



ANNUAL REPORT

FOR

CALENDAR YEAR 2005

**UPPER FOX RIVER WATERSHED COMMUNITIES GROUP MUNICIPAL
STORMWATER DISCHARGE PERMIT
WPDES PERMIT NO. WI-S050105-1**

March 28, 2006

1. Status of implementing the storm water management program, and compliance with any schedules contained in the permit.

During 2005, the Town, in cooperation with the County, prepared an updated stormwater management and erosion control ordinance, which included an illicit discharge prohibition element. The ordinance was approved by Waukesha County in fall 2005. Waukesha County offered and the Town agreed to allow the County Land Use and Parks Department, Environmental Division to administer the ordinance rather than have the Town adopt the County's ordinance (or one that was at least as restrictive as the County's ordinance) and enforce it themselves. The agreement to allow the County to administer the ordinance was finalized March 17, 2006.

Other stormwater programs developed in 2005 included the following:

- Information and Education program (locally and in cooperation with Waukesha County)
- Catch Basin Cleaning program
- Spill Prevention and Response program
- Street sweeping program
- Illicit Connection/Discharge program

In 2005, the Town Engineer made a formal presentation to the Town Board at their February 22, 2005 Town Board meeting. The Board was also educated during the preparation of the Education and Information Program on March 22, 2005 and during the Town budget process as to what the Town needed to do in 2006 to comply with the WPDES Permit.

2. Updated Storm Sewer System Map

There was only one subdivision constructed in 2005 that included additional roadway cross culverts. At this time, the town has not accepted the roads or the stormwater improvements. No other changes to the stormwater system took place in 2005.

3. A summary of the pollutant loading calculations

WinSLAMM V9.1.1 was used for both the No Controls and the Existing Controls pollutant loading analysis. Any assumptions that were made during the analysis were documented and are attached (See Figures 1 and 3 in Appendix A).

All input files (i.e. standard land use files, rain files, pollutant probability distribution files, runoff coefficient files, particulate solids concentration files, particulate residue delivery files, street delivery files, etc.) used during the analysis were downloaded from the USGS website as recommended from the WDNR.

A summary of the WinSLAMM analysis is shown below in Table 1. This table displays the annual Total Suspended Solids (TSS) pollutant loading totals for each of the 26 major outfalls and the cumulative annual TSS pollutant loading total for all the minor outfalls within the Town of Delafield for both the No Controls and the Existing Controls

scenarios. As shown in Table 1, there is a 51% reduction in annual TSS pollutant loading from the No Controls scenario to the Existing Controls scenario for the cumulative major outfalls total. There is also a 40% annual TSS pollutant loading reduction for the cumulative minor outfalls total and a 43% annual TSS pollutant loading reduction for the total analysis of the Town of Delafield.

Table 1
Town of Delafield NR216-Permit WinSLAMM Analysis
Summary of Annual TSS Reductions

CATCHMENT NAME	PIPE SIZE	NO CONTROLS TSS (lbs/yr)	EXISTING CONTROLS TSS (lbs/yr)	% REDUCTION
SCP1-31-3-1	28' 40"x20" Bx RCP	4019	1497	62.76%
SCP2-33-4-1	45' 58"x36" CMP	7649	1330	82.61%
SCP2-33-3-1	2 - 85' 36" RCP	5076	1014	80.03%
SCP2-28-3-1	40' 50"x36" CMP	21957	10066	54.15%
SCP2-28-1-2	2 - 36' 36"x20" CMP	5574	850	84.76%
SCP2-28-1-1	2 - 35' 36"x24" CMP	5086	833	83.62%
PWK1-26-1-2	1 - 40' 40"x30" CMP 1 - 45' 15" CMP	9317	2891	68.97%
PWK1-26-1-1	2 - 54' 48" CMP	20746	10950	47.22%
PWK1-14-1-1	45' 75" CLAY	5971	3668	38.58%
PWK1-24-3-1	48' 48" CMP	10596	6621	37.51%
PWK1-26-2-2	2 - 40' 21" CMP	6154	1890	69.28%
PWK1-26-2-1	2 - 63' 36" CMP	7289	1739	76.15%
PWK1-24-4-2	72"x72" RCP	4285	1527	64.36%
PWK1-14-2-1	342' 60"x48" CMP	22795	15639	31.39%
PWK1-23-4-1	170' 42" CMP	475	442	6.94%
PWK1-23-2-1	64' 36" CMP	18472	8279	55.18%
PWK1-23-1-1	40' 43"x40" CMP	2733	2325	14.92%
PWK1-22-4-1	48' 36" CMPA	1918	1111	42.07%
PWK1-22-2-1	2 - 40' 36" RCP	11477	6119	46.68%
PWK1-22-1-1	178' 24" CMP	10455	5397	48.38%
PWK1-15-4-2	1 - 25' 29"x45" HERCP 1 - 20' 29"x45" HECRP	7532	6973	7.42%
PWK1-15-4-1	46' 33"x49" CMPA	9467	4824	49.04%
PWK1-12-3-8	25' 52"x84" CMP	5898	3258	44.75%
PWK1-12-1-1	180' 36" RCP	4901	4871	0.62%
NMB1-30-3-2	56' 50"x31" CMP	7282	2577	64.62%
BRD1-34-3-1	2 - 60' 48"x36" CMP	4520	2603	42.42%
Cumulative Major Outfalls Subtotal (shown above)		221644	109294	50.69%
Cumulative Minor Outfalls Subtotal (not shown)		536192	323594	39.65%
TOTAL		757836	432888	42.88%

See attached Table 2 in Appendix A for the summary of pollutant loadings for the remainder of pollutants required for analysis in the WPDES permit for the No Controls and Existing Controls scenarios. The complete analysis results for the No Controls and Existing Controls scenarios are also provided in Appendix A.

4. Summary of Monitoring Data/Revisions to the Monitoring Program

The Town, in cooperation with the Upper Fox River Watershed Communities Group and the WDNR is participating in a study known as “Verification of a Method for Sizing Proprietary Stormwater Treatment Devices Using Results from a Downstream Defender”. In a correspondence dated February 20, 2006, the WDNR provided the following update from Roger Bannerman:

“We are in the shake-down part of the monitoring. It takes a few runoff events to adjust the sampling equipment before we start using the events for testing the Downstream Defender. A couple of more runoff events should finish the shake-down period. Weather permitting we should be counting events by the middle of March. I think the USGS has done a great job setting up the sampling. I cannot promise when we will have fifteen storms sampled, but we should be finished before the end of the summer.”

5. Summary of Enforcement Actions, Illicit Discharge Screening results, Connections Removed, Inspections, Public Education Programs and Spill Responses.

No enforcement actions, illicit discharge screening results, or spill responses took place in 2005. Waukesha County performed erosion control inspections at one subdivision in the Town (The Enclave of Delafield). The Town Engineer performed regular inspections of erosion control measures at The Enclave of Delafield during the construction of sewer and roadway improvements. The Town Engineer also performed erosion control inspections for the Shady Lane road reconstruction project that was part of the annual Town road improvement program as part of our full time inspection services.

6. Summary of Revisions/Proposed Revisions to the Storm Water Management Program

No changes were proposed in 2005. No changes are anticipated in 2006.

7. Summary of Assessment of Controls

Oil and Household Hazardous Waste

Town of Delafield does not collect oil or household hazardous waste on behalf of its citizens. Residents are directed to the City of Delafield who collects these items on behalf of the Town. The Town is unaware of the amount collected on behalf of its residents.

Leaves

Town crews collected leaves along Maple Avenue in the Town and burned leaves along some of the “lake” roads in the Town. Town crews picked up approximately 25 cubic yards of leaves and disposed of them at our refuse contractor’s (Onyx) drop-off location.

Solids from Street Sweeping

Butterfield Contractors performed selective street sweeping in the spring of 2005 in order to reduce the amount of sand on the roads. Town crews also performed some hand labor to pick up leftover sand in areas where there was sand buildup.

Maintained Ditches

Town crews did not perform any ditch stabilization during 2005.

Construction Erosion Control Plans Approved

The Town building inspector issued 29 single family permits during 2005 that required an erosion control plan. One subdivision and one commercial building were submitted to the Town and County for Erosion Control plan approval.

Approvals for BMP's

No applications were received.

Salt/Sand Used

Estimated amount of salt used in 2005 was 200 tons. The Town typically uses 1200 to 1500 ton of sand per year.

SUMMARY	
ITEM	AMOUNT
Oil	0
Household Waste	0
Leaves	25 CY
Solids from Street Sweeping	unknown
Ditch Maintenance	0
Construction Erosion Control Plans Approved	29
BMP's Applied For	0
Salt Used	200 Ton
Street Sweeper Miles/Hours	unknown

8. Fiscal Analysis of Annual Expenditures and Budget for 2005

Expenditures in 2005 included:

- \$12,000 related to preparation of the various programs noted above, meetings with the WDNR and the Upper Fox River Watershed Communities Group related to the permit and the start up of the WinSLAMM analysis.
- \$2,000 annual permit fee
- The Town Highway Department performs several tasks related to stormwater, such as picking up excess sand in the spring and random catch basin cleaning as part of their normal day to day duties; therefore the cost is included in their salaries.

9. Fiscal Budget for 2006

The budget for 2006 includes:

- \$12,000 for the completion of the WinSLAMM modeling, preparation of the annual report, meetings, information and education efforts and dry weather inspection of major outfalls.
- \$2,500 for street sweeping.
- \$2,000 for payment to the County for the Education and Information program
- \$3,750 for the Monitoring program
- \$2,000 for the annual permit fee

- Catch basin cleaning will be performed by the highway crews during their normal duties. Erosion control inspection expenditures will be billed back to developers and are not included in a specific budget.

10. Identification of Water Quality Improvements or Degradation

At this time, there has been no evidence of water quality degradation or improvement for waters in the Town of Delafield.

Report Certification

The appropriate Town of Delafield staff members and elected officials have been, or will be, appraised of the content of this annual report.

The information above was gathered and prepared under the direction of the Town Board and based on inquiry of the people directly under their control, to the best of their knowledge, the information herein is true, accurate and complete.

Town Chairman

Date

Town Engineer

Date

c: Town Board
Don Roberts, Highway Superintendent
Mary Elsner, CMC, Town Clerk
John Tising, Building Inspector
Tim Barbeau, PE, RLS, Town Engineer