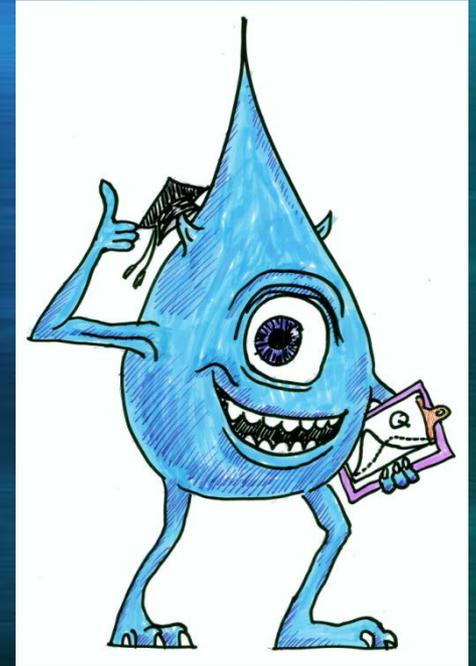


# County Storm Water Ordinance Overview



Leif Hauge, PE, P. Hydrologist  
Senior Civil Engineer  
Waukesha County Land Resources Division

# Prior to 2005 County Ordinance Revision

Erosion Control  
Per NR 152 Appendix A  
Model ordinance

- Erosion Control Plan
- Construction Sequence
- Sediment load performance standards
- Control measures, BMPs
- Structural practices
- Construction staging
- Stabilization of drainage ways
- Inspections
- Erosion Control permits

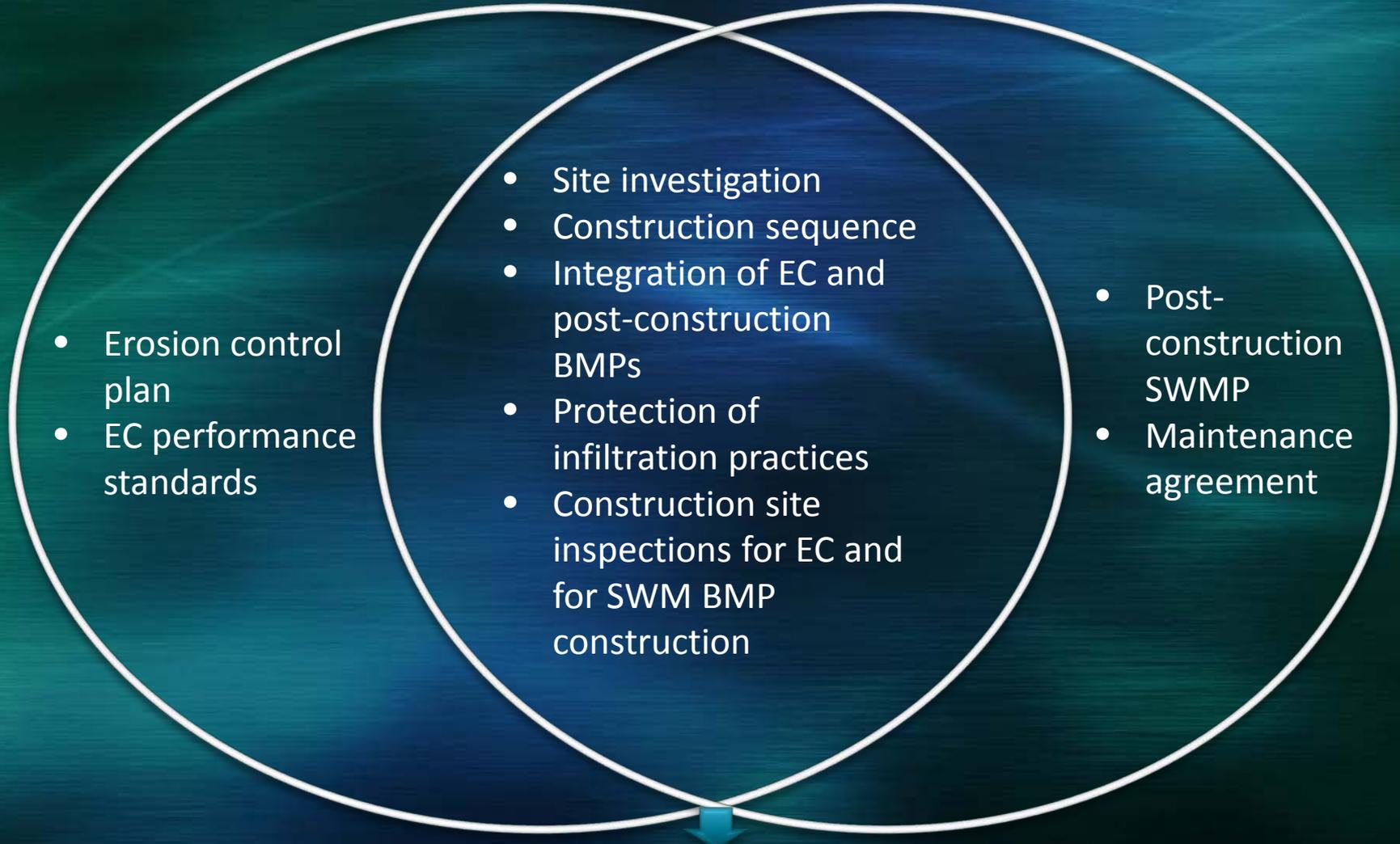
Post-Construction Storm  
Water Management  
Per NR 152 Appendix B  
Model ordinance

- Storm Water Management Plan
- Post-construction performance standards
- Maintenance agreement
- Post-construction runoff permit

# 2005 County Ordinance Revision

Erosion Control

Storm Water Management



- Site investigation
- Construction sequence
- Integration of EC and post-construction BMPs
- Protection of infiltration practices
- Construction site inspections for EC and for SWM BMP construction

- Erosion control plan
- EC performance standards

- Post-construction SWMP
- Maintenance agreement

STORM WATER PERMIT

# Purpose, Principles

**Purpose and Intent:** Describes in general terms what the ordinance is trying to accomplish.

**Guiding Principles:** Provides the planner with clear guidelines and expectations, recognizing that plans must be customized for each site based on site conditions and downstream resources

# Preliminary Review

Added “Preliminary Storm Water Review” process for subdivisions and CSMs, to resolve spatial issues relating to storm water management and long-term maintenance early in the land division process.

**Please indicate which one you wish to apply for:** (Preliminary Review may be required by code.)

## Preliminary Review Letter

### Items needed:

1. Signed Permit Application form
2. Application Fee
3. Site Plan Map (Checklist #1)
4. Preliminary Erosion Control Plan (Checklist #2)
5. Preliminary Storm Water Mgt. Plan (Checklist #3)
6. Preliminary Maintenance Agreement

## Storm Water Permit

### Items needed:

1. Signed Permit Application form and General Requirements Agreement form
2. Application Fee
3. Site Plan Map (Checklist #1)
4. Final Erosion Control Plan (Checklist #2)
5. Final Storm Water Mgt. Plan (including construction inspection plan – Checklist #3)
6. Approved Maintenance Agreement

# Applicant Defined

Tightened up definition of “applicant.” Could previously be contractor or consultant. Now

Applicant = Responsible party = Landowner

- **Applicant**: The person or entity holding fee title to the property or their representative, as delegated on page 2 of this form. The applicant shall sign the initial permit application form in accordance with the items 1-5 listed below, after which the applicant may provide written authorization for others to serve as the applicant’s representative: **1)** In the case of a corporation, by a principal executive officer of at least the level of vice-president or by the officer’s authorized representative having overall responsibility for the operation of the site for which a permit is sought; **2)** In the case of a limited liability company, by a member or manager; **3)** In the case of a partnership, by the general partner; **4)** In the case of a sole proprietorship, by the proprietor, or; **5)** For a unit of government, by a principal executive officer, ranking elected official or other duly authorized representative.

# General Requirements

General permit requirements: Permit holder must maintain an inspection log and employ the services of a project engineer to oversee/verify construction.

Clarified how plans or permits can be modified, and added a permit termination step.

## Storm Water Management Permit Application (Page 3)

### PERMIT REQUIREMENTS

Subject to Subchapter VIII, Chapter 14 of the Waukesha County Code of Ordinances (“ordinance”), storm water permits are subject to all of the requirements listed below. The Land Resources Division (“LRD”) may include other permit requirements that the LRD determines are necessary to ensure compliance with the ordinance. Violation of any permit requirement shall cause the permit holder and any other responsible party (as defined) to be subject to enforcement action.

*[Definition: “Responsible party” means any person or entity holding fee title to the property or acting as the owners representative, including any person, firm, corporation or other entity performing services,*

# Verification

## Construction verification & native planting verification:

- Ensures accountability in plan implementation.
- Requires prairie and wetland planting verification due to specialized methods and maintenance during establishment

**Example Combined Construction Sequence and Construction Inspection Schedule**

Date	Duration	Milestone or Task	Date of Inspection	Inspector Initials	Provide Photo	Inspector Role
		Prior to grading activities				
		Surveyor stakes road, drainageways, storm water BMPs. Mark wetlands.				
		Plan implementation meeting				
		Hold pre-construction meeting with Town, County, DNR, contractors, utilities				
		Install tracking pad				EC insp.
		Install silt fence or other perimeter BMPs, clearing and grubbing as minimally needed				EC insp.
		Contact County LRD and other authorities at least 2 days prior to beginning construction				
		Construct Basins				
		Strip topsoil in basin and subsoil stockpile areas				
		Excavate temporary or permanent basins to be used for sediment control				
		The following steps apply to construction of wet detention basins				
		Before berm material is placed, verify that				
		Topsoil, stumps, and vegetation are stripped in basin berm footprint				Engineer
		A 2'x8' keyway is excavated under berm (if permanent pool will pond > 3 ft against embankment)				Engineer
		The basin berm is constructed with the specified material				Engineer
		Before a liner is placed, verify that:				
		Basin interior slopes do not exceed maximum pitches (3:1 above water, 10:1 safety shelf, 2:1 below)				Engineer
		Basin bottom and shelf elevations are correct				Engineer
		The safety shelf is at least 8 ft wide				Engineer
		Before the berm is re-compacted around outlet pipes following installation, verify that:				

# Inactive Sites

Added temporary stabilization requirement. Discourages grading contractors from leaving a site “inactive” for long periods



# Performance Standards

Storm water performance standards from NR 151. Includes infiltration, protective areas, fueling & vehicle maintenance and total suspended solids standards.

Also peak discharge for 1-, 2-, 10-, and 100-year events. Match pre - post.

# Site Drainage

Added site drainage standards:  
Avoids neighbor disputes, public hazards and property damage from high groundwater and flooding issues





# Construction Oversight

Requires the project engineer to prepare a construction inspection plan for storm water practices. This is used to verify compliance with approved plans



# Maintenance Agreements

Requirements for storm water maintenance agreements:

- Coincides with land division.
- Avoids individual private ownership of regional storm water practices.
- Prevents outlots from becoming county owned through tax delinquencies.
- Access for maintenance.

# Questions?

