

2.5 Post-Construction Stormwater Management

Purpose

A post-construction stormwater ordinance is required as part of the WPDES Permit (MS4 Permit). The ordinance is used to implement and enforce the stormwater program and to require control the discharges from areas of new development, infill, and redevelopment after construction is complete.

Measurable Goals

- Revise the Post-construction stormwater ordinance.
- Develop written procedures detailing the administration of the post-construction stormwater management program.
- Develop written procedures detailing the plan review process for the post-construction stormwater management program.
- Develop written procedures for long-term maintenance, inspections, and enforcement.

Administrative Procedure

To obtain local approval for a stormwater permit for a construction site of one (1) acre or greater in size, a stormwater narrative and plan set will need to be submitted to Chippewa County P&Z with a plan application, plan review fees, and long-term maintenance agreement for stormwater BMPs and conveyances. The plan narrative will need to describe the existing conditions of site and the proposed development. Narrative should include the depth to groundwater, proximity to waters of state, wetlands, or other environmentally sensitive areas. The narrative should thoroughly explain how the developer plans to meet the requirements of the Ordinance for post construction stormwater management. A plan set should have plans that adequately depict the proposed elevations, water flow paths, and, if needed, permanent stormwater BMPs.

Approval of the permit will be granted once the plan requirements are met for the site.

The current Chippewa County Stormwater Ordinance is attached in Appendix 2.5. (A). Post-Construction Plan Specifications begin at section 12-55.

Stormwater Management Plan Review

Plans are required for land disturbing activities of one (1) or more acres or a land division with the intent to develop located within the MS4 permitted municipal boundary.

Plans, plan application, and fees are submitted to Chippewa County Planning and Zoning (P&Z) for review to verify that post-construction stormwater standards of the Ordinance are being met. The plan application can be seen in Attachment 2.4 (B).

Permit Approval Process

- a) Upon submittal of a plan, application, and fees, Chippewa County P&Z determines that a complete application has been received and provides Chippewa County LCFM the material for technical review to ensure the submission meets the requirements of the Ordinance.

- b) LCFM engineering staff uses a checklist (Attachment 2.4 (C)) to review each plan and ensure an accurate and thorough review. LCFM strives to review the plan within 14 business days of receipt of the complete application.
 - o If the review determines that the plan did not meet the requirements of the Ordinance, LCFM staff sends a letter to the consultant requesting the deficiencies to be addressed.
 - o If the submitted plan meets the requirements of the Ordinance, LCFM issues a Notice of Plan Acceptance to P&Z. This Notice of Plan Acceptance is only notice that the submitted plan meets the requirements of the Ordinance.
- c) Chippewa County P&Z ensures that there is an approved form of financial guarantee and that the maintenance agreement is filed with the registrar of deeds. After all necessary items are provided and completed, P&Z issues a permit.

Long-term Maintenance, Inspections, and Enforcement

The municipalities and County are responsible for the long-term maintenance, inspections, and enforcement of the post construction stormwater facilities resides in their jurisdiction.

Long-term Maintenance

Long-term maintenance of the stormwater facility is the responsibility of the homeowner's association, landowner, or responsible party listed on the long-term maintenance agreement recorded with the Chippewa County Register of Deeds. A long-term maintenance agreement is required during the plan approval process as part of Chippewa County Ordinance Sec 12-65. Given the terms for each long-term maintenance agreement, inspections reports of the stormwater facilities are to be submitted to the administrative authority for review from the responsible party.

A template of a long-term maintenance agreement is attached in Attachment 2.5 (D)

Inspections

At a minimum post construction stormwater sites are to be inspected once per permit term. During these inspections, the inlets, outlets, berms, pond bottom, pond side slopes and any stormwater conveyance systems are inspected for structural integrity, blocked flow, sediment deposition, vegetation, and erosion. Common facility components and what is typically looked for during inspections are:

- Riser pipes or culverts
 - o Thoroughly inspect for any physical damage or plugged flow that may inhibit or prohibit the proper functioning of the component. Some damage may be cosmetic and should be monitored for further damage during future inspections.
- Weirs, overflows, or rip rap lined overflows
 - o Inspect for any erosion that bypasses the overflow, erosion that is undermining the overflow, sediment deposition, or woody vegetation.
- Side slopes
 - o Inspect for erosion, vegetation density, vegetation type, and vegetation height
- Pond Bottom
 - o Dry Ponds: If sediment is observed, an estimate should be completed for future monitoring. If the sediment is excessive, a corrective measure for sediment removal should be communicated to the responsible party with a deadline for

completion. In some cases where monitoring indicates that the pond bottom has been altered, RTK GPS should be used to verify the elevation of the pond bottom compared to previous years. Also take note if there is vehicular traffic, fencing, or any other type of flow prohibitive structures located in the drainageways.

- o Wet Ponds: Inspections should include the vegetation present along the edge or within the pond. Inspection notes should include any floatables, smell, sheen, turbidity, and sediment observed in the wet pond. Sediment can be measured from the invert of the outlet pipe to the top of sediment.
- Drainageways
 - o Inspect for erosion, vegetation density, vegetation type, and vegetation height. Also take note if there is vehicular traffic, fencing, or any other type of flow prohibitive structures located in the drainageways.

Chippewa County LCFM maintains a database with the post-construction stormwater facilities inspection reports as well as any reports generated for the municipalities as part of the intergovernmental agreement. LCFM maintains a permit spreadsheet with current stormwater plans. An inspection form for post-construction facilities is attached in Attachment 2.5 (E). The permit tracking spreadsheet is attached in Attachment 2.5 (F). A site inspection form can be found in Attachment 2.5 (G).

Enforcement

Enforcement is the responsibility of the municipality which has jurisdiction through municipal boundary.

Chippewa County LCFM inspects post-construction stormwater sites for all municipalities that have entered into the Intergovernmental Agreement. After the inspections are complete, LCFM provides the municipalities with the inspection reports for the post-construction sites. The reports include both corrective and recommended actions.

- **Corrective actions** are items that affect the stormwater component's structure and functionality. These items address misuse of the stormwater facility such as, erosion, yard waste deposition, sediment plugging culverts, etc.
- **Recommended actions** are items that affect the stormwater components through encroachment or trespass issues of the stormwater facilities such as, fences being built in drainageways, vehicle or trailer parking, atv use, etc.

Corrective actions should be sent to the responsible party notifying them of the needed action(s) to repair, restore, and maintain the proper function of the stormwater facility. The notification should include a reasonable timeframe to complete the repairs and a request for documentation completed action. If documentation is not received by the deadline date that shows the repairs were completed, a follow-up inspection should be performed to document the repairs made. If the follow-up inspection shows that the repairs have not been made, the long-term maintenance agreement allows the municipality to perform corrective actions and charge the amount due on the tax rolls and collect the money as a special charge against the property pursuant to subch. VII of Wis. Stats. Ch. 66.

Attachment 2.5 (A)

CHAPTER 12 STORMWATER MANAGEMENT – CONSTRUCTION SITE EROSION CONTROL AND POST-CONSTRUCTION

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ARTICLE I. IN GENERAL

Sec. 12-01. Effective Date.

This ordinance shall be in force and effect from and after its adoption and publication.

Sec. 12-02. Authority.

- (a) This ordinance is adopted under the authority granted by Wis. Stats. §§§ 59.693, 92.07(2), and 92.07(15); and Chapter 236. This ordinance supersedes all provisions of any ordinance previously adopted by Chippewa County or other municipalities under Wis. Stats. § 59, 97, or 236, that relate to construction site erosion control and stormwater management.
- (b) The provisions of this ordinance are deemed not to limit any other lawful regulatory powers of the County Board.
- (c) The requirements of this ordinance do not pre-empt more stringent erosion, sediment control, and stormwater management requirements that may be imposed by any of the following:
 - (1) Wisconsin Department of Natural Resources administrative rules, permits or approvals including those authorized under Wis. Stats. §§ 281.16 and 283.33.
 - (2) Targeted non-agricultural performance standards promulgated in rules by the Wisconsin Department of Natural Resources under Wis. Adm. Code NR 151.004.
 - (3) Town or City ordinances, adopted independently under separate municipal authorities that are not subject to the jurisdiction of this ordinance.

Sec. 12-03. Purpose.

It is the purpose of this ordinance to:

- (a) Further the maintenance of safe and healthful conditions; prevent and control water pollution; prevent and control soil erosion; prevent and control sediment deposition; protect spawning grounds, fish and aquatic life; protect groundwater recharge areas; control building sites, placement of structures and land uses; preserve ground cover and scenic beauty; and promote sound economic growth, by minimizing the amount of sediment and other pollutants carried by runoff or discharged from land disturbing construction activity to waters of the state in Chippewa County.

- (b) Establish long-term, post-construction runoff management requirements that will diminish the threats to public health, safety, welfare and the aquatic environment. Specific purposes are to:
 - (1) Further the maintenance of safe and healthful conditions.
 - (2) Prevent and control the adverse effects of stormwater; prevent and control soil erosion; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; preserve ground cover and scenic beauty; and promote sound economic growth.
 - (3) Control exceedance of the safe capacity of existing drainage facilities and receiving water bodies; prevent undue channel erosion; control increases in the scouring and transportation of particulate matter; and prevent conditions that endanger downstream property.
 - (4) Provide for the health, safety, and general welfare of the citizens of the Chippewa County through the establishment of a common ordinance that regulates construction site erosion and post-construction stormwater discharges.

Sec. 12-04. Intent.

It is the intent of this ordinance to:

- (a) Require use of best management practices to reduce the amount of sediment and other pollutants resulting from land disturbing construction activities.
- (b) Regulate the post-construction stormwater discharges and associated pollutants to waters of the state.
- (c) Provide protection of existing lakes, wetlands, streams, concentrated flow channels, and significant closed depressions.
- (d) Establish legal authority to carry out all inspection, surveillance, monitoring, and enforcement procedures necessary to ensure compliance with this ordinance.
- (e) Establish consistent standards and an administrative process to limit duplication of effort among municipalities and allow for coordination of permitting of construction site erosion control and post-construction stormwater management.
- (f) Achieve administrative efficiency in plan review, permitting, and enforcement.
- (g) Take advantage of staff expertise in carrying out responsibilities of this ordinance.

Sec. 12-05. Severability.

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

Sec. 12-06. Jurisdiction.

The provisions of this Chapter shall apply to lands lying within the jurisdictional boundaries of unincorporated towns or incorporated villages where the town board or village board, respectively, has entered into an Intergovernmental Cooperation Agreement with Chippewa County pursuant to Wis. Stats. § 66.0301 to administer and enforce the provisions of this chapter.

Sec. 12-07. Applicability.

This ordinance applies to the following land disturbing construction and development related activities except as provided under sections 12-08 and 12-09 of this ordinance.

- (a) A construction site, which has one or more acres of land disturbing construction activity after December 12, 2017.
- (c) A land division with the intent to develop.

Sec. 12-08. Exceptions.

- (a) The Construction Site Erosion Control requirements of this ordinance do not apply to the following:
 - (1) A construction project that is exempted by federal statutes or regulations from the requirement to have a national pollutant discharge elimination system permit issued under 40 CFR 122 for land disturbing construction activity.
 - (2) Agricultural practices; including planting, growing, cultivating and harvesting of crops for human or livestock consumption and pasturing or yarding of livestock, including sod farms and tree nurseries and the construction of structures such as barns, manure storage facilities or barnyard runoff control systems.
 - (3) Silvicultural activities.
 - (4) Projects directed and supervised by the department of transportation, regulated by Wis. Adm. Code Trans 401, and subject to the Department of Transportation and Department of Natural Resources liaison cooperative agreement, if in compliance with Wis. Adm. Code Trans 401 and the liaison cooperative agreement.
- (b) The Post-Construction Stormwater Management requirements of this ordinance do not apply to the following:
 - (1) Construction sites less than one acre with a permit under section 12-07 or sites that are less than one acre and receive an exception under section 12-08(a).
 - (2) A post-construction site with less than 10% connected imperviousness based on the area of land disturbance, provided the cumulative area of all impervious surfaces is less than one acre.
 - (3) Agricultural facilities and practices.
 - (4) Silvicultural activities.

- (5) Specific transportation projects:
 - a. Reconditioning or resurfacing of a highway;
 - b. Minor reconstruction of a highway, as defined in Wis. Adm. Code NR 151.21(5)(b). Notwithstanding this exemption, the protective area performance standards apply to minor reconstruction of a highway;
 - c. Transportation facility construction projects that are part of a larger common plan of development, such as a residential or industrial development, that are in compliance with the performance standards of this ordinance;
 - d. Routine maintenance if performed for stormwater conveyance system cleaning.
 - e. Projects directed and supervised by the Department of Transportation, regulated by Wis. Adm. Code Trans 401, and subject to the Department of Transportation and Department of Natural Resources liaison cooperative agreement, if in compliance with Wis. Adm. Code Trans 401 and the liaison cooperative agreement.
- (6) Underground utility construction such as water, sewer and fiber optic lines, but not including the construction of any above ground structures associated with utility construction.

Sec. 12-09. Exclusions.

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

Sec. 12-10. Definitions.

- (1) *Administrative Authority* means the Director of the Chippewa County Department of Planning and Zoning or their lawfully designated representative.
- (2) *Agricultural Facilities and Practices* has the meaning in Wis. Stats. §281.16(1).
- (3) *Average Annual Rainfall* means a calendar year of precipitation, excluding snow, which is considered typical.
- (4) *Best Management Practices or BMPs* means practices, techniques or measures that are effective in reducing flooding, removing pollutants, providing thermal mitigation, enhancing infiltration and/or providing other benefits related to stormwater management.
- (5) *Building Opening Elevation* means the lowest window, door, or other elevation at which water may enter a building.
- (6) *Business Day* means a day the office of the administrative authority is routinely and customarily open for business.
- (7) *Cease and Desist Order* means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit.

- (8) *Combined Sewer System* means a system for conveying both sanitary sewage and stormwater runoff.
- (9) *Connected Imperviousness* means an impervious surface connected to waters of the state via a separate storm sewer, an impervious flow path, or a minimally pervious flow path.
- (10) *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.
- (11) *Design Storm* means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency, and total depth of rainfall.
- (12) *Development* means residential, commercial, industrial or institutional land uses and associated roads.
- (13) *Direct Discharges* means discharges that meet all of the following conditions:
- a. discharges are from parcels contained within the area of the site development and the discharges do not cross property lines prior to entering the exempt body of water;
 - b. discharges do not travel through any public conveyance; and
 - c. discharges do not enter any lake or stream that appears on the USGS 7.5 minute quadrangle maps prior to entering any of the above water bodies.
- (14) *Discharge* means as defined in Wis. Stats. § 283.01(4) and any amendments thereto, when used without the qualification includes a discharge of any pollutant.
- (15) *Effective Infiltration Area* means the area of the infiltration system that is used to infiltrate runoff and does not include the area used for site access, berms or pretreatment.
- (16) *Erosion* means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.
- (17) *Erosion and Sediment Control Plan* means a comprehensive plan developed to address pollution caused by erosion and sedimentation of soil particles or rock fragments during construction.
- (18) *Exceptional Resource Waters* means waters listed in Wis. Adm. Code NR 102.11.
- (19) *Filtering Layer* means soil that has at least a 3-foot deep layer with at least 20 percent fines; or at least a 5-foot deep layer with at least 10 percent fines; or an engineered soil with an equivalent level of protection as determined by the technical authority for the site.
- (20) *Final Stabilization* means that all land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established, with a density of at least 70 percent of the cover, for the unpaved areas and areas not covered by permanent structures, or that employ equivalent permanent stabilization measures.

- (21) *Financial Guarantee* means a performance bond, maintenance bond, surety bond, irrevocable letter of credit, or similar guarantees submitted to the administrative authority by the responsible party to assure that post-construction stormwater management requirements of the ordinance are carried out in compliance with the stormwater management plan.
- (22) *Governing Body* means the Chippewa County Board of Supervisors.
- (23) *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 areas that typically are impervious.
- (24) *In-fill Area* means an undeveloped area of land located within an existing urban sewer service area, surrounded by existing development or existing development and natural or man-made features where development cannot occur. "In-fill" does not include any undeveloped area that was part of a larger development for which a stormwater permit was previously required.
- (25) *Infiltration* means the entry of precipitation or runoff into or through the soil.
- (26) *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.
- (27) *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 runoff and lead to an increase in soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.
- (28) *Land Division* means any land, vacant or improved, which is divided or proposed to be divided into two or more lots, parcels, sites, units, plots, condominiums, tracts or interests for the purpose of offer, sale, lease or development whether immediate or future, either on the installment plan or upon any and all other plans, terms and conditions. Land division includes the division or development of residentially and nonresidentially zoned land, whether by deed, metes and bounds description, devise, intestacy, lease, certified survey map, plat or other recorded instrument. Land divisions also include resubdivision and condominium creation or conversion.
- (29) *Maintenance Agreement* means a legal document that provides for long-term maintenance of stormwater management practices.
- (30) *Maximum Extent Practicable or MEP* means a level of implementing Best Management Practices in order to achieve a performance standard specified in this chapter which takes into account the best available technology, cost effectiveness and other competing issues such as human safety and welfare, endangered and threatened resources, historic properties and geographic features. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions.
- (31) *New Development* means development resulting from the conversion of previously undeveloped

land or agricultural land uses.

- (32) *Off-Site* means located outside the property boundary described in the permit application.
- (33) *On-Site* means located within the property boundary described in the permit application.
- (34) *Ordinary High-Water Mark* has the meaning given in Wis. Adm. Code NR 115.03(6).
- (35) *Outfall* means the point at which stormwater is discharged to waters of the state or leaves one stormwater conveyance enters another stormwater conveyance.
- (36) *Outstanding Resource Waters* means waters listed in Wis. Adm. Code NR 102.10.
- (37) *Performance Standard* means a narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.
- (38) *Owner* means any person holding fee title, an easement or other interest in property.
- (39) *Percent Fines* means the percentage of a given sample of soil, which passes through a # 200 sieve.
Note: Percent fines can be determined using the “American Society for Testing and Materials”, volume 04.02, “Test Method C117-95 Standard Test Method for Materials Finer than 75-µm (No. 200) Sieve in Material Aggregates by Washing”. Copies can be obtained by contacting the American society for testing and materials, 100 Barr Harbor Drive, Conshohocken, PA 19428- 2959, or phone 610-832-9585, or on line at: “<http://www.astm.org/>”.
- (40) *Permit* means a written authorization made by the administrative authority to the applicant to conduct land disturbing construction activity or to discharge post-construction runoff to waters of the state.
- (41) *Permit Fee* means a sum of money paid to the administrative or technical authority by the permit applicant for the purpose of recouping the expenses incurred by Chippewa County in administering the permit.
- (42) *Person* means an individual, owner, operator, corporation, partnership, association, municipality, interstate agency, state agency or federal agency.
- (43) *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.
- (44) *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 defined in Wis. Stats. § 283.01(13).
- (45) *Pollution* means man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of water; as defined in Wis. Stats. § 281.01(10).
- (46) *Post-Construction Site* means a construction site following the completion of land disturbing construction activity and final site stabilization.

- (47) *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.
- (48) *Premises* means any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.
- (49) *Preventive Action Limit* has the meaning given in Wis. Adm. Code NR 140.05(17).
- (50) *Protective Area* means an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. However, in this paragraph, “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.
- (51) *Redevelopment* means areas where development is replacing older development.
- (52) *Responsible Party* means any entity holding fee title to the property or other person contracted or obligated by other agreement to meet the performance standards of this ordinance.
- (53) *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.
- (54) *Sediment* means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.
- (55) *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.
- (56) *Significant Closed Depression* means an area which collects, stores, and infiltrates runoff from snowmelt and other large stormwater events. Within the context of this ordinance such areas must meet the following physical criteria: a). be observed to pond water beyond the period of drainage of other nearby runoff conveyances, and b) be either greater than 10,000 square feet in area or 10,000 cubic feet in volume when ponded.
- (57) *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.

- (58) *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.
- (59) *Storm Sewer* means a closed conduit for collecting and carrying stormwater.
- (60) *Stormwater* means runoff from precipitation including rain, snow, ice melt or similar water that moves on the land surface via sheet or channelized flow.
- (61) *Stormwater Management Plan/ Stormwater Pollution Prevention Plan* means a comprehensive document that describes the Best Management Practices and actions required to eliminate or reduce runoff discharge rate, runoff volume, pollutant loads, and thermal increases to stormwater, stormwater conveyance systems, and/or receiving waters resulting from land development activity to levels meeting the purpose, intent, and standards of this ordinance. A stormwater management plan is to address site conditions after the site has undergone final stabilization following completion of the construction activity.
- (62) *Stormwater Management System Plan* means a comprehensive plan designed to reduce the discharge of runoff and pollutants from hydrologic units on a regional or municipal scale.
- (63) *Stop Work Order* means an order issued by the administrative authority which requires that all construction activity on the site be stopped.
- (64) *Structure* means anything that is constructed or erected, the use of which requires permanent location on the ground or attachment to something having a permanent location on the ground.
- (65) *Technical Authority* means the Director of the Chippewa County Department of Land Conservation and Forest Management or their lawfully designated representative.
- (66) *Technical Standard* means a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.
- (67) *Top of the Channel* means an edge, or point on the landscape, landward from the ordinary high-water mark of a surface water of the state, where the slope of the land begins to be less than 12% continually for at least 50 feet. If the slope of the land is 12% or less continually for the initial 50 feet, landward from the ordinary high-water mark, the top of the channel is the ordinary high-water mark.
- (68) *TR-55* means the United States Department of Agriculture, Natural Resources Conservation Service (previously Soil Conservation Service), Urban Hydrology for Small Watersheds, Second Edition, Technical Release 55, June 1986.
- (69) *Watercourse* means a natural or artificial channel through which water flows. These channels include: all blue and dashed blue lines on the USGS quadrangle maps, all drainage features shown on the soils maps in the NRCS Soil Survey of Chippewa County, all channels identified on the site, and new channels that are created as part of a development. The term watercourse includes waters of the state as herein defined.
- (70) *Waters of the State* means all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private, within the state or its jurisdiction.

Sec. 12-11 to 12-20 Reserved.**ARTICLE II: ADMINISTRATION AND ENFORCEMENT****Sec. 12-21. Enforcement.**

- (a) Any land disturbing construction activity or 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 administrative authority shall notify the responsible party 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 administrative authority under sub. (2), the responsible party shall correct work that does not comply with the stormwater management plan or other provisions of this permit. The responsible party shall make corrections as necessary to meet the specifications and schedule set forth by the administrative authority 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 administrative authority and technical authority may enter the land and take emergency actions necessary to prevent such damage. The costs incurred by the Chippewa County plus interest and legal costs shall be billed to the responsible party.

Sec. 12-22. Special Inspection Warrants.

If the administrative authority or technical authority have been refused access to any part of the premises on which it is believed there may be a violation of this ordinance; or on which there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder; or to protect the overall public health, safety, and welfare of the community; then Chippewa County may seek issuance of a special inspection warrant whereby the administrative authority and/or technical authority may enter the premises pursuant to the provisions of Wis. Stats. § 66.0119(1), (2), and (3).

Sec. 12-23. Stop Work Orders.

- (a) The administrative authority or technical authority may post a stop work order if any of the following occurs:
 - (1) Any land disturbing construction activity regulated under this ordinance is being undertaken without a permit.
 - (2) The erosion and sediment control plan or the post construction stormwater plan is not being implemented in a good faith manner.
 - (3) The conditions of the permit are not being met.

- (b) The administrative authority or technical authority may retract the stop-work orders.
- (c) After posting a stop-work order under sub. (1), the administrative authority or technical authority may issue a notice of intent to the responsible party of its intent to perform work necessary to comply with this ordinance. The administrative authority and technical authority may go on the land and commence the work after issuing the notice of intent. The costs of the work performed under this subsection by the county, plus interest at the rate authorized by administrative authority shall be billed to the responsible party. In the event a responsible party fails to pay the amount due, the clerk shall enter the amount due on the tax rolls and collect as a special assessment against the property pursuant to subch. VII of Wis. Stats. Ch. 66.
- (d) The administrative authority is authorized to request the corporation counsel to obtain a cease and desist order in any court with jurisdiction.
- (e) The administrative authority may revoke a permit issued under this ordinance for non-compliance with ordinance provisions. The administrative authority is the authority for retraction of a permit revocation.
- (f) Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by the administrative authority, technical authority or by a court with jurisdiction.
- (g) The administrative authority 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 corporation counsel for the commencement of further legal proceedings in any court with jurisdiction.
- (h) Any person, firm, association, or corporation who does not comply with the provisions of this ordinance shall be subject to a forfeiture of not less than 100 dollars or more than 5000 dollars per offense, together with the costs of prosecution. Each calendar day that the violation exists shall constitute a separate offense.
- (i) Compliance with the provisions of this ordinance may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease-and-desist order before resorting to injunctive proceedings (**Note:** Injunctive orders are authorized pursuant to Wis. Stats. § 59.69(11) for counties.)
- (j) When the administrative authority determines that the holder of a permit issued pursuant to this ordinance has failed to follow practices set forth in the erosion and sediment control plan or stormwater management plan; or has failed to comply with schedules set forth in the erosion and sediment control plan or the stormwater management plan; the administrative authority or technical authority 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 technical authority shall keep a detailed accounting of the costs and expenses of performing this work. These costs and expenses shall be deducted from any posted financial guarantee. Where such a guarantee has not been established, or where such a guarantee is insufficient to cover these costs, the costs and expenses shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the work is completed.

Sec. 12-24. Board of Adjustment.

- (a) *Powers and Duties.* The powers and duties of the Board of Adjustment are identified in Wis. Stats. § 59.694(7) and in the applicable rules and by-laws as adopted by the County Board. The Board of Adjustment shall have the following general powers:
- (1) *Administrative Appeals.* To hear and decide appeals where it is alleged that there is error in any order, decision or determination made by Chippewa County in administering this ordinance except for cease-and-desist orders obtained under section 12-23(d).
 - (2) *Variances.* Upon appeal, may authorize variances from the provisions of this ordinance which are not contrary to the public interest and where owing to special conditions a literal enforcement of the provisions of the ordinance will result in unnecessary hardship; and
 - (3) Shall use the rules, procedures, duties and powers authorized by statute in hearing and deciding appeals and authorizing variances.
- (b) *Who May Appeal.* Appeals to the Board of Adjustment may be taken by any aggrieved person or by any office, department, board, or bureau of Chippewa County affected by any decision of the administrative authority or technical authority.

Sec. 12-25. Technical Discretion.

- (a) *Other Standards.* Other construction site erosion control standards and post construction stormwater management standards not identified or listed in this ordinance may be used provided that the methods have been approved in advance by the technical authority based on a finding that the alternatives standards will meet the technical intent of the standards in the applicable ordinance sections.
- (b) *Additional Requirements.* The technical authority may establish construction site erosion control or post construction stormwater management requirements that are more stringent than those set forth in this ordinance if the technical authority determines that an added level of protection is needed.

Sec. 12-26. Construction Site Erosion Control or Post Construction Stormwater Permits.

- (a) At some sites a permit for construction site erosion control will be required, but a permit for post-construction stormwater management may not be required. For other sites a concurrent permit for both construction site erosion control and post-construction stormwater management may be required.
- (b) In cases where only a permit for construction site erosion control is required, the construction Site Erosion Control Plan is to be submitted to the administrative authority for plan review. In cases where a permit for post-construction stormwater management is required a Construction Site Erosion Control Plan, a Post- Construction Stormwater Management Plan, and a Maintenance Agreement for Post-Construction Stormwater Management Features is to be submitted to the technical authority for plan review.

Sec. 12-27. Fee Schedule.

The fees referred to in this ordinance shall be recommended by the administrative authority and technical authority and may from time to time be modified by customary budget procedures. A schedule of the fees shall be available for review in the offices of the administrative authority and technical authority.

Sec. 12-28 to 12-30 Reserved.**ARTICLE III: CONSTRUCTION SITE EROSION CONTROL****Sec. 12-31. Design Requirements.**

- (a) All BMPs for construction site erosion control required by this ordinance shall meet the design criteria, standards and specifications of the following references:
- (1) Applicable design criteria, standards and specifications identified at the *Construction Site Erosion & Sediment Control Standards* web site:

(http://dnr.wi.gov/topic/stormwater/standards/const_standards.html, or applicable updates)
 - (2) Other design guidance and technical standards identified or developed by the Wisconsin Department of Natural Resources under subchapter V of Wis. Adm. Code NR 151.
 - (3) Soil loss prediction tools such as the Revised Universal Soil Loss Equation 2 (RUSLE2) that estimate the sediment load leaving the construction site under varying land and management conditions.

Sec. 12-32. Erosion and Other Pollutant Control Standards.

- (a) All construction sites shall meet the following performance standards:
- (1) The site shall discharge no more than 5 tons per acre per year of sediment carried in runoff from initial grading to final stabilization; or
 - (2) The site shall be protected at the time of site disturbance using the prescriptive BMPs established in the Channel Erosion Control Matrix and Slope Erosion Control Matrix of the Wisconsin DOT Erosion Control Product Acceptability Lists (PAL), (September 2010 edition, or current edition).

Sec. 12-33. Mandatory Site Protection.

- (a) The following site protection measures are required at all sites:
- (1) Existing vegetation shall be maintained, especially adjacent to surface waters, to the greatest extent possible.
 - (2) Soil compaction shall be minimized
 - (3) Topsoil shall be preserved.

- (4) Land disturbing construction activity on slopes of 20% or more shall be minimized.

Sec. 12-34. Mandatory Erosion and Sediment Control Practices.

- (a) Erosion and sediment control practices are required at all sites to prevent or reduce all of the following:
 - (1) The deposition of soil from being tracked onto streets by vehicles.
 - (2) The discharge of sediment from disturbed areas into on-site stormwater inlets.
 - (3) The discharge of sediment from disturbed areas into adjacent waters of the state.
 - (4) The discharge of sediment from drainage ways that flow off the site.
 - (5) The discharge of sediment by dewatering activities.
 - (6) The discharge of sediment eroding from soil stockpiles existing for more than 7 days.
 - (7) The discharge of sediment from erosive flows at outlets and in downstream channels.
 - (8) The transport by runoff into waters of the state of chemicals, cement, and other building compounds and materials on the construction site during the construction period. However, projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this subdivision.
 - (9) The transport by runoff into waters of the state of untreated wash water from vehicle and wheel washing.
 - (10) The BMPs used to comply with this section shall be located so runoff is treated runoff prior entering waters of the state.

Sec. 12-35. Use of Stormwater Facilities for Erosion and Sediment Control.

Regional post-construction stormwater treatment facilities are appropriate for and may be used for control of post-construction stormwater and pollutants. Regional post-construction stormwater treatment facilities shall not be used for control of construction site sediment.

Sec. 12-36. Specifications.

- (a) An erosion and sediment control plan shall be prepared and submitted to the administrative authority.
- (b) The erosion and sediment control plan shall meet the standards in Article II and all other requirements of this ordinance.
- (c) The erosion and sediment control plan shall address pollution caused by soil erosion and sedimentation during construction and up to final stabilization of the site. The erosion and sediment control plan shall include, at a minimum, the following items:

- (1) The name(s) and address(es) of the owner or developer of the site, and of any consulting firm retained by the applicant, together with the name of the applicant's principal contact at such firm. The application shall also include start and end dates for construction.
 - (2) Description of the site and the nature of the construction activity, including representation of the limits of land disturbance on a United States Geological Service 7.5 minute series topographic map.
 - (3) A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
 - (4) Estimates of the total area of the site and the total area of the site that is expected to be disturbed by construction activities.
 - (5) Estimates, including calculations, if any, of the runoff coefficient of the site before and after construction activities are completed.
 - (6) Calculations to show the expected percent reduction in the average annual sediment load carried in runoff as compared to no sediment or erosion controls. Alternatively, computations of other verification that erosion control BMPs comply with Channel Erosion Control Matrix and Slope Erosion Control Matrix of the Wisconsin DOT Erosion Control Product Acceptability Lists (PAL), per *Standards* section.
 - (7) Existing data describing the surface soil as well as subsoils.
 - (8) Depth to water table, as indicated by Natural Resources Conservation Service soil information where available, or Chippewa County regional water table maps.
 - (9) Name of the immediate named receiving water from the United States Geological Service 7.5 minute series topographic maps.
- (b) The erosion and sediment control plan shall include a site map. The site map shall include the following items and shall be at a scale not greater than 100 feet per inch and at a contour interval not to exceed five feet.
- (1) Existing topography, vegetative cover, natural and engineered drainage systems, roads and surface waters. Lakes, streams, wetlands, channels, ditches and other watercourses on and immediately adjacent to the site shall be shown. Any identified 100-year flood plains, flood fringes and floodways shall also be shown.
 - (2) Boundaries of the construction site.
 - (3) Drainage patterns and approximate slopes anticipated after major grading activities.

- (4) Areas of soil disturbance.
 - (5) Location of major structural and non-structural controls identified in the plan.
 - (6) Location of areas where stabilization practices will be employed.
 - (7) Areas which will be vegetated following construction.
 - (8) Areal extent of wetland acreage on the site and locations where stormwater is discharged to a surface water or wetland.
 - (9) Locations of all surface waters and wetlands within one mile of the construction site.
- (c) Each erosion and sediment control plan shall include a description of appropriate controls and measures that will be performed at the site to prevent pollutants from reaching waters of the state. The plan shall clearly describe the appropriate control measures for each major activity and the timing during the construction process that the measures will be implemented. The description of erosion controls shall include, when appropriate, the following minimum requirements:
- (1) Description of interim and permanent stabilization practices, including a practice implementation schedule. Site plans shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.
 - (2) Description of structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the technical authority, structural measures shall be installed on upland soils.
 - (3) Management of overland flow at all sites, unless otherwise controlled by outfall controls.
 - (4) Trapping of sediment in channelized flow.
 - (5) Staging construction to limit bare areas subject to erosion.
 - (6) Protection of downslope drainage inlets where they occur.
 - (7) Minimization of tracking.
 - (8) Cleanup of off-site sediment deposits.
 - (9) Proper disposal of building and waste materials.
 - (10) Stabilization of drainage ways.
 - (11) Control of soil erosion from dirt stockpiles.
 - (12) Installation of permanent stabilization practices as soon as possible after final grading.
 - (13) Minimization of dust to the maximum extent practicable.

- (d) The erosion and sediment control plan shall require that velocity dissipation devices be placed at discharge locations and along the length of any outfall channel, as necessary, to provide a non-erosive flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected. For permanent outlet features, rock lining is the preferred option.
- (e) *Statement.* For each construction site subject to this ordinance, an erosion and sediment control plan statement shall be prepared. The statement shall briefly describe the site, including a site map. Further, it shall also include the best management practices that will be used to meet the requirements of the ordinance, including the site development schedule.
- (f) *Plan Amendments.* The applicant shall amend the erosion and sediment control plan if any of the following occur:
 - (1) There is a change in design, construction, operation or maintenance at the site which has the reasonable potential for the discharge of pollutants to waters of the state and which has not otherwise been addressed in the plan.
 - (2) The actions required by the erosion and sediment control plan fail to reduce the impacts of pollutants carried by construction site runoff.
 - (3) The administrative authority notifies the applicant of changes needed in the erosion and sediment control plan.

Sec. 12-37. Permits.

- (a) *Permit Required.* No responsible party may undertake land disturbing construction activity subject to this ordinance without receiving an erosion and sediment control permit from the administrative authority prior to commencing the proposed activity.
- (b) *Permit Application and Fees.* Any responsible party desiring to undertake a land disturbing construction activity subject to this ordinance shall submit an application for a permit and an erosion and sediment control plan that meets the requirements of this ordinance and shall pay an application fee to the administrative authority. By submitting an application, the applicant is authorizing the administrative authority and technical authority to enter the site to obtain information required for the review of the erosion and sediment control plan.
- (c) *Review and Approval of Permit Application.* The administrative authority shall receive any permit application that is submitted with an erosion and sediment control plan, and the required fee. In cases where only a permit for construction site erosion control is required, the administrative authority is exclusively responsible for Plan Review, Plan Acceptance, and Permit Issuance.
- (d) *Permit Requirements.* All permits shall require the responsible party to:
 - (1) Notify the administrative or technical authority within 48 hours of commencing any land disturbing construction activity.
 - (2) Notify the administrative authority or technical authority of completion of any BMPs within 10 business days after their installation.

- (3) Obtain permission in writing from the administrative authority prior to any modification of the erosion and sediment control plan.
 - (4) Install all BMPs as identified in the approved erosion and sediment control plan.
 - (5) Maintain all road drainage systems, stormwater drainage systems, BMPs and other facilities identified in the erosion and sediment control plan.
 - (6) Repair any siltation or erosion damage to adjoining surfaces and drainage ways resulting from land disturbing construction activities and document repairs in a site erosion control log.
 - (7) Inspect the BMPs within 24 hours after each rain of 0.5 inches or more which results in runoff during active construction periods, and at least once each week, make needed repairs and document the findings of the inspections in a site erosion control log with the date of inspection, the name of the person conducting the inspection, and a description of the present phase of the construction at the site.
 - (8) Allow the administrative authority and technical authority to enter the site for the purpose of inspecting compliance with the erosion and sediment control plan or for performing any work necessary to bring the site into compliance with the control plan. Keep a copy of the erosion and sediment control plan at the construction site.
- (e) *Permit Conditions.* Permits issued under this section may include conditions established by the administrative authority in addition to the requirements set forth in sub. (d), where needed to assure compliance with the standards in Article II.
- (f) *Permit Duration.* Permits issued under this section shall be valid for a period of 180 calendar days, or the length of the building permit or other construction authorizations, whichever is longer, from the date of issuance. The administrative authority may extend the period one or more times for up to an additional 180 calendar days. The administrative authority, in consultation with the technical authority, may require additional BMPs as a condition of the extension if they are necessary to meet the requirements of this ordinance.

Sec. 12-38. Surety Bond.

As a condition of approval and issuance of the permit, the administrative authority may require the applicant to deposit a surety bond or irrevocable letter of credit to guarantee a good faith execution of the approved erosion control plan and any permit conditions.

Sec. 12-39. Maintenance.

The responsible party throughout the duration of the construction activities shall maintain all BMPs necessary to meet the requirements of this ordinance until the site has undergone final stabilization.

Sec. 12-40 to 12-50. Reserved.

ARTICLE IV: POST-CONSTRUCTION STORMWATER MANAGEMENT

Sec. 12-51. General Requirement.

The following standards and criteria shall be used to meet the water quality, peak flow shaving, and infiltration requirements. In cases where the standards for Total Suspended Solids, Peak Runoff Discharge and Infiltration are shown to not be possible to be explicitly met, strict adherence to these standards maybe waived. In such circumstances, these standards shall be followed to the maximum extent practicable as approved by the technical authority.

Sec. 12-52. Design Standards.

- (a) The design standards identified, developed or disseminated by the Wisconsin Department of Natural Resources under subchapter V of chapter NR 151, Wis. Adm. Code; and
- (b) Other applicable design criteria, standards and specifications as accepted by Chippewa County and on file in the office of the technical authority.
- (c) Where average annual rainfall data is used to meet requirements of this ordinance, the data of record shall be Minneapolis, 1959 (March 13-November 4); as maintained by the United States Geological Survey (USGS).

Sec. 12-53. General Consideration for Siting Stormwater Management Features.

- (a) 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 Article IV.
- (b) Emergency 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.
- (c) The post-construction stormwater BMPs that are required under this ordinance shall be installed before the construction site has undergone final stabilization.

Sec. 12-54. Total Suspended Solids.

- (a) BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site using the following design approach:
- (b) BMPs shall be designed to meet total suspended solids (TSS) goals in accordance with Table 1 – TSS Reduction Standards.

Table 1. TSS Reduction Standards

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

- (c) Pollutant loading models such as SLAMM (Source Loading and Management Model), P8 (Program for Predicting Polluting Particle Passage thru Pits, Puddles & Ponds) or an equivalent methodology shall be used to evaluate the efficiency of the design in reducing total suspended solids. The application of the model and design of BMPs shall be based on an average annual rainfall, as compared to no runoff management controls.
- (d) When designing BMPs, runoff draining to the BMP from off-site shall be taken into account in determining the treatment efficiency of the practice. Any impact on the treatment efficiency shall be compensated for by increasing the size of the BMP accordingly.

Sec. 12-55. Peak Runoff Discharge.

- (a) BMPs shall be designed to maintain or reduce post-development peak runoff discharge rates to pre-development peak runoff discharge rates for the 1-year, 2-year, 10-year, 25- year, and 100-year recurrence interval, 24-hour duration design storms.
- (b) The runoff curve numbers in Table 2 shall be used to represent pre-development conditions. Pre-development conditions shall assume “good hydrologic conditions”. Where the pre-development condition is a combination of land uses/cover types a weighted runoff curve number (weighted based on area) shall be used.
- (c) Post-development runoff curve numbers shall be from TR-55 or equivalent methodologies.

Table 2. Maximum Pre-Development Runoff Curve Numbers

Land Use, Cover Type	Hydrologic Soil Group			
	A	B	C	D
Woodland	30	55	70	77
Grassland, Meadow, Open Space, Pasture	39	61	71	78
Cropland	55	69	78	83
Redevelopment (15% impervious)	46	65	77	82
Redevelopment (>15% impervious)	51	68	79	84

- (d) The peak runoff discharge subsection of this ordinance does not apply to any of the following:
 - (1) The redevelopment of an existing site with no increase in impervious surface.
 - (2) An in-fill development area less than 5 acres.
 - (3) A post-construction site where there is a direct discharge into a lake over 5000 acres in size or a stream or river segment with a contributing drainage basin area of more than 500 square miles. For purposes of this ordinance these waters are specifically described and identified on maps and data maintained by the Technical Authority. See Appendix 1.

Sec. 12-56. Infiltration.

- (a) BMPs shall be designed, installed, and maintained to infiltrate runoff in accordance with Table 3.

Table 3. Infiltration Standards

Type of Development	Description of Development	Infiltration Requirements (Pre-development infiltration volume, based on an average) annual rainfall)	Limits (Max. % of post-construction site required for infiltration)
Low Imperviousness	Less than 40% connected imperviousness, such as parks, cemeteries, and low-density residential development	At least 90%	No more than 1%
Moderate Imperviousness	40% to 80% connected imperviousness, such as medium and high density residential, multi-family development, industrial and institutional development, and office parks	At least 75%	No more than 2%
High Imperviousness	More than 80 % connected imperviousness, such as commercial strip malls, shopping centers, and commercial downtowns	At least 60%	No more than 2%

- (b) *Pre-Development.* Pre-development condition shall be as specified in Table 2. Note: A model that calculates runoff volume, such as SLAMM, P8, or an equivalent methodology may be used. Infiltration computations for infiltration BMPs may use RECHARGE or an equivalent methodology.
- (c) *Groundwater Protection.*
- (1) Infiltration systems designed in accordance with this section shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to groundwater and shall maintain compliance with the preventive action limit at a point of standards application in accordance with Wis. Adm. Code NR 140. However, if site specific information indicates that compliance with a preventive action limit is not achievable, the infiltration BMP may not be installed or shall be modified to prevent infiltration to the maximum extent practicable.
 - (2) Notwithstanding (1) above, the discharge from BMPs shall remain below the enforcement standard at the point of standards application.
- (d) *Pre-treatment.* Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for runoff from new road construction in commercial, industrial, and institutional areas that will enter an infiltration system. The pretreatment shall be designed to protect the infiltration system

from clogging prior to scheduled maintenance and to protect groundwater quality in accordance with section (c) Groundwater Protection. Pretreatment options may include, but are not limited to, oil and grease separation, sedimentation, biofiltration, filtration, swales, or filter strips.

- (e) *Prohibited Areas.* Runoff from the following source areas shall not be infiltrated and will not qualify as contributing to meeting the requirements of this section unless demonstrated to meet the conditions of section (c) Groundwater Protection:

- (1) Areas associated with a tier 1 industrial facility identified in Wis. Adm. Code NR 216.21(2)(a), including storage, loading, and parking facilities. Rooftops may be infiltrated.
- (2) Open storage and loading areas of a tier 2 industrial facility identified in Wis. Adm. Code NR 216.21(2)(b).

Note 1: 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.

Note 2: Rooftops of fueling and vehicle maintenance areas may be infiltrated with the concurrence of the technical authority.

Sec. 12-57. Restrictions on the Location of Infiltration Practices.

- (a) *Prohibitions.* Infiltration practices may not be located in the following areas:

- (1) Areas within 1,000 feet up gradient or within 100 feet down gradient of direct conduits to groundwater. These include wells, sinkholes, springs, seeps, swallets, fractured bedrock at the surface, mine shafts, nonmetallic mines, tile inlets discharging to groundwater, quarries, or depressional groundwater recharge areas over shallow fractured bedrock.
- (2) Areas within 400 feet of a community water system well as specified in Wis. Adm. Code NR 811.16(4) or within the separation distances listed in Wis. Adm. Code NR 812.08 for any private well or non-community well for runoff infiltrated from commercial, including multi-family residential, industrial, and institutional land uses or regional devices for one- and two-family residential development.
- (3) Areas where contaminants of concern, as defined in Wis. Adm. Code NR 720.03(2), are present in the soil through which infiltration will occur.

- (b) *Separation from groundwater and bedrock.* 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 4.

Table 4. 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 Course Sand
Roofs Draining to Surface Infiltration Practices	Not Applicable	
All Other Impervious Source Areas	3 feet or more	Filtering Layer

Note: Notwithstanding the separation distances (above), applicable requirements for injection wells classified under Wis. Adm. Code Ch. NR 815 shall be followed.

- (c) *Infiltration Rate Exemptions.* Practices located in the following areas are required to meet the infiltration requirements to the maximum extent practicable:
- (1) 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.
 - (2) Where the least permeable soil horizon to 5 feet below the proposed bottom of the infiltration system using the U.S. Department of Agriculture method of soils analysis is one of the following: sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.
- (d) *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.

Sec. 12-58. Closed Depressions.

- (a) Areas identified as Significant Closed Depressions shall be protected from development to retain existing stormwater attenuation capacity. A map of these areas and associated parcels will be provided in Appendix 2. Additional areas meeting the definition of Significant Closed Depression can be added to the map through ordinance amendment.
- (b) A Conditional Use process will be used in cases where disturbance of a Significant Closed Depression is proposed. At a minimum, mitigation of site hydrology to retain storage capacity and infiltration of the depression shall be required. To achieve mitigation, all of the following items are required:
- (1) Disturbance to the Significant Closed Depression is to be avoided and minimized to the greatest extent possible,

- (2) Equivalent replacement runoff storage and groundwater infiltration capability is to be developed,
- (3) Replacement storage and infiltration is to be provided physically as close as practicable to the impacted recharge area and in the watershed of the same receiving water,
- (4) Replacement storage and infiltration capability is to be developed prior to the disturbance,
- (5) Design of the replacement storage and infiltration features shall be developed by a registered Professional Engineer,
- (6) Proposals are subject to soil limitations in section 12-57(b) of this ordinance, and
- (c) The proposal is to be reviewed by the technical authority with recommendation provided to the Planning & Zoning Committee.

Sec. 12-59. Protective Areas.

- (a) Table 5 provides a list of protective areas and protective distances for each type of protective area.

Table 5: Protective Areas

	Protective Area	Protective Distance
1.	Outstanding resource waters and exceptional resource waters, and for wetlands in areas of special natural resource interest as specified in Wis. Adm.	75 feet
2.	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.	50 feet
3.	Lakes	50 feet
4.	Wetlands that are not <i>Highly Susceptible Wetlands</i> (item 5.) or <i>Less Susceptible Wetlands</i> (item 6.)	50 feet
5.	Highly susceptible wetlands. Highly susceptible wetlands include the following types: fens, sedge meadows, bogs, low prairies, conifer swamps, lowland hardwood swamps, and ephemeral ponds	75 feet
6.	Less susceptible wetlands. Less susceptible wetlands include degraded wetlands 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.	10 % of the average wetland width, but no less than 10 feet nor more than 30 feet.
7.	Concentrated flow channels with drainage areas greater than 130 acres.	10 feet

Note 1: For items 4, 5, and 6, above, 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 Wis. Adm. Code NR 103.03.

Note 2: Wetland boundary delineation shall be made in accordance with Wis. Adm. Code NR 103.08(1m). This paragraph does not apply to wetlands that have been completely filled in compliance with all applicable state and federal regulations. The protective area for wetlands that have been partially 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.

Note 3: Where rivers, streams, lakes, and wetlands are contiguous, the greatest protective distance above shall apply.

(b) For development within or adjacent a protective area, the following requirements shall be met:

- (1) Impervious surfaces shall be kept out of the protective area to the maximum extent practicable. If there is no practical alternative to locating an impervious surface in the protective area, the stormwater management plan shall contain a written, site-specific explanation.
- (2) Where land disturbing construction activity occurs within a protective area, and where no impervious surface is present, adequate sod or self-sustaining vegetative cover of 70% or greater shall be established and maintained. The adequate sod or self-sustaining vegetative cover shall be sufficient to provide for bank stability, maintenance of fish habitat and filtering of pollutants from upslope overland flow areas under sheet flow conditions. Non-vegetative materials, such as rock riprap, may be employed on the bank as necessary to prevent erosion, such as on steep slopes or where high velocity flows occur.

Note: It is recommended that seeding of non-invasive vegetative cover be used in the protective areas. Vegetation that is flood and drought tolerant and can provide long-term bank stability because of an extensive root system is preferable.

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

Note: Other laws, such as Wis. Stats. § Chapter 30, and Wis. Adm. Code Chapters NR 103, 115, 116 and 117 and their associated review and approval process may apply in the protective area.

(c) *Exemptions.* The protected areas section does not apply to:

- (1) In-fill development areas less than 5 acres.
- (2) Structures that cross or access surface waters such as boat landings, bridges and culverts.
- (3) Structures constructed in accordance with Wis. Stats. § 59.692(1v).
- (4) Areas of post-construction sites from which the runoff does not enter the surface water, including wetlands, without first being treated by a BMP to meet the post-construction requirements for total suspended solids and for peak runoff discharge, except to the extent that vegetative groundcover is necessary to maintain bank stability.

Sec. 12-60. Swale Treatment for Transportation Facilities.

- (a) *Applicability.* Except as provided in section (b) below, transportation facilities that use swales for runoff conveyance and pollutant removal meet all of the requirements of this section, if the swales are designed to the maximum extent practicable to do all of the following:
- (1) 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 due to its greater effectiveness at enhancing pollutant removal from runoff.
 - (2) Swales shall comply with Wisconsin DNR technical standard 1005, "Vegetated Infiltration Swale", dated May, 2007, except as otherwise authorized in writing by the technical authority.
- (b) *Exemptions.* The administrative authority may, consistent with water quality standards, require other provisions of this section be met on a transportation facility with an average daily travel of vehicles greater than 2500, the area generating the runoff is a non-commercial site, and where the initial surface water of the state that the runoff directly enters is any of the following:
- (1) An outstanding resource water.
 - (2) An exceptional resource water.
 - (3) Waters listed in section 303(d) of the Federal Clean Water Act that are identified as impaired in whole or in part, due to nonpoint source impacts.
 - (4) Waters where targeted performance standards are developed under Wis. Adm. Code NR 151.004 to meet water quality standards.

Sec. 12-61. Regional Treatment.

- (a) To comply with the post-construction stormwater management standards of this ordinance, BMPs may be located on-site or off-site as part of a regional stormwater device, practice or system.
- (b) The administrative authority may approve off-site management measures provided that all of the following conditions are met:
- (1) The administrative authority determines that the post-construction runoff is covered by a stormwater management system plan that is approved by the technical authority and that contains management requirements consistent with the purpose and intent of this ordinance.
 - (2) The off-site facility meets all of the following conditions:
 - a. The facility is in place.
 - b. 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.

- c. The facility has a legally obligated entity responsible for its long-term operation and maintenance.
- (c) Where a regional treatment option exists such that the technical authority recommends exemption from all or part of the minimum on-site stormwater management requirement, the applicant may be required to pay a fee in an amount determined in negotiation with the administrative authority. In determining the fee for post-construction runoff, the administrative authority shall consider an equitable distribution of the cost for land, engineering design, construction, and maintenance of the regional treatment option.

Sec. 12-62. Fueling and Vehicle Maintenance Areas.

- (a) Fueling and vehicle maintenance areas shall have BMPs designed, installed and maintained to reduce petroleum within runoff, so that the runoff that enters waters of the state contains no visible petroleum sheen to the maximum extent practicable.

Note: A combination of the following BMPs 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.

Sec. 12-63. Permits.

- (a) *Permit Required.* No responsible party may undertake a land division or land disturbing construction activity subject to regulation under this ordinance without receiving a post-construction stormwater management permit from the administrative authority prior to commencing the proposed activity.
- (b) *Permit Application and Fees.* Unless specifically excluded by this ordinance, any responsible party desiring a permit shall submit to the administrative authority a permit application made on a form provided by the administrative authority for that purpose. A non-refundable permit administration fee shall accompany the permit application form.
 - (1) Unless otherwise excepted by this ordinance, a permit application form must be accompanied by an erosion and sediment control plan, a post-construction stormwater management plan, and a maintenance agreement for post-construction stormwater management features. These items may be submitted after the permit application form and fee, but the application will not be considered complete until all required items have been submitted to and accepted by the technical authority.
 - (2) All permit application items shall be prepared to meet the requirements of this ordinance.
- (c) *Review and Approval of Permit Application.* In cases where a permit for post-construction stormwater management is required, the following review and approval procedure shall be used:
 - (1) The administrative authority shall receive and review the permit application form and the required fees.
 - (2) The technical authority shall receive the erosion and sediment control plan, post-construction stormwater management plan, and maintenance agreement and review these

- items for compliance with standards, specifications, and other requirements of this ordinance.
- (3) The administrative authority or technical authority may request additional information from the applicant to clarify details of the application form, plans, or maintenance agreement or to seek conformity with the standards, specifications, and other requirements of this ordinance.
 - (4) Upon satisfaction that the Erosion and Sediment Control Plan, Post-Construction Stormwater Management Plan, and Maintenance Agreement for Post-Construction Stormwater Management Features comply with the standards, specifications, and other requirements of this ordinance the technical authority will provide a written Notice of Acceptance to the administrative authority.
 - (5) Following receipt of a completed application form, fees, and Notice of Acceptance by the technical authority, the administrative authority may issue the post-construction stormwater management permit. The administrative authority shall have 20 business days from receipt of a completed application materials to approve or deny the permit. If the permit is disapproved, the administrative authority shall detail in writing the reasons for disapproval.
- (d) *Permit Requirements.* 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 administrative authority may suspend or revoke a permit for violation of a permit condition, following written notification of the responsible party. An action by the administrative authority to suspend or revoke this permit may be appealed in accordance with section 12-24.
- (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 install all structural and non-structural stormwater management measures in accordance with the approved stormwater management plan and this permit.
 - (3) The responsible party shall notify the technical authority at least 3 business days before commencing any site work in conjunction with the stormwater management plan, and within 10 business days upon completion of the stormwater management practices. If required as a special condition under section (e) below, the responsible party shall make additional notification according to a schedule set forth by the technical authority so that practice installations can be inspected during construction.
 - (4) Practice installations required as part of this ordinance shall be certified as meeting the requirements of the approved plans and requirements of this ordinance by a registered Professional Engineer. Submission of "as built" plans. As-built plans shall provide detail necessary to show compliance with the approved stormwater management plan and requirements of the ordinance. As-built plans shall also to provide final surveyed elevations of required permanent monuments. Completed stormwater management practices must pass a final inspection by the technical authority to determine if they are in accordance with the approved stormwater management plan and ordinance. The technical authority

shall notify the responsible party and administrative authority in writing of any changes required in such practices to bring them into compliance with the conditions of this permit.

- (5) The responsible party shall notify the technical authority of any significant modifications it intends to make to an approved stormwater management plan. The technical authority may require that the proposed modifications be submitted to it 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 in accordance with the stormwater management plan until the practices either become the responsibility of a municipality, or are transferred to subsequent private owners as specified in the approved maintenance agreement.
 - (7) The responsible party authorizes the Chippewa County to perform any work or operations necessary to bring stormwater management measures into conformance with the approved stormwater management plan, and consents to a special assessment or charge against the property as authorized under subch. VII of Wis. Stats. Ch. 66 or to charging such costs against the financial guarantee posted under section 12-66.
 - (8) If so, directed by the administrative authority, the responsible party shall repair at the responsible party'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 administrative authority and technical authority for the purpose of inspecting the property for compliance with the approved stormwater management plan and this permit.
 - (10) Where site development or redevelopment involves changes in direction, increases in peak rate and/or total volume of runoff from a site, the administrative authority may require the responsible party to make appropriate legal arrangements with affected property owners concerning the prevention of endangerment to property or public safety.
 - (11) The responsible party is subject to the enforcement actions and penalties detailed in section 12-11, if the responsible party fails to comply with the terms of this permit.
- (e) *Permit Conditions.* Permits issued under this subsection may include conditions established by the administrative authority in addition to the requirements needed to meet the standards and plan requirements in Article IV and financial guarantee as provided for in 12-66.
- (f) *Permit Duration.* Permits issued under this section shall be valid from the date of issuance through the date the administrative authority notifies the responsible party that all stormwater management practices have passed the final inspection required under section 12-63(d)(4).

Sec. 12-64. Specifications.

- (a) The stormwater management plan shall contain at a minimum the following information:

- (1) Name, address, and telephone number for the following or their designees: landowner; developer; Professional 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, referenced to the
- (3) U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.
- (4) Pre-development site conditions, including:
 - a. One or more site maps at a scale of not less than 1 inch equals 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 at an interval not to exceed 2 feet; topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; watercourses that may affect or be affected by runoff from the site; flow path and direction for all 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 Wis. Adm. Code NR 811.16.
 - b. Hydrology and pollutant loading computations as needed to show compliance with performance standards. All major assumptions used in developing input parameters shall be clearly stated. The geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
- (5) Post-development site conditions, including:
 - a. Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.
 - b. Explanation of any restrictions on 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 1 inch equals 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 at a scale not to exceed 2 feet; post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; locations and dimensions of drainage easements; locations of maintenance easements specified in the maintenance agreement; flow path and direction for all 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; the minimum permissible Building Opening Elevation of structures exposed to the ground surface - defined as a minimum of two (2) feet above the maximum water elevation produced by the 100-year, 24 hour design storm; watershed boundaries used in hydrology and pollutant loading calculations and any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.
- d. Hydrology and pollutant loading computations as needed to show compliance with performance standards. The computations shall be made for each discharge point in the development, and the geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
 - e. Results of investigations of soils and groundwater required for the placement and design of stormwater management measures. Detailed drawings including cross-sections and profiles of all permanent stormwater conveyance and treatment practices.
 - f. Infiltration system design information as described in the Wisconsin Department of Natural Resources Infiltration System Site Evaluation Standard.
- (6) Plans for at least one permanent vertical elevation monument to be used for future monitoring of stormwater facilities. The monument shall be designed to be substantial, permanent, and protected from frost damage. The technical authority will provide guidance on design standards for such monuments. Each monument shall have elevation determined and documented relative to the most current North American Vertical Datum (NAVD). The precision and accuracy of the measurement shall be to a quality acceptable to the technical authority.
 - (7) A description and installation schedule for the stormwater management practices needed to meet the technical and performance standards.
 - (8) A maintenance plan developed for the life of each stormwater management practice including the required maintenance activities and maintenance activity schedule.
 - (9) Quantity and cost estimates for the construction, operation, and maintenance of each stormwater management practice.
 - (10) Other information requested in writing by the administrative authority to determine compliance of the proposed stormwater management measures with the provisions of this ordinance.
 - (11) All site investigations, plans, designs, computations, and drawings shall be certified by a registered Professional Engineer to be prepared in accordance with accepted engineering practice and requirements of this ordinance.
- (b) *Alternate Requirements.* The administrative authority, in consultation with the technical authority, may prescribe alternative submittal requirements for applicants seeking an exemption to on-site stormwater management standards.

Sec. 12-65. Maintenance Agreement.

- (a) *Maintenance Agreements Required.* A maintenance agreement shall be required for post-construction stormwater management practices. This shall be an agreement between the administrative authority and the responsible party to provide for maintenance of stormwater practices beyond the duration period of this permit. Direct responsibility for maintenance of stormwater facilities will be assigned to landowners with drainage to the facility through a homeowner or business association or deed covenants. The maintenance agreement shall be filed with the County Register of Deeds as a property deed restriction so that it is binding upon all subsequent owners of the land served by the stormwater management practices.
- (b) *Agreement Provisions.* The maintenance agreement shall contain the following information and provisions and be consistent with the required maintenance plan:
- (1) Identification of the stormwater facilities and designation of the drainage area served by the facilities.
 - (2) Designation of easements for drainage and stormwater facilities, and ingress and egress.
 - (3) A schedule for regular maintenance of each aspect of the stormwater management system consistent with the required post-construction stormwater management plan .
 - (4) Identification of the responsible party(s), organization or city, county, town or village responsible for long term maintenance of the stormwater management practices identified in the post-construction stormwater management plan.
 - (5) Requirement that the responsible party(s) shall maintain stormwater management practices in accordance with the schedule included in section (3) above.
 - (6) Authorization for the administrative authority and technical authority to access the property to conduct inspections of stormwater management practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.
 - (7) A requirement that the administrative authority and technical authority i) maintain public records of the results of the site inspections, ii) inform the party responsible for maintenance of the inspection results, and iii) to specifically indicate any corrective actions required to bring the stormwater management practice into proper working condition.
 - (8) Agreement that the party designated under section (4) above, as responsible for long term maintenance of the stormwater management practices, shall be notified by the administrative authority of maintenance problems which require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the administrative authority.
 - (9) Authorization of Chippewa County to perform the corrected actions identified in the inspection report if the responsible party designated under section (4) above does not make the required corrections in the specified time period. Chippewa County or the

municipality in which the facilities are constructed shall enter the amount due on the tax rolls and collect the money as a special charge against the property pursuant to subch. VII of Wis. Stats. Ch. 66.

Sec. 12-66. Financial Guarantee.

- (a) *Establishment of the Guarantee.* The applicant shall submit a financial guarantee, the form and type of which shall be acceptable to the administrative authority. The financial guarantee shall be in an amount determined by the technical authority to be the estimated cost of construction and site stabilization. The financial guarantee shall give Chippewa County the authorization to use the funds to complete the stormwater management practices if the responsible party defaults or does not properly implement the approved stormwater management plan, upon written notice to the responsible party by the Chippewa County that the requirements of this ordinance have not been met.
- (b) Conditions for the release of the financial guarantee are as follows:
 - (1) Chippewa County shall release the portion of the financial guarantee established under this section, less any costs incurred by the Chippewa County to complete installation of practices. This release shall occur upon review and acceptance by the technical authority of "as built plans" and certification as submitted by a registered Professional Engineer. Chippewa County may make provisions for a partial pro-rata release of the financial guarantee based on the completion and documentation of key development phases.
 - (2) Chippewa County shall release the portion of the financial guarantee established under this section to assure maintenance of stormwater practices, less any costs incurred by Chippewa County, at such time that the responsibility for practice maintenance is passed on to another entity via an approved maintenance agreement.
 - (3) For practices that are dependent on permanent vegetative treatments, a standard of 70 percent vegetative cover will be used. Release of financial guarantee will be considered only after a minimum period of one year from the date of the establishment of the vegetative treatments.

Sec. 12-67 to 12-70. Reserved.

(Ord. No. 07-17; 12-12-2017)

Attachment 2.5 (B)

STORMWATER MANAGEMENT POST CONSTRUCTION & CONSTRUCTION SITE EROSION CONTROL APPLICATION

Chippewa County, 711 N. Bridge Street Chippewa Falls, WI 54729

Planning & Zoning (715) 726-7940 • Land Conservation & Forest Management (715) 726-7920

At some sites, a permit for construction site erosion control will be required, but a permit for post-construction stormwater management may not be required. For other sites, a concurrent permit for both construction site erosion control and post-construction stormwater management may be required.

In cases where only a permit for construction site erosion control is required, the Construction Site Erosion Control Plan is to be submitted to the Department of Planning & Zoning for plan review. In cases where a permit for post-construction stormwater management is required, a Construction Site Erosion Control Plan, a Post-Construction Stormwater Management Plan and a Maintenance Plan Agreement for Post-Construction Stormwater Management Features is to be submitted to the Land Conservation & Forest Management Department for Plan Review.

SECTION A: Project Information:

Project Name: _____ Property Address: _____ (If Available)
Project Location: ____ ¼, Section ____, Township ____ North, Range ____ West
Town or Municipality: _____ Parcel Number 1 (if known): ____ - ____ - ____
Estimated Total Area of Site: _____ ☐ Acres ☐ Sq. Ft. Parcel Number 2 (if needed): ____ - ____ - ____

SECTION B: Planning & Zoning Fee: Construction Site Erosion Control

1. Construction Site Erosion Control Permit (\$75): up to 1,000 sq. ft \$ _____
 2. Construction Site Erosion Control Permit (\$150): over 1,000 sq. ft \$ _____
- TOTAL DUE TO PLANNING & ZONING:** \$ _____

(Check payable to: Chippewa County Treasurer)

SECTION C: Land Conservation & Forest Management Fees: Stormwater Management – Post Construction

1. Application & Processing Fee (\$170): \$ _____
 2. Commercial: Plan Review & Inspection Fee (\$2,630): \$ _____
 3. Institutional: Plan Reviews & Inspection Fee (\$1,310): \$ _____
 4. Residential: Plan Review & Inspection Fees:
 - a. 1 - 3 Lots (\$1,065) \$ _____
 - b. Add'l Lots ____ (\$180/each) \$ _____
- TOTAL DUE TO LAND CONSERVATION & FOREST MGMT:** \$ _____

(Check payable to: Chippewa County Treasurer)

LCFM – Office Use
Date stamp “received” here

ADMINISTRATIVE WAIVER: ☐
Receipt #: _____
Received by: _____

SECTION D: Submitted Information – OFFICE USE ONLY

- | | |
|--|---|
| ☐ Signed Application | ☐ Final Erosion Control Plan |
| ☐ Application Fee – Land Conservation & Forest Management | ☐ Final Stormwater Management Plan |
| ☐ Application Fee – Planning & Zoning | ☐ Maintenance Agreement |
| ☐ Site Plan Map | ☐ Financial Assurance |

SECTION I: Applicant Information: The person or entity holding fee title to the property or their representative. The applicant shall sign the initial permit application form in accordance with the items (a) – (e) listed below, after which the applicant may provide written authorization for others to serve as the applicant’s representative:

- (a) In the case of a corporation, by a principal executive officer of at least the level of vice-president or by the officer’s authorized representative having overall responsibility for the operation of the site for which a permit is sought;
- (b) In the case of a limited liability company, by a member or manager;
- (c) In the case of a partnership, by the general partner;
- (d) In the case of a sole proprietorship, by the proprietor, or;
- (e) For a unit of government, by a principal executive officer, ranking elected official or other duly authorized representative.

Name:			Company (if applicable):
Mailing Address:			Telephone:
City:	State:	Zip:	Email Address:

I hereby certify that I meet the definition of “Applicant” for this permit. I understand that I will become the “permit holder” once a permit is issued. I also understand by submitting this application, Chippewa County staff from the Departments of Land Conservation & Forest Management and the Department of Planning & Zoning may enter upon the project site to obtain information necessary to administer and enforce the stormwater ordinance (Section 12-37).

As the applicant, I hereby authorize _____ to serve as my representative for the purposes of this application.

Signature of Applicant: _____ **Date:** _____

SECTION II: Professional Engineer Information: The primary contact for the preparation of erosion control and stormwater management plans. All plan review comments will be addressed to this contact. For all stormwater plans and other engineering, this person must:

- (a) Be a licensed Professional Engineer in Wisconsin;
- (b) All plans submitted must be stamped with the P.E. number and signature; and;
- (c) Oversee and verify construction of all practices;

Name:			Company (if applicable):
Mailing Address:			Telephone:
City:	State:	Zip:	Email Address:

SECTION III: Erosion Control Inspector Contact Information: The contact listed below is the primary contact for conducting erosion control inspections on the permitted site. This person will also be responsible for maintaining the inspection log and making it available to Chippewa County.

Name:			Company (if applicable):
Mailing Address:			Telephone:
City:	State:	Zip:	Email Address:

Please indicate how the inspection log will be made available to Chippewa County:

Section IV: Additional Contact Information: Additional contacts for the installation and maintenance of temporary erosion control practices and final site restoration and stabilization practices.

Name #1:			Company (if applicable):
Mailing Address:			Telephone:
City:	State:	Zip:	Email Address:

Please Indicate Responsibilities Assigned to this Contact:

☐ Site Grading ☐ Temporary Erosion Control Practices ☐ Site Restoration & Stabilization Practices ☐ Other: _____

Name #2 (If Applicable):			Company (if applicable):
Mailing Address:			Telephone:
City:	State:	Zip:	Email Address:

Please Indicate Responsibilities Assigned to this Contact:

☐ Site Grading ☐ Temporary Erosion Control Practices ☐ Site Restoration & Stabilization Practices ☐ Other: _____

Attachment 2.5 (C)

STORMWATER PLAN REVIEW CHECKLIST

Technical Review - Per Chapter 12 Chippewa County Code

rev April 2019

Owner: _____ Site: _____

Reviewer: _____ Dates: ____/____/____, ____/____/____, ____/____/____

CONSTRUCTION SITE EROSION CONTROL (Article III)

Erosion and Other Pollutant Control Standards (12-32)

- ☐ Discharge no more than 5 tons/A/yr or Protected by BMPs of Wisconsin DOT Erosion Control Product Acceptability Lists (PAL)

Mandatory Site Protection (12-33)

- ☐ Maintain existing vegetation
- ☐ Minimize soil compaction
- ☐ Preserve topsoil
- ☐ Minimize construction on slopes of 20% or more

Mandatory Erosion and Sediment Control Practices (12-34) to be addressed in Erosion Control Plan per following Specifications (12-36)

- ☐ Plan Narrative
 - o Name(s) and address of developer
Name(s) and address of any consulting firm retained by the applicant, and principal contact of consultant
 - o Description of the site and map showing limits of land proposed disturbance
 - o Sequence of construction of the development site
 - o Estimated total area of the site and expected area of disturbance
 - o Estimates and calculations of runoff coefficients of site before and after construction
 - o Calculation to show that the site is expected to discharge no more than 5 tons per acre per year of sediment carried in runoff from initial grading to final stabilization. An appropriate tool is "Soil Loss & Sediment Discharge Calculation Tool", WDNR. Alternatively, provide computations or verification that erosion control BMPs comply with Channel Erosion Control Matrix and Slope Erosion Control Matrix of the Wisconsin DOT Erosion Control Product Acceptability Lists (PAL), per Standards section.
 - o Descriptions of surface soils and subsoils
 - o Depth to water table
 - o Name of immediate receiving water

□ Plan Map

- o Existing topography, vegetative cover, natural and engineered drainage systems, roads and surface waters. Lakes, streams, wetlands, channels, ditches and other watercourses on and immediately adjacent to the site shall be shown. Any identified 100-year flood plains, flood fringes and floodways shall also be shown.
- o Boundaries of the construction site.
- o Drainage patterns and approximate slopes anticipated after major grading activities.
- o Areas of soil disturbance.
- o Location of major structural and non-structural controls identified in the plan.
- o Location of areas where stabilization practices will be employed.
- o Areas which will be vegetated following construction.
- o Areal extent of wetland acreage on the site and locations where stormwater is discharged to a surface water or wetland.
- o Locations of all surface waters and wetlands within one mile of the construction site.

□ Description of controls and measures

- o Description of interim and permanent stabilization practices, including a practice implementation schedule. Site plans shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.
- o Description of structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the technical authority, structural measures shall be installed on upland soils.
- o Management of overland flow, unless otherwise controlled by outfall controls.
- o Trapping of sediment in channelized flow.
- o Staging construction to limit bare areas subject to erosion.
- o Protection of downslope drainage inlets where they occur.
- o Minimization of tracking.
- o Cleanup of off-site sediment deposits.
- o Proper disposal of building and waste materials.
- o Stabilization of drainage ways.
- o Control of soil erosion from dirt stockpiles.

- o Installation of permanent stabilization practices as soon as possible after final grading.
 - o Minimization of dust to the maximum extent practicable.
- ☐ **Velocity Dissipation**
The erosion and sediment control plan shall require that velocity dissipation devices be placed at discharge locations and along the length of any outfall channel, as necessary, to provide a non-erosive flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected. For permanent outlet features, rock lining is the preferred option.

POST-CONSTRUCTION STORMWATER MANAGEMENT (Article IV)

General Consideration for Siting Stormwater Management Features (12-53)

- ☐ Preserve to the maximum extent possible natural topography and land cover features such as natural swales, natural depressions, native soil infiltrating capacity, and natural groundwater recharge areas.
- ☐ Emergency 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. Most such channels are required to be rock-lined.

Total Suspended Solids (12-54)

- ☐ BMPs shall be designed to meet following **TSS Reduction Standards:**
(Table 1)

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

- ☐ TSS Analysis per SLAMM or other pollutant loading model.

Peak Runoff Discharge (12-55)

- ☐ BMPs shall be designed to maintain or reduce **post-development peak** runoff discharge rates to **pre-development peak** runoff discharge rates for the 1-year, 2-year, 10-year, 25-year, and 100-year recurrence interval, 24-hour duration design storms.
- ☐ The following maximum runoff curve numbers shall be used to represent pre-development conditions. Pre-development conditions shall assume "good hydrologic conditions". Where the pre-development condition is a combination of land uses/cover types a weighted runoff curve number (weighted based on area) shall be used.

Maximum Pre-Development Runoff Curve Numbers (Table 2)

Land Use, Cover Type	Hydrologic Soil Group			
	A	B	C	D
Woodland	30	55	70	77
Grassland, Meadow, Open Space, Pasture	39	61	71	78
Cropland	55	69	78	83
Redevelopment (15% impervious)	46	65	77	82
Redevelopment (>15% impervious)	51	68	79	84

- ☐ Post-development runoff curve numbers shall be from TR-55 or equivalent methodologies.

Infiltration (12-56)

- ☐ BMPs shall be designed, installed, and maintained to infiltrate runoff in accordance with the following **Infiltration Standards**:

(Table 3)

Type of development	Description of development	Infiltration requirements (pre-development infiltration volume, based on an average annual rainfall)	Limits (max. % of post-construction site required for infiltration)
Low Imperviousness	Less than 40% connected imperviousness, such as parks, cemeteries, and low density residential development	At least 90%	No more than 1%
Moderate Imperviousness	40% to 80% connected imperviousness, such as medium and high density residential, multi-family development, industrial and institutional development, and office parks	At least 75%	No more than 2%
High Imperviousness	More than 80 % connected imperviousness, such as commercial strip malls, shopping centers, and commercial downtowns	At least 60%	No more than 2%

- ☐ 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 meet requirements of the ordinance and NR 151.
- ☐ Prohibited Areas – Plan shall not propose to infiltrate runoff from prohibited areas- tier 1 or tier 2 industrial facilities as defined in SW ordinance and NR151.

Restrictions on the Location of Infiltration Practices (12-57)

- ☐ Infiltration is not allowed in the following areas:
 - o Areas within 1,000 feet up gradient or within 100 feet down gradient of direct conduits to groundwater.
 - o Areas within 400 feet of a community water system well
 - o Areas where contaminants of concernDetails of these limitations are contained in the SW ordinance and NR151.

- ☐ Test pits performed and adequately depict conditions.

- ☐ Separation from groundwater and bedrock.
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 the following **Separation Distances and Soil Characteristics**(Table 4):

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 Course Sand
Roofs Draining to Surface Infiltration Practices	Not Applicable	
All Other Impervious Source Areas	3 feet or more	Filtering Layer

- ☐ Filtering Layer is used, option:
 - o 3 ft. of at least 20% fines
 - o 5 ft. of at least 10% fines
 - o 3 in. of compost mixed into the upper 12 in. of soil. (Allowed per DNR policy guidance, only into an existing sand parent material.)
- ☐ Infiltration Rate Exemptions – for Chippewa County to grant this exemption, must provide documentation that meets the requirements of the SW ordinance and NR151

Closed Depressions (12-58)

- ☐ Areas identified as Significant Closed Depressions shall be protected from development to retain existing stormwater attenuation capacity. A map of these areas and associated parcels is maintained by the LCFM. Map: H:\ADMIN\CO_REGS\STORMH2O\ORDINANCE\Ch12-Appendix2_SIGNIFICANT CLOSED DEPRESSIONS.mxd & pdf
Shapefile: H:\DATA\av_guide\arcdata\county\chippewa\RUNOFF_PONDING_MS4.shp
File locations are subject to change.

Protective Areas (12-59)

- ☐ The following table provides a list of protective areas and protective distances for each type of **Protective Area** (Table 5):

	Protective Area	Protective Distance
1.	Outstanding resource waters and exceptional resource waters, and for wetlands in areas of special natural resource interest as specified in s. NR 103.04.	75 feet
2.	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.	50 feet
3.	Lakes	50 feet
4.	Wetlands that are not <i>Highly Susceptible Wetlands</i> (item 5.) or <i>Less Susceptible Wetlands</i> (item 6.)	50 feet
5.	Highly susceptible wetlands. Highly susceptible wetlands include the following types: fens, sedge meadows, bogs, low prairies, conifer swamps, lowland hardwood swamps, and ephemeral ponds	75 feet
6.	Less susceptible wetlands. Less susceptible wetlands include degraded wetlands 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.	10 % of the average wetland width, but no less than 10 feet nor more than 30 feet.
7.	Concentrated flow channels with drainage areas greater than 130 acres	10 feet

- ☐ Wetland boundary delineation shall be made in accordance with requirements of the SW ordinance.
- ☐ If development is proposed within or adjacent a protective area, the ordinance provides details of limitations on those developments.
- ☐ Protective Area Exemptions –for Chippewa County to grant an exemption from the requirement must provide documentation that meets the conditions for exemption per the SW ordinance.

Fueling and Vehicle Maintenance Areas (12-62)

- ☐ If fueling and vehicle maintenance areas are proposed, these areas shall have BMPs designed, installed and maintained to reduce petroleum within runoff, so that the runoff that enters waters of the state contains no visible petroleum sheen to the maximum extent practicable.

Stormwater Plan Specifications (12-64)

The following are required:

- ☐ Name, address, and telephone number for the following or their designees:
 - o landowner;
 - o developer;
 - o Professional Engineer for practice design and certification;
 - o person(s) responsible for installation of stormwater management practices; and
 - o person(s) responsible for maintenance of stormwater management practices prior to the transfer, if any, of maintenance responsibility to another party.
- ☐ A proper legal description of the property proposed to be developed, referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.
- ☐ Pre-development site conditions, including:
 - o One or more site maps at a scale of not less than 1 inch equals 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 at an interval not to exceed 2 feet;
 - Topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site;
 - Watercourses that may affect or be affected by runoff from the site;
 - Flow path and direction for all 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 Wis. Adm. Code NR 811.16.
 - o 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).
- ☐ Post-development site conditions, including:
 - o 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.

- o Explanation of any restrictions on stormwater management measures in the development area imposed by wellhead protection plans and ordinances.
- o One or more site maps at a scale of not less than 1 inch equals 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 at a scale not to exceed 2 feet;
 - Post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site;
 - Locations and dimensions of drainage easements;
 - Locations of maintenance easements specified in the maintenance agreement. Minimum width for ingress/egress easement is typically 30 feet;
 - 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.
 - The minimum permissible Building Opening Elevation of structures exposed to the ground surface - defined as a minimum of two (2) feet above the maximum water elevation produced by the 100-year, 24 hour design storm;
- o 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).
- o Results of investigations of soils and groundwater required for the placement and design of stormwater management measures. Detailed drawings including cross- sections and profiles of all permanent stormwater conveyance and treatment practices.
- o Infiltration system design information as described in the Wisconsin Department of Natural Resources Infiltration System Site Evaluation Standard.
- Plans for at least one permanent vertical elevation monument to be used for future monitoring of stormwater facilities. The monument shall be designed to be substantial, permanent, and protected from frost damage. The technical authority will provide guidance on design standards for such monuments. Each monument shall have elevation determined and documented relative to the most current North American Vertical Datum (NAVD). The precision and accuracy of the measurement shall be to a quality acceptable to the technical authority.
See "REQUIREMENTS FOR MONUMENTATION_STORMWATER.pdf"

- ☐ A description and installation schedule for the stormwater management practices needed to meet the technical and performance standards.
- ☐ A maintenance plan developed for the life of each stormwater management practice including the required maintenance activities and maintenance activity schedule.
- ☐ Quantity and cost estimates for the construction of each stormwater management practice.
- ☐ Town Ordinance Runoff Impact Statement, where required by the municipality.
- ☐ All site investigations, plans, designs, computations, and drawings shall be certified by a registered Professional Engineer to be prepared in accordance with accepted engineering practice and requirements of this ordinance.

Maintenance Agreement (12-65)

- ☐ To include the following:
 - ☐ Identification of the stormwater facilities and designation of the drainage area served by the facilities.
 - ☐ Designation of easements for drainage and stormwater facilities, and ingress and egress. Typical minimum width for ingress/egress easement is 30 feet.
 - ☐ A schedule for regular maintenance of each aspect of the stormwater management system consistent with the required post-construction stormwater management plan.
 - ☐ Identification of the responsible party(s), organization or city, county, town or village responsible for long term maintenance of the stormwater management practices identified in the post-construction stormwater management plan.
 - ☐ Requirement that the responsible party(s) shall maintain stormwater management practices in accordance with the schedule included in section above.
 - ☐ Authorization for the administrative authority and technical authority to access the property to conduct inspections of stormwater management practices as necessary to determine if the practices are being maintained and operated in accordance with the agreement.
 - ☐ A requirement that the administrative authority and technical authority i) maintain public records of the results of the site inspections, ii) inform the party responsible for maintenance of the inspection results, and iii) to specifically indicate any corrective actions required to bring the stormwater management practice into proper working condition.
 - ☐ Agreement that the party designated above, as responsible for long term maintenance of the stormwater management practices, shall be notified by the administrative authority of

maintenance problems that require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the administrative authority.

- o Authorization of Chippewa County to perform the corrected actions identified in the inspection report if the responsible party designated above does not make the required corrections in the specified time period. Chippewa County or the municipality in which the facilities are constructed shall enter the amount due on the tax rolls and collect the money as a special charge against the property pursuant to subch. VII of Wis. Stats. Ch. 66.

Note: Maps or drawings are typically needed to depict several of the above items

Financial Guarantee (12-66)

- ☐ The applicant shall submit a financial guarantee, the form and type of which shall be acceptable to the administrative authority. **The financial guarantee shall be in an amount determined by the technical authority to be the estimated cost of construction and site stabilization.** The financial guarantee shall give Chippewa County the authorization to use the funds to complete the stormwater management practices if the responsible party defaults or does not properly implement the approved stormwater management plan, upon written notice to the responsible party by the Chippewa County that the requirements of this ordinance have not been met.

Attachment 2.5 (D)

Site name
**Long-term Stormwater Management
Maintenance Agreement**

SITE NAME

e.g., Acme Acres

PROPERTY LEGAL DESCRIPTION

Acme Acres Plat, Lots __ through __, City/ Village/Town of _____, Chippewa County, WI.

RESPONSIBLE PARTY

The facility owner is responsible for satisfying the provisions of this agreement.

PERMANENT COMPONENTS OF THE STORMWATER SYSTEM

The stormwater system consists of the following components:

Itemize all types of stormwater controls in use. Example:

- | | | |
|--|------------|---------------------------------------|
| + Curb inlets | + Manholes | + Stormwater drainage ways and swales |
| + Stormwater basin bottom&side slopes | + Gabions | + Easements for ingress & egress |
| + Stormwater basin inlet and outlet structures | | + Infiltration areas |
| + Parking lot treatment trenches | | + Rain gardens |

The locations of all permanent stormwater system components are shown in Figure 1, attached.

INSPECTION AND MAINTENANCE

All components of the stormwater system shall be inspected at least semiannually in early Spring and early Autumn (*Specify additional inspections/repairs for all components that require more frequent maintenance. Reference associated O&M manuals, etc.*). Repairs will be made whenever the performance of a stormwater control structure is compromised.

MOWING / FERTILIZER & CHEMICAL APPLICATION

Mowing in buffer areas, pond banks and drainage ways will be minimized in order to maximize filtration of runoff. If occasional mowing is necessary, the mowing height will be no shorter than six inches.

Applications of fertilizers, herbicides, pesticide or other chemical applications are prohibited in buffer areas, on pond banks and along drainage ways.

DUTY TO PROVIDE MAINTENANCE

It is the responsibility of *Homeowners' Association/facility owner* to maintain inspection and maintenance records, and to submit to Chippewa County an annual report documenting the inspection and maintenance of the stormwater system. Proof of maintenance is required with each annual report.

In the event the facility owner fails to perform its obligations under this agreement, Chippewa County shall have the authority to inspect and maintain all components of the stormwater system. In such an event, all associated costs will be assessed back as a special charge against the property pursuant to Sec. 66.0627 Wis. Stats. Said charge shall be a lien on the property and shall be collected with the real estate taxes.

SIGNATURES

The undersigned agrees to the provision set forth in this agreement.

Signature or Authorized Agent for Responsible Party

Title

Legal name of Responsible Party

Street address, City, State, Zip Code

Contact information (phone, email, etc.)

Date

Attachment 2.5 (E)

Visual Inspection Checklist

Inspection is for an: Outfall / Stormwater Facility

Outfall / Facility ID:

Inspection Date: Time: Duration: minutes

Type: Initial / Site Visit / Return

Primary Inspector:

Secondary Inspector:

Weather Condition: Clear / Overcast / Raining

Time Since Last Precipitation: Days Quantity of Last Precipitation: in.

Visual Screening

Overall Condition: Excellent / Good / Fair / Poor / Not Applicable

Flow Condition: Plugged / Open / Inhibited / Not Applicable

Structural Condition: Corrosion / Cracking / Normal / Not Applicable

Hydrologic Fluctuation: Normal / Excessive / Indeterminent / Not Applicable

Water Level: System Dry / Low / Normal / High / Very High / Not Applicable

Vegetation Present: Yes / No % Native: % Exotic:

Debris Present: Yes / No

Debris Depth: Estimated Volume: Volume Units:

% Paper: % Glass: % Metal: % Plastic:
% Sediments: % Lawn: % Other:

Method of Removal: Hand Crew / Vacuum Truck / Other

Inspection Notes:

Erosion:

Flow Characterization Data Sheet

Field Parameters (Circle the appropriate answer)

Biological	Color	Odor	Sedimentation
None	Clear	None	None
Not Applicable	Red	Chlorine	Slight 1 – 3 inches
Other (name)	Yellow	Fuel / Oil	Moderate 3 – 6 inches
	Brown	Fishy	> Excessive 6 in
	Green	Musty	Litter
	Gray	Sewage	Oily
	Dark	Rotten Egg / Sulfur	Sewage
	Tannin	Sour Milk	Not Applicable
	White	Not Applicable	
	Not Applicable		

Floatables	Turbidity	Stains	Miscellaneous
None	Clear	None	Not Applicable
Oil	Slightly Turbid	Not Applicable	Other (name)
Sheen	Moderately Turbid	Other (name)	
Garbage / Trash	Very Turbid		
Sewage / Milt	Suspended Solids		
Not Applicable	Not Applicable		
Other (name)			

Field Screening:

	Site	Upstream	Downstream	Unit
Distance:				
pH:				
Temperature:				
Turbidity:				
Chlorine:				
Phenols:				
Copper:				
Detergents:				
DO:				
ORP:				
Est. Volume:				

Flow Observed: Yes / No

Inspection Result: Pass / Fail / In Compliance / Out of Compliance / Unknown

Attachment 2.5 (F)

Applicant/Operator	Subdivision/Plat		Consultant	Eng Review Number	Facility Number	Type	T/R/S	Jurisdiction	DNR Permit		County Permit				Eng. Design			Co. Permit Issued	Construction				Post Const.	
	Name	Date Approved							Notice (Date)	Permit (Date)	Application Form Received	Invoice Date	Date Paid	Fee Paid	Received	Plan Reviewed	Plan Accepted		Pre-Constr. Meeting	Start (Date)	Insp. (1) (Date)	Insp. Final (Date)	Eng. Rpt (as Built)	Co. Certified
Steve Frazer	Steve Frazer Plat		Adv. Eng. Concepts	2016-1	SWF81	Res.	T28N-R8W, Sec. 3	Lafayette			2/17/2016	3/8/2016	4/4/2016	\$2,700	2/17/2016	4/7/2016	4/7/2016							
Ashley Construction	Walrath Addition Plat		Adv. Eng. Concepts	2016-2	SWF79	Res.	T28-R8W, Sec. 12	Lafayette			6/1/2016	6/16/2016	6/17/2016	\$1,600	6/1/2016	7/11/2016	7/11/2016							
Three by Three Rentals, LLC	Lawton Town Homes		Adv. Eng. Concepts	2016-3	SWF80	Res.	T28N-R8W, Sec. 12	Lafayette			7/7/2016	7/8/2016	7/13/2016	\$1,300	7/7/2016	10/31/2016	10/31/2016							
Lake Wissota Maxi Storage-Tim Blik	TLC Storage, LLC XL Storage		Adv. Eng. Concepts	2017-1	SWF76	Com.	T28N-R8W, Sec. 10	NR216/MS4			4/7/2017	5/1/2017	5/31/2017	\$1,160	4/7/2017	6/30/2017	6/30/2017	Laf.						
Quality Propane	CSM #552086		Adv. Eng. Concepts	2017-3	SWF78	Com.	T29N-R8W, Sec. 29	NR216/MS4			4/24/2017	6/2/2017	6/20/2017	\$1,160	4/24/2017	7/26/2017								
Triple E Properties, LLC	Hunter Ridge II		Adv. Eng. Concepts	2017-04	SWF77	Res.	T28N-R9W, Sec. 27	NR216/MS4			6/28/2017				6/28/2017									
Ashley Construction	Lemay Acres, Phase I		Adv. Eng. Concepts	2018-01	SWF82	Res.	T28N-R7W, Sec. 5	MS4 Ord Laf.	6/11/18	6/28/18	4/17/18	4/18/18	4/23/18	\$6,010	From P&Z 4/25/18 4/18/2018	7/12/18	7/12/18	7/24/18		Before 7/12/18	7/20/18 - 10/30/18			
South Winds, LLC	Farm at Oakgrove	(Dev. Agreement)	Everyday Eng.	2019-03	SWF 85	Res.	T28N, R8, Sec. 17	MS4 Ord VLH			5/6/19	5/6/19	5/4/19	\$6,630	5/6/2019	5/17/2019	5/24/19			6/17/19	6/19/19	12/2/20	9/27/21	
South Wind, LLC	South Winds Estate East	(Dev. Agreement)	Everyday Eng.	2019-02	SWF 84	Res.	T28N, R8, Sec. 17	MS4 Ord VLH			5/6/19	5/6/19	5/6/19	\$5,720	5/6/2019	5/17/2019	5/24/19			6/17/19	6/19/19	12/2/20	9/27/21	
Bollinger	Strikers		AEC	2019-04	SWF 86	Com.	T28N, R7W, Sec. 7	Lafayette			5/16/2019	5/8/2019	5/16/2019	\$1,230	5/8/2019	5/17/2019	5/21/19	5/30/19		5/26/19	6/19/19	8/4/21	3/12/21	
CF School District	Stillson Lafayette Grade School		Point of Beginning	2019-01	SWF 83	Inst.	T28N, R8W, Sec. 10	MS4 Ord Laf.			8/22/19		7/12/19	\$1,230	2/15/2019	5/3/2019	8/23/19			6/19/19	9/23/21	8/24/21		
Haas Sons Properties	Sunfield Heights South		Everyday Surveying & Eng.	2019-05	SWF 87	Res.	T28N, R9W, Sec. 23	MS4 Ord VLH			7/2/2019		7/2/2019	\$2,860	8/1/2019 9/26/2019	8/12/2019	10/3/2019		11/7/19		9/29/21			
Xcel Energy	Bateman Substation		Power Engineers	2020-01	SWF 88	Com.	T28N, R7W, Sec. 5	MS4 Ord Lafayette			4/1/2020	2/17/2020	4/1/2020	\$2,125	4/17/2020, 5/20/2020	6/2/2020	6/2/2020				12/2/20	9/23/21	9/22/21	
Riverbend Rentals & Property Mngt Jason Griepentrog 715-225-4200	Lafayette Pointe		Everyday Surveying & Engineering Mark Erickson 715-831-0654	2020-02	SWF 89	Res.	T28N, R8W, Sec. 10	MS4 Ord Lafayette			4/8/2020	5/22/20	6/3/2020	\$3,230	5/31/2020	6/18/2020	6/19/2020				12/2/20		9/27/21	
Ashley Construction	Lemay Acres, Phase II		Adv. Eng. Concepts	2020-03	SWF 90	Res.	T28N-R7W, Sec. 5	MS4 Ord Laf.	4/16/20			4/28/20	6/1/2020	\$8,495	8/12/2020	8/17/2020	8/17/2020				12/2/20	9/23/21	8/6/21	
Ness Investments, LLC	Express Disposal Transfer Station		Everyday Surveying & Engineering Mark Erickson 715-831-0654	2020-04	SWF 91	Com.	T28N, R8W, Sec. 19	MS4 Ord VLH			6/11/2020		6/11/2020	\$2,125	11/4/2020	11/8/2020	11/13/2020	12/23/20		NOT CONSTRUCTED 9/29/21				
Kurt Overvyer	Jiffy Lube		Excel Engineering Jason Daye 920-926-9800	2020-05	SWF 92	Com.	T28N, R9W, Sec. 24	MS4 Ord VLH			8/17/2020		8/17/2020	\$2,125	From P&Z 8/17/2020	8/21/2020	8/24/2020				12/2/20	8/4/21	1/21/21	
Joel Swanson 715-379-1048	Cash for Cub - Mini Storage		Oakridge Eng. Dennis Marquardt 715-723-6777	2020-06	SWF 93	Com.	T28N, R7W, Sec. 5	MS4 Ord Laf.			8/14/2020		8/14/2020	\$2,125	From P&Z 8/14/2020	9/28/2020	9/29/2020			NOT CONSTRUCTED 9/29/21				
Haas Sons Properties, LLC Steve Haas 715-829-8920	Sunfield Heights South - 1st Addition		Everyday Surveying & Engineering Mark Erickson	2020-07		Res.	T28N, R9W, Sec. 23	MS4 Ord VLH			12/3/2020		12/3/2020	\$4,040	12/7/2020	2/10/2021	2/12/21	3/18/21			9/29/21			
Brian Seubert	Valley Sports Academy		Tyler Hastings CBS Squared 715-505-8633	2021-01		Com.	T28N, R9W, Sec. 36	MS4 Ord VLH		3/18/21	1/15/2021		1/15/2021	\$2,125	02/16/21 from P&Z	5/20/2021	5/20/21	5/26/2021	1st submittal accepted and permitted, not constructed					
Brian Seubert	Valley Sports Academy		Tyler Hastings CBS Squared 715-505-8633	2021-01		Com.	T28N, R9W, Sec. 36	MS4 Ord VLH			6/14/2021		6/14/2021	\$2,125	6/18/21 from P&Z	6/30/2021	6/30/2021	7/6/21		6/1/21	8/27/21			
JOHN BALOW	J. BALOW'S RENTALS, LLC		Everyday Surveying & Engineering Mark Erickson	2021-02		Industrial	T28N, R9W, Sec. 13	MS4 Ord VLH		3/26/2021	3/30/2021		3/30/2021	\$2,180	5/12/2021	5/14/2021	5/14/2021	7/14/21		4/12/21	8/27/21			
BnP Holdings, LLC	RiverBelle formerly Bushel & Peck Orchard		Adv. Eng. Concepts	2021-03		Res.	T28N, R8W, +Sec. 25	MS4 Ord Lafayette			5/13/2021		5/13/2021	\$3,060	5/13/2021	5/28/2021	5/28/21	6/8/21	6/3/21	6/8/21	8/27/21			
Craig Wurzer, CDGP Development, LLC	Woodward Acres		Everyday Surveying & Engineering Mark Erickson	2021-04		Res.	T28N, R8W, Sec. 17	MS4 Ord VLH			9/23/2021		9/23/2021	\$4,460	9/22/2021	10/29/2021	10/29/21	11/5/21		11/5/21?				

Applicant/Operator	Subdivision/Plat		Consultant	Eng Review Number	Facility Number	Type	T/R/S	Jurisdiction	DNR Permit		County Permit				Eng. Design			Co. Permit Issued	Construction				Post Const.	
	Name	Date Approved							Notice (Date)	Permit (Date)	Application Form Received	Invoice Date	Date Paid	Fee Paid	Received	Plan Reviewed	Plan Accepted		Pre-Constr. Meeting	Start (Date)	Insp. (1) (Date)	Insp. Final (Date)	Eng. Rpt (as Built)	Co. Certified
Steve Haas	Sunfield Woods		Everyday Surveying & Engineering Mark Erickson	2021-05		Res.	T28N, R9W, Sec. 23	MS4 Ord VLH			12/20/2021	12/20/21	12/20/2021	\$5,860	12/20/2021, 3/1/2022	1/7/2022, 3/14/2022	3/18/22				6/8/2022			
South Wind LLC, c/o Dennis Lyberg	TBD		Eng: ??? Surveyor: Jason Heiss			Res.	T28N, R8W, Sec. 14	MS4 Ord VLH																
Tom Toy/Carrie Nicolai	TBD		Adv. Eng. Concepts			Res.		MS4 Ord VLH			pending			based on 4 apt. bldgs										
John Balow (Bauman Construction) –	Balow Phase 2		Everyday Surveying & Engineering Mark Erickson	2022-02		Comm		MS4 Ord VLH			1/24/2022	1/24/22	1/24/2022	\$2,730	2/7/2022, 2/17/2022, 2/28/2022, 3/17/2022	2/18/2022, 3/15/2022, 3/23/2022	3/23/22	9/2/22			6/8/22			
Romaine Bergh	Village Bluffs Sudivision		Everyday Surveying & Engineering Mark Erickson	2022-01		Res.	T28N, R09W, Sec. 26	MS4 Ord VLH		9/10/21	2/7/2022	2/8/22		\$4,355	2/7/2022, 5/4/2022, 5/19/2022	2/18/2022, 5/18/2022	5/23/22	9/7/22		6/15/22	6/22/22			
Menards Retail Store (Nick Brenner)	Menards Retail Store/DC		Everyday Surveying & E	2022-04		Comm	T28N, R09W, Sec. 25	MS4 Ord VLH	5/20/2022		4/22/22	4/22/2022		12/19/05	04/22/22, 5/6/22, 5/18/22, 5/26/2022, 5/27/2022, 5/31/2022	5/6/22, 5/18/22, 5/25/2022, 5/26/2022	5/31/2022	6/16/22		6/30/22	7/14/22			
Commercial Site-Marshfield Clinic Lot	Marshfield Clinic		JSD	2022-03		Comm	T28N, R09W, Sec. 25	MS4 Ord VLH	3/31/22	4/7/22	2/10/2022		2/10/22	\$1,445	2/10/2022, 4/1/2022	3/1/2022	4/25/22	9/6/22						
J. Moss - General Property Mngt	Lake Hallie Apartments		Baudhuin Surveying Skyler Witalison	2022-05		Comm	T28N, R9W, Sec. 26	MS4 Ord VLH			6/9/2022		6/9/2022	\$2,730	6/9/2022, 6/28/2022, 7/11/2022	6/23/2022, 6/30/2022	7/19/22			8/4/22	8/11/22			
D. Senn/Senn Blacktop	Senn Blacktktop		Oakridge Eng. Erik Lietz 715-926-1110	2022-06		Comm	T28N, R9W, Sec. 13	MS4 Ord VLH			7/12/2022		7/12/2022	\$2,730	7/14/2022	9/2/2022								
A. Ashley/BnP Holdings	Town of Eagle Point		Adv. Eng. Concepts S. Bohan 715-552-0330	2022-07		Res.	T29N, R8W, Sec. 16	MS4 Ord Eagle Point			7/15/2022		7/15/2022	\$960	8/15/2022, 9/7/2022, 9/9/2022	8/30/2022, 9/6/2022	9/9/22	9/15/22		9/12/22	9/16/22			
Craig Wurzer, CDGP Development, LLC	Woodward Acres Phase 2		Everyday Surveying & Engineering Mark Erickson	2022-08		Res.	T28N, R8W, Sec. 17	MS4 Ord VLH			8/22/2022		8/22/2022	\$3,480	8/22/2022, 10/6/2022, 10/14/2022	9/8/2022, 10/11/2022	10/14/22							
Steve Haas	Sunfield Heights South, Addition	2nd	Everyday Surveying & Engineering Mark Erickson	2022-09		Res.	T28N, R9W, Sec. 23	MS4 Ord VLH			8/22/2022		8/22/2022	\$4,355	8/22/2022, 9/20/2022	9/6/2022	9/21/22							
A. Ashley/BnP Holdings	River Belle Phase 2		Adv. Eng. M. Appel 715-552-0330	2022-10		Res.	T28N, R8W, Sec. 25	Lafayette		9/29/22	8/29/2022		8/29/2022	\$5,755	8/29/2022	9/13/2022, 9/29/2022	9/29/22							
HJ. Johnson/Halliewood Properties, LLC	Halliewood Subdivision		Adv. Eng. S. Bohan 715-552-0330	2023-01		Res.	T28N, R9W, Sec. 14	MS4 Ord VLH			2/14/2023		2/14/2023	\$2,955 (need \$80 more)										
David Christoffel, Wissota Meadows, LLC	Wisstoa Meadows		Everyday Surveying & Engineering Mark Erickson	2023-02		Res.	T28N, R8W, Sec. 10	Lafayette			3/29/2023		3/29/2023	\$1,955										
Dennis Lyberg	TBD		Eng: ???			Res.		Lafayette			pending													

Potential Projects

in Review

2022 Construction

2021 Construction

2020 Construction

Pre-Ordinance

Attachment 2.5 (G)

Stormwater Facilities (Outfalls & Ponds)

Inspection Process: Site Visits



1. Prepare

A. Compile site area maps and plans

- i. All previously inspected sites have a plan in the 'Plans' folder in the stormwater directory
- ii. Previous year's binders are useful: maps, plans, and photos have already been printed and compiled. (Facilities-a binder for each year, Outfalls-all years in one binder).
- iii. For new sites, review original plan sheets, develop preliminary site map

B. Items to take:

Inspection forms (started and blank)	Clipboard
Camera	Notepad
Site area map	Hi-Visibility Vests
Site plan	Beacon - flasher
Site photos	GPS (if inspecting a new facility)
Plat book	Lifejacket

2. Site Visit

A. Review site sketch and stormwater features:

- i. **Facilities** or **Outfalls**
- ii. **Make a site map if one does not exist**

B. Take photos at previously defined locations

- Single photos to avoid the need for photo management later

C. Complete Visual Inspection Form

D. GPS (RTK) locations of stormwater **components**

3. Data Management

A. Enter data from Visual Inspection Form

B. Download photos, archive in appropriate 'Photos' folder, and rename

C. Add any new facility components to the 'STORMWATER_FACILITY_COMPONENTS' shapefile

4. End of Year Report

A. Summary of Findings, Compile list of Problem Sites

B. Identify Responsible Party

C. Copy to:

-Town

-DNR stormwater

D. Follow up activities

Questions associated with storm water management and requirements of rules:

1. Were design plans followed? (As-built)
2. Major types of maintenance problems. (sedimentation, grade, encroachment, channelization, original seeding)
3. Issues associated with responsibility for maintenance.
4. Problems with process of design, review, construction.