than those set forth in this section if the commissioner determines that an added level of protection is needed for sensitive resources.~~ Erosion and sediment control practices shall be constructed or installed before land disturbing construction activities begin in accordance with the erosion and sediment control plan developed in Sec. 98-307(c).

(2) Erosion and sediment control practices shall be maintained until final stabilization.

(3) Final stabilization activity shall commence when land disturbing activities cease and final grade has been reached on any portion of the site.

(4) Temporary stabilization activity shall commence when land disturbing activities have temporarily ceased and will not resume for a period exceeding fourteen calendar days.

(5) BMPs that are no longer necessary for erosion and sediment control shall be removed by the responsible party.

Sec. 98-308. - Permitting requirements, procedures and fees.

(a) *Permit required*. No responsible party may commence a land disturbing construction activity subject to this article without first receiving approval of an erosion and sediment control plan for the site and a permit from the commissioner.

(b) *Permit application and fees*. ~~At least one~~The responsible party ~~desiring to~~that will undertake a land disturbing construction activity subject to this article shall submit an application for a permit and an erosion and sediment control plan that meets the requirements of section 98-309, and shall pay an application fee to the commissioner ~~as established by the common council~~in the amount specified in 98-310. By submitting an application, the applicant is authorizing the commissioner to enter the site to obtain information required for the review of the erosion and sediment control plan.

(c) *Review and approval of permit application*. The commissioner shall review any permit application that is submitted with an erosion and sediment control plan, and the required fee. The following approval procedure shall be used:

(1) Within 30 days after receipt of a complete permit application, as required by subsection (b), the commissioner shall inform the applicant whether the application and erosion and sediment control plan are approved or disapproved based on the requirements of this article.

(2) If the permit application and erosion and sediment control plan are approved, the commissioner shall issue the permit.

(3) If the permit application or erosion and sediment control plan is disapproved, the commissioner shall state in writing the reasons for disapproval.

(4) The commissioner may request additional information from the applicant. If additional information is submitted, the commissioner shall have 30 business days from the date the additional information is received to inform the applicant that the erosion and sediment control plan is either approved or disapproved.

(5) Failure by the commissioner to inform the permit applicant of a decision within 40 business days of a required submittal shall be deemed to mean approval of the submittal and the applicant may proceed as if a permit had been issued.

(d) Surety *Bond*. As a condition of approval and issuance of the permit, the commissioner may require the applicant to deposit a surety bond~~, cash bond~~ or irrevocable letter of credit to guarantee good faith execution of the approved erosion and sediment control plan and any permit conditions.

~~, all of which work shall be completed not later than 12 months after issuance of the occupancy permit or expiration of the building permit or other construction authorization, or any extension thereof. If, upon inspection, such work is complete, the bond or letter of credit shall be promptly released or the cash bond promptly returned. If such work has not been completed within the prescribed period, the commissioner may have the surety perform such work, or may go on the land and commence the work after issuing the responsible party a notice of intent to have such work performed. The cost of the work performed by the commissioner, under contract, plus interest at the rate authorized by the common council, shall be invoiced to the responsible party. Funds from the surety, the letter of credit or cash bond shall also be used therefor. If a responsible party fails to pay the amount due within the period specified, the clerk shall enter the amount due on the tax rolls and collect it as a special assessment against the property, pursuant to Wis. Stats., ch. 66, subch. VII.~~

(e) *Permit requirements*. All permits shall require the responsible party to:

(1) Notify the commissioner within 48 hours of commencing any land disturbing construction activity.

(2) Notify the commissioner of completion of any BMPs within 14 days after their installation.

(3) Obtain permission in writing from the commissioner prior to any modification ~~of the erosion and~~ pursuant to ~~sediment control plan pursuant to subsection~~ section 98-309 (3) of the erosion and sediment control plan.

(4) Install all BMPs as identified in the approved erosion and sediment control plan.

(5) Maintain all road drainage systems, stormwater drainage systems, BMPs and other facilities identified in the erosion and sediment control plan.

(6) Repair any siltation or erosion damage to adjoining surfaces and drainage ways resulting from land disturbing construction activities and document repairs in a site erosion control log.

(7) Inspect the BMPs within 24 hours after each rain of 0.5 inches or more which results in runoff during active construction periods, and at least once each week make. Make needed repairs and install additional BMPs as necessary, and document these activities~~findings of the~~in an inspection logs ~~in a site erosion control log with the~~that also includes the date of inspection, the name of the person conducting the inspection, and a description of the present phase of the construction at the site.

(8) Allow the commissioner to enter the site for the purpose of inspecting compliance with the erosion and sediment control plan or for performing any work necessary to bring the site into compliance with the erosion and sediment control plan at the construction site.

~~(9) Keep a copy of the erosion and sediment control plan at the construction site.~~

(f) *Permit conditions*. Permits issued under this section may include conditions established by the commissioner in addition to the requirements set forth in subsection (e) where ~~necessary~~ needed to assure compliance with the performance standards in section 98-307 or 98-308.

(g) *Permit duration*. Permits issued under this section shall be valid for a period of 180 days, or the length of the building permit or other construction authorizations, whichever is longer, from the date of issuance. The commissioner may ~~extend the period~~grant one or more extensions not to exceed ~~times for up to an additional~~ 180 days cumulatively. The commissioner may require additional BMPs as a condition of an~~the~~ extension if they are necessary to meet the requirements of this article.

(h) *Maintenance*. The responsible party throughout the duration of the construction activities shall maintain all BMPs necessary to meet the requirements of this article until the site has undergone final stabilization.

Sec. 98-309. - Erosion and sediment control plan, statement, and amendments.

(a) Erosion and sediment control plan, statement and amendments.

(1) *Erosion and Sediment Control Plan Statement*. For each construction site identified under section 98-304 (a)(3), an erosion and sediment control plan statement shall be prepared. This statement shall be submitted to the commissioner. The erosion and sediment control plan statement shall briefly describe the site, the development schedule, and the BMPs that will be used to meet the requirements of the article. A site map shall also accompany the erosion and sediment control plan statement.~~The responsible party shall prepare an erosion and sediment control plan and submit it to the commissioner~~.

(2) Erosion and Sediment Control Plan Requirements

a. An erosion and sediment control plan shall be prepared and submitted to the commissioner.

b. The erosion and sediment control plan shall be designed to meet the performance standards in section 98-307 and other requirements of this article.

(3) The erosion and sediment control plan shall address pollution caused by soil erosion and sedimentation during construction and ~~through~~ up to final stabilization of the site. The erosion and sediment control plan shall include, at a minimum, the following items:

a. The name(s) and address(es) of the owner or developer of the site and of any consulting firm retained by the applicant, together with the name of the applicant's principal contact at such firm. ~~and~~ The application shall also include ~~the~~ start and end dates for construction.

b. Description of the construction site and the nature of the land disturbing construction activity, including representation of the limits of land disturbance on a United States Geological Service 7.5 minute series topographic map.

c. ~~A sequence~~Description of the intended sequence of major land disturbing construction activities ~~construction of the development site~~, for major portions of the construction site, including stripping and clearing; rough grading; construction of utilities, infrastructure and buildings, and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.

d. Estimates of the total area of the construction site and the total area of the construction site that is expected to be disturbed by land disturbing construction activities.

~~e. Estimates, including calculations, if any, of the runoff coefficient of the site before and after construction activities are completed.~~

e. Calculations to show the ~~expected percent reduction in the average annual sediment load carried in runoff as compared to no sediment or erosion controls~~compliance with the performance standard in section 98-307 (c)(2)a.

f. Existing data describing the surface soil as well as subsoils.

g. Depth to groundwater, as indicated by Natural Resources Conservation Service soil information, where available.

h. Name of the immediate named receiving water from the United States Geological Service 7.5 minute series topographic maps.

(4) The erosion and sediment control plan shall include a site map. ~~which shall show the location of the site within the city.~~ The site map shall include the following items and shall be at a scale not greater than 100~~50~~ feet per inch and at a contour interval not to exceed five~~two~~ feet.

a. Existing topography, vegetative cover, natural and engineered drainage systems, roads and surface waters. Lakes, streams, wetlands, channels, ditches and other watercourses on and immediately adjacent to the site shall be shown. Any identified 100-year flood plains, flood fringes and floodways shall also be shown.

b. Boundaries of the construction site.

c. Drainage patterns and approximate slopes anticipated after major grading activities.

d. Areas of soil disturbance.

e. Location of major structural and non-structural controls identified in the erosion and sediment control plan.

f. Location of areas where stabilization BMPs~~practices~~ will be employed.

g. Areas which will be vegetated following land disturbing construction activities.

h. Area(s) and location(s) of wetland on the construction site ~~real extent of wetland acreage on the site~~ and locations where stormwater is discharged to a surface water or wetland within one-quarter mile downstream of the construction site.

i. ~~Locations of all surface waters and wetlands within one mile of the construction site~~Area(s) used for infiltration of post-construction storm water run off.

j. An alphanumeric or equivalent grid overlying the entire construction site map.

(5) Each erosion and sediment control plan shall include a description of appropriate control~~s~~ and BMPs~~measures~~ that will be installed and maintained~~performed~~ at the construction site to prevent pollutants from reaching waters of the state. The erosion and sediment control plan shall clearly describe the appropriate ~~control measures~~erosion and sediment control BMPs for each major land disturbing construction activity and the timing during the period of land disturbing construction ~~process~~ activity that the erosion and sediment control BPM~~measure~~s will be implemented. The description of erosion and sediment control BMPs~~s~~ shall include, when appropriate, the following minimum requirements:

a. Description of interim and permanent stabilization practices, including a BMP ~~n~~ implementation schedule. The erosion and sediment control~~Site~~ plan~~s~~ shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.

b. Description of structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the commissioner, structural measures shall be installed on upland soils.

c. Management of overland flow at all areas of the construction sites, unless otherwise controlled by outfall controls.

d. Trapping of sediment in channelized flow.

e. Staging and land disturbing construction activities to limit exposed soil~~bare~~ areas subject to erosion.

f. Protection of downslope drainage inlets where they occur.

g. Minimization of tracking at all vehicle and equipment entry and exit locations of the construction site~~s~~.

h. Clean up of off-site sediment deposits.

i. Proper disposal of building and waste materials ~~at all sites~~.

j. Stabilization of drainage ways.

~~k. Control of soil erosion from dirt stockpiles.~~

k~~l~~. Installation of permanent stabilization practices as soon as possible after final grading.

l~~m~~. Minimization of dust to the maximum extent practicable.

(6) The erosion and sediment control plan shall require that velocity dissipation devices be placed at discharge locations and along the length of any outfall channel~~,~~ as necessary~~,~~ to provide a non-erosive flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.

~~(b) Erosion and sediment control plan statement. For each construction site identified under subsection 98-304(a((3), the responsible party shall prepare an erosion and sediment control plan and submit the statement to the commissioner. The statement shall briefly describe the site, including a site map. Further, it shall also include the best management practices that will be used to meet the requirements of the article, including the site development schedule.~~

(c) Erosion and Sediment Control Plan Amendments. The applicant shall amend the erosion and sediment control plan if any of the following occur:

(1) There is a change in design, construction, operation or maintenance at the site which has the reasonable potential for the discharge of pollutants to waters of the state and which has not otherwise been addressed in the erosion and sediment control plan.

(2) The actions required by the erosion and sediment control plan fail to reduce the impacts of pollutants carried by construction site runoff.

(3) The commissioner notifies the applicant of changes needed in the erosion and sediment control plan.

Sec. 98-310. - Fee schedule.

The fees referred to in other sections of this article shall be established by the common council and may from time to time be modified by resolution. A schedule of fees shall be available for review in Room 303, City Hall, 730 Washington Ave., Racine, Wisconsin.

Sec. 98-311. - Inspection.

If land disturbing construction activities are ~~being carried out~~occurring without a permit required by this article, the commissioner may enter the land pursuant to the provisions of Wis. Stats. §§ 66.0119(1), (2) and (3).

Sec. 98-312. - Enforcement.

(a) The commissioner may post a stop-work order if any of the following occurs:

(1) ~~Any~~ Land disturbing construction activity regulated under this article is ~~being undertaken~~occurring without a permit; or

(2) The erosion and sediment control plan is not being implemented in a good faith ~~manner~~; or

(3) The conditions of the permit are not being met.

(b) If the responsible party does not cease activity as required in a stop-work order posted under this section or fails to comply with the erosion and sediment control plan or permit conditions, the commissioner may revoke the permit.

(c) If the responsible party, where no permit has been issued or the permit has been revoked, does not cease the activity after being notified by the commissioner, or if a responsible party violates a stop-work order posted under subsection (a), the commissioner may issue a citation for violation of this article, or request the district attorney or city attorney to obtain a cease and desist order in any court with jurisdiction.

(d) The commissioner may retract the stop-work order issued under subsection (a) or the permit revocation under subsection (b).

(e) After posting a stop-work order under subsection (a), the commissioner may issue a notice of intent to the responsible party ~~a notice~~ of its intent to ~~have the necessary work~~ perform work necessary~~ed~~ to comply with this article. The commissioner may ~~have the surety perform the work, or may~~ go on the land and commence the work after issuing the notice of intent. The cost of the work performed under this subsection by the commissioner, ~~under contract,~~ plus interest at the rate authorized by the common council, shall be ~~invoiced~~ billed to the responsible party. Funds from the surety, the letter of credit or cash bond shall also be used therefor. In the event a responsible party fails to pay the amount due, ~~within the period specified,~~ the clerk shall enter the amount due on the tax rolls and collect ~~it~~ as a special assessment against the property, pursuant to Wis. Stats., ch. 66, subch. VII.

(f) Any person ~~found to be in~~ violating~~on~~ any of the provisions of this article shall be subject to a forfeiture of not less than $100.00 nor more than $1,000.00 and the costs of prosecution for each violation. Each day a violation exists shall constitute a separate offense.

(g) Compliance with the provisions of this article may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunctive proceedings.

Sec. 98-313. - Appeals.

(a) ~~*[Hearing.] The zoning B*~~*board of A~~a~~ppeals*. The board of appeals created pursuant to section 18-734 of the city's ordiance pursuant to Wis. Stat. § 62.23(7)(e).~~:~~

(1) Shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the commissioner in administering this article, except for cease and desist orders obtained under section 98-312(c).

(2) ~~Upon appeal,~~ M~~m~~ay authorize, upon appeal, variances from the provisions of this article ~~where such variances~~which are not contrary to the public interest and, where owing to special conditions, a literal enforcement of the provisions of the provisions of the article will result in unnecessary hardship; and~~.~~

(3) Shall use the rules, procedures, duties and powers authorized by statute in hearing and deciding appeals and authorizing variances.

(b) *Who may appeal*. Appeals to the board of appeals may be taken by any aggrieved person or by any office, department, ~~or~~ board, or bureau of the city affected by any decision of the commissioner.

Sec. 98-314 – Severability

If a court of competent jurisdiction judges any section, clause, provision or portion of this ordinance unconstitutional or invalid, the remainder of the ordinance shall remain in force and not be affected by such judgment.

ARTICLE VII. ~~–~~ POST-CONSTRUCTION STORMWATER MANAGEMENT

Sec. 98-401. - Authority.

(a) This article is adopted by the common council under the authority granted by Wis. Stats. § 62.234. This article supersedes all provisions of an article previously enacted under Wis. Stats. § 62.23 that relate to stormwater management regulations. Except as otherwise specified in Wis. Stats. § 62.234, Wis. Stats. § 62.23 applies to this article and to any amendments to this article.

(b) The provisions of this article are deemed not to limit any other lawful regulatory powers of the common council.

(c) The common council hereby designates the commissioner of public works or designee ("commissioner") to administer and enforce the provisions of this article.

(d) The requirements of this article do not preempt more stringent stormwater management requirements that may be imposed by any of the following:

(1) Wisconsin Department of Natural Resources administrative rules, permits or approvals including those authorized under Wis. Stats. §§ 281.16 and 283.33.

(2) Targeted nonagricultural performance standards promulgated in rules by the Wisconsin Department of Natural Resources under Wisconsin Administrative Code § NR 151.004.

Sec. 98-402. - Findings of fact.

The common council finds that uncontrolled, post-construction runoff has a significant impact upon water resources and the health, safety and general welfare of the community and diminishes the public enjoyment and use of natural resources. Specifically, uncontrolled post-construction runoff can:

(1) Degrade physical stream habitat by increasing stream bank erosion, increasing streambed scour, diminishing groundwater recharge, diminishing stream base flows and increasing stream temperature.

(2) Diminish the capacity of lakes and streams to support fish, aquatic life, recreational and water supply uses by increasing pollutant loading of sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens and other urban pollutants.

(3) Alter wetland communities by changing wetland hydrology and by increasing pollutant loads.

(4) Reduce the quality of groundwater by increasing pollutant loading.

(5) Threaten public health, safety, property and general welfare by overtaxing storm sewers, drainage ways, and other minor drainage facilities.

~~(6) Threaten public health, safety, property and general welfare by increasing major flood peaks and volumes.~~

~~(7) Undermine floodplain management efforts by increasing the incidence and levels of flooding.~~

Sec. 98-403. - Purpose and intent.

(a) *Purpose*. The general purpose of this article is to establish long-term, post-construction runoff management requirements that will diminish the threats to public health, safety, welfare and the aquatic environment. Specific purposes are to:

(1) Further the maintenance of safe and healthful conditions.

(2) Prevent and control the adverse effects of stormwater; prevent and control soil erosion; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; preserve ground cover and scenic beauty, and promote sound economic growth.

(3) Control exceedance of the safe capacity of existing drainage facilities and receiving water bodies; prevent undue channel erosion; control increases in the scouring and transportation of particulate matter.

(4) Minimize the amount of pollutants discharged from the separate storm sewer to protect the waters of the state.~~, and prevent conditions that endanger downstream property.~~

(b) *Intent*. It is the intent of the common council that this article regulates post-construction storm water discharges to waters of the state. This article may be applied on a site-by-site basis. The common council ~~acknowledges~~ recognizes, however, that the preferred method of achieving the storm water performance standards set forth in this article is through the preparation and implementation of comprehensive, systems-level storm water management plans that cover hydrologic units, such as watersheds, on a municipal and regional scale. Such plans may prescribe regional storm water devices, ~~best management~~ practices or systems, any of which may be designed to treat runoff from more than one site prior to discharge to waters of the state. Where such plans are in conformance with the performance standards developed under Wis. Stats. § 281.16, for regional stormwater management measures and have been approved by the common council, it is the intent of this article that the approved plan be used to identify post-construction management measures acceptable for the community.

Sec. 98-404. - Applicability and jurisdiction.

(a) Applicability.

(1) ~~Where not otherwise limited by law~~Except as provided under subsection (2), this article applies ~~after final stabilization~~ to a post-construction site ~~of land disturbing construction~~whereupon one acre or more of land disturbing construction activity occurs during construction. ~~activity meeting any of the criteria in this paragraph, unless the site is otherwise exempt under paragraph (2).~~

~~a. A post construction site that had 5 or more acres of land disturbing construction activity.~~

~~b. A postdevelopment construction site that had one or more acres of land disturbing construction activity after March 10, 2003.~~

(2) A site that meets any of the criteria in this paragraph is exempt from the requirements of this article.

~~a. A redevelopment postconstruction site with no increase in exposed parking lots or roads.~~

a~~b~~. A post-construction site with less than ten percent connected imperviousness, based on ~~complete development of the post-construction site~~ the area of land disturbance, provided the cumulative area of all ~~parking lots and rooftops is less than one acre~~impervious surfaces iss less than one acre. However, the exemption of this paragraph does not include exemption from the protective area standard of this article.

b~~c~~. ~~Nonpoint discharges from A~~agricultural facilities and practices.

c~~d~~. Underground utility construction, but not including the construction of any above ground structures associated with utility construction.~~Nonpoint discharges from silviculture activities.~~

~~e. Routine maintenance for project sites under five acres of land disturbance if performed to maintain the original line and grade, hydraulic capacity or original purpose of the facility.~~

b~~f~~. ~~Underground utility construction such as water, sewer and fiberoptic lines. This exemption does not apply to the construction of any above ground structures associated with utility construction.~~

(3) Notwithstanding the applicability requirements in subsection (1), this article applies to post-construction sites of any size that, ~~in the opinion of~~as determined by the commissioner ~~of public works~~commissioner~~,~~ are likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, ~~that~~ causes undue channel erosion, ~~that~~ or

increases water pollution by scouring or the transportation of particulate matter~~ or that endangers property or public safety~~.

(b) Jurisdiction. This article applies to post construction sites within the boundaries and jurisdiction of the city.

(c) Exclusions. This article is not applicable to activities conducted by a state agency, as defined under Wis. Stats. § 227.01(1)~~., but also including the office of district attorney, which is subject to the state plan promulgated or a memorandum of understanding entered into under Wis. Stats. § 281.33(2).~~

Sec. 98-405. - Definitions.

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

Adequate sod, or self-sustaining vegetative cover means maintenance of sufficient vegetation types and densities such that the physical integrity of the steambank or lakeshore is preserved. Self-sustaining vegetative cover includes grasses, forbs, sedges and duff layers of fallen leaves and woody debris.

Administering authority means a governmental employee, or a regional planning commission empowered under Wis. Stats. § 62.234~~], Wis. Stats.~~, that is designated by the common council to administer this ordinance.

Agricultural facilities and *practices* has the meaning given in ~~Wis. Stats~~Wis. Stats. ~~s.~~ § 281.16 (1)~~, Wis. Stats.~~.

Atlas 14 means the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation-Frequency Atlas of the United States, Volume 8 (Midwestern States), published in 2013.

Average annual rainfall means a typical calendar year of precipitation as determined by the Wisconsin Department of Natural Resources for users of models such as WinSLAMM, P8, or equivalent methodology. The average annual rainfall is chosen from a department publication for the location closest to the municipality. ~~excluding snow, which is considered typical.~~

Best management practice or "BMP" means structural or nonstructural measures, practices, techniques or devices employed to avoid or minimize sediment or pollutants carried in runoff to waters of the state.

Business day means a day the office of the commissioner ~~commissioner~~ is routinely and customarily open for business.

Cease and desist order means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit or in violation of a permit issued by the commissioner of public works.

Combined sewer system means a system for conveying both sanitary sewage and stormwater runoff.

Connected imperviousness means an impervious surface ~~that is directly~~ connected to ~~a separate storm sewer or~~ the waters of the state via a separate storm sewer, an impervious flow path, or a minimally pervious flow path.~~.~~

Design storm means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency, and total depth of rainfall.

Development means residential, commercial, industrial or institutional land uses and associated roads.

~~"~~*Direct Conduits to groundwater*~~"~~ means wells, sinkholes, swallets, fractured bedrock at the surface, mine shafts, non-metallic mines, tile inlets discharging to groundwater, quarries, or depressional groundwater recharge areas over shallow fractured bedrock.

Division of land means the creation from one parcel of two or more parcels or building sites of one~~[number]~~ or fewer acres each in area where such creation occurs at one time or through the successive partition within a 5-year period. ~~of two or more parcels or building sites from one parcel.~~

Effective infiltration area means the area of the infiltration system that is used to infiltrate runoff and does not include the area used for site access, berms or pretreatment.

Erosion means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.

Exceptional resource waters means waters listed in Wisconsin Administrative Code §~~s.~~ NR 102.11~~, Wis. Adm. Code~~. ~~§ NR 102.11.~~

Extraterritorial means the unincorporated area within three miles of the corporate limits of a first, second, or third class city, or within 1.5 miles of a fourth class city or village.

Filtering layer means soil that has at least a 3-foot deep layer with at least 20 percent fines; or at least a 5-foot deep layer with at least 10 percent fines; or an engineered soil with an equivalent level of protection as determined by the regulatory authority for the site.

Final stabilization means that all land disturbing construction activities at the construction site have been completed and that a uniform~~,~~ perennial~~,~~ vegetative cover has been established~~,~~ with a density of at least 70 percent of the cover~~,~~ for the unpaved areas and areas not covered by permanent structures~~,~~ or employment of equivalent permanent stabilization measures.

Financial guarantee means a performance bond, maintenance bond, surety bond, ~~cash bond,~~ irrevocable letter of credit, or similar guarantees submitted to the commissioner by the responsible party to assure that requirements of the article are carried out in compliance with the storm water management plan.

Governing body~~"~~ means town board of supervisors, county board of supervisors, city council, village board of trustees, or village ~~the~~ common council.

~~"~~*Impervious surface* means an area that releases as runoff all or a large portion of the precipitation that falls on it, except~~ing~~ for frozen soil. Rooftops, sidewalks, driveways, gravel or paved parking lots and streets are examples of areas that typically are impervious.

In-fill ~~area~~ means an undeveloped area of land located within an existing urban sewaer service area, surrounded by development or development and natural or man-made features where development cannot occur.

Infiltration means the entry of precipitation or runoff into or through the soil.

Infiltration system means a device or ~~best management~~ practice such as a basin, trench, rain garden or swale designed specifically to encourage infiltration, but does not include natural infiltration in pervious surfaces such as lawns, redirecting of rooftop downspouts onto lawns or minimal infiltration from practices, such as swales or road side channels designed for conveyance and pollutant removal only.

~~Karst feature means an area or surficial geologic feature subject to bedrock dissolution so that it is likely to provide a conduit to groundwater, and may include caves, enlarged fractures, mine features, exposed bedrock surfaces, sinkholes, springs, seeps or swallets.~~

Land disturbing construction activity means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or nonvegetative soil cover, that may result in runoff and lead to an increase in soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes, but is not limited to, clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

Landowner means any person holding fee title, an easement or other interest in property, which allows the person to undertake cropping, livestock management, land disturbing construction activity or maintenance of storm water BMPs on the property.

Maintenance agreement means a legal document that provides for long-term maintenance of storm water management practices.

MEP or *maximum extent practicable* means the highest level of performance that is achievable but is not equivalent to a performance standard identified in this ordinance as determined in accordance with S. 055 of this ordinance. ~~a level of implementing best management practices in order to achieve a performance standard specified in this article which takes into account the best available technology, cost effectiveness and other competing issues, such as human safety and welfare, endangered and threatened resources, historic properties and geographic features. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions.~~

New development means development resulting from the conversion of previously undeveloped land or agricultural land uses.

NRCS MSE3 or *MSE4 distribution* means a specific precipitation distribution developed by the United States Department of Agriculture, Natural Resources Service, using precipitation data from Atlas 14.

Off-site means located outside the property boundary described in the permit application.

On-site means located within the property boundary described in the permit application.

Ordinary high-water mark has the meaning given in Wisconsin Administrative Code §~~s.~~ ~~Wisconsin Administrative Code §~~ NR 115.03(6)~~, Wis. Adm. Code~~.

Outstanding resource waters means waters listed in Wisconsin Administrative Code § ~~Wisconsin Administrative Code §~~ NR 102.10~~, Wis. Adm. Code~~.

Percent fines means the percentage of a given sample of soil, which passes through a # 200 sieve.

Performance standard means a narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.

Permit means a ~~the commissioner's~~ written authorization made by the commissioner to the applicant to conduct land disturbing construction activity or to discharge post-construction runoff to waters of the state.

Permit administration fee means a sum ~~an amount~~ of money paid to the commissioner by the permit applicant for the purpose of recouping the expenses incurred by the city in administering the permit.

Pervious surface means an area that releases as runoff a small portion of the precipitation that falls on it. Lawns, gardens, parks, forests or other similar vegetated areas are examples of surfaces that typically are pervious.

Pollutant has the meaning given in Wis. Stats. § ~~Wis. Stats. §~~ 283.01(13)~~., Wis. Stats.~~

Pollution has the meaning given in Wis. Stats. § ~~Wis. Stats. §~~ 281.01(10)~~, Wis. Stats~~.

Post-construction site means a construction site following the completion of land disturbing construction activity and final site stabilization.

Pre-development condition means the extent and distribution of land cover types present before the initiation of land disturbing construction activity, assuming that all land uses prior to development activity are managed in an environmentally sound manner.

Preventive action limit has the meaning given in Wisconsin Administrative Code § NR ~~s. Wisconsin Administrative Code § NR~~ 140.05(17).

Protective area means an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface.

Redevelopment means areas where development is replacing older development.

Responsible party means the landowner or any other entity performing services to meet the requirements of this ordinance through a contract or other agreement. ~~holding fee title to the property or other person contracted or obligated by other agreement to implement and maintain postconstruction storm water BMPs.~~

Runoff means storm water or precipitation including rain, snow or ice melt or similar water that moves on the land surface via sheet or channelized flow.

Separate storm sewer means a conveyance or system of conveyances including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:

(1) Is designed or used for collecting water or conveying runoff.

(2) Is not part of a combined sewer system.

(3) Is not part of a publicly owned waste water treatment works that provides secondary or more stringent treatment.

(4) Discharges directly or indirectly to waters of the state.

Silviculture activity means activities including tree nursery operations, tree harvesting operations, reforestation, tree thinning, prescribed burning, and pest and fire control. Clearing and grubbing of an area of a construction site is not a silviculture activity.

Site means the entire area included in the legal description of the land on which the land disturbing construction activity occurred.

Stop work order means an order issued by the commissioner which requires that all construction activity on the site be stopped.

Storm water management plan means ~~means~~ a comprehensive plan designed to reduce the discharge of pollutants from storm water, after the site has under gone final stabilization, following completion of the construction activity. ~~stormwater after the site has under gone final stabilization following completion of the construction activity.~~

Storm water management system plan is a comprehensive plan designed to reduce the discharge of runoff and pollutants from hydrologic units on a regional or municipal scale. ~~(57)~~

"Technical standard" means a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.

Top of the channel means an edge, or point on the landscape~~,~~ landward from the ordinary high-water mark of a surface water of the state, where the slope of the land begins to be less than 12 percent continually for at least 50 feet. If the slope of the land is 12 percent or less continually for the initial 50 feet~~,~~ landward from the ordinary high-water mark, the top of the channel is the ordinary high-water mark.

Total maximum daily load or *TMDL* means the amount of pollutants specified as a function of one or more water quality parameters, that can be discharged per day into water quality limited segment and still ensure attainment of the applicable water quality standard.

TP-40 means Technical Paper No. 40, Rainfall Frequency Atlas of the United States published in 1961.

TR-55 means the United States Department of Agriculture, Natural Resources Conservation Service (previously Soil Conservation Service), Urban Hydrology for Small Watersheds, Second Edition, Technical Release 55, June 1986, which is incorporated by reference for this chapter.

Transportation facility means a highway, a railroad, a public mass transit facility, a public-use airport, a public trail or any other public work for transportation purposes such as harbor improvements under Wis. Stats. § 85.095 (1)(b), Wis. Stats. "Transportation facility" does not include building sites for the construction of public buildings and buildings that are places of employment that are regulated by the department pursuant to Wis. Stats. § 281.33, Wis. Stats.

TSS means total suspended solids.

Type II distribution means a rainfall type curve as established in the "United States Department of Agriculture, Soil Conservation Service, Technical Paper 149, published in 1973." The Type II curve is applicable to all of Wisconsin and represents the most intense storm pattern.

Waters of the state includes those portions of Lake Michigan and Lake Superior within the boundaries of this state, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within this state or its jurisdiction has the meaning given in Wis. Stats. § 281.01(18).

[Insert Sec. number] Sec. 98-405A. - Applicability of Maximum Extent Practicable

Maximum extent practicable applies when a person who is subject to a performance standard of this ordinance demonstrates to the commissioner of public works' satisfaction that a performance standard is not achievable and that a lower level of performance is appropriate. In making the assertion that a performance standard is not achievable and that a level of performance different from the performance standard is the maximum extent practicable, the responsible party shall take into account the best available technology, cost effectiveness, geographic features, and other competing interests such as protection of public safety and welfare, protection of endangered and threatened resources, and preservation of historic properties.

Sec. 98-406. - Technical standards.

The following methods shall be used in designing the water quality, peak discharge flow shaving and infiltration components of stormwater practices needed to meet the water quality standards of this article:

(1) Consistent with the tTechnical standards identified, developed or disseminated by the Wisconsin Department of Natural Resources ("WDNR") under Wisconsin Administrative Code subchapter V of article NR 151, Wis. Adm. Code.

(2) Where technical standards have not been identified or developed by the Wisconsin Department of Natural ResourcesWDNR, other technical standards may be used provided that the methods have been approved by the commissioner of public works.

(3) ~~In this article, the following year and location has been selected as average annual rainfalls: Milwaukee, 1969 (Mar. 28-Dec. 6).~~

Sec. 98-407. - Performance standards.

(a) Responsible party. The responsible party shall comply with this section. ~~implement a post-construction stormwater management plan that incorporates the requirements of this section.~~

(b) Storm Water Management Plan. A written stormwater management plan in accordance with section 98-409 shall be developed and implemented for each post-construction site.

(c) Maintenance of effort. For redevelopment sites where the redevelopment will be replacing older development that was subject to post-construction performance standards of NR 151 in effect on or after October 1, 2004, the responsible party shall meet the total suspended solids reduction, peak flow control, infiltration, and protective areas standards applicable to the older development or meet the redevelopment standards of this article, whichever is more stringent.

(d~~c~~) Requirements. The storm water management plan required under subsection (2) shall include the following:

(1) Total suspended solids. BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site as follows:

a. BMPs shall be designed in accordance with Table 1 or to the maximum extent practicable as provided in subd. 2. The design shall be based on an average annual rainfall, as compared to no runoff management controls.

Table 1. TSS Reduction Standards

Development Type	TSS Reduction
New Development	80%
In-fill Development	80%
Redevelopment	40% of load from parking areas and roads

b. Maximum Extent Practicable. If the design cannot meet a total suspended solids reduction performance standard of Table 1., the storm water management plan shall include a written, site-specific explanation of why the total suspended solids reduction performance standard cannot be met and why the total suspended solids load will be reduced only to the maximum extent practicable.

c. Off-Site Drainage. When designing BMPs, runoff draining to the BMP from off-site shall be taken into account in determining the treatment efficiency of the practice. Any impact on the efficiency shall be compensated for by increasing the size of the BMP accordingly.

~~For new development, by design, reduce to the maximum extent practicable, the total suspended solids load by 80 percent, based on the average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed an 80 percent total suspended solids reduction to meet the requirements of this subdivision.~~

~~b. For redevelopment, by design, reduce to the maximum extent practicable, the total suspended solids load by 40 percent, based on the average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed a 40 percent total suspended solids reduction to meet the requirements of this subdivision.~~

c. For in-fill development under five acres that occurs within ten years after October 1, 2002, by design, reduce to the maximum extent practicable, the total suspended solids load by 40 percent, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed a 40 percent total suspended solids reduction to meet the requirements of this subdivision.

d. For in-fill development that occurs ten or more years after October 1, 2002, by design, reduce to the maximum extent practicable, the total suspended solids load by 80 percent, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed an 80 percent total suspended solids reduction to meet the requirements of this subdivision.

e. Notwithstanding subsections a. to d., if the design cannot achieve the applicable total suspended solids reduction specified, the stormwater management plan shall include a written and site-specific explanation why that level of reduction is not attained and the total suspended solids load shall be reduced to the maximum extent practicable.

(2) Peak discharge.

a. By design, BMPs shall be employed to maintain or reduce the 1-year, 24-hour; and the 2-year, 24-hou; and the 2-year 24-hour pre-development peak runoff discharge rates respectively, or to the maximum extent practicable. The runoff curve numbers in Table 2. shall be used to represent the actual pre-development conditions. Peak discharges shall be calculated using TR-55 runoff curve number methodology, Atlas 14 precipitation depths, and the appropriate NRCS Wisconsin MSE3 or MSE4 precipitation distribution. On a case-by-case basis, the commissioner of public works may allow the use of TP-40 precipitation depths and Type II distribution.~~, as compared to predevelopment conditionally the two-year, 24-hour design storm applicable to the postconstruction site. Predevelopment conditions shall assume "good hydrologic conditions" for appropriate land covers as identified in TR-55 or an equivalent methodology. The meaning of "hydrologic soil group" and "runoff curve number" are as determined in TR-55. However, when predevelopment land cover is cropland, rather than using TR-55 values for cropland, the runoff curve numbers in Table 1 shall be used.~~

~~Table 1. Maximum Predevelopment Runoff Curve Numbers for Cropland Areas~~

~~Hydrologic soil group~~	~~A~~	~~B~~	~~C~~	~~D~~
~~Runoff curve number~~	~~56~~	~~70~~	~~79~~	~~83~~

Table 2. Maximum Pre-Development Runoff Curve Numbers

Runoff Curve Number	Hydrolic Soil Group			
	A	B	C	D
Woodland	30	55	70	77
Grassland	39	61	71	78
Cropland	55	69	78	83

b. This subsection of the article does not apply to any of the following:

1. A post-construction site where the discharge is directly into a lake over 5,000 acres or a stream or river segment draining more than 500 square miles. ~~change in hydrology due to development does not increase the existing surface water elevation at any point within the downstream receiving water by more than 0.01 of a foot for the two-year, 24-hour storm event.~~

2. Except as provided under Sec. 98-407(c), a ~~A~~ redevelopment post-construction site.

3. An in-fill development area less than five acres.

(3) Infiltration.

a. Best Management Practices. BMPs shall be designed, installed, and maintained to infiltrate runoff ~~to the maximum extent practicable~~ in accordance with the following or to the maximum extent practicable~~, except as provided in subsections e. through g~~.

1. Low imperviousness. For development up to 40 percent connected imperviousness, such as parks, cemeteries, and low density residential development, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90 percent of the pre-development infiltration volume, based on an average annual rainfall, however, when designing appropriate infiltration systems to meet this requirement, no more than one percent of the post-construction site is required as an effective infiltration area.

2. Moderate imperviousness. For development with more than 40 percent and up to 80 percent connected imperviousness, such as medium and high density residential, multi- family development, industrial and institutional development, and office parks, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 75 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 2 percent of the post-construction site is required as an effective infiltration area.

3. High imperviousness. For development with more than 80 percent connected imperviousness, such as commercial strip malls, shopping centers, and commercial downtowns, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 60 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 2 percent of the post-construction site is required as an effective infiltration area.

b. Pre-development. The pre-development condition shall be the same as specified in Table 2 of the Peak Discharge section of this article.

c. Source Areas.

1. Prohibitions. Runoff from the following areas may not be infiltrated and may not qualify as contributing to meeting the requirements of this section unless demonstrated to meet the conditions identified in section 98-407(d)(3)f. ~~S. 07 (4)(c)6~~:

i. Areas associated with a tier 1 industrial facility identified in Wisconsin Administrative Code § ~~s.~~ NR 216.21 (2)(a), including storage, loading and parking. Rooftops may be infiltrated with the concurrence of the regulatory authority.

ii. Storage and loading areas of a tier 2 industrial facility identified in Wisconsin Administrative Code § ~~s.~~ NR 216.21 (2)(b).

iii. Fueling and vehicle maintenance areas. Runoff from rooftops of fueling and vehicle maintenance areas may be infiltrated with the concurrence of the regulatory authority.

2. Exemptions. Runoff from the following areas may be credited toward meeting the requirement when infiltrated, but the decision to infiltrate runoff from these source areas is optional:

i. Parking areas and access roads less than 5,000 square feet for commercial development.

ii. Parking areas and access roads less than 5,000 square feet for industrial development not subject to the Prohibitions under subsection (1).

iii. Except as provided under Sec. 98-407 (c3), redevelopment post-construction sites

iv. In-fill development areas less than 5 acres.

i.v. Roads on commercial, industrial and institutional land uses and arterial residential roads.

b. For nonresidential development, including commercial, industrial and institutional development, one of the following shall be met:

1. Infiltrate sufficient runoff volume so that the postdevelopment infiltration volume shall be at least 60 percent of the predevelopment infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than two percent of the project site is required as an effective infiltration area.

2. Infiltrate ten percent of the runoff from the two-year 24-hour design storm with a type II distribution. Separate curve numbers for pervious and impervious surfaces shall be used to calculate runoff volumes, and not composite curve numbers as defined in TR-55. However, when designing appropriate infiltration systems to meet this requirement, no more than two percent of the project site is required as an effective infiltration area.

c. Predevelopment condition shall be the same as in subsection (c)(2).

(d.) Location of Practices. Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for runoff from new road construction in commercial, industrial and institutional areas that will enter an infiltration system. The pretreatment shall be designed to protect the infiltration system from clogging prior to scheduled maintenance and to protect groundwater quality in accordance with subsection (c)(3)g. Pretreatment options may include, but are not limited to, oil/grease separation, sedimentation, biofiltration, filtration, swales or filter strips.

1. Prohibitions. Infiltration practices may not be located in the following areas:

i. Areas within 1000 feet upgradient or within 100 feet downgradient of direct conduits to groundwater.

ii. Areas within 400 feet of a community water system well as specified in Wisconsin Administrative Code §s. NR 811.16 (4) or within the separation distances listed in Wisconsin Administrative Code § s. NR 8912.08 for any private well or non-community well for runoff infiltrated from commercial, including multi-family residential, industrial and institutional land uses or regional devices for one- and two-family residential development.

iii. Areas where contaminants of concern, as d3efined in Wisconsin Administrative Code § s. NR 720.03 (2), are present in the soil through which infiltration occur.

2. Separation distances.

i. Infiltration practices shall be located so that the characteristics of the soil and the separation distance between the bottom of the infiltration system and the elevation of seasonal high groundwater or the top of bedrock are in accordance with Table 3:

Table 3. Separation Distances and Soil Characteristics

Source Area	Separation Distance	Soil Characteristics
Industrial, Commercial, Institutional, Parking lots and Roads	5 feet or more	Filtering Layer
Residential Arterial Roads	5 feet or more	Filtering Layer
Roofs Draining to Subsurface Infiltration Practices	1 foot or more	Native or Engineered Soil with Particles Finer than Coarse Sand
Roofs Draining to Surface Infiltration Practices	Not Applicable	Not Applicable
All Other Impervious Source Areas	3 feet or more	Filtering Layer

ii. Notwithstanding par. 2., applicable requirements for injection wells classified under Wisconsin Administrative Code ch. NR 815 shall be followed.

3. ~~3.~~ Infiltration rate exemptions. Infiltration practices located in the following areas may be credited toward meeting the requirements under the following conditions, but the decision to infiltrate under these conditions is optional:

i. Where the infiltration rate of the soil measured at the proposed bottom of the infiltration system is less than 0.6 inches per hour using a scientifically credible field test method.

ii. Where the least permeable soil horizon to 5 feet below the proposed bottom of the infiltration system using the U.S. Department of Agriculture method of soils analysis is one of the following: sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

e. Alternate Use. Where alternate uses of runoff are employed, such as for toilet flushing, laundry, or irrigation or storage on green roofs where an equivalent portion of the runoff is captured permanently by rooftop vegetation, such alternate use shall be given equal credit toward the infiltration volume required by this section.

f. Groundwater Standards.

1. Infiltration systems designed in accordance with this section shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to groundwater and shall maintain compliance with the preventive action limit at a point of standards application in accordance with ch. NR 140. However, if site specific information indicates that compliance with a preventive action limit is not achievable, the infiltration BMP may not be installed or shall be modified to prevent infiltration to the maximum extent practicable.

2. Notwithstanding par. 1., the discharge from BMPs shall remain below the enforcement standard at the point of standards application.

g. Pretreatment. Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for runoff from new road construction in commercial, industrial and institutional areas that will enter an infiltration system. The pretreatment shall be designed to protect the infiltration system from clogging prior to scheduled maintenance and to protect groundwater quality in accordance with subd. (f). Pretreatment options may include, but are not limited to, oil and grease separation, sedimentation, bio filtration, filtration, swales or filter strips.

h. Maximum Extent Practicable. Where the conditions of subd. (c) and (d) limit or restrict the use of infiltration practices, the performance standard of 98-407(d)(3) ~~S. 07 (4)(c)~~ shall be met to the maximum extent practicable.

~~e. Exclusions. The runoff from the following areas are prohibited from meeting the requirements of section 98-407:~~

~~1. Areas associated with tier 1 industrial facilities identified in Wisconsin Administrative Code § 216.21(2)(a), including storage, loading, rooftop and parking.~~

~~2. Storage and loading areas of tier 2 industrial facilities identified in Wisconsin Administrative Code § NR 216.21(2)(b).~~

~~3. Fueling and vehicle maintenance areas.~~

~~4. Areas within 1,000 feet upgradient or within 100 feet downgradient of karst features.~~

~~5. Areas with less than three feet separation distance from the bottom of the infiltration system to the elevation of seasonal high groundwater or the top of bedrock, except this subsection e.5. does not prohibit infiltration of roof runoff.~~

~~6. Areas with runoff from industrial, commercial and institutional parking lots and roads and residential arterial roads with less than five feet separation distance from the bottom of the infiltration system to the elevation of seasonal high groundwater or the top of bedrock.~~

~~7. Areas within 400 feet of a community water system well as specified in Wisconsin Administrative Code § NR 811.16(4), or within 100 feet of a private well as specified in Wisconsin Administrative Code § NR 812.08(4), for runoff infiltrated from commercial, industrial and institutional land uses or regional devices for residential development.~~

~~8. Areas where contaminants of concern, as defined in Wisconsin Administrative Code § NR 720.03(2) are present in the soil through which infiltration will occur.~~

~~9. Any area where the soil does not exhibit one of the following soil characteristics between the bottom of the infiltration system and the seasonal high groundwater and top of bedrock: at least a three-foot soil layer with 20 percent fines or greater; or at least a five-foot soil layer with ten percent fines or greater. This does not apply where the soil medium within the infiltration system provides an equivalent level of protection. This subsection e.9. does not prohibit infiltration of roof runoff.~~

~~f. Exemptions. The following are not required to meet the requirements of section 98-407:~~

~~1. Areas where the infiltration rate of the soil is less than 0.6 inches/hour measured at the site.~~

~~2. Parking areas and access roads less than 5,000 square feet for commercial and industrial development.~~

~~3. Redevelopment postconstruction sites.~~

~~4. In-fill development areas less than five acres.~~

~~5. Infiltration areas during periods when the soil on the site is frozen.~~

~~6. Roads in commercial, industrial and institutional land uses, and arterial residential roads. provisions.~~

~~1. Infiltration systems designed in accordance with this paragraph shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to groundwater and shall maintain compliance with the preventive action limit at a point of standards application in accordance with Wisconsin Administrative Code ch. NR 140. However, if site specific information indicates that compliance with a preventive action limit is not achievable, the infiltration BMP may not be installed or shall be modified to prevent infiltration to the maximum extent practicable.~~

~~2. Notwithstanding subsection (c)(3)g.1, the discharge from BMPs shall remain below the enforcement standard at the point of standards application.~~

(4) Protective areas.

a. Definition. In this section,"p~~P~~rotective area" means an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. However, in this paragraph, "protective area" does not ~~excludes any~~include any area of land adjacent to any stream enclosed within a pipe or culvert, ~~such that~~so that runoff cannot enter the enclosure at this location.

1. For outstanding resource waters and exceptional resource waters, ~~and for wetlands in areas of special natural resource interest as specified in § NR 103.04,~~ 75 feet.

2. For perennial and intermittent streams identified on a U.S. ~~United States~~ geological survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50 feet.

3. For lakes, 50 feet.

4. For wetlands not subject to par. 5. or 6., 50 feet.

5.~~4.~~ For highly susceptible wetlands, 75~~50~~ feet. Highly susceptible wetlands include the following types: calcareous fens, sedge meadows, open and coniferous bogs, low prairies, coniferous swamps, lowland hardwood swamps, and ephemeral ponds~~ shrub swamps, other forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded basins~~. Wetland boundary delineations shall be made in accordance with § NR 103.08(1m). This subparagraph does not apply to wetlands that have been completely filled in accordance with all applicable state and federal regulations. The protective area for wetlands that have been partially filled in accordance with all applicable state and federal regulations shall be measured from the wetland boundary delineation after fill has been placed.

6~~5~~. For less susceptible wetlands, ~~ –~~10~~ten~~ percent of the average wetland width, but no less than 10~~ten~~ feet nor more than 30 feet. Less susceptible wetlands include: degraded wetland~~s~~ dominated by invasive species such as reed canary grass; cultivated hydric soils; and any gravel pits. Or dredged material or fill material disposal sites that take on the attributes of a wetland.

7~~6~~. In subsections (c)(4)a.1., 5~~ 4~~. and 6~~5~~., determinations of the extent of the protective area adjacent to wetlands shall be made on the basis of the sensitivity and runoff susceptibility of the wetland in accordance with the standards and criteria in ~~s.~~§ NR 103.03.

8. Wetland boundary delineation shall be made in accordance with §~~s.~~ NR 103.08 (1m). This paragraph does not apply to wetlands that have been completely filled in compliance with all applicable state and federal regulations. The protective area for wetlands that have been partially in compliance with all applicable state and federal

regulations shall be measured from the wetland boundary delineation after a fill has been placed. Where there is a legally authorized wetland fill, the protective area standard need not be met in that location.

97. For concentrated flow channels with drainage areas greater than 130 acres, ten feet.

10. Notwithstanding pars. 1. to 9., the greatest protective area width shall apply where rivers, streams, lakes and wetlands are contiguous.

b. Applicability. This paragraph applies to post-construction sites located within a protective area, except those areas exempted pursuant to subsection ~~(c)(4)~~d.

c. Requirements. The following requirements shall be met:

1. Impervious surfaces shall be kept out of the protective area entirely or to the maximum extent practicable. If there is no practical alternative to locating an impervious surface in the protective area, t~~T~~he storm water management plan shall contain a written, site-specific explanation ~~for any parts of the protective area that are disturbed during construction~~.

2. Where land disturbing construction activity occurs within a protective area, ~~and where no impervious surface is present,~~ adequate sod or self-sustaining vegetative cover of 70 percent or greater shall be established and maintained where no impervious surface is present. The adequate sod or self-sustaining vegetative cover shall be sufficient to provide for bank stability, maintenance of fish habitat, and filtering of pollutants from upslope overland flow areas under sheet flow conditions. Non-vegetative materials, such as rock riprap, may be employed on the bank as necessary to prevent erosion, such as on steep slopes or where high velocity flows occur.

3. BMPs ~~est management practices~~ such as filter strips, swales, or wet detention ponds ~~basins~~ that are designed to control pollutants from non-point sources may be located in the protective area.

d. Exemptions. This subsection ~~(c)(4)~~ does not apply to any of the following:

1. Except as provided under section 94-407 (c), redevelopment post-construction sites.~~Redevelopment post-construction sites.~~

2. In-fill development areas less than five acres.

3. Structures that cross or access surface waters such as boat landings, bridges and culverts.

4. Structures constructed in accordance with Wis. Stats. § 59.692(1v).

5. Areas of p~~P~~ost-construction sites from which runoff does not enter the surface water, including wetlands, without first being treated by a BMP to meet the local ordinance requirements for total suspended solids and peak flow reduction, except to the extent that vegetative ground cover is necessary to maintain bank stability.

(5) Fueling and ~~vehicle~~ maintenance areas. Fueling and vehicle maintenance areas shall~~, to the maximum extent practicable,~~ have BMPs designed, installed and maintained to reduce petroleum within runoff, s~~o~~uch that the runoff that enters waters of the state contains no visible petroleum sheen, or to the maximum extent practicable.

(6) Swale treatment for transportation facilities.

a. Requirement~~Applicability~~. Except as provided in subsection 2., transportation facilities that use swales for runoff conveyance and pollutant removal are exempt from the requirements of local ordinance requirements for peak flow control, total suspended solids control, and infiltration~~meet all of the requirements of this section~~, if the swales are designed to the maximum extent practicable to do all of the following or to the maximum extent practicable:

1. Swales shall bBe vegetated. However, where appropriate, non-vegetative measures may be employed to prevent erosion or provide for runoff treatment, such as rock riprap stabilization or check dams.

2. Swales shall comply with sections V.F. (Velocity and Depth) and V.G. (Sale Geometry Criteria) with a swale treatment length as long as that specified in section V.C. (Pre-Treatment) of the Wisconsin Department of Natural Resources technical standard 1005 "Vegetated Infiltration Swales," dated May 2007, or a superseding document. Transportation facility swale treatment does not have to comply with other sections of technical standard 1005. ~~Carry runoff through a swale for 200 feet or more in length that is designed with a flow velocity no greater than 1.5 feet per second for the peak flow generated using either a two-year, 24-hour design storm or a two-year storm with a duration equal to the time of concentration as appropriate. If a swale of 200 feet in length cannot be designed with a flow velocity of 1.5 feet per second or less, then the flow velocity shall be reduced to the maximum extent practicable.~~

b. Other Requirements~~Exemptions~~.

1. Notwithstanding subsection. a..,the commissioner of public works may, consistent with water quality standards, require that other requirements, in addition to swale treatment,be met on a transportation facility with an average daily traffic rate greater than 2,500 and where the initial surface water of the state that the runoff directly enters is any of the following:

i. An outstanding resource water.

ii. An exceptional resource water.

iii. Waters listed in § 303(d) of the Ffederal ~~clean~~ Clean Wwater Aact that are identified as impaired in whole or in part, due to non-point source impacts.

iv. Waters where targeted performance standards are developed pursuant to ~~under~~ Wisconsin Administrative Code § NR 151.004~~, to meet water quality standards~~.

~~2.~~ The transportation facility authority shall contact the commissioner of public works to determine if additional BMPs beyond a water quality swale are needed under this subsection.

2.

(e) General Considerations for Storm Water Management Measures. The following considerations shall be observed in on-site and off-site runoff management:

~~3. (d)General considerations for on-site and off-site storm water management measures. The following considerations shall be observed in on-site and off-site managing runoff management:~~

(1) Natural topography and land cover features such as natural swales, natural depressions, native soil infiltrating capacity, and natural groundwater recharge areas shall be preserved and used, to the extent possible, to meet the requirements of this section.

(2) Emergency overland flow for all storm water facilities shall be provided to prevent exceeding the safe capacity of downstream drainage facilities and prevent endangerment of downstream property or public safety.

(~~fe~~) BMP Location.~~Location and regional treatment option~~.

(1) To comply with the performance standards required under 98-407 ~~S. 07~~ of this article~~ordinance~~,~~The~~ BMPs may be located on-site or off-site as part of a regional storm water device, practice or system, but shall be installed in accordance with Wisconsin Administrative Code § NR 151. 003. ~~(2) Post-construction runoff within a nonnavigable surface water that~~

flows into a BMP, such as a wet detention pond, is not required to meet the performance standards of this article. Postconstruction BMPs may be located in nonnavigable surface waters.

(3) Except as allowed under subsection (c)(4), postconstruction runoff from new development shall meet the postconstruction performance standards prior to entering a navigable surface water.

(4) Postconstruction runoff from any development within a navigable surface water that flows into a BMP is not required to meet the performance standards of this article if:

a. The BMP was constructed prior to the effective date of this article and the BMP either received a permit issued under Wis. Stats. ch. 30, or the BMP did not require a Wis. Stats. ch. 30 permit; and

b. The BMP is designed to provide runoff treatment from future upland development.

(5) Runoff from existing development, redevelopment and in-fill areas shall meet the postconstruction performance standards in accordance with this paragraph.

a. To the maximum extent practicable, BMPs shall be located to treat runoff prior to discharge to navigable surface waters.

b. Postconstruction BMPs for such runoff may be located in a navigable surface water if allowable under all other applicable federal, state and local regulations such as Wisconsin Administrative Code ch. NR 103, and Wis. Stats. ch. 30.

(6) The discharge of runoff from a BMP, such as a wet detention pond, or after a series of such BMPs is subject to this article.

(2) The commissioner of public works may approve off-site management measures provided that all of the following conditions are met:

a. The commissioner determines that the post-construction runoff is covered by a storm water management system plan that is approved by the city and that contains management requirements consistent with the purpose and intent of this ordinancearticle.

b. The off-site facility meets all of the following conditions:

1. The facility is in place.

2. The facility is designed and adequately sized to provide a level of stormwater control equal to or greater than that which would be afforded by on-site practices meeting the performance standards of this ordinance article.

3. The facility has a legally obligated entity responsible for its long-term operation and maintenance.

(3) Where a regional treatment option exists such that the commissioner exempts the applicant from all or part of the minimum on-site storm water management requirements, the applicant shall be required to pay a one-time fee in an amount determined in negotiation with the commissioner. In determining the fee for post-construction runoff, the commissioner shall consider an equitable distribution of the cost for land, engineering design, construction, and maintenance of the regional treatment optioncalculated by multiplying the total cost of the regional treatment facility by the percentage of the total flow to the regional treatment facility contributed by the applicant's property.

(g) Additional /Alternate Requirements. The commissioner may establish storm water management requirements more stringent than those set forth in this ordinancearticle section if the commissioner determines that the requirements are needed to control storm water quantity or control flooding, comply with federally approved total maximum daily load requirements, or control pollutants associated with existing development or redevelopmentan added level of protection is needed to protect sensitive resources.

Sec. 98-408. - Permitting requirements, procedures and fees.

(a) Permit required. No responsible party may undertake ~~or commence~~ a land disturbing construction activity without first receiving a post-construction runoff permit from the commissioner ~~of public works~~ prior to commencing the proposed activity.

(b) Permit A~~a~~pplication and F~~f~~ees. Unless specifically excluded by ~~this~~ this ~~ordinance~~article~~article~~, any responsible party desiring a permit shall submit ~~a permit application~~ to the commissioner a permit application on a form provided by the commissioner for that purpose.

(1) Unless otherwise excepted by this ~~ordinance~~article~~article~~, a permit application must be accompanied by a storm water management plan, a maintenance agreement and a nonrefundable permit administration fee ~~of $250.00~~.

(2) The storm water management plan shall be prepared to meet the requirements of sections 98-407 and 98-409, the maintenance agreement shall be prepared to meet the requirements of section 98-410, the financial guarantee shall meet the requirements of section 98-411, and fees shall be those established by the city as set forth in section 98-412.

(c) Permit Application Review and A~~a~~pproval ~~of permit application~~. The commissioner shall review any permit application that is submitted with a storm water management plan, maintenance agreement, and the required fee. The following approval procedure shall be used:

(1) Within 30 business days of the receipt of a complete permit application, including all items as required by subsection (b), the commissioner shall inform the applicant whether the application, storm water management plan and maintenance agreement are approved or disapproved based on the requirements of this article~~ordinance~~.

(2) If the storm water permit application, storm water management plan and maintenance agreement are approved, or if an agreed upon payment of fees in lieu of stormwater management practices is made, the commissioner shall issue the permit.

(3) If the storm water permit application, storm water management plan or maintenance agreement is disapproved, the commissioner shall detail in writing the reasons for disapproval.

(4) The commissioner may request additional information from the applicant. If additional information is submitted, the commissioner shall have 30 business days from the date the additional information is received to inform the applicant that the storm water management plan and maintenance agreement are either approved or disapproved.

(5) Failure by the commissioner to inform the permit applicant of a decision within 40 business days of a required submittal shall be deemed to mean approval of the submittal and the applicant may proceed as if a permit had been issued.

(d) Permit R~~r~~equirements. All permits issued under this ~~ordinance~~article ~~article~~ shall be subject to the following conditions, and holders of permits issued under this ordinance shall be deemed to have accepted these conditions. The commissioner may suspend or revoke a permit for violation of a permit condition, following written notification of the responsible party. An action by the commissioner to suspend or revoke this permit may be appealed in accordance with section 98-414.

(1) Compliance with this permit does not relieve the responsible party of the responsibility to comply with other applicable federal, state, and local laws and regulations.

(2) The responsible party shall design and install all structural and nonstructural storm water management measures in accordance with the approved storm water management plan and this permit.

(3) The responsible party shall notify the commissioner at least three business days before commencing any work in conjunction with the stormwater management plan, and within five business days upon completion of the stormwater management practices. If required as a special condition under subsection (5), the responsible party shall make additional notification according to a schedule set forth by the commissioner so that practice installations can be inspected during construction.

(4) Practice iInstallations required as part of this ordinancearticle article shall be certified "as built" or "record" drawings by a licensed professional engineer. Completed storm water best management practices must pass a final inspection by the commissioner or its designee to determine if they are in accordance with the approved storm water management plan and ordinancethis articlethis article. The commissioner or its designee shall notify the responsible party in writing of any changes required in such practices to bring them into compliance with the conditions of thise permit.

(5) The responsible party shall notify the commissioner of any significant modifications it intends to make to an approved storm water management plan. The commissioner may require that the proposed modifications be submitted to it for approval prior to incorporation into the storm water management plan and execution by the responsible party.

(6) The responsible party shall maintain all storm water management practices in accordance with the storm water management plan until the practices either become the responsibility of the city or are transferred to subsequent private owners, as specified in the approved maintenance agreement.

(7) The responsible party authorizes the commissioner to perform any work or operations necessary to bring storm water management measures into conformance with the approved storm water management plan, and consents to a special assessment or charge against the property as authorized under Wis. Stats., ch. 66, subch. VII, or to charging such costs against the financial guarantee posted under section 98-411.

(8) If so directed by the commissioner the responsible party shall, at its own expense, repair all damage to adjoining municipal facilities and drainage ways caused by runoff, where such damage is caused by activities that are not in compliance with the approved storm water management plan.

(9) The responsible party shall permit the commissioner to access the property for the purpose of inspecting the property for compliance with the approved storm water management plan and this permit.

(10) Where site development or redevelopment involves changes in direction, increases in peak rate and/or total volume of runoff from a site, the commissioner may require the responsible party to make appropriate legal arrangements with affected property owners concerning the prevention of endangerment to property or public safety.

(11) The responsible party is subject to the enforcement actions and penalties detailed in section 98-413, if the responsible party fails to comply with the terms of this permit.

(e) Permit conditions. Permits issued under this subsection may include conditions established by the commissioner in addition to the requirements necessary needed to meet the requirements needed to meet the performance standards in section 98-407 or a financial guarantee as provided for in section 98-411.

(f) Permit duration. Permits issued under this section shall be valid from the date of issuance through the date the commissioner notifies the responsible party that all storm water best management practices have passed the final inspection required under subsection (d)(4).

Sec. 98-409. ~~-~~Storm Ww~~w~~ater Mm~~m~~anagement Pp~~p~~lan.

(a) Storm water management p~~P~~lan requirements. The storm water management plan required under subsection 98-407(b) shall contain at a minimum the following information:

(1) Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of storm water management practices; and person(s) responsible for maintenance of storm water management practices prior to the transfer, if any, of maintenance responsibility to another party.

(2) A proper ~~location map and~~ legal description of the property proposed to be developed, referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.

(3) Pre-development site conditions, including:

a. One or more site maps at a scale of not less than one1 ~~one~~ inch equals 50 feet. The site maps shall show the following: site location and legal description of the property; predominant soil types and hydrologic soil groups; existing cover type and condition; topographic contours of the site at a scale not to exceed two feet; topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; watercourses that may affect or be affected by runoff from the site; flow path and direction for all storm water conveyance sections; watershed boundaries used in hydrology determinations to show compliance with performance standards; lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site; limits of the 100-year floodplain; location of wells and wellhead protection areas covering the project area and delineated pursuant to Wisconsin Administrative Code § NR 811.16.

b. Hydrology and pollutant loading computations as needed to show compliance with performance standards. All major assumptions used in developing input parameters shall be clearly stated. The geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).

(4) Post-development site conditions, including:

a. Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.

b. Explanation of any restrictions on storm water management measures in the development area imposed by wellhead protection plans and ordinances.

c. One or more site maps at a scale of not less than one inch equals 50 feet showing the following: post-construction pervious areas including vegetative cover type and condition; impervious surfaces including all buildings, structures, and pavement; post-construction topographic contours of the site at a scale not to exceed two feet; post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; locations and dimensions of drainage easements; locations of maintenance easements specified in the maintenance agreement; flow path and direction for all storm water conveyance sections; location and type of all storm water management conveyance and treatment practices, including the on-site and off-site tributary drainage area; location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainage way; watershed boundaries used in hydrology and pollutant loading calculations and any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.

d. Hydrology and pollutant loading computations as needed to show compliance with performance standards. The computations shall be made for each discharge point in the development, and the geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).

e. Results of investigations of soils and groundwater required for the placement and design of storm_water management measures. Detailed drawings including cross-sections and profiles of all permanent storm_water conveyance and treatment practices.

(5) A description and installation schedule for the storm_water management practices needed to meet the performance standards in section 98-407.

(6) A maintenance plan developed for the life of each storm_water management practice including the required maintenance activities and maintenance activity schedule.

(7) Cost estimates for the construction, operation, and maintenance of each storm_water management practice.

(8) Other information requested in writing by the commissioner to determine compliance of the proposed storm_water management measures with the provisions of this- ~~ordinance~~article~~article~~.

(9) All site investigations, plans, designs, computations, and drawings shall be certified by a registered professional engineer licensed in the State of Wisconsin to be prepared in accordance with accepted engineering practice and requirements of this- article~~ordinance~~~~article~~.

(b) Alternate requirements. The commissioner may prescribe alternative submittal requirements for applicants seeking an exemption to on-site storm_water management performance standards under section 98-407(e).

Sec. 98-410. - Maintenance agreement.

(a) Maintenance agreement required. The maintenance agreement required under section 98-408(b) for storm_water ~~best~~ management practices shall be an agreement between the city and the responsible party to provide for maintenance of storm_water practices beyond the duration period of this permit. The maintenance agreement shall be filed ~~recorded~~ with the C~~c~~ounty R~~r~~egister of D~~d~~eeds as a property deed restriction so that it is binding upon all subsequent owners of the land served by the storm_water management practices.

(b) Agreement provisions. The maintenance agreement shall contain the following information and provisions and be consistent with the maintenance plan required by section 98-409(a)(6):

(1) Identification of the storm_water facilities and designation of the drainage area served by the facilities.

(2) A schedule for regular maintenance of each aspect of the storm_water management system consistent with the storm_water management plan required under section 98-408(b).

(3) Identification of the ~~party~~ responsible party(s), organization or city, county, town or village responsible for long term maintenance of the storm_water management practices identified in the storm_water management plan required under section 98-408(b).

(4) Requirement that the responsible party(s), organization, or city, county, town or village shall maintain storm_water management practices in accordance with the schedule included in subsection (b)(2).

(5) Authorization for the commissioner to access the property to conduct inspections of storm_water management practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.

(6) A requirement on ~~that~~ the commissioner to maintain public records of the results of the site inspections, to inform the party responsible for maintenance of the inspection results, and to specifically indicate any corrective actions required to bring the storm water management practice into proper working condition.~~any corrective actions required to bring the stormwater management practice into proper working condition.~~

(7) Agreement that the party designated under subsection (b)(3), as responsible for long term maintenance of the storm water management practices, shall be notified by the commissioner of maintenance problems which require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the commissioner.

(8) Authorization of the commissioner to perform the correct~~ive~~ actions identified in the inspection report if the responsible party designated under ssubection (b)(2) does not make the required corrections in the specified time period. The commissioner shall enter the amount due on the tax rolls and collect the money as a special charge against the property pursuant to Wis. Stats., ch. 66, subch. VII.

Sec. 98-411. - Financial guarantee.

(a) Establishment of the guarantee. The commissioner may require the submittal of a financial guarantee, ~~in~~ the form and type of which shall be acceptable to the commissioner ~~of a surety bond, cash bond or irrevocable letter of credit~~. The financial guarantee shall be in an amount determined by the commissioner to be the estimated cost of construction and the estimated cost of maintenance of the storm water management ~~practices during the period which the designated party in the maintenance agreement has maintenance responsibility~~~~system~~. The financial guarantee shall give the commissioner the authorization to use the funds to complete the storm water management system if the responsible party defaults or does not properly implement the approved storm water management plan, upon written notice to the responsible party by the ~~administering authority~~commissioner that the requirements of this article have not been met.

(b) Conditions for release. Conditions for the release of the financial guarantee are as follows:

(1) The commissioner shall release the portion of the financial guarantee established under this section, less any costs incurred by the commissioner to complete installation of ~~the system~~practices, upon submission of "as built plans" or "record" drawings by a registered professional engineer licensed in the State of Wisconsin. The commissioner may make provisions for a partial pro-rata release of the financial guarantee based on the completion of various development stages.

(2) The commissioner shall release the portion of the financial guarantee established under this section to assure maintenance of storm water practices, less any costs incurred by the commissioner, at such time that the responsibility for practice maintenance is passed on to another entity via an approved maintenance agreement.

~~(cThe commissioner shall release the portion of the financial guarantee established under this section to assure maintenance of storm water practices, less any costs incurred by the commission, at such time that the responsibility practice maintenance is passed on to another entity via an approved maintenanceagreement.~~

Sec. 98-412. - Fee schedule.

The fees referred to in other sections of this article shall be established by the common council and may from time to time be modified by resolution. A schedule of the fees established by the commissioner shall be available for review in City Hall, Room 303, 730 Washington Ave., Racine, Wisconsin.

Sec. 98-413. - Enforcement.

(a) Any land disturbing construction activity or post-construction runoff initiated after the effective date of this article by any person, firm, association, or corporation subject to the ~~ordinance~~article provisions ~~this article~~ shall be deemed a violation unless conducted in accordance with the requirements of this ~~ordinance~~article~~article~~.

(b) The commissioner shall by notify the responsible party by certified mail ~~registered mail, return receipt requested, or personal service or, if the responsible party cannot be served after reasonable efforts have been made to locate and serve the responsible party, by a class 1 publication of notice, notify the responsible party~~ of any non-complying land disturbing construction activity or post-construction runoff. The notice shall describe the nature of the violation, remedial actions needed, a schedule for remedial action, and additional enforcement action which may be taken.

(c) Upon receipt of written notification from the commissioner under ~~or publication of notice under~~ subsection (b), the responsible party shall correct work that does not comply with the storm water management plan or other provisions of this permit. The responsible party shall make corrections as necessary to meet the specifications and schedule set forth by the commissioner in the notice.

(d) If the violations to a permit issued pursuant to this article are likely to result in damage to properties, public facilities, or waters of the state, the commissioner may enter the land and take emergency actions necessary to prevent such damage. The costs incurred by the commissioner plus interest and legal costs shall be billed to the responsible party.

(e) The commissioner is authorized to post a stop work order on all land disturbing construction activity that is in violation of this article, ~~issuance a citation,~~ or to request the city attorney to obtain a cease and desist order in any court with jurisdiction.

(f) The commissioner may revoke a permit issued under this ~~for non-compliance with~~ article for non-compliance with article provisions ~~of this article~~.

(g) Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by the commissioner or by a court with jurisdiction.

(h) The commissioner is authorized to refer any violation of this article, or of a stop work order or cease and desist order issued pursuant to this ~~ordinance~~article, to the city attorney for the commencement of further legal proceedings in any court with jurisdiction.

(i) ~~Upon conviction, A~~any person, firm, association, or corporation who does not comply with the provisions of this ~~ordinance~~article ~~article~~ shall forfeit an amount of not less than $500.00 dollars nor more than $1,000.00 dollars per offense, together with the costs of prosecution. Each day that the violation exists shall constitute a separate offense.

(j) Compliance with the provisions of this ~~ordinance~~article ~~article~~ may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunctional~~ve~~ proceedings.

(k) When the commissioner determines that the holder of a permit issued pursuant to this article has failed to follow practices set forth in the storm water management plan, or has failed to comply with schedules set forth in said storm water management plan, the commissioner or a party designated by the commissioner may enter upon the land and perform the work or other operations necessary to bring the condition of said lands into conformance with requirements of the approved storm water management plan. The commissioner shall keep a detailed accounting of the costs and expenses of

performing this work. These costs and expenses shall be deducted from any financial security posted pursuant to section 98-411 of this article. Where such a security has not been established, or where such a security is insufficient to cover these costs, the costs and expenses shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the work is completed.

Sec. 98-414. - Appeals.

(a) Board of Appeals.~~[Hearing.]~~ The board of appeals, created pursuant to section ~~[number]~~18-734 of the city ordinances pursuant to ~~s. [59.694, 60.65, 61.354 (4) (b), or~~Wis. Stats. § 62.23 (7)(e)~~], Wis. Stats.~~, ~~The board of appeals~~ shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the commissioner in administering this ~~ordinance~~article~~article~~. The board shall also use the rules, procedures, duties, and powers authorized by statute in hearing and deciding appeals. Upon appeal, the board may authorize variances from the provisions of this ~~ordinance~~article~~article~~ that are not contrary to the public interest, and where owing to special conditions a literal enforcement of the article will result in unnecessary hardship.

(b) Who may appeal. Appeals to the board of appeals may be taken by any aggrieved person or by an officer, department, ~~or~~ board, or bureau of the city affected by any decision of the commissioner.

Sec. 98-415~~. 15~~ – Severability.

If any section, clause, provision or portion of this ordinance is judged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the ordinance shall remain in force and not be affected by such judgment.