

# **BMP DOCUMENTATION**

Alan Barrows  
Waukesha County Dept. of Parks and Land Use

3/9/2010

# What is BMP Documentation?

## **Current County Procedures (since 2006)**

To start building an enforceable maintenance agreement for a project, the following information is required at the time of permit application:

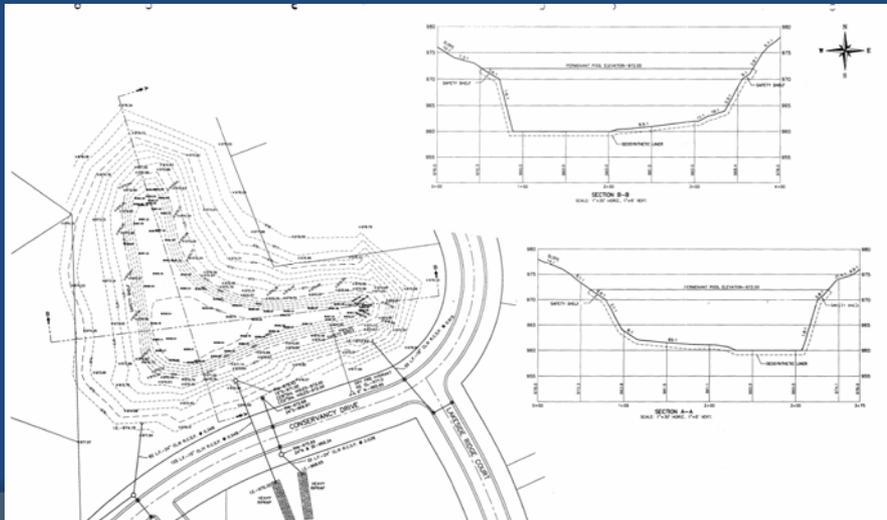
- BMP design summary tables
- Watershed summary table
- Post-developed watershed map
- Maintenance agreement
- Construction inspection schedule
- Land division (if any) with applicable language:
  - Identification of “responsible party” (permit holder & owner)
  - Reference to separate recorded maintenance agreement
  - Easement and setback definitions

# What is BMP Documentation?

## Current County Procedures (since 2006)

After construction is completed and the land division and maintenance agreement have been recorded with the Register of Deeds:

- An as-built survey is submitted for review and acceptance
- A construction verification letter is submitted for review and acceptance
- A planting verification is submitted for review and acceptance
- The permit termination letter is issued by County



**Exhibit "E"**  
**Engineering/Construction Verification**

DATE: \_\_\_\_\_  
TO: Land Resources Division  
Waukesha County Department of Parks and Land Use  
FROM: \_\_\_\_\_ [Project Engineer's Name/Company]  
RE: Engineering/Construction Verification for the following project:  
Project Name: \_\_\_\_\_  
Section \_\_\_\_\_, Town of \_\_\_\_\_  
Stream Water Permit # \_\_\_\_\_  
Stream Water Management Practices: \_\_\_\_\_

For the above referenced project and stream water management practices, this correspondence shall serve as verification that: 1) all site inspections outlined in approved inspection plan have been successfully completed, and 2) the stream 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 Waukesha County 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 require 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 Waukesha County.

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

○

(Signed P.E. stamp must be included)

11-06 sample

# What is BMP Documentation?

## Current County Procedures (since 2006)

An addendum to the maintenance agreement containing the summary tables, post-developed watershed map, as-built survey, construction verification letter and permit termination letter is recorded with the Register of Deeds.

Recording the addendum transfers the responsibility of maintenance from permit holder to titleholder.

Example Data Summary Sheet for Infiltration Basin Design

Design Element	Design Data
<b>Site assessment data (see attached map)</b>	
Contributing drainage area to basin (subwatershed A)	130 acres
Distance to nearest private well (including off-site wells)	> 100 feet
Distance to municipal well (including off-site wells)	> 1500 feet
Wildlife protection area involved?	No
General slope of site of proposed basin	average 1%
Any natural or overhead utilities in the area?	No
Proposed rainfall conveyance system discharge (w/ distance)	33 ft. to CRU "A" Road ditch 1000 ft. to wetland
Any downstream roads or other structures? (describe)	Yes - 30' long road culvert
Floodplains, threatened or wetlands?	No
<b>Soil investigation data (see attached map &amp; soil logs)</b>	
Number of soil investigations completed	3 (on basin area)
Do structures of test holes extend 4 ft. below proposed bottom?	Yes (see map)
Average soil moisture at pond bottom elevations (CMO%)	Grade down
Infiltration rate at basin bottom and method of analysis	2 in/hr, double-ring infiltration
Distance from pond bottom to bedrock	> 5 feet
Distance from pond bottom to seasonal water table	Pond bottom 2' below existing 1/4" water observed in test holes
<b>General basin design data (see attached detailed drawing)</b>	
Basin bottom area	1.5 acres
Effective infiltration area	1.0 acres
% of development area (120 acres)	1.2 acres
Basin bottom elevation	ave: 900.0
Top of basin elevation (after settling and width)	ave: 904.0 / 10 feet wide
Basin storage below outlet	3.1 ac-ft
2% of 2-yr 24-hr post-development runoff volume	3.0 ac-ft
Time to infiltrate 2% of 24-hr post-development runoff volume	60 hrs
Settlement (shrink) loss @ depth	35 inches (1.7% void ratio) 2' feet
Additional design features	1' x 1' x 10' rock mesh

Design Basin Inflow, Outflow & Storage Data

Inflow Peak Volume	Minimum Outflow Rate	Max. Water Elevation	Storage Volume at Max. Elev.	Outlet Control Structure*
34.3 cfs (Post 2-yr 24-hr peak)	11 cfs	001.0 ft.	3.1 acre feet	#1 and #3
72 cfs (Post 10-yr 24-hr peak)	35 cfs	002.0 ft.	6.3 acre feet	#1, 2, and 3
171 cfs (Post 100-yr 24-hr peak)	143 cfs	003.0 ft.	6.0 acre feet	#1, 2, 3 and 4

\* The controlling elements are summarized below (See attached detail drawing of outlet structure):  
 #1 = 1 inch vertical or outlet (over flow line elev. @ 900.0 (1.0 ft. max. head))  
 #2 = 12 in wide 2 foot high outlet (over flow line elev. @ 901.3 (1.0 ft. max. head))  
 #3 = 12 inch diameter smooth wall pipe pipe - flow line elev. @ 900.0 (1.0 ft. max. head)  
 #4 = 10 foot wide earth/grass emergency spillway - flow line elev. @ 902.0 (1.0 ft. max. depth)

Example Data Summary Sheet for Stormwater Management Plan

Project Name: Rolling Acres Project Size: 110 Acres Project type: Residential Subdivision No. of Lots: 180  
 Number of Runoff Discharge Points: 3 Watershed (ultimate discharge): Pewaukee Lake (via unnamed tributary)  
 Watershed Area (including off-site runoff traveling through project area): 142 acres (30 acres off-site)  
 Public Land Survey Location: SE1/4, Section 32, T8N R19E (Pewaukee Township)

Summary Data Elements	Subwatershed A		Subwatershed B		Subwatershed C	
	Pre-develop	Post-develop	Pre-develop	Post-develop	Pre-develop	Post-develop
Watershed Area (in acres) (see attached map)	100 acres	120 acres	20	10	20	10
Average Watershed Slope (%)	2-8%	2-8%	3-6%	3-6%	6-8%	6-8%
Land Uses (% of each) (see attached map)	75 ac. cropland 15 ac. brush	110 ac. 1/2 ac. bats 5 ac. brush 10 ac. woodlands	100% cropland	100% 1/2 ac. bats	100% Woodland	100% 1/2 acre bats
Runoff Curve Numbers	66 (Type = 100) 30 x 22 ac = 220 40 x 100 ac = 400 RCN = 59	76 (Type = 70) 10 x 12 ac = 100 50 x 100 ac = 500 RCN = 65	RCN = 68 (rain standard)	RCN = 70	RCN = 30	RCN = 70
Conveyance System Types	Grass waterway	50% grass swale 50% storm sewer	100% bare channel	100% grass swale	100% natural channel	100% storm sewer
Summary of Average Conveyance System Data	8' bottom/4:1 ss 2' depth/3% grade	2' depth swale/3% 30" rc sewer/1% (see calcs.)	15' (w) top 1' (d) parabolic 2% grade	2' deep standard road ditch 2% grade	15' top (w) 1' (d) parabolic 4% grade	2' deep standard road ditch 4% grade
Time of Concentration (Tc) (see attached map & worksheets)	1.1 hrs.	.97 hrs.	.74 hrs.	.65 hrs.	.45 hrs.	.35 hrs.
25% of 2-yr 24-hr post-dev runoff volume	N/A	2.29 ac. ft.	N/A	.19 ac. ft.	N/A	.19 ac. ft.
1-year/24 hour Runoff Volume	N/A	(2" = 120 ac.) 2.0 ac. ft.	N/A	(34" = 10 ac.) .28 ac. ft.	N/A	(34" = 10 ac.) .28 ac. ft.
2-yr/24 hour Peak Flow (see attached hydrographs)	18.2 cfs	24.3 cfs	5.1 cfs	3.2 cfs	2.7 cfs	6.3 cfs
10-yr/24 hour Peak Flow	41 cfs	72 cfs	18.4 cfs	11.3 cfs	12.6 cfs	13.2 cfs
100-yr/24 hour Peak Flow	118 cfs	171 cfs	53 cfs	21 cfs	22 cfs	24 cfs

# What is BMP Documentation?

## Current County Procedures (since 2006)

A refundable financial assurance is collected from the permit applicant prior to issuance of the permit.

The financial assurance is refunded when copies of all necessary recorded documents are provided and the site passes a final inspection by County staff.



# What is BMP Documentation?

## **County Procedures (2005 - 2006)**

Commonly owned outlots were required (ordinance re-write)

The maintenance agreement containing design data was recorded immediately following the land division

The County imaged the as-built survey, construction verif. letter, design summaries and drainage maps and linked it to a storm water database

## **County Procedures (2002 - 2005)**

Commonly owned outlots were strongly encouraged

A maintenance agreement was prepared but sometimes not recorded until after lots were sold (requiring additional signatures)

The County kept paper copies of design summaries and as-built plans

# What is BMP Documentation?

## **County Procedures (1998 - 2002)**

Storm water management plans were required, but not in a standardized summary format

Land divisions contained language that referenced a maintenance plan on file with the County, however maintenance plans were rarely provided to the County, if ever.

Land divisions contained language that referenced a approved plan set dated \_\_\_\_\_ on file with the County. If the plans were not approved by the time the plat was ready, the date was left blank.

# What is BMP Documentation?

## Photos



# What is BMP Documentation?

## Previous inspection reports

**Black Oak Ridge Report**  
7/3/08  
Jay Sotcarstar  
Agrecol Corporation

To:  
Alan A. Barrows  
Sr. Conservation Specialist  
Waukesha County Land Resources Division  
Phone: 262-896-8307  
abarrows@waukesha-county.gov

**Review of Vegetated Stormwater Basins at Black Oak Ridge:**

Assessment of the native vegetation planting at Black Oak Ridge took place on Friday June, 27<sup>th</sup> 2008.

Upon review of the designated planting area, the following notable items were viewed:

- Overall the native vegetation looked very good with many species coming into bloom and beginning to establish strong root systems. It appears that all wet species have held up well during prolonged wet periods created by extreme rainfall over the last months.
- One area of concern is located at the N.E. corner of the center pond where there is a definite void in native vegetation. This void will be planted with 32 native plants of similar species to those originally specified for the project. This planting will be provided and installed by Agrecol Corporation or one of its representatives at no charge to the County. The planting will include an initial watering to aid in establishment. Waukesha County will be notified of the completion of this planting so additional watering can be accomplished should there be a prolonged dry period following installation.
- There are a few invasive and noxious weed species beginning to enter the native planting area. It is highly recommended that a simple spot spraying be completed by mid September. This spot spraying must be accomplished by a qualified applicator. This applicator must be able to distinguish the difference between native species and invasive / noxious species.
- The existing silt fence must be removed.
- The surrounding out lot areas must be mowed at least twice each year during the growing season. Recommended dates would be mid to late June and late August. The

000680 MAY 19 08  
Maintenance Inspection Form  
Storm Water Management Systems  
Detention/Retention Ponds  
Town of Waukesha

Inspection Date: \_\_\_\_\_  
Inspector Name: \_\_\_\_\_ Subdivision: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Company Address: \_\_\_\_\_  
Company Phone Number: \_\_\_\_\_  
Company Fax Number: \_\_\_\_\_

Storm Water:  
Retention Pond   
Detention Pond   
Creeks/Streams

Items Inspected	Checked		Maintenance Needed		Remarks
	Yes	No	Yes	No	
<b>I. Pond components</b>					
<b>A. Embankment and Emergency Spillway</b>					
1. Vegetation and ground cover adequate					
2. Embankment erosion					
3. Animal burrows					
4. Unauthorized plantings					
5. Cracking, bulging, or sliding of berm					
a. Upstream face					
b. Downstream face					
c. At or beyond toe					
* Upstream					
* Downstream					
d. Emergency spillway					
6. Pond, toe & chimney drain clear and functioning					
7. Slopewalls on downstream face					

# Potential Obstacles to BMP Inspection & Maintenance

BMPs constructed on private lots with no reference to who is responsible for inspection or maintenance

BMPs without sufficient access

BMPs identifying someone other than the owner as the responsible party

Deed restrictions that hold a single owner responsible for maintaining a BMP that serves an entire development



# Potential Obstacles to BMP Inspection & Maintenance

BMPs with no maintenance agreement or maintenance plan

Maintenance plans/agreements that don't match the BMP design

Conflicting deed restrictions with regard to responsibility for inspection and maintenance

Outlots containing BMPs that have been quit claimed/sold



# Strategies for obtaining storm water documentation

Contact the local municipality (clerk or engineer);

Contact the County (LCD or Zoning);

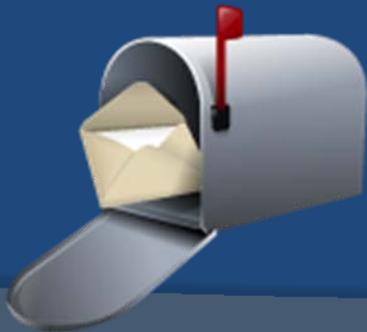
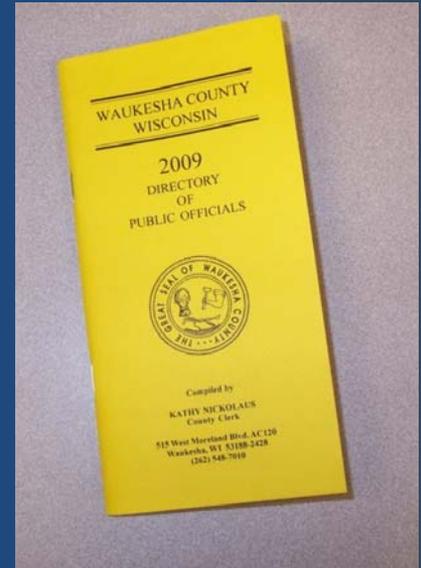
Contact the State of WI (DNR or DCOMM);

Obtain a copy of the land division and subsequent additions;

Subdivision Plat

Certified Survey Map

Condominium Plat



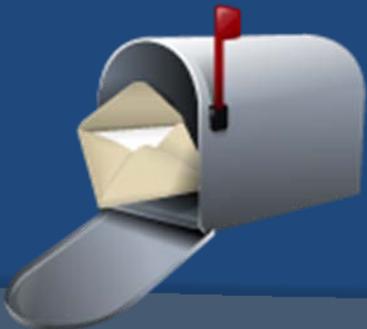
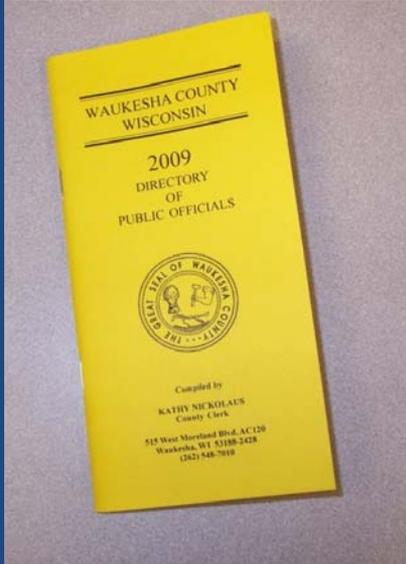
# Strategies for obtaining storm water documentation - continued

Search the legal description of the basin and the affected lots for deed restrictions;  
Storm water management practice maintenance agreement;  
Declaration of Restrictions (not reviewed by County)  
Developers Agreement  
Non-Recorded Documents

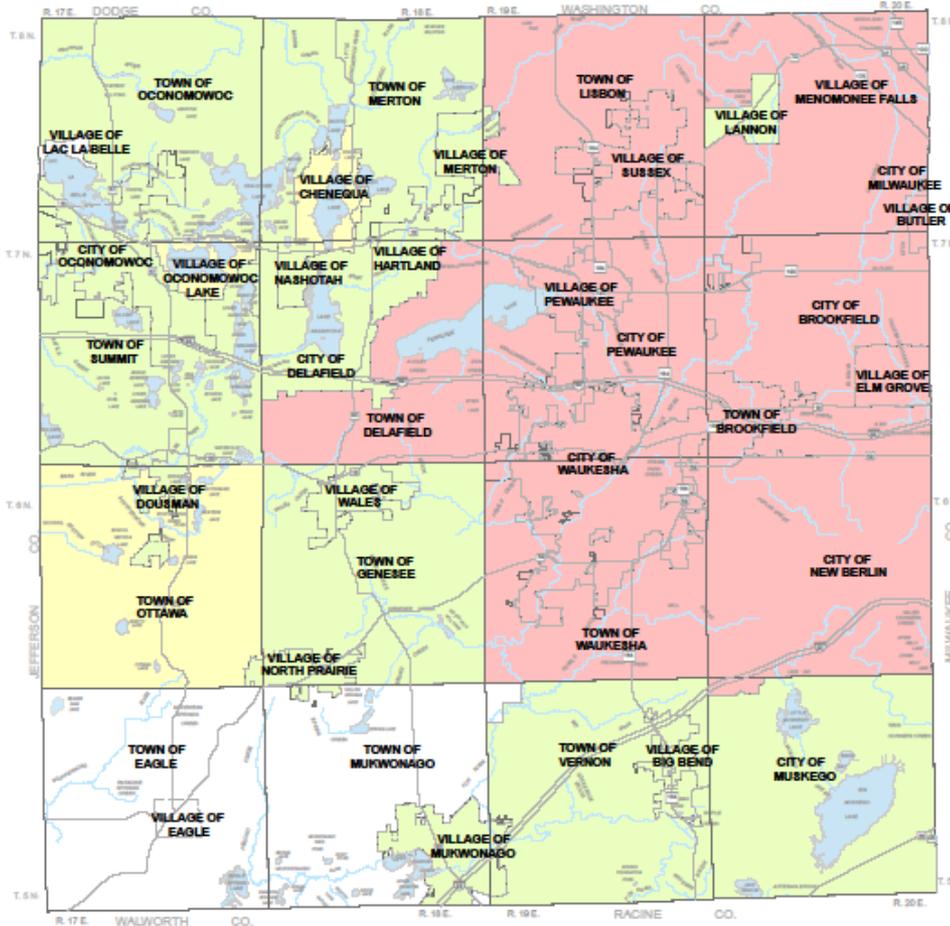
Obtain a copy of the approved plan set from the permitting agency;

Contact the plan's designer;

Contact the developer;



**Municipal Separate Storm Sewer System (MS4) Discharge Permits Under NR 216  
Waukesha County: October 2007**



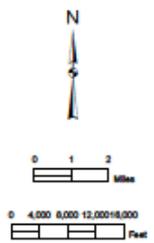
In the MS4 areas, a maintenance agreement or equivalent enforceable mechanism must be established for privately owned BMPs to ensure routine inspection and maintenance

**Legend**

- Phase I Community (13)
- Phase II Community (18 - including Waukesha County)
- Exempted Communities (3)
- MS4 Permit Not Required (4)

\*Townships - Only portions meeting the Urbanized Area designation by the EPA

Source: WDNR & Waukesha County



# 11 Intergovernmental Agreements

**The municipality and the County to agree jointly coordinate ordinance enforcement activities to satisfy the MS4 permit requirements;**

**The municipality and the County agree to cooperate on the implementation of the County Ordinance;**

**The County will conduct periodic on-site inspections of storm water management facilities and produce a written report concerning the current condition of each facility inspected;**

**The County may complete simple maintenance measures such as clearing debris from outlets or removal of trash or woody vegetation;**

**If the County recommends additional inspection or maintenance action, the County will provide recommendations in a written inspection report.;**

**The municipality will be responsible for notifying the owner(s) of the storm water facility and enforcing any inspection and maintenance requirements;**

# Waukesha County Storm Water Database

Web based, Microsoft SQL Server, .NET

**PERMITS**  
(projects)

**BMP TRACKING**  
(projects)

Client  
Database  
(MS Access)

GIS  
(ESRI)

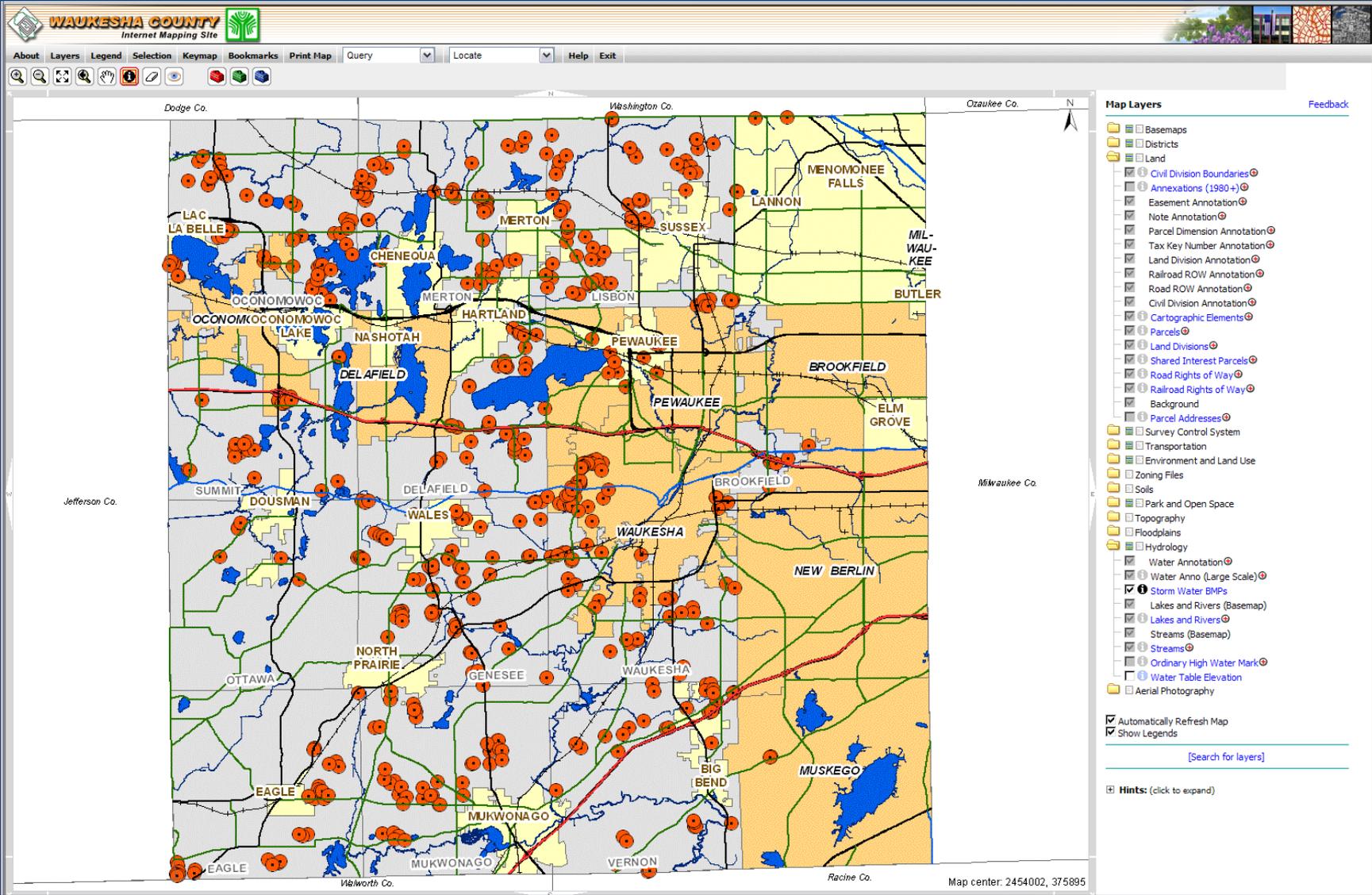
Images  
(Stellent)

BMPs

Project  
Images  
(Stellent)

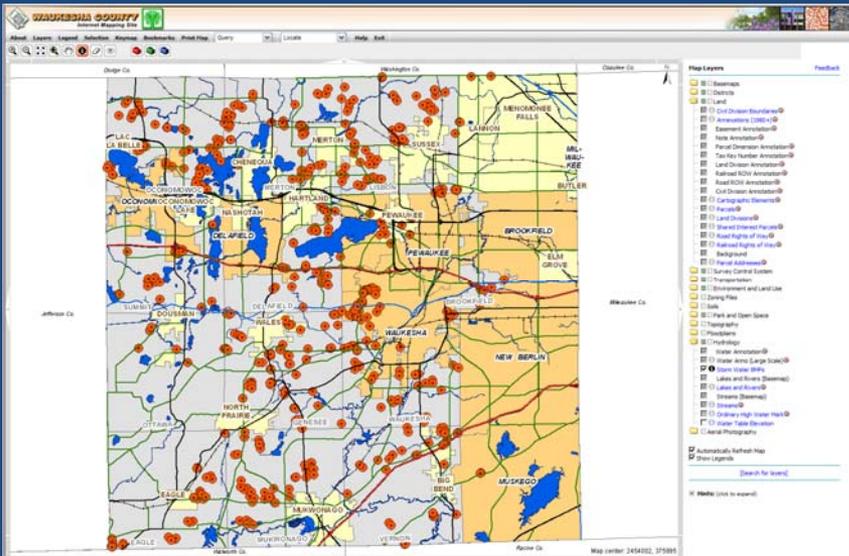
BMP  
Images  
(Stellent)

GIS  
(IMS)



Approximately 550 Storm Water BMPs Inventoried by Waukesha County so far

# Storm Water BMP Information



**Waukesha County Storm Water (BMP) Tracking System**

**BMP List**

- All Storm Water BMP's need to be associated with a Project.
- Each Project may have multiple BMP's associated with it.
- Listed below are all Projects currently entered for the community below.

Municipality	Township	Project Identifier	BMP Description	BMP Type	Status	AS-Built Date	Date of Last Inspection	Date of Next Inspection
Town of Summit	Summit	35	Abundant Life Church Building Expansion	W/ Infiltration Basin	In Service	1/30/2006		8/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (New Crosspoint Community) Church	W/ Detention Basin	Under Construction	6/15/2007		9/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (New Crosspoint Community) Church	Basin 2	W/ Detention Basin	Under Construction	6/15/2007	9/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (New Crosspoint Community) Church	Basin 3	In-ground Water Quality Device	Under Construction	6/15/2007	9/15/2009
Town of Eagle	Eagle	23	Amber Fields	Vortexa Model 5000	Under Construction			7/2/2008
Town of Eagle	Eagle	23	Anaethun Field	Infiltration Basin In Outlet 2	In Service			8/15/2009
Town of Eagle	Eagle	23	Anaethun Field	Infiltration Basin In Outlet 1	In Service			8/15/2009
Town of Eagle	Eagle	23	Anaethun Field	Pond 1	Dry Detention Basin	In Service		8/15/2009
Town of Eagle	Eagle	23	Anaethun Field	Pond 2	Dry Detention Basin	In Service		8/15/2009
Town of Eagle	Eagle	23	Anaethun Field	Pond 3	Dry Detention Basin	In Service		8/15/2009
Town of Eagle	Eagle	23	Anaethun Field	Pond 4	Dry Detention Basin	In Service		8/15/2009
Town of Eagle	Eagle	23	Anaethun Field	Pond 5	Dry Detention Basin	In Service		8/15/2009
Town of Oconomowoc	Oconomowoc	14	Angela Grace / FromHealthCare Hospice	Infiltration basin with wet forebay	In Service	11/11/2004		8/15/2009
Town of Herton	Herton	34	Arnoldhead High School Infiltration Basin	Arnoldhead High School Infiltration Basin	In Service			8/15/2009
Town of Libon	Libon	32	Arnoldhead Highlands Addition #1	South Basin	W/ Detention Basin	In Service		8/15/2009
Town of Libon	Libon	32	Arnoldhead Highlands Addition #2	W/ Detention Basin in OL #4 SE of Subdivision	W/ Detention Basin	Planned		8/15/2009
Town of Libon	Libon	32	Arnoldhead Highlands Addition #2	Grassed Swale North of Wet Detention Basin	Grassed Swale	Planned		8/15/2009
Town of Libon	Libon	32	Arnoldhead Highlands Addition #2	W/ Detention Basin Between Lots 7&8	W/ Detention Basin	In Service	6/16/2008	8/15/2009
Town of Libon	Libon	32	Arnoldhead Highlands Addition #2	Grassed Swale West Side of Carline Dr	Grassed Swale	In Service		8/15/2009
Town of Libon	Libon	32	Arnoldhead Highlands Addition #2	Grassed Swale East Side of Carline Dr	Grassed Swale	In Service		8/15/2009
Town of Oconomowoc	Oconomowoc	15	Ashgoun Lake Boat Launch Renovation	Rain Garden 1	Under Construction			8/15/2009
Town of Oconomowoc	Oconomowoc	15	Ashgoun Lake Boat Launch Renovation	Rain Garden 2	Under Construction			8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 10	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 20	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 30	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 40	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 50	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 60	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 70	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 80	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 90	W/ Detention Basin	Under Construction		8/15/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 100	W/ Detention Basin	Under Construction		8/15/2009
Town of Waukesha	Waukesha	1	Auto Park 'n Supply	Pond 1	Infiltration Basin	In Service	10/23/2008	8/15/2010
Town of Mukwonago	Mukwonago	7	Autumn Hills South	West Basin	Infiltration Basin	In Service		8/15/2009
Town of Mukwonago	Mukwonago	7	Autumn Hills South	East Basin	Infiltration Basin	In Service		8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond A	W/ Detention Basin	In Service	12/30/2004	8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond B	Constructed Wetland	In Service	12/30/2004	8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond C	Dry Detention Basin	In Service	12/30/2004	8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond D	Dry Detention Basin	In Service	12/30/2004	8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	North Infiltration Island	Infiltration Basin	Under Construction		8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	South Infiltration Island	Infiltration Basin	Under Construction		8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	North Field Drain	Retention Area	Under Construction		8/15/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	South Field Drain	Retention Area	Under Construction		8/15/2009
Town of Oconomowoc	Oconomowoc	24	Bayview Estates	Northwest Infiltration Basin	Infiltration Basin	In Service	6/28/2005	8/15/2009
Town of Oconomowoc	Oconomowoc	24	Bayview Estates	Southwest Infiltration Basin	Infiltration Basin	In Service	6/28/2005	8/15/2009
Town of Libon	Libon	20	Beacon Hills	Pond 1	W/ Detention Basin	In Service		8/15/2009

Internet Mapping System (IMS)

Storm Water Database

# Project List



## BMP Tracking Project List

- All Storm Water BMP's need to be associated with a **Project**.
- Each **Project** may have multiple BMP's associated with it.
- Listed below are all **Projects** currently entered for the community below.

Filter List

Remove Filter

Add New Project

Project Identifier	Municipality	Number Of BMPs	Permit Tracking
CTH Y Wet Detention Basin	City of Brookfield	1	
Muskego Park Maintenance Bldg and Parking	City of Muskego	2	Permit Tracking
CTH Y and ES reconstruction	City of New Berlin		Permit Tracking
Arrowood Subdivision	City of Oconomowoc		Permit Tracking
Pabst Farms Rezone - Fire Station	City of Oconomowoc		Permit Tracking
Wood Creek Phase IV	City of Oconomowoc	1	
Wood Creek Phase V	City of Oconomowoc	2	
Airport Runway Extensions	City of Waukesha		Permit Tracking
Airport Runway Reconstruction / Hangar development	City of Waukesha		Permit Tracking
Berkshire - Shops on Sunset	City of Waukesha	1	
Brighton Crest	City of Waukesha	1	
City of Waukesha	City of Waukesha	2	
Cooper Industries	City of Waukesha	1	
DMV Basin	City of Waukesha		Permit Tracking
Fiddlers Creek Condos	City of Waukesha	6	
Flight for Life Access Lane	City of Waukesha		Permit Tracking
Flight for Life Hangar	City of Waukesha		Permit Tracking
Foxridge West	City of Waukesha	2	
Heritage Hills	City of Waukesha	4	
Jewel Osco	City of Waukesha	2	Permit Tracking
Main Highway Shop Salt Storage	City of Waukesha		Permit Tracking
Mc Mahon Convenience	City of Waukesha	2	
Meadowbrook Shopping Center	City of Waukesha	7	
Moor Downs Pond Dredging	City of Waukesha		Permit Tracking
New Hangar	City of Waukesha		Permit Tracking
New HHS Building	City of Waukesha		Permit Tracking
Northview Bend Condos	City of Waukesha	1	
Oakmont Subdivision	City of Waukesha	1	
River Hills Estates	City of Waukesha	2	Permit Tracking
Rolling Ridge	City of Waukesha	10	
Summit Woods	City of Waukesha	1	
Tallgrass	City of Waukesha	1	
Tara Hill Condominiums	City of Waukesha	2	Permit Tracking
UW Waukesha	City of Waukesha	1	
UW Waukesha Soccer Fields	City of Waukesha		Permit Tracking
Villages of Brookshire	City of Waukesha	2	
Welsh Oaks	City of Waukesha	2	Permit Tracking
Crossroads Corporate Center XIV	Town of Brookfield	1	
Forest Walk Condominiums	Town of Brookfield	1	
Homestead Village Hotel	Town of Brookfield	1	
Triad Headquarters Addition	Town of Brookfield	1	
Water Tower Place	Town of Brookfield	1	
Brandybrook Senior Center Parking Lot Extension	Town of Delafield	1	
Churchside	Town of Delafield	1	
Creekside Meadows Condos Phase I	Town of Delafield	1	Permit Tracking

- Project name
- Municipality
- Link to permit data

# Specific BMP Information



## BMP List

- All Storm Water BMP's need to be associated with a **Project**.
- Each **Project** may have multiple BMP's associated with it.
- Listed below are all **Projects** currently entered for the community below.

Filter List Remove Filter

Municipality	Township	Project Sec.	Project Identifier	BMP Description	BMP Type	Status	AS-Built Date	Date Of Last Inspection	Date Of Next Inspection
Town of Summit	Summit	35	Abundant Life Church Building Expansion	NW Infiltration Basin	Infiltration Basin	In Service	1/30/2006		8/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (now Crosspoint Community) Church	Basin 1	Wet Detention Basin	Under Construction	6/15/2007		9/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (now Crosspoint Community) Church	Basin 2	Wet Detention Basin	Under Construction	6/15/2007		9/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (now Crosspoint Community) Church	Basin 3	Infiltration Basin	Under Construction	6/15/2007		9/15/2009
Town of Oconomowoc	Oconomowoc	20	Alliance Bible (now Crosspoint Community) Church	Vortechs Model 5000	In-ground Water Quality Device	Under Construction	6/15/2007		9/15/2009
Town of Eagle	Eagle	23	Amber Fields	Infiltration Basin In Outlot 2	Infiltration Basin	In Service			7/1/2009
Town of Eagle	Eagle	23	Amber Fields	Infiltration Basin In Outlot 1	Infiltration Basin	Under Construction			7/1/2008
Town of Eagle	Eagle	23	Anathoth Field	Pond 1	Dry Detention Basin	In Service			9/15/2009
Town of Eagle	Eagle	23	Anathoth Field	Pond 2	Dry Detention Basin	In Service			9/15/2009
Town of Eagle	Eagle	23	Anathoth Field	Pond 3	Dry Detention Basin	In Service			9/15/2009
Town of Eagle	Eagle	23	Anathoth Field	Pond 4	Dry Detention Basin	In Service			9/15/2009
Town of Eagle	Eagle	23	Anathoth Field	Pond 5	Dry Detention Basin	In Service			9/15/2009
Town of Oconomowoc	Oconomowoc	14	Angels Grace / ProHealthCare Hospice	Infiltration basin with wet forebay	Infiltration Basin	In Service	11/11/2004		9/1/2009
Town of Merton	Merton	34	Arrowhead High School Infiltration Basin	Arrowhead High School Infiltration Basin	Infiltration Basin	In Service			
Town of Lisbon	Lisbon	31	Arrowhead Highlands Addition #2	South Basin	Wet Detention Basin	In Service			
Town of Lisbon	Lisbon	32	Arrowhead Highlands Addition #3	Wet Detention Basin in OL #4 SE of Subdivision	Wet Detention Basin	Planned			
Town of Lisbon	Lisbon	32	Arrowhead Highlands Addition #3	Grassed Swale North of Wet Detention Basin	Grassed Swale	Planned			
Town of Lisbon	Lisbon	32	Arrowhead Meadows	Wet Detention Basin Between Lots 7&8	Wet Detention Basin	In Service	6/16/2008		9/15/2009
Town of Lisbon	Lisbon	32	Arrowhead Meadows	Grassed Swale West Side of Carlene Dr	Grassed Swale	In Service			
Town of Lisbon	Lisbon	32	Arrowhead Meadows	Grassed Swale East Side of Carlene Dr	Grassed Swale	In Service			
Town of Oconomowoc	Oconomowoc	15	Ashippun Lake Boat Launch Renovation	Rain Garden 1	Rain Garden	Under Construction			9/1/2009
Town of Oconomowoc	Oconomowoc	15	Ashippun Lake Boat Launch Renovation	Rain Garden 2	Rain Garden	Under Construction			9/1/2009
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 10	Wet Detention Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 20	Wet Detention Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 30	Wet Detention Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 80	Wet Detention Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Water Quality Basin 100	Wet Detention Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Infiltration Basin 10	Infiltration Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Infiltration Basin 20	Infiltration Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Infiltration Basin 30	Infiltration Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Infiltration Basin 80	Infiltration Basin	Under Construction			
Town of Summit	Summit	15	Aurora Medical Center	Infiltration Basin 100	Infiltration Basin	Under Construction			
Town of Waukesha	Waukesha	1	Auto Paint & Supply	Pond 1	Wet Detention Basin	In Service	10/23/2008		9/15/2010
Town of Mukwonago	Mukwonago	7	Autumn Hills South	West Basin	Infiltration Basin	In Service			
Town of Mukwonago	Mukwonago	7	Autumn Hills South	East Basin	Infiltration Basin	In Service			
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond A	Wet Detention Basin	In Service	12/30/2004		9/1/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond B	Constructed Wetland	In Service	12/30/2004		9/1/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond C	Dry Detention Basin	In Service	12/30/2004		9/1/2009
Town of Oconomowoc	Oconomowoc	30	Autumn Woods Condominiums	Pond D	Dry Detention Basin	In Service	12/30/2004		9/1/2009
Town of Oconomowoc	Oconomowoc	35	Bay Pointe Condominiums	North Infiltration Island	Bioretention Area	Under Construction			9/1/2009
Town of Oconomowoc	Oconomowoc	35	Bay Pointe Condominiums	South Infiltration Island	Bioretention Area	Under Construction			9/1/2009
Town of Oconomowoc	Oconomowoc	35	Bay Pointe Condominiums	North Field Drain	Infiltration Basin	Under Construction			9/1/2009
Town of Oconomowoc	Oconomowoc	24	Bayview Estates	Northwest infiltration basin	Infiltration Basin	In Service	9/28/2005		9/1/2009
Town of Oconomowoc	Oconomowoc	24	Bayview Estates	Southeast infiltration basin	Infiltration Basin	In Service	9/28/2005		9/1/2009
Town of Lisbon	Lisbon	20	Beacon Hills	Pond 1	Wet Detention Basin	In Service			9/1/2009

# Data Entry Form

BMP Listing Project Listing Permit Tracking User Access Management Pick List Maintenance

Exit



## BMP Data Entry

Project Identifier	<input type="text" value="Polo Fields"/>	<input type="button" value="Save Edits"/>
BMP Identifier	<input type="text" value="497"/>	<input type="button" value="Delete"/>
BMP Description	<input type="text" value="Infiltration Basin #1"/>	<input type="button" value="Return To Project"/>
Municipality	<input type="text" value="Town of Lisbon"/> ▼	
Survey Township	<input type="text" value="Lisbon"/> ▼	
Section	<input type="text" value="15"/>	
1/4 Section	<input type="text" value="SW"/> ▼	
Status	<input type="text" value="In Service"/> ▼	<b>GEO Locators</b> <input type="button" value="Update Locators"/>
BMP Type	<input type="text" value="Infiltration Basin"/> ▼	Northing <input type="text" value="425695.93"/>
Drainage Area Served (Acres)	<input type="text" value="34.50"/>	Easting <input type="text" value="2469467.52"/>
As-Built Date	<input type="text" value="7/22/2009"/> (m/d/yyyy)	Watershed <input type="text" value="Fox River Watershed"/> ▼
Planned Inservice Date	<input type="text" value="5/4/2007"/> (m/d/yyyy)	Subwatershed <input type="text" value="Sussex Creek"/> ▼
Next Planned Inspection Date	<input type="text" value="9/1/2009"/> (m/d/yyyy)	Hydrologic Unit <input type="text"/>
CertificationDate	<input type="text" value="7/20/2009"/> (m/d/yyyy)	Parcel <input type="text" value="LSBT0203058"/>
Certification PE Name	<input type="text" value="Paul De Vries, PE"/>	Maintained By <input type="text" value="Titleholders of Outlot"/>
Certification Company	<input type="text" value="MSA Professional Services, Inc"/>	

Create Date: 12/11/2008 2:41:10 PM Last Updated Date: 8/31/2009 2:48:53 PM Update Count: 3

# Coordinate Collection

The screenshot displays the 'Storm Water Management GIS' interface. At the top, the logo for 'Waukesha County Parks & Land Use Land Conservation Division' is visible, along with the title 'Storm Water Management GIS'. The interface includes a navigation bar with buttons for 'Zoom In', 'Zoom Out', 'Zoom Last', 'Zoom Full', 'Pan', 'Clear Map', and 'On/Off CV Map'. A top right menu contains links for 'Home', 'About', 'Contact Us', 'GIS Services', and 'Parks & Land Use'. On the left side, there is a sidebar with 'Select Point', 'Layer List', and 'Legend' buttons, and a 'Close' button. Below these are instructions: 'Step 3: Click on the map to identify the BMP location. Then follow additional prompts.' The map itself shows an aerial view of a residential area with red property boundaries. Several orange circular markers with numbers are placed on the map: 499, 498, 497, and 121. A green line is drawn across the map, labeled 'LINE OF DIVISION'. A scale bar at the bottom right indicates a distance of 1,151 Feet.

Waukesha County Parks & Land Use  
LAND CONSERVATION DIVISION

Storm Water Management GIS

Home | About | Contact Us | GIS Services | Parks & Land Use

Select Point Layer List Legend

Close

Instructions:

③ Step 3: Click on the map to identify the BMP location. Then follow additional prompts.

Northing: N/A  
Easting: N/A

No Coordinates Yet

LINE OF DIVISION

0 1,151 Feet

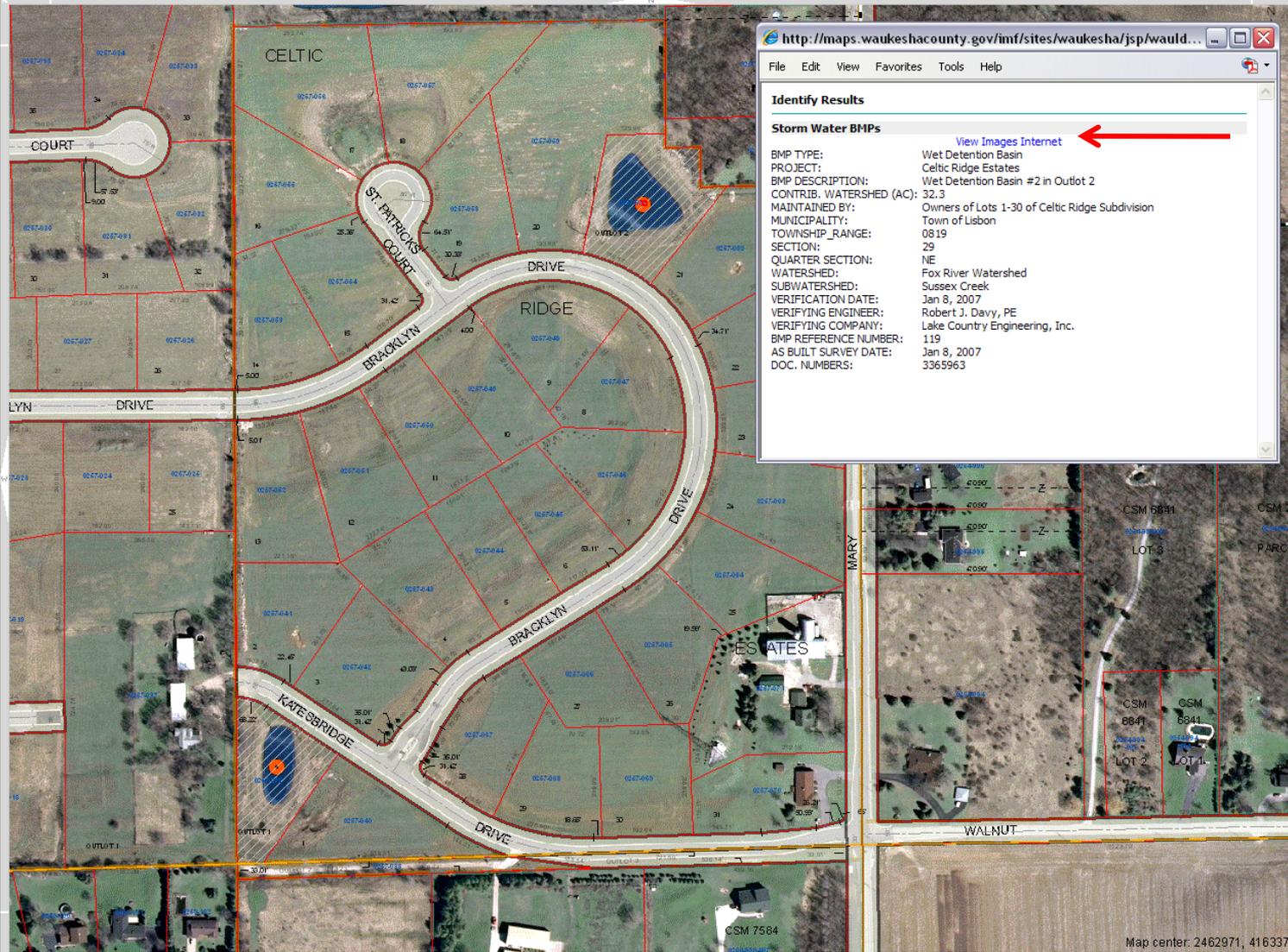
**WAUKESHA COUNTY**  
Internet Mapping Site

About Layers Legend Selection Keymap Bookmarks Print Map Query Locate Help Exit

The screenshot shows the Waukesha County Internet Mapping Site interface. The map displays various geographical features and administrative boundaries. The legend on the right side of the screen lists several layers, with 'Storm Water BMPs' highlighted in red. Other layers include Basemaps, Districts, Land, Civil Division Boundaries, Annexations (1980+), Essement Annotation, Note Annotation, Parcel Dimension Annotation, Tax Key Number Annotation, Land Division Annotation, Railroad ROW Annotation, Road ROW Annotation, Civil Division Annotation, Cartographic Elements, Parcels, Land Divisions, Shared Interest Parcels, Road Rights of Way, Railroad Rights of Way, Background, Parcel Addresses, Survey Control System, Transportation, Environment and Land Use, Zoning Files, Soils, Park and Open Space, Topography, Floodplains, Hydrology, Water Annotation, Water Anno (Large Scale), Lakes and Rivers (Base map), Streams (Base map), Streams, Ordinary High Water Mark, Water Table Elevation, and Aerial Photography. The 'Storm Water BMPs' layer is checked and highlighted in red. The map center is 2454002, 375895.

Map center: 2454002, 375895

Identify a specific BMP



http://maps.waukesha-county.gov/imf/sites/waukesha/jsp/wauid...

File Edit View Favorites Tools Help

**Identify Results**

**Storm Water BMPs** [View Images Internet](#) ←

BMP TYPE: Wet Detention Basin  
 PROJECT: Celtic Ridge Estates  
 BMP DESCRIPTION: Wet Detention Basin #2 in Outlot 2  
 CONTRIB. WATERSHED (AC): 32.3  
 MAINTAINED BY: Owners of Lots 1-30 of Celtic Ridge Subdivision  
 MUNICIPALITY: Town of Lisbon  
 TOWNSHIP\_RANGE: 0819  
 SECTION: 29  
 QUARTER\_SECTION: NE  
 WATERSHED: Fox River Watershed  
 SUBWATERSHED: Sussex Creek  
 VERIFICATION DATE: Jan 8, 2007  
 VERIFYING ENGINEER: Robert J. Davy, PE  
 VERIFYING COMPANY: Lake Country Engineering, Inc.  
 BMP REFERENCE NUMBER: 119  
 AS BUILT SURVEY DATE: Jan 8, 2007  
 DOC. NUMBERS: 3365963

**Map Layers** [Feedback](#)

- Basemaps
- Districts
- Land
  - Civil Division Boundaries
  - Annexations (1980+)
  - Easement Annotation
  - Note Annotation
  - Parcel Dimension Annotation
  - Tax Key Number Annotation
  - Land Division Annotation
  - Railroad ROW Annotation
  - Road ROW Annotation
  - Civil Division Annotation
  - Cartographic Elements
  - Parcels
  - Land Divisions
  - Shared Interest Parcels
  - Road Rights of Way
  - Railroad Rights of Way
  - Background
  - Parcel Addresses
- Survey Control System
- Transportation
- Environment and Land Use
- Zoning Files
- Soils
- Park and Open Space
- Topography
- Floodplains
- Hydrology
  - Water Annotation
  - Water Anno (Large Scale)
  - Storm Water BMPs
  - Lakes and Rivers (Basemap)
  - Lakes and Rivers
  - Streams (Basemap)
  - Streams
  - Ordinary High Water Mark
  - Water Table Elevation
- Aerial Photography

Automatically Refresh Map  
 Show Legends

[\[Search for layers\]](#)

**Hints:** (click to expand)

## Storm Water BMP Images

Project Name	Lakeside Conservancy Subdivision
BMP Description	Wet Detention in Outlot 7
BMP Type	Wet Detention Basin
BMP Identifier	25
Survey Township	Delafield

[Return to Application](#)

[Open Selected Images](#)

### BMP Photos



Looking West  
04/30/2009



Looking West  
09/30/2003



Looking South  
08/08/2003



Looking Southwest  
08/08/2003



Looking West  
08/08/2003

Number of Documents: 5  
 Images 1 to 5 of 5

[Display All Thumbnails](#)

Select All Images

### BMP Design and As-Built Data (County Permits Issued Prior to 2006)

Construction Certification



1000010

Page: 1



1000010

Page: 2

As-Built Survey



1000010

Page: 3



1000010

Page: 4

BMP Design Summaries



1000010

Page: 5

Number of Documents: 1  
 Images 1 to 5 of 11 >>

[Display All Thumbnails](#)

Select All Images

# Photos

Waukesha County  
Storm Water (BMP) Tracking System  
*Provided by the Department of Parks and Land Use*

**Storm Water BMP Images**

Project Name	Lakeside Conservancy Sub-division
EMP Description	Wet Detention in Outlot 7
EMP Type	Wet Detention Basin
EMP Identifier	25
Survey Township	Delafield

Open Previous Next Return to Thumbnails

Image 1 of 1

This may be a distorted view of the image. For a scaled view of the image click "Open" button.



Looking West  
04/30/2009

# Digital Documentation Distribution

# Survey Data

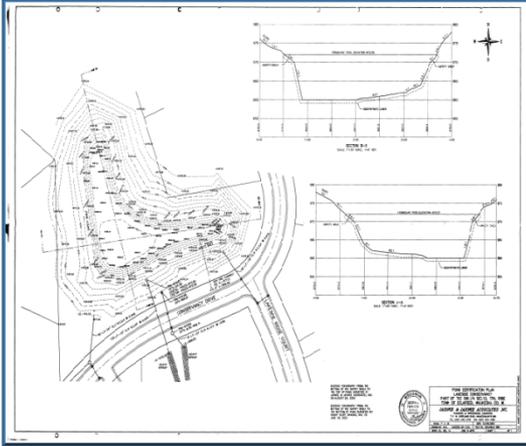
**Storm Water BMP Images**

Project Name	Lakeside Conservancy Sub-division
EMP Description	Wet Detention in Outlot 7
EMP Type	Wet Detention Basin
EMP Identifier	25
Survey Township	Delafield

Open Previous Next Return to Thumbnails

Image 1 of 1

This may be a distorted view of the image. For a scaled view of the image click "Open" button.



1000010  
Page: 4

# Maintenance Plan

00459 HAR-3B

**Exhibit C**  
**Minimum Storm Water Practice Maintenance Requirements**

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the minimum maintenance requirements to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the stormwater practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the responsible party to enforcement of the provisions listed on page 1 of this Agreement by the Town of Lisbon.

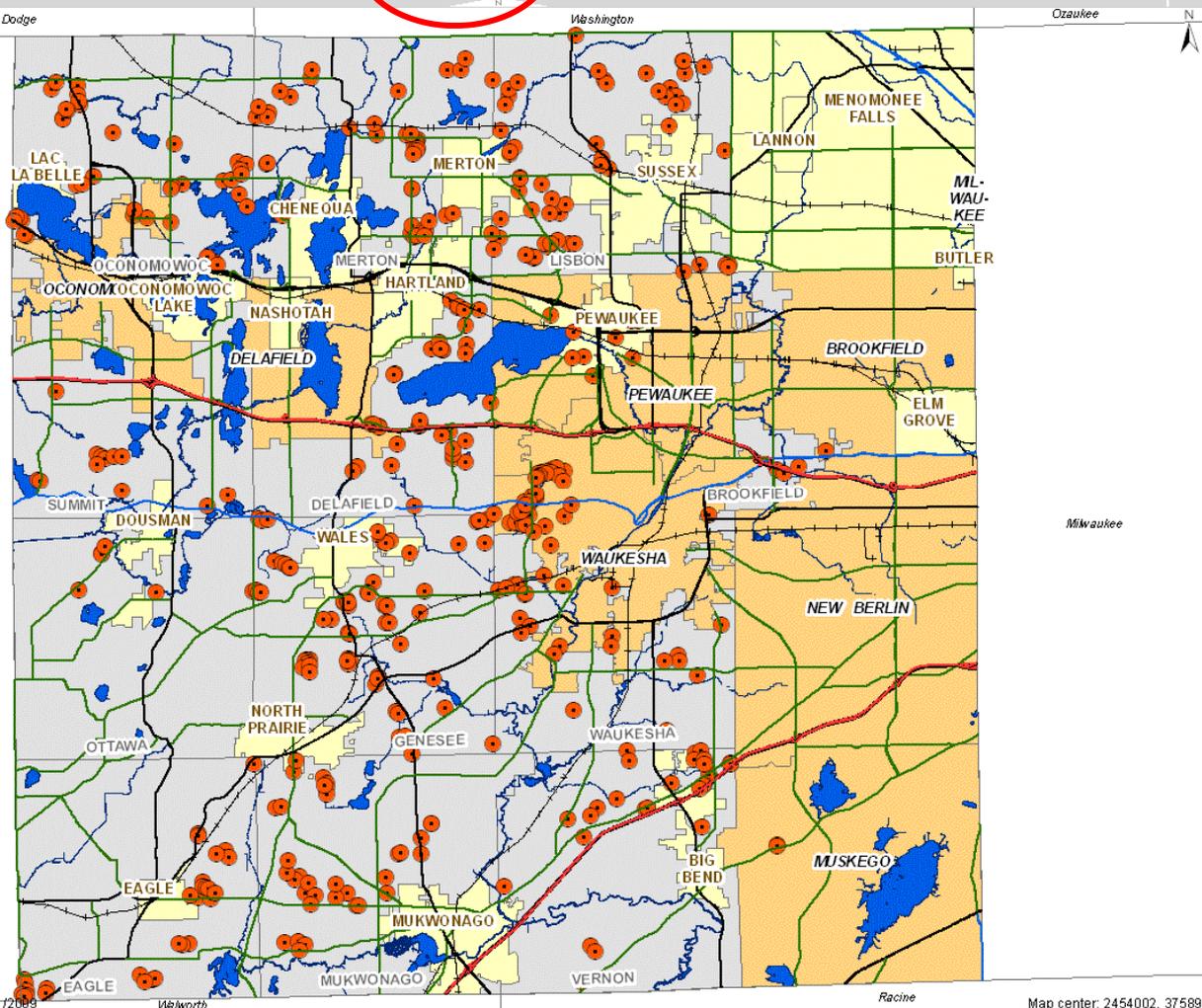
**System Description:**  
The wet detention basin is designed to trap 80% of sediment in runoff and maintain pre-development downstream peak flows. The basins have two forebays (smaller ponds) located at the end of storm sewer outfalls. The forebays are each 4 to 5 feet deep. They are connected to the main pool by a weir. The forebays will trap coarse sediments in runoff, such as road sands, thus reducing maintenance of the main basin. The main pool will trap the finer suspended sediment. To do this, the pond size, water level and outlet structures must be maintained as specified in this Agreement (see Figures 1 and 2).

The basin #1 receives runoff from a 9.25 acre drainage area. During high rainfall or snow melt events, the water level will temporarily rise and slowly drain down to the elevation of the control structure. The water level is controlled by a 15-inch crrp extending through the berm in the southeast corner of the basin. On the face of the 15-inch pipe, there is a 18" riser with 1.2-8-inch drilled hole (orifice) with stone in front of it. This orifice controls the water level at elevation 1095.50 and causes the pond to temporarily rise during runoff events. Washed stone (12" diameter) is placed in front of the orifice to prevent clogging. High flows may enter the top of the riser or flow over the rock lined emergency spillway. The basin #2 receives runoff from a 21.3 acre drainage area. During high rainfall or snow melt events, the water level will temporarily rise and slowly drain down to the elevation of the control structure. The water level is controlled by a 12-inch crrp extending through the berm in the southeast corner of the basin. On the face of the 12-inch pipe, there is a 18" riser with 1.4-5-inch drilled hole (orifice) with stone in front of it. This orifice controls the water level at elevation 1070.50 and causes the pond to temporarily rise during runoff events. Washed stone (12" diameter) is placed in front of the orifice to prevent clogging. High flows may enter the top of the riser or flow over the rock lined emergency spillway. All elevations in the Figures below represent planned values and are presented in feet above mean sea level (NAD 1929). These are required to be field verified upon construction. Actual elevations (and more detailed information on the designs) can be obtained by contacting the Waukesha County Department of Parks and Land Use or Town of Lisbon, and can be used as a reference point during maintenance inspections.

**Minimum Maintenance Requirements:**  
To ensure the proper function of the storm water management practices described above, the following activities must be completed:

- 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 orifices 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.
- 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 to be sited there. No grading or filling is allowed that may interrupt flows in any way.
- Grass swales, inlets and outlets must be checked after heavy rains (minimum of semi-annually early spring & early autumn) for signs of erosion. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the downstream forebays or basin. Erosion maiting is recommended for repairing graded areas.
- 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.
- If floating algae or weed growth becomes a nuisance (odors, etc.), it must be removed from the basin or the forebay and deposited where it cannot drain into the basin. Removal of this vegetation from the water reduces regrowth the following season (by harvesting the nutrients). Wetland vegetation must be maintained along the water edge for safety and pollutant removal purposes.

# Also inspection reports

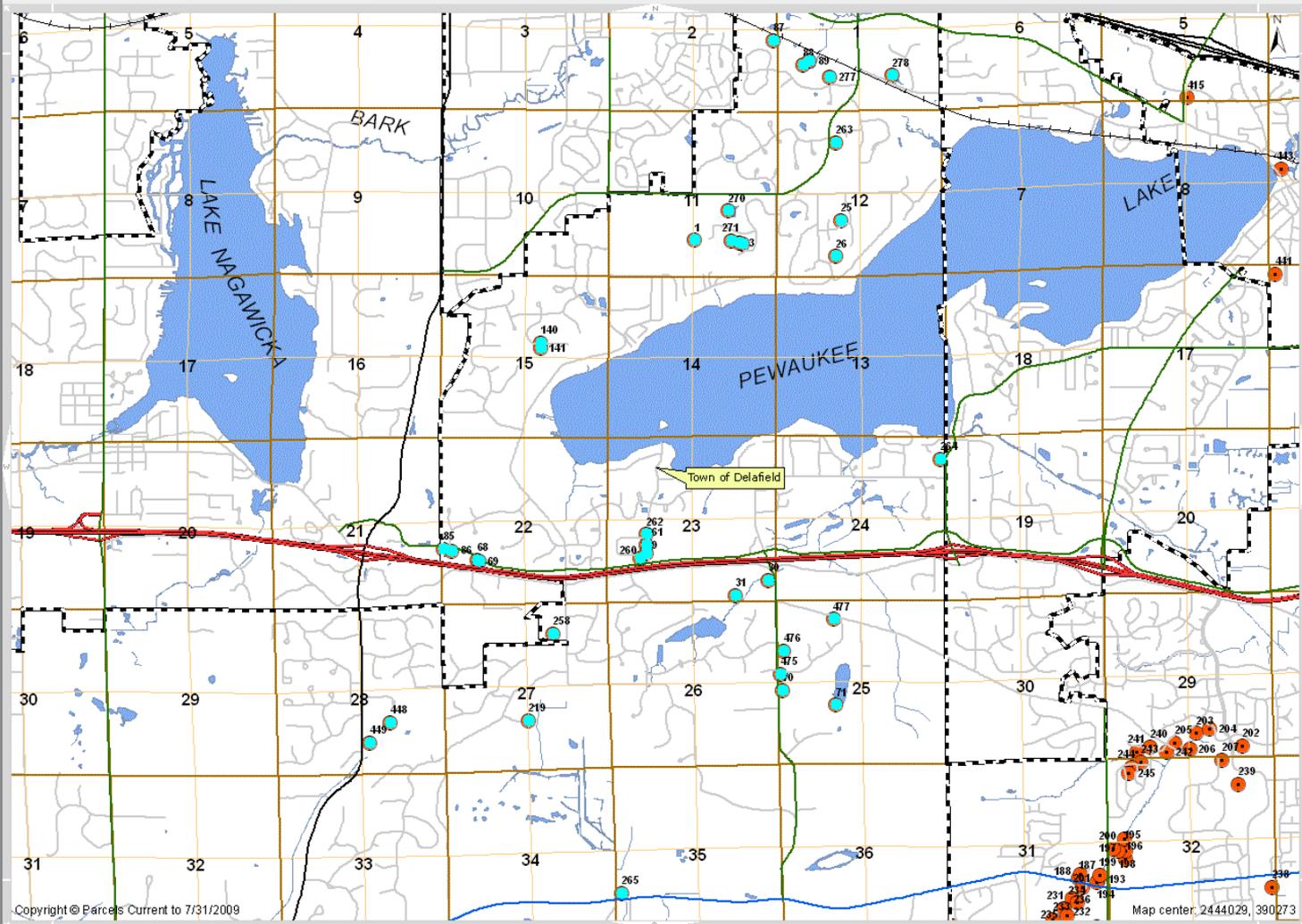


Locate BMP [Help](#)

Municipality

- City of Brookfield
- City of Muskego
- City of Oconomowoc
- City of Pewaukee
- City of Waukesha
- Town of Brookfield
- Town of Delafield

Narrow results:



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**Selection Set** [Help](#)

**Layer:**  
Storm Water BMPs

**Selection:**  
36 features selected.

**Options:**

- Custom BMP Report**  Generate a Custom BMP Report for the selected features.
- Table Report**  Show a tabular report for the selected features.
- Excel Report**  Create an Excel spreadsheet containing the information for the selected features.
- Default Report**  Show the default report for the selected features.
- Zoom to Extent**  Zoom the map to the extent of the selected features.

This layer is defined as a selected set type of layer. You may use the selection tool to refine your selected set so that it contains the desired features before executing the reporting routines.

# BMP Report



**BMP Type:** Wet Detention Basin  
**Project:** Enclave Of Delafield  
**BMP Description:** Lined wet basin on west side  
**Contributing Watershed Area (Acres):** 37.46  
**Maintained By:** Owners of Lots 1 - 12 of Enclave of Delafield  
**Document #'s** 1000006, 3202627

### BMP Location

**Municipality:** Town of Delafield  
**Public Land Survey System**  
SE 1/4 of Section 11 of Township/Range 0718

**Watershed:** Fox River Watershed  
**Subwatershed:** Pewaukee Lake  
**Northing:** 397596.30  
**Easting:** 2445277.69

### Constuction Verification

**Verifying Engineer:** Igor Vaynberg, PE  
**Verifying Company:** Welch Hanson Associates  
**Verification Date:**  
**As-Built Survey Date:**  
**Last Inspection Date:**  
**Next Inspection Date:**

**BMP Reference #:** 1

**BMP Type:** Permanent Sediment Trap  
**Project:** Enclave Of Delafield  
**BMP Description:** Permanent Sediment B  
**Contributing Watershed Area (Acres):** 10.00  
**Maintained By:** Owners of Lots 1 - 12 of Enclave of Delafield  
**Document #'s** 1000006, 3202627

### BMP Location

**Municipality:** Town of Delafield  
**Public Land Survey System**  
SE 1/4 of Section 11 of Township/Range 0718

**Watershed:** Fox River Watershed  
**Subwatershed:** Pewaukee Lake  
**Northing:** 397476.16  
**Easting:** 2446807.92

### Constuction Verification

**Verifying Engineer:** Igor Vaynberg, PE  
**Verifying Company:** Welch Hanson Associates  
**Verification Date:**  
**As-Built Survey Date:**  
**Last Inspection Date:**  
**Next Inspection Date:**

**BMP Reference #:** 2

**BMP Type:** Rain Garden  
**Project:** Enclave Of Delafield  
**BMP Description:** Regional Rain Gardens  
**Contributing Watershed Area (Acres):** 10.00  
**Maintained By:** Owners of Lots 1 - 12 of Enclave of Delafield  
**Document #'s** 1000006, 3202627

### BMP Location

**Municipality:** Town of Delafield  
**Public Land Survey System**  
SE 1/4 of Section 11 of Township/Range 0718

**Watershed:** Fox River Watershed  
**Subwatershed:** Pewaukee Lake  
**Northing:** 397506.10  
**Easting:** 2446713.11

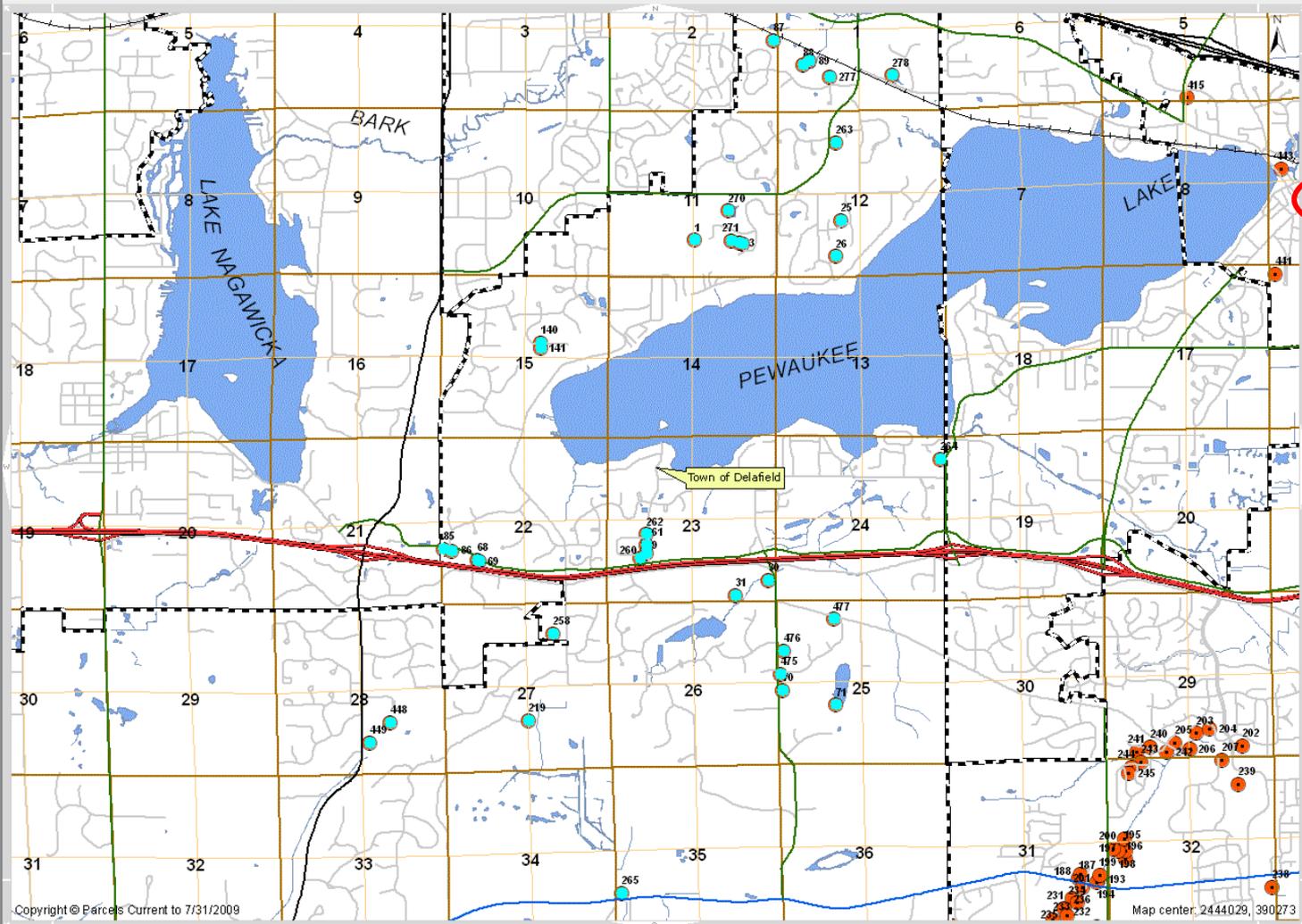
### Constuction Verification

**Verifying Engineer:** Igor Vaynberg, PE  
**Verifying Company:** Welch Hanson Associates  
**Verification Date:**  
**As-Built Survey Date:**  
**Last Inspection Date:**  
**Next Inspection Date:**

**BMP Reference #:** 3

# Default BMP Report Based Upon Selection Criteria

- Location
- BMP Type
- Status
- Etc.



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Map center: 2444029, 390273

**Selection Set** [Help](#)

**Layer:**  
Storm Water BMPs

**Selection:**  
36 features selected.

- Options:**
- [Custom BMP Report](#) Generate a Custom BMP Report
  - [Tabular Report](#) Show a tabular report for the selected features.
  - [Excel Report](#) Create an Excel spreadsheet containing the information for the selected features.
  - [Default Report](#) Show the default report for the selected features
  - [Zoom to Extent](#) Zoom the map to the extent of the selected features.

This layer is defined as a selected set type of layer. You may use the selection tool to refine your selected set so that it contains the desired features before executing the reporting routines.

# Tabular Output from IMS with Coordinates

Microsoft Excel window: xls22974.xls [Read-Only] [Compatibility Mode]

	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V					
	MUNICIPALITY	TOWNSHIP_RANGE	SECTION	QUARTER	WATERSHED	SUBWATERSHED	VERIFICA	VERIFYIN	VERIFYIN	LAST INS	BMP	REFIAS	BUILT	PROJECT	DOC. NUMBERS	GEO	Northing	GEO	Easting	BMP	NextPlanned	InspectionDat
3	Town of Delafield	0718	11	SE	Fox River Watershed	Pewaukee Lake	16-Feb-05	Igor Vaynb Welch Har	31-Jan-06		1	16-Feb-05			1000006, 3202627	397596.3	2445277.69					31-Aug-
4	Town of Delafield	0718	11	SE	Fox River Watershed	Pewaukee Lake	16-Feb-05	Igor Vaynb Welch Hanson Assoc			2	16-Feb-05			1000006, 3202627	397476.16	2446807.92					31-Aug-
5	Town of Delafield	0718	11	SE	Fox River Watershed	Pewaukee Lake	16-Feb-05	Igor Vaynb Welch Hanson Assoc			3	16-Feb-05			1000006, 3202627	397506.1	2446713.11					31-Aug-
6	Town of Delafield	0718	12	SW	Fox River Watershed	Pewaukee Lake	18-Jan-04	Debra A. T Jahnke & Jahnke Ass			25	28-Dec-03			1000010, 3050076	398220.32	2449938.69					31-Oct-
7	Town of Delafield	0718	12	SW	Fox River Watershed	Pewaukee Lake					26				1000010, 3050076	397079.19	2449773.49					
8	Town of Delafield	0718	23	SE	Fox River Watershed	Pewaukee Lake	17-Oct-04	Robert Wil TDI Associates			30	30-Sep-04			1000019, 2867539	386604.07	2447626.33					30-Sep-
9	Town of Delafield	0718	23	SE	Fox River Watershed	Pewaukee Lake	17-Oct-04	Rob Willia TDI Associates			31	21-Dec-04			1000003	386134.43	2446573.68					30-Sep-
10	Town of Delafield	0718	22	SW	Fox River Watershed	Pewaukee Lake					68				3452574	387266.47	2438384.81					
11	Town of Delafield	0718	22	SW	Fox River Watershed	Pewaukee Lake					69				3452574	387232.64	2438436.33					
12	Town of Delafield	0718	25	SW	Fox River Watershed	Pewaukee Lake					70				3576349	383058.12	2448081.85					
13	Town of Delafield	0718	25	SW	Fox River Watershed	Pebble Creek					71				3576349	382593.64	2449768.45					30-Jun-
14	Town of Delafield	0718	22	SW	Rock River Watershed	Bark River					85				3420505	387624.71	2437314.67					
15	Town of Delafield	0718	22	SW	Rock River Watershed	Bark River					86				3420505	387570.92	2437562.04					
16	Town of Delafield	0718	2	SE	Fox River Watershed	Pewaukee Lake	21-Mar-04	Hans D. H Jahnke & Jahnke Ass			87	11-Mar-04			1000038	404027.89	2447786.98					31-Aug-
17	Town of Delafield	0718	1	SW	Fox River Watershed	Pewaukee Lake	21-Mar-04	Hans D. H Jahnke & Jahnke Ass			88	11-Mar-04			1000038	403226.85	2448722.21					31-Aug-
18	Town of Delafield	0718	1	SW	Fox River Watershed	Pewaukee Lake	21-Mar-04	Hans D. H Jahnke & Jahnke Ass			89	11-Mar-04			1000038	403365.24	2448918.93					31-Aug-
19	Town of Delafield	0718	15	NE	Fox River Watershed	Pewaukee Lake	17-Nov-05	Anthony Z Jahnke and Jahnke A			140	17-Nov-05			1000037	394297.12	2440410.66					30-Sep-
20	Town of Delafield	0718	15	NE	Fox River Watershed	Pewaukee Lake	17-Nov-05	Anthony Z Jahnke and Jahnke A			141	17-Nov-05			1000037	394137.57	2440386.41					30-Sep-
21	Town of Delafield	0718	27	SE	Fox River Watershed	Pebble Creek	30-Sep-03	Anthony S Jahnke & Jahnke Ass			219	21-Oct-03			1000030	382091.09	2440015.74					31-Oct-
22	Town of Delafield	0718	27	NE	Fox River Watershed	Pewaukee Lake					258				1000031	384888.44	2440778.88					
23	Town of Delafield	0718	23	SW	Fox River Watershed	Pewaukee Lake					259				1000032	387317.71	2443570.14					31-Oct-
24	Town of Delafield	0718	23	SW	Fox River Watershed	Pewaukee Lake					260				1000032	387474.49	2443743.61					
25	Town of Delafield	0718	23	SW	Fox River Watershed	Pewaukee Lake					261				1000032	387753	2443761.93					
26	Town of Delafield	0718	23	SW	Fox River Watershed	Pewaukee Lake					262				1000032	388097.52	2443764.87					31-Oct-
27	Town of Delafield	0718	12	NW	Fox River Watershed	Pewaukee Lake					263				1000036	400726.13	2449772.22					
28	Town of Delafield	0718	24	NE	Fox River Watershed	Pewaukee Lake					264				1000033	390510.04	2453104.03					
29	Town of Delafield	0718	35	SW	Fox River Watershed	Pebble Creek					265				1000035	376517.97	2442962.65					
30	Town of Delafield	0718	11	SE	Fox River Watershed	Pewaukee Lake					270				1000034	398540.42	2446369.56					30-Jun-
31	Town of Delafield	0718	11	SE	Fox River Watershed	Pewaukee Lake					271				1000034	397593.22	2446457.8					30-Jun-
32	Town of Delafield	0718	1	SW	Fox River Watershed	Pewaukee Lake					277				1000039, 2528235	402856.18	2449575.54					30-Jun-
33	Town of Delafield	0718	1	SE	Fox River Watershed	Pewaukee Lake					278				1000039, 2528235	402901.89	2451575.74					
34	Town of Delafield	0718	28	SE	Rock River Watershed	Scuppernong Creek					448				3534394	382025.06	2435609.59					
35	Town of Delafield	0718	28	SE	Rock River Watershed	Scuppernong Creek					449				3534394	381361.45	2434954.8					
36	Town of Delafield	0718	25	NW	Fox River Watershed	Pewaukee Lake	#####	Igor Vaynb Welch Hanson Assoc			475	#####			1000009	383576.11	2448032.54					31-Oct-
37	Town of Delafield	0718	25	NW	Fox River Watershed	Pewaukee Lake	#####	Igor Vaynb Welch Hanson Assoc			476	#####			1000009	384325.78	2448104.56					31-Oct-
38	Town of Delafield	0718	25	NW	Fox River Watershed	Pewaukee Lake	#####	Igor Vaynb Welch Hanson Assoc			477	#####			1000009	385362.57	2449693.2					31-Oct-



# Any Questions?

