#### ORDINANCE #09-05

# REPEALING AND RECREATING CHAPTER 42 DE PERE MUNICIPAL CODE RELATING TO CONSTRUCTION SITE EROSION CONTROL

WHEREAS, the Common Council of the City of De Pere, having reviewed the recommendation of the City Plan Commission regarding the proposed repeal and recreation of Chapter 42 De Pere Municipal Code regarding construction site erosion control and having scheduled a public hearing then to be decided by the Common Council; and

WHEREAS, the City Clerk-Treasurer, having published a Notice of Public Hearing regarding such proposed ordinance change and, pursuant thereto, a public hearing having been held on the 3<sup>rd</sup> day of February, 2009 at 7:35 p.m. and the Common Council having heard all interested parties or their agents and attorneys.

NOW THEREFORE, THE COMMON COUNCIL OF THE CITY OF DE PERE, WISCONSIN, DO ORDAIN AS FOLLOWS:

<u>Section 1</u>: Chapter 42 De Pere Municipal Code, **Construction Site Erosion Control**, is hereby repealed in its entirety and recreated as follows:

### CHAPTER 42 CONSTRUCTION SITE EROSION CONTROL ZONING ORDINANCE

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#### CONSTRUCTION SITE EROSION

#### 42-1 AUTHORITY.

- (a) This ordinance is adopted under the authority granted by §62.234, Wis. Stats. This ordinance supersedes all provisions of an ordinance previously enacted under §62.23, Wis. Stats., that relate to construction site erosion control. Except as otherwise specified in §62.234 Wis. Stats., §62.23, Wis. Stats., applies to this ordinance and to any amendments to this ordinance.
- (b) The provisions of this ordinance are deemed not to limit any other lawful regulatory powers of the same governing body.
- (c) The Common Council hereby designates the Building Inspector or designee to the administering authority to administer and enforce the provisions of this ordinance.
- (d) The requirements of this ordinance do not pre-empt more stringent erosion and sediment control requirements that may be imposed by any of the following:
  - (1) Wisconsin Department of Natural Resources administrative rules, permits or approvals including those authorized under §§281.16 and 283.33, Wis. Stats.
  - (2) Targeted non-agricultural performance standards promulgated in rules by the Wisconsin Department of Natural Resources under s. NR 151.004, Wis. Adm. Code.

## 42-2 FINDINGS OF FACT.

The Common Council finds that runoff from land disturbing construction activity carries a significant amount of sediment and other pollutants to the waters of the state in the City of De Pere.

#### 42-3 PURPOSE.

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

# 42-4 APPLICABILITY AND JURISDICTION.

#### (a) APPLICABILITY.

- (1) This ordinance applies to the following land disturbing construction activities except as provided under (2):
  - A. A construction site, which has 4,000 square feet or greater of land disturbing construction activity.
  - B. A construction site, which has 100 cubic yards or greater of excavation volume, filling volume, or some combination of excavation and filling volume.
  - C. A construction site, which has 100 linear feet or greater of land disturbance to a highway, street, driveway, swale, ditch, waters of the state, wetland, protective area, or other non-agricultural drainage facility which conveys concentrated flow. Wetlands shall be delineated in accordance with s. NR 103.08(1m).

- (2) This ordinance does not apply to the following:
  - A. Land disturbing construction activity that includes the construction of 1and 2-family residential dwellings that are not part of a larger common
    plan of development or sale and that result in less than 1 acre of
    disturbance. These construction sites are regulated by the Wisconsin
    Department of Commerce under s. COMM 21.125 Wis. Adm. Code.
  - B. A construction project that is exempted by federal statutes or regulations from the requirement to have a national pollutant discharge elimination system permit issued under chapter 40, Code of Federal Regulations, part 122, for land disturbing construction activity.
  - C. Nonpoint discharges from agricultural activity areas.
  - D. Nonpoint discharges from silviculture activities.
  - E. Mill and crush operations.
- (3) Notwithstanding the applicability requirements in paragraph (1), this ordinance applies to construction sites of any size that, in the opinion of the administering authority, are likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, that causes undue channel erosion, that increases water pollution by scouring or the transportation of particulate matter or that endangers property or public safety.

#### (b) JURISDICTION.

This ordinance applies to land disturbing construction activities on lands within the boundaries and jurisdiction of the City of De Pere, as well as the extraterritorial division of land subject to an ordinance enacted pursuant to §236.45(2) and (3), Wis. Stats.

#### (c) EXCLUSIONS.

This ordinance is not applicable to activities conducted by a state agency, as defined under §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 §281.33 (2), Wis. Stats.

#### 42-5 DEFINITIONS.

- (a) "Administering authority" means the City of De Pere Building Inspector or designee.
- (b) "Agricultural activity area" means the part of the farm where there is planting, growing, cultivating and harvesting of crops for human or livestock consumption and pasturing or outside yarding of livestock, including sod farms and silviculture. Practices in this area may include waterways, drainage ditches, diversions, terraces, farm lanes, excavation, filling and similar practices. The agricultural activity area does not include the agricultural production area.
- (c) "Agricultural production area" means the part of the farm where there is concentrated production activity or impervious surfaces. Agricultural production areas include buildings, driveways, parking areas, feed storage structures, manure storage structures, and other impervious surfaces. The agricultural production area does not include the agricultural activity area.
- (d) "Average annual rainfall" means a calendar year of precipitation, excluding snow, which is considered typical. For purposes of this ordinance, average annual rainfall means measured precipitation in Green Bay, Wisconsin between March 29 and November 25, 1969.
- (e) "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.
- (f) "Business day" means a day the office of the Building Inspector is routinely and customarily open for business.
- (g) "Cease and desist order" means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit.
- (h) "Common plan of development or sale" means a development or sale where multiple separate and distinct land disturbing construction activities may be taking place at different times on different schedules but under one plan. A common plan of development or sale includes, but is not limited to, subdivision plats, certified survey maps, and other developments.

- (i) "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.
- (j) "Development" means residential, commercial, industrial, institutional, or other land uses and associated roads.
- (k) "Division of land" means the creation from one or more parcels or building sites of additional parcels or building sites where such creation occurs at one time or through the successive partition within a 5 year period.
- (1) "Erosion" means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.
- (m) "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.
- (n) "Extraterritorial" means the unincorporated area within 3 miles of the corporate limits of a first, second, or third class city, or within 1.5 miles of a fourth class city or village.
- (o) "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.
- (p) "Governing body" means the Common Council of the City of De Pere.
- (q) "Land disturbing construction activity" (or "disturbance") means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover, that may result in runoff and lead to an increase in soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities, and soil stockpiling.
- (r) "MEP" or "maximum extent practicable" 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.

- (s) "Performance standard" means a narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.
- (t) Permit" means a written authorization made by the [Building Inspector] to the applicant to conduct land disturbing construction activity or to discharge post-construction runoff to waters of the state.
- (u) "Pollutant" has the meaning given in §283.01 (13), Wis. Stats.
- (v) "Pollution" has the meaning given in §281.01 (10), Wis. Stats.
- (w) "Protective area" has the meaning given in §28-7(c)4 De Pere Municipal Code.
- (x) "Responsible party" means any entity holding fee title to the property or performing services to meet the performance standards of this ordinance through a contract or other agreement.
- (y) "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.
- (z) "Sediment" means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.
- (aa) "Separate storm sewer" means a conveyance or system of conveyances including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:
  - (1) Is designed or used for collecting water or conveying runoff.
  - (2) Is not part of a combined sewer system.
  - (3) Is not draining to a stormwater treatment device or system.
  - (4) Discharges directly or indirectly to waters of the state.
- (bb) "Site" means the entire area included in the legal description of the land on which the land disturbing construction activity is proposed in the permit application.
- (cc) "Stop work order" means an order issued by the Building Inspector which requires that all construction activity on the site be stopped.
- (dd) "Stormwater Reference Guide" means the Stormwater Reference Guide of August 18, 2008, as amended from time to time and which is available for inspection from the office of the Building Inspector and the City Engineer.

- (ee) "Technical standard" means a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.
- (ff) "Waters of the state" has the meaning given in §281.01 (18), Wis. Stats.

# 42-6 TECHNICAL STANDARDS.

- (a) DESIGN CRITERIA, STANDARDS AND SPECIFICATIONS. All BMPs required to comply with this ordinance shall meet the design criteria, standards and specifications based on any of the following:
  - 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.
  - (2) Technical standards and other guidance identified within the City of De Pere Stormwater Reference Guide.
  - (3) For this ordinance, 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.
- (b) OTHER STANDARDS. Other technical standards not identified or developed in (1), may be used provided that the methods have been approved by the Building Inspector.

# 42-7 PERFORMANCE STANDARDS.

- (a) RESPONSIBLE PARTY. The responsible party shall implement an erosion and sediment control plan, developed in accordance with section 42-9 that incorporates the requirements of this section.
- (b) PLAN. A written erosion and sediment control plan shall be developed in accordance with section 42-9 and implemented for each construction site.

- (C) REQUIREMENTS. The erosion and sediment control plan shall meet the following minimum requirements to the maximum extent practicable:
  - (1) BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the construction site as follows.
    - A. For construction sites with 1 acre or greater of land disturbing construction activity, reduce the total suspended solids load by 80%, on an average annual basis, as compared with no sediment or erosion controls until the construction site has undergone final stabilization. No person shall be required to exceed an 80% sediment reduction to meet the requirements of this paragraph. Erosion and sediment control BMPs may be used alone or in combination to meet the requirements of this paragraph. Credit toward meeting the sediment reduction shall be given for limiting the duration or area, or both, of land disturbing construction activity, or other appropriate mechanism.
    - B. For construction sites with less than 1 acre of land disturbing construction activity, reduce the total suspended solids load using BMPs from the City of De Pere Stormwater Reference Guide. These sites are not required to satisfy a numeric performance standard.
  - (2) Notwithstanding par. (1), if BMPs cannot be designed and implemented to reduce the sediment load by 80%, on an average annual basis, the plan shall include a written and site-specific explanation as to why the 80% reduction goal is not attainable and the sediment load shall be reduced to the maximum extent practicable.
  - (3) Where appropriate, the plan shall include sediment controls to do all of the following to the maximum extent practicable:
    - A. Prevent tracking of sediment from the construction site onto roads and other paved surfaces.
    - B. Prevent the discharge of sediment as part of site de-watering.
    - C. Protect the separate storm drain inlet structure from receiving sediment.

- (4) The use, storage and disposal of building materials, chemicals, cement, concrete truck washout, litter, sanitary waste, and other compounds and materials used on the construction site shall be managed during the construction period, to prevent their entrance into storm sewers and waters of the state. However, projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this paragraph.
- (d) LOCATION. The BMPs used to comply with this section shall be located prior to runoff entering waters of the state.
- (e) ALTERNATE REQUIREMENTS. The Building Inspector may establish requirements more stringent than those set forth in this section if the Building Inspector determines that an added level of protection is needed for sensitive resources.

# 42-8 PERMITTING REQUIREMENTS, PROCEDURES AND FEES.

- (a) PERMIT REQUIRED. No responsible party may commence a land disturbing construction activity subject to this ordinance without receiving prior approval of an erosion and sediment control plan for the site and a permit from the Building Inspector.
- (b) PERMIT APPLICATION AND FEES. At least one responsible party desiring to undertake a land disturbing construction activity subject to this ordinance shall submit an application for a permit and an erosion and sediment control plan that meets the requirements of section 42-9 and shall pay an application fee to be determined by resolution of the Common Council to the Building Inspector. By submitting an application, the applicant is authorizing the Building Inspector to enter the site to obtain information required for the review of the erosion and sediment control plan.
- (c) REVIEW AND APPROVAL OF PERMIT APPLICATION. The Building Inspector shall review any permit application that is submitted with an erosion and sediment control plan, and the required fee. The following approval procedure shall be used:

- (1) Within 20 business days of the receipt of a complete permit application, required by (b), the Building Inspector shall inform the applicant whether the application and plan are approved or disapproved based on the requirements of this ordinance.
- (2) If the permit application and plan are approved, the Building Inspector shall issue the permit.
- (3) If the permit application or plan is disapproved, the Building Inspector shall state in writing the reasons for disapproval.
- (4) The Building Inspector may request additional information from the applicant. If additional information is submitted, the Building Inspector shall have 20 business days from the date the additional information is received to inform the applicant that the plan is either approved or disapproved.
- (5) Failure by the Building Inspector to inform the permit applicant of a decision within 20 business days of a required submittal shall be deemed to mean approval of the submittal and the applicant may proceed as if a permit had been issued.
- (d) SURETY BOND. As a condition of approval and issuance of the permit, the Building Inspector may require the applicant to deposit a surety bond, cash escrow, or irrevocable letter of credit to guarantee a good faith execution of the approved erosion control plan and any permit conditions.
- (e) PERMIT REQUIREMENTS. All permits shall require the responsible party to:
  - (1) Notify the Building Inspector within 48 hours of commencing any land disturbing construction activity.
  - (2) Notify the Building Inspector of completion of any BMPs within 10 business days after their installation.
  - (3) Obtain permission in writing from the Building Inspector prior to any modification pursuant to section 42-9(c) of the erosion and sediment control plan.
  - (4) Install all BMPs as identified in the approved erosion and sediment control plan.
  - (5) Maintain all road drainage systems, stormwater drainage systems, BMPs and other facilities identified in the erosion and sediment control plan.

- (6) Repair any siltation or erosion damage to adjoining surfaces and drainage ways resulting from land disturbing construction activities and document repairs in weekly inspection reports.
- (7) Conduct construction site inspections at least once per week and within 24 hours after a precipitation event of 0.5 inches or greater. Repair or replace erosion and sediment control BMPs as necessary within 24 hours of an inspection or notification that repair or replacement is needed. Maintain, at the construction site, weekly written reports of all inspections. Weekly inspection reports shall include all of the following: date, time and location of the construction site inspection; the name of individual who performed the inspection; an assessment of the condition of erosion and sediment controls; a description of any erosion and sediment control BMP implementation and maintenance performed; and a description of the present phase of land disturbing construction activity at the construction site.
- (8) Allow the Building Inspector to enter the site for the purpose of inspecting compliance with the erosion and sediment control plan or for performing any work necessary to bring the site into compliance with the control plan. Keep a copy of the erosion and sediment control plan, storm water management plan, amendments, weekly inspection reports, and permit at the construction site until permit coverage is terminated.
- (9) The permit applicant shall post the "Certificate of Permit Coverage" in a conspicuous location at the construction site.
- (f) PERMIT CONDITIONS. Permits issued under this section may include conditions established by Building Inspector in addition to the requirements set forth in (e), where needed to assure compliance with the performance standards in section 42-7.
- (g) PERMIT DURATION. Permits issued under this section shall be valid for a period of 180 days, or the length of the building permit or other construction authorizations, whichever is longer, from the date of issuance. The Building Inspector may extend the period one or more times for up to an additional 180 days. The Building Inspector may

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require additional BMPs as a condition of the extension if they are necessary to meet the requirements of this ordinance.

- (h) MAINTENANCE. The responsible party throughout the duration of the construction activities shall maintain all BMPs necessary to meet the requirements of this ordinance until the site has undergone final stabilization.
- (i) ALTERNATE REQUIREMENTS. The Building Inspector may prescribe requirements less stringent for applicants seeking a permit for a construction site with less than 1 acre of disturbance.

# 42-9 EROSION AND SEDIMENT CONTROL PLAN, STATEMENT, AND AMENDMENTS.

- (a) PLAN REQUIREMENTS. The erosion and sediment control plan required under section 42-7 (b) shall comply with the City of De Pere Stormwater Reference Guide and contain at a minimum the following information:
  - (1) Name, address, and telephone number of the landowner and responsible parties.
  - (2) A legal description of the property proposed to be developed.
  - (3) A site map with property lines, disturbed limits, and drainage patterns.
  - (4) Total area of the site and total area of the construction site that is expected to be disturbed by construction activities.
  - (5) Performance standards applicable to site.
  - (6) Proposed best management practices.

**Note to Users:** The plan requirements of this subsection will meet the erosion control plan requirements of s. NR 216.46, Wis. Adm. Code, when prepared in accordance with good engineering practices, applicable Technical Standards described in paragraph 6, and the Stormwater Reference Guide.

- (b) EROSION AND SEDIMENT CONTROL PLAN STATEMENT. For each construction site identified under section 42-4 (a)(3), an erosion and sediment control plan statement shall be prepared. This statement shall be submitted to the Building Inspector. The control plan statement shall briefly describe the site, including a site map. Further, it shall also include the best management practices that will be used to meet the requirements of the ordinance, including the site development schedule.
- (c) AMENDMENTS. The applicant shall amend the plan if any of the following occur:
  - (1) There is a change in design, construction, operation or maintenance at the site which has the reasonable potential for the discharge of pollutants to waters of the state and which has not otherwise been addressed in the plan.
  - (2) The actions required by the plan fail to reduce the impacts of pollutants carried by construction site runoff.
  - (3) The Building Inspector notifies the applicant of changes needed in the plan.
- (d) ALTERNATE REQUIREMENTS. The Building Inspector may prescribe requirements less stringent for applicants seeking a permit for a construction site with less than 1 acre of disturbance.

### 42-10 FEE SCHEDULE.

The fees referred to in other sections of this ordinance shall be established by resolution of the Common Council. A schedule of the fees shall be available for review in the building inspection office.

#### 42-11 INSPECTION.

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

#### 42-12 ENFORCEMENT.

- (a) The Building Inspector may post a stop-work order if any of the following occurs:
  - (1) Any land disturbing construction activity regulated under this ordinance is being undertaken without a permit.
  - (2) The erosion and sediment control plan is not being implemented in a good faith manner.
  - (3) The conditions of the permit are not being met.
- (b) If the responsible party does not cease activity as required in a stop-work order posted under this section or fails to comply with the erosion and sediment control plan or permit conditions, the Building Inspector may revoke the permit.
- (c) If the responsible party, where no permit has been issued, does not cease the activity after being notified by the Building Inspector, or if a responsible party violates a stop-work order posted under (a), the Building Inspector may request the to obtain a cease and desist order in any court with jurisdiction.
- (d) The board of appeals may retract the stop-work order issued under (a) or the permit revocation under (b).
- (e) After posting a stop-work order under (a), the Building Inspector may issue a notice of intent to the responsible party of its intent to perform work necessary to comply with this ordinance. The Building Inspector may go on the land and commence the work after issuing the notice of intent. The costs of the work performed under this subsection by the Building Inspector, plus interest at the rate authorized by administrative authority shall be billed to the responsible party or recovered from the surety bond, cash escrow, or irrevocable letter of credit. In the event a responsible party fails to pay the amount due, the clerk shall enter the amount due on the tax rolls and collect as a special assessment against the property pursuant to subch. VII of ch. 66, Wis. Stats.

- (f) Any person violating any of the provisions of this ordinance shall be subject to a forfeiture of not less than \$200 nor more than \$1000 and the costs of prosecution for each violation. Each day a violation exists shall constitute a separate offense.
- (g) Compliance with the provisions of this 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 injunctional proceedings.

#### 42-13 APPEALS.

- (a) BOARD OF APPEALS. The board of appeals created pursuant to of the city's ordinance pursuant to §62.23(7)(e), Wis. Stats.:
  - (1) Shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the [Building Inspector] in administering this ordinance except for cease and desist orders obtained under section 42-12(c).
  - (2) Upon appeal, may authorize variances from the provisions of this ordinance which are not contrary to the public interest and where owing to special conditions a literal enforcement of the provisions of the ordinance will result in unnecessary hardship; and
  - (3) Shall use the rules, procedures, duties and powers authorized by statute in hearing and deciding appeals and authorizing variances.
- (b) WHO MAY APPEAL. Appeals to the board of appeals may be taken by any aggrieved person or by any office, department, board, or bureau of the City of De Pere affected by any decision of the Building Inspector.

#### 42-14 SEVERABILITY.

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

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Section 2: All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 3: This ordinance shall take effect on and after its passage and publication.

Adopted by the Common Council of the City of De Pere, Wisconsin, this  $3^{rd}$  day of February, 2009.

APPROVED:

Michael J. Walsh, Mayor

ATTEST:

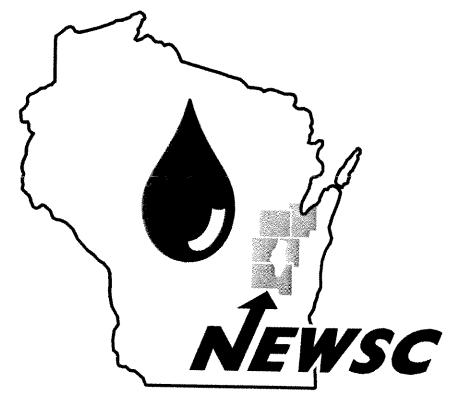
Vicki L. Scray, Deputy Clerk

Ayes: \_\_\_8

Nays: \_\_0

# NEWSC STORMWATER REFERENCE GUIDE FOR THE:

# CONSTRUCTION SITE EROSION CONTROL ORDINANCE



North East Wisconsin Stormwater Consortium

PREPARED BY:
NEWSC STORMWATER & EROSION CONTROL COMMITTEE

PREPARED FOR: NEWSC MEMBERSHIP

> DATE: August 15, 2007

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#### **EXECUTIVE SUMMARY**

The NEWSC Stormwater Reference Guide (Reference Guide) has been created to act as a companion to the NEWSC Model Construction Site Erosion Control Ordinance (Ordinance). The Ordinance cites the Reference Guide as the resource for details that were omitted from the model Ordinance due to the potential for variations in each municipality's permitting process and level of expertise in regard to the Ordinance. Items in the Reference Guide can be changed without the public hearing process as the changes are typically administrative and/or technical and do not affect the Ordinance's intent and requirements. The Reference Guide is organized similar to the Construction Site Erosion Control Ordinance for ease of relating the comments in the Reference Guide to the appropriate sections in the Ordinance.

Construction Site Erosion Control Ordinance					
5.0053446-257-44			Requirements	<b>A</b>	
Z the	Sediment (TSS)	Prevent Tracking	Perform De-Watering	Protect Storm Drain Inlets	Manage Building Materials
Less than ! Less	No Numeric Standard <sup>b</sup>	Yes	Yes	Yes	Yes
1 Acre of More	80%	Yes	Yes	Yes	Yes

- Summary of Section S.07 Performance Standards of the Construction Site Erosion Control Zoning Ordinance. See Ordinance and this Reference Guide for specific requirements, exemptions and prohibitions.
- Construction sites regulated by the Wisconsin Department of Commerce are required to achieve a 40% sediment reduction for sites with less than 1 acre of land disturbance. See COMM 60.20(3)(c) and COMM 21.125(3)(c) for specific requirements. The local municipality may also be acting as an agent of the Department of Commerce.

#### S.01 AUTHORITY

#### S.02 FINDINGS OF FACT

#### S.03 PURPOSE

#### S.04 APPLICABILITY AND JURISDICTION

- (1) APPLICABILITY
- (2) JURISDICTION
- (3) EXCLUSIONS

The Wisconsin Department of Transportation (WisDOT) has entered into a memorandum of understanding with the Wisconsin Department of Natural Resources that satisfies s. 281.33 (2), Wis. Stats., such that activities directed and supervised by WisDOT are exempt from this Ordinance.

Activities directed and supervised by the local municipality are covered by this Ordinance.

#### S.05 DEFINITIONS

#### S.06 TECHNICAL STANDARDS

## (1) DESIGN CRITERIA, STANDARDS AND SPECIFICATIONS

Below is a list of Technical Standards and Guidance Documents that shall be used to satisfy Performance Standards contained in the ordinance. Technical Standards specify the minimum criteria for a best management practice (BMP). Guidance Documents contain recommendations and additional "how to" guidance. Performance Standards take precedence over Technical Standards and Technical Standards take precedence over Guidance Documents.

- (a) Technical Standards: The following are applicable Wisconsin Department of Natural Resources (DNR) Conservation Practice Standards or Technical Standards:
  - 1050 Land Application of Anionic Polyacrylamide
  - 1051 Interim Sediment Controls: Water Application of Polymers
  - 1052 Non-Channel Erosion Mat
  - 1053 Channel Erosion Mat
  - 1054 Vegetative Buffer for Construction Sites
  - 1055 Sediment Bale Barrier (Non-Channel)
  - 1056 Silt Fence
  - 1057 Stone Tracking Pad and Tire Washing
  - 1058 Mulching for Construction Sites
  - 1059 Seeding for Construction Site Erosion Control
  - 1060 Storm Drain Inlet Protection for Construction Sites
  - 1061 De-watering

- 1062 Ditch Check (Channel)
- 1063 Sediment Trap
- \* 1064 Sediment Basin
- 1065 Rip-rap / Stabilized Outlet (pending completion)
- 1066 Construction Site Diversion
- 1067 Temporary Grading Practices for Erosion Control
- 1068 Dust Control on Construction Sites
- 1069 Turbidity Barrier
- 1070 Silt Curtain

These standards may be found on the DNR website at <a href="http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm">http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm</a>

- (b) Local Modifications to Technical Standards: The following are local requirements which are intended to supplement, clarify, or supersede DNR Technical Standards.
- (c) Guidance Documents: The following are the applicable Guidance Documents:
  - Guidance for the Establishment of Protective Areas for Wetlands
  - "Construction Site" Definition "Common Plan of Development"
  - Applicability of NR216 Subchapter III to Mill and Crush Operations
  - Meeting New State Standards: Construction Erosion Control Workshops http://dnr.wi.gov/org/water/wm/nps/stormwater/constr\_workshops
  - Estimating Residue Using the Line Transect Method (UW-Extension A3533).
  - Wisconsin Department of Transportation Erosion Control Product Acceptability Lists (PAL) for Multi-Modal Applications
  - Wisconsin Department of Transportation Facilities Development Manual
  - Wisconsin DOT Standard Specifications for Highway and Structure Construction
  - Other National Publications
- (2) OTHER STANDARDS

#### S.07 PERFORMANCE STANDARDS

- (1) RESPONSIBLE PARTY
- (2) PLAN
- (3) REQUIREMENTS
  - (a) TOTAL SUSPENDED SOLIDS

Construction sites with 1 acre or more of land disturbance are required to meet the ordinance's numeric performance standards.

Construction sites with less than 1 acre of land disturbance are required to achieve a 40% sediment reduction if the construction site is regulated by the Wisconsin Department of Commerce. See COMM 60.20(3)(c) and COMM 21.125(3)(c) for specific requirements. All other construction sites with less than 1 acre of land disturbance are not required to meet the ordinance's numeric performance standards. BMP design guidance is provided below in Section (b) for sites with less than 1 acre of land disturbance.

#### **Computer Models:**

The Wisconsin Department of Natural Resources (DNR) is working with the EPA, NRCS, and several other states to develop a Windows version of RUSLE2 for construction site erosion control. Until this software is available for statewide use, BMPs shall be designed using the Technical Standards listed in S.06. The Wisconsin Department of Commerce (COMM) is using the RUSLE2 spreadsheet developed by Dane County until the new RUSLE2 software is available. Use of the spreadsheet is not required by COMM, but is encouraged (<a href="https://commerce.wi.gov/sb/SB-SoilErosionControlProgram.html">https://commerce.wi.gov/sb/SB-SoilErosionControlProgram.html</a>).

#### **Design Clarifications:**

Erosion Control Practices- Erosion control practices are used to prevent sediment particles from becoming dislodged and suspended in runoff. Erosion control practices include land application of polyacrylamide, mulching, seeding, and erosion mats. Grading practices can be used to supplement these practices.

Sediment Control Practices- Sediment control practices are used to remove sediment particles that are suspended in runoff and being transported. Sediment control practices used for sheet flow conditions include vegetative buffers, sediment bale barriers (non-channel), and silt fence. Sediment control practices used for concentrated flow conditions include storm drain inlet protection (< 1 acre), ditch checks (< 1 acre), sediment traps (< 5 acres), sediment basins (< 100 acres), and polymers. Sediment control practices used for lakes, rivers, and streams include turbidity barriers and silt curtains.

Construction Site Diversions- Construction site diversions are used to divert clear-water runoff away from disturbed areas. Construction site diversions are also designed to convey sediment-laden runoff from disturbed areas to sediment control practices such as ditch checks, sediment traps, and sediment basins.

Dust Control Practices- Dust control practices are used to prevent wind erosion.

Dewatering- Dewatering practices are used to remove sediment from ponding surface water or groundwater. A DNR permit is required for pumping 70 gpm or more (<a href="http://dnr.wi.gov/org/water/dwg/hicap.html">http://dnr.wi.gov/org/water/dwg/hicap.html</a>). The discharge must be sampled in accordance with DNR requirements.

Non-Erosive Flows- Velocity dissipation devices shall be placed at outfall locations and along the length of any channel, as necessary, to provide a non-erosive flow so that the natural, physical, and biological characteristics and functions are maintained and protected. Velocity dissipation devices could include erosion mat (channel), rip-rap, drop structures, stilling basins, and other energy dissipation devices.

Maximum Permissible Velocities for Channels						
Channel Cover	%	Erosion-resistant	Easily eroded			
<u> </u>	0-5	soils	soils			
Bare Soil		3-6 fps*	1.5-2 fps*			
	Do not use on slopes steeper than 5%, except for					
	side slopes in a combination channel.					
Dames de O	0-5	8 fps	6 fps			
Bermuda Grass	5-10	7 fps	5 fps			
	>10	6 fps	4 fps			
Buffalo grass, Kentucky	0-5	7 fps	5 fps			
bluegrass, Smooth	5-10	6 fps	4 fps			
brome, blue grama	>10	5 fps	3 fps			
	0-5	5 fps	4 fps			
Grass mixture	5-10	4 fps	3 fps			
	Do not use on slopes steeper than 10%, except for					
	side slop	es in a combination	channel.			
Lespedeza sericea,	0-5	3.5 fps	2.5 fps			
weeping love grass	Do not use on slopes steeper than 5%, except for					
Ischaemum (yellow	side slopes in a combination channel.					
bluestem), kudzu,						
alfalfa, crabgrass						
A						
Annuals – used on mild	0-5	3.5 fps	2.5 fps			
slopes or as temporary	Use on slopes steeper than 5% is not					
protection until	recommended					
permanent covers are						
established,			Violentia			
common lespedeza,						
Sudan grass						

<sup>\*</sup> Maximum permissible velocities depend on specific soil properties and shear stress. Typically, the maximum velocity for sand = 1.5 fps, silt and loam = 1.7 to 2.5 fps, fine gravel = 2.5 fps, clay = 3.7 fps, coarse gravel = 4.0 fps, cobbles = 3.7 to 5.0 fps, and shale / hard pan = 6.0 fps. Source – Chow Open Channel Hydraulics & Civil Engineering Reference Manual for the PE Exam, Ninth Edition

Materials- No sediment or solid materials, including building materials, may be discharged in violation of the following federal, state, and local regulations:

- Navigation, Dams, & Bridges (Chapter 30 and 31, Stats.)
- Wetland Water Quality Standards (NR 103)
- Wetlands (US Army Corps of Engineers Section 404 regulations)
- Shoreland Management (NR 115, NR 117, & local regulations)
- Floodplain Management (NR 116 & local regulations).

Wetland Delineations- Wetland delineations shall be performed by a professional soil scientist, professional hydrologist, or other qualified individual approved by the administering authority. The individual performing the delineation shall classify the wetland as a less susceptible wetland, highly susceptible wetland, exceptional resource water, or outstanding resource water.

Protective Areas- Protective areas may be disturbed as part of a construction project, if necessary. Disturbed areas must be stabilized from erosion and restored with a self-sustaining vegetation. Best Management Practices (ponds, swales, etc.) may be located in protective areas.

Type of Vegetation- It is recommended that seeding of non-invasive vegetative cover be used in the protective areas. Vegetation that is flood and drought

tolerant and can provide long-term bank stability because of an extensive root system is preferable. 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".

Adjacent Property Owners- If a stream or channel is permanently placed or relocated along a property line, an easement or letter of permission is required from any property owners impacted by the protective area's new location. Also, if a stormwater facility or structure is proposed within an onsite stream or channel, 100-year flood elevations shall be evaluated to determine if offsite property owners are impacted by backwater or a flood elevation increase. An easement or letter of permission is required from any property owners impacted by backwater. Changes to a stream, wetland, or channel should be discussed during the pre-design meeting. Changes to a navigable stream, wetland or other waters of the state will require permits from the DNR, Army Corps of Engineers, and local municipality.

Agricultural Activity Areas- Agricultural Activity Areas (i.e. farm fields and other cropland areas) are exempt from the ordinance.

Agricultural Production Areas- Agricultural Production Areas (i.e. farm buildings, structures, and other impervious surfaces) are exempt if the disturbed area is less than 1 acre. Sites where the land disturbance is one acre or more shall meet the requirements of this ordinance. Sites where the disturbance is less than one acre shall have a drainage plan prepared that is appropriate for the site. The County Land Conservation Department (LCD) may be available to prepare Erosion & Sediment Control Plans for farm structures and disturbances in the non-cropland areas. Construction of farm structures and disturbances in non-cropland areas one acre or greater must also be covered by an NR 216 permit.

## (b) SITES WITH LESS THAN 1 ACRE OF LAND DISTURBANCE

Pursuant to S.07(5) of the ordinance, the municipality may establish erosion control requirements more stringent than those set forth in this section if the municipality determines than an added level of protection is needed.

#### **Design Clarifications:**

For a construction site with less than 1 acre of land disturbance, the applicant shall install best management practices to prevent or reduce all of the following:

- Tracking of sediment onto streets by vehicles.
- 2. Discharge of sediment into stormwater inlets.
- 3. Discharge of sediment into abutting waters of the state.
- 4. Discharge of sediment from drainage ways that flow off the site.
- 5. Discharge of sediment by de-watering activities.
- Discharge of sediment from soil stockpiles existing for more than 7 days.
- 7. Properly use, store and dispose of building materials, chemicals, cement, concrete truck washout, litter, sanitary waste, and other compounds and materials used on the construction site.
- Construction sites also regulated by the Wisconsin Department of Commerce are required to achieve a 40% sediment reduction for sites with less than 1

acre of land disturbance. See COMM 60.20(3)(c) and COMM 21.125(3)(c) for specific requirements.

#### (4) LOCATION

A regional wet detention pond (post-construction site) may be used as a sediment basin (construction site) until final stabilization of the wet detention pond and expiration of the erosion control permit associated with construction of the regional wet detention pond. While regional stormwater management facilities are appropriate for control of post-construction pollutants, they should not be used for construction site sediment removal at other construction sites located within the wet detention pond's watershed.

#### (5) ALTERNATE REQUIREMENTS

# S.08 PERMITTING REQUIREMENTS, PROCEDURES AND FEES

- (1) PERMIT REQUIRED
- (2) PERMIT APPLICATION AND FEES
- (3) REVIEW AND APPROVAL OF PERMIT APPLICATION

Meetings between the permit applicant, designer, and plan reviewer are encouraged during the pre-design, design, and plan review process. The meetings are used to educate each other about regulatory requirements, environmentally sensitive areas, and design challenges. The number of meetings held is typically commensurate with the size and complexity of the project. Meetings can be face-to-face or via telephone.

A pre-construction conference is encouraged before the start of all construction projects. For sites with 1 acre or more of land disturbance, a pre-construction conference is required. The permit applicant, designer, plan reviewer, contractor, and inspector are encouraged to attend. The purpose of the meeting is to exchange contact information, review the Erosion & Sediment Control Plan, and identify individuals responsible for permit compliance, plan amendments, and weekly inspection reports.

#### (4) SURETY BOND

Construction sites with 1 acre or more of land disturbance are required to have a financial guarantee. The financial guarantee includes the cost associated with erosion and sediment control BMPs, site inspections, project administration, and contingencies.

Construction sites with less than 1 acre of land disturbance are not typically required to have a financial guarantee.

Portions of the financial guarantee may be released as the construction project progresses. The last portion of the financial guarantee is not released until the municipal inspector performs a final inspection and the permit applicant pays final inspection fees.

#### (5) PERMIT REQUIREMENTS

The permit applicant is required to post the "Certificate of Permit Coverage" in a conspicuous place at the construction site.

- (6) PERMIT CONDITIONS
- (7) PERMIT DURATION
- (8) MAINTENANCE
- (9) ALTERNATE REQUIREMENTS

## S.09 EROSION AND SEDIMENT CONTROL PLAN, STATEMENT AND AMENDMENTS

#### (1) PLAN REQUIREMENTS

The erosion and sediment control plan for construction sites with 1 acre or more of land disturbance shall contain, at a minimum, the following information:

- (a) The name, contact person, title, mailing address, e-mail address, telephone number, and fax number of the following individuals or organizations: permit applicant, landowner, consultant or plan preparer, and contractor (if known).
- (b) Anticipated project start date and projected project end date.
- (c) Description of the construction site and the nature of the land disturbing construction activity, including representation of the limits of land disturbance on a USGS 7.5-minute series topographical map.
- (d) Description of the intended sequence of major land disturbing construction activities for major portions of the construction site, including clearing; stripping topsoil; rough grading; installation of erosion and sediment controls; construction of utilities, streets, and buildings; finish grading; and permanent stabilization.
- (e) Estimates of the total area of the construction site and the total area of the construction site that is expected to be disturbed by land disturbing activities.
- (f) Available data describing the surface soil as well as sub-soils, including representation of the limits of land disturbance on a NRCS soils map.
- (g) Wherever permanent infiltration devices will be employed or were evaluated, the depth to the nearest seasonal high groundwater elevation or top of bedrock shall be identified.
- (h) Name of the immediate named receiving water from the United States Geological Service 7.5 minute series topographic maps.
- (i) Calculations to show the expected percent reduction in the average annual sediment load carried in runoff as compared to no sediment or erosion controls (calculations may not be feasible until RUSLE2 is completed).

The erosion and sediment control plan for construction sites with 1 acre or more of land disturbance shall include a site map. The site map shall include the following items and shall be at a scale not greater than 100 feet per inch and at a contour interval not to exceed two feet:

- (a) Existing topography, vegetative cover, impervious surfaces, natural and engineered drainage systems, roads, surface waters, and 100-year floodplains.
- (b) Boundaries of the construction site.
- (c) Drainage patterns and approximate slopes anticipated after grading activities.
- (d) Areas of soil disturbance, including soil stockpile locations.
- (e) Location of major structural and non-structural controls identified in the erosion and sediment control plan, including standard detail drawings and specifications where appropriate.
- (f) Location of areas where stabilization practices will be employed.
- (g) Areas that will be vegetated following land disturbing construction activities.

- (h) Area and location of wetland acreage on the construction site and locations where stormwater is discharged to a surface water or wetland within one-quarter mile downstream of the construction site.
- (i) Areas used for infiltration of post-construction stormwater runoff.
- (j) An alphanumeric or equivalent grid overlying the entire construction site.

The erosion and sediment control plan for construction sites with 1 acre or more of land disturbance shall include a description of appropriate erosion and sediment control best management practices that will be installed and maintained at the construction site to prevent pollutants from reaching waters of the state. The erosion and sediment control plan shall clearly describe the appropriate erosion and sediment control best management practices for each major land disturbing construction activity and the timing during the period of land disturbing construction activity that the erosion and sediment control best management practices will be implemented. The description of erosion controls shall include, when appropriate, the following minimum requirements:

- (a) Description of any interim and permanent stabilization practices, including a schedule for implementing the practices. The erosion and sediment control plan shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the construction site are stabilized.
- (b) Description of any structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the construction site. Unless otherwise specifically approved in writing by the local municipality, structural measures shall be installed on upland soils.
- (c) Management of overland flow at all areas of the construction site, unless otherwise controlled by outfall controls.
- (d) Trapping of sediment in channelized flow.
- (e) Staging land disturbing activities to limit exposed soil areas subject to erosion. Soil stockpiles exposed for more than 7 days shall be stabilized.
- (f) Protection of downslope drainage inlets where they occur.
- (g) Minimization of tracking at all vehicle and equipment entry and exit locations of the construction site.
- (h) Clean up of off-site sediment deposits by the end of each work day.
- (i) Proper disposal of building and waste material.
- (j) Stabilization of drainage ways.
- (k) Installation of permanent stabilization as soon as possible after final grading.
- (i) Minimization of dust to the maximum extent practicable.

#### (2) EROSION AND SEDIMENT CONTROL PLAN STATEMENT

For construction sites with 1 acre or more of land disturbance, prepare a narrative describing the following: site location, total site area and disturbed area, purpose of project, drainage system and outfalls, drainage area for each outfall, stream and wetland locations, topsoil and subsoils, depth to groundwater and bedrock, erosion and sediment controls, sequence of construction, BMP inspection and maintenance responsibilities, weekly inspection reports, and plan amendments.

The erosion and sediment control plan statement shall require the following: (a) erosion and sediment control practices be repaired or replaced within 24 hours of an inspection; and (b) when the failure of erosion or sediment control practices results in an immediate threat of sediment entering waters of the state or an offsite drainage system, procedures shall be implemented immediately to repair or replace the practices.

- (3) AMENDMENTS
- (4) ALTERNATE REQUIREMENTS
- S.10 FEE SCHEDULE
- S.11 INSPECTION
- S.12 ENFORCEMENT
- S.13 APPEALS
  - (1) BOARD OF APPEALS OR ADJUSTMENT
  - (2) WHO MAY APPEAL
- S.14 SEVERABILITY
- S.15 EFFECTIVE DATE

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