

## **Ordinance No. 43**

### **Post-Construction Storm Water Management Zoning Ordinance**

The intent of this ordinance is to reduce the amount of post-construction storm water and associated pollutants reaching waters of the state. Use of this ordinance by municipalities will foster the consistent statewide application of post-construction performance standards for new development and redevelopment contained in subchapters III and IV of chapter NR 151, Wis. Adm. Code. The Village Board of the Village of Superior does hereby ordain that No. 43 of the ordinance of the Village of Superior is created to read as follows:

#### **Section 1. AUTHORITY:**

- (1) This ordinance is adopted by the Village Board under the authority granted by s. 61.354, for villages; Wis. Stats. This ordinance supersedes all provisions of an ordinance previously enacted under s. 61.35, Wis. Stats., that relate to storm water management regulations. Except as otherwise specified in s. 61.354, Wis. Stats., s. 61.35, Wis. Stats., applies to this ordinance and to any amendments to this ordinance.
- (2) The provisions of this ordinance are deemed not to limit any other lawful regulatory powers of the same governing body.
- (3) The Village Board hereby designates the Village Staff or an authorized agent to administer and enforce the provisions of this ordinance.
- (4) The requirements of this ordinance do not pre-empt more stringent storm water management requirements that may be imposed by any of the following:
  - (a) Wisconsin Department of Natural Resources administrative rules, permits or approvals including those authorized under ss. 281.16 and 283.33, Wis. Stats.
  - (b) Targeted non-agricultural performance standards promulgated in rules by the Wisconsin Department of Natural Resources under s. NR 151.004, Wis. Adm. Code.

#### **Section 2. FINDINGS of FACT:**

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

- (1) Degrade physical stream habitat by increasing stream bank erosion, increasing streambed scour, diminishing groundwater recharge, diminishing stream base flows and increasing stream temperature.
- (2) Diminish the capacity of lakes and streams to support fish, aquatic life, recreational and water supply uses by increasing pollutant loading of sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens and other urban pollutants.
- (3) Alter wetland communities by changing wetland hydrology and by increasing pollutant loads.
- (4) Reduce the quality of groundwater by increasing pollutant loading.

- (5) Threaten public health, safety, property and general welfare by overtaxing storm sewers, drainage ways, and other minor drainage facilities.
- (6) Threaten public health, safety, property and general welfare by increasing major flood peaks and volumes.
- (7) Undermine floodplain management efforts by increasing the incidence and levels of flooding.

**Section 3 PURPOSE and INTENT**

- (1) **PURPOSE.** The general purpose of this ordinance is to establish long-term, post-construction runoff management requirements that will diminish the threats to public health, safety, welfare and the aquatic environment. Specific purposes are to:
  - (a) Further the maintenance of safe and healthful conditions.
  - (b) Prevent and control the adverse effects of storm water; 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.
  - (c) 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.
  
- (2) **INTENT.** It is the intent of the Village Board that this ordinance regulates post-construction storm water discharges to waters of the state. This ordinance may be applied on a site-by-site basis. The Village Board recognizes, however, that the preferred method of achieving the storm water performance standards set forth in this ordinance is through the preparation and implementation of comprehensive, systems-level storm water management plans that cover hydrologic units, such as watersheds, on a municipal and regional scale. Such plans may prescribe regional storm water devices, practices or systems, any of which may be designed to treat runoff from more than one site prior to discharge to waters of the state. Where such plans are in conformance with the performance standards developed under s. 281.16, Wis. Stats., for regional storm water management measures and have been approved by the Village Board, it is the intent of this ordinance that the approved plan be used to identify post-construction management measures acceptable for the community.

**Section 4 APPLICABILITY and JURISDICTION:**

- (1) **APPLICABILITY.**
  - (a) Where not otherwise limited by law, this ordinance applies after final stabilization to a site of land disturbing construction activity meeting any of the criteria in this paragraph, unless the site is otherwise exempt under paragraph (b).
    - 1. A post construction site that had 5 or more acres of land disturbing construction activity.
    - 2. A post-development construction site that had one or more acres of land disturbing construction activity after March 10, 2003.

- (b) A site that meets any of the criteria in this paragraph is exempt from the requirements of this ordinance.
1. A redevelopment post-construction site with no increase in impervious surface, i.e. parking lots, roads, roof area.
  2. A post-construction site with less than 10% connected imperviousness based on complete development of the post-construction site, provided the cumulative area of all parking lots, roads and rooftops is less than one acre.
  3. Nonpoint discharges from agricultural facilities and practices.
  4. Nonpoint discharges from silviculture activities.
  5. Routine maintenance for project sites under 5 acres of land disturbance if performed to maintain the original line and grade, hydraulic capacity or original purpose of the facility.
  6. Underground utility construction such as water, sewer and fiberoptic lines. This exemption does not apply to the construction of any above ground structures associated with utility construction.
- (c) Notwithstanding the applicability requirements in paragraph (a), this ordinance applies to post-construction sites of any size that, in the opinion of the Village Board, is likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, that causes undue channel erosion, that increases water pollution by scouring or the transportation of particulate matter or that endangers property or public safety.

(2) JURISDICTION.

This ordinance applies to post construction sites within the boundaries and jurisdiction of the Village of Superior. \_\_\_\_\_

(3) EXCLUSIONS.

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

**Section 5 DEFINITIONS:**

*“Agricultural facilities and practices”* has the meaning given in s. 281.16, Wis. Stats.

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

*“Best management practice”* or *“BMP”* means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize sediment or pollutants carried in runoff to waters of the state.

*“Business day”* means a day the office of the Village Clerk/Treasurer is routinely and customarily open for business.

*“Cease and desist order”* means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit.

*“Connected imperviousness”* means an impervious surface that is directly connected to a separate storm sewer or water of the state via an impervious flow path.

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

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

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

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

*“Exceptional resource waters”* means waters listed in s. NR 102.11, Wis. Adm. Code.

*“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% of the cover, for the unpaved areas and areas not covered by permanent structures, or employment of equivalent permanent stabilization measures.

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

*“Governing body”* means the village board of trustees.

*“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.

*“In-fill area”* means an undeveloped area of land located within existing development.

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

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

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

*“Land disturbing construction activity”* means any man-made change of the land surface including removing vegetative cover, excavating, filling and grading but not including agricultural land uses such as planting, growing, cultivating and harvesting of crops; growing and tending of gardens; and harvesting of trees.

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

*“MEP” or “maximum extent practicable”* means a level of implementing best management practices in order to achieve a performance standard specified in this ordinance which takes into account the best available technology, cost effectiveness and other competing issues such as human safety and welfare, endangered and threatened resources, historic properties and geographic features. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions.

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

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

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

*"Ordinary high-water mark"* has the meaning given in s. NR 115.03(6), Wis. Adm. Code.

*"Outstanding resource waters"* means waters listed in s. NR 102.10, Wis. Adm. Code.

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

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

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

*"Permit administration fee"* means a sum of money paid to the Village of Superior by the permit applicant for the purpose of recouping the expenses incurred by the authority in administering the permit.

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

*"Pollutant"* has the meaning given in s. 283.01(13), Wis. Stats.

*"Pollution"* has the meaning given in s. 281.01(10), Wis. Stats.

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

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

*"Preventive action limit"* has the meaning given in s. NR 140.05(17), Wis. Adm. Code.

*"Redevelopment"* means areas where development is replacing older development.

*"Responsible party"* means any entity holding fee title to the property or other person contracted or obligated by other agreement to implement and maintain post-construction storm water BMPs.

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

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

*"Stop work order"* means an order issued by the Village of Superior which requires that all construction activity on the site be stopped.

*"Storm water management plan"* means a comprehensive plan designed to reduce the discharge of pollutants from storm water after the site has undergone final stabilization following completion of the construction activity.

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

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

*"Top of the channel"* means an edge, or point on the landscape, landward from the ordinary high-water mark of a surface water of the state, where the slope of the land begins to be less than 12% 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.

“*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.

“*Type II distribution*” means a rainfall type curve as established in the “United States Department of Agriculture, Soil Conservation Service, Technical Paper 149, published 1973”. The Type II curve is applicable to all of Wisconsin and represents the most intense storm pattern. “*Waters of the state*” has the meaning given in s. 281.01 (18), Wis. Stats.

#### **Section 6 TECHNICAL STANDARDS:**

The following methods shall be used in designing the water quality, peak flows having any infiltration components of storm water practices needed to meet the water quality standards of this ordinance:

- (1) Technical standards identified, developed or disseminated by the Wisconsin Department of Natural Resources under subchapter V of chapter NR 151, Wis. Adm. Code.
- (2) Where technical standards have not been identified or developed by the Wisconsin Department of Natural Resources, other technical standards may be used provided that the methods have been approved by the Village of Superior or authorized agent.
- (3) In this ordinance, the following year(s) and location(s) have been selected as average annual rainfall(s): Duluth, 1975 (Mar. 24 –Nov. 19)

#### **Section 7 PERFORMANCE STANDARDS:**

- (1) RESPONSIBLE PARTY. The responsible party shall implement a post-construction storm water management plan that incorporates the requirements of this section.
- (2) PLAN. A written storm water management plan in accordance with Section 9 shall be developed and implemented for each post-construction site.
- (3) REQUIREMENTS. The plan required under sub. (2) shall include the following:
  - (a) TOTAL SUSPENDED SOLIDS. BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site as follows:
    1. For new development, by design, reduce to the maximum extent practicable, the total suspended solids load by 80%, based on the average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed an 80% total suspended solids reduction to meet the requirements of this subdivision.
    2. For redevelopment, by design, reduce to the maximum extent practicable, the total suspended solids load by 40%, based on the average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed a 40% total suspended solids reduction to meet the requirements of this subdivision.
    3. For in-fill development under 5 acres that occurs within 10 years after the effective date of this rule, by design, reduce to the maximum extent

practicable, the total suspended solids load by 40%, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed a 40% total suspended solids reduction to meet the requirements of this subdivision.

4. For in-fill development that occurs 10 or more years after the effective date of this rule, by design, reduce to the maximum extent practicable, the total suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff management controls. No person shall be required to exceed an 80% total suspended solids reduction to meet the requirements of this subdivision.
5. Notwithstanding subs. 1. to 4., if the design cannot achieve the applicable total suspended solids reduction specified, the storm water management plan shall include a written and site-specific explanation why that level of reduction is not attained and the total suspended solids load shall be reduced to the maximum extent practicable.

(b) PEAK DISCHARGE.

1. By design, BMPs shall be employed to maintain or reduce the peak runoff discharge rates, to the maximum extent practicable, as compared to pre-development conditions for the 2-year, 24-hour design storm applicable to the post-construction site. Pre-development conditions shall assume “good hydrologic conditions” for appropriate land covers as identified in TR-55 or an equivalent methodology. The meaning of “hydrologic soil group” and “runoff curve number” are as determined in TR-55. However, when pre-development land cover is cropland, rather than using TR-55 values for cropland, the runoff curve numbers in Table 1 shall be used.

Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	56	70	79	83

2. This subsection of the ordinance does not apply to any of the following:
  - a. A post-construction site where the change in hydrology due to development does not increase the existing surface water elevation at any point within the downstream receiving water by more than 0.01 of a foot for the 2-year, 24-hour storm event.
  - b. A redevelopment post-construction site.
  - c. An in-fill development area less than 5 acres.

(c) INFILTRATION. BMPs shall be designed, installed, and maintained to infiltrate runoff to the maximum extent practicable in accordance with the following, except as provided in subs. 5. through 8.

1. For residential developments one of the following shall be met:
  - a. Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90% of the pre-development infiltration volume, based on an average annual rainfall. However,

- when designing appropriate infiltration systems to meet this requirement, no more than 1% of the project site is required as an effective infiltration area.
- b. Infiltrate 25% of the post-development runoff from the 2 year -24 hour design storm with a type II distribution. Separate curve numbers for pervious and impervious surfaces shall be used to calculate runoff volumes and not composite curve numbers as defined in TR-55. However, when designing appropriate infiltration systems to meet this requirement, no more than 1% of the project site is required as an effective infiltration area.
2. For non-residential development, including commercial, industrial and institutional development, one of the following shall be met:
    - a. Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 60% of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 2% of the project site is required as an effective infiltration area.
    - b. Infiltrate 10% of the runoff from the 2 year - 24 hour design storm with a type II distribution. Separate curve numbers for pervious and impervious surfaces shall be used to calculate runoff volumes, and not composite curve numbers as defined in TR-55. However, when designing appropriate infiltration systems to meet this requirement, no more than 2% of the project site is required as an effective infiltration area.
  3. Pre-development condition shall be the same as in par. (b).
  4. Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for runoff from new road construction in commercial, industrial and institutional areas that will enter an infiltration system. The pretreatment shall be designed to protect the infiltration system from clogging prior to scheduled maintenance and to protect groundwater quality in accordance with subd. 8. Pretreatment options may include, but are not limited to, oil/grease separation, sedimentation, biofiltration, filtration, swales or filter strips.
  5. Exclusions. The runoff from the following areas are prohibited from meeting the requirements of this paragraph:
    - a. Areas associated with tier 1 industrial facilities identified in s. NR 216.21(2)(a), Wis. Adm. Code, including storage, loading, rooftop and parking.
    - b. Storage and loading areas of tier 2 industrial facilities identified in s. NR 216.21(2)(b), Wis. Adm. Code.
    - c. Fueling and vehicle maintenance areas.
    - d. Areas within 1000 feet upgradient or within 100 feet downgradient of karst features.
    - e. Areas with less than 3 feet separation distance from the bottom of the infiltration system to the elevation of seasonal high

- groundwater or the top of bedrock, except this subd. 5.e. does not prohibit infiltration of roof runoff.
- f. Areas with runoff from industrial, commercial and institutional parking lots and roads and residential arterial roads with less than 5 feet separation distance from the bottom of the infiltration system to the elevation of seasonal high groundwater or the top of bedrock.
  - g. Areas within 400 feet of a community water system well as specified in s. NR 811.16(4), Wis. Adm. Code, or within 100 feet of a private well as specified in s. NR 812.08(4), Wis. Adm. Code, for runoff infiltrated from commercial, industrial and institutional land uses or regional devices for residential development.
  - h. Areas where contaminants of concern, as defined in s. NR 720.03(2), Wis. Adm. Code are present in the soil through which infiltration will occur.
  - i. Any area where the soil does not exhibit one of the following soil characteristics between the bottom of the infiltration system and the seasonal high groundwater and top of bedrock: at least a 3-foot soil layer with 20% fines or greater; or at least a 5-foot soil layer with 10% fines or greater. This does not apply where the soil medium within the infiltration system provides an equivalent level of protection. This subd. 5.i. does not prohibit infiltration of roof runoff.
6. Exemptions. The following are not required to meet the requirements of this paragraph:
    - a. Areas where the infiltration rate of the soil is less than 0.6 inches/hour measured at the site.
    - b. Parking areas and access roads less than 5,000 square feet for commercial and industrial development.
    - c. Redevelopment post-construction sites.
    - d. In-fill development areas less than 5 acres.
    - e. Infiltration areas during periods when the soil on the site is frozen.
    - f. Roads in commercial, industrial and institutional land uses, and arterial residential roads.
  7. Where alternate uses of runoff are employed, such as for toilet flushing, laundry or irrigation, such alternate use shall be given equal credit toward the infiltration volume required by this paragraph.
  8. a. Infiltration systems designed in accordance with this paragraph shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to groundwater and shall maintain compliance with the preventive action limit at a point of standards application in accordance with ch. NR 140, Wis. Adm. Code. 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.

- b. Notwithstanding subd. par. a., the discharge from BMPs shall remain below the enforcement standard at the point of standards application.

(d) PROTECTIVE AREAS.

1. “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.
  - a. For 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.
  - b. For perennial and intermittent streams identified on a United States geological survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50 feet.
  - c. For lakes, 50 feet.
  - d. For highly susceptible wetlands, 50 feet. Highly susceptible wetlands include the following types: fens, sedge meadows, bogs, low prairies, conifer swamps, shrub swamps, other forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded basins. Wetland boundary delineations shall be made in accordance with s. NR 103.08(1m). This paragraph does not apply to wetlands that have been completely filled in accordance with all applicable state and federal regulations. The protective area for wetlands that have been partially filled in accordance with all applicable state and federal regulations shall be measured from the wetland boundary delineation after fill has been placed.
  - e. For less susceptible wetlands, 10 percent of the average wetland width, but no less than 10 feet nor more than 30 feet. Less susceptible wetlands include degraded wetlands dominated by invasive species such as reed canary grass.
  - f. In subd. 1.a., d. and e., determinations of the extent of the protective area adjacent to wetlands shall be made on the basis of the sensitivity and runoff susceptibility of the wetland in accordance with the standards and criteria in s. NR 103.03.
  - g. For concentrated flow channels with drainage areas greater than 130 acres, 10 feet.
2. This paragraph applies to post-construction sites located within a protective area, except those areas exempted pursuant to subd. 4.

3. The following requirements shall be met:
  - a. Impervious surfaces shall be kept out of the protective area to the maximum extent practicable. The storm water management plan shall contain a written site-specific explanation for any parts of the protective area that are disturbed during construction.
  - b. Where land disturbing construction activity occurs within a protective area, and where no impervious surface is present, adequate sod or self-sustaining 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.
  - c. Best management practices 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.
4. This paragraph does not apply to:
  - a. Redevelopment post-construction sites.
  - b. In-fill development areas less than 5 acres.
  - c. Structures that cross or access surface waters such as boat landings, bridges and culverts.
  - d. Structures constructed in accordance with s. 59.692(1v), Wis. Stats.
  - e. Post-construction sites from which runoff does not enter the surface water, except to the extent that vegetative ground cover is necessary to maintain bank stability.

(e) **FUELING AND VEHICLE MAINTENANCE AREAS.** Fueling and vehicle maintenance areas shall, to the maximum extent practicable, have BMPs designed, installed and maintained to reduce petroleum within runoff, such that the runoff that enters waters of the state contains no visible petroleum sheen.

(f) **SWALE TREATMENT FOR TRANSPORTATION FACILITIES.**

1. Applicability. Except as provided in subd. 2., 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:
  - a. Be vegetated. However, where appropriate, non-vegetative measures may be employed to prevent erosion or provide for runoff treatment, such as rock riprap stabilization or check dams.
  - b. Carry runoff through a swale for 200 feet or more in length that is designed with a flow velocity no greater than 1.5 feet per second for the peak flow generated using either a 2-year, 24-hour design storm or a 2-year storm with a duration equal to the time of

concentration as appropriate. If a swale of 200 feet in length cannot be designed with a flow velocity of 1.5 feet per second or less, then the flow velocity shall be reduced to the maximum extent practicable.

2. Exemptions. The Village of Superior 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 and where the initial surface water of the state that the runoff directly enters is any of the following:
  - a. An outstanding resource water.
  - b. An exceptional resource water.
  - c. Waters listed in s. 303(d) of the federal clean water act that are identified as impaired in whole or in part, due to nonpoint source impacts.
  - d. Waters where targeted performance standards are developed under s. NR 151.004, Wis. Adm. Code, to meet water quality standards.

(4) GENERAL CONSIDERATIONS FOR ON-SITE AND OFF-SITE STORM WATER MANAGEMENT MEASURES. The following considerations shall be observed in managing runoff:

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

(5) LOCATION AND REGIONAL TREATMENT OPTION.

- (a) The BMPs may be located on-site or off-site as part of a regional storm water device, practice or system.
- (b) Post-construction runoff within a non-navigable surface water that flows into a BMP, such as a wet detention pond, is not required to meet the performance standards of this ordinance. Post-construction BMPs may be located in non-navigable surface waters.
- (c) Except as allowed under par. (d), post-construction runoff from new development shall meet the post-construction performance standards prior to entering a navigable surface water.
- (d) Post-construction runoff from any development within a navigable surface water that flows into a BMP is not required to meet the performance standards of this ordinance if:
  1. The BMP was constructed prior to the effective date of this ordinance and the BMP either received a permit issued under ch. 30, Stats., or the BMP did not require a ch. 30, Wis. Stats., permit; and
  2. The BMP is designed to provide runoff treatment from future

upland development.

- (e) Runoff from existing development, redevelopment and in-fill areas shall meet the post-construction performance standards in accordance with this paragraph.
    - 1. To the maximum extent practicable, BMPs shall be located to treat runoff prior to discharge to navigable surface waters.
    - 2. Post-construction BMPs for such runoff may be located in a navigable surface water if allowable under all other applicable federal, state and local regulations such as ch. NR 103, Wis. Adm. Code and ch. 30, Wis. Stats.
  - (f) The discharge of runoff from a BMP, such as a wet detention pond, or after a series of such BMPs is subject to this chapter.
  - (g) The Village Board may approve off-site management measures provided that all of the following conditions are met:
    - 1. The [administrating authority] determines that the post-construction runoff is covered by a storm water management system plan that is approved by the Village of Superior 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 storm water 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.
  - (h) Where a regional treatment option exists such that the Village Board exempts the applicant from all or part of the minimum on-site storm water management requirements, the applicant shall be required to pay a fee in an amount determined in negotiation with the Village Board. In determining the fee for post-construction runoff, the Village Board shall consider an equitable distribution of the cost for land, engineering design, construction, and maintenance of the regional treatment option.
- (6) ALTERNATE REQUIREMENTS. The Village Board may establish storm water management requirements more stringent than those set forth in this section if the Village of Superior determines that an added level of protection is needed to protect sensitive resources.

**Section 8 PERMITTING REQUIREMENTS, PROCEDURES AND FEES:**

- (1) PERMIT REQUIRED. No responsible party may undertake a land disturbing construction activity without receiving a post-construction runoff permit from the Village Board prior to commencing the proposed activity.
- (2) PERMIT APPLICATION AND FEES. Unless specifically excluded by this ordinance, any responsible party desiring a permit shall submit to the Village Board a permit application made on a form provided by the Village of Superior for that purpose.

(a) Unless otherwise accepted by this ordinance, a permit application must be accompanied by a storm water management plan, a maintenance agreement and a non-refundable permit administration fee.

(b) The storm water management plan shall be prepared to meet the requirements of Sections 7 and 9, the maintenance agreement shall be prepared to meet the requirements of Section 10, the financial guarantee shall meet the requirements of Section 11, and fees shall be those established by the Village Board as set forth in Section 12.

(3) REVIEW AND APPROVAL OF PERMIT APPLICATION. The Village Board shall review any permit application that is submitted with a storm water management plan, maintenance agreement, and the required fee. The following approval procedure shall be used:

(a) Within 30 business days of the receipt of a complete permit application, including all items as required by sub. (2), the Village Board shall inform the applicant whether the application, plan and maintenance agreement are approved or disapproved based on the requirements of this ordinance.

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

(c) If the storm water permit application, plan or maintenance agreement is disapproved, the Village Board shall detail in writing the reasons for disapproval.

(d) The Village Board may request additional information from the applicant. If additional information is submitted, the Village Board shall have five business days from the date the additional information is received to inform the applicant that the plan and maintenance agreement are either approved or disapproved.

(e) Failure by the Village Board to inform the permit applicant of a decision within 30 business days of a required submittal shall be deemed to mean approval of the submittal and the applicant may proceed as if a permit had been issued.

(4) 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 Village Board may suspend or revoke a permit for violation of a permit condition, following written notification of the responsible party. An action by the Village Board to suspend or revoke this permit may be appealed in accordance with Section 14.

(a) 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.

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

(c) The responsible party shall notify the Village Board at least 2 business days before commencing any work in conjunction with the storm water management plan, and within 5 business days upon completion of the storm water management practices. If required as a special condition under sub. (5), the

responsible party shall make additional notification according to a schedule set forth by the Village Board so that practice installations can be inspected during construction.

- (d) Practice installations required as part of this ordinance shall be certified "as built" by a licensed professional engineer. Completed storm water management practices must pass a final inspection by the Village Board or its designee to determine if they are in accordance with the approved storm water management plan and ordinance. The Village Board or its designee shall notify the responsible party in writing of any changes required in such practices to bring them into compliance with the conditions of this permit.
  - (e) The responsible party shall notify the Village Board of any significant modifications it intends to make to an approved storm water management plan. The Village Board may require that the proposed modifications be submitted to it for approval prior to incorporation into the storm water management plan and execution by the responsible party.
  - (f) The responsible party shall maintain all storm water management practices in accordance with the storm water management plan until the practices either become the responsibility of the Village Board, or are transferred to subsequent private owners as specified in the approved maintenance agreement.
  - (g) The responsible party authorizes the Village Board to perform any work or operations necessary to bring storm water management measures into conformance with the approved storm water management plan, and consents to a special assessment or charge against the property as authorized under subch. VII of ch. 66, Wis. Stats., or to charging such costs against the financial guarantee posted under Section 11.
  - (h) If so directed by the Village Board, 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 storm water management plan.
  - (i) The responsible party shall permit property access to the Village Board or its designee for the purpose of inspecting the property for compliance with the approved storm water management plan and this permit.
  - (j) Where site development or redevelopment involves changes in direction, increases in peak rate and/or total volume of runoff from a site, the Village of Superior or authorized agent may require the responsible party to make appropriate legal arrangements with affected property owners concerning the prevention of endangerment to property or public safety.
  - (k) The responsible party is subject to the enforcement actions and penalties detailed in Section 13, if the responsible party fails to comply with the terms of this permit.
- (5) PERMIT CONDITIONS. Permits issued under this subsection may include conditions established by Village Board in addition to the requirements needed to meet the performance standards in Section 7 or a financial guarantee as provided for in Section 11.

- (6) PERMIT DURATION. Permits issued under this section shall be valid from the date of issuance through the date the Village Board notifies the responsible party that all storm water management practices have passed the final inspection required under sub. (4)(d).

**Section 9 STORM WATER MANAGEMENT PLAN:**

- (1) PLAN REQUIREMENTS. The storm water management plan required under Section 8 (2) shall contain at a minimum the following information:
  - (a) Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of storm water management practices; and person(s) responsible for maintenance of storm water management practices prior to the transfer, if any, of maintenance responsibility to another party.
  - (b) 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.
  - (c) Pre-development site conditions, including:
    - 1. 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 a scale 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 storm water conveyance sections; watershed boundaries used in hydrology determinations to show compliance with performance standards; lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site; limits of the 100 year floodplain; location of wells and wellhead protection areas covering the project area and delineated pursuant to s. NR 811.16, Wis. Adm. Code.
    - 2. 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).
  - (d) Post-development site conditions, including:
    - 1. 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.
    - 2. Explanation of any restrictions on storm water management measures in the development area imposed by wellhead protection plans and ordinances.
    - 3. 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 storm water conveyance sections; location and type of all storm water management conveyance and treatment practices, including the on-site and off-site tributary drainage area; location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainage way; watershed boundaries used in hydrology and pollutant loading calculations and any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.

4. 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).

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

(e) A description and installation schedule for the storm water management practices needed to meet the performance standards in Section 7.

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

(g) Cost estimates for the construction, operation, and maintenance of each storm water management practice.

(h) Other information requested in writing by the Village Board to determine compliance of the proposed storm water management measures with the provisions of this ordinance.

(i) All site investigations, plans, designs, computations, and drawings shall be certified by a licensed professional engineer to be prepared in accordance with accepted engineering practice and requirements of this ordinance.

(2) ALTERNATE REQUIREMENTS. The Village Board may prescribe alternative submittal requirements for applicants seeking an exemption to on-site storm water management performance standards under Section 7 (5).

#### **Section 10 MAINTENANCE AGREEMENT:**

(1) MAINTENANCE AGREEMENT REQUIRED. The maintenance agreement required under Section 8 (2) for storm water management practices shall be an agreement between the Village Board and the responsible party to provide for maintenance of storm water practices beyond the duration period of this permit. The maintenance agreement shall be

- filed 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 storm water management practices.
- (2) AGREEMENT PROVISIONS. The maintenance agreement shall contain the following information and provisions and be consistent with the maintenance plan required by Section 9(1)(f):
- (a) Identification of the storm water facilities and designation of the drainage area served by the facilities.
  - (b) A schedule for regular maintenance of each aspect of the storm water management system consistent with the storm water management plan required under Section 8 (2).
  - (c) Identification of the responsible party(s), organization or city, county, town or village responsible for long term maintenance of the storm water management practices identified in the storm water management plan required under Section 8 (2).
  - (d) Requirement that the responsible party(s), organization, or city, county, town or village shall maintain storm water management practices in accordance with the schedule included in par. (b).
  - (e) Authorization for the Village Board to access the property to conduct inspections of storm water management practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.
  - (f) A requirement on the Village Board to maintain public records of the results of the site inspections, to inform the responsible party responsible for maintenance of the inspection results, and to specifically indicate any corrective actions required to bring the storm water management practice into proper working condition.
  - (g) Agreement that the party designated under par. (c), as responsible for long term maintenance of the storm water management practices, shall be notified by the Village Board of maintenance problems which require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the Village Board.
  - (h) Authorization of the Village Board to perform the corrected actions identified in the inspection report if the responsible party designated under par. (c) does not make the required corrections in the specified time period. The Village Board 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 ch. 66, Wis. Stats.

**Section 11 FINANCIAL GUARANTEE:**

- (1) ESTABLISHMENT OF THE GUARANTEE. The Village Board may require the submittal of a financial guarantee, the form and type of which shall be acceptable to the Village Board. The financial guarantee shall be in an amount determined by the Village Board to be the estimated for the cost of construction and the estimated cost of maintenance of the storm water management practices during the period which the designated party in the maintenance agreement has maintenance responsibility. The financial guarantee shall give the Village Board the authorization to use the funds to complete the storm water management practices if the responsible party defaults or does not properly implement the approved storm water management plan, upon written notice to the responsible party by the Village Board that the requirements of this ordinance have not been met.
  
- (2) CONDITIONS FOR RELEASE. Conditions for the release of the financial guarantee are as follows:
  - (a) The Village Board shall release the portion of the financial guarantee established under this section, less any costs incurred by the Village Board to complete installation of practices, upon submission of "as built plans" by a licensed professional engineer. The Village Board may make provisions for a partial pro-rata release of the financial guarantee based on the completion of various development stages.
  - (b) The Village Board shall release the portion of the financial guarantee established under this section to assure maintenance of storm water practices, less any costs incurred by the Village Board, at such time that the responsibility for practice maintenance is passed on to another entity via an approved maintenance agreement.

**Section 12 FEE SCHEDULE:**

The fees referred to in other sections of this ordinance shall be established by the Village Board and may from time to time be modified by resolution. A schedule of the fees established by the Village Board shall be available for review in Village Offices.

**Section 13 ENFORCEMENT:**

- (1) 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.
  
- (2) The Village Board 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.
  
- (3) Upon receipt of written notification from the Village Board under sub. (2), the responsible party shall correct work that does not comply with the storm water management plan or other provisions of this permit. The responsible party shall make

corrections as necessary to meet the specifications and schedule set forth by the Village Board in the notice.

- (4) 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 Village Board or authorized agent may enter the land and take emergency actions necessary to prevent such damage. The costs incurred by the Village Board plus interest and legal costs shall be billed to the responsible party.
- (5) The Village Board is authorized to post a stop work order on all land disturbing construction activity that is in violation of this ordinance, or to request the municipal attorney, obtain a cease and desist order in any court with jurisdiction.
- (6) The Village Board may revoke a permit issued under this ordinance for non-compliance with ordinance provisions.
- (7) Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by the Village Board or by a court with jurisdiction.
- (8) The Village Board 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 municipal attorney for the commencement of further legal proceedings in any court with jurisdiction.
- (9) 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 \$50 dollars or more than \$1000 dollars per offense, together with the costs of prosecution. Each day that the violation exists shall constitute a separate offense.
- (10) 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.
- (11) When the Village Board determines that the holder of a permit issued pursuant to this ordinance has failed to follow practices set forth in the storm water management plan, or has failed to comply with schedules set forth in said storm water management plan, the Village Board or a party designated by the Village Board 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 Village Board shall keep a detailed accounting of the costs and expenses of performing this work. These costs and expenses shall be deducted from any financial security posted pursuant to Section 11 of this ordinance. Where such a security has not been established, or where such a security is insufficient to cover these costs, the costs and expenses shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the work is completed.

**Section 14 APPEALS:**

- (1) **ZONING BOARD.** The Zoning Board shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the Village Board in administering this ordinance. The board shall also use the rules, procedures, duties, and powers authorized by statute in hearing and deciding appeals. Upon appeal, the board may authorize variances from the provisions of this ordinance that are not contrary to the public interest, and where owing to special conditions a literal enforcement of the ordinance will result in unnecessary hardship.
- (2) **WHO MAY APPEAL.** Appeals to the Zoning Board may be taken by any aggrieved person or by an officer, department, board, or bureau of the Village of Superior affected by any decision of the Village Board.

**Section 15 SEVERABILITY:**

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

**Section 16 EFFECTIVE DATE:**

This ordinance shall be in force and effect from and after its adoption and publication. The above and foregoing ordinance was duly adopted by the Village Board of the Village of Superior on the 14<sup>th</sup> day of February, 2008.

Approved:   
Alex P. Grymala- President

Attested:   
Marsha K. Wick- Clerk/Treasurer

Published on: February 16, 2008  
Telegram

COPY

#43

Post Construction  
STORMWATER  
MENT Zoning

### **Erosion Control Permit Fees**

<b>Land Disturbance Area</b>	<b>Fee</b>
<b>&lt; 1 Acres</b>	<b>\$50</b>
<b>1-5 Acres</b>	<b>\$75</b>
<b>&gt; 5 Acres</b>	<b>\$175</b>

### **Stormwater Management Plan Permit Fees**

<b>Land Disturbance Area</b>	<b>Fee</b>
<b>&lt; 1 Acres</b>	<b>\$0 (No Stormwater Management Plan Required)</b>
<b>1-5 Acres</b>	<b>\$25 + Plan review costs at current hourly rate</b>
<b>&gt; 5 Acres</b>	<b>\$25 + Plan review costs at current hourly rate</b>