

Erosion Control and Stormwater Management

Chapter 33 of the Municipal Code

Table of Contents

33.01 Authority

33.02 Findings of Fact

33.03 Purpose and Intent

- A Purpose
- B Intent
- C Regional Stormwater Management

33.04 Jurisdiction

33.05 Applicability, Exemptions and Waivers

- A Construction Site Erosion Control
- B Stormwater Management
- C Exemptions
- D Waivers

33.06 Application for an Erosion and Runoff Control Permit or Preliminary Approval Letter

- A Application
- B Erosion and Runoff Control Permit
- C Preliminary Approval Letter
- D Fees

33.07 Plan Review Procedures

- A For Applications That Only Involve Erosion Control Plans for Less Than 1 Acre of Disturbed Area
- B For All Other Applications for an Erosion and Runoff Control Permit or Preliminary Approval Letter

33.08 Erosion Control Plan Requirements

- A General Requirements
- B Guiding Principles
- C Specific Erosion Control Requirements
- D Final Erosion Control Plan Contents
 - 1. For Sites With Less Than 1 Acre of Disturbed Area.
 - 2. For Sites 1 Acre or Greater of Disturbed Area.
- E Preliminary Erosion Control Plan Contents

33.09 Stormwater Management Plan Requirements

- A General Requirements
- B Exception - Regional Stormwater Management Plans
- C Guiding Principles
- D Specific Stormwater Management Requirements and Performance Standards
- E Final Stormwater Management Plan Contents
- F Preliminary Stormwater Management Plan Contents

33.10 Technical Standards and Specifications

- A Hydrologic and Hydraulic Computations
- B Best Management Practice Design Standards
- C Technical Guidelines
- D Construction Specifications
- E Availability
- F Structure Setback From Stormwater Management Facilities or Wetlands to Minimize Flood Damage
- G Future Revisions and Updates

33.11 Permit Requirements

- A General Conditions
- B Permit Issuance and Duration
- C Financial Guarantee
- D Construction Certification
- E Final Inspection

33.12 Maintenance of Stormwater Management Facilities

- A Maintenance Agreement Required
- B Agreement Provisions
- C Agreement Approval and Recording
- D Agreement Form
- E Maintenance Responsibilities Prior to a Maintenance Agreement

33.13 Illicit Discharges

- A Prohibitions**
- B Exemptions**
- C Notice of Violation**

33.14 Enforcement

- A Ordinance Administrator
- B Prohibited Practices
- C Violations
- D Responsible Party

33.15 Appeals

- A Authority

- B Procedure
- C Variances
- D Who May Appeal

33.16 Severability

33.17 Definitions

Chapter 33

Erosion Control and Stormwater Management

33.01 AUTHORITY

This ordinance is adopted by the VILLAGE OF SLINGER Village Board under the authority granted by §61.354, §92.07(15), §281.33 and Chapter 236 of the Wisconsin Statutes. This ordinance supersedes all conflicting and contradictory regulations previously enacted by the VILLAGE OF SLINGER relating to stormwater management and construction site erosion control. 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:

- A. Wisconsin Department of Natural Resources administrative rules, permits or approvals, including those authorized under Sections §281.16 and §283.33 of the Wis. Stats.
- B. Targeted non-agricultural performance standards promulgated under rules by the Wisconsin Department of Natural Resources under Wisconsin Administrative Code Sections NR 151.004.

33.02 FINDINGS OF FACT.

The Village Board finds that construction site erosion and uncontrolled stormwater runoff from land disturbing and land development activities have significant adverse impacts upon local water resources and the health, safety and general welfare of the community, and diminish the public enjoyment and use of natural resources. Specifically, soil erosion and stormwater runoff can:

- A. Carry a significant amount of sediment, nutrients, bacteria/other pathogens, organic matter, toxins and other pollutants to local lakes, streams and wetlands;
- B. Diminish the capacity of water resources to support recreational and water supply uses, and a natural diversity of plant and animal life;
- C. Clog drainage systems with sediment, and organic material, which in turn increases maintenance costs;
- D. Overwhelm existing drainage ways with increased flows, causing bank and channel erosion, and increasing downstream flooding and property damage;
- E. Reduce groundwater recharge, which may diminish stream base flows and/or lower water levels in local lakes, ponds and wetlands;

- F. Contaminate drinking water supplies;
- G. Generate airborne particulate concentrations that are health threatening or may cause other off-site damage to property or the environment; and
- H. Undermine floodplain management efforts by increasing the incidence and levels of flooding.

33.03 PURPOSE AND INTENT.

Purpose. The purpose of this ordinance is to set forth requirements for land development and land disturbing activities aimed to minimize sedimentation, water pollution, flooding and related property and environmental damage caused by soil erosion and uncontrolled stormwater runoff during and after construction, in order to diminish the threats to public health, safety, welfare, and the natural resources of the Village of Slinger.

Intent. It is the general intent of this ordinance to regulate construction site erosion and stormwater management under the authority granted in §61.354, Wis. Stats. This ordinance is not intended to limit activity or land divisions permitted under the applicable zoning and land division ordinances.

Regional Stormwater Management. The Village Board recognizes that the preferred method of permanently managing stormwater runoff from land development activities is through the preparation and implementation of regional stormwater management plans by watershed areas which are designed to meet the requirements of this ordinance. Accordingly, provisions have been incorporated into this ordinance to allow for the implementation of this type of plan in lieu of complying with certain on-site stormwater management requirements.

33.04 JURISDICTION.

The provisions of this ordinance shall apply to all lands within the jurisdictional boundaries of the Village of Slinger.

33.05 APPLICABILITY, EXEMPTIONS AND WAIVERS.

A. Construction Site Erosion Control

Unless otherwise exempted under sub.(C) below, or waived under sub.(D) below, an erosion and runoff control permit under sec. 33.06 of this ordinance shall be required, and all construction site erosion control provisions of this ordinance shall apply to all land disturbing activity that meet any of the following:

1. Disturbs 4,000 square feet or more of total land surface area;
2. Involves excavation or filling, or a combination of excavation and filling, in excess of 400 cubic yards of material; or
3. Disturbs 100 lineal feet of road ditch, grass waterway or other land area where surface drainage flows in a defined open channel; including the placement, repair or removal of any underground pipe, utility or other facility within the cross-section of the channel at flow capacity;
4. Involves the laying, repairing, replacing, or enlarging of an underground utility, pipe or other facility, or the disturbance of road ditch, grass swale or other open channel for a distance of 300 feet or more;
5. Involves the maintenance of an existing stormwater Best Management Practice (BMP);
6. Other land disturbing activities, including the installation of access drives, that the Village Engineer determines to have a high risk of soil erosion or water pollution, or that may significantly impact an environmentally sensitive area. All determinations made by the Village Engineer under this subsection shall be made in written form, unless otherwise waived in writing by the requesting entity.

B. Stormwater Management

Unless otherwise exempted under sub.(C) below, or waived under sub.(D) below, an erosion and runoff control permit under sec. 33.06 below, shall be required, and all stormwater management provisions of this ordinance shall apply to all land development activity that meet any of the following:

1. The project is located within a subdivision plat or is part of a subdivision plat.
2. Involves the construction of any new public or private roads or access drives of any length;
3. Is a certified survey map or any other land development activity that may ultimately result in the addition of impervious surfaces of 20,000 square feet or greater in total area or may result in land disturbing activity of one (1) acre or greater, including smaller individual sites that are part of a common plan of development; or
4. Other land development activities, including access drives, that the Village

Engineer determines may significantly increase downstream runoff volumes, flooding, soil erosion, water pollution or property damage, or significantly impact an environmentally sensitive area. All determinations made by the Village Engineer under this subsection shall be made in written or electronic form, unless otherwise waived in writing by the requesting entity.

C. Exemptions

1. The following sites shall be exempt from all of the requirements of this ordinance:
 - (a) All activities directly relating to agricultural land use.
 - (b) Any land disturbing or land development activity conducted by or contracted for any State agency, as defined under §227.01(1) Wis. Stats., including but not limited to road construction projects administered by the Wisconsin Department of Transportation. These activities must meet the erosion control and stormwater management requirements of the state.
2. The following sites shall be exempt from sub.(a) above, which includes the construction site erosion control provisions of this ordinance only:
 - (a) The construction of one and two family residential buildings under Wis. Admin. Code SPS 321, unless the proposed or actual land disturbance is one (1) acre or greater or requested by the Village Building inspector or Village Board. These activities must meet the erosion control requirements of the Wisconsin Uniform Dwelling Code.
 - (b) Nonmetallic mining activities that are covered under a nonmetallic mining reclamation permit under NR 135 of the Wisconsin Administrative Code.
 - (c) Placement of underground pipe or other utility that is plowed or bored into the ground outside areas of channelized runoff.

D. Waivers

1. The Village Engineer may waive any requirement of this ordinance if the Village Engineer, or the Board of Appeals under sec. 33.15 of this ordinance, determines that:
 - (a) The site will have no appreciable off-site impact;

- (b) Compliance is impractical or impossible due to site conditions, urban street cross ordinance requirements, or other circumstances beyond the control of the applicant;
 - (c) Compliance would be in direct conflict with other regulations or related objectives of this ordinance which would take precedent; or
 - (d) The specific requirement is not necessary for a particular site to ensure compliance with the erosion control and stormwater management requirements of secs. 33.08 and 33.09 of this ordinance.
2. Any waiver granted shall be in written or electronic form and shall comply with the general requirements under sec. 33.08(A) of this ordinance relating to construction site erosion control and under sec. 33.09(A) of this ordinance relating to stormwater management.

33.06 APPLICATION FOR EROSION AND RUNOFF CONTROL PERMIT OR PRELIMINARY APPROVAL LETTER.

A. Application

The applicant shall submit a completed application on a form provided by the Village Engineer for that purpose, and indicate whether applying for a preliminary approval letter or an erosion and runoff control permit. By submitting an application, the applicant is authorizing the Village Engineer to enter upon the site to obtain information needed to administer this ordinance.

B. Erosion and Runoff Control Permit. An erosion and runoff control permit is required for all sites that meet the applicability provisions of secs. 33.05(A) or 33.05(B) of this ordinance and are not exempt under sec. 33.05(C) of this ordinance or waived under sec. 33.05(D) of this ordinance. To request an erosion and runoff control permit under this ordinance, the following information shall be submitted to the administering authority:

- 1. A completed application on a form provided by the Village Engineer for that purpose;
- 2. The applicable fee(s);
- 3. A final erosion control plan in accordance with sec. 33.08 of this ordinance for those land disturbing activities that meet any of the applicability criteria in sec. 33.05(A) of this ordinance;

4. A final stormwater management plan in accordance with sec. 33.09(E) of this ordinance and a draft maintenance agreement in accordance with sec. 33.12 of this ordinance for those land development activities that meet any of the applicability criteria of sec. 33.05(B) of this ordinance; or the documentation required under sec. 33.09(B) of this ordinance related to a regional stormwater management plan; and
5. A financial guarantee, in accordance with sec. 33.11(C) of this ordinance.

C. Preliminary Approval Letter

1. Purpose and Intent. A preliminary approval letter is a step in the permit process subdivisions and other large or complex land development activities that will need to submit a stormwater management plan. It is designed to assist the applicant in preparing general site plans and obtaining other applicable permits or zoning approvals prior to finalizing detailed construction plans for a proposed project. It will also act to notify other review authorities that the applicant has agreed to meet the requirements of an erosion and runoff control permit and provides a preliminary plan of what will likely be required. An erosion and runoff control permit is still required prior to the start of any proposed land disturbing or land development activity. The Village Engineer shall issue an erosion and runoff control permit after determining that the final erosion control and stormwater management plans are in substantial compliance with the preliminary plans and after the applicant has met all other requirements of sub.(B) above.
2. Application. To request a preliminary approval letter, the following information must be submitted to the Village Engineer:
 - (a) A completed application, on a form provided by the Village Engineer for that purpose;
 - (b) The applicable fee(s);
 - (c) A preliminary erosion control plan in accordance with sec. 33.08(E) of this ordinance; for those sites that meet any of the applicability criteria under sec. 33.05(A) of this ordinance; and
 - (d) A preliminary stormwater management plan in accordance with sec. 33.09(F) of this ordinance, for those land development activities that meet any of the applicability criteria of sec. 33.05(B) of this ordinance.

D. Fees

Except as provided in sec. 33.09(B)(3) of this ordinance for regional stormwater management plans, all application and review fees for this chapter will be established by the Village Board. Fee amounts shall be designed to offset the costs to the Village for the administration of this ordinance and may be modified from time to time based on the records and recommendation of the administering authority. A schedule of the fees established by the Village Board will be available for review and distribution through the office of the Village Clerk. No fee shall exceed the actual and direct costs of administering this ordinance. Those persons as defined in §32.01(1) Wis. Stats., shall be exempt from the fees in this ordinance.

33.07 PLAN REVIEW PROCEDURES.

A. For Applications That Only Involve Erosion Control Plans for Less Than One Acre of Disturbed Area.

1. The procedures under this subsection shall only apply to applications which meet all of the following criteria:
 - (a) Meet one of the applicability criteria under sec. 33.05(A) of this ordinance relating to construction site erosion control;
 - (b) Disturb less than one acre in total land surface area; and
 - (c) Do not meet any of the applicability criteria under sec. 33.05(B) of this ordinance relating to stormwater management.
2. With the receipt of the fully completed application form, fee and final erosion control plan, the Village Engineer shall:
 - (a) Determine if the requirements of this ordinance have been met, including sec. 33.08(D)(1) of this ordinance relating to the requirements of a final erosion control plan;
 - (b) Determine if more information or additional review is needed; and
 - (c) Notification shall be in written or electronic form, unless otherwise waived in writing by the applicant.
3. If all of the applicable requirements of this ordinance have been met, the Village Engineer shall issue an erosion and runoff control permit. If the requirements of this ordinance have not been met, the Village Engineer

shall notify the applicant what changes would be necessary to meet the requirements.

4. For any resubmittal of plans and supporting information by the applicant, the Village Engineer will review the resubmitted information in accordance with the process described above until the submittal is deemed in compliance with the requirements.

B. For All Other Applications for an Erosion and Runoff Control Permit or Preliminary Approval Letter.

1. The procedures under this subsection shall apply to all other applications that meet at least one of the applicability criteria under sec. 33.05 of this ordinance, but do not meet all of the criteria under sub.(A) above, for erosion control plans for less than one acre.
2. With the receipt of a completed application form, fee and applicable erosion control and/or stormwater management plan(s) in accordance with sec. 33.06 of this ordinance, the Village Engineer shall:
 - (a) Determine if the requirements of this ordinance have been met, including sec. 33.08(D) (2) of this ordinance and/or sec. 33.09 (E) of this ordinance relating to the required contents of final erosion control and stormwater management plans; and
 - (b) Determine if more information or additional review is needed; and
 - (c) Notify the applicant of the results of pars. (2)a and (2)b above. Notification shall be in written or electronic form, unless otherwise waived by the applicant.
3. The Village Engineer may request comments from other agencies or units of government or require applicant to seek review from other agencies or units of government within the review period.
4. If all of the applicable requirements of this ordinance have been met, the Village Engineer will provide a preliminary plan approval letter or an erosion and runoff control permit. If the requirements of this ordinance have not been met, the Village Engineer will notify the applicant what changes would be necessary to meet the requirements.

33.08 EROSION CONTROL PLAN REQUIREMENTS.

A. General Requirements

1. An erosion control plan shall ensure, to the extent practical, that soil erosion, siltation, sedimentation and other off-site impacts from land disturbing activities are minimized.
2. All erosion control plans shall by design, achieve to the maximum extent practicable, a runoff discharge of no more than five (5) tons of sediment per acre per year from sheet and rill erosion during land disturbing activities as compared with no sediment or erosion controls, until the site is stabilized. This shall be completed by the landowner, landowner's engineer, or other responsible party designated by the landowner in conformance with the Wisconsin Department of Natural Resources Construction Site Soil Loss and Sediment Discharge Guidance.
2. All erosion control plans and best management practice designs prepared under this ordinance shall comply with the plan requirements of this section and the technical standards and specifications described in sec. 33.10 of this ordinance.

B. Guiding Principles

To satisfy the requirements of this section, all proposed land disturbing activities shall, to the extent practical:

1. Be planned and implemented in a manner that best fits the terrain of the site, avoiding steep slopes and other environmentally sensitive areas;
2. Minimize the loss of trees and other natural vegetation and the size of the disturbed area;
3. Minimize, through project phasing and proper construction sequencing, the time the disturbed soil surface is exposed [*Note: See sec. 33.11(B)(3) of this ordinance for special conditions relating to construction scheduling and the issuance of a permit.*];
4. Emphasize the use of erosion control measures that prevent soil detachment and erosion rather than trying to intercept its transport or repair damage done.

C. Specific Erosion Control Requirements

Unless otherwise waived under sec. 33.05(D) of this ordinance, the following minimum requirements shall be met on all sites subject to the applicability criteria under sec. 33.05(A) of this ordinance and shall be addressed in the erosion control plan submitted by the applicant, if applicable. The Village Engineer is authorized to exceed the minimum requirements stated below for any site that the Village Engineer determines is a high risk of soil erosion or may significantly impact an environmentally sensitive area, and that further controls are practical.

1. Access Drives and Tracking. Each site shall provide an access drive(s) and parking area, of sufficient dimensions and design, surfaced with a material that will prevent erosion and minimize tracking or washing of soil onto public or private roadways. All non-paved access drives shall be designed so that stormwater runoff from adjacent areas does not flow down the drive surface. Culverts shall be sized for calculated peak flows produced by the 10-year 24-hour design storm and shall meet all other state and local requirements relating to road access.
2. Diversion of Upslope Runoff. Any significant amount of runoff from upslope land area, rooftops or other surfaces that drains across the proposed land disturbance shall be diverted around the disturbed area, if practical. Any diversion of upslope runoff shall be done in a manner that prevents erosion of the flow path and the outlet.
3. Cut and Fill Slopes. Any cuts and fills shall be planned and constructed to minimize the length and steepness of slope, and stabilized in accordance with the approved erosion control plan time lines and technical standards of this ordinance.
4. Open Channels. Any open channels shall be designed and constructed to carry the calculated peak flows for a 10-year 24- hour design storm, and stabilized in accordance with the approved erosion control plan time lines and technical standards of this ordinance.
5. Inlet Protection. All inlets to storm drains, culverts and other stormwater conveyance systems shall be protected from siltation until final site stabilization.
6. Outlet Protection. All outlets for site dewatering and stormwater conveyance systems, including pipe or open channels entering a stormwater management facility, shall be protected from erosion through channel lining or other stabilization measures.

7. Site Erosion Control. Measures shall be taken, using approved best management practices (BMP), to minimize sediment from being carried off-site by water or wind during the construction phase, such as: diversions, silt fence, straw bales, downspout extenders, soil treatment, temporary mulch, sediment traps, sediment basins, etc. All temporary best management practices shall be maintained until the site is stabilized. Some best management practices, such as sediment basins, may be designed to also serve as a permanent stormwater best management practice after the site is stabilized.
8. Site Dewatering. Water pumped from the site shall be treated by sediment basins or other approved measures to prevent soil erosion and water pollution.
9. Waste and Material Disposal. All waste and unused building materials (including garbage, debris, cleaning wastes, wastewater, toxic materials, or hazardous materials) shall be properly disposed of and not allowed to be carried off-site by runoff or wind.
10. Topsoil. Enough topsoil from the disturbed area must be saved to ensure that a minimum of 4 to 6 inches is reapplied for all areas to be seeded or sodded. If adequate topsoil does not exist on the site to meet this requirement, it shall be imported. If the disturbed area is to be used for the growing of agricultural crops in the future, the original depth of topsoil shall be restored.
11. Subsoil. For disturbed areas that are to be used for the growing of agricultural crops, trees or other woody vegetation in the future, a minimum of 1 foot of original subsoil shall remain or be reapplied prior to the application of topsoil to provide an adequate root zone.
12. Soil Stockpiles. Soil stockpiles shall be located no closer than 75 feet from lakes, streams, wetlands, ditches, drainage ways, curbs/gutters or other stormwater conveyance system, unless otherwise approved by the Village Engineer. Any soil stockpile that remains for more than 7 days shall be covered or treated with stabilization practices such as temporary or permanent seeding and mulching.
13. Sediment Cleanup. All off-site sediment deposits occurring as a result of construction work or a storm event shall be cleaned up by the end of each day of the occurrence. Flushing shall not be allowed.
14. Final Site Stabilization. All disturbed areas shall be treated with stabilization measures such as seeding, mulching, soil treatment, erosion

netting, matting, sodding, etc. within 3 working days of final grading. Sites greater than 10 acres shall be treated in stages as final grading is completed in equal increments. Any soil erosion that occurs after final grading and/or the application of stabilization measures must be repaired and the stabilization work redone.

15. Temporary Site Stabilization. For any disturbed area that remains inactive for greater than 7 working days, or where grading work extends beyond September 15th, the permanent seeding deadline established by the Village board, the administering authority may require the site to be treated with temporary stabilization measures such as soil treatment, temporary seeding and/or mulching in addition to other erosion control measures as part of an approved erosion control plan.

16. Removal of Practices. When the disturbed area has been stabilized by permanent vegetation or other means, temporary best management practices such as silt fences, straw bales and sediment traps shall be removed and these areas shall be stabilized.

17. Stormwater BMP Data. When a stormwater permit involves the maintenance of an existing stormwater BMP, including the removal of accumulated sediment, the Village Engineer may require additional support data such as before/after surveys, design and construction details, and oversight by a professional engineer licensed in Wisconsin.

D. Final Erosion Control Plan Contents

1. Sites of Less than One Acre of Total Land Disturbance. The following shall be the minimum requirements for items to be included in a final erosion control plan:
 - (a) A scaled drawing of the site of not less than one inch equals 60 feet with a north arrow, delineation of the proposed land disturbance, existing and proposed buildings, roads, access drives, property boundaries, drainage ways, water bodies, trees, culverts, and other structures within 50 feet of the proposed land disturbance;
 - (b) The direction and steepness of slopes before and after the proposed land disturbance;
 - (c) A description and location, including construction timeline and sequencing, of all temporary best management practices proposed to be used to minimize off-site impacts during the

construction phase;

(d) A description and location, including construction timeline and sequencing, of all permanent best management practices proposed to be used to stabilize the site within 3 working days following final grading; and

(e) The name, address and day time phone number of the person(s) charged with installing and maintaining all best management practices and thus subject to the enforcement provisions of sec. 33.14 of this ordinance.

(f) Other information determined to be necessary by the administering authority to ensure compliance with the requirements of this ordinance.

2. Sites of One Acre or Greater in Total Land Disturbance.

The following shall be the minimum requirements for items to be included in an erosion control plan:

(a) Existing Site Map and Data. A map and supporting data of existing site conditions at a scale of one inch equals no more than 60 feet showing the following items on the site and within 50 feet in each direction of the site boundaries:

(1) Ownership boundaries and other references that will accurately identify site location;

(2) Name, address and daytime telephone number of the applicant;

(3) Site topography at a contour interval not to exceed 2 feet on a plan of not less than one inch equals 60 feet;

(4) Location and name, if applicable, of all lakes streams and other water bodies as defined on a 7.5-minute topographic map published by the U.S. Geological Survey;

(5) Location and name, if applicable, of all other channels, ditches, and other water courses or areas of channelized flow;

- (6) Location and name, if applicable, of all wetlands, as defined on the official wetland zoning maps of the Village of Slinger, Wisconsin Department of Natural Resources Wetland Inventory Map and as also defined by the USDA-Natural Resources Conservation Service (NRCS) under federal jurisdiction and definition;
- (7) Boundaries of shoreland zones, 100 year floodplains, flood fringes and floodways, as defined on the official shoreland and floodplain zoning maps of the Village of Slinger;
- (8) Boundaries and soil symbol for each soil mapping unit, as published in the Soil Survey of Washington County; *[Note: This item may be on a separate map at smaller scale showing key locations of proposed land disturbing or land development activity];*
- (9) Location and description of trees and other vegetative cover types;
- (10) Location, dimensions and contributing watershed area delineation and flow calculations for all existing stormwater drainage systems and natural flow paths or channels entering and/or leaving the site;
 - (11) Locations and dimensions of any buildings, roads, parking areas, fence lines, access lanes, rock outcrops, tile drains, utilities and other physical features or structures;
 - (12) Location and support documentation for any well currently located on the site and/or delineation of any regulatory setback distances of other wells, as stated in Wis. Admin. Code NR Chs. 811 and 812;
 - (13) Locations and dimensions of any easements, right-of-ways, building setbacks or other restrictions;
 - (14) Location of primary environmental corridor boundaries, as defined by the Southeastern Wisconsin Regional Planning Commission;
 - (15) Spill prevention and response procedures;

(16) Any other existing site information that the Village Engineer determines to be necessary to ensure compliance with the requirements of this ordinance.

(b) Site Development Plan. A site development plan, at a scale not less than one inch equals 60 feet, shall include the following map items and supporting documentation:

(1) Locations and dimensions of all proposed land development and land disturbing activities, including proposed cuts, fills and 2 foot contours of final grade;

(2) Locations and dimensions of all temporary soil stockpiles, the estimated length of time they will exist and any applicable erosion control method;

(3) Locations, dimensions and applicable design documentation for all temporary and permanent best management practices necessary to meet the requirements of this ordinance;

(4) Location, dimensions, supporting flow calculations and stabilization plans for the proposed construction or modification of any open channels;

(5) A construction schedule, including the sequence and anticipated starting and completion date for each construction step and the installation of best management practices needed to meet the requirements of this ordinance;

(6) Description of maintenance responsibilities for all temporary best management practices;

(7) The name(s) and daytime phone number(s) of the person(s) charged with the responsibility of installing and maintaining all best management practices until the completion of a satisfactory final inspection by the Village Engineer under sec. 33.11(E) of this ordinance. *[Note: All persons so designated shall be subject to the enforcement provisions of sec. 33.14 of this ordinance should they fail to ensure compliance with this ordinance.]*

(8) Description of site re-vegetation and stabilization plans, including topsoil and subsoil reapplication, seeding mixtures, fertilizer, rates of application, time schedule and maintenance responsibilities until the grass and/or other plants are well established; and

(9) Detailed drawings, including profiles, cross-sections, and other information determined to be necessary by Village Engineer to ensure compliance with the requirements of this ordinance.

(10) Certification, from a professional engineer or landscape architect registered in the State of Wisconsin, that all computations and designs included in the final erosion control plan have been reviewed and approved as being in accordance with the requirements of this ordinance. The name, address, daytime phone, email address, and FAX number of the engineer must also be included for contact during the plan review process.

E. Preliminary Erosion Control Plan.

Preliminary erosion control plans shall contain the same information listed under sub.(D)(2) above, with the exception of sub. (D)(2)b.2., 6., 7. above, the supporting documentation in sub.(D)(2)b.5. above, and the starting and completion dates in sub.(D)(2)b.5. above.

33.09 STORMWATER MANAGEMENT PLAN REQUIREMENTS.

A. General Requirements.

1. A stormwater management plan, prepared in accordance with this ordinance shall maintain the site's natural drainage patterns and pre-development peak flows. In addition, measures shall be taken to prevent or minimize the pollution of surface waters and groundwater resources, damage to downstream property and local flooding as a result of stormwater discharges from the proposed land development.
2. All stormwater management plans and best management practice designs prepared under this ordinance shall comply with the plan requirements of this section and technical standards and specifications described in sec. 33.10 of this ordinance.

B. Exception - Regional Stormwater Management Plans.

- 1) In lieu of submitting a preliminary or final stormwater management plan for an individual site, an applicant may submit documentation of the following:
 - (a) A regional stormwater management plan, that:
 - (1) Includes the entire area of the proposed land development activity;
 - (2) Is prepared in accordance with the general requirements of sub.(A) above and the regional stormwater management planning technical guidelines adopted by the Village Board under sec. 33.10(C) of this ordinance; and
 - (3) Is approved by the Village Board and all other applicable units of government included in the planning area.
 - (b) A site development plan, in accordance with sub. (E)(2) below, for the planned development showing any on-site stormwater best management practices recommended in the regional stormwater management plan;
 - (c) Certification, by a professional engineer registered in the State of Wisconsin, that any stormwater best management practice(s) planned to treat the runoff from the area of the proposed land development as part of a regional stormwater management plan, has been constructed in accordance with the technical standards and specifications under sec. 33.10 of this ordinance, if applicable; and
 - (d) Documentation that there is an entity with the legal obligation for operation and maintenance of any applicable stormwater management facility in accordance with sec. 33.12 of this ordinance, if applicable.
2. Upon certification by the Village Engineer that all of the conditions of par.(a) above have been met, and the submitted materials are in compliance with the regional stormwater management plan, an application shall be deemed as meeting the stormwater management planning requirements of this ordinance.
3. As a condition of an erosion and runoff control permit, the applicant may

be required to pay a fee or meet other requirements, as determined by the applicable entity charged with the implementation of the regional stormwater management plan. Any fee would be based on an equitable distribution of the cost for land, engineering design, construction, and maintenance of stormwater management practices needed to serve the land development through the regional stormwater management plan.

C. Guiding Principles.

To satisfy the requirements of this ordinance, unless otherwise waived under sec. 33.05(D) of this ordinance, all proposed land development activities shall, to the extent practical:

1. Be planned and implemented in a manner that best fits the terrain of the site, avoiding steep slopes and other environmentally sensitive areas;
2. Preserve natural watershed boundaries and drainage patterns;
3. Maintain groundwater recharge areas and the infiltration capacity of native soils by avoiding the unnecessary filling of large natural depressions or compaction of upper soil horizons by construction equipment;
4. Utilize natural or constructed vegetated swales or reinforced permeable open channels for stormwater conveyance and attenuation;
5. Minimize impervious surfaces and have them drain to vegetated areas for flow attenuation, pollutant filtering and groundwater recharge; and
6. Reserve adequately sized areas to allow for detention of flows and treatment of pollutants from stormwater before being discharged from the site.

D. Specific Stormwater Management Requirements and Performance Standards.

Except where provided for under sub. (2) above, or waived under sec. 33.05(D) of this ordinance, all land development activities subject to the provisions of this subsection shall provide on-site stormwater management plans, practices and facilities that meet the following minimum requirements:

1. Peak Flows. The Peak Flow rates of storm water runoff from a development shall not exceed the pre-development storm runoff calculated for a series of design storms that at a minimum include the 1, 2, 10, and 100-year rainfall events.

2. Stormwater Quality. The first ½ inch of stormwater runoff (commonly referred to as the " first flush ") shall, to the extent practical, be treated to remove suspended solids, nutrients, organic matter, trace metals, hydrocarbons and other pollutants associated with the planned land development activity.
- (a) By design, each stormwater management plan shall meet the following post-development total suspended solids reduction targets, based on average annual rainfalls, as compared to no runoff management controls;
 - (1) For new land development and in-fill development, 80% reduction in total suspended solids;
 - (2) For redevelopment, 40% reduction of total suspended solids load from parking areas and roads;
 - (3) The Village Engineer may require a higher level of controls if the Village Engineer determines that the site has a high risk of water pollution or may otherwise impact an environmentally sensitive area, and that further controls are practical.
 - (b) When designing best management practices, runoff draining to the best management practice from off-site shall be taken into account in determining the treatment efficiency of the practice. Any impact on the efficiency shall be compensated for by increasing the size of the best management practice accordingly.
 - (c) Pollutant loading data for phosphorus shall also be included. All major assumptions used in developing input parameters shall be clearly stated. The geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).

3. Infiltration.

- (a) Best Management Practices. BMPs shall be designed, installed, and maintained to infiltrate runoff in accordance with the following or to the maximum extent practicable:
 - (1) Low imperviousness. For development up to 40 percent connected imperviousness, such as parks, cemeteries, and low density residential development, infiltrate sufficient

runoff volume so that the post-development infiltration volume shall be at least 90 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than one percent of the post-construction site is required as an effective infiltration area.

(2) Moderate imperviousness. For development with more than 40 percent and up to 80 percent connected imperviousness, such as medium and high density residential, multi-family development, industrial and institutional development, and office parks, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 75 percent 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 percent of the post-construction site is required as an effective infiltration area.

(3) High imperviousness. For development with more than 80 percent connected imperviousness, such as commercial strip malls, shopping centers, and commercial downtowns, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 60 percent 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 percent of the post-construction site is required as an effective infiltration area.

(b) Pretreatment. Before infiltration 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 sec. (6). Pretreatment options may include, but are not limited to, oil and grease separation, sedimentation, biofiltration, filtration, swales or filter strips.

Note: 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. 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.

(c) Infiltration Prohibitions. Due to potential for groundwater contamination, runoff shall not be infiltrated and will not be credited toward meeting the requirements of this subsection for the following:

- (1) Runoff from outdoor material storage and loading docks for tier 1 and tier 2 industrial facilities, as identified in NR 216(2) Wis. Admin. Code. Parking lot runoff from tier 1 industrial facilities is prohibited. Parking lot runoff from tier 2 facilities may be infiltrated, but may require pretreatment.
- (2) Runoff from fueling and vehicle maintenance areas, not including rooftops and canopies.
- (3) Infiltration of runoff within 1000 feet up gradient or within 100 feet down gradient of karst features.
- (4) Areas within 400 feet of a community water system well as specified in NR 811, Wis. Adm. Code, or within 100 feet of a private well as specified in NR 812, Wis. Adm. Code, for runoff infiltrated from commercial, industrial and institutional land uses or regional devices for residential development, not including rooftop runoff.
- (5) Areas where contaminants of concern, as defined in NR 720, Wisconsin Administrative Code are present in the soil through which infiltration will occur.

(d) Separation Distances. Infiltration BMPs shall be located so the characteristics of the soil and the separation distance between the bottom of the infiltration BMP and the elevation of the highest groundwater table or the top of bedrock are in accordance with the following:

<u>Source Area</u>	<u>Groundwater or Bedrock</u>	<u>Soil Characteristics</u>
--------------------	-------------------------------	-----------------------------

	<u>Separation Distance</u>	
Industrial, commercial, and institutional parking lots and roads	5 feet or more	Filtering Layer
Residential arterial roads	5 feet or more	Filtering Layer
Roofs draining to <i>subsurface</i> infiltration practices	1 foot or more	Native or engineered soil with particles finer than coarse sand
Roofs draining to <i>surface infiltration practices</i>	Not applicable	Not applicable
All other impervious source areas	3 feet or more	Filtering layer

(e) Infiltration Exemptions. Infiltration practices located in the following areas may be credited toward meeting the requirements under the following conditions, but the decision to infiltrate under these conditions is optional:

- (1) Where the infiltration rate of the soil measured at the proposed bottom of the infiltration system is less than 0.6 inches per hour using a scientifically credible field test method.
- (2) Where the least permeable soil horizon to 5 feet below the proposed bottom of the infiltration system using the U.S. Department of Agriculture method of soils analysis is one of the following: sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

4. Protective Areas.

(a) 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 section, “protective area” does not include any area of land adjacent to any stream enclosed within a pipe or culvert, such that runoff cannot enter the enclosure at this location. The minimum protective area widths are as follows:

- (1) For outstanding resource waters and exceptional resource waters, 75 feet.

- (2) For perennial and intermittent streams identified on a U.S. Geological Survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50 feet.
- (3) For lakes, 50 feet.
- (4) For wetlands not subject to (5) or (6), 50 feet.
- (5) For highly susceptible wetlands, 75 feet. Highly susceptible wetlands include the following types: calcareous fens, sedge meadows, open and coniferous bogs, low prairies, coniferous swamps, lowland hardwood swamps, and ephemeral ponds.
- (6) 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 wetland dominated by invasive species such as reed canary grass; cultivated hydric soils; and any gravel pits, or dredged material or fill material disposal sites that take on the attributes of a wetland.
- (7) In secs. (4) through (6), 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 NR 103.03 Wis. Admin. Code.
- (8) Wetland boundary delineation shall be made in accordance with NR 103.08(1m). Wis. Admin. Code. This paragraph does not apply to wetlands that have been completely filled in compliance with all applicable state and federal regulations. The protective area for wetlands that have been partially filled in compliance with all applicable state and federal regulations shall be measured from the wetland boundary delineation after a fill has been placed. Where there is a legally authorized wetland fill, the protective area standard need not be met in that location.
- (9) For concentrated flow channels with drainage areas greater than 130 acres, 10 feet.

- (10) Notwithstanding secs. (1) to (9) the greatest protective area width shall apply where rivers, streams, lakes and wetlands are contiguous.
 - (11) Minimum horizontal and vertical setbacks from the lowest opening of the principal structure shall follow 33.10(F).
- (b) Requirements. The following requirements shall be met for all land development activity located within a protective area:
- (1) Impervious surfaces shall be kept out of the protective area entirely or to the maximum extent practicable. If there is no practical alternative to locating an impervious surface in the protective area, the storm water management plan shall contain a written, site-specific explanation.
 - (2) Where land disturbing activity occurs within a protective area, and where no impervious surface is present, adequate sod or self-sustaining vegetative cover of 70% or greater shall be established and maintained. The adequate sod or self-sustaining vegetative cover shall be sufficient to provide for bank stability, maintenance of fish habitat and filtering of pollutants from upslope overland flow areas under sheet flow conditions. Non-vegetative materials, such as rock riprap, may be employed on the bank as necessary to prevent erosion, such as on steep slopes or where high velocity flows occur.

Note: It is recommended that seeding of non-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.

- (3) Best management practices such as filter strips, swales, or wet detention basins that are designed to control pollutants from non-point sources may be located in the protective area, but shall not encroach into wetlands, floodplains, woodlands, isolated natural resource areas, or primary or secondary environmental corridors to the maximum extent practicable.

Note: Other regulations, such as ch. 30, Wisconsin Statutes, and chs. NR 103, 115, 116 and 117, Wis. Adm. Code, and their associated review and approval process may apply in the protective area.

- (c) Protective Area Exemptions. The protective area requirements do not apply to any of the following:
- (1) Structures that cross or access surface waters such as boat landings, bridges and culverts;
 - (2) Structures constructed in accordance with s. 59.692(1v), Wisconsin Statutes; and
 - (3) Sites where runoff does not enter the surface water, including wetlands, without first being treated by a BMP to meet the total suspended solids requirements under secs. 33.09(D)(2) and peak discharge requirements under secs. 33.09(D)(1), except to the extent that vegetative ground cover is necessary to maintain bank stability.
5. Fueling and Vehicle Maintenance Areas. Fueling and vehicle maintenance areas shall have BMPs designed, installed and maintained to reduce petroleum within runoff, such that the runoff that enters waters of the state contains no visible petroleum sheen.

Note: A combination of the following BMPs may be used: oil and grease separators, canopies, petroleum spill cleanup materials, or any other structural or non-structural method of preventing or treating petroleum in runoff.

6. Protection of Wetlands. Stormwater discharges shall minimize the hydrologic changes and pollutant loadings to wetlands, to the extent practical, in order to preserve the wetland functional values. All discharges to wetlands shall require the same protection as pars. (1) and (2) above, unless otherwise approved by any other applicable regulatory agency and the Village Engineer in accordance with technical standards adopted under sec. 33.10 of this ordinance. If any land disturbing activity is proposed in a wetland as part of a final stormwater management plan, the Village Engineer will require all other applicable permits to be obtained prior to the issuance of an erosion and runoff control permit.
7. Protection of Groundwater Quality.
- (a) Stormwater discharges shall prevent the introduction of pollutants in the groundwater at concentrations that will likely exceed groundwater preventive action limits or enforcement standards established by the Department of Natural Resources in Wis. Admin. Code NR 140. Pretreatment shall be provided for all stormwater management facilities that will likely violate this

subsection, as determined by the Wisconsin Department of Natural Resources or stated in the technical standards adopted under sec. 33.10 of this ordinance.

- (b) Stormwater structures shall not be installed that meet the definition of an injection well under Wis. Admin. Code NR 812.05.
- (d) If a wellhead protection plan has been approved for any area included in the proposed land development, the administering authority shall consult with the appropriate authority to ensure compliance with any recommendations or regulations contained in that plan.

8. Flooding. All stormwater management facilities shall have a 2-foot freeboard between 100-year 24-hour design storm and emergency spillway and the capacity to safely handle the calculated peak flow rates for a 100-year 24-hour design storm without structural failure, bank erosion, loss of freeboard or other problems. At a minimum, an emergency spillway must be provided to carry these flows and the overflow route indicated on an exhibit within the stormwater management report. Additional control measures, such as infiltration practices or maintaining pre-development peak flows for the 100-year design storm, may be required if the Village Engineer determines that the proposed land development activity has a high risk of creating or significantly compounding downstream flooding or chronic wetness problems.
9. Soil Investigations. Soil profile investigations shall be conducted at each site proposed for the construction of a stormwater management facility. Each excavation shall extend a minimum of 3 feet below the proposed bottom of the facility or any component of the facility, such as infiltration trenches. An adequate number of excavations shall be conducted to examine all soil types present in the immediate area of the proposed facility, as determined by the Village Engineer. Each soil investigation site shall be located on the site development plan, under sub.(E)(2) below along with the elevation, to the nearest tenth of a foot, of the original ground surface. A soil tester, certified in the State of Wisconsin, or the Village Engineer is required to log the soil profile and groundwater elevation(s). The Village Engineer may require an inspection of the soil profile when it is logged by another party.
10. Additional Requirements. The administrating authority may establish more stringent requirements than the minimums set forth in this section, such as addressing thermal impacts of storm water, downstream flooding, a total maximum daily load (TMDL) standard for a watershed including

but not limited to phosphorus, bacteria, chlorides, other applicable state or federal laws, an order of any court of competent jurisdiction, or chronic wetness conditions, if the administrating authority determines that and added level of protection is needed.

E. Final Stormwater Management Plan Contents

The following shall be the minimum requirements for items to be included in a final stormwater management plan:

1. Existing Site Map and Data. The requirements for the existing site map and data are the same as those listed under sub. 33.08 (D) (2) of this ordinance.
2. Site Development Plan. A site development plan, using the same map scale as the existing site map, shall include the following map items and supporting documentation:
 - (a) Locations and dimensions of all proposed land development activities, including proposed cuts, fills and 2-foot contours;
 - (b) Delineation and labeling of all proposed impervious areas and accompanying area computations;
 - (c) Location of all proposed stormwater conveyance systems and grade stabilization structures, including grade lines, cross-sections, flow/velocity computations based on a 10-year 24-hour design storm, and the delineation of proposed subwatersheds for each reach; *[Note: For watershed areas that extend outside of the boundaries of the site map, other scaled maps may be used.]*;
 - (d) Location of all proposed stormwater best management practices and facilities, including plan views, cross-sections, profiles, inlet/outlet and other detail drawings and supporting flow computations;
 - (e) Summary of hydrologic and hydraulic computations prepared to meet the requirements of sub.(d) above, and for the design of all stormwater management facilities. All major assumptions used in developing input parameters shall be clearly stated, and all geographic areas used in making the calculations shall be clearly cross-referenced;
 - (f) Results of investigations of soils and groundwater required under

sub.(d)(9) above, including location and elevation of each investigation site, for the placement and design of stormwater management facilities;

- (g) Location(s) and dimensions of all proposed easements or other methods used to ensure the preservation of flow paths and adequate access for maintenance purposes, in accordance with sec. 33.12 of this ordinance;
- (h) Certification, from a professional engineer registered in the State of Wisconsin, that all calculations and designs included in the final stormwater management plan have been reviewed and approved as being in accordance with the requirements of this section.
- (i) The name, address and daytime phone, email and FAX number of the contact person during the plan review process, the construction supervisor, and the engineer that will certify construction of all stormwater management facilities under sec. 33.11(D) of this ordinance;
- (j) For sites where changes are proposed in stormwater flow paths, or where proposed stormwater discharges may otherwise have a significant negative impact on downstream property owner(s), the Village Engineer may require the applicant to obtain written authorization or complete other legal arrangements with the affected property owner(s); and
- (k) Other items deemed necessary by the Village Engineer to ensure compliance with the requirements of this ordinance.

F. Preliminary Stormwater Management Plan Contents

Preliminary stormwater management plans shall contain the same information listed under sub.(E) above, with the following exceptions:

1. No computations will be required for stormwater conveyance systems, water control structures or other individual system components; and
2. No detail drawings, cross-sections or profiles will be required unless the Village Engineer determines they are necessary to assess the general feasibility of the preliminary stormwater management plan.

33.10 TECHNICAL STANDARDS AND SPECIFICATIONS.

A. Hydrologic and Hydraulic Computations

1. Models. All computations of runoff volumes and peak flow rates used in the development of erosion control and stormwater management plans in accordance with this ordinance shall be based on the United States Department of Agriculture – Natural Resources Conservation Service (NRCS) methodology. Models Such as SLAMM, P8 or other administrating authority approved models may be used to evaluate the efficiency of the design in reducing total suspended solids to meet this ordinance. Models such as SLAMM, RECARGA or other administrating authority approved models may be used to evaluate the efficiency of the design in meeting the infiltration requirements of this ordinance. Models distributed and supported by the Wisconsin Department of Natural Resources may be used to determine compliance with calculating soil loss on construction sites.

2. Rainfall Depths. To determine compliance with this ordinance, the following design storms values shall be used:

Design Storm	1-year 24-hour	2-year 24-hour	10-year 24-hour	100-year 24-hour
Rainfall Depth	2.35 inches	2.65 inches	3.82 inches	6.41 inches

3. Runoff Curve Numbers. All computations of pre-development conditions as required under sec.33.09(D)(1) of this ordinance shall use those NRCS runoff curve numbers assigned for a "good" hydrologic condition for each land cover type. For lands where the pre-development land use was woodland, grassland/meadow, or cropland, the following NRCS curve number values shall be used as maximums:

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

4. Average Annual Rainfalls. All modeling involving average annual rainfall or runoff volumes shall use rainfall data from the Milwaukee area between March 28 and December 6, 1969 as the typical annual rainfall pattern for

Washington County, unless otherwise prescribed in BMP design standards.

5. Rainfall Distribution. All peak flow calculations shall use MSE3 rainfall distribution patterns, as defined in NRCS methodologies.
6. All velocity and peak flow computations for open channels and storm sewer pipe flows shall be based on Mannings Formula.
7. Flow routing, culvert design, weir and orifice flow and other related hydraulic computations used to design stormwater management facilities shall be based on standard applicable engineering formulas.
8. Any data or design method proposed to be used for hydrologic or hydraulic computations other than those listed above shall be approved in advance in writing by the Village Engineer.

B. Best Management Practice Design Standards

The design of all best management practices used to meet the requirements of this ordinance shall comply with the following technical standards:

1. Technical standards as developed or disseminated by the Wisconsin Department of Natural Resources under Wisconsin Administrative Code Sections NR 151 Subchapter V.
2. Section IV of the Field Office Technical Guide, published by the United States Department of Agriculture - Natural Resource Conservation Service; and
3. Other technical standards published or adopted by the above noted agencies, the Wisconsin Standards Oversight Council or the Village Board.

C. Technical Guidelines

The Village board may adopt technical guidelines to assist with the consistent administration of certain portions of this ordinance where more specific standards currently do not exist, are insufficient or are subject to rapid change. The Village Board shall seek the expertise of other agencies and organizations in the development and maintenance of technical guidelines under this subsection.

D. Construction Specifications

The construction or installation of all best management practices and other structures shall comply with all the construction specifications adopted by the Village board, including standard seeding or sodding deadlines for site stabilization.

E. Availability

Copies of all technical standards, guidelines and specifications adopted by the Village Board shall be available for review through the Village Clerk. Fees may be charged for copies of these items in accordance with a fee schedule established by the Village Board.

F. Structure Setback From Stormwater Management Facilities or Wetlands to Minimize Flood Damage.

Flows generated by the 100 year, 24-hour design storm under planned land use conditions may exceed the design capacity of stormwater management facilities or wetlands. The restrictions described herein are used solely for setbacks determined by stormwater calculations and are not meant to circumvent more restrictive setback requirements described elsewhere in the Zoning Code. For principle structures, the following minimum requirements shall apply:

1. Vertical Setback The lowest elevation of the finished yard grade at the principle structure shall be at least two (2) feet above the maximum water elevation of any stormwater management facility or wetland for an event produced by the 100 year, 24-hour design storm.
2. Horizontal Setback A principle structure shall be located no closer than 25 feet from the maximum water elevation produced by a 100 year, 24-hour design storm adjacent to any stormwater facility or wetland.
3. In determining the limiting elevations described above, the stormwater management report shall include an analysis assuming no outflow from principle outlets (plugged condition) and no infiltration (frozen ground condition) resulting from a single 100 year, 24-hour design storm. An additional analysis showing the impact of back-to-back 100 year, 24-hour design storms assuming no outflow from principle outlets and no infiltration shall be included in the stormwater management report for informational purposes.
4. All limiting elevations determined using the methodology described above shall be recorded as a deed restriction on the subdivision plat, condo plat, certified survey map or any other form of land division, and shall remain with the property in perpetuity. The Village Engineer, upon review of the analysis

described in (3) above, may require restrictive horizontal and vertical setbacks than those described in (1) and (2) above.

5. To prevent basement flooding of new structures, all window wells shall be connected to the buildings sump drainage system in a manner approved by the Building Inspector.

G. Future Revisions or Updates

The technical standards, guidelines and specifications referenced in this section are made a part of the ordinance and shall be updated periodically in order to keep current with field experiences, research, technological advances and the development of related technical standards by other agencies and units of government. Any future revision or update of the technical standards or specifications incorporated herein are also made part of this ordinance unless otherwise acted upon by the Village board.

33.11 PERMIT REQUIREMENTS.

A. General Conditions

For all permits issued under this ordinance, the permit holder shall:

1. Obtain all other applicable Federal, State, County or local permits and comply with all other applicable regulations. The Village Engineer will require the applicant to obtain other permits or plan approvals prior to issuing an erosion and runoff control permit.
2. Complete all activities in accordance with the plan(s) and construction schedule approved by the Village Engineer. Any significant changes made during implementation without prior approval by the Village Engineer shall be subject to enforcement action under sec. 33.14 of this ordinance.
3. Notify the Village Engineer at least 24 hours in advance of commencing any work associated with the permit. The Village Engineer may require further notification of work on various stages of construction or upon completion of individual components for inspection purposes.
4. Authorize the Village Engineer access to the property to perform inspections and to carry out any necessary enforcement activities under sec. 33.14 of this ordinance.
5. Inspect all best management practices after each rain event of 0.5 inch or

more, or at least once each week, and make any needed repairs. The permit holder shall maintain best management practices until the financial guarantee under sub. C(2) below is released by the Village Engineer.

6. Clean up all off-site sediment deposits and repair any erosion or other damage occurring as a result of construction work or a storm event at the end of each work day. Flushing of sediment is not allowed.

B. Permit Issuance and Duration

1. The Village Engineer shall establish an expiration date for all permits issued under this ordinance. The expiration date shall not exceed 18 months and shall be based on the construction schedules submitted by the applicant under subs. 33.08(D)(2)b.5. and 33.08(D)(2)b.9. of this ordinance, and the technical standards and specifications adopted by the Village board under sec. 33.10 of this ordinance.
2. The Village Engineer may grant longer permit periods or grant extensions to existing permits if deemed necessary to ensure compliance with this ordinance or Village Board policy. The Village Engineer may require additional erosion and runoff control measures as a condition of granting longer permit periods or permit extensions.
3. In accordance with the technical standards and specifications in sec. 33.10 of this ordinance, the Village Engineer may withhold issuance, suspend or revoke an erosion and runoff control permit, or require a change in the proposed construction schedule as a condition of a permit under sub. (1) above, if the Village Engineer determines that all of the following apply:
 - (a) The proposed or actual land disturbing activity will exceed standard deadlines for seeding and sodding;
 - (b) Runoff or erosion from the site may significantly impact an environmentally sensitive area or cause other off-site environmental or property damage; and
 - (c) The applicant or permit holder is unable or unwilling to provide other approved measures to minimize off-site impacts.

C. Financial Guarantee

1. Purpose and Type. A bond, escrow or letter of credit in a form approved by the Village Board and Village Attorney shall be required for all erosion and runoff control permits issued to ensure compliance with this

ordinance.

2. Amount. The amount of the financial guarantee shall be determined by the Village Engineer and shall be based on the estimated costs of construction of the best management practices in the approved erosion control and/or stormwater management plan(s) plus any costs for best management practice maintenance that may be needed during the construction phase or immediately after the site is stabilized, such as sediment removal.
3. Security. Each financial guarantee shall be accompanied by a written agreement outlining its purpose, applicable amounts and all of the conditions for release.
4. Conditions for Release.
 - (a) The Village Engineer shall release the financial guarantee only after determining full compliance with the requirements of the permit and this ordinance, including the following:
 - (1) Certification of construction by a professional engineer, in accordance with sub.(D) below;
 - (2) Completion of a satisfactory final inspection by the Village Engineer in accordance with sub (E) below;
 - (3) Submittal of a copy of the recorded maintenance agreement, in accordance with sec. 33.12 of this ordinance.
 - (b) The permit holder may apply for a prorated release of the financial guarantee based on the completion or partial completion of various construction components or satisfaction of individual requirements of par. (4) above.
 - (c) The Village Engineer shall withhold from the financial guarantee amount released to the permit holder, any costs incurred by the Village to complete installation or maintenance of best management practices through enforcement action, as described in sec. 33.14 of this ordinance, or prior to the transfer of maintenance responsibilities through an approved maintenance agreement, or other unpaid fees or costs incurred by the Village associated with the administration of this section.
5. Other Financial Guarantees. The financial guarantee provisions of this

ordinance shall be in addition to any other financial guarantee requirements of the Village Board and Village Attorney for other site improvements.

D. Construction Certification

1. A professional engineer, licensed in the State of Wisconsin, shall be in responsible charge and certify that the construction of all stormwater management facilities, and other best management practices as determined by the Village Engineer, comply with the plan(s) approved by the Village Engineer and the technical standards and specifications of sec. 33.10 of this ordinance.
2. "As-built" plans shall be submitted for all stormwater management facilities and other permanent best management practices or practice components as deemed necessary by the Village Engineer to ensure compliance with this ordinance. As-built plans shall document, on maps and drawings of the same scale and quality as the site development plan, actual location, elevations, materials, construction specifications and other items and be certified by the project engineer.

E. Final Inspection

After completion of construction, the Village Engineer shall conduct a final inspection of all sites regulated by this ordinance to assist in determining compliance with the approved plan(s) and other applicable requirements, the permit and this ordinance. If upon inspection, the Village Engineer determines that any of the applicable requirements have not been met, the Village Engineer shall notify the permit holder what changes would be necessary to meet the requirements. At the request of the permit holder, the Village Engineer shall provide notification of noncompliance or a report of final inspection in written form.

33.12 MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES.

A. Maintenance Agreement Required

A maintenance agreement between the local municipality or other approved unit of government and the proposed property owner(s) shall be required for all stormwater management facilities installed to comply with the requirements of this ordinance. The agreement shall be independent of all other restrictions or covenants and shall be prepared in accordance with this section.

B. Agreement Provisions

The maintenance agreement shall, at a minimum, contain the following information and provisions:

1. Identification of the owner(s) of the land parcel where the stormwater management facility is located;
2. A legal description and survey map of the stormwater BMP location(s), showing associated drainage or access easements required to maintain the BMP.
3. Identification of each type of stormwater management facility and a general description of its purpose and design, including but not limited to facility dimensions, inlet and outlet design and dimensions and the drainage area served by the facility;
4. A description of all long-term maintenance activities that may or will be required for each stormwater management facility, and an estimated time interval between each activity;
5. Granting of an access easement for access to all stormwater management facilities that is a minimum of 20 feet wide, with a minimum 12-foot travel lane, not including drainage easements, right-of-ways or other restricted areas. Damage to this travel lane will be paid by the by the party responsible for the “maintenance agreement”.
6. Identification of the landowner(s), organization, municipality or other entity responsible for long term maintenance of the stormwater management facility;
7. Authorization for access to the property by the Village Department of Public Works, the Village Engineer to conduct periodic inspections of the facility, monitor its performance and maintenance, and notify the designated entity when maintenance or repair activities are necessary;
8. Recognition that, upon written notification, the designated entity shall, within a reasonable time period, complete any needed maintenance or repair work recommended as a result of an inspection of the facility;
9. Authorization for the Village, and/or other designated authority to carry out any maintenance activities if the designated entity does not perform the required maintenance or repair work within the time period specified in par. (7) above;

10. Recognition that the applicable local government may exercise their statutory authority to levy and collect special assessments and charges under §66.60, Wis. Stats., for any services carried out relating to par. (8) above;
11. Language confirming that the entire agreement shall remain binding among all parties to and within the agreement, until changes are mutually agreed to in writing by all parties. Any changes made to the agreement must maintain the minimum items listed in this subsection and the long term maintenance of the stormwater management facility.
12. Other information as determined to be necessary by the Village Engineer or the Village Board to ensure compliance with this ordinance.

C. Agreement Approval and Recording

1. The Village Engineer shall ensure that all submitted maintenance agreements comply with sub.(B) above. If the agreement does not comply, the Village Engineer shall notify the applicant or permit holder what changes are needed in order to comply.
2. Upon certification of compliance with sub.(B) above by the Village Engineer, the maintenance agreement shall be recorded at the Washington County Register of Deeds referencing any plat, certified survey or other ownership transfer device pertaining to land which contains a stormwater management facility or is subject to maintenance responsibility in the approved agreement. The agreement as recorded shall ensure that the maintenance requirements are binding on all subsequent owners of the property upon which the stormwater management facility is located and that the restrictions run with the land and on any other property which is subject to maintenance responsibility in the agreement.
3. The permit holder shall provide a copy of the recorded agreement, including evidence of the actual recording(s), to the Village Engineer.

D. Agreement Form

The maintenance agreement requirements of this section may, at the discretion of the Village Engineer, be a separate document or may be incorporated into a developer's agreement. The form of the document proposed for recording shall be reviewed and approved by the Village Engineer. Any method used shall comply with all of the requirements of this section.

E. Maintenance Responsibilities Prior to a Maintenance Agreement

The permit holder shall be responsible for the maintenance of all stormwater management facilities prior to a satisfactory final inspection under sec. 33.11(E) of this ordinance and the release of a financial guarantee under sec. 33.11(C) of this ordinance.

33.13 Illicit Discharges

A. Prohibitions.

1. Discharges. Except for stormwater and other discharges specifically exempted under sec. B. below, no discharge, spilling or dumping of substances or materials shall be allowed into receiving water bodies or onto driveways, sidewalks, parking lots or other areas that drain into the storm drainage system.
2. Connection. The construction, use, maintenance or continued existence of illicit connections to the storm drainage system is prohibited. This prohibition expressly includes, without limitation, illicit connections made prior to the adoption of this ordinance, regardless of whether the connection was permissible under law or practice applicable or prevailing at the time of connection.

B. Exemptions.

1. The following activities are exempt from the provisions of this section unless found to have an adverse impact on the storm water:
 - a. Discharges resulting from firefighting activities.
 - b. Discharges from uncontaminated ground water, potable water source, roof drains, foundation drain and sump pump, air conditioning condensation, springs, lawn watering, individual residential car washing, water main and hydrant flushing and swimming pools if the water has been dechlorinated.

C. Notice of Violation. Whenever the administrating authority finds a violation of this section, the administrating authority may order compliance by written notice of violation to the responsible party. Such notice may require without limitation:

1. The elimination of illicit connections or discharges;
2. That violating discharges, practices, or operations shall cease and

desist;

3. The abatement or remediation of stormwater pollution or contaminated hazards and the restoration of any affected property;
4. Any responsible party that fails to comply with notice of violation under this section, shall be subject to further enforcement action under the provisions of sec. 33.14 below.

33.14 ENFORCEMENT.

A. Ordinance Administrator

The Village Engineer or authorized designee is authorized to administer and enforce compliance with this ordinance. The Village Engineer shall have the following powers and duties:

1. Advise applicants as to the requirements of this ordinance and assist them in filling out forms and other related administrative procedures.
2. Review applications, issue permits, and make all determinations stated in this ordinance.
3. Conduct on-site inspections and investigate complaints in a timely manner to ensure compliance with this ordinance.
4. Maintain records of all permits issued, inspections and determinations made, work approved, enforcement action and other official action.
5. Make recommendations to the Village Board on any revisions or updates to this ordinance, including keeping all technical standards, construction specifications and administrative tools current and advising on policy issues.
6. Assist the Board of Appeals with the appeal process by providing the necessary information for their consideration and action.
7. Carry out duties relating to ensuring the long-term maintenance of stormwater management facilities, such as site inspections and making recommendations for needed repairs or maintenance, in accordance with approved working agreements.

B. Prohibited Practices

It shall be deemed a violation, and be subject to enforcement action, for any person, firm, association, corporation or other entity subject to the requirements of this ordinance to do in any of the following:

1. Commence in any land disturbing or land development activity prior to:
 - (a) Obtaining an erosion and runoff control permit;
 - (b) Notifying the Village Engineer a minimum of 24 hours in advance of commencement of a land disturbing activity;
 - (c) Installing those best management practices identified in the approved plan(s) to be installed prior to any land disturbing or land developing activity.
2. Fail to follow the approved plan(s), or other permit conditions, including but not limited to the required construction sequence, practice installation and technical standards or specifications.
3. Fail to maintain, repair or replace any best management practice deemed ineffective prior to the release of a financial guarantee.

C. Violations

1. The Village Engineer is authorized to use the following methods of enforcement in any combination thereof against any person, firm, association, corporation or other entity that is found to be in violation of any provision of this ordinance:
 - (a) Forfeiture. Any violator shall be subject to a forfeiture of not less than \$50 or more than \$500 plus the cost of prosecution for each violation. Each day that a violation exists shall constitute a separate offense.
 - (b) Stop Work Order. Any violator is subject to an order to stop all work except that which is needed as a corrective action to bring the site into compliance, or the Village attorney may be requested to obtain a temporary restraining order and such other remedial court orders as shall be necessary to ensure compliance.
 - (c) Permit Withholding and Revocation. The Village Engineer may revoke a permit issued under this ordinance, and the Village may withhold other permits or approvals, if the Village Engineer determines that the permit holder is not making a good faith effort

to comply with the conditions of the permit. Upon loss of the permit, all construction shall cease except that the site shall be stabilized to preclude any further soil erosion or sediment disposition activity, with any costs incurred by the Village to be charged against the financial guarantee.

(d) Emergency Action. The Village may enter upon the property and take any necessary emergency action if the Village Engineer determines that the site in violation is an immediate threat to public health, safety, welfare, the environment or offsite property, or if the permit holder or other violator refuses to take the corrective action as ordered by the Village Engineer. Any cost incurred by the Village as a result of this action shall be billed to the permit holder as a special assessment under the authority of §66.60, Wis. Stats. Failure to pay said costs on a timely basis shall constitute a violation of this ordinance.

2. Any enforcement measures shall continue until compliance is achieved or as ordered by the court.
3. The Village Engineer shall notify the permit holder in writing of any violation. The written notice shall be hand delivered to the permit holder or sent by certified mail and shall describe the violation, remedial action(s) needed, a schedule for all remedial action to be completed, and additional enforcement action which may be taken.
4. The schedule established by the Village Engineer for required remedial action shall be based on a reasonable amount of time required to carry out the remedial action.
5. Private Enforcement. Any person affected by activities regulated under this ordinance may enforce the provisions of this ordinance by private action seeking an injunction.

D. Responsible Party

For purposes of determining the responsible party or parties for any enforcement action under this ordinance, the phrase "person, firm, association, corporation or other entity" as used in this ordinance shall include, as the context requires, any owner, lessee, tenant, mortgagee, trustee, land contract vendor or vendee, or other holder of any legal or equitable interest in the particular land subject to this ordinance and shall also include any contractor, subcontractor, engineer, consultant, agent or employee retained or acting on behalf of any of the preceding and having any material responsibility or having undertaken any activity with

respect to the particular land subject to this ordinance.

33.15 APPEALS.

A. Authority

The Board of Appeals shall act as the review and appeal authority for any order, requirement, decision or determination by the Village Engineer under this ordinance.

B. Procedure

The rules, procedures, duties and powers of the Board of Appeals shall be as provided in the Village Code and the provisions of §62.23 Wis. Stats., shall apply to any review or appeal under this ordinance.

C. Variances

Upon appeal, the Board of Appeals may authorize variances from the provisions of this ordinance which are not contrary to the public interest or the purpose of this ordinance, and where owing to special conditions beyond the control of the applicant, a literal enforcement of this ordinance will result in unnecessary hardship.

D. Who May Appeal

Appeals to the Board of Appeals may be taken by any aggrieved person or by an officer, department or board of the Village affected by any decision of the Village Engineer.

33.16 SEVERABILITY.

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

33.17 DEFINITIONS.

The terms used in this ordinance shall have the following meaning:

- A1. “Affected” as used in sec. 33.14 (c) (5) of this ordinance, means that a regulated activity has significantly:
 - 1. Caused negative impacts on water quality, water quantity and flooding, or

the use or maintenance of one's property or business; or

2. Endangered one's health, safety or general welfare.

- A2. "Agricultural crops" means any plant grown for the purpose of harvest to support a business.
- B1. "Best management practice" means a practice, technique or measure that is an effective, practical means of preventing or reducing soil erosion and/or water pollution from runoff both during and after land development activities. These can include structural, vegetative or management practices.
- C1. "Common plan of development" means all lands included within the boundary of one or more certified surveys or other land divisions where multiple, separate and distinct land development activity may occur at different times.
- C2. "Connected imperviousness" means an impervious surface connected to the waters of the state via a separate storm sewer, an impervious flow path, or a minimally pervious flow path.
- C3. "Construction site erosion control" means preventing or reducing soil erosion and sedimentation from land disturbing activity.
- D1. "Design storm" means a hypothetical depth of rainfall that would occur for the stated return frequency (e.g. 2-year or 10-year) and duration (e.g. 24-hour). All values are based on the historical rainfall records for the area and are available for reference in many publications. *[Note: See sec. 33.10(A) of this ordinance for a table of applicable design storms for Washington County.]*
- E1. "Environmentally sensitive area" means any area that, due to the natural resources present or the lack of filtering capacity, is significantly more susceptible to the negative impacts of sedimentation and other pollutants associated with erosion and urban runoff. Examples include direct hydrologic connections to lakes, stream, wetlands or other water resources, very coarse or shallow soils to groundwater or bedrock, or areas inhabited by endangered resources.
- F1. "Final grading" means the placement of topsoil over disturbed areas in accordance with the requirements of sec. 33.08(C) of this ordinance.
- I1. "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of runoff, except discharges authorized by a WPDES permit or any other discharge not requiring a WPDES permit such as later line flushing, landscape irrigation, individual residential car washing, firefighting and similar discharges.

- I2. "Impervious surface" means any land cover that prevents rain or melting snow from soaking into the ground, such as roofs (including overhangs), roads, sidewalks, patios, driveways and parking lots. For purposes of this ordinance, all road, driveway or parking surfaces, including gravel, shall be considered impervious, unless specifically designed to encourage infiltration and approved by the Village Engineer.
- I3. "Impractical" means that complying with a specific requirement would cause undue economic hardship and that special conditions exist which are beyond the control of the applicant and would prevent compliance.
- I4. "In-fill" means an undeveloped area of land located within an existing urban sewer service area, surrounded by development or development and natural or man-made features where development cannot occur.
- I5. "Infiltration" means the process by which rainfall or runoff seeps into the soil.
- I6. "Intercept soil transport" means the process of trying to prevent delivery of sediment by installing a silt fence or some other form of sediment trap in the flow path to slow flows and settle the suspended soil particles.
- L1. "Land development activity" means any construction related activity that results in the addition or replacement of impervious surfaces such as rooftops, roads, parking lots and other structures.
- L2. "Land disturbing activity" means any construction related activity that exposes soil to the erosive forces of wind, rain and snow melt. Land disturbing activities include removing vegetative cover, grading, excavating and filling. It does not include the planting, growing and harvesting of agricultural crops or mining activity that is otherwise regulated through a local mine reclamation ordinance.
- N3. "No appreciable off-site impact" means that the impact of any land disturbing or land development activity on off-site property or natural resources would be negligible due to site conditions, such as internal drainage or a very large vegetative buffer area surrounding a small building project.
- O1. "Ordinance administrator" means the Village Engineer or his/her designee.
- P1. "Peak flow" means the highest flow rate of runoff, as estimated by calculations and measured in cubic feet per second, that would normally result from a given design storm.
- P2. "Permanent best management practice" means any best management practice that

is designed to remain in place after the development is complete. They are designed to stabilize the site or to permanently manage stormwater runoff.

- P3. "Practical" means that complying with a specific requirement does not cause undue economic hardship and that special conditions do not exist which are beyond the control of the applicant and would prevent compliance.
- P4. "Pre-development condition" means the conditions of the land surface, including vegetative cover and natural drainage patterns, prior to the proposed land development activity. For purposes of this ordinance, all pre-development conditions shall assume good land management and good hydrologic condition.
- R1. "Regional stormwater management plan" means a published document that establishes a planned course of action for managing stormwater runoff from an entire drainage area or watershed, including future land development activities within the watershed. A regional stormwater management plan will recommend the use of best management practices for individual development sites and for selected points within the watershed to meet the goals and objectives of the plan.
- R2. "Responsible Party" for purposes of determining the responsible party or parties for any enforcement action under this ordinance, the phrase "person, firm, association, corporation or other entity" as used in this ordinance shall include, as the context requires, any owner, lessee, tenant, mortgagee, trustee, land contract vendor or vendee, or other holder of any legal or equitable interest in the particular land subject to this ordinance and shall also include any contractor, subcontractor, engineer, consultant, agent or employee retained or acting on behalf of any of the preceding and having any material responsibility or having undertaken any activity with respect to the particular land subject to this ordinance.
- R3. "Roads" as used in sec. 33.05(B)(2) of this ordinance, means any access drive that serves more than 2 residences or businesses.
- R4. "Runoff" means any rain or melting snow that flows over the ground surface. (Also referred to as stormwater runoff.)
- S1. "Shoreland/wetland/floodplain zone" means the land area that is within the districts identified as the shoreland/wetland/floodplain zone on the official zoning maps of the Village of Slinger. The shoreland zone generally includes all lands within 300 feet of a navigable stream or 1,000 feet from a lake shore. The wetland and floodplain zoning districts may extend beyond the shoreland zone.
- S2. "Soil detachment" means the first step in the soil erosion process, or the dislodging of the soil particle from raindrop impact, water flow or wind. After

detachment, the soil particle can be suspended and carried in runoff or wind to another site. Soil detachment is reduced by providing a vegetative or synthetic cover over the soil surface or through the application of soil treatment measures designed for this purpose.

- S3. "Stabilized" means that vegetation is well established or other surfacing material is in place and the risk of further soil erosion is minimal.
- S4. "Stormwater management" means any measures taken to permanently reduce or minimize the negative impacts of stormwater runoff quantity and quality from urban areas after land development activities.
- S5. "Stormwater management facility" means any structural best management practice, such as a retention pond, infiltration basin or other physical structure, that is designed to collect and permanently manage the quantity and/or quality of stormwater runoff.
- S6. "Subsoil" means the "B" horizon in any natural soil profile. Natural soil profiles are described in detail in the Soil Survey of Washington County.
- T1. "Temporary best management practice" means any best management practice that is intended to reduce soil erosion and/or sediment in runoff during the construction phase only, and is intended to be removed after the site is stabilized.
- T2. "Total maximum daily load" or "TMDL" means the amount of pollutants specified as a function of one or more water quality parameters, that can be discharged per day into a water quality limited segment and still ensure attainment of the applicable water quality standard.
- T2. "Topsoil" means the "A" horizon found in any natural soil profile not formed from organic material. Natural soil profiles are described in detail in the Soil Survey of Washington County.
- T3. "Total suspended solids load" means the total weight of material, including sediment and other solids, that is assumed to be carried in the runoff water and discharged from the site based on runoff models for urban lands. For best management practice design purposes, a 5-micron particle size is usually selected as a target to achieve 80% total suspended solids removal rate, as required in sec. 33.09(D) of this ordinance.
- W1. "Watershed" means the total area of land where runoff drains to a specific point on the landscape. It is also referred to as the drainage area.
- W2. "Wetland functional values" means the type, quality and significance of the

ecological and cultural benefits provided by the wetland, such as: flood storage, water quality protection, groundwater recharge and discharge, shoreline protection, fish and wildlife habitat, floral diversity, aesthetics, recreation and education.

- W3. "Working day" means a day when the administering authority and other local businesses are routinely and customarily open for business, not including Saturdays, Sundays or scheduled holidays. When used in sec. 33.08 of this ordinance, relating to specific erosion control requirements, the term working days shall not include any days that site stabilization activities could not reasonably be carried out due to inclement weather conditions.