

Title 11 Chapter 1

Erosion Control and Storm Water Runoff

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Sec. 11-1- 1 Title/Purpose

The title of this Chapter is Erosion Control and Storm Water Runoff. The purpose of this Chapter is to promote the public health, safety, prosperity, and general welfare of the citizens of the Town of Arlington, and to conserve the soil, water and related resources; to prevent and control erosion and sedimentation; to prevent and control water pollution; to protect spawning grounds, fish and aquatic life; to control building sites, placement of structures and land uses; to control exceedance of the safe capacity of existing drainage facilities and receiving water bodies; to prevent undue channel erosion; control scouring and transportation of particulates and to prevent conditions that endanger downstream property.

Sec. 11-1- 2 Authority

The Town Board of the Town of Arlington has the general authority under its Village powers to adopt this Chapter pursuant to Wis. Stats. §60.10 and §61.34.

Sec. 11-1- 3 Findings and Declaration of Policy

The Town finds that urbanizing land uses, including runoff from construction sites, have accelerated the process of soil erosion, runoff and sediment deposition in the waters of the Town and the State. It is, therefore, declared to be the policy of this Chapter to protect water quality and provide for the control and, if possible, the prevention of soil erosion, and thereby to preserve the natural resources, control floods and prevent impairment of dams and reservoirs, protect the tax base, and protect and promote the health, safety and general welfare of the people of the Town.

Sec. 11-1- 4 Applicability

This Chapter applies to the use of lands within the political boundaries of the Town.

Sec. 11-1- 5 Definitions

(A) The following definitions are applicable to this section:

- (1) “Agricultural Land Use” is the use of land for planting, growing, cultivating and harvesting of crops for human or livestock consumption and pasturing or yarding of livestock.
- (2) “Average annual rainfall” means a calendar year of precipitation, excluding snow, which is considered typical.
- (3) “Best management practice” or “BMP” means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.
- (4) “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.
- (5) “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.
- (6) “Design storm” means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency, and total depth of rainfall.
- (7) “Division of land” means the creation from one parcel of 2 or more parcels or building sites of 60 or fewer acres each in area where such creation occurs at one time or through the successive partition within a 5 year period.
- (8) “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.
- (9) “Erosion” (Soil Erosion) is the detachment and movement of soil or rock fragments by water, wind, ice or gravity.

(10) “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.

(11) “Excavation” means any act by which organic matter, earth, sand, gravel, rock or any other similar material is cut into, dug, quarried, uncovered, removed, displaced, relocated or bulldozed and shall include the conditions resulting therefrom.

(12) “Existing Grade” means the vertical location of the existing ground surface prior to excavation or filling.

(13) “Fill” means any act by which earth, sand, gravel, rock or any other material is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by human forces to a new location and shall include the conditions resulting therefrom.

(14) “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.

(15) “Governing Body” means the Town of Arlington Board.

(16) “Grading” is altering the elevation of the land surface by stripping, excavating, filling, or stockpiling of soil materials or any combination thereof and shall include the land from which the material was taken or upon which it was placed.

(17) “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.

(18) “Infiltration” means the entry of precipitation or runoff into or through the soil.

(19) “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.

(20) "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.

(21) "Land Disturbing Activities or Uses" are any land alterations or disturbances which may result in soil erosion, sedimentation and/or the increase in runoff, including but not limited to tilling, removal of ground cover, grading, excavating and filling of land, except that the term shall not include such minor land-disturbing activities as home gardens and repair and maintenance of driveways. Additionally, this term does not include agricultural land uses if such are regulated at the federal, state or county level.

(22) "Landowner" means any person holding title to or having any interest in land.

(23) "Land Treatment Measures" are structural or vegetative practices (including fencing), or combinations of both, used to control erosion, sediment and water runoff.

(24) "Land Users" are persons who use land, individually or collectively as owners, operators, lessors, renters, occupiers who are providing a service that requires access or alterations of the land in order to perform the service, or by other arrangement which gives them the responsibility of private or public land use.

(25) "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.

(26) "Ordinary high-water mark" has the meaning given in Section NR 115.03(6), Wis. Adm. Code. 27

(27) "Parcel" is all contiguous lands under the ownership or control of a land owner or land user.

(28) "Peak Flow" is the maximum rate of flow of water at a given point in a channel, watercourse, or conduit resulting from a predetermined storm or flood.

(29) “Performance standard” means a narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.

(30) “Permit” is the signed, written statement issued under this Chapter authorizing the applicant to engage in general land disturbing uses specified and for a specified period of time.

(31) “Person” is any individual, corporation, limited liability company, partnership, joint venture, agency, unincorporated association, municipal corporation, county, or state agency within Wisconsin, the federal government, and other legally recognized entity, or any combination thereof.

(32) “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.

(33) “Pollutant” has the meaning given in Section 283.01 (13), Wis. Stats.

(34) “Pollution” has the meaning given in Section 281.01 (10), Wis. Stats.

(35) “Post-construction site” means a construction site following the completion of land disturbing construction activity and final site stabilization.

(36) “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.

(37) “Public Lands” means all lands which are subject to regulation by the Town, including, but not limited to:

(a) All lands owned or controlled by the Town and

(b) All land, within the political boundaries of the Town, which is owned by another unit of government if that unit of government is acting in a proprietary rather than governmental function.

(38) “Responsible party” means any person performing services to meet the performance standards of this Chapter through a contract or other agreement.

(39) “Runoff” is the portion of rainfall, melted snow or irrigation water that flows across the ground surface and eventually is returned to lakes or streams, creeks or other water courses.

(40) “Sediment” is solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site or origin by air, water, gravity or ice, and has come to rest on the earth's surface at a different site.

(41) “Sedimentation” is the transportation and deposition of sediment that may ultimately degrade water quality by the presence of suspended solid particles, derived from soils by erosion or discharged into surface waters from other sources; or the deposition of water-borne sediments in stream channels, lakes, reservoirs, or on floodplains, usually because of a decrease in the velocity of the water.

(42) “Soil Loss” is soil movement from a given site because of land disturbing activities or by the forces of erosion and redeposited at another site on land or in a body of water.

(43) “Stop-Work Order” is a means of giving notice that the Town Engineer believes that any landowner, land user and/or responsible party has violated one or more provisions of this Chapter or that a land disturbing activity is occurring without a control plan being approved and a permit being issued. Notice is given both by posting upon the lands where the land disturbing activity occurs one or more copies of a written notice stating the violation and by mailing a copy of the notice by certified mail to landowner, land user, and/or responsible party at the appropriate address shown on the Permit.

(44) “Storm Frequency” is the average period of time in which a storm of a given duration and intensity can be expected to be equaled or exceeded.

(45) “Storm Sewer” is a closed conduit for conducting collected stormwater.

(46) “Stormwater Drainage Facility” is any element in a stormwater drainage system which is made or improved by human activity.

(47) “Stormwater Drainage System” is all facilities used for conducting stormwater to, through or from a drainage area to the point of final outlet, including but not limited to, any of the following: conduits and appurtenant features, canals, channels, ditches, streams, culverts, streets and pumping stations.

(48) “Stormwater 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.

(49) “Stormwater Management System Plan” is a comprehensive plan designed to reduce the discharge of runoff and pollutants from hydrologic units on a regional or municipal scale.

(50) “Stormwater Runoff” is the waters derived from rains falling within a tributary drainage basin, flowing over the ground surface or collected in a water drainage system.

(51) “Structural Measures” are works of improvement for land stabilization to prevent erosion, sediment or runoff which include, but are not limited to, gully control structures, fencing, grass waterways, riprap, detention basins, sediment basins, flood retention dams, diversions, lining channels with rock, concrete or other materials. Contour strip cropping is not a structural measure.

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

(53) “Town Engineer” means the professional engineer designated by the Town Board to administer this Chapter, and includes any other persons who are supervised by the Engineer.

(54) “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.

(55) “Twenty-Five Year Storms” are those rainstorms of varying durations and intensities expected to recur on the average of once every 25 years.

(56) “Twenty-Five Year Storm Runoffs” are the stormwater runoffs from the 25 year storms.

(B) Interpretation. Words used in the present tense include the future; the singular number includes the plural number; and the plural number includes the singular number. The word “shall” is mandatory and not directory.

Sec. 11-1-6 Land Disturbing Activities Subject to Erosion and Sediment Control

(A) General Requirement. Any landowner, land user, and/or responsible party who undertakes, begins, commences or performs land disturbing activities; or who permits another person to do the same, on land subject to this Chapter, shall be subject to the provisions of this Chapter.

(B) Land Disturbing Activities Subject to Erosion and Sediment Control. Land disturbing activities on public or private lands shall be subject to the erosion and sediment control provisions of this Chapter, if:

(1) An area of 5,000 square feet or greater will be disturbed by excavation, grading, filling, or other earthmoving activities, resulting in the loss or removal of protective ground cover or vegetation; or

(2) Excavation, fill, or any combination thereof, will exceed 1,000 cubic yards or more of dirt, soil or other excavation or fill material; or

(3) Any public (federal, state or local) street, road or highway is to be constructed, enlarged, relocated or reconstructed; or

(4) Any water course is to be changed, enlarged, or materials are removed from stream or lake beds; or

(5) Any proposed land use by a unit of government or by public or private utilities in which underground conduits, cables, piping, wiring, waterlines, sanitary sewers or storm sewers will be laid, repaired, replaced or enlarged, if such use involves more than 300 linear feet of trenching or earth disturbance; or

(6) Any subdivision of land which requires plat approval or any certified survey; or

(7) Any land disturbing activity is to occur on slopes greater than 15%; or

(8) Any land disturbing activity is to occur where the Town Engineer determines that erosion is likely unless a control plan is developed.

(C) Land Disturbing Activities Subject to Onsite Detention and Runoff Control. Land disturbing activities on public or private lands shall be subject to the onsite detention and runoff control provisions of this Chapter if:

(1) The site is a post-development residential site that had 1 or more acres of land disturbing activity.

(2) The site is a post-development residential site that had less than 1 acre of land disturbing activity and has 30 percent or more of the area as impervious surfaces.

(3) All industrial developments with gross aggregate area of 0.2 acres or more; or

(4) All commercial developments with gross aggregate area of 1.0 acres or more; or

(5) In the opinion of the Town Engineer, the runoff from the land disturbing activity will create a hazard by exceeding the safe capacity of the receiving water body in the area; or will cause undue channel erosion or an undue increase in water pollution by increased scour and transport of particles; or will otherwise endanger the downstream property owners or their property. Safe capacity is defined as the rate of flow that can be handled without flooding.

(D) Compliance With This Section. The landowner, land user, and/or responsible party shall comply with this section by following the procedure of Section 10 and receiving from the Town Engineer written approval of the control plan and a permit before commencement of any land disturbing activities on lands subject to control under this section.

Sec. 11-1-7 Erosion and Sedimentation Control Regulations for Lands not Otherwise Subject to This Chapter

Any landowner, land user, and/or responsible party who permits excessive erosion of his/her land and sedimentation on adjacent land, public streets or bodies of water from land not otherwise subject to this Chapter shall be deemed in violation of this Chapter and subject to the penalties provided in Section 11-1-12. Erosion is excessive if, sedimentation of adjacent land, waterways, lakes and streams occurs or if the public health, safety or general welfare of the citizens of the Town is harmed. This section applies equally to any landowner, land user and/or responsible party who allows erosion of adjacent land due to uncontrolled runoff emanating from his/her land.

Sec. 11-1-8 Standards and Criteria

(A) Effect of Compliance. Compliance with the standards and criteria of this section shall not bar a nuisance action or other civil action brought by any injured public or private party for damage to property upon which the erosion directly occurred or to property or other rights which were damaged by erosion, sedimentation or runoff.

(B) Standard for Construction Site Erosion and Sediment Control for Land Disturbing Activities. The Town Engineer shall not approve plans nor issue any permit required by this Chapter for land disturbing activities unless erosion and sedimentation during and after the land disturbing activity will not exceed that which would have been eroded if the land had been left in its undisturbed state

on an average annual basis. All BMPs required to comply with this Chapter shall meet the design criteria, standards and specifications based on any of the following:

- (1) Applicable design criteria, standards and specifications identified in the Wisconsin Construction Site Best Management Practice Handbook, WDNR Pub. WR-222 November 1993 Revision.
- (2) Other design guidance and technical standards identified or developed by the Wisconsin Department of Natural Resources under subchapter V of Chapter NR 151, Wis. Adm. Code.
- (3) For this Chapter, average annual basis is calculated using the appropriate annual rainfall or runoff factor, also referred to as the R factor, or an equivalent design storm using a type II distribution, with consideration given to the geographic location of the site and the period of disturbance.

(C) Standards for Post-Construction Onsite Detention and Runoff Control for Land Disturbing Activities. The following methods shall be used in designing the water quality, peak flow shaving and infiltration components of storm water practices needed to meet the water quality standards of this Chapter:

- (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 Town Engineer.
- (3) In this Chapter, the following year and location has been selected as average annual rainfall(s): Madison, 1981 (Mar. 12-Dec. 2).

(D) Performance Standards – Sediment in Runoff

- (1) The landowner, land user, and/or responsible party shall implement a post-construction storm water management plan that incorporates the requirements of this section.
- (2) A written storm water management plan in accordance with Section 10 shall be developed and implemented for each post-construction site.
- (3) The plan required under Section 11-1-8(D)(2) shall include the following:

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

(i) For all development, by design, reduce the total suspended solids load by 80%, based on average annual rainfall, as compared to no runoff management control.

(ii) Notwithstanding Section 11-1-8(D)(3)(a)(i), 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.

Pollutant loading models such as SLAMM, P8 or equivalent methodology may be used to evaluate the efficiency of the design in reducing total suspended solids.

(E) Performance Standards - Peak Discharge

(1) By design, BMPs shall be employed to maintain or reduce the peak runoff discharge rates, as compared to pre-development conditions for the 2-year, 10 year, 50 year and 100 year, 24-hour design storms 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.

For post-development conditions the hydrologic soil group shall be down graded by 1 letter to account for soil compaction during construction.

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

(F) Performance Standards – Infiltration. BMPs shall be designed, installed, and maintained to infiltrate runoff in accordance with the following, except as provided in Section 11-1-8 (F)(2)(e)(i through ix).

(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 2% 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.

(c) Pre-development condition shall be the same as in 11-1-8(e). A model that calculates runoff volume, such as SLAMM, P8, or an equivalent methodology may be used.

(d) 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 11-1-8(F)(2)(E). Pretreatment options may include, but are not limited to,

oil/grease separation, sedimentation, biofiltration, filtration, swales or filter strips.

(i) To achieve the infiltration requirement for the parking lots or roads, maximum extent practicable should not be interpreted to require significant topography changes that create an excessive financial burden.

(ii) To minimize potential groundwater impacts, it is desirable to infiltrate the cleanest runoff. To achieve this, a design may propose greater infiltration of runoff from low pollutant sources such as roofs, and less from higher pollutant source areas such as parking lots.

(e) The runoff from the following areas is prohibited from infiltrating due to the potential for groundwater contamination:

(i) Areas associated with tier 1 industrial facilities identified in Section NR 216.21(2)(a), Wis. Adm. Code, including storage, loading, rooftop and parking.

(ii) Storage and loading areas of tier 2 industrial facilities identified in Section NR 216.21(2)(b), Wis. Adm. Code. Runoff from tier 2 parking and rooftop areas may be infiltrated but may require pretreatment.

(iii) Fueling and vehicle maintenance areas.

(iv) Areas within 1000 feet upgradient or within 100 feet downgradient of karst features.

(v) 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 Section 11-1-8(F)(2)(e) does not prohibit infiltration of roof runoff.

(vi) 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.

(vii) Areas within 400 feet of a community water system well as specified in Section NR 811.16(4), Wis. Adm. Code, or within 100 feet of a private well as specified in Section NR 812.08(4), Wis. Adm. Code, for runoff infiltrated from

commercial, industrial and institutional land uses or regional devices for residential development.

(viii) Areas where contaminants of concern, as defined in Section NR 720.03(2), Wis. Adm. Code are present in the soil through which infiltration will occur.

(ix) 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 percent fines or greater. This does not apply where the soil medium within the infiltration system provides an equivalent level of protection.

(f) The following are not required to meet the requirements of Section 11-1-8(F):

(i) Areas where the infiltration rate of the soil is less than 0.6 inches/hour measured at the site.

(ii) Parking areas and access roads less than 5,000 square feet for commercial and industrial development.

(iii) Redevelopment post-construction sites.

(iv) Infiltration areas during periods when the soil on the site is frozen.

(v) Roads in commercial, industrial and institutional land uses, and arterial residential roads.

(g) 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.

(h) Minimize Pollutants

(i) 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.

(ii) Notwithstanding Section 11-1-8(F)(2)(h)(i), the discharge from BMPs shall remain below the enforcement standard at the point of standards application.

(G) 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 Section 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 Section 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 Section 11-1-8(G)(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 Section 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 Section 11-1-8(G)(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.

(i) 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.

(ii) It is required that seeding of non-aggressive 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. Vegetative cover can be measured using the line transect method described in the University of Wisconsin Extension publication number A3533, titled "Estimating Residue Using the Line Transect Method".

(c) Best management practices such as filter strips, swales, or 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 Section 59.692(1v).
- (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.

A vegetated protective area to filter runoff pollutants from post-construction sites described in this Section 11-1-8(G)(4)(e) is not necessary since runoff is not entering the surface water at that location. Other practices, necessary to meet the requirements of this section, such as a swale or basin, will need to be designed and implemented to reduce runoff pollutants before the runoff enters a surface water of the state.

(H) Standard for Tracking. The Town Engineer shall neither approve any plan nor shall the Town Clerk issue a permit for any land disturbing activity under this Chapter unless satisfied that adequate provisions are made to prevent the tracking or dropping of dirt or other materials from the site onto any public or private street.

(I) Design Criteria, Engineering Standards and General Principles. The applicant for a permit may employ any structural or nonstructural measures believed to be necessary to achieve all applicable standards set out in this Chapter. However, the Town Engineer is required to evaluate these measures to determine that they follow currently accepted design criteria and engineering standards. The following general principles shall be used by the Town Engineer when evaluating control plans and granting permits under this Chapter:

- (1) The smallest practical area of land shall be exposed at any given time during development.
- (2) Such minimum area exposure shall be kept to as short a duration of time as is practicable.
- (3) Temporary vegetation, mulching or other cover shall be used to protect areas exposed during development.
- (4) Provision shall be made to effectively accommodate the increased runoff caused by changed soil and surface conditions during and after development according to the standards contained in this Chapter.

(5) Permanent, final plant covering or structures shall be installed as soon as possible.

(6) The plan of development shall relate to the topography and soils of the site so that the lowest potential for erosion is created.

(7) Natural plant covering shall be retained and protected and shall be deemed a dominating factor in developing the site.

Sec. 11-1-9 Application and Issuance of Permits

(A) Permit Required; Procedure and Fee.

(1) Unless specifically exempted from this Chapter, no landowner, land user, and/or responsible party, may undertake a land disturbing activity subject to this Chapter without receiving a permit from the Town Engineer prior to commencing the proposed activity. Each landowner, land user, and/or responsible party desiring to undertake a regulated activity subject to this Chapter shall submit to the Town Engineer an application for a permit together with the appropriate fee required by this Chapter.

(2) The owner or land user of public lands is exempt from payment of any permit fees.

(B) Control Plan Required. Unless specifically exempted by this Chapter, every applicant for a permit under this Chapter shall develop and shall submit a plan to control erosion, sedimentation and runoff which would result from the proposed activity ("control plan"), which shall be reviewed and approved or disapproved by the Town Engineer prior to issuance of the permit.

(C) Contents of the Control Plan. The control plan shall contain such information which the Town Engineer may reasonably need to determine soil erosion, sedimentation and runoff control. The Town Engineer may require the following, as well as any other information which, in the judgment of the Engineer, is needed to evaluate the control plan:

(1) A map of the site location at a scale of not smaller than one inch equals 100 feet showing the location of predominant soil types and the existing vegetative cover.

(2) A topographic map of the site location with a maximum of 2 foot contour intervals, including enough of the contiguous properties to show existing drainage patterns and watercourses that may affect or be affected by the proposed development of the site, and also show

the site boundaries. Scale of not less than one inch equals 100 feet is to be used.

(3) A plan of the site at a scale of not smaller than one inch equals 100 feet showing:

(a) Name, address and telephone number of the land occupier, along with the name and telephone number of the party responsible for maintaining erosion control structures.

(b) Limits of natural floodplain(s), based on a 100 year flood, if any.

(c) A schedule indicating the anticipated starting and completion dates of the development sequence and the time of exposure of each area of land disturbing activity prior to the completion of effective measures for erosion and sediment control.

(d) Proposed topography of the site location with a maximum of two foot contour intervals showing:

(i) Location of proposed land disturbing activity, proposed disturbance of protective cover, any proposed additional structure on the site, areas to be seeded or mulched, areas to be vegetatively stabilized and areas to be left undisturbed.

(ii) Elevations, dimensions, locations of all proposed land disturbing activities including where topsoil will be stockpiled, so that topsoil will not contribute to erosion and sedimentation.

(iii) The finished grade, stated in feet horizontal to feet vertical, of cut and fill slopes.

(iv) Kinds of utilities and proposed areas of installation.

(v) Proposed paved and covered areas in square feet or to scale on a plan map.

(vi) Makeup of proposed surface soil (upper six inches) on areas not covered by buildings, structures or pavement. Description shall be in such terms as: original surface soil, subsoil, sandy, heavy clay or stony.

(vii) Proposed kind of cover on areas not covered by buildings, structures or pavement. Description shall be in such terms as: lawn, turfgrass, shrubbery, trees, forest cover, riprap or mulch.

(e) Plans and hydraulic computations of all temporary or permanent structural or nonstructural measures or other protective devices to be constructed in connection with, or as part of, the proposed work showing:

(i) Estimated surface runoff of the area based upon 2, 10, 25, 50 and 100-year frequency storm events. Peak flows based upon synthetic storm frequency events calculated using Urban Hydrology for Small Watersheds-TR55 shall be required in the event that storm runoff or stream flow data is not available in the area.

(ii) Estimated rate of discharge in cubic feet per second at the point or points of discharge from the site location based upon 2, 10, 25, 50 and 100-year frequency storm events.

(iii) The storm event frequency or recurrence interval and discharge rate in cubic feet per second on which the design of plans for the site location is based.

(iv) Proposed provisions to carry runoff to the nearest adequate outlet, such as a curbed street, storm drain or natural drainage way.

(v) Design computations and applicable assumptions for all structural measures for erosion and sediment pollution control and water management. Volume and velocity of flow shall be given for all surface water conveyance measures and pipe outfalls. Surface runoff computations shall be submitted to the Town Engineer in accordance with current administrative guidelines as approved by the Town Plan Commission.

(vi) Estimate of cost of erosion and sediment control and water management structures and features.

(vii) Provisions for maintenance of control facilities including easements to insure short as well as long-term

erosion and sediment pollution control and stormwater management.

(viii) Seeding mixtures and rates, lime and fertilizer application rates, and kind and quantity of mulching for both temporary and permanent vegetative control measures.

(ix) Methods to prevent tracking of soil off the site of the land disturbing activity.

(D) Review of Application and Control Plan and Issuance of Permits

(1) The applicant shall submit a permit application and any required fee and control plan to the Town Clerk. The Town Clerk shall forward the control plan to the Town Engineer for review.

(2) The Town Engineer shall inform the applicant in writing whether or not the control plan is approved within five weeks from the date of receipt of the completed application, control plan and required fee.

(a) If the application is approved, the Town Engineer shall issue the permit to the applicant ("permittee").

(b) If additional information is required by the Town Engineer in order to evaluate the application, the Town Engineer shall so notify the applicant, who shall promptly submit the required information. Further review and approval or disapproval shall occur as specified in Section 11-1-13 of this Chapter, with applicable time limits determined from the date of receipt of the additional information.

(c) If the application is disapproved, the Town Clerk or Town Engineer shall specify in writing the reasons for disapproval. The applicant may resubmit a new or modified control plan or may appeal the Town's decision pursuant to Section 11-1-13.

(d) Failure by the Town to notify an applicant in writing within five weeks of receipt of the completed application, control plan and any required fee shall be deemed to be approval of the plan as submitted, and the applicant may proceed as if the permit has been issued, unless notified of an additional information requirement.

(E) Permit: Conditions. All permits issued under this Chapter shall be issued subject to the following conditions and requirements and any landowner, land user, and/or responsible party who begins to perform any land disturbing activity authorized by permit shall be deemed to have accepted all of these conditions:

(1) All land disturbances, construction and development will be done pursuant to the control plan as approved by the Town Engineer.

(2) The permittee shall give at least two working days notice to the Town Engineer in advance of the start of any land disturbing activity.

(3) The permittee shall file a notice of completion of all land disturbing activities and/or the completion of installation of all onsite detention facilities within 10 days after completion.

(4) Approval in writing must be obtained from the Town Engineer prior to any modifications to the approved control plan.

(5) The permittee will be responsible for maintaining all roads, road rights-of-way, streets, runoff and drainage facilities and drainage ways as specified in the approved plan until they are accepted and dedicated to a governmental entity.

(6) The permittee will be responsible for repairing any damage at his or her expense to all adjoining surfaces and drainageways caused by runoff and/or sedimentation resulting from activities which are not in compliance with the approved plan.

(7) The permittee must provide and install at his or her expense all drainage, runoff control and erosion control improvements required by this Chapter and the approved control plan, and also must bear his or her proportionate share of the total cost of offsite improvements to drainageways based upon the existing developed drainage area or planned development of the drainage area, as determined by the Town Engineer.

(8) No work will be done on the site during any period of time that the average hourly wind velocity at the location of the land disturbing activity exceeds 20 miles per hour, unless provision has been made to eliminate dust or blowing dirt.

(9) No portion of the land which undergoes the land disturbing activity will be allowed to remain uncovered for greater than two

weeks after notice is given to the Town Engineer that the land disturbing activity is completed.

(10) The permittee shall permit the Town Engineer to enter onto the land regulated under this Chapter for the purpose of inspecting for compliance with the approved control plan and permit.

(11) The permittee authorizes the Town Engineer to perform any work or operations necessary to bring the condition of the lands into conformity with the approved control plan or plan as modified by the Town Engineer and further consents to the Town placing the total of the costs and expenses of such work and operations upon the tax roll as a special tax against the property.

(F) Permit Duration. Permits issued under this Chapter shall be valid for a period of six months from the date of issuance by the Town Engineer and all work must be completed prior to the expiration date of the permit. The Town Engineer or Town Board may extend the expiration date of the permit if the Engineer finds that an extension will not cause an increase in erosion, sedimentation or runoff. The Town Engineer is further authorized to modify the plans if necessary to prevent any increase in sedimentation, erosion or runoff resulting from any extension.

(G) Fees for Engineering Review and Enforcement

(1) Any person who submits an application for approval of an erosion control plan or issuance of a permit required by this Chapter shall pay a filing fee in the amount established by the Town Board by Resolution and, in addition, shall pay the Town's actual cost for engineering work by the Town Engineer incurred by the Town in connection with review of the erosion control plan, including any inspections required to assure compliance with the plan. The fee shall be paid prior to issuance of the permit if the engineering review fees have been billed by that time. If billed to the Town after issuance of the permit, the fee shall be paid within 30 days of its receipt by the permittee. Failure to pay such fee within 30 days shall be grounds for revocation of the permit, issuance of a stop work order, and the Town may collect the unpaid fees by imposing a special charge upon the next tax roll of the parcel or parcels of real estate proposed to be, or actually, disturbed pursuant to Wis. Stats., Section 66.0627.

(2) If the Town Engineer is required to undertake any enforcement action under this Chapter, all fees charged to the Town by the Engineer and/or the Town Attorney shall be collected by the Town from the landowner, land user, and/or responsible party violating this Chapter, unless a Court of record expressly dismisses an action to enforce this Chapter or finds

that the Engineer's actions lacked a reasonable basis under this Chapter. If any fees are not paid within thirty (30) days of billing, the Town may collect the fees by imposing a special charge upon the next tax roll against the real estate parcel or parcels proposed to be, or actually, disturbed pursuant to Wis. Stats., Section 66.0627.

(3) The Town Engineer and/or Clerk shall have the discretion in connection with any significant land disturbing activity to require that the applicant, prior to issuance of a permit, make an escrow deposit or in lieu thereof to furnish a performance bond in an amount equal to one-hundred twenty-five percent (125%) of the estimated cost of all of the required control measures as determined by the Town Engineer, including the cost of inspections. In the sole discretion of the Town Engineer and/or Clerk, the applicant may also assure payment for the measures by filing an irrevocable letter of credit in favor of the Town issued in the same amount for a sufficient duration to assure completion of the measures, and in a form and drawn upon a national or state chartered financial institution acceptable to the Town Engineer, Clerk and/or Town Attorney. The security deposited shall guarantee that all required control measures will be taken or installed according to the approved plan. The security shall remain in full force for the entire period of the permit unless released earlier by the Town. The Town shall have the right to draw upon the security for the purpose of obtaining compliance with the approved plan as it deems necessary. If the approved plan is included as part of plat or certified survey map conditions of approval, then the overall security for performance of the approved plan may be included as part of the overall security required for installation of improvements under the Town's Land Division and Subdivision Ordinance.

Sec. 11-1-10 Time for Compliance

Land disturbing activities commenced after the effective date of this Chapter shall comply with all provisions of this Chapter.

Sec. 11-1-11 Administration

(A) Delegation of Authority. The Town Board shall designate the Town Engineer to administer and enforce the provisions of this Chapter, under its direction. The Town Engineer may seek technical advice from the Columbia County Land Conservation District, the U.S. Department of Agriculture, Soil Conservation Service or the Wisconsin Department of Natural Resources as to the adequacy of any proposed plan and permit application submitted to the Town.

(B) Administrative Duties. In the administration and enforcement of this Chapter, the Town Engineer shall perform the following duties:

(1) Keep an accurate record of all plan data received, plans approved, permits issued, inspections made and other official actions and make a periodic permit activity report to the Town Plan Commission.

(2) Investigate all complaints made to the application of this Chapter.

(3) Revoke any permit granted under this Chapter if it is found that the holder of the permit has misrepresented any material fact in the permit application or plan; or has failed to comply with the plan as originally approved or as modified in writing subsequently by the Town Engineer; or has violated any of the other conditions of the permit as issued to the applicant.

(C) Inspection Authority. The Town Engineer is authorized to enter upon any public or private lands affected by this Chapter to inspect the land prior to permit issuance for the purpose of determining whether to approve the plan and after permit issuance to determine compliance with this Chapter. If permission cannot be received from the landowner or user, entry by the Town Engineer shall be by special inspection warrant pursuant to Wis. Stats., Section 66.0119.

(D) Enforcement Authority. The Town Engineer is authorized to post a stop work order upon land which has had a permit revoked or to post a stop work order upon land which is currently undergoing any land disturbing activity in violation of this Chapter. The Town Engineer shall supply a copy of each stopwork order to the Town Attorney. In lieu of the stop work order, the Town Engineer may issue a written cease and desist order to any landowner, land user, and/or responsible party whose activity is in violation of this Chapter. These orders shall specify that the activity must be ceased or brought into compliance with this Chapter within seven days. Any revocation, stop work order or cease and desist order shall remain in effect unless retracted by the Town Board, the Town Engineer or by a court of general jurisdiction; or until the land disturbing activity is brought into compliance with this Chapter. The Town Engineer is authorized to refer any violation of this Chapter or of a stop work or cease and desist order issued pursuant to this Chapter to the Town Attorney for the commencement of further legal proceedings.

Sec. 11-1-12 Violations

(A) Penalties. Any landowner, land user, and/or responsible party who violates, disobeys, omits, neglects or refuses to comply with or resists the enforcement of any of the provisions of this Chapter, shall be subject to a forfeiture except as otherwise provided in Sec. 9-3-4 of this Code. Each day that a violation exists or continues shall constitute a separate offense.

(B) Enforcement by Injunction. Compliance with the provisions of this Chapter may also be enforced by injunction order at the suit of the Town. It shall not be necessary to prosecute for forfeiture before resorting to injunction proceedings.

(C) Performance of Work by the Town Engineer. Where the Town Engineer determines that a landowner, land user, and/or responsible party has failed to obtain a permit as required by this Chapter; or a permittee has failed to make any improvements or to follow practices as approved in the plan, or has failed to comply with the time schedule as included in the plan, the Town Engineer or a party designated by the Town Engineer may enter upon the land and perform the work or other operations necessary to bring the condition of said land into conformity with the requirements of the approved plan and/or this Chapter. The Town Engineer shall keep a detailed accounting of the costs and expenses of performing this work and these costs and expenses shall be billed to the landowner, land user, and/or responsible party. In the event payment is not made to the Town within thirty (30) days of billing, the Town may collect the fees by imposing a special charge upon the next tax roll against the real estate parcel or parcels proposed to be, or actually, disturbed pursuant to Wis. Stats., Section 66.0627.

Sec. 11-1-13 Appeals or Variance Requests

(A) Authority. The Town Board shall:

(1) Hear and decide appeals where it is alleged that there is error in any order, requirement, decision or determination made by the Town Engineer in administering this Chapter.

(2) Authorize upon appeal in specific cases such variances from the terms of this Chapter as will not be contrary to the public interest, where owing to special conditions a literal enforcement of the provisions of this Chapter would result in unnecessary hardship or it is demonstrated that the provision is unnecessary, so that the spirit of this Chapter shall be observed, public safety and welfare secured, and substantial justice done. Variances shall not be granted solely on the basis of economic hardships.

(B) Procedure. Appeal or variance requests must be submitted in writing and state the grounds for the appeal or variance. A filing fee in an amount established by the Town Board by Resolution must accompany the appeal or variance request. Any appeal must be filed within forty-five (45) days of the order, decision, determination or inaction being appealed. The appeal or request for variance shall be heard by the Town Board within forty-five (45) days of receipt unless extension is agreed upon by all parties.

(C) Who May Appeal. Appeals may be taken by any person aggrieved or by an officer, department, board or bureau of the Town affected by the order,

requirement, decision or determination made by the Town Engineer. For the purpose of this Chapter, aggrieved person shall include any applicant, permittee, landowners, land users, and/or responsible party.

(D) Administrative Review. Pursuant to Wis. Stats. Section 68.16, the Town Board elects that the procedures set forth in this section for administrative review of decisions under this Chapter shall apply in lieu of the procedures of the Wisconsin Municipal Administrative Procedure Act, except for Wis. Stats. Sections 68.14 and 68.15.

(E) Enforcement Not Stayed. The filing of an appeal or variance does not preclude the Town from commencing or continuing any of the enforcement actions set forth herein or a forfeiture proceeding unless the Town Board specifically agrees to stay such enforcements.

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