



CITY OF
Crystal Lake
ILLINOIS

May 27, 2010

VIA Email and Certified Mail, Return Receipt Requested

Illinois Environmental Protection Agency, DWPC
Compliance Assurance Section #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

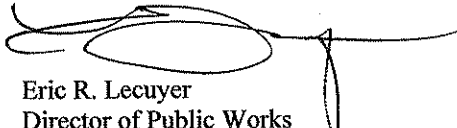
RE: ILR400179 2010 Annual Report

Greetings:

Transmitted herein, please find the Annual Report for the City of Crystal Lake's MS4 Permit covering the period of March 2009 through March of 2010.

Please contact me should you have any questions or require any additional information.

Sincerely,



Eric R. Lecuyer
Director of Public Works

Attachments

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
ANNUAL FACILITY INSPECTION REPORT
NPDES PERMIT FOR STORM WATER DISCHARGES
FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

Complete each section of this report.

Reporting Period from: March, 2009 To: March, 2010 Permit Number: ILR400179

MS4 OPERATOR INFORMATION: (As it appears on the current permit)

Name: City of Crystal Lake Telephone: 815-459-2020

Mailing Address: 100 W. Woodstock Street

City: Crystal Lake State: IL Zip: 60014 County: McHenry

Contact Person: Eric Lecuyer

(Person responsible for Annual Report)

Name(s) of governmental entity(ies) in which MS4 is located: (As it appears on the current permit)

City of Crystal Lake

THE FOLLOWING ITEMS MUST BE ADDRESSED.

A. Changes to best management practices (check appropriate BMP change(s) and attach information regarding change(s) to BMP and measurable goals.)

- | | | | |
|--|-------------------------------------|---|--------------------------|
| 1. Public Education and Outreach | <input checked="" type="checkbox"/> | 4. Construction Site Runoff Control | <input type="checkbox"/> |
| 2. Public Participation/Involvement | <input checked="" type="checkbox"/> | 5. Post-Construction Runoff Control | <input type="checkbox"/> |
| 3. Illicit Discharge Detection & Elimination | <input checked="" type="checkbox"/> | 6. Pollution Prevention/Good Housekeeping | <input type="checkbox"/> |


B. Attach the status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and your identified measurable goals for each of the minimum control measures.

C. Attach results of information collected and analyzed, including monitoring data, if any during the reporting period.

D. Attach a summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule.)

E. Attach notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

F. Attach a list of construction projects that your entity has paid for during the reporting period.

Signature: 

Date: May 27, 2010

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

EMAIL COMPLETED FORM TO: epa.ms4annualinsp@illinois.gov

or Mail to: Illinois Environmental Protection Agency, DWPC
Compliance Assurance Section #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Information required by this form must be provided to comply with 415 ILCS 5/39 (1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

CITY OF CRYSTAL LAKE

NPDES Phase II

Annual Report

(Reporting Year March 2009 to March 2010, Permit No. ILR400179)

Prepared by The City of Crystal Lake Public Works Department

The City of Crystal Lake has been increasing its vigilance to its ever expanding Municipal Separate Storm Sewer System (MS4) Program. While the maintenance and management of the storm sewer system has been a priority of the City in the past, Crystal Lake's MS4 Program will be developed further and incorporated into more aspects of the City's operations. This report will reflect the changes made to the BMPs, the City's status of compliance with permit conditions and a history of the construction projects conducted over the last year. In addition, this document will report the City's new goals and objectives for the coming years, and the status and summary of the past year's stormwater activities among other facts and analysis. The City of Crystal Lake has worked diligently over the last year to increase the status of its MS4 Program. This document it intended to report the status of the City's program, and to establish a foundation for the future of the MS4 Program in Crystal Lake.

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Section A: Changes to Best Management Practices

A. Public Education and Outreach

Changed BMP A.4 Community Event (Rain Garden) to A.6 Other Public Education (09/10)

B. Public Participation/Involvement

Added BMP B.7 Other Public Involvement (09/10)

C. Illicit Discharge Detection and Elimination

*Added BMP C.10 Other Illicit Discharge Controls (09/10)
Added BMP C.5 Illicit Source Removal Procedures (10/11)*

D. Construction Site Runoff Control

E. Post-Construction Runoff Control

F. Pollution Prevention/Good Housekeeping

Section B: Status of Compliance with Permit Conditions

The status of BMPs and measurable goals performed over the last year are described below.

The City of Crystal Lake is committed to conducting Public Education and Outreach as part of its permit. For reporting year 2009/10, staff presented a variety of paper materials designed to educate the public. The design and implementation of a community rain garden project in 2010/11 will further educate on the impacts of stormwater discharges and the importance on reducing pollutants to stormwater runoff.

A. Public Education and Outreach

A.1 Distributed Paper Materials

Measureable Goals – The Chamber of Commerce hosted a community Expo in March 2010 which allowed City staff to present informational handouts on rain barrels and activity sheets for children to further educate residents of stormwater pollution.

A.3 Public Service Announcements

Measureable Goals – In the January 2010 edition of the City's newsletter, a one page article explaining the differences between the sanitary and storm systems was posted. The article further detailed how the storm system can be taken for granted in our day-to-day activities, which in-turn could render negative effects to our local waterways.

A.4 Community Event

Measureable Goals –The City posted and encouraged the community to attend the annual Clean-Up Day 2009 sponsored by the Chamber of Commerce and the Park District by posting information about the event on the City website and event calendar. Approximately 200 people attended the event to collect garbage and recyclable products at over 35 locations. These locations were comprised of local businesses, roadways, drainage ditches, parks, and wooded areas, many of which were adjacent to local streams and lakes. Volunteers collected 200+ garbage bags of trash and recyclable products.

A.6 Other Public Education

Measureable Goals –In October 2009, an educational brochure on the Crystal Lake Watershed was created to inform residents, visitors, and contractors on the value of this natural resource. The location of a community rain garden has been approved for construction, which is expected to begin in 2010/11. Included as part of the display at the Chamber's Expo was an interactive model showing the effects of stormwater pollution into nearby lakes, streams, and waterways. Staff has begun incorporating the "Dump No Waste, Drains To Waterways" casting into its storm grates and manhole lids.

The City of Crystal Lake is dedicated to education by conducting stakeholder meetings as part of its commitment to Public Participation/Involvement. Stakeholder meetings are a proven method to gathering information and communicating plans to the community.

B. Public Participation/Involvement

B.3 Stakeholder Meeting

Measureable Goals – Conducted a stakeholder meeting for areas one and two of the 2007 Flooding Study. Also attended the McHenry County Stormwater Commission on 3/25/10 and made a presentation to encourage the incorporation of the City's water quality and quantity standards in unincorporated areas within the Crystal Lake Watershed.

B.7 Other Public Involvement

Measureable Goals – Public events such as the Community Clean-Up Day 2009 and the Chamber's 2010 Expo were successful at generating interaction and participation from the public with regards to water pollution and its impact on the environment.

Since its creation in 2007, City staff has participated in the McHenry County Groundwater Taskforce, aimed at preserving the quality and quantity of groundwater in McHenry County. The result of the taskforce was the creation of a manual of BMPs and Model Policies for local governments and private industries to incorporate into the daily operations. While the City has already implemented a large number of these policies, the Crystal Lake City Council recently passed a resolution to thoughtfully review and consider the additional policies and practices for implementation in the coming year. The success of the following three minimum control measures can be attributed to the collaboration of these two entities.

The City of Crystal Lake is committed to Illicit Discharge Detection and Elimination by the continual sampling of its influent/effluent points and watershed areas. The development and implementation of an illicit discharge ordinance is a key element to a successful MS4 program.

C. Illicit Discharge Detection and Elimination

C.6 Program Evaluation and Assessment

Measureable Goals – An Illicit Discharge Ordinance was formally adopted February 16, 2010. Staff used the enforcement of the ordinance when responding to complaints of illicit discharges and/or dumping to the storm conveyance system. In conjunction with this ordinance, staff developed monitoring procedures and an inspection field report.

C.8 Pollutant Field Testing

Measureable Goals – The City’s Environmental Monitoring Unit has continually sampled and tested influent/effluent points for Crystal Lake, Cove Pond, Crystal Creek, Lippold Park as well as the west and center tile lines for the watershed area.

C.10 Other Illicit Discharge Controls

Measureable Goals – Staff has begun reviewing Integrated Pest Management and Natural Lawn Care programs for all City owned properties. Presentations and materials presented by the Clean Air Counts Committee of Crystal Lake are being discussed, which in-turn will be brought to the City’s Council for review and consideration.

The City of Crystal Lake continues to promote Construction Site Runoff Control through its erosion controls standards and inspection/enforcement provisions. Procedures for conducting reviews, tracking plans, and ensuring consistent reviews have been put in place. The City’s Stormwater Ordinance and Crystal Lake Watershed Design Manual have, and will, continue to be effective tools in the area of erosion control.

D. Construction Site Runoff Control

D.1 Regulatory Control Program

Measureable Goals – Enforcement of the stormwater management ordinance continues and the City’s success in administering its own stormwater ordinance was reinforced by the renewal of its status as a “certified community” by the McHenry County Stormwater Commission.

D.2 Erosion and Sediment Control BMPs

Measureable Goals – Enforcement and documentation of erosion and sediment control standards under the City’s stormwater ordinance is ongoing. Staff adheres to specific documentation requirements, as required by both the County and City stormwater ordinances.

D.3 Other Waste Control Programs

Measureable Goals – No activity during the reporting year of 2009/10

D.4 Site Plan Review Procedures

Measureable Goals – Through the City’s subcommittee on consistent and uniform reviews, plan review and inspection procedures that identify specific areas of responsibility were created.

D.5 Public Information Procedures

Measureable Goals – The City has implemented a web-based service request system made available on its website. This system can be utilized to track a variety of complaints (including erosion or runoff issues), allow for staff’s notations, and response times to complete.

D.6 Site Inspection/Enforcement Procedures

Measureable Goals – Continue to follow review and inspection procedures from the City's subcommittee on consistent and uniform reviews. Three Engineering Division staff members have earned the designation of Certified Inspectors of Sediment and Erosion Control (CISEC).

E. Post-Construction Runoff Control

E.2 Regulatory Control Program

Measureable Goals – Enforcement of the stormwater management ordinance continues, including all requirements for post-construction erosion and runoff control.

E.3 Long Term O&M Procedures

Measureable Goals - No activity during the reporting year of 2009/10

E.4 Pre-construction Review of BMP Designs

Measurable Goals - Three Engineering Division staff members earned the designation of Certified Inspectors of Sediment and Erosion Control (CISEC), including one Civil Engineer responsible for pre-construction review of BMP designs. The City also engaged a new stormwater consultant with significant experience in BMP design to provide technical assistance and plan review capabilities.

E.5 Site Inspections During Construction

Measureable Goals – All site inspections are tracked with a sophisticated database during the construction process. Three Engineering Division staff members have earned the designation of Certified Inspectors of Sediment and Erosion Control (CISEC), including two Engineering Technicians responsible for site inspections.

Pollution Prevention/Good Housekeeping involves the development and implementation of operation and maintenance programs. These programs help to reduce the discharge of pollutants from day to day municipal operations. This program must also include training employees to recognize and report discharge pollutants.

F. Pollution Prevention/Good Housekeeping

F.1 Employee Training Program

Measureable Goals – In February and March of 2010, City staff was trained on the City's MS4 program and the importance of stormwater prevention. This was achieved with the aid of a video, informational handout, and a quiz. The City's Public Works Streets Division had two of its staff become Level One certified in Snow and Ice Operations Training hosted by the McHenry County Water Resources Commission. The Wildflower Preservation and Propagation Committee has diligently worked to educate staff about rain gardens. The Clean Air Counts Committee of Crystal Lake held a presentation to educate staff on the effects of pesticide and fertilizer usage in addition to the importance of natural fertilization.

F.2 Inspection and Maintenance Program

Measureable Goals – The City's Public Work Sewer Division has begun replacing smaller deteriorating curb/inlet drains with Type C catch basins. Structures like this retain a larger quantity of debris, thus reducing roadway debris runoff from entering nearby waterways. Over the 2009/10 reporting year, street sweeping operations have collected and disposed of approximately 4,246 cubic yards of debris from entering our waterways.

F.6 Other Municipal Operations Controls

Measureable Goals – The Public Works Department consistently performed quarterly inspections as part of their Spill Prevention Control and Countermeasure (SPCC) program. The Department has looked at the cleaning operation of its vehicles and equipment and incorporated procedures and methods to minimize and, in some instances, eliminate stormwater pollution. The Streets Division has equipped all larger size vehicles used for snow operations with de-icing agents systems. Five more of these vehicles have been outfitted with automated spreader controls. These automated controls promote a more consistent application of the products, thus eliminating the risk of over usage. With the 2009/10 winter season being less aggressive than the previous one and the implementation of such equipment, the quantity of calcium chloride was reduced by 6,700 gallons and rock salt by 300 tons. Twice over the past year, the Sewers and Lift Division cleaned street inlets and drains in keys areas of the community due to the frequent storms.

Section C: Information and Data Collection Results

Documentation and recordkeeping supporting the many areas of this annual report are retained with the various Divisions of the organization and are available for review at any time. Below you find some samples for review.

➤ **Street Sweeping Collection Totals** (in cubic yards)

March, 2009	293
April, 2009	154
May, 2009	161
June, 2009	132
July, 2009	72
August, 2009	161
September, 2009	249
October, 2009	1,102
November, 2009	1,755
December, 2009	56
January, 2010	000
February, 2010	000
March, 2010	111
Total Cubic Yards	4,246

➤ **Illicit Discharge Violations**

- King Buffet Restaurant (September 2009) – Grease trap and sanitary sewer backup. Management was pushing and rinsing grease out the backdoor where it was discharging into the nearest down gradient storm sewer. The City was called to clean up some of the grease. The City informed the owner that grease cannot be discharged into the storm sewer system. The owner subsequently called in a sewer contractor to power rod all floor drains in the kitchen and clean the sanitary line. Torvac Company was also called to service the grease trap.

The City also informed the building management company (Simon Management), to talk with the owner of King Buffet about this incident and conduct better management practices to prevent future accidents.

- Generosa Pizzeria (March 2010) – The City received a complaint that grease was being dumped down the storm sewer around the restaurant. Other than some miscellaneous garbage in the drainage ditches, there was no evidence of grease in any of the sewers. The owner indicated that the complaint originated from a former disgruntled employee. Generosa has a 100 gallon grease trap located in the kitchen area. There is also a grease dumpster behind the facility. The owner indicated that

Mahoney Services pays the restaurant for the grease. However, the City will continue to monitor this area.

- Knaack Manufacturing (March 2010) – During the annual site inspection it was observed that a potential exist for a storm water discharge from a solid waste trash compactor. Rags used to wipe steel storage chests from a painting line are disposed of in the trash compactor. Dirt and debris were observed around the compactor. It is unknown whether paint or chemical residues are present in this dirt, or if the dirt has fallen through the compactor. Runoff from rain events has the potential to enter nearby storm drains in the adjacent dock and parking areas. Knaack indicated they will remove the dirt, and make sure the solid waste trash compactor is not corroding and does not leak.

➤ **Pollutant Field Testing Results**

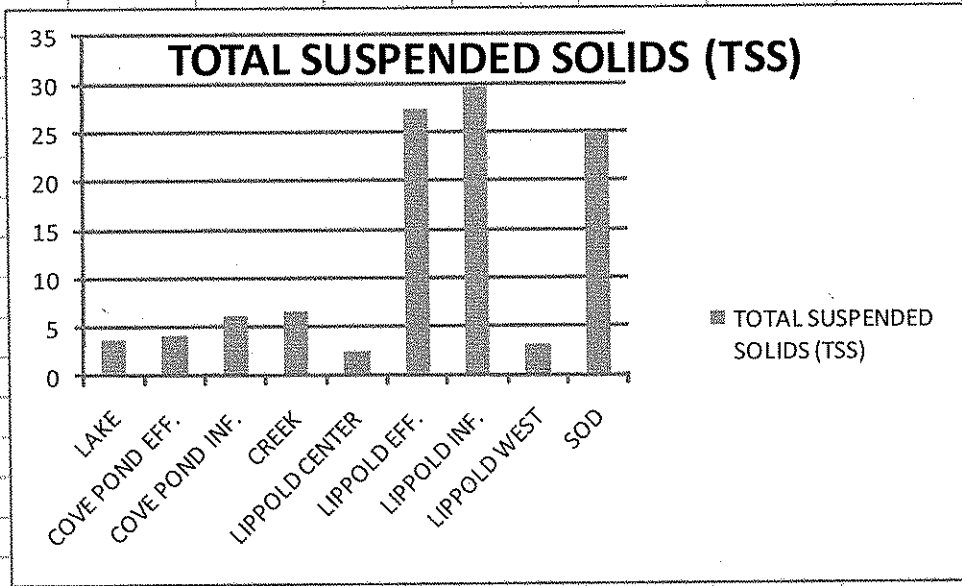
- Crystal Lake – samples are collected every other week at the following locations:
 - Cove Pond discharge pipe into the lake off of North Shore Drive
 - Lake influent into Crystal Creek at Riverside Dr. and Lake Avenue
 - Pinewood and Honeysuckle Dr. inlet into Crystal Lake
 - Effluent discharge manhole from Lippold Park wetlands (off Thornwood Lane)
 - Influent discharge manhole adjacent to Lippold Park golf driving range and wetlands (collected quarterly)
- Cove Pond – samples are collected every other week at the following locations:
 - Influent culvert pipe into Cove Pond near Green Oaks Drive / Crystal Lake Avenue
 - Effluent discharge pipe from Cove Pond along North Shore Drive

Note: water elevations are recorded at the above locations during the monitoring events.

The parameters analyzed at the above locations include the following:

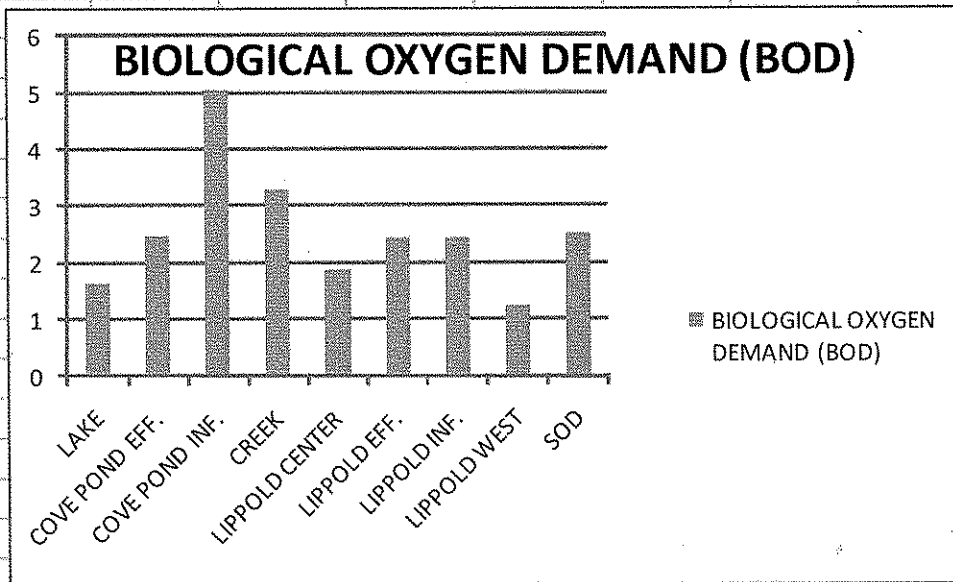
- Total Suspended Solids (TSS)
- Carbonaceous Biological Oxygen Demand (CBOD)
- Ammonia-N
- Total Phosphorous
- Fecal Coliform
- Total Coliform
- Chlorides
- Zinc

2009 AVERAGES	TOTAL SUSPENDED SOLIDS (TSS)	(mg/L)
LAKE	3.62	
COVE POND EFF.	4.13	
COVE POND INF.	6.1	
CREEK	6.67	
LIPPOLD CENTER	2.47	
LIPPOLD EFF.	27.28	
LIPPOLD INF.	29.61	
LIPPOLD WEST	3.09	
SOD	24.95	



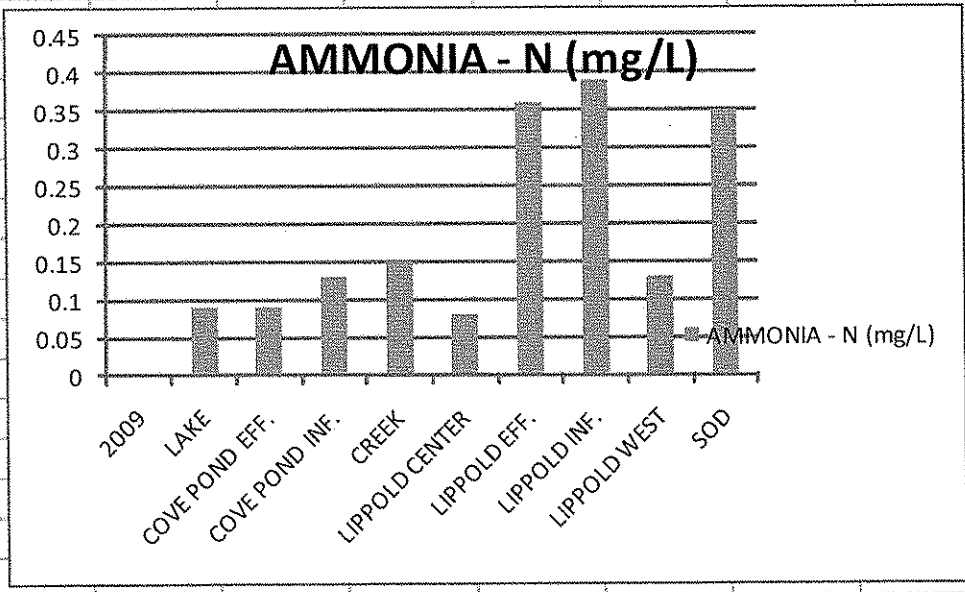
Comments: Total Suspended Solids (TSS) are solids in water that can be trapped by a filter. TSS can include a wide variety of material, such as silt, decaying plant and animal matter, industrial wastes, and sewerage. High TSS in a water body can mean higher concentrations of bacteria, nutrients, pesticides, and metals in the water. These pollutants may attach to sediment particles on the land and be carried into water bodies with storm water. The graph above would indicate that runoff from the golf driving range and the Lippold Park wetlands increase TSS at those down stream monitoring points.

2009 AVERAGES	BIOLOGICAL OXYGEN DEMAND (BOD)	(mg/L)
LAKE	1.63	
COVE POND EFF.	2.47	
COVE POND INF.	5.06	
CREEK	3.29	
LIPPOLD CENTER	1.87	
LIPPOLD EFF.	2.43	
LIPPOLD INF.	2.44	
LIPPOLD WEST	1.24	
SOD	2.51	



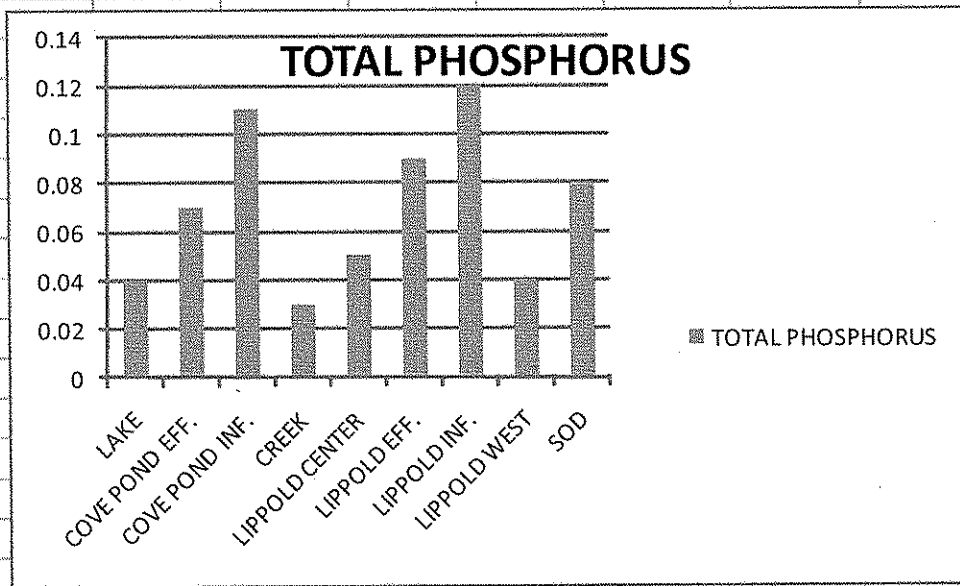
Comments: The BOD is a chemical procedure for determining how fast biological organisms use up oxygen in a body of water. It is used as a measure of the degree of water pollution. A low BOD is an indicator of good quality water. The numbers above range from very good (1-2 mg/L) to moderately clean (3-5 mg/L). The highest number at Cove Pond Influent seems logical as more urban and street runoff discharges into this location. The cleanest location appears to be Lippold West which is logical since there is mostly open fields or farmland that discharge into this location.

2009 AVERAGES	AMMONIA - N (mg/L)
LAKE	0.09
COVE POND EFF.	0.09
COVE POND INF.	0.13
CREEK	0.15
LIPPOLD CENTER	0.08
LIPPOLD EFF.	0.36
LIPPOLD INF.	0.39
LIPPOLD WEST	0.13
SOD	0.35



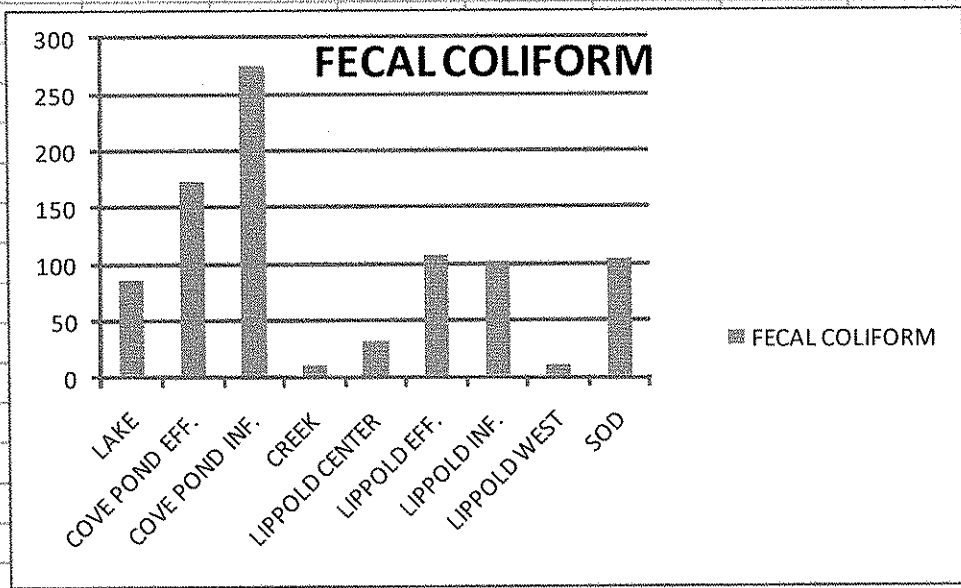
Comments: Low level ammonia nitrogen may be present in water naturally as a result of the biological decay of plant and animal matter. Ammonia is a major component of fertilizers. This is consistent with the spikes at Lippold Influent (down stream from the golf driving range); Lippold Effluent and the Sod are also down stream from the driving range and the extensive wetlands of Lippold Park.

2009 AVERAGES	TOTAL PHOSPHORUS (mg/L)
LAKE	0.04
COVE POND EFF.	0.07
COVE POND INF.	0.11
CREEK	0.03
LIPPOLD CENTER	0.05
LIPPOLD EFF.	0.09
LIPPOLD INF.	0.12
LIPPOLD WEST	0.04
SOD	0.08



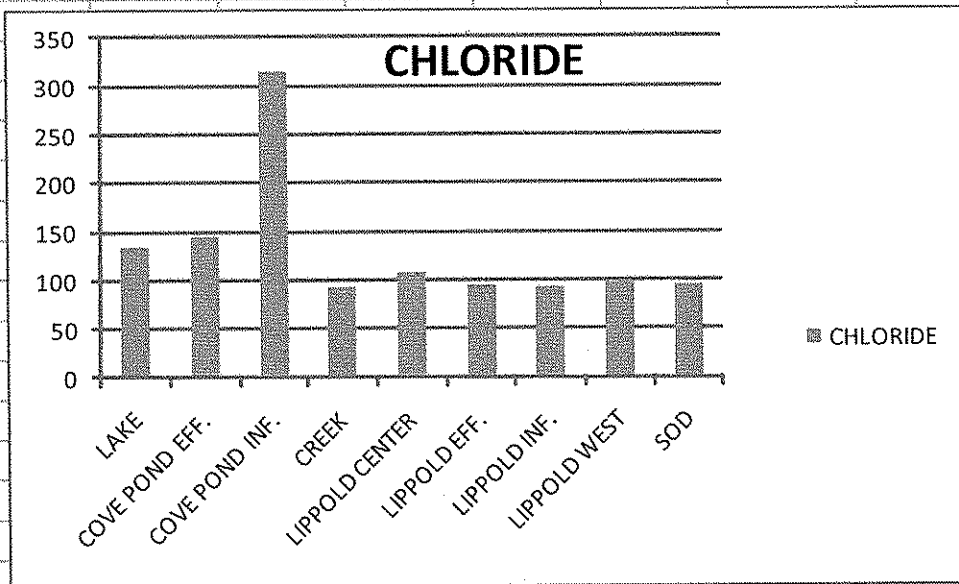
Comments: Most of the available phosphorus found in our waterways can be traced directly to human sources. Phosphorus is used in many detergents, boiler treatments, fertilizers, and in some water supply treatments. When this phosphorus reaches the environment through runoff or through wastewater discharges, accelerated eutrophication usually takes place. Eutrophication is when a body of water becomes rich in dissolved nutrients. Again the higher spikes above would be the direct result of fertilizers and street runoff (Cove Pond Influent and Lippold Influent).

2009 AVERAGES	FECAL COLIFORM	Colonies/100 ml
LAKE	87	
COVE POND EFF.	173.25	
COVE POND INF.	276	
CREEK	10.4	
LIPPOLD CENTER	32.6	
LIPPOLD EFF.	107.38	
LIPPOLD INF.	101.8	
LIPPOLD WEST	10.33	
SOD	104.71	



Comments: Fecal Coliform bacteria are a group of bacteria (organisms) that are passed through the fecal excrement of humans, livestock and wildlife. This bacteria can enter aquatic areas through direct discharges of waste from mammals and birds, from agricultural and storm runoff, human sewerage, decaying plant material, and some industrial activity. The graph above would indicate that Cove Pond and the usual Lippold Park areas are affected by Fecal Coliform, especially during the warmer months.

2009 AVERAGES	CHLORIDE (mg/L)
LAKE	133.96
COVE POND EFF.	144.71
COVE POND INF.	314.53
CREEK	92.27
LIPPOLD CENTER	107.9
LIPPOLD EFF.	94.37
LIPPOLD INF.	92.73
LIPPOLD WEST	98.17
SOD	95.3



Comments: Chloride is a useful and reliable chemical indicator of river / groundwater contamination, as chloride is a non-reactive solute and is ubiquitous to sewerage and potable water. The graph above would indicate runoff into Cove Pond Influent. Probably the main source of contamination is the use of sodium chloride as a deicing agent from the local roads, sidewalks, and nearby paved parking lots. The other sample locations are fairly consistent at lower concentrations.

Section D: Summary of Activities During Next Reporting Cycle

A. Public Education and Outreach

A.1 Distribute Paper Materials

Measureable Goals – Provide stormwater quality mailer to community by incorporating it within the City's utility bill. Work with local schools and McHenry County College to include educational materials on stormwater pollution. Distribute new Crystal Lake Watershed brochures to stakeholders, with separate focus on individual homeowners and developers. The Engineering Division will distribute a Watershed Developer's Handbook which will summarize the requirements both before and after a development is constructed in the watershed. The goal of the handbook is to provide a concise explanation as to the requirements within the Watershed Implementation Plan.

A.3 Public Service Announcements

Measureable Goals – Publish at least one article for the quarterly City Newsletter, the City's cable access channel, the City website, and/or Twitter.

A.4 Community Event

Measureable Goals – Coordinate communication meetings with local schools, Park District and McHenry County College. Evaluate resources within the organization to assist with developing meeting content and materials. Continue to support annual clean-up events throughout the community. The City's Public Works and Engineering Divisions will be holding an Expo with stormwater pollution being one of the main focal points.

A.6 Other Public Education

Measureable Goals – Create a page on the City's website specifically dedicated to the MS4 program. Finalize community rain garden design and develop installation measures. Install native planting beautification area in the downtown district near the intersection of Grant and Brink Streets. A rain barrel parade is under development which will educate the value of such products. City staff will look to be a part of the Chamber of Commerce's next Expo and bring continued education on stormwater pollution.

B. Public Participation/Involvement

B.3 Stakeholder Meeting

Measureable Goals – Conduct a stakeholder meeting for the northwest sub-area.

B.2 Educational Volunteer

Measureable Goals - Coordinate communication meetings with local schools, Park District and McHenry County College. Evaluate resources within the organization to assist with developing meeting content and materials.

B.7 Other Public Involvement

Measureable Goals - Continue to support and sponsor annual community cleanup events. Promote neighboring community and county programs. The City's Public Works and Engineering Divisions will be holding an Expo with stormwater pollution being the center focus. City staff will look to be a part of the Chamber of Commerce's next Expo and bring continued education on stormwater pollution.

C. Illicit Discharge Detection and Elimination

C.5 Illicit Source Removal Procedures

Measureable Goals - The elimination process of coal tar sealant use within the community is under discussion. Implementing integrated pest management (IPM) and natural fertilization practices (pesticide reduction) within the maintenance contract of the future Three Oaks Recreation Center will preserve water quality of the adjacent lakes. Discussions will be had to determine the success and how the entire community could benefit from programs like this.

C.6 Program Evaluation and Assessment

Measureable Goals - Develop a more aggressive inspection and enforcement process by adopting a formal enforcement response plan that is consistent with other City policies.

C.8 Pollutant Field Testing

Measureable Goals - Continue monitoring and sampling discharge points to Crystal Lake. Incorporate an additional sampling site on the east end of the watershed in addition to installing three flow monitoring devices on main field tiles. This will allow the City to build a database of information for the future.

C.10 Other Illicit Discharge Controls

Measureable Goals - Continue moving forward with implementing integrated pest management (IPM) and natural fertilization practices (pesticide reduction) within the maintenance contract of the future Three Oaks Recreation Center will preserve water quality of the adjacent lakes. The elimination process of coal tar sealant use within the community is under discussion.

D. Construction Site Runoff Control

D.1 Regulatory Control Program

Measureable Goals - Continue to enforce the storm water management ordinance and participate in any Countywide ordinance revision reviews.

D.2 Erosion and Sediment Control BMP's

Measurable Goals - Continue to enforce and document erosion and sediment control standards.

D.3 Other Waste Control Programs

Measureable Goals - Adopt an ordinance that regulates waste and debris on construction sites.

D.4 Site Plan Review Procedures

Measurable Goals - Continue to follow standard review procedures. Encourage staff to obtain additional certification in floodplain management (CFM) or erosion control design (CPESC). One Civil Engineer has obtained the CFM certification.

D.5 Public Information Procedures

Measureable Goals - Track and respond to all complaints. Propose an agreement with McHenry County Soil and Water Conservation District to coordinate water quality related complaints. The Engineering Division will distribute a Watershed Developer's Handbook which will summarize the requirements both before and after a development is constructed in the watershed. The goal of the handbook is to provide a concise explanation as to the requirements within the Watershed Implementation Plan.

D.6 Site Inspection/Enforcement Procedures

Measureable Goals - Continue to follow site review inspection procedures. Encourage staff to obtain additional certification in erosion control inspection (CISEC or CESSWI).

E. Post-Construction Runoff Control

E.2 Regulatory Control Program

Measureable goals - Continue to enforce the Crystal Lake Stormwater Ordinance.

E.3 Long Term O&M Procedures

Measureable Goals - Develop and distribute sample maintenance plan. Conduct annual inspections.

E.4 Pre-construction Review of BMP Designs

Measureable Goals - Continue to follow standard review procedures.

E.5 Site Inspections During Construction

Measureable Goals - Track all site inspections

F. Pollution Prevention/Good Housekeeping

F.1 Employee training Program

Measureable Goals - Identify staff within the organization that will benefit from training in their day to day operations.

F.2 Inspection and Maintenance Program

Measureable Goals - Develop a more thorough inspection and cleaning program for the storm conveyance system. Continue with annual street sweeping program.

F.6 Other Municipal Operations Controls

Measureable Goals - The Public Works Department will continue with quarterly inspections of its Spill Prevention Control and Countermeasure (SPCC) program. The

organization will look at its operations and identify ways it can reduce and/or eliminate stormwater pollution issues. The Sewers and Lift Division will clean street inlets and drains as part of the ongoing program.

E. Notice of Qualifying Local Program

Not Applicable

F. Construction Projects Completed During Reporting Year

- *Three Oaks Recreation Area*
- *Crystal Lake Avenue Widening/Resurfacing, Segment II (west of Pingree Rd to Erick St)*
- *Erick Street Reconstruction*

Appendix A



ORDINANCE AMENDING THE CODE OF THE CITY OF CRYSTAL LAKE, ILLINOIS

BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF CRYSTAL LAKE as follows:

SECTION I: That Chapter 595 – STORMWATER MANAGEMENT, shall be amended as follows:

Chapter 595 STORMWATER MANAGEMENT

ARTICLE XI – Illicit Discharge and Connection

§ 595-45. Purpose and Policy.

The purpose of this ordinance is to provide for the health, safety, and general welfare of the residents of Crystal Lake through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

- (1) To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user
- (2) To prohibit Illicit Connections and Illegal Discharges to the municipal separate storm sewer system
- (3) To establish legal authority to carry out all inspection, surveillance and monitoring

procedures necessary to ensure compliance with this ordinance

§ 595-46. Terms Defined.

For the purposes of this ordinance, the following shall mean:

BEST MANAGEMENT PRACTICES (BMPs): schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

CITY: The City of Crystal Lake or the Mayor and City Council of the City of Crystal Lake.

CLEAN WATER ACT: The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

ENVIRONMENTAL PROTECTION AGENCY or EPA: The U.S. Environmental Protection Agency.

GRAB SAMPLE: A series of samples which is taken from a waste stream without regard to the flow in the waste stream, and over a period of time not to exceed fifteen (15) minutes.

HAZARDOUS MATERIALS: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ILLEGAL DISCHARGE: Any direct or indirect non-stormwater discharge to the storm drain system, except as exempted in Section 7 of this ordinance.

ILLICIT CONNECTIONS: An illicit connection is defined as either of the following:
Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a Superintendent or his/her designee OR, any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps, or equivalent records and approved by a Public Works Superintendent or designee.

INDUSTRIAL ACTIVITY: Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

MS4: Municipal Separate Storm Sewer System

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT: A permit issued by the EPA (or by a State under

authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

NON-CONTACT COOLING WATER: Water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

NON-STORMWATER DISCHARGE: Any discharge to the storm drain system that is not composed entirely of stormwater.

PERSON: Means any individual, association, organization, partnership, firm, corporation, or other entity recognized by law and acting either as the owner or as the owner's agent.

pH: A measure of the acidity or alkalinity of a solution, expressed in standard units.

POLLUTANT: Anything that causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind. (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

PREMISES: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

PUBLICLY OWNED TREATMENT WORKS or POTW: A treatment works, as defined by Section 212 of the Act (33 U.S.C. 1292), which is owned by the City of Crystal Lake. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances that convey wastewater to a treatment plant.

SEPTIC TANK WASTE: Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

SEWAGE: Human excrement and gray water (household showers, dishwashing operations, etc.).

STORM DRAIN SYSTEM: Publicly-owned facilities by which stormwater is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

STORMWATER: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP): A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

SUPERINTENDENT: The person designated by the Director of Public Works to supervise the operation of the Department's Stormwater Division, and who is charged with certain duties and responsibilities by this ordinance, or a duly authorized representative.

TOTAL SUSPENDED SOLIDS or SUSPENDED SOLIDS: The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and which is removable by laboratory filtering.

WASTEWATER: Any water or other liquid, other than uncontaminated stormwater, discharged from a facility. These liquids and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated that are discharged into the POTW.

WATERCOURSE: A natural or artificial channel through which water flows.

§ 595-47. Applicability.

This ordinance shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by the Superintendent.

§ 595-48. Responsibility for Administration.

The Superintendent shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the Superintendent may be delegated in writing by the Superintendent to persons or entities acting in the beneficial interest of or in the employ of the agency.

§ 595-49. Severability.

The provisions of this ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Ordinance.

§ 595-50. Ultimate Responsibility.

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

§ 595-51. Discharge Prohibitions.

Prohibition of Illegal Discharges:

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

- (a) The following discharges are exempt from discharge prohibitions established by this ordinance: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (must be dechlorinated to 0.05 mg/L or less), fire fighting activities, and any other water source not containing Pollutants.
- (b) Discharges specified in writing by the Superintendent or their designee as being necessary to protect public health and safety.
- (c) Dye testing is an allowable discharge, but requires a verbal notification to the Superintendent or their designee or their designee prior to the time of the test.
- (d) The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

Prohibition of Illicit Connections:

- (a) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- (c) A person is considered to be in violation of this ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

§ 595-52. Suspension of MS4 Access.

Suspension due to Illicit Discharges in Emergency Situations:

The Superintendent or their designee may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Superintendent or their designee may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

Suspension due to the Detection of Illicit Discharge:

Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The Superintendent will notify a violator of the proposed termination of its MS4 access. The violator may petition the Superintendent for a reconsideration and hearing (see Section 15).

A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the Superintendent or their designee.

§ 595-53. Industrial or Construction Activity Discharges.

Any person subject to an industrial or construction activity NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Superintendent prior to the allowing of discharges to the MS4.

§ 595-54. Monitoring of Discharges.

A. Applicability.

This section applies to all facilities that have stormwater discharges associated with industrial activity, including construction activity, as well as commercial and residential properties.

B. Access to Facilities.

(a) The Superintendent or their designee shall be permitted to enter and inspect facilities subject to regulation under this ordinance as often as may be necessary to determine compliance with this ordinance. If a discharger has security measures in force that require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the Superintendent or their designee.

(b) Facility operators shall allow the Superintendent or their designee ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law.

(c) The Superintendent or their designee shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the Superintendent or their designee to conduct monitoring and/or sampling of the facility's stormwater discharge.

(d) The Superintendent or their designee has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

(e) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the _____ Superintendent or their designee and shall not be replaced. The costs of clearing such access shall be borne by the operator.

(f) Unreasonable delays in allowing the Superintendent or their designee access to a permitted facility is a violation of a stormwater discharge permit and of this ordinance. A person who is the operator of a facility with a NPDES permit to discharge stormwater associated with industrial activity commits an offense if the person denies the Superintendent or their designee reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this ordinance.

(g) If the Superintendent or their designee has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Superintendent or their designee may seek issuance of a search warrant from any court of competent jurisdiction.

§ 595-55. Requirement to Prevent, Control, and Reduce Stormwater Pollutants by the Use of Best Management Practices.

The Superintendent or their designee will adopt requirements identifying Best Management Practices for any activity, operation, or facility, which may cause or contribute to pollution or contamination of stormwater, the storm drain system, or waters of the U.S. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense,

additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPPP) as necessary for compliance with requirements of the NPDES permit.

§ 595-56. Watercourse Protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

§ 595-57. Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, or water of the U.S. said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the Superintendent or their designee in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the [Superintendent or their designee] within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

§ 595-58. Enforcement.

A. Notice of Violation.

Whenever the Superintendent or their designee finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the Superintendent or their designee may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- (a) The performance of monitoring, analyses, and reporting;
- (b) The elimination of illicit connections or discharges;

- (c) That violating discharges, practices, or operations shall cease and desist;
- (d) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property; and
- (e) Payment of a fine to cover administrative and remediation costs; and
- (f) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

§ 595-59. Appeal of Notice of Violation or Suspension of MS4 Access.

Any person receiving a Notice of Violation may appeal the determination of the Superintendent or their designee. The notice of appeal must be received within ten (10) days from the date of the Notice of Violation. Hearing on the appeal before adjudication court shall take place within one (1) month from the date of receipt of the notice of appeal. The decision of the adjudication judge shall be final.

§ 595-60. Administrative Fines.

- A. When the Superintendent, or his/her designee, finds that a user has violated, or continues to violate, any provisions of this chapter, a wastewater discharge permit or order issued hereunder, or any other storm sewer standard or requirement, the user may be subject to a fine as set forth in Chapter 248, Fines. Such fines shall be assessed on a per-violation, per-day basis. In the case of monthly or other long-term average limits, fines shall be assessed for each day during the period of violation.
- B. Issuance of any administrative fine shall not be a bar against, or a prerequisite for, taking any other action against the user.

§ 595-61. Enforcement Measures After Appeal.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within ten (10) days of the decision of the municipal authority upholding the decision of the Superintendent or their designee, then representatives of the Superintendent or their designee shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

§ 595-62. Cost of Abatement of the Violation.

Within thirty (30) days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within fifteen (15) days. If the amount due is not paid within a timely manner as determined by the decision of the City of Crystal Lake or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

§ 595-63. Injunctive Relief.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Ordinance. If a person has violated or continues to violate the provisions of this ordinance, the Superintendent or their designee may petition for a preliminary or permanent injunction restraining the person from activities, which would create further violations, or compelling the person to perform abatement or remediation of the violation.

§ 595-64. Compensatory Action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Ordinance, the Superintendent or their designee may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.

§ 595-65. Violations Deemed a Public Nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

§ 595-66. Criminal Prosecution.

Any person that has violated or continues to violate this ordinance or any provisions of any requirement issued pursuant to this ordinance may also be in violation of the Clean Water Act and may be subject to the sanctions of this Act including civil and criminal penalties. Any enforcement actions authorized under this ordinance shall also include written notice to the violator of such potential liability.

The Superintendent or their designee may recover all attorneys' fees court costs and other expenses associated with enforcement of this ordinance, including sampling and monitoring expenses.

§ 595-67. Remedies Not Exclusive.

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the Superintendent or their designee to seek cumulative remedies.