

City of Waukesha Storm Water Permit Approval Process, Construction Process & Permit Termination

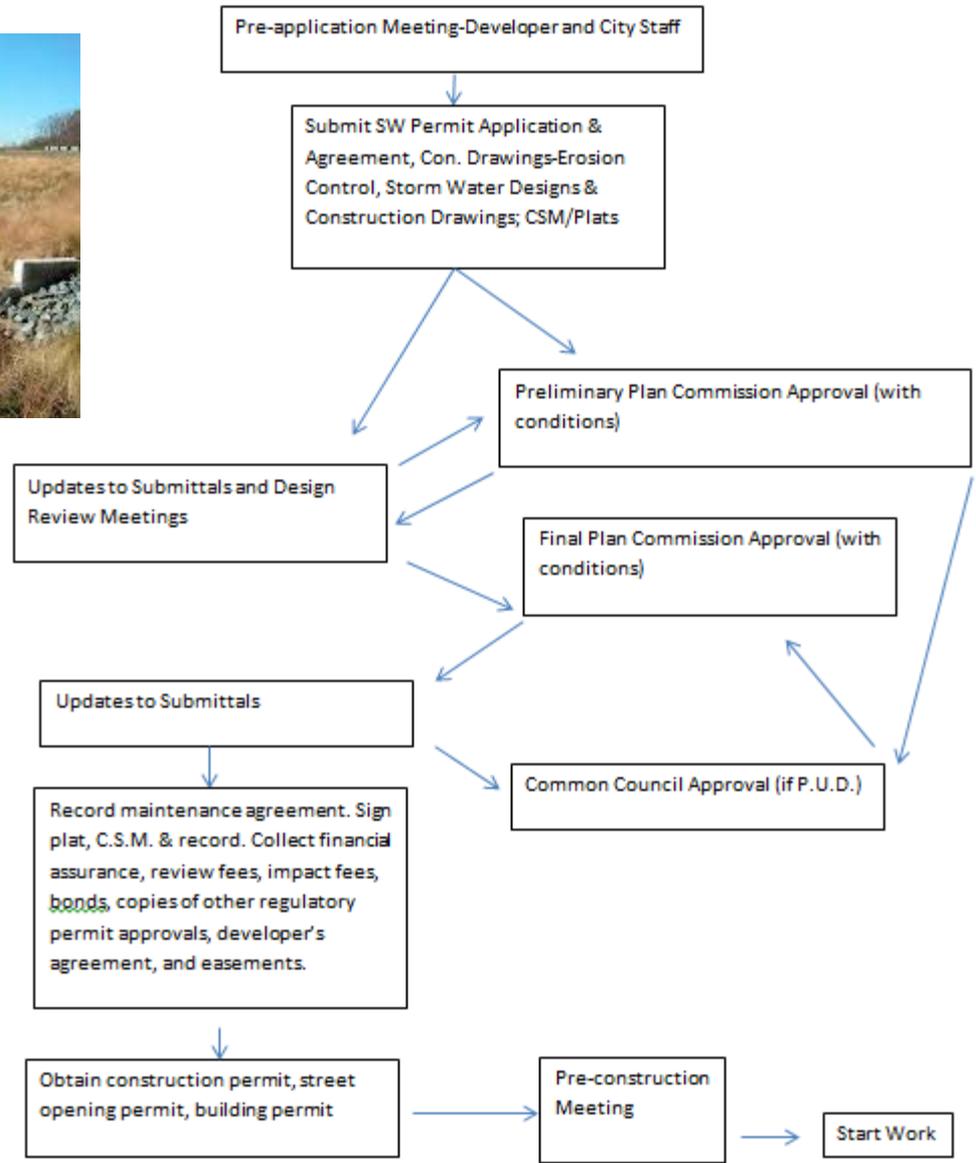
Waukesha County Storm Water Workshop
April 9, 2014

Dave Buechl, PE, RLS–Project Engineer





City of Waukesha Storm Water & Erosion Control Permit Approval Process



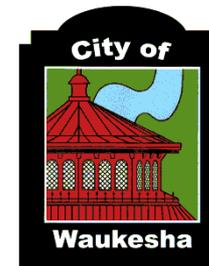
Pre-application Meeting

- **Where?**
 - Community Development Dept.
- **Who attends?**
 - Design Engineer
 - Developer or Business Owner
 - City Planners
 - Review Engineer
- **What?**
 - Regulations
 - Issues with getting approvals



City of Waukesha Ordinances

- Storm water management
- Erosion control
- Sanitary sewer
- Streets, traffic & parking
- Land Division/Survey
- Planning/Zoning
- Fire Department
- (Waukesha Water Utility)
- Adjoining communities



State of Wisconsin, Waukesha County & Federal

- **Wisconsin DNR (NR 216, NR 151)**
 - DNR Tech Stds, wetlands, navigability
- **Wisconsin DOT**
- **Wisconsin State Statutes**
- **Wisconsin Administrative Code**
- **Dept. of Safety and Professional Services**
- **Department of Workforce Development**
- **(Green Book) Sewer & Water Specs**
- **County D/W; R.O.W. width; Adjoining communities**
- **ADA, US Army Corps; EPA; OSHA; HUD; CDBG**



Common questions, comments, and concerns

- Redevelopment = means land development that replaces previous land development of similar impervious conditions
- Soil testing prior to detailed design
- Preliminary Storm water Plan and Preliminary Plat
- Adjoining street improvements required and costs
- Infrastructure impacts (oversizing)
- City As-builts
- Resident concerns (storm water, sump pumps, flooding)



STORM WATER PERMIT APPLICATION

Permit No. _____
 Project Name: _____
 Project Type (From Fee Schedule): _____
 Project Location: _____
 Permit Fee: _____
 Permit Issued: _____ Permit Expires: _____

The following contacts are required at the time of application: (Enter on back page)

- **Applicant:** The person or entity holding fee title to the property or their representative. 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.
- **Engineer (or Planner):** The primary contact for the preparation of erosion control and Storm water management plans. All plan review comments will be addressed to this Contact. For all storm water plans and other engineering, this person must: 1) be a licensed P.E. in Wisconsin; 2) stamp P.E. number and sign all plans submitted as part of permit; and 3) oversee and verify construction of all practices.

<u>Storm Water Permit</u>	
Items submitted: (Office use only)	<u>Permit Approved</u>
1. Signed Application	
2. Application Fee	_____
3. Site Plan Map	By _____
4. Erosion Control Plan	
5. Storm Water Mgt. Plan (including inspection plan)	_____
6. Maintenance Agreement	Date _____
7. Financial Assurance	

Permit Application & General Reqt’s Agreement

Identify contacts for:

- Applicant
- Engineer
- Site Grading and Temp. EC
- Restoration & Stabilization

Engineer:

1. Primary contact for EC & SW Plan.
2. Plan review comments addressed to Engineer.
3. WI P.E.
4. Oversee and verify construction of all practices



Permit Application > Storm Water Management Plan



- Subdivision Plat
- CSM or other dev't with 0.5 acres or greater of impervious surfaces (includes smaller sites part of common plan at different times)
 - New public or private road
- Likely to cause adverse impact to environmentally sensitive area or other property (ie. drainage problem)
 - Exemptions available

Permit Application > Erosion Control Plan



- Disturbs over 3,000 sf
- Involves excavation and/or filling over 400 CY
- Involves pipe laying or ditch disturbance over 300 feet
- Land disturbing regardless of size that will likely cause an adverse impact to environmental area or other property

What affects length of time from Application to Project Start?

- Storm water site layout
- Resubmittals
- Review Agencies
- Wetland delineations
- Floodplain Filling approvals



Revise!

Interim Plan Review Meetings

- **Engineer, Land Surveyor, Developer, City Staff, Fire, Waukesha Water, (Contractors)**
 - Update Drawings to comply with City Ordinances
 - Get input from Contractors

- **Board of Zoning Appeals**
 - Most common variance: reduce setbacks
 - 1. Not contrary to public interest
 - 2. Conditions beyond control of applicant
 - 3. Unnecessary hardship

- **Board of Public Works-Public Works Dept.**
 - Easements or Agreements conveyed to City of Waukesha



BMP Maintenance Agreement

<u>Document Number</u>	(Sample) Storm Water Management Practice Maintenance Agreement
<p>[Owners Name], as "Owner" of the property described below, in accordance with Chapter 32 City of Waukesha Storm Water Management and Erosion Control, agrees to install and maintain storm water management practice(s) on the subject property in accordance with approved plans and Storm Water Management Plan conditions. The owner further agrees to the terms stated in this document to ensure that the storm water management practice(s) continues serving the intended functions in perpetuity. This Agreement includes the following exhibits:</p> <p>Exhibit A: <u>Legal Description</u> of the real estate for which this Agreement applies ("Property").</p> <p>Exhibit B: <u>Location Map(s)</u> – shows an accurate location of each storm water management practice affected by this Agreement.</p> <p>Exhibit C: <u>Maintenance Plan</u> – prescribes those activities that must be carried out to maintain compliance with this Agreement.</p> <p>Note: After construction verification has been accepted by the City of Waukesha, for all planned storm water management practices, an <u>addendum(s)</u> to this agreement shall be recorded by the Owner showing design and construction details. The addendum(s) may contain several additional exhibits, including certification by City of Waukesha of Storm Water and Erosion Control Permit termination, as described below.</p>	
<p>Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions and restrictions:</p> <ol style="list-style-type: none"> 1. The Owner shall be responsible for the routine and extraordinary maintenance and repair of the storm water management practice(s) and drainage easements identified in Exhibit B until Storm Water and Erosion Control Permit termination by the City of Waukesha in accordance with Chapter 32 of the County Code of Ordinances. 2. After Storm Water and Erosion Control Permit termination under 1., the current Owner(s) shall be solely responsible for maintenance and repair of the storm water management practices and drainage easements in accordance with the maintenance plan contained in Exhibit C. 3. Upon written notification by City of Waukesha or their designee, the Owner(s) shall, at their own cost and within a reasonable time period determined by the City of Waukesha, have an inspection of the storm water management practice conducted by a qualified professional, file a report with the City of Waukesha and complete any maintenance or repair work recommended in the report. The Owner(s) shall be liable for the failure to undertake any maintenance or repairs. 4. In addition, and independent of the requirements under paragraph 3 above, the City of Waukesha, or its designee, 	
<p style="text-align: center;">Name and Return Address</p> <p>City of Waukesha 130 Delafield Street Waukesha, WI 53188</p>	

- Req'd for all BMP's
- "BMP" = measures, or techniques to avoid or minimize sediment carried in runoff
- Send City template to Design Engineer
- Record after approval of con. drawings at Wauk. R.O.D.
- Addendums recorded at later date



BMP Maintenance Agreement

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------------------------	--

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- Exhibit A:** Legal Description of the real estate for which this Agreement applies ("Property").
- Exhibit B:** Location Map(s) – shows an accurate location of each storm water management practice affected by this Agreement.
- Exhibit C:** Maintenance Plan – prescribes those activities that must be carried out to maintain compliance with this Agreement.

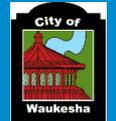
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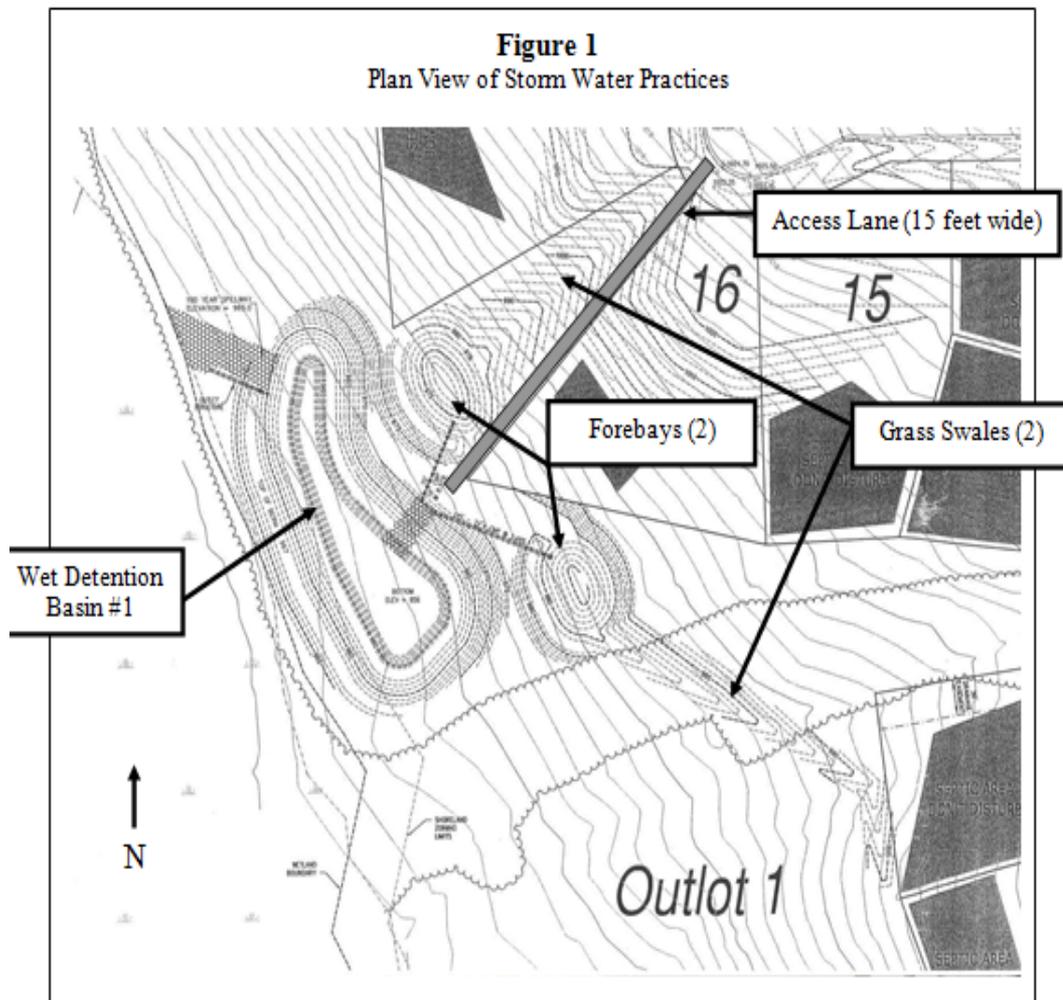
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Name and Return Address
City of Waukesha 130 Delafield Street Waukesha, WI 53188

- Ownership
- Exhibit A-Legal Description
- Exhibit B-Location Map
- Exhibit C-Maintenance Plan



Storm water Facility Locations



■ Figure 1

- Access Lane
- Forebays
- Swales
- Wet Basin
- Infiltration Basin

Annual Maintenance Inspections

Minimum Maintenance Requirements:

To ensure the proper long-term function of the storm water management practices described above, the following activities must be completed:

1. All outlet pipes must be checked monthly to ensure there is no blockage from floating debris or ice, especially the washed stone in front of the 3-inch orifice and the trash rack on the riser in the main basin. Any blockage must be removed immediately. The washed stone must be replaced when it becomes clogged.
2. Grass swales shall be preserved to allow free flowing of surface runoff in accordance with approved grading plans. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt flows in any way.
3. Grass swales, inlets and outlets must be checked after heavy rains (minimum of annually) for signs of erosion. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the downstream forebays or basin. Erosion matting is recommended for repairing grassed areas.
4. NO trees are to be planted or allowed to grow on the earthen berms. Tree root systems can reduce soil compaction and cause berm failure. The berms must be inspected annually and any woody vegetation removed.
5. Invasive plant and animal species shall be managed in compliance with Wisconsin Administrative Code Chapter NR 40. This may require eradication of invasive species in some cases.
6. If the permanent pool falls below the safety shelf, a review shall be performed to determine whether the cause is liner leakage or an insufficient water budget. If the cause is leakage, the liner shall be repaired.



- What
- When
- Where

- Municipal maintenance

- Special assessment

Financial Assurance



- **Ensure compliance with approved EC and SW Plans**
- **Bonds/Irrevocable Letter of Credit/ Cash Escrow Deposits**
 - Use funds to complete activities
 - Site landscaping and restoration in right-of-way
 - L.S. bond includes storm water facility restorations.
 - Transformer Bond
 - Sidewalks, Cross walks, Pavements
 - As-Built Bond



Preconstruction Meeting

- **Identify roles of parties (listed in SW Permit App.)**
 - Applicant/permit holder
 - Engineer
 - Site Grading & Temporary Erosion Control
 - Restoration & Stabilization Practices
 - Permit holder's E.C. Inspector
 - City's E.C. Inspector



Preconstruction Meeting

- **Review construction sequence (storm water facilities)**
- **Plan Modifications**
 - Changes to construction sequence
 - Notify City of requests
- **Erosion Control Plan**
 - Phased
 - Timing for restorations
- **Inspection Plan**
- **Permittee EC Inspection Logs**

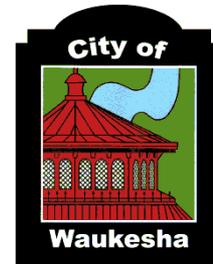
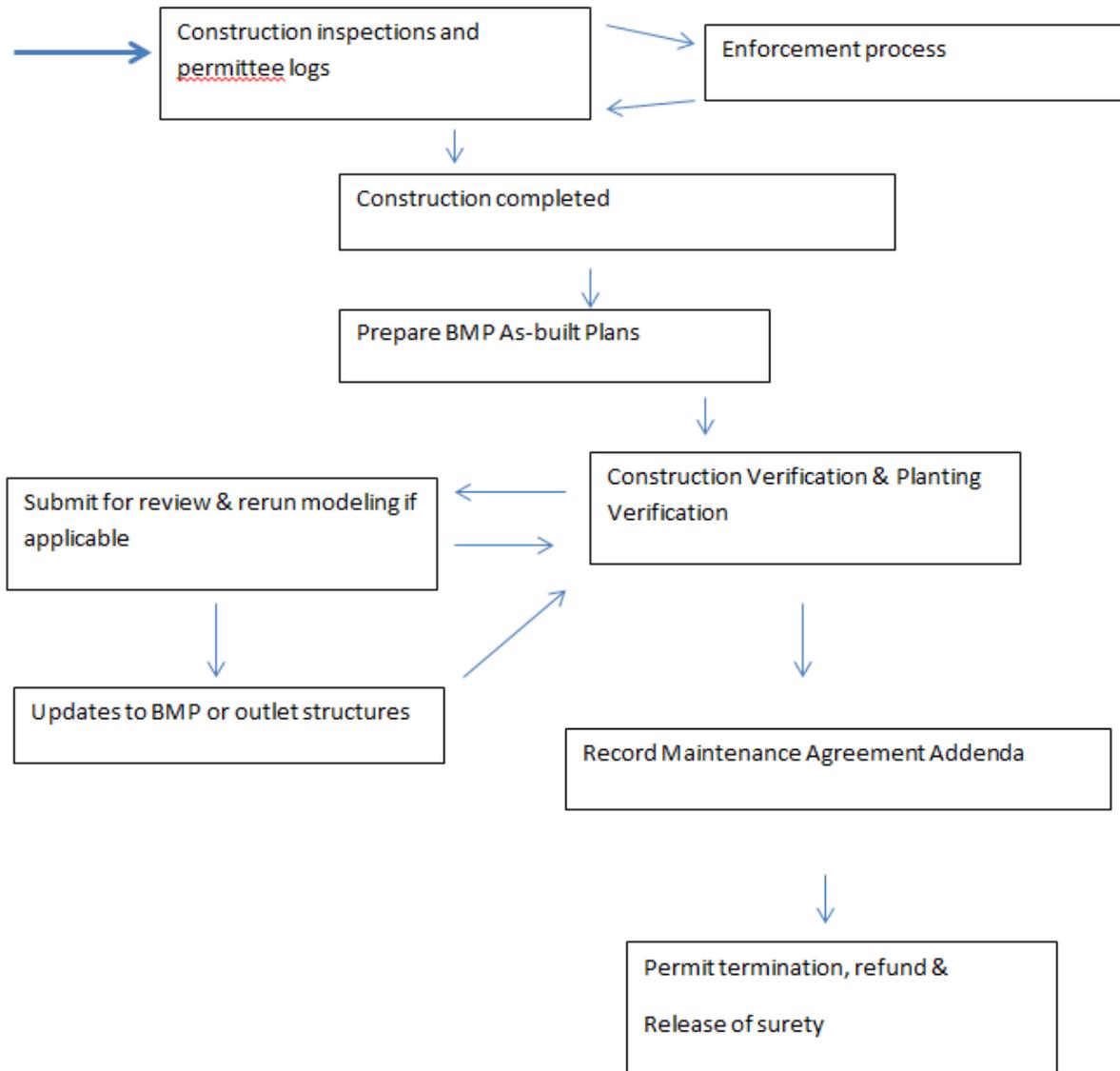


Preconstruction Meeting

- **SW Maintenance Agreement**
- **Other common issues**
 - Check weather forecast
 - Clay liner
 - Infiltration basin
 - Dewatering Plan
- **Enforcement procedure**



City of Waukesha Construction Process & Permit Termination



Construction Inspections

- **Required in SW Ord. & SW Permit**
- **Communicate to Developer**
 - Provide WI P.E. (during construction)
 - > Responsible for achieving compliance with approved Drawings
 - > Implement inspection plan
 - > Oversee & verify construction
 - Provide Qualified Professional Erosion Control Inspector



Permittee inspection logs

- **Agreed to in Storm water permit**
- **Permit holder shall provide:**
 - Qualified professional to conduct inspections
 - Maintain an inspection log at site OR Internet
 - Within 24 hours after each rain event of ½ inch or more or at least 1 time/week
- **Inspection Log:**
 - Name of Inspector
 - Date and time
 - Description of phase and Findings
 - Assessment of condition of measures and BMP's
 - Action needed
 - Record of BMP maintenance
- **Repair BMPs within 24 hours of inspection or upon Notification by Authority**



DNR Construction Site Inspection Form

State of Wisconsin
 Department of Natural Resources
 dnr.wi.gov

CONSTRUCTION SITE INSPECTION REPORT
 Form 3400-187 (rev. 9/04) Page 1 of 2

Notice: Use of this specific form is voluntary, but the information contained on this form must be collected and kept by the permittee under s. NR 216.48(4), Wis. Adm. Code, for a construction site covered under the General WPDES Construction Site Storm Water Discharge Permit, Permit No. WI-0067831-2. This form is provided for the convenience of the permittee to meet the requirements of s. NR 216.48(4), Wis. Adm. Code. Multiple copies of this form may be made to compile the Inspection report.

Inspections of implemented erosion and sediment control best management practices must be performed weekly and within 24 hours after a precipitation event 0.5 inches or greater which results in runoff.

Weekly written reports of all inspections conducted by or for the permittee must be maintained throughout the period of general permit coverage. The information maintained in accordance with s. NR 216.48 (4) must be submitted to the Department upon request.

Name of Permittee:				
Construction Site Name (Project):			Construction Site ID No.:	
Location:			County:	
Contractor:			Field Office Phone:	
Note: Weekly inspection reports, along with erosion control and stormwater management plans, are required to be maintained on site and made available upon request.				
Date of inspection (mm/dd/yy):		Type of inspection: <input type="checkbox"/> Weekly <input type="checkbox"/> Precipitation Event <input type="checkbox"/> Other (specify) _____		
Time of inspection: Start: _____ a.m./p.m.		Name(s) of individual(s) performing inspection:		
End: _____ a.m./p.m.				
Weather:				
Description of present phase of construction:				
Modifications Required	Yes	No	Not Applicable	Comments/Recommendations about the overall effectiveness of the erosion and sediment control measures. Note: For each item checked "Yes", complete the follow-up information on page 2.
Ditch Checks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Erosion Control Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Erosion Mat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Grading Practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Inlet Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mulch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Offsite Sediment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Permanent Seeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Schedule / Phasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silt Fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Silt Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Stabilized Outlet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temp. Diversion Channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temp. Settling Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temporary Seeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Tracking Pads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Turbidity Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Enforcement by City E.C. Inspector

- Building Inspection Dept.: 1 - 2 family
- Engineering Dept.: Commercial, Industrial, subdivisions
- **Attends pre-construction meeting**
 - Enforcement procedure
 - Logs
- **Maintains logs of sites**
- **Checks:**
 - EC in field matches Drawings
 - Construction sequence
 - Sites after complaints are received



Typical Enforcement Procedure

- **Notify Applicant by phone call**
- **Mails Notice of Violation letter**
 - To applicant/representative
 - Describe violation
 - Required remedial action
 - Schedule to be completed
- **Mails 2nd Notice of Violation letter**



Methods of Enforcement

- Citation method of enforcement SS 800.02(2)
- Forfeiture (\$100 to \$500 per day)
- Stop Work Order
- Permit Revocation (Costs from financial assurance)
- Injunction (temporary restraining order)
- Declared nuisances
- Emergency action (bill costs to permit holder)



Addendum 1 to Agreement

Addendum 1 (Sample) Storm Water Management Practice Maintenance Agreement

Document number

The purpose of this addendum is to record verified “as-built” construction details, supporting design data and permit termination documentation for the storm water management practice(s) located on Outlot 1 of the Highland Preserve Subdivision, described as being all that part of the Southwest Quarter (SW ¼) of Section 4, Township 8N, Range 19E (Town of Lisbon) Waukesha County, Wisconsin. This document shall serve as an addendum to document # _____, herein referred to as the “Maintenance Agreement”. This addendum includes all of the following exhibits:

- Exhibit D: Design Summary** – contains a summary of key engineering calculations and other data used to design the wet detention basin.
- Exhibit E: As-built Survey** – shows detailed “as-built” cross-section and plan view of the wet detention basin.
- Exhibit F: Engineering/Construction Verification** – provides verification from the project engineer that the design and construction of the wet detention basin complies with all applicable technical standards and Waukesha County ordinance requirements.
- Exhibit G: Storm Water Management & Erosion Control Permit Termination** – provides certification by the City of Waukesha that the Storm Water and Erosion Control Permit for the above noted site has been terminated.

Dated this _____ day of _____, 201_____.

Name and Return

Parcel Identification

- **Exhibit D-Design Summary**
- **Exhibit E-As-built Survey**
- **Exhibit F-Engineering & Construction Verification**
- **Exhibit G-Permit Termination**

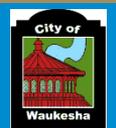


Exhibit D-Design Summaries

(Sample)
Exhibit D
 Design Summaries for Wet Detention Basin #1

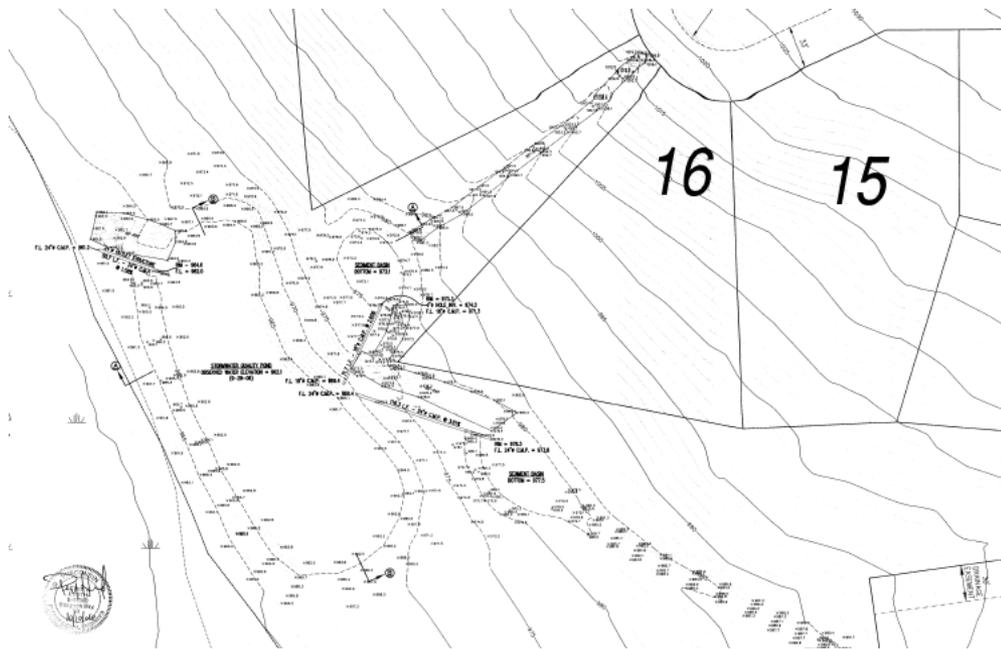
Project Identifier: Highland Preserve Subdivision Project Size: 40 Acres No. of Lots: 22
 Number of Runoff Discharge Points: 1 Watershed (ultimate discharge): Pewaukee Lake
 Watershed Area (including off-site runoff traveling through project area): .67 acres (26 acres off-site)

Watershed Data Summary. The following table summarizes the watershed data used to determine peak flows and runoff volumes required to design wet detention basin #1.

Summary Data Elements	Subwatershed A		Subwatershed B (off-site)	
	Pre-develop	Post-develop	Pre-develop	Post-develop
Watershed Areas (in acres) <i>(see attached map)</i>	41 acres	41 acres	26	26
Average Watershed Slopes (%)	2-8%	2-8%	3-6%	3-6%
Land Uses (% of each) <i>(see attached map)</i>	75 ac. cropland 15 ac. brush 10 ac. woodland	110 ac. ½ ac. lots 5ac. brush 5 ac. woodlands	50% cropland 50% 1 acre lots	50% cropland 50% 1 acre lots
Runoff Curve Numbers	48 x 75ac = 5100 30 x 25ac = 750 Net 3350 / 50 ac. RCN = 59	70 x 110 ac = 7700 10 x 10 ac = 100 Net 7800 / 20 ac. RCN = 65	RCN = 68 (state standard)	RCN = 70
Conveyance Systems Types	Grass waterway	50% grass swale 50% storm sewer	100% bare channel	100% grass swale
Summary of Average Conveyance System Data	8' bottom/4:1 to 2' depth/3% grade	2' depth swale/3% 30" r/c sewer/2% (see calcs.)	15" (w) top 1' (d) parabolic 2% grade	2' deep standard road ditch 2% grade
Time of Concentration (T _c) <i>(see attached map & worksheets)</i>	1.1 hrs.	.97 hrs.	.74 hrs.	.65 hrs.
25% of 2-yr 24-hr post-dev runoff volume	N/A	2.29 ac. ft.	N/A	.19 ac. ft.
1-year/24 hour Runoff Volume	N/A	(.27 x 60 ac.) 1.0 ac. ft.	N/A	(.34" x 10 ac.) .28 ac. ft.
2-yr./24 hour Peak Flow <i>(see attached hydrographs)</i>	11.2 cfs	14.3 cfs	5.1 cfs	3.2 cfs
10-yr./24 hour Peak Flow	21 cfs	32 cfs	18.4 cfs	11.3 cfs
100-yr./24 hour Peak Flow	78 cfs	91 cfs	53 cfs	21 cfs

- Watershed data
- Peak flows
- Runoff volumes
- Site assessment data
- Soil investigation data
- Basin Inflow, outflow & storage data
- Plans can be lost over time

Exhibit E-BMP As-built Survey



- X-sections of BMP
- Ensures Construction matches Drawings
- Identify installation mistakes;
(Adjustments made if needed)
- Certified by Wis. R.L.S. or P.E.
- Survey Shot locations
- Attach to City GIS

Exhibit F-Construction and Planting Verification

Exhibit "F" Engineering/Construction Verification

DATE: _____

TO: City of Waukesha

FROM: _____ [Project Engineer's Name/Company]

RE: Engineering/Construction Verification for the following project:
 Project Name: _____
 Section _____, Town of _____
 Storm Water Management & Erosion Control Permit # _____
 Storm Water Management Practices: _____

For the above-referenced project and storm water management practices, this correspondence shall serve as verification that: 1) all site inspections outlined in approved inspection plans have been successfully completed; and 2) the storm water management practice design data presented in Exhibit D, and the "as-built" construction documentation presented in Exhibit E comply with all applicable state and local technical standards, in accordance with the City of Waukesha Storm Water Management and Erosion Control Ordinance.

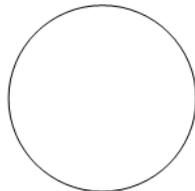
[Must include one of the following two statements:]

1. Any variations from the originally approved construction plans are noted in Exhibit E. These variations are considered to be within the tolerances of standard construction techniques and do not affect the original design as presented in Exhibit D in any way.
 [Note: The County may request additional documentation to support this statement depending on the extent of deviations from the approved plans.]

Or

2. Any design or construction changes from the originally approved construction plans are documented in Exhibits D and E and have been approved by the City of Waukesha.

[Note: If warm season and wetland planting verification is required, it may be included in this exhibit.]



(Signed P.E. stamp must be included)

- Wis PE
- Compliance with approved drawings
- Successfully completed inspections
- BMP's comply with Drawings and Technical Standards
- Notes variations

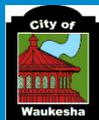


Exhibit G-Permit termination

(Sample)
Exhibit G
Storm Water Management and Erosion Control Permit Termination

Project Identifier: Highland Preserve Subdivision
 Location: All that part of the Southwest Quarter (SW ¼) of Section 4, Township 5N, Range 19E (Town of Lisbon)
 Storm Water Management and Erosion Control Permit Holder's Name:

 Storm Water Management & Erosion Control Permit #: _____

Chapter 32 – City of Waukesha Storm Water Management and Erosion Control requires that all newly constructed storm water management practices be maintained by the Storm Water and Erosion Control Permit Holder until permit termination, after which maintenance responsibilities shall be transferred to the responsible party identified on the subdivision plat [or CSM] and referenced in this Maintenance Agreement.

Upon execution below, this exhibit shall serve to certify that the Storm Water Permit Holder has satisfied all requirements of the Storm Water Management and Erosion Control Ordinance and that the City of Waukesha has terminated the Storm Water Management and Erosion Control Permit for the property covered by this Maintenance Agreement.

Dated this ____ day of _____, 201__.
 City of Waukesha representative:

 (Signature)

 (Typed Name and Title)

Acknowledgements

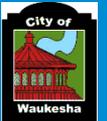
State of Wisconsin
 County of Waukesha

Personally came before me this ____ day of _____, 201__, the above named [Owners name] to me known to be the person who executed the foregoing instrument and acknowledged the same.

 [Name]

- **Release Permit when**
 - As-built accepted
 - Construction verified
 - Final inspection
 - Receive recorded maintenance agrmt.

- **Transfers BMP maint.**



Final Inspection



- After construction, City conducts final inspection
- Determine compliance with approved Drawings
- Site stabilized
- If not acceptable, will notify changes and time frame.
- Provide notification of non-compliance in written form.

Final Inspection Checklist

Final Inspection Checklist



Inspection Date: _____
Inspected By: _____
Owner: _____
Project Phase _____

Project Name:
Project Location:

*Checked items indicate that the item has been inspected and is in compliance.

- Silt Fence Removed
- Ditch Checks Removed
- Inlet Protection Removed
- Temporary Sediment Basins Removed
- Ditches Stable (min 70% vegetative cover)
- Site Stable (min 70% vegetative cover)
- Basins Stable (min 70% vegetative cover)
- No Trees Planted On Basin Berms
- Emergency Spillway Properly Installed
- Temporary Risers Removed
- Rip Rap At Outlet Properly Installed (with filter fabric)
- BMPs Functioning Properly (water levels, infiltration, etc.)
- Maintenance Access To BMPs
- Safety Shelf – Topsoil / Planted (wet basin)
- Liner Installed (wet basin)
- Native Planting / Certification
- No sign of excess sedimentation (forebays, BMPs, etc.)
- No sign of excess settling (berm, pipes, etc.)



Exhibit G-Refund / release of surety

▪ Release of Bonds and Permits

- Partial releases
- Amounts withheld
- As-Built Bond
- Site Landscaping Bond
- Storm Water Permit



Overview of City of Waukesha Construction Process & Permit Termination

