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Office of the City Clerk

**72-20**

**AN ORDINANCE AMENDING ARTICLE VI. OF CHAPTER 20 OF THE MUNICIPAL CODE OF THE CITY OF APPLETON, RELATING TO STORMWATER MANAGEMENT STANDARDS AND PLANNING.**

(Utilities Committee – 4/1/2020)

The Common Council of the City of Appleton does ordain as follows:

**Section 1:** That Article VI of Chapter 20 of the Municipal Code of the City of Appleton, relating to stormwater management standards and planning, is hereby amended to read as follows:

**ARTICLE VI. STORMWATER MANAGEMENT STANDARDS AND PLANNING**

**DIVISION 1. IN GENERAL**

**Sec. 20-300. Authority.**

(a) This ordinance is adopted by the Common Council of the City of Appleton under the authority granted by §62.234, Wis. Stat. This ordinance supersedes all provisions of a stormwater management ordinance previously enacted under §62.23, Wis. Stat., that relates to stormwater management regulations. Except as specifically provided for in §62.234, Wis. Stat., §62.23, Wis. Stat. applies to this ordinance and to any amendments to this ordinance.

(b) The provisions of this ordinance are deemed not to limit any other lawful regulatory powers of the same governing body.

(c) The Common Council of the City of Appleton hereby designates the Director of Public Works or designee to administer and enforce the provisions of this ordinance.

(d) The requirements of this ordinance do not pre-empt more stringent stormwater management requirements that may be imposed by any of the following:

- (1) WDNR administrative rules, permits or approvals including those authorized under §281.16 and §283.33, Wis. Stat.
- (2) Targeted non-agricultural performance standards promulgated in rules by the WDNR under s. NR 151, Wisconsin Administrative Code.

**Sec. 20-301. Findings of fact.**

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

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

(b) 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.

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

(d) Reduce the quality of groundwater by increasing pollutant loads.

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

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

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

**Sec. 20-302. Purpose and intent.**

(a) ***Purpose.*** The purpose of this ordinance 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; manage building sites, placement of structures and land uses; preserve ground cover and scenic beauty; and promote sound economic growth.

- (3) Control exceedances 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; and prevent conditions that endanger downstream property.
- (4) Minimize the amount of pollutants discharged from the separate storm sewer to protect waters of the state.

(b) **Intent.** It is the general intent of the City of Appleton that this ordinance achieve its purpose through:

- (1) Regulating long-term, post-construction stormwater runoff from land development and redevelopment activities.
- (2) Controlling the quantity, peak flow rates, and quality of stormwater runoff from land development and redevelopment activities.
- (3) Providing services to maintain and enhance the quality of life within the community.

(c) **Implementation.** To this end the City of Appleton will manage post-construction stormwater runoff to protect, maintain and enhance the natural environment; diversity of fish and wildlife; human life; property; and recreational use of waterways within the city of Appleton and its extraterritorial area.

This ordinance may be applied on a site-by-site basis. The City of Appleton recognizes, however, that the preferred method of achieving the stormwater performance standards set forth in this ordinance is through the preparation and implementation of comprehensive, systems-level stormwater management plans that cover hydrologic units, such as watersheds, on a municipal and regional scale. Such plans may prescribe regional stormwater devices, 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 of Wisconsin. Where such plans are in conformance with the performance standards developed under §281.16, Wis. Stat., for regional stormwater management measures, and have been approved by the City of Appleton, it is the intent of this ordinance that the approved plan be used to identify post-construction management measures acceptable for the community.

### **Sec. 20-303. Title.**

This ordinance shall be known as the Stormwater Management Standards and Planning Ordinance for the City of Appleton.

## **Sec. 20-304. Definitions.**

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

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

***Administering authority*** means a governmental employee that is designated by the City of Appleton to administer this ordinance.

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

***Agricultural use*** means bee keeping; commercial feed-lots; dairying; egg production; floriculture; fish or fur farming; forest and game management; grazing; livestock raising; orchards; plant greenhouses and nurseries; poultry raising; raising of grain, grass, mint, and seed crops; raising of fruits, nuts, and berries; sod farming; placing land in federal programs in return for payments in kind; owning land, at least thirty-five (35) acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; participation in the mile production termination program under 7 USC 1446 (d); and vegetable raising (§91.01(1), Wis. Stat.).

***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 or other methodology approved by the City. An average annual rainfall for Green Bay, 1969 (March 29-November 25) is applicable for the City of Appleton.

***Business day*** means a day that offices of the City of Appleton are 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 not in conformance with an existing permit.

***City*** means the City of Appleton.

***Common plan of development or sale*** means a 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 common plan of development or sale includes, but is not limited to, subdivision plans, certified survey maps, and other developments.

***Concentrated flow channel*** means a channel produced by erosion from runoff, or by construction, that would not be removed by tillage operations typically needed to prepare a field for crop production.

***Connected imperviousness*** means an impervious surface connected to the water of the state via a separate storm sewer, an impervious flow path, or a minimally pervious flow path.

***Construction site*** means an area upon which one or more land disturbing construction activities occur, 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.

***Design storm*** means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency and total depth of rainfall. Rainfall amounts for 24-hour design rainfall events in Appleton are: 100-year, 5.50 inches; 10-year, 3.51 inches; 5-year, 3.01 inches; 2-year, 2.45 inches, and 1-year, 2.14 inches. The distribution shall be NOAA Atlas 14 MSE4.

***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, sand or gravel surficial deposits, 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 or more parcels or building sites of additional parcels or building sites where such creation occurs at one time or through the successive partition within a 5-year period.

***Effective infiltration area*** means the area of the infiltration system devoted specifically to active infiltration, excluding areas required for site access, berms, pretreatment, or other area required for the installation, operation, or maintenance of the infiltration device.

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

***Exceptional resource waters*** means waters listed in s. NR 102.11, Wisconsin Administrative Code.

***Existing land use condition*** means the condition of the development site and the adjacent properties that are present at the time of the stormwater permit application.

***Extraterritorial*** means the unincorporated area as defined in Ch. 236, Wis. Stat.

***Fee in lieu*** means a payment of money to the City of Appleton in place of meeting all or part of the stormwater performance standards required by this ordinance.

***Filtering layer*** means soil that has at least a 3-foot deep layer with at least twenty percent (20%) fines; or at least a five- (5-) foot deep layer with at least ten percent (10%) 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 seventy percent (70%) of the cover for the unpaved areas and areas not covered by permanent structures or that employ equivalent permanent stabilization measures.

***Financial guarantee*** means a performance bond, maintenance bond, surety bond, irrevocable letter of credit, or similar guarantees submitted to the City of Appleton by the responsible party to assure that requirements of the ordinance are carried out in compliance with the stormwater management plan.

***Governing body*** means the Common Council of the City of Appleton.

***Impervious surface*** means an area that releases as runoff all or a large portion of the precipitation that falls on it, except for frozen soil. Rooftops, sidewalks, driveways, parking lots, and streets are examples of surfaces that typically are impervious. Gravel surfaces are considered impervious unless specifically designed for infiltration.

***In-fill*** means an undeveloped area of land located within an existing urban sewer 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 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.

***Land disturbing construction activity*** means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover, that may result in stormwater runoff and lead to increased 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, parking lot reconstruction, but does not include parking lot resurfacing.

**Land user** means any person operating, leasing, renting, or having made other arrangements with the landowner by which the landowner authorizes use of his or her land.

**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 stormwater SMPs on the property.

**Major Stormwater Management Plan** means a Stormwater Management Plan for a subdivision or a plan that proposes the use of one or more devices to meet standards or a non-one or two family site that is not considered a Minor Stormwater Management Plan.

**Maintenance agreement** means a legal document that is filed with the County Register of Deeds as a property deed restriction, and that provides for long-term maintenance of stormwater management practices.

**Maximum extent practicable (MEP)** has the meaning given it in s. NR 151.002(25), Wis. Adm. Code.

**Minor Stormwater Management Plan** means a Stormwater Management Plan for a site that has a regional stormwater facility in place that meets applicable standards, has a 100-year event conveyance system to the regional facility in place, and is free from unusual conditions, including but not limited to, contamination, critical site designation, change in land use, high impervious ratio, or floodplain.

**Natural wetlands** means an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and that has soils indicative of wet conditions. These wetlands include existing, mitigated, and restored wetlands.

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

**Non-structural measure** means a practice, technique, or measure to reduce the volume, peak flow rate, or pollutants, in stormwater that does not require the design or installation of fixed stormwater management facilities.

**NRCS** means the Natural Resources Conservation Service of the U.S. Department of Agriculture (USDA) formerly known as the SCS (Soil Conservation Service of the USDA).

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

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

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

***Ordinary high-water mark*** has the meaning in s. NR 115.03(6), Wisconsin Administrative Code.

***Outstanding resource waters*** means waters listed in s. NR 102.10, Wisconsin Administrative Code.

***Parking lot reconstruction*** means removing asphalt to the base course by milling or other construction methods.

***Parking lot resurfacing*** means removing a portion of an asphalt surface but leaving at least one inch (1”) thickness of asphalt surface in place.

***Peak flow or peak flow discharge rate*** means the maximum rate that a unit volume of stormwater is discharged. This is usually expressed in terms of cubic feet per second (cfs).

***Percent fines*** means the percentage of a given sample of soil, that passes through a Number 200 sieve, in accordance with the “American Society for Testing and Materials”, current standard.

***Performance security*** means cash or an irrevocable letter of credit submitted to the City of Appleton by the permit holder to assure that requirements of the ordinance are carried out in compliance with the stormwater management plan and to recover any costs incurred by the City for design, engineering, preparation, checking and review of plans and specifications, regulations and ordinances; and legal, administrative and fiscal work undertaken to assure and implement such compliance.

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

***Permit*** means a written authorization made by the City of Appleton to the applicant to conduct land disturbing construction activity or to discharge post-construction runoff to waters of the state.

***Permit application fee*** means a sum of money paid to the City of Appleton by the permit applicant for the purpose of recouping 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*** means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, sewage sludge, munitions, chemical wastes, biological materials, radioactive



substance, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water as described in §283.01(13), Wis. Stat.

**Pollution** has the meaning in §281.01(10), Wis. Stat.

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

**Post-development land use condition** means the extent and distribution of land cover types, anticipated to occur under conditions of full development or redevelopment that will influence runoff and infiltration.

**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.

**Pre-treatment** is the practice of reducing pollutants in stormwater before discharging the stormwater to another pollution control structure.

**Preventive action limit** has the meaning in s. NR 140.05(17), Wisconsin Administrative Code.

**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 it is the greatest of the widths as listed in Sec. 20-312(g) of this code, 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.

**Residential land development** means development that is created to house people, including the residential dwellings as well as all affected portions of the development including lawns, driveways, sidewalks, garages, and access streets. This type of development includes single-family, multi-family, apartment and trailer parks.

**Responsible party** means any person holding fee title to the property or other entity contracted or obligated by other agreement to implement and maintain post-construction stormwater SMPs, or other requirements of this ordinance.

**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.

**Runoff Curve Number or RCNs** means an index that represents the combination of: a hydrologic soil group, land use, land cover, impervious area, interception storage, surface storage, and antecedent moisture conditions. RCNs convert mass rainfall into mass runoff. The Natural Resources Conservation Service of the USDA defines RCNs in TR-55.

***Sediment*** means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its origination 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:

- (a) Is designed or used for collecting water or conveying runoff.
- (b) Is not part of a combined sewer system.
- (c) Is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment.
- (d) 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 is proposed in the permit application or has occurred.

***Stop work order*** means an order issued by the City of Appleton that requires all construction activity on the site be stopped.

***Stormwater conveyance system*** means any method employed to carry stormwater runoff within and from a land development or redevelopment activity to the waters of the state. Examples of methods include: swales, channels, and storm sewers.

***Stormwater management measure*** means structural or non-structural practices that are designed to reduce stormwater runoff pollutant loads, discharge volumes and/or peak flow discharge rates.

***Stormwater management plan*** means a comprehensive plan provided by the land developer, land owner or permit holder that identifies the measure to be taken to reduce the discharge of pollutants from stormwater, and control the peak flow and volume of runoff after the site has undergone final stabilization, following completion of construction activity.

***Stormwater Management Practice or SMP*** means structural or non-structural measures, practices, techniques, or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

***Stormwater 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.

**Targeted performance standard** means a performance standard that applies in a specific area that requires additional practices to meet water quality standards.

**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 twelve percent (12%) continually for at least fifty (50) feet. If the slope of the land is 12 percent (12%) or less continually for the initial fifty (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 a water quality limited segment and still ensure attainment of the applicable water quality standard.

**TP** means total phosphorus.

**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 Services (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, and also includes any other public work for transportation purposes such as harbor improvements under §85.095(1)(b), Wis. Stat. “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 §281.33, Wis. Stat.

**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 1973”.

**Waters of the state** has the meaning in §283.01(20), Wis. Stat.

**WDNR** means the Wisconsin Department of Natural Resources.

**WPDES permit** means a Wisconsin Pollutant Discharge Elimination System permit issued pursuant to Ch. 283, Wis. Stat.

**Wetland functional value** means the type, quality, and significance of the ecological and cultural benefits provided by wetland resources, such as: flood storage, water quality protection,

groundwater recharge and discharge, shoreline protection, fish and wildlife habitat, floral diversity, aesthetics, recreation and education.

**Secs. 20-305 – 20-310. Reserved.**

## **DIVISION 2. STORMWATER MANAGEMENT**

**Sec. 20-311. Applicability and jurisdiction.**

(a) ***Applicability.*** This ordinance applies to all post-construction land development, redevelopment, and in-filling sites with one (1) acre or more of land disturbing construction activities, except:

- (1) A post-construction site with less than ten percent (10%) connected imperviousness of the total area based on area of land disturbance, provided the cumulative area of all parking lots, roads, and rooftops is less than one (1) acre. However, the exemption of this paragraph does not include exemption from the protective area standards of this ordinance.
- (2) Agricultural facilities and practices.
- (3) Nonpoint discharges from silviculture activities.
- (4) 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.

Notwithstanding these applicability requirements, this ordinance applies to any post-construction site of any size that, in the opinion of the City of Appleton, is 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 other pollutants, or that endangers property or public safety.

(b) ***Jurisdiction.*** This ordinance applies to post-construction land development and redevelopment sites within the boundaries of the City of Appleton and to all lands located within three (3) miles of the corporate limits pursuant to the City's extraterritorial plat approval jurisdiction as set forth in §236.45(2), Wis. Stat., even if plat approval is not involved.

(c) ***County and town ordinances.*** This ordinance supersedes any county or town stormwater management ordinance for lands annexed to the City after the effective date of the county or town ordinance, except when the county or town ordinance is more restrictive than this ordinance; then the more restrictive provisions set forth in the county or town ordinance shall become part of this ordinance and apply to the annexed lands. In such cases, the City may grant a variance from the more restrictive requirements, provided that the criteria for a variance as set forth in the county or town ordinance is met.

(d) ***State agency.*** This ordinance is not applicable to activities conducted by a state agency, as defined under §227.01(1), Wis. Stat., and the office of the district attorney, which is subject to the state plan promulgated or a memorandum of understanding entered into under §281.33(2), Wis. Stat.

(e) ***Waivers.*** Requests to waive the stormwater management plan requirements shall be submitted to the City of Appleton for approval. Written waivers may be granted administratively by the City for stormwater requirements that are required only by the City if it is demonstrated to the satisfaction of the City that it is reasonable to expect that the objectives of this ordinance will be met by the proposed post-construction land development and redevelopment activity without a stormwater management plan or portion thereof.

(f) ***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 City'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 other competing interests such as protection of public safety and welfare, protection of endangered and threatened resources, and preservation of historic properties.

#### **Sec. 20-312. Performance standards.**

Unless otherwise provided for in this ordinance, all post-construction land development, redevelopment, and in-filling activities subject to this ordinance shall establish on-site management practices to control the peak flow rates of stormwater discharged from the site, the quality of the discharged stormwater, and the volume of the discharged stormwater as described in this ordinance. Technical standards identified, developed, or disseminated by the WDNR under subchapter V of Chapter NR 151, Wisconsin Administrative Code, shall be used. Where technical standards have not been identified or developed by the WDNR, other technical standards may be used provided that the methods have been approved by the City of Appleton. The responsible party shall implement a post-construction stormwater management plan that incorporates the requirements of this section.

Exceptions to these standards are listed in Sec. 20-312(1) of this ordinance.

(a) ***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 ordinance, whichever is more stringent.

For non-highway transportation facility redevelopment sites and highway reconstruction where the redevelopment or reconstruction will be replacing older development or highway that was subject to post-construction performance standards of this chapter 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 highway, or meet the redevelopment or highway reconstruction standards of (d) – (m) of this section, whichever are more stringent.

(b) ***Off-site drainage.*** When designing stormwater management practices for (d), (e), and (f) of this section, runoff draining to the stormwater management practices 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 SMP accordingly.

(c) ***Separation distances.*** Stormwater management practices shall be adequately separated from wells to prevent contamination of drinking water, and the following minimum separation distances shall be met:

- (1) Stormwater infiltration systems and ponds shall be located at least 400 feet from a well serving a community water system unless the Wisconsin Department of Natural Resources concurs that a lesser separation distance would provide adequate protection of a well from contamination.
- (2) Stormwater management practices shall be located with a minimum separation distance from any well serving a non-community or private water system as follows:
  - i. 25 feet to the edge of a stormwater detention pond or basin.
  - ii. 100 feet for a stormwater infiltration basin or system.
  - iii. 8 feet to a stormwater culvert or edge of a ditch that is not a river or stream.

(d) ***Peak discharge***

- (1) The proposed post-construction land use shall not increase peak flow rates of stormwater runoff from that which would have resulted from the same design storm occurring over the site with the land in its pre-development, woodland condition, as defined in Table 1 of this ordinance for storms of twenty-four (24) hour duration and recurrence intervals of one (1), two (2), five (5), ten (10), and one hundred (100) years. Appropriate curve numbers, as described in TR-55 and weighted based on the proposed land cover, shall be used in TR-55 calculations. The composite RCNs as defined in TR-55 should not be used.

Table 1  
Maximum Pre-Development Runoff Curve Numbers

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

Where the pre-development condition is a combination of the Table 1 land uses, the runoff curve number shall be weighted based on area of land cover.

- (2) All stormwater conveyance systems within the post-construction site shall be designed to completely contain the peak storm flows as described herein. Calculations for determining peak flows for conveyance system sizing shall use RCNs based on the existing or future proposed land use for off-site areas (whichever results in the highest peak flows), and the proposed land use for on-site areas.
  - a. For open channel conveyance systems the peak flow from the 100-year, 24-hour storm shall be completely contained within the channel bottom and banks.
  - b. For storm sewer conveyance systems the peak flow from the 5-year storm shall be completely contained within the storm sewers with no surcharging.
  - c. For storms greater than the five- (5-) year event, and up to the 100-year, 24-hour event, conveyance of flow to the appropriate waters of the state shall be within existing or proposed street right-of-ways or recorded drainage easements. In no case shall the depth of water exceed twelve (12) inches at the outer edge of pavement or six (6) inches at the road crown, whichever is less.
  - d. The 100-year storm runoff flow path outside of the storm sewer conveyance system must not impact structural improvements on property.
  - e. Existing flow onto the site cannot be restricted or modified to impact adjacent properties without a written agreement between property owners.
- (3) Determination of peak flow rates and volume of runoff for purposes of meeting the requirements of Sec. 20-312(d)(1) of this ordinance shall be computed by procedures based on the principals and procedures described

in TR-55. Other proposed calculation methods must have prior written approval of the City of Appleton.

- (4) The rainfall distributions for the storm events shall be NOAA Atlas 14 MSE4, unless otherwise approved by the City of Appleton. On a case-by-case basis, the City of Appleton may allow the use of TP-40 precipitation depths and the Type II distribution.
- (5) Existing wetlands shall not be incorporated in the proposed stormwater management practice for peak flow control. Peak flow shall be managed prior to discharge to an existing wetland. Should any changes to natural wetlands be proposed, the impact of the proposal on wetland functional values shall be assessed and significant changes to wetland functional values shall be avoided (as defined by s. NR 103, Wisconsin Administrative Code).
- (6) Peak stormwater discharge reductions do not apply for a site meeting any one of these requirements:
  - a. Redevelopment post-construction sites less than five (5) acres in size.
  - b. In-fill development areas less than five (5) acres in size.
  - c. Sites that directly discharge to the Fox River without flowing over or through a municipally owned separate storm sewer or stormwater conveyance system.
  - d. A transportation facility that is part of a redevelopment project.
  - e. A highway reconstruction site.

(e) ***Stormwater discharge quality.*** Unless otherwise provided for in this ordinance, all post-construction land development and redevelopment activities subject to this ordinance shall establish on-site management practices to control the quality of stormwater discharged from the post-construction site. On-site management practices shall be used to meet the following minimum standards:

- (1) ***Total suspended solids (TSS).*** SMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site as follows:
  - a. For new development and new transportation facilities, by design, reduce to the maximum extent practicable, the total suspended solids load by eighty percent (80%), based on the average annual rainfall, as compared to no runoff management controls.



- b. For redevelopment less than five (5) acres of disturbed land and highway reconstruction, by design, reduce to the maximum extent practicable, the total suspended solids load by forty percent (40%), based upon the average annual rainfall, as compared to no runoff management controls.
- c. For redevelopment five (5) acres or greater of disturbed land, reduce to the maximum extent practicable, the total suspended solids load by eighty percent (80%), based on the average annual rainfall, as compared to no runoff management controls.
- d. For in-fill development by design, reduce to the maximum extent practicable, the total suspended solids load by eighty percent (80%), based on the average annual rainfall, as compared to no runoff management controls.
- e. For non-highway transportation facility redevelopment, by design, reduce to the maximum extent practicable, the total suspended solids load by 40% based on average annual rainfall as compared to no runoff management controls.

(2) *Total phosphorus (TP)*. All new development, redevelopment, and infill sites shall calculate the total phosphorus load and the amount of phosphorus removed with the proposed on-site practices with an appropriate computer model. Both the load and the amount of removal shall be reported in the plan narrative and included in the computer model submitted for the project.

(3) Effectiveness of the stormwater management measures shall be evaluated using the latest version of the Source Loading and Management Model (WinSLAMM). Other models may be used with prior written approval of the City.

(f) ***Infiltration.*** Unless otherwise provided for in this ordinance, all post-construction land development and redevelopment sites subject to this ordinance shall design, install, and maintain on-site stormwater management practices to infiltrate runoff in accordance with the following, to the maximum extent practicable.

(1) *Low imperviousness.* For development up to 40 percent (40%) 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 (90%) 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 (1%) of the post-construction site is required as an effective infiltration area.

- (2) *Moderate imperviousness.* For development with more than forty percent (40%) and up to eighty percent (80%) 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 seventy-five percent (75%) 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 two percent (2%) of the post-construction site is required as an effective infiltration area.
- (3) *High imperviousness.* For development with more than eighty percent (80%) 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 sixty percent (60%) 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 two percent (2%) of the post-construction site is required as an effective infiltration area.
- (4) *Pre-development.* The pre-development condition shall be as specified in Table 1.
- (5) A model that calculates runoff volume, such as WinSLAMM or other methodology approved by the City shall be used. Other models may be used with prior written approval of the City.
- (6) 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 in accordance with Sec. 20-314 of this ordinance.

Pretreatment may include, but is not limited to, oil/grease separation, sedimentation, biofiltration, filtration, treatment swales or filter strips. It is desirable to infiltrate the cleanest runoff to meet the infiltration standard. To achieve this, the design may propose greater infiltration of runoff from some sources such as roofs, and lesser from dirtier sources such as parking lots.

(7) For the purpose of this section, turf grass swales are not counted towards the one percent (1%) or two percent (2%) infiltration areas described in subsections (1) and (2).

(8) *Source areas.*

a. *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 Sec. 20-312(f)(11):

i. Areas associated with a tier 1 industrial facility identified in s. NR 216.21(2)(a), Wisconsin Administrative Code, 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 s. NR216.21(2)(b), Wisconsin Administrative Code.

NOTE TO USERS: Runoff from the employee and guest parking and rooftop areas of a tier 2 facility may be infiltrated but runoff from the parking area may require pretreatment.

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

b. *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 par a.

iii. Redevelopment post-construction sites, except as provided under Sec. 20-312(a), Maintenance of effort.

iv. In-fill development areas less than five (5) acres.

- v. Roads on commercial, industrial and institutional land uses, and arterial residential roads.
- vi. Transportation facility highway reconstruction and new highways.

(9) *Location of practices.*

- a. *Groundwater limitations.* When permanent infiltration systems are used, appropriate on-site testing shall be conducted to determine if seasonal high groundwater elevation or top of bedrock is within five (5) feet of the bottom of the proposed infiltration system.
- b. *Prohibitions.* Infiltration practices may not be located in the following areas:
  - i. Areas within 1,000 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 s. NR 811.16(4), Wisconsin Administrative Code or within the separation distances listed in s. NR 812.08, Wisconsin Administrative Code 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 defined in s. NR 720.03 (2), Wisconsin Administrative Code, are present in the soil through which infiltration will occur.
- c. *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 2.

Table 2  
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. b., applicable requirements for injection wells classified under ch. NR 815, Wisconsin Administrative Code shall be followed.
  
- d. *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 at the Developer's option:
  - 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 five (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.

(10) *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.

(11) *Groundwater standards.*

- a. 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 s. NR 140, Wisconsin Administrative Code. However, if site-specific information indicates that compliance with a preventive action limit is not achievable, the infiltration SMP shall not be installed or shall be modified to prevent infiltration to the maximum extent practicable.
- b. Notwithstanding paragraph (a), the discharge from SMPs shall remain below the enforcement standard at the point of standards application.

(g) *Protective areas.* 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 widths described below, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. However, in this section, protective area does not include any area of land adjacent to any stream enclosed within a pipe or culvert, such that runoff cannot enter the enclosure at this location.

(1) Protective areas are:

- a. For outstanding resource waters and exceptional resource waters, seventy-five (75) feet.
- b. For perennial and intermittent streams identified on a United States geological survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, fifty (50) feet.
- c. For lakes, 50 feet.
- d. For wetlands not subject to par. e. or f., 50 feet.
- e. For highly susceptible wetlands, 75 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.

- f. For less susceptible wetlands, ten percent (10%) of the average wetland width, but no less than ten (10) feet nor more than thirty (30) feet. Less susceptible wetlands include: degraded wetland 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.
  - g. In pars. d. to f., 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, Wisconsin Administrative Code.
  - h. Wetland boundary delineation shall be made in accordance with s. NR 103.08(1m), Wisconsin Administrative Code. 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 filled in compliance with all applicable state and federal regulations shall be measured from the wetland boundary delineation after fill has been placed. Where there is a legally authorized wetland fill, the protective area standard need not be met in that location.
  - i. For concentrated flow channels with drainage areas greater than 130 acres, 10 feet.
  - j. Notwithstanding pars. a. to i., the greatest protective area width shall apply where rivers, streams, lakes, and wetlands are contiguous.
- (2) This section applies to post-construction sites located within a protective area, except those areas exempted pursuant to sub. 5.
- (3) The following requirements shall be met:
- a. Impervious surfaces shall be kept out of the protective area entirely or to the maximum extent practicable. The stormwater management plan shall contain a written site-specific explanation for any parts of the protective area that are disturbed during construction.
  - b. Where land disturbing construction activity occurs within a protective area, and where no impervious surface is present, adequate sod or self-sustaining native vegetative cover of seventy percent (70%) or greater shall be established and maintained. The

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.

c. Stormwater management practices such as filter strips, treatment swales, or wet detention basins, that are designed to control pollutants from nonpoint sources may be located in the protective area.

(4) A protective area established or created after the adoption date of this ordinance shall not be eliminated or reduced, except as allowed in subd. (5)b., c., or d below.

(5) Protective areas do not apply to:

a. Redevelopment post-construction sites, including non-highway transportation redevelopment sites, provided the minimum requirements within subd. (4) above are satisfied.

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

c. Structures constructed in accordance with §59.692(1v), Wis. Stat.

d. Post-construction sites, including transportation facilities, from which runoff does not enter the surface water, including wetlands, without first being treated by a SMP, except to the extent that vegetative ground cover is necessary to maintain bank stability.

e. Infill development less than five (5) acres.

(h) ***Fueling and vehicle maintenance areas.*** Fueling and vehicle maintenance areas shall, to the maximum extent practicable, have SMPs designed, installed, and maintained to reduce petroleum within runoff, such that the runoff that enters waters of the state contains no visible petroleum sheen. A combination of the following SMPs may be used: oil and grease separators, canopies, petroleum spill cleanup materials, or any other structural or non-structural method of preventing or treating petroleum in runoff.

(1) This ordinance applies to:

a. New fueling and vehicle maintenance areas approved after the effective date of this ordinance.



- b. Any modifications to existing fueling and vehicle maintenance areas regardless of the size of the disturbed area. SMPs installed as part of a site modification shall, to the maximum extent practicable, be designed and operated to treat all stormwater leaving the site so that the stormwater contains no visible petroleum sheen.
- c. Transportation and non-highway transportation sites.

- (2) A stormwater management plan per Sec. 20-313 of this ordinance, a maintenance agreement per Sec. 20-314 of this ordinance and a stormwater permit per Sec. 20-321 of this ordinance are required.

(i) ***General considerations for stormwater management measures.*** The following considerations shall be observed in on-site and off-site 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) Overland flow for all stormwater facilities shall be provided to prevent exceeding the safe capacity of downstream drainage facilities and prevent endangerment of downstream property or public safety.
- (3) Overland flow paths from adjoining properties to an offsite facility must be maintained.
- (4) Low impact development techniques and green infrastructure should be included to the extent possible. These techniques include but are not limited to: increasing the time of concentration by lengthening the flow path and increasing the roughness of the flow path, using native, deep rooted vegetation instead of turf grasses and deep tilling onsite compacted soil.

(j) ***Location and regional treatment option.***

- (1) The SMPs may be located on-site or off-site as part of a regional stormwater device, practice or system, but shall be installed in accordance with s. NR 151.003 Wisconsin Administrative Code.
- (2) Post-construction runoff within a non-navigable surface water that flows into a SMP, such as a wet detention pond, is not required to meet the performance standards of this ordinance. Post-construction SMPs may be located in non-navigable surface waters.

- (3) Post-construction runoff shall meet the post-construction performance standards prior to entering navigable surface water.
  - a. To the maximum extent practicable, SMPs shall be located to treat runoff prior to discharge to navigable surface waters.
  - b. Post-construction SMPs for such runoff may be located in a navigable surface water if allowable under all other applicable federal, state and local regulations such as s. NR 103, Wisconsin Administrative Code and Chapter 30, Wis. Stat.
- (4) The City of Appleton may approve off-site management measures provided that all of the following conditions are met:
  - a. The post-construction runoff is covered by a stormwater management system plan that is approved by the City of Appleton and that contains management requirements consistent with the purpose and intent of this ordinance.
  - b. The off-site facility meets all of the following conditions:
    - i. The facility is in place.
    - ii. 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.
    - iii. The facility has a legally obligated entity responsible for its long-term operation and maintenance.
    - iv. Permittee must demonstrate that the proposed post-construction land development or redevelopment activity has received permission to use the off-site facility.
    - v. Permittee must also demonstrate the flow path to the off-site facility will not result in negative impacts to structural improvements on the property.
    - vi. Permittee must provide easements of all overland flow paths up to and including the overland flow path of the 100-year storm
- (5) Where a regional treatment option exists such that the City of Appleton exempts the applicant from all or part of the minimum on-site stormwater management requirements, the applicant may be required to pay a one-

time fee in an amount determined by the City of Appleton. In determining the fee for post-construction runoff, the City may consider an equitable distribution of the cost for land, engineering design, construction, and maintenance of the regional treatment option.

- (6) The discharge of runoff from a SMP, such as a wet detention pond, or after a series of such SMPs, is subject to this ordinance.

(k) ***Additional requirements.*** The City of Appleton may establish stormwater management requirements more stringent than those set forth in this ordinance if the City determines that the requirements are needed to control stormwater quantity or control flooding, comply with federally approved total maximum daily load requirements, or control pollutants associated with existing development or redevelopment.

(l) ***Swale treatment for transportation facilities.***

- (1) ***Applicability.*** Except as provided in Sec. 20-312(i)(2) of this ordinance, transportation facilities that use swales for runoff conveyance, pollutant removal and infiltration meet the stormwater discharge quality requirements of this section, if the swales are designed to the maximum extent practicable to do all of the following:

- a. Be 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. It is preferred that tall and dense vegetation be maintained within the swale because of its greater effectiveness at enhancing runoff pollutant removal.
- b. Swales shall comply with sections V.F. (Velocity and Depth) and V.G. (Swale 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.

(2) ***Other requirements.***

- a. The City of Appleton may, consistent with water quality standards, require other provisions of this section be met on a transportation facility with average daily traffic of vehicles greater than two thousand five hundred (2,500) per day 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 s. 303(d) of the Federal Clean Water Act that are identified as impaired in whole or in part, because of nonpoint source impacts.
  - iv. Waters where targeted performance standards are developed under s. NR 151.004, Wisconsin Administrative Code, to meet water quality standards.
- b. The transportation facility authority shall contact the City to determine if additional SMPs beyond a water quality swale are needed under this subsection.

(m) Innovative stormwater management systems that do not meet Sec. 20-312(d), (e) or (f) of this ordinance must be reviewed and **accepted** by the City before installation.

#### **Sec. 20-313. Stormwater management plans.**

(a) ***Plan requirements.***

- (1) The stormwater management plan required under Sec. 20-321 of this ordinance shall contain any such information the City of Appleton may need to evaluate the characteristics of the area affected by land development and redevelopment activities, the potential impacts of the proposed activity upon the quality and quantity of stormwater discharges, the potential impacts upon water resources and drainage systems and the effectiveness and acceptability of proposed stormwater management measures in meeting the performance standards set forth in this ordinance.
- (2) All initial and final site investigations, plans, designs, computations and drawings for stormwater management measures and plans submitted for review shall be stamped by a professional engineer registered in the State of Wisconsin and be prepared in accordance with accepted engineering practice and in accordance with criteria set forth by the City of Appleton.

(b) ***Minimum content.*** The stormwater management plan shall contain at a minimum the following information:

- (1) Name, address and telephone number for the following and their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of stormwater management practices; and person(s) responsible for maintenance of

stormwater management practices prior to the transfer, if any, of maintenance responsibility to another party.

- (2) A proper legal description of the property proposed to be developed in Outagamie County Coordinate System and 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 of current site conditions at a scale of not less than one (1) inch equal one hundred (100) feet. The site maps shall show the following: site location and legal property description; predominant soil types and hydrologic soil groups; existing cover type and condition; topographic contours of the site; 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 stormwater 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 s. NR 811.16, Wisconsin Administrative Code.
  - 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-construction 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 stormwater 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 (1) inch equals one hundred (100) 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; 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 stormwater conveyance sections; location and type of all stormwater 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 soil and groundwater required for the placement and design of stormwater management measures.
  - f. Detailed drawings including cross-sections and profiles of all permanent stormwater conveyance and treatment practices.
- (5) A description and installation schedule for the stormwater management practices needed to meet the performance standards in Sec. 20-312 of this ordinance.
  - (6) A maintenance plan and inspection report form developed for the life of each stormwater management practice including the required maintenance activities and maintenance activity schedule.
  - (7) An explanation of the technical basis used to select the stormwater management practices.
  - (8) If maximum extent practicable is requested for any of the requirements of this ordinance, the plan shall include a written, site-specific explanation of why the standard cannot be met.

- (9) Other information requested in writing by the City of Appleton to determine compliance of the proposed stormwater management measures with the provisions of this ordinance.

(c) ***Alternate requirements.*** The City of Appleton may prescribe alternative submittal requirements for applicants seeking an exemption to on-site stormwater management performance standards under Secs. 20-312(d), (e) or (f) of this ordinance.

(d) ***Modifications.*** When a change in land use or stormwater management practice occurs at a site with an approved stormwater management plan, a modified stormwater management plan must be submitted to the City for review and approval before those changes in practice occur. Plan modifications shall be modeled in the latest version of WinSLAMM unless otherwise approved by the City.

#### **Sec. 20-314. Maintenance agreement.**

(a) ***Maintenance agreement required.*** The maintenance agreement required for stormwater management practices under Sec. 20-321(b) of this ordinance shall be an agreement between the City of Appleton and the responsible party to provide for perpetual maintenance of stormwater practices. The agreement shall be recorded with the appropriate (Outagamie, Winnebago, or Calumet) County Register of Deeds, as a property deed restriction so that it is binding upon all subsequent owners of land served by the stormwater management practices.

(b) ***Agreement provisions.*** The responsible party shall maintain stormwater management practices in accordance with the stormwater practice maintenance provisions contained in the approved stormwater management plan submitted under Sec. 20-321(b) of this ordinance. This maintenance agreement includes:

- (1) Identification of the stormwater facilities and designation of the drainage area served by the facilities.
- (2) A schedule for regular maintenance of each aspect of the stormwater management system consistent with the stormwater management plan as required under Sec. 20-321 of this ordinance.
- (3) Identification of the responsible party(ies), organization or city, county, town or village responsible for long-term maintenance of the stormwater management practices identified in the stormwater management plan as required under Sec. 20-321 of this ordinance.
- (4) Requirement that the responsible party(ies), organization(s), or city, county, town or village shall maintain stormwater management practices in accordance with the schedule included in Sec. 20-314(b)(2) of this ordinance.

- (5) Authorization for the City of Appleton to access the property to conduct inspections of stormwater practices as necessary to ascertain that the practices are being maintained and operated in accordance with the approved stormwater management plan. The City of Appleton shall maintain public records of the results of the site inspections, shall inform the responsible party for maintenance of the inspection results and shall specifically indicate any corrective actions required to bring the stormwater management practice into proper working condition and a reasonable time frame during which the corrective action must be taken.
- (6) Authorization for the City of Appleton to perform the corrected actions identified in the inspection report if the responsible party does not make the required corrections in the specified time period. The City of Appleton shall charge the responsible party(ies) identified in the maintenance agreement for the cost of such work and shall place a lien on the property by the City of Appleton, which may be collected as special charges pursuant to subchapter VII, §66(16).

(c) ***Modification of agreement.*** This maintenance agreement may be modified by mutual agreement of the responsible party and the City of Appleton. The modification date shall be the date the modified maintenance agreement is recorded with the appropriate (Outagamie, Winnebago, or Calumet) County Register of Deeds, as a property deed restriction so that the modified agreement is binding upon all subsequent owners of the land served by the stormwater management practices.

The maintenance agreement shall be modified when there are changes in land use or stormwater management practices at the site. The modified plan shall be submitted and approved by the City before changes in practices occur.

(d) ***Long term maintenance stormwater management report.***

- (1) Every property owner that has been granted a stormwater management permit, constructed on-site stormwater management practices and signed and recorded the required maintenance agreement, shall submit to the Director of Public Works a report on the condition of the site's stormwater management devices and a certification that the SMPs are functioning per the approved plan.
- (2) Owners shall be notified by the City of the requirements and the deadline for reporting.

The report and certification shall be completed and sealed by a Professional Engineer currently licensed in the State of Wisconsin, on forms provided by the City.



- (3) The requirement that the report and certification be sealed by a Professional Engineer may be omitted in the case of a stormwater management plan consisting solely of storm sewer inlet filters and/or catch basin sumps, provided that the applicant can provide the appropriate documentation of cleaning activities and dated photos.
- (4) For sites with more extensive stormwater management systems, the requirements may include, but are not limited to:
  - a. Photos of the management device at the time of inspection. This shall include photos of existing conditions and photos after the completion of any required maintenance.
  - b. Bathometric survey.
  - c. Topographic survey.
  - d. Infiltration testing.
  - e. Completed inspection forms.
  - f. Documentation of the completion of the required annual maintenance, including copies of receipts (actual prices paid need not be reported) from agents hired to perform the work and the date the work was completed.
- (5) Upon receipt of the report and certification, if requested on the cover letter accompanying the report or by separate email, City Engineering staff shall provide an email response to the contact listed on the reporting forms stating that the report was received. This response from the City shall be made within 20 workdays of receiving the report.

(e) ***Termination of agreement.*** The maintenance agreement shall be terminated at such time that responsibility for maintenance of the stormwater management practice is legally transferred to the City of Appleton or agency acceptable to the City of Appleton, through a written, binding agreement. The termination date of the maintenance agreement required under Sec. 20-314(a) of this ordinance shall be the date upon which the legal transfer of maintenance responsibility to the City of Appleton or agency is made effective.

**Secs. 20-315 – 20-320. Reserved.**

### DIVISION 3. PERMITTING AND FEES

**Sec. 20-321. Permitting requirements, procedures, and fees.**

(a) **Permit required.** No responsible party may undertake a land disturbing construction activity except One- and Two-family residential lots, without receiving a post-construction runoff permit from the City of Appleton prior to commencing the proposed activity.

(b) **Permit application and fee.** Unless specifically excluded by this ordinance, any responsible party desiring a permit (permit holder) shall submit to the City of Appleton a permit application made on a form provided by the City of Appleton for that purpose.

- (1) Unless otherwise excepted by this ordinance, a permit application must be accompanied by a stormwater management plan, grading plan, utility plan, landscape plan, non-refundable permit review fee and an operation and maintenance plan and agreement as set forth in Table 3. The initial submittal and the final approved plan shall be stamped by an engineer licensed in the State of Wisconsin in a hard copy format.

*Table 3*

Land Development Activity	Permit	Stormwater Mgmt Plan	Grading & Drainage Plan	Maintenance Agrm
Agricultural Use	--	--	--	--
Non-Residential	X	X	X	X
1 & 2 Family Residential on 1 acre or greater lots	X	X	X	--
Multi-Family Residential	X	X	X	X
Subdivision Development	X	X	X	X

- (2) The stormwater management plan shall be prepared to meet the requirements of Sec. 20-313 of this ordinance and the maintenance agreement shall be prepared to meet the requirements of Sec. 20-314 of this ordinance.
- (3) Plan revisions occurring after initial plan approval shall be submitted for review with an application, applicable changes to drawings, calculations, and the Operation and Maintenance Agreement. Fees shall be per (4) below.

- (4) Fees for the above-noted permits will include a non-refundable one hundred dollar (\$100) application fee and will be the actual costs incurred by the City. The application fee shall be credited toward the actual costs incurred by the City. Fees shall be payable within thirty (30) days of receipt of an invoice from the City. An invoice will be sent any time an applicant fails to resubmit a plan revision for ninety (90) days or more.

(c) ***Review and approval of permit application.*** The City of Appleton will review any complete permit application that is submitted with the required fee. The following procedure will be used:

- (1) For a Major Stormwater Management Plan, within thirty (30) business days of the receipt of a complete permit application, including all documents as required by Sec. 20-321(b)(1) of this ordinance, the City of Appleton shall inform the applicant whether the application, plan and maintenance agreement are approved or disapproved. The City of Appleton shall base the decision on requirements set forth in Secs. 20-312, 20-313 and 20-314 of this ordinance.
- (2) For a Minor Stormwater Management Plan, within fifteen (15) business days of receipt of a complete permit application, including all documents as required by Sec. 20-321(b)(1) of this ordinance, the City of Appleton shall inform the applicant whether the application, plan and maintenance agreement are approved or disapproved. The City of Appleton shall base the decision on requirements set forth in Secs. 20-312, 20-313 and 20-314 of this ordinance.
- (3) If the stormwater permit application, stormwater management plan and maintenance agreement are approved, or if an agreed upon payment of fees in lieu of stormwater management practices are paid, the City of Appleton shall issue the permit.
- (4) If the stormwater permit application, stormwater management plan or maintenance agreement are disapproved, the applicant may revise the stormwater management plan or agreement, or may appeal the decision of the City of Appleton as provided for in Sec. 20-327 of this ordinance.
- (5) If additional information is submitted, the City of Appleton shall have thirty (30) business days from the date the additional information is received for a Major Stormwater Management Plan and fifteen (15) business days for a Minor Stormwater Management Plan to inform the applicant that the plan and maintenance agreement are either approved or disapproved.

- (6) Failure by the City of Appleton to inform the permit applicant of a decision within the timelines listed above shall be deemed to mean approval of the submittal and applicant may proceed as if permit has been issued.

(d) ***Stormwater practice installation and maintenance performance security.*** The City of Appleton may, at its discretion, require the submittal of a cash escrow, letter of credit, or performance security prior to issuance of the permit to ensure that the stormwater practices are installed and maintained by the responsible party as required by the stormwater management plan. The amount of the installation performance security shall be determined by the City of Appleton, not to exceed the total estimated construction cost of the stormwater management practices approved under the permit unless otherwise specified in the permit.

The amount of the maintenance performance security shall be determined by the City of Appleton, not to exceed ten- (10-) years of the maintenance costs estimated in the stormwater plan. The performance security shall contain forfeiture provisions for failure to complete work specified in the stormwater management plan.

Conditions for the release of performance security are as follows:

- (1) The installation performance security shall be released in full only upon submission of “as built plans” and written certification by the design engineer that the stormwater practice(s) were installed and function as intended in accordance with the approved plan and other applicable provisions of this ordinance. The City of Appleton may make provisions for a partial pro-rata release of the performance security based on the completion of various development stages including the final inspection of landscaping material.
- (2) The maintenance performance security, minus any costs incurred by the City of Appleton to conduct required maintenance, design, engineering, preparation, checking and review of designs, plans and specifications; supervision and inspection to ensure that construction is in compliance with applicable plans, specifications, regulations and ordinances; and legal, administrative and fiscal work undertaken to assure and implement such compliance, shall be released at such time that the responsibility for practice maintenance is passed on to another private entity, via an approved maintenance agreement, or to the City of Appleton.

(e) ***Permit conditions.*** All permits issued under this ordinance shall be subject to the following conditions, and holders of permits issued under this ordinance shall be deemed to have accepted these conditions. The City of Appleton may suspend or revoke a permit for violation of a permit condition, following written notification of the responsible party. An action by the City of Appleton to suspend or revoke this permit may be appealed in accordance with Sec. 20-327 of this ordinance.

- (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, install, and maintain all structural and nonstructural stormwater management measures in accordance with the approved stormwater management plan, maintenance agreement, and this permit.
- (3) The responsible party shall notify the City of Appleton at least three (3) business days before commencing any work in conjunction with the stormwater management plan, and within five (5) business days upon completion of the stormwater management practices.

If required as a special condition, the permit holder shall make additional notification according to a schedule set forth by the City of Appleton so that practice installations can be inspected during construction.

- (4) Completed stormwater management practices must pass a final inspection to determine if they are in accordance with the approved stormwater management plan and ordinance. The inspection must be made by the City of Appleton, or other competent professionals. The City of Appleton shall notify the permit holder in writing of any changes required in such practices to bring them into compliance with the conditions of this permit. The responsible party is further required to submit an as-built plan and a certificate of completion, stating the completion of the permitted work is in accordance with the stormwater management plan, City of Appleton, state and federal requirements. The certificate must be signed by the design engineer.
- (5) The responsible party shall notify the City of any significant modifications it intends to make to an approved stormwater management plan. The City of Appleton may require that the proposed modifications be submitted for approval prior to incorporation into the stormwater management plan and execution by the responsible party.
- (6) The responsible party shall maintain all stormwater management practices specified in the approved stormwater management plan until the practices either become the responsibility of the City of Appleton, or are transferred to a subsequent responsible party as specified in the approved maintenance agreement.
- (7) The responsible party authorizes the City of Appleton to perform any work or operations necessary to bring stormwater management measures into conformance with the approved stormwater management plan, and consents to placing associated costs upon the tax roll as a special lien

against the property which may be collected as special charges pursuant to §66.0627, Wis. Stat., by the City of Appleton or to charging such costs against the letter of credit or cash bond posted for the project.

- (8) If so directed by the City of Appleton, the responsible party shall repair at the permit holder's own expense 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 stormwater management plan.
- (9) The responsible party shall permit property access to the City of Appleton or its designee for the purpose of inspecting the property for compliance with the approved stormwater management plan and this permit.
- (10) Where necessary, it shall be the responsibility of the permit holder to obtain any appropriate easements or other necessary property/interests with affected property owners concerning the prevention of endangerment to property or public safety. Issuance of this permit does not create or affect any such rights.
- (11) The owner is subject to the enforceable actions detailed in Sec. 20-326 of this ordinance if the responsible party fails to comply with the terms of this permit.

(f) ***Permit duration.*** The responsible party must start the permit activities within one (1) year of the date the permit is issued. An extension of one (1) year may be granted by the Director, provided a written request is submitted to the Director prior to the expiration date for the initial permit. If permit activities are not started, then a new permit application and fee may be required.

(g) ***Fee in lieu of on-site stormwater management practices.*** Where the City of Appleton waives all or part of the minimum on-site stormwater management requirements under Sec. 20-313(c) of this ordinance, or where the waiver is based on the provision of adequate stormwater facilities provided by the City of Appleton downstream of the proposed development or redevelopment, as provided for under Sec. 20-312 of this ordinance, the applicant shall be required to pay a fee in an amount as determined by the City of Appleton pursuant to §66.0617, Wis. Stat. and any other applicable law.

**Secs. 20-322 – 20-325. Reserved.**

#### **DIVISION 4. ENFORCEMENT AND APPEALS**

##### **Sec. 20-326. Enforcement and penalties.**

(a) Any land disturbing construction activity or any post-construction runoff initiated after the effective date of this ordinance by any person, firm, association or corporation subject

to the ordinance provisions shall be deemed a violation unless conducted in accordance with the requirements of this ordinance.

(b) The City of Appleton shall notify the responsible party or owner by certified mail 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 City of Appleton, the responsible party or owner shall correct work that does not comply with the stormwater management plan or other provisions of this permit. The responsible party or owner shall make corrections as necessary to meet the specifications and schedule set forth by the City of Appleton in the notice.

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

(e) The City of Appleton is authorized to post a stop work order on all land disturbing construction activity that is in violation of this ordinance, or to request the Appleton City Attorney to obtain a cease and desist order.

(f) The City of Appleton may revoke a permit issued under this ordinance for non-compliance with ordinance provisions.

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

(h) The City of Appleton is authorized to refer any violation of this ordinance, or of a stop work order or cease and desist order issued pursuant to this ordinance to the Appleton City Attorney for the commencement of further legal proceedings.

(i) Any person, firm, association or corporation who does not comply with the provisions of this ordinance shall be subject to the general penalty provisions of the Appleton Municipal Code Sec. 1-16. Each day that the violation exists shall constitute a separate offense.

(j) Violations of this ordinance deemed to be a public nuisance shall be subject to abatement under Sec. 12-32 of the City of Appleton Municipal Code or compliance with this ordinance may be enforced by injunctive order 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.

(k) When the City of Appleton determines that the holder of a permit issued pursuant to this ordinance has failed to follow practices set forth in the stormwater management plan submitted and approved pursuant to Sec. 20-321 of this ordinance, or has failed to comply with schedules set forth in said stormwater management plan, the City of Appleton or a party

designated by the City of Appleton 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 plan. The City of Appleton shall keep a detailed accounting of the costs and expenses of performing this work. These costs and expenses shall be deducted from any performance or maintenance security posted pursuant to Sec. 20-321 of this ordinance. 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.

**Sec. 20-327. Appeals.**

(a) *Appeals.* The Utilities Committee of the Appleton Common Council shall hear and recommend to Council appeals where it is alleged that there is error in any order, decision or determination made by the City of Appleton in administering this ordinance. The Committee shall use the rules, procedures, duties and powers authorized by statute in hearing and recommending appeals.

Upon appeal, the Committee may recommend to Council relief from the provisions of this ordinance that are not contrary to the public interest or provisions of state regulations, and where owing to special conditions a literal enforcement of this ordinance will result in unnecessary hardship.

(b) *Who may appeal.* Appeals to the Utilities Committee of the City of Appleton may be taken by any aggrieved person or by an officer, department, board or bureau of the City of Appleton affected by any decision of the City of Appleton. Written appeals shall be filed with the City Clerk. The Utilities Committee will make a recommendation within forty-five (45) calendar days of filing of the appeal. If the Utilities Committee takes no action within forty-five (45) calendar days, the appeal will automatically be sent to Council with a recommendation for approval. Either party may file a written request for a time extension with the City Clerk.

**Secs. 20-328 – 20-330. Reserved.**

**DIVISION 5. SEVERABILITY**

**Sec. 20-331. Severability.**

If any section or portion thereof shall be declared by a decision of a court of competent jurisdiction to be invalid, unlawful or unenforceable, such decision shall apply only to the specific section or portion thereof directly specified in the decision, and not affect the validity of all other provisions, sections or portion thereof of the ordinance which shall remain in full force and effect.



**DIVISION VI. EFFECTIVE DATE.**

**Sec. 20-332. Effective date.**

This ordinance is in full force and effect on May 1, 2016.

**Section 2:** This ordinance shall be in full force and effect from and after its passage and publication.

Dated: April 22, 2020

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Jacob A. Woodford, Mayor

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Kami Lynch, City Clerk